

December 2023

# Deconstructing Decapitation in Late Roman Gloucestershire and Oxfordshire, UK

Shaheen M. Christie  
*University of Wisconsin-Milwaukee*

Follow this and additional works at: <https://dc.uwm.edu/etd>



Part of the [Archaeological Anthropology Commons](#), [Classics Commons](#), and the [Other Anthropology Commons](#)

---

## Recommended Citation

Christie, Shaheen M., "Deconstructing Decapitation in Late Roman Gloucestershire and Oxfordshire, UK" (2023). *Theses and Dissertations*. 3249.  
<https://dc.uwm.edu/etd/3249>

This Dissertation is brought to you for free and open access by UWM Digital Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of UWM Digital Commons. For more information, please contact [scholarlycommunicationteam-group@uwm.edu](mailto:scholarlycommunicationteam-group@uwm.edu).

DECONSTRUCTING DECAPITATION IN LATE ROMAN GLOUCESTERSHIRE AND  
OXFORDSHIRE, UK

by

Shaheen M. Christie

A Dissertation Submitted in  
Partial Fulfillment of the  
Requirements for the Degree of

Doctor of Philosophy  
in Anthropology

at

The University of Wisconsin-Milwaukee

December 2023

ABSTRACT:

DECONSTRUCTING DECAPITATION IN LATE ROMAN GLOUCESTERSHIRE AND  
OXFORDSHIRE, UK

by

Shaheen M. Christie  
The University of Wisconsin-Milwaukee, 2023  
Under the supervision of Dr. Bettina Arnold

The Roman conquest in Britain (AD 43) led to significant changes in indigenous settlements and agricultural systems, population diversity, social organization, economic activities, and funerary traditions. Archaeological investigations of burials from the first to fifth centuries AD in Britain have revealed a complex array of burial treatments and attitudes toward the dead, including decapitation burials, which are the most common form of differential burial represented in this period. Traditional interpretations of these burials have included infanticide, punitive execution, trophy taking, fear of the dead, and veneration practices. This project investigates a sample of decapitation burials from Gloucestershire and Oxfordshire dating to the Late Roman Period (3<sup>rd</sup>-5<sup>th</sup> c. AD) using quantitative and qualitative comparisons of skeletal remains, grave goods and other associated materials. The multi-scalar analysis of bioarchaeological and mortuary treatments demonstrated that no specific variable automatically distinguished a decapitated individual as an outlier or social deviant, reinforcing the need for the systematic application of contextual analysis, including osteological profiles, in our methodological assessments of lived experiences and the expression of identity in Late Romano-British society. This project contributes to the growing cross-disciplinary literature on how ancient populations utilized the body as an instrument in the performance of ritual violence, allowing a more nuanced interpretation of the culturally constructed body as a salient material object category in the Roman Iron Age.

© Copyright by Shaheen M. Christie, 2023  
All Rights Reserved



## TABLE OF CONTENTS

<b>LIST OF FIGURES</b> .....	<b>viii</b>
<b>LIST OF TABLES</b> .....	<b>xvii</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>xxiv</b>
<b>Chapter One: Introduction</b> .....	<b>1</b>
1.1. Introduction.....	1
1.2. Outline of Thesis Research.....	3
1.3. Aims of the Thesis.....	6
1.4. Iron Age Britain.....	8
1.5. Roman Britain.....	10
1.6. Cultural Regionalism in Roman Britain.....	13
1.7. Roman Oxfordshire and Gloucestershire.....	18
1.8. Settlement and Burial Archaeology in Roman Britain.....	20
1.9. Regional Burial Trends in the Late Iron Age and Romano-British Period.....	23
1.10. Conclusion.....	29
1.10.1. Contributions of Thesis.....	29
1.10.2. Organization of the Thesis.....	31
<b>Chapter Two: Literature Review</b> .....	<b>34</b>
2.1. Introduction.....	34
2.2. Theoretical Approaches in Mortuary Archaeology.....	35
2.3. Identity Studies.....	53
2.3.1. Group Identity.....	57
2.4. The Body in Archaeological Studies.....	60
2.5. Life Course Approach in Bioarchaeology.....	62
2.5.1. Roman Life Course.....	65
2.6. Osteobiography Studies.....	74
2.7. Anthropological and Archaeological Studies of Violence.....	78
2.8. Violence in the Roman World.....	86
2.8.1. Violence and Material Culture in the Roman World.....	88
2.8.2. Violence and Mortuary Evidence in the Roman World.....	89
2.8.3. Roman Civil and Criminal Law.....	91
2.8.4. Roman Entertainment and Violent Spectacle.....	96
2.8.5. Violence during Expansion: The Continent and Roman Britain.....	97
2.9. Previous Studies of Decapitation Practices in Britain.....	106
2.10. Conclusion.....	127
<b>Chapter Three: Methods</b> .....	<b>128</b>

3.1. Introduction.....	128
3.1.1. Research Questions.....	129
3.2. The Dataset.....	132
3.2.1. Site Selection.....	135
3.2.2. Sources of Information.....	136
3.3. Data Collection and Recording Procedure.....	142
3.3.1. Database Organization and Relationships.....	144
3.3.2. Cataloging of the Burials.....	145
3.3.2a. Sex.....	145
3.3.2b. Age.....	146
3.3.2c. Pathological Conditions.....	147
3.3.2d. Trauma.....	148
3.3.2e. Taphonomy.....	149
3.3.3. Cataloging Material Culture.....	149
3.4. Data Analysis.....	150
3.4.1. Bioarchaeological Analysis.....	150
3.4.2. Pathology.....	151
3.4.3. Taphonomy.....	152
3.4.4. Trauma.....	155
3.4.5. Quantitative and Qualitative Analysis.....	157
3.5. Conclusion.....	162
<b>Chapter Four: Data Analysis and Results.....</b>	<b>163</b>
4.1. Introduction.....	163
4.2. Data Results.....	163
4.2.1. Demographic Patterns.....	163
4.2.2. Age.....	164
4.2.3. Sex.....	167
4.2.4. Summary of Demographic Patterns.....	171
4.3. Pathology and Disability.....	172
4.3.1. Pathology and Disability Summary.....	198
4.4. Trauma and Taphonomy.....	200
4.4.1. Trauma.....	200
4.4.2. Taphonomic Changes.....	204
4.4.3. Trauma and Taphonomy Results Summary.....	211
4.4.4. Decapitation Types.....	213
4.4.5. Decapitation Type Trauma Results Summary.....	224
4.5. Mortuary Treatment.....	226
4.5.1. Burial Location.....	233
4.5.2. Burial Context.....	238
4.5.3. Body Side.....	243
4.5.4. Burial Position.....	247
4.5.4a. Spatial Distribution by Burial Position.....	249
4.5.5. Placement of the Head.....	252
4.5.6. Manipulation of Head Position.....	253
4.5.7. Representation of the Body.....	255

4.5.8. Manipulation and Fragmentation of the Body.....	259
4.5.9. Coffin.....	285
4.5.10. Grave Orientation.....	287
4.5.11. Grave Goods.....	289
4.5.11a. Grave Good Class.....	289
4.5.11b. Grave Good Type.....	296
4.5.11c. Grave Good Material.....	302
4.5.11d. Grave Good Position.....	304
4.5.12. Animal Inclusions.....	309
4.5.12a. Age and Sex Distribution of Burials with Animal Inclusions.....	312
4.5.13. Mortuary Treatment Summary.....	317
4.5.13a. JCA Test Results.....	318
4.5.13b. Burial Location.....	318
4.5.13c. Burial Context.....	319
4.5.13d. Body Side.....	319
4.5.13e. Burial Position.....	320
4.5.13f. Placement of the Head.....	320
4.5.13g. Manipulation of the Head.....	320
4.5.13h. Representation of the Body.....	321
4.5.13i. Manipulation and Fragmentation of the Body.....	322
4.5.13j. Coffin.....	323
4.5.13k. Grave Orientation.....	323
4.5.13l. Grave Goods.....	324
4.5.13m. Animal Inclusion.....	325
4.6. Burial Practice Trends and Funerary Structure.....	327
4.6.1. Main Mortuary Treatment Patterns in the Burial Population.....	328
4.6.2. Variation of Mortuary Treatment Patterns.....	330
4.6.3. Analysis of Variation Observed in the Decapitation Burials.....	332
4.6.2. Funerary Structure.....	335
4.7. Conclusion.....	341
<b>Chapter Five: Interpretation and Discussion.....</b>	<b>343</b>
5.1. Introduction.....	343
5.2. Question 1.....	343
5.2.1. Patterns in Mortuary Treatment Variables.....	343
5.2.2. Patterns in Biological Variables.....	344
5.2.3. Patterns of Greater Variation among Variables.....	345
5.3. Question 2.....	349
5.3.1. Trauma.....	350
5.3.2. Decapitation Type.....	351
5.3.3. Representation of the Body.....	352
5.3.4. Manipulation of the Corpse.....	353
5.3.5. Disarticulation/Fragmentation.....	355
5.3.6. Burial Position – Placement of the Head.....	357
5.3.7. Manipulation of the Head Category.....	358

5.3.8. Burial Position.....	359
5.3.9. Body Side.....	361
5.3.10. Pathology.....	362
5.4. Question 3.....	363
5.4.1. Demographic Trends.....	363
5.4.2. Spatial and Numerical Distribution Trends.....	365
5.5. Question 4.....	368
5.5.1. Temporal Changes in Fragmentation and/or Disarticulation Frequency or Type.....	368
5.5.2. Patterns of Skeletal Element Selectivity Change.....	370
5.5.3. Fragmentation and/or Disarticulation Trauma Injury Change.....	373
5.5.4. Variation of Disarticulation and Decapitation Practices in Study Area.....	375
5.6. Regional Comparisons with Previous Decapitation Burial Studies.....	377
5.6.1. Comparison of Mortuary Treatment Patterns.....	377
5.6.2. Comparison of Demographic Patterns.....	379
5.6.3. Comparison of Pathological Conditions and Health Patterns.....	380
5.6.4. Comparison of Trauma and Injury Patterns.....	383
5.6.5. Comparison of Burial Location and Context Patterns.....	385
5.6.7. Comparison of Body Posture and Position Patterns.....	386
5.6.8. Comparison of Variables with Increased Variation.....	389
5.6.9. Comparison of Disarticulation and Decapitation Practices.....	390
5.6.10. Comparison of Position of the Head Patterns.....	391
5.6.11. Comparison of Grave Good Distribution Patterns.....	392
5.6.12. Summary.....	400
5.7. Osteological Profiles of Select Atypical Decapitation Burials.....	403
5.7.1. Adult Male Burial Examples.....	405
5.7.2. Adult Female Burial Examples.....	408
5.7.3. Subadult Burial Examples.....	413
5.8. Interpretations of Decapitation Burials in LRP Gloucestershire and Oxfordshire.....	415
5.8.1. Summary.....	418
5.9. Conclusion.....	424
<b>Chapter Six: Conclusion.....</b>	<b>429</b>
6.1. Introduction.....	429
6.2. Decapitation, Death and Burial in LRP Roman Gloucestershire and Oxfordshire.....	429
6.3. Directions for Future Research.....	438
6.4. Conclusion.....	440
<b>References Cited.....</b>	<b>443</b>
<b>Appendix A: Data Variables.....</b>	<b>528</b>
<b>Appendix B: Forms.....</b>	<b>556</b>
<b>Appendix C: Decapitation Burial Groups.....</b>	<b>576</b>

## LIST OF FIGURES

Figure 1.1. Roman Britain (AD 150) showing major roads, towns, forts, and other sites (adapted from Hobbs and Jackson 2010; modified by author).....	2
Figure 1.2. Late Roman period sites in Gloucestershire and Oxfordshire region (dark grey outline) in Britain with decapitated remains (based on evidence drawn from ADS Database and Tucker [2012]) .....	5
Figure 1.3. Tribal divisions in Britain from the Late Iron Age (c. 1st century B.C.) to the late Early Roman period (A.D. 200-250). Minor settlements not shown (adapted from Salway [1993:124]; modified by author) .....	10
Figure 1.4. Map showing forts and linear dyke systems in relation to coinage distributions of the Dobunni, the Atrebates and Cunobelin of the Catuvellauni (adapted from Allen [2000:31, Fig. 1.15]; modified by author).....	19
Figure 1.5. Distribution map of select British Iron Age mortuary practices and Romano-British period decapitation burials (adapted from O'Brien [2014:27, Fig. 1]; modified by author) .....	26
Figure 2.1. Romano-British archaeological sites represented with decapitated skeletal remains (adapted from Tucker [2016:48, Fig. 6]; modified by author) .....	108
Figure 3.1. Late Roman period sites in Gloucestershire and Oxfordshire region (dark grey outline) in Britain with decapitation and non-decapitation burials or deposits (based on evidence drawn from ADS Database and Tucker [2012]) .....	133
Figure 4.1. Burt Matrix depicting the results of the JCA testing for correlation between burial contexts and the sex, age, and decapitation application variables within the burial population..	170
Figure 4.2. The proportion of pathological conditions identified in 916 (n=) individuals in the burial population (835 non-decapitated and 81 decapitated individuals) .....	174
Figure 4.3. The proportion of pathological conditions (n=2036) in the burial population where data were available.....	175
Figure 4.4. The proportion of pathological conditions by type identified in 916 (n=) individuals in the burial population (835 non-decapitated and 81 decapitated individuals) .....	176
Figure 4.5. The sex distribution of individuals with observed pathological conditions present (n=2035) .....	177
Figure 4.6. The proportion of pathological conditions (n=2035) by sex category within the burial population.....	178

Figure 4.7. The age distribution of individuals with observed pathological conditions (n=2035).....	179
Figure 4.8. The proportion of pathological conditions (n=2035) by age category within the burial population.....	179
Figure 4.9. The proportion of pathological conditions (n=2035) represented in the burial population by burial context type.....	181
Figure 4.10. The proportion of pathological conditions (n=2035) represented in the burial population by burial context type.....	182
Figure 4.11. Burt Matrix depicting the results of the JCA test for correlations between the presence/absence of pathologies and rate of a specific pathology in 916 (n=) individuals in the burial population.....	183
Figure 4.12. Burt Matrix depicting the results of the JCA test for correlations between the presence/absence of pathologies, and prevalence of a specific pathology in 81 (n=) decapitated individuals in the burial population.....	184
Figure 4.13. Burt Matrix depicting the results of the JCA test for correlations between the presence/absence of pathologies, and prevalence of a specific pathology in 78 (n=) individuals in the burial population.....	185
Figure 4.14. Burt Matrix depicting the results of the JCA test for correlations between the presence/absence of pathologies, and prevalence of a specific pathology by age, sex, or non-decapitation status in 835 (n=) non-decapitated individuals.....	186
Figure 4.15. Burt Matrix depicting the results of the JCA test for correlations between the presence/absence of pathologies, and prevalence of a specific pathology by age, sex, or non-decapitation status in 834 (n=) non-decapitated individuals.....	187
Figure 4.16. Burt Matrix depicting the results of the JCA test for correlations between the pathological conditions present on specific skeletal elements in decapitated individuals (n=81) .....	188
Figure 4.17. Burt Matrix depicting the results of the JCA test for correlations between the location of pathological conditions present on specific skeletal elements from 78 (n=) decapitated individuals.....	190
Figure 4.18. Burt Matrix depicting the results of the JCA test for correlations between the location of pathological conditions present on specific skeletal elements by age and sex categories in 78 (n=) decapitated individuals.....	191

Figure 4.19. Burt Matrix depicting the results of the JCA test for correlations between the location of pathological conditions present on specific skeletal elements from 78 (n=) decapitated individuals.....	192
Figure 4.20. Burt Matrix depicting the results of the JCA test for correlations between the pathological conditions on specific skeletal elements in the 835 (n=) non-decapitated group of individuals.....	194
Figure 4.21. Burt Matrix depicting the results of the JCA test for correlations between the pathological conditions present on specific skeletal elements in 834 (n=) non-decapitated individuals.....	195
Figure 4.22. Burt Matrix depicting the results of the JCA test for correlations between healed or unhealed trauma by age and sex categories in the sample of 81 (n=) decapitated individuals...	196
Figure 4.23. Burt Matrix depicting the results of the JCA test for correlations of pathological incidence patterns associated with the burial population (n=916) by burial context type.....	197
Figure 4.24. Burt Matrix depicting the results of the JCA test for correlations of pathological incidence patterns associated with the burial population (n=915) by burial context type.....	198
Figure 4.25. The proportion of human-caused trauma types (n=842) in the burial population...	202
Figure 4.26. The proportion of human-caused trauma types (n=842) by sex category in the burial population.....	203
Figure 4.27. The proportion of the animal-related taphonomic damage (n=125) observed in the burial population.....	205
Figure 4.28. The proportion of the animal-related taphonomic damage types (n=125) by sex category in the burial population.....	205
Figure 4.29. The proportion of animal-related taphonomic damage (n=125) by sex and burial sub-group in the burial population.....	206
Figure 4.30. The proportion of environmental-related taphonomic damage (n=945) in the burial population.....	207
Figure 4.31. The proportion of environmental-related taphonomic damage (n=945) by sex category in the burial population.....	208
Figure 4.32. The proportion of environmental-related taphonomic damage (n=945) by sex category in the decapitation and non-decapitation burial population.....	209
Figure 4.33. The proportion of curation-related taphonomic alterations (n=437) in the burial population.....	210

Figure 4.34. The proportion of curation-related taphonomic alterations (n=437) by sex category in the decapitation and non-decapitation burials.....	211
Figure 4.35. The proportion of the Tucker decapitation types by sex category in the decapitation burials.....	215
Figure 4.36. The proportion of Tucker decapitation types by age category in the decapitation burials.....	216
Figure 4.37. The proportion of Tucker decapitation types by trauma timing category in the decapitation burials.....	216
Figure 4.38. The proportion of the Tucker decapitation types by trauma timing category.....	217
Figure 4.39. The proportion of the Crerar decapitation types by sex category in the decapitation burials.....	219
Figure 4.40. The proportion of the Crerar decapitation types by age category in the decapitation burials.....	220
Figure 4.41. The proportion of Crerar decapitation types by trauma timing category in the decapitation burials.....	220
Figure 4.42. The distribution of the Crerar decapitation types by trauma timing category in the decapitation burials.....	221
Figure 4.43. Burt Matrix depicting the results of the JCA test for correlations between 1134 incidences of trauma in the decapitation burials using Crerar's decapitation types.....	222
Figure 4.44. Burt Matrix depicting the results of the JCA test for correlations of 2047 (n=) incidences of trauma based on Tucker's decapitation categories.....	223
Figure 4.45. Burt Matrix depicting the results of the JCA test for patterns of similarity or differences in mortuary treatment in the 122 decapitation burials.....	226
Figure 4.46. Burt Matrix depicting the results of the JCA test for patterns of similarity or differences in the mortuary treatment in the 121 decapitation burials.....	228
Figure 4.47. Burt Matrix depicting the results of the JCA test for patterns of similarity or differences in the mortuary treatment in the 118 decapitation burials.....	230
Figure 4.48. Burt Matrix depicting the results of the JCA test for patterns of similarity or differences in the mortuary treatment in the sample of 1409 non-decapitation burials.....	232



Figure 4.49. Burt Matrix depicting the results of the JCA test for patterns of similarity or differences in the mortuary treatment variables for 1408 non-decapitation burials.....	233
Figure 4.50. Burt Matrix depicting the results of the JCA test for correlations between burial contexts based on sex and decapitation status (application vs. non-application) from 1546 individuals (n=) (1424 non-decapitated and 122 decapitated individuals) .....	241
Figure 4.51. Burt Matrix depicting the results of the JCA test for correlations between burial contexts based on sex and decapitation status (application vs. non-application) for 1109 individuals (n=) (1014 non-decapitated and 95 decapitated individuals) .....	243
Figure 4.52. Circular trauma perforation located on the frontal of the adult female SK 4000 from Gill Mill, South Leigh, Oxfordshire (author photograph) .....	269
Figure 4.53. Grease polish appearance present on the exterior anterior and superior sides of the frontal bone of the decapitated adult female SK 4000 from Gill Mill, South Leigh, Oxfordshire site (author photograph) .....	270
Figure 4.54. Trauma cut mark located on the right side of the frontal bone of the decapitated adult female, SK 5187 (Burial 1279a), from Bridge's Garage, Tetbury, Cirencester (author photograph) .....	271
Figure 4.55. Cut marks on the posterior, lateral side toward the distal end of the left femur of the decapitated adult female, SK 5187 (Burial 1279a), from Bridge's Garage, Tetbury, Cirencester (author photograph) .....	272
Figure 4.56. Cut marks related to the fragmentation of the skull vault of the decapitated adult male, SK 5188 (Burial 1279b), from Bridge's Garage, Tetbury, Cirencester (view from left side) (author photograph) .....	272
Figure 4.57. Minor trampling on the superior parietals and a fracture line radiating upward on the left side of the parietal related to the fragmentation of the skull vault of the decapitated adult male, SK 5188 (Burial 1279b), from Bridge's Garage, Tetbury, Cirencester (view from superior left side) (author photograph) .....	273
Figure 4.58. Trauma cut along the coronal suture on the left side of the frontal related to the fragmentation of the skull vault of the decapitated adult male, SK 5189 (Burial 1279c), from Bridge's Garage, Tetbury, Cirencester (view from anterior) (author photograph) .....	274
Figure 4.59. Trauma cut mark on the left side of the frontal of the skull vault of the decapitated adult male, SK 5189 (Burial 1279c), from Bridge's Garage, Tetbury, Cirencester (view from left lateral side) (author photograph) .....	275
Figure 4.60. Trauma chop mark on the inferior side of the third cervical vertebra of the decapitated adult male, SK 123, from Bath Gate, Cirencester (author photograph) .....	276

Figure 4.61. Trauma cut marks on the inferior side of the fourth cervical vertebra of the decapitated adult male, SK 123, from Bath Gate, Cirencester (view from anterior) (author photograph) .....	276
Figure 4.62. Trauma chop and fracture break on the right side of the mandible of the decapitated adult male, SK 123, from Bath Gate, Cirencester (view from posterior) (author photograph)...	277
Figure 4.63. Trauma cut marks on the distal end on the lateral side of the right femur of the decapitated adult male, SK 123, from Bath Gate, Cirencester (view from the anterior/inferior side) (author photograph) .....	278
Figure 4.64. Trauma cut marks on the distal end of the lateral side of the right femur of the decapitated adult male, SK 123, from Bath Gate, Cirencester (view from the inferior side) (author photograph) .....	278
Figure 4.65. Planview map of the grave of the decapitated young adult male, SK 1018, from Barrow Hills, Radley II, Oxfordshire (Chambers 2007:46) .....	279
Figure 4.66. Two incised cuts to the anterior of the right superior facet of the third cervical vertebrae angled in a superior to inferior direction of the decapitated young adult male, SK 1018, from Barrow Hills, Radley II, Oxfordshire (Chambers 2007:44) .....	280
Figure 4.67. Planview map of the grave of the decapitated adult female, SK 1026, from Barrow Hills, Radley II, Oxfordshire (Chambers 2007:47) .....	281
Figure 4.68. Drawing of the burial position of the decapitated adult male, Grave 14, in situ from the Frocester Court, Gloucestershire site (Price 2000:214) .....	282
Figure 4.69. Field photograph of the burial position of the non-decapitated adult female in Frocester Court, Gloucestershire Grave 8 (Price 2000:212) .....	283
Figure 4.70. Planview map of the grave of the non-decapitated adult male, SK 5009 (Grave 2008), from Kempsford Quarry, Gloucestershire (Booth and Stansbie 2007:24) .....	284
Figure 4.71. The proportion of grave goods by class (n=830) in the decapitation burials.....	291
Figure 4.72. The proportion of grave good class (n=830) by sex category in the decapitation burials.....	292
Figure 4.73. The proportion of grave goods class (n=830) by age category in the decapitation burials.....	293
Figure 4.74. The proportion of grave goods by class (n=12520) in the non-decapitation burials.....	294

Figure 4.75. The proportion of grave goods by class (n=12520) by sex category in the non-decapitation burials.....	295
Figure 4.76. The proportion of grave good class (n=12520) by age category in the non-decapitation burials.....	296
Figure 4.77. The proportion of grave goods by type (n=652) in the decapitation burials.....	297
Figure 4.78. The proportion of grave goods by type (n=9332) in the non-decapitation burials..	298
Figure 4.79. The proportion of grave goods by type (n=652) and sex category in the decapitation burials.....	299
Figure 4.80. The proportion of grave goods by type (n=9328) and sex category in the non-decapitation burials.....	300
Figure 4.81. The proportion of grave goods by type (n=652) and age category in the decapitation burials.....	301
Figure 4.82. The proportion of grave goods by type (n=9332) and age category in the non-decapitation burials.....	302
Figure 4.83. The proportion of grave goods by material (n=811) in the decapitation burials....	303
Figure 4.84. The proportion of grave goods by material (n=11529) in the non-decapitation burials.....	304
Figure 4.85. The proportion of grave goods (n=826) by placement position type in the decapitation burials.....	305
Figure 4.86. The proportion of the grave goods (n=12537) by placement position types in the non-decapitation burials.....	306
Figure 4.87. Burt Matrix depicting the results of the JCA test for correlations between the inclusion of grave goods, type, material, number and placement in 144 instances (n=) in the decapitation burial population.....	307
Figure 4.88. Burt Matrix depicting the results of the JCA test for correlations between the inclusion of grave goods, type, material, number and placement in 1284 instances (n=) in the non-decapitation burial population.....	308
Figure 4.89. Burt Matrix depicting the results of the JCA test for correlations between the presence of animals by species, skeletal completeness and placement in decapitation burials (n=5) by sex category.....	315

Figure 4.90. Burt Matrix depicting the results of the JCA test for correlations between the burial treatment by animal species, skeletal completeness and placement in non-decapitation burials (n=37) by sex category.....	316
Figure 4.91. Visualization of the primary biological and mortuary variables associated with the main burial practices of the burial population (n=1546) .....	329
Figure 4.92. Distribution of the proportion of the primary biological and mortuary variables associated with the main burial trends of the decapitation and non-decapitation burial populations (n=1546) with notable variation from the norm.....	330
Figure 4.93. Distribution of the biological and mortuary variables (present or absent recorded) for each decapitation burial (n=122) in the study sample.....	333
Figure 4.94. The sex distribution of the decapitation burials (n=60) in the normative burial group associated with the main burial group.....	335
Figure 4.95. The age distribution of the decapitation burials (n=60) in the atypical burial population with one – eight outlier variables.....	335
Figure 4.96. Distribution of the prevalence of outlier variables among the atypical decapitation burial group.....	340
Figure 5.1. Distribution of the Tucker decapitation types in the decapitation burial population (n=122) based on sex category.....	345
Figure 5.2. Distribution of the Tucker decapitation types in the decapitation burial population (n=122) based on age category.....	346
Figure 5.3. Distribution of the preservation of the axial skeleton in the decapitation burial population (n=122) .....	346
Figure 5.4. Distribution of the preservation of the appendicular skeleton in the decapitation burial population (n=122) .....	347
Figure 5.5. Distribution of the preservation of the axial skeleton in the non-decapitation burial population (n=1424) .....	347
Figure 5.6. Distribution of the preservation of the appendicular skeleton in the non-decapitation burial population (n=1424) .....	348
Figure 5.7. The distribution of decapitation burials located in isolated burial contexts based on age and sex categories.....	349
Figure 5.8. The distribution of the presence or absence of trauma injuries (n=842) among the burial population (n=1546) by burial type.....	350

Figure 5.9. Distribution of trauma injuries in the burial population (n=276) based on sex category.....	350
Figure 5.10. Distribution of trauma injuries in the burial population (n=276) based on age category.....	351
Figure 5.11. Distribution of LRP sites with burials containing supernumerary skeletal remains inclusions.....	355
Figure 5.12. Distribution of the placement of the head position in the decapitation burials (n=122) based on age and sex categories.....	358
Figure 5.13. Distribution of the burial position type in the decapitation burial population (n=122) based on age and sex categories.....	360
Figure 5.14. Distribution of the burial position type in the non-decapitation burial population (n=1424) based on age and sex categories.....	360
Figure 5.15. Spatial distribution of decapitation burials represented only by presence of skull/cranium.....	361

## LIST OF TABLES

Table 1.1. Chronology of the Iron Age and Romano-British Period in Britain (based on Crerar [2012]; Dark [2000]; Pearce [1999, 2013]; Salway [1993]) .....	8
Table 2.1. Diagnostic information for identifying decomposition processes in burial contexts following the <i>anthropologie “de terrain”</i> approach (adapted from Nilsson Stutz [2003:142-156; 2008:167-8]) .....	52
Table 2.2. Overview of variables and related sources in Tucker (2012) .....	116
Table 2.3. Decapitation practice trends in British Prehistory (Tucker 2012) .....	117
Table 2.4. Variability in decapitation contexts in urban sites compared to the wider population in Britain (based on Tucker [2012]) .....	118
Table 2.5. Decapitation burial and depositional trends in rural/small town sites compared to the wider population in Britain (based on Tucker [2012]).....	118
Table 2.6. Decapitation burial and depositional trends compared to wider population in Britain (based on Tucker [2012]) .....	119
Table 2.7. Decapitation contexts in Greater London compared to general regional trends (Crerar 2012) .....	122
Table 2.8. Comparisons of decapitation contexts in the Fen Edge region (Crerar 2012) .....	122
Table 2.9. Comparison of decapitation and normative burials in Dorchester and hinterlands (Crerar 2012) .....	123
Table 3.1. The total number of decapitation and non-decapitation burials in the sample by modern county location.....	135
Table 3.2. Gloucestershire sites with decapitation burials (N=16 sites) (1-2 IR) .....	137
Table 3.3. Oxfordshire sites with decapitation burials (N=19 sites) (1-2 IR) .....	138
Table 3.4. Gloucestershire and Oxfordshire sites with decapitation burials (N=9* sites) (3 IR).....	139
Table 3.5. Institutions with skeletal collections and site archives where in person osteological analysis could be carried out.....	140
Table 3.6. List of sites with skeletal material not analyzed in-person (N=22 sites) .....	141
Table 3.7. Estimated sex definitions based on physical assessment of all sexually dimorphic structures (adapted from Buikstra and Ubelaker [1994:21]; White et al. [2011:408]) .....	146

Table 3.8. Estimated age definitions and classification systems based on physical assessment of all developmental milestones (adapted from Buikstra and Ubelaker [1994:39-44]; White et al. [2011:384-5]) .....	147
Table 3.9. List of the main methodological sources used in establishing a method of recording taphonomic changes observed in the human remains.....	153
Table 4.1. Total number of decapitation and non-decapitation burials by age category.....	164
Table 4.2. Total number of decapitation burials from burial contexts near non-decapitation burials compared to singular isolated decapitation burials by site location in Gloucestershire and Oxfordshire.....	164
Table 4.3. Total number of adult decapitation burials from burial contexts near non-decapitation burials compared to singular isolated adult decapitation burials by site location in Gloucestershire and Oxfordshire.....	165
Table 4.4. Total number of subadult decapitation burials by site location in Gloucestershire and Oxfordshire.....	166
Table 4.5. Sites with subadult decapitation burials and sites with only isolated subadult decapitation burials or deposits.....	166
Table 4.6. The total number of individuals (n=1546) represented in the burial population by expanded sex categories examined in this thesis.....	168
Table 4.7. The total number of individuals (n=1546) represented in the burial population by refined sex categories examined in this thesis.....	169
Table 4.8. The total number of individuals represented at the Bath Gate, Cirencester and Cassington sites by expanded sex categories.....	170
Table 4.9. The skeletal elements with pathological conditions in the decapitation burial population (n=78) in the lower right quadrant of the Burt Matrix (Figure 4.19) .....	193
Table 4.10. The skeletal elements with pathological conditions in the decapitation burial population (n=78) represented in the upper right quadrant of the Burt Matrix (Figure 4.19) ....	193
Table 4.11. The total number of individuals in the burial population (n=1546) with and without evidence of trauma or additional trauma.....	200
Table 4.12. The total number of individuals in the decapitation burial population (n=122) with trauma related only to the decapitation act and individuals with additional evidence of trauma.....	201

Table 4.13. The total number of individuals in the non-decapitation burial population (n=1424) with and without evidence of trauma.....	201
Table 4.14. The distribution of the Tucker decapitation types in the decapitation burials.....	213
Table 4.15. The distribution of the Crerar decapitation types in the decapitation burial population.....	218
Table 4.16. Trauma characteristics associated with Crerar's decapitation Types 1 and 2.....	224
Table 4.17. Outlier mortuary treatment variables (associated with SK 2500) identified in the Burt Matrix assessing patterns of similarity or difference in the 122 decapitation burials.....	227
Table 4.18. Outlier mortuary treatment variables (associated with SK 10635) identified in the Burt Matrix assessing patterns of similarity or difference in the 121 decapitation burials.....	228
Table 4.19. Outlier mortuary treatment variables (associated with SK 4917) identified in the Burt Matrix assessing patterns of similarity or difference in the 121 decapitation burials.....	229
Table 4.20. Outlier mortuary treatment variables (associated with Grave 14) identified in the Burt Matrix assessing patterns of similarity or difference in 121 decapitation burials.....	229
Table 4.21. Outlier mortuary treatment variables identified in the Burt Matrix assessing patterns of similarity or difference in the 118 decapitation burials.....	230
Table 4.22. The distribution of 122 decapitation burials based on burial location.....	234
Table 4.23. The sex distribution of the 122 decapitation burials based on burial location.....	234
Table 4.24. The age distribution of the 122 decapitation burials based on burial location.....	234
Table 4.25. The distribution of 1424 non-decapitation burials based on burial location.....	235
Table 4.26. The distribution of 1424 non-decapitation burials by location and sex.....	235
Table 4.27. The distribution of the 1424 non-decapitation burials by location and by age categories.....	235
Table 4.28. The spatial distribution of 122 decapitation burials located within the Gloucestershire and Oxfordshire sites in the sample.....	236
Table 4.29. The age and sex distribution of 105 decapitation burials located near/next to other burials within and outside settlement burial contexts.....	237
Table 4.30. The age and sex distribution of seventeen decapitation burials located in isolated burial contexts.....	238



Table 4.31. The sex distribution of 122 decapitation burials by context type.....	239
Table 4.32. The age distribution of 122 decapitation burials by context type.....	239
Table 4.33. The sex distribution of 1424 non-decapitation burials by context type.....	240
Table 4.34. The age distribution of 1424 non-decapitation burials by context type.....	240
Table 4.35. The distribution of 122 decapitation burials by body side/position.....	244
Table 4.36. The sex distribution of 122 decapitation burials by body side/position.....	244
Table 4.37. The age distribution of 122 decapitation burials by body side/position.....	245
Table 4.38. The distribution of 1424 non-decapitation burials by body side/position.....	246
Table 4.39. The sex distribution of 1424 non-decapitation burials by body side/position.....	246
Table 4.40. The age distribution of 1424 non-decapitation burials by body side/position.....	247
Table 4.41. The age and sex distribution of 122 decapitation burials by burial.....	248
Table 4.42. The age and sex distribution of 1424 non-decapitation burials by burial position...	249
Table 4.43. The spatial distribution of 122 decapitation burials by body position type.....	250
Table 4.44. The age and sex distribution of 15 decapitation burials represented only through the presence of a skull/cranium or skull/cranium with vertebral bodies.....	250
Table 4.45. The selective mortuary treatment of 15 decapitation burials represented only by the presence of a skull/cranium or skull/cranium with vertebral bodies.....	251
Table 4.46. The distribution of the position of the head in the 122 decapitation burials.....	253
Table 4.47. The distribution of the manipulation types in the head position category for the 122 decapitation burials.....	254
Table 4.48. The distribution of the head position categories in the 122 decapitation burials and associated manipulation of the head position category.....	255
Table 4.49. The total number of skeletal element groups (12 groups possible per burial) represented across the decapitation burial population.....	255
Table 4.50. The total number of skeletal element groups (12 groups possible per burial) represented across the non-decapitation burial population.....	256

Table 4.51. The distribution of axial skeletal elements in the decapitation burials by preservation level.....	257
Table 4.52. The distribution of appendicular skeletal elements in the decapitation burials by preservation level.....	257
Table 4.53. The distribution of axial skeletal elements in the non-decapitation burials by preservation level.....	257
Table 4.54. The distribution of appendicular skeletal elements in the non-decapitation burials by preservation level.....	258
Table 4.55. The distribution of the preservation levels of the decapitation burials based on the presence of the skeletal element groups.....	259
Table 4.56. The distribution of the preservation levels of the non-decapitation burials based on the presence of the skeletal element groups assessed.....	259
Table 4.57. The distribution of the preservation levels of the skeletal element groups across the decapitation burial population.....	259
Table 4.58. The distribution of the preservation levels of the skeletal element groups assessed across the non-decapitation burial population.....	259
Table 4.59. The total number of inhumation burials (n=27) from sites examined in this thesis with evidence for additional (supernumerary) deposits of skeletal elements.....	260
Table 4.60. The total number of additional skeletal elements found in inhumation burials with supernumerary deposits (n=27) .....	261
Table 4.61. The distribution of skeletal elements (n=48) associated with inhumation burials with supernumerary deposits (n=27) .....	261
Table 4.62. The sex distribution of the inhumation burials (n=27) with supernumerary skeletal elements.....	262
Table 4.63. The age distribution of the inhumation burials (n=27) with supernumerary skeletal elements.....	262
Table 4.64. The distribution of the inhumation burials (n=27) with supernumerary skeletal elements present by body position.....	263
Table 4.65. Examples of selective manipulation of the corpse post-mortem (SK 6550, SK 4063, and SK 5077) observed in three decapitation burials from three sites in the region.....	267

Table 4.66. The total number of burials with coffins in the burial population (n=1546) .....	285
Table 4.67. The sex distribution of the decapitation burials with coffins (n=20) by coffin type.....	285
Table 4.68. The sex distribution of the decapitation burials (n=122) with coffins by coffin type.....	286
Table 4.69. The sex distribution of the non-decapitation burials with coffins (n=207) by coffin type.....	286
Table 4.70. The sex distribution of the non-decapitation burials (n=1424) with coffins by coffin type.....	287
Table 4.71. The sex distribution of the decapitation burials (n=122) according to grave orientation where those data were available.....	288
Table 4.72. The sex distribution of the non-decapitation burials (n=1424) according to grave orientation where those data were available.....	289
Table 4.73. Total number of burials with grave goods present or absent in the burial population (n=1546) .....	289
Table 4.74. Total number of grave goods by class (n=13367) present in the inhumation burials by burial status.....	290
Table 4.75. The total number of inhumation burials with animal inclusions in the burial population (n=1546) .....	310
Table 4.76. Animal inclusion by species in decapitation burials (n=5) where evidence was available.....	310
Table 4.77. The total number of animal inclusions by species in the non-decapitation burials (n=37) where evidence was available.....	311
Table 4.78. The total number of animal inclusions by species and completeness status associated within the decapitation burials (n=5) where evidence was recorded.....	312
Table 4.79. The total number of animal inclusions by species and completeness status in the non-decapitation burials (n=32) where evidence was available.....	312
Table 4.80. The distribution of animal inclusion species in the decapitation burials (n=5) by sex category.....	313
Table 4.81. The distribution of animal inclusion species in the non-decapitation burials (n=37) by sex category.....	313

Table 4.82. The distribution of animal inclusion species in the decapitation burials (n=5) by age category.....	314
Table 4.83. The distribution of animal inclusion species in the non-decapitation burials (n=37) by age category.....	314
Table 4.84. The primary biological and mortuary variables associated with the majority burial trends of the decapitation and non-decapitation burial populations (n=1546) with little to no variation.....	328
Table 4.85. The primary biological and mortuary variables associated with the main burial trends of the decapitation and non-decapitation burial populations (n=1546) with notable variation...	329
Table 4.86. The biological and mortuary variables associated with the atypical burial trends of the decapitation and non-decapitation burial populations (n=1546) .....	331
Table 4.87. The total number of decapitation burials (n=60) in the sample with outlier variables associated with the atypical burial practice sub-set.....	334
Table 4.88. Funerary structure sequence phases and their associated biological and mortuary treatment variables linked to the main burial trends representing the burial population (n=1546) .....	339
Table 4.89. The total number of atypical decapitation burials (n=60) associated with each phase of the funerary structure based on outlier variables present by burial.....	341
Table 5.1. Biological variables (age and sex) shared by decapitation and a subset of non-decapitation burials from LRP sites in Oxfordshire and Gloucestershire.....	344
Table 5.2. The distribution of the representation of potential interpretations for the physical and mortuary treatment observed among the decapitation burials by burial group examined in this thesis.....	417

## ACKNOWLEDGEMENTS

To my doctoral advisor, Dr. Bettina Arnold, my thanks and gratitude for her patience, immense knowledge of European Prehistory, and theoretical and methodological grounding in mortuary studies. Her dedicated efforts to guide, nurture and corral my research interests into a manageable thesis topic can not go unstated. Dr. Arnold's consistent encouragement and detailed feedback were integral to the production of numerous preliminary, proposal and thesis chapter drafts, applications for collections access, and essays for fellowship applications. Prior to joining the doctoral program in the Department of Anthropology at UW-Milwaukee, I had not received the kind of direct and focused assistance provided by Dr. Arnold. Her expertise and professionalism are matched by her patience, kindness, confidence and doses of special humor at just the right moments. While no amount of thanks will ever feel like enough, especially since every stroke of her red marker improved more than just my thesis (but also my personal and professional growth overall), I would be remiss if I did not express my sincere thanks once more for all the time given, kindness shown, dishes of stew shared, and enthusiasm over brews and feasting while opening up her office and home. Her guidance was always above and beyond, and proved to be a crucial piece of inspiration that carried me through to achieve the pursuit of earning my PhD - a personal life-long goal – for this, I am eternally grateful.

To my doctoral committee members in the Department of Anthropology, Dr. Patricia Richards, Dr. Robert Jeske and Dr. R. Jason Sherman, as well as Dr. Derek Counts (Art History), I am very thankful for your encouragement, guidance, comments and revisions of my dissertation preliminary exam essays, dissertation proposal and refinement of the scope of the thesis. In addition to providing recommendations of important and crucial archaeological literature, you shared details of your personal research interests and stories of challenges along the way in your professional careers to encourage me to persevere in my professional

development and completion of the thesis. Special acknowledgment is owed to Dr. Patricia Richards for her leadership and professionalism as the Principal Investigator for two major field projects on which I was an archaeological technician as a doctoral student. On those projects, I was challenged to expand my excavation techniques and was reminded of my love of fieldwork. In addition, many thanks for providing permission to use and adapt laboratory forms originally developed for the MCPFC project. Lastly, my gratitude is owed to Dr. Jean Hudson in the Department of Anthropology for providing recommendations of important works regarding taphonomic changes and trauma analysis beyond the purview of osteological studies. Her knowledge of cross-cultural and ethnographic studies of butchery, sacrifice and body ritual, as well as use of equipment to measure and capture such evidence, was critical in the success of the methodology deployed during in-person analysis of the skeletal remains in the study sample.

I would like to acknowledge the financial support of the following University of Wisconsin-Milwaukee programs: the Advanced Opportunity Program Fellowship, the R1 Advanced Opportunity Program Fellowship, the University Chancellor's Scholarship for Diversity and Leadership Award, and the Dissertation Completion Support Program. In addition, scholarship funding was received twice from the Hispanic Professionals of Greater Milwaukee organization. The financial support provided by these sources went directly toward the costs incurred during in-person visits to institutions in the United Kingdom, as well as archaeological (lab and field) training workshops where the skills and methods taught were directly applied to the analysis of the human remains and related materials assessed in this thesis.

I am indebted to Elissa Hult (MS, RPA) of Chronical Heritage in Milwaukee, Wisconsin for her assistance in the statistical analysis, generation of maps and database development that were critical to the project. As my statistics TA at UW-Milwaukee, Elissa was a model of cool

patience and kind words when I continually asked “but...why?!” regarding x, y, z scenario in our course homework. She offered me a window into understanding how statistical methods in all of their confusing nature may be used to parse out the complex ways data can trick the human mind. Without her firm grasp of the available statistical tests that can be used to analyze large and complex types of data, it would have been impossible for me to develop and conduct the quantitative and qualitative analyses performed in this thesis. Beyond the direct assistance she provided in the development of the methods and data results, Elissa offered continuous encouragement and friendship (over Zoom and in coffee shops) over the years – to a significant degree and contributed in less tangible ways to the success of this project.

I would also like to thank the institutions that granted access to unpublished data and archival materials, as well as permission to analyze skeletal remains during in-person visits in 2018 and 2019. Special thanks are also owed to a number of individuals in those institutions’ administrative and collections staff for fielding and directing numerous inquiries regarding the location of the materials and skeletal remains, as well as for providing guidance through the loan and permissions processes required to schedule those visits. Many heartfelt thanks go to staff members at the universities, museums, resource centers, city archaeology offices, Archaeology Data Service, and commercial archaeology units working on site during my in-person visits for their willingness to discuss my research, scan extra large maps, decode troublesome cursive fonts, and lastly, for offering piping hot cups of tea with sides of biscuits. Special acknowledgements are owed to the following individuals for their direct efforts to assist me: Jo Buckberry, Emma Jennings, Sharon Clough, James Harris, Sarah Orton, Andrew Armstrong, Trish Biers, Paul Driscoll, Denise Phillip, Ann-Rachael Harwood, Naomi Bergmans, Paul Booth, Helen Hovey, Freya Fenton, Charlotte Roberts, Katie Green, Belinda Crerar, Katie Tucker,

Malin Holst, Christine McDonnell, Angela Boyle, Eloise Chapman, Rachel Ives, Eileen Murphy, Edeltraud Aspöck, Leigh Allen, Emma Clemson, Tracy Turner, Sam Vandegeer, Louise Loe, Nick Corcos, Nicola Scott, and Gail Boyle.

I would like to thank my family for the many years of constant support and encouragement to complete my research and take chances throughout my graduate career. Due to the support of my immediate family, especially my mother, Mary, I am among the first generation of my family to complete an undergraduate degree, and the first in my entire family line to earn a PhD. I am thankful to my family for helping me to overcome many challenges through the years, as those times served as examples of perseverance, patience, and thoughtful care that has influenced my professional career as an archaeologist and instructor, as well as the ways I approach researching topics of trauma, identity, and difference/othering in modern and ancient societies. It is my deepest hope to honor these support systems by offering the same spirit of encouragement and generosity shown to me to those that I encounter in the future in my personal and professional circles.

To Michael, it would be simply impossible to calculate the number of hours, days, months (probably adding up to years) that I spent away from you (and, eventually, the kids) in some far-flung archive, library, lab, hole in the ground, airplane seat, cemetery, or futon in another state or country while working to complete this thesis. As such, there simply are not enough “thanks” to express how foundational your support has been in aiding in the completion of this milestone. For as long as you have known me, you have expressed nothing but unwavering support, even as my schedule remained variable and complicated, sometimes shifting with very little notice. Thank you for accepting the invitation to be a part of the Milwaukee brunch crew; it takes gumption to put up with a table full of archaeologists talking



shop with all of their various drinks. Lastly, the hours spent on Skype/Zoom/Facetime across time zones and continents, and for the supportive physical and digital letters you wrote to me (which I still have) - all of it is a reminder that the poem I shared with you years ago was right all along. Emerson and Roman – for your curious stares at my books, maps and piles of paperwork, your gentle cuddles, smirks and full belly laughs, attempts at explaining what Mom does with bones for a living, and for your tears, times in the hospital, and occasional screams typical of growing humans – I simply hope you know there is nothing in this whole world, not even this thesis, that I find to be as full of wonder as the two of you, my Bubby and Moo Moo.

To my friends and colleagues, both long-time and new, there are simply too many of you to list here and too many offers of help through personal and professional challenging moments to describe here. Thankfully, the offers and invitations to enjoy social hours, gatherings, book runs, movie marathons (while working on something academic-ish!), long walks, grading marathons and all-nighter essay workshops with coffee supplies on hand in Sabin Hall or one of your apartments far outnumber the aforementioned challenges faced through the years. Special acknowledgement must go to Alexis Jordan, Lindsay Barone, Rick Edwards, Lara Ghisleni, William Balco, Jessica Hopper, Anna Schmidt and Pam Peterson for your check-ins, provisions of coffee, recommended readings, assistance with maps/GIS, field techniques, and for all of the times you offered me a place to stay with promises of food, good times, and commiseration. Your support proved to be foundational in my development and it was sincerely offered without asking for a thing in return – for this, you have my sincere gratitude.

## **Chapter One: Introduction**

### **1.1. Introduction**

The study of Roman Britain from the conquest in AD 43 through the severing of ties with the Roman Empire in AD 410 has focused traditionally on native populations and the cultural changes of the Early and Late Roman periods (Potter and Johns 1992). When the Romans moved into and settled in the southeast, southern, central, and some northern regions of Britain (Figure 1.1), native peoples and Romans alike began slowly integrating selected customs and traditions into their own practices, though at differing rates in different regions (Hill 1995:88). Material goods and the physical landscape were manipulated to express social power and prestige differentially in small towns, urban centers, and rural farmsteads, especially as local tribal leadership throughout Britain became increasingly entangled with the Romans over time, as is reflected in the material culture of settlement and mortuary contexts (Cunliffe 1997:231; Gosden 2004:87; T. Moore 2011:344-9, 352-4).

Roman mortuary archaeology has traditionally relied upon multiple lines of evidence (material, skeletal, textual, infrastructure, etc.) to explore the cultural and social identities of the dead (Carroll 2006, 2011, 2018; Carroll and Graham 2014; Hope 2001, 2003, 2007, 2014, 2016; Morris 1992; Philpott 1991; Pearce 1999, 2013; Reece 1977). Recent studies focused on discussions of mobility, origins, status, and changing ideologies have utilized theoretical frameworks that characterize burial rites and associated practices as performative – that is, events during which the cultural identities of the living and the dead are asserted and may be marked, morphed, or reproduced through funerary representations or actions (Eckardt 2010; Fowler 2011, 2013; Gowland 2002; Hope 2016; Mattingly 2004, 2006, 2011; Millett et al. 2016; Petts 2003; Pitts 2008; Weekes 2008, 2017). Recent decades have witnessed a boom in the study of Roman

funerary practices and their contexts, particularly in contract archaeology, which has generated large datasets, improved analytical and methodological techniques, ethical policies and procedures, and has resulted in the reanalysis of funerary data from previous studies (Brødholt 2012; Carroll 2019; Holbrook et al. 2016; Keegan 2002; Moore 2009b; Pearce 1998; Pearce et al. 2000; Pearce and Weekes 2017; Philpott 1991).

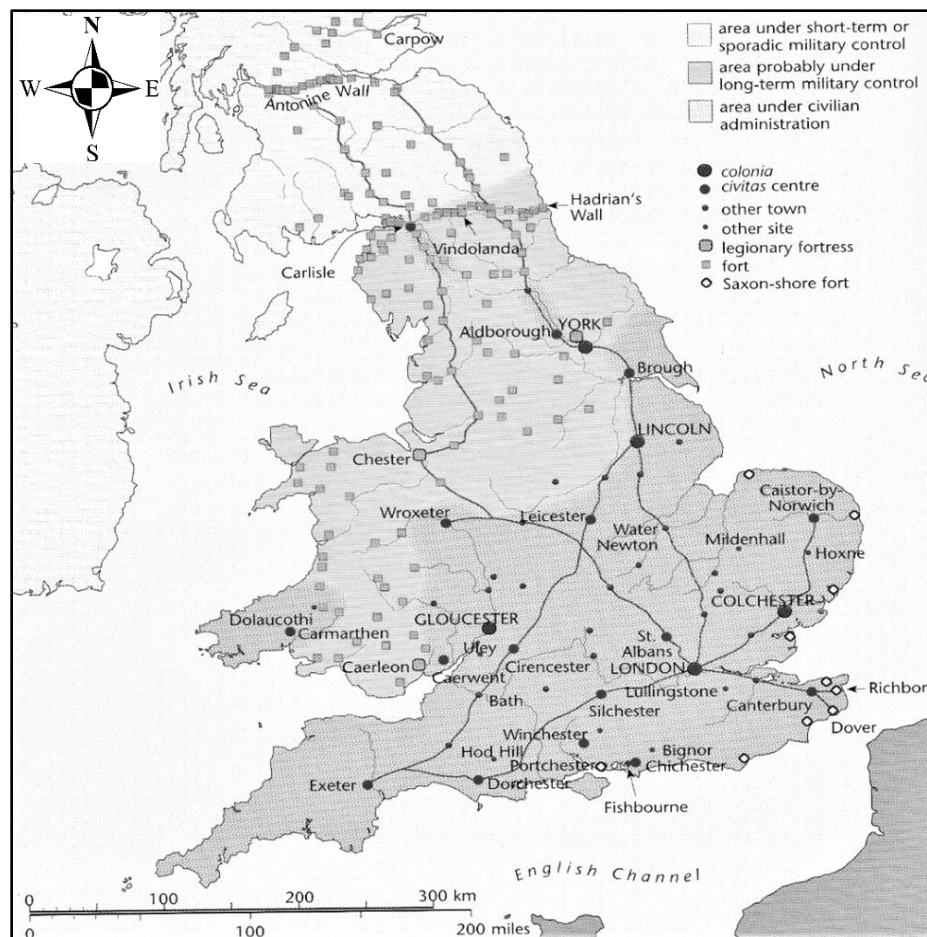


Figure 1.1. Roman Britain (AD 150) showing major roads, towns, forts, and other sites (adapted from Hobbs and Jackson 2010; modified by author).

Bioarchaeological studies and the discoveries generated by commercial archaeology have made it possible to interrogate large data sets for evidence of ancient demographic patterns, trauma, disease, and related topics. Both large and small-scale syntheses of evidence from

communities, regions and entire countries in the Roman world have resulted from this new data and the refining of the methodological tools needed to interrogate them (Bello and Andrew 2006; Eckardt et al. 2014; Evans et al. 2006; Gowland 2017; Hamlin 2007; Hope 2009; Jennings 2017; Knüsel and Smith 2014; Leach et al. 2009; Leach et al. 2010; Lewis 2007; Martin et al. 2013; Montgomery et al. 2008; Redfern 2017; Redfern and Roberts 2005; Redfern and Booney 2014; Redfern et al. 2015; Redfern et al. 2016; Roberts 2000a; Roberts and Cox 2003; Scott 1997).

One of the main developments in recent mortuary archaeology is the inclusion of forensic evidence (such as taphonomic alterations of skeletal elements, for example), which allows some funerary ritual sequences to be reconstructed in greater detail, including the phases preceding and succeeding the interment of the remains of the dead (Evatt 2016; Haglund and Sorg 1997; Knüsel et al. 1996; Knüsel and Robb 2016; Pearce 2017:1; Ubelaker 1997; Weekes 2016, 2017).

## **1.2. Outline of Thesis Research**

This thesis investigates whether populations living in western Roman Britain (Figure 1.2) during the Late Roman period (LRP) (3<sup>rd</sup> – 5<sup>th</sup> centuries AD) used decapitation and other forms of body manipulation as an alternative mortuary rite to express aspects of social identity. This thesis also tests the idea that there was a continuity of practice in mortuary rituals from the former Late Iron Age (LIA) Dobunni and Catuvellauni tribes into the LRP at the sites in the study region. More specifically, this project tests the following null hypothesis: If decapitation inhumation burials from cemeteries and settlements in Gloucestershire and Oxfordshire were part of a sub-class of mortuary treatment meant to signal a particular type of group membership on the part of the perpetrators and/or the victims, then the archaeological evidence and osteological data should reveal a) statistically significant similarities in the decapitation burials within and across sites and b) statistically significant differences in the treatment of decapitation

burials compared to non-decapitation burials in the wider community. A comparison of any significant patterns in the mortuary treatment “package” of decapitation burials vs. non-decapitation burials across sites in Oxfordshire and Gloucestershire could indicate whether the rite was utilized to mark localized communal membership vs. traits specific to the individual deceased person.

Data from the LRP mortuary contexts in Oxfordshire and Gloucestershire, England, were analyzed from a synchronic and diachronic perspective to determine whether decapitation and mortuary practices associated with identity and life course configurations in other ethnographic contexts are present. The primary research question posed in the analysis of the Oxfordshire and Gloucestershire data was as follows:

Were all decapitation burials and deposits of disarticulated human remains in the cemeteries and settlements of Gloucestershire and Oxfordshire from the Late Roman period (3<sup>rd</sup> – 5<sup>th</sup> cent. AD) in Britain part of a sub-class of mortuary treatment used to mark communal membership, group ostracism, or other type of identity?

The following secondary questions were used to guide the investigation of the primary question above:

1. Are there differences in the mortuary treatment of individuals in decapitation burials and depositional contexts compared to non-decapitation burials in the same site or region based on age, sex, health, spatial distribution, burial context, or other categories?
2. How does the decapitation variable correlate with other categories of mortuary evidence (grave goods, body position or orientation, location, context, post-mortem modification/manipulations, fragmentation, animal inclusions, etc.) and bioarchaeological data (sex, age, trauma, pathological conditions, etc.) between sites and regions?
3. Are there signs of an increase or decrease in the occurrence of decapitation burials or related modification or fragmentation deposits in specific sites in Gloucestershire or Oxfordshire during the Late Roman period?
4. Are there signs that fragmentation and/or disarticulation in inhumations or deposits in Gloucestershire or Oxfordshire change in frequency or type during the Late Roman period?

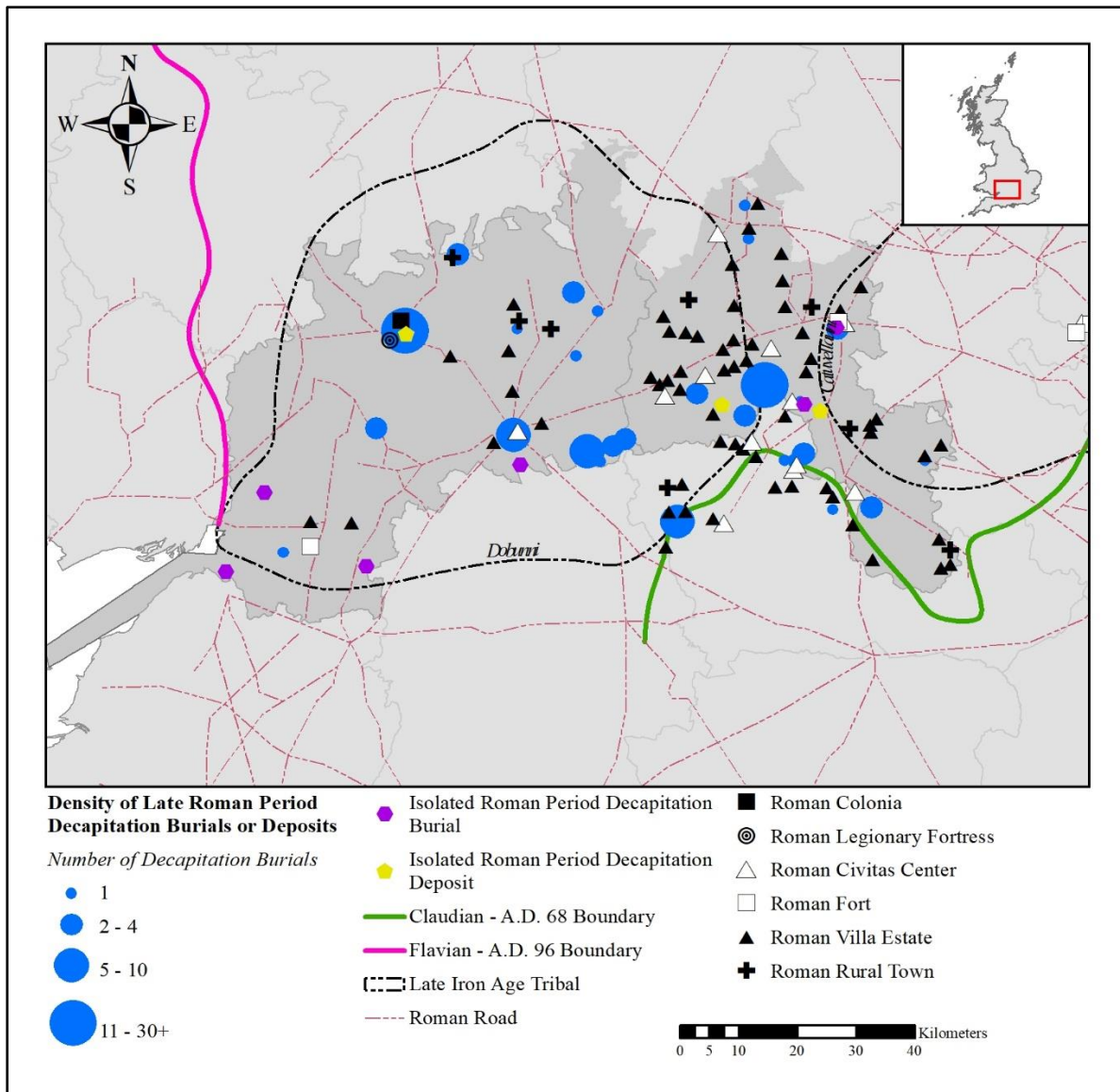


Figure 1.2. Late Roman period sites in Gloucestershire and Oxfordshire region (dark grey outline) in Britain with decapitated remains (based on evidence drawn from ADS Database and Tucker [2012]).

A quantitative and qualitative mortuary analysis of the mortuary and bioarchaeological related data from Oxfordshire and Gloucestershire compares patterns in aspects of the LRP funerary rituals, including: seven main mortuary elements (burial context, body position, body side, body orientation, grave orientation, grave good, animal inclusion), four main skeletal elements (sex, age, pathology, trauma), and two main funerary/post-excavation elements (taphonomy and curation-related changes) in the sample both within and between sites (for a full

list of main and sub-variables, see Appendix A). The first phase of the interpretation considers the results of the analysis through an osteobiography-influenced approach in order to define as much of the lived experience as possible for each decapitated individual, followed by a diachronic comparison of those narratives to the life course narratives of the other decapitated individuals in the sample and the non-decapitated individuals in the same region as defined in other studies (Moore 2009a, 2009b, 2010, 2016, for example). The second component consists of an interpretive consideration of what the mortuary and bioarchaeological data from Oxfordshire and Gloucestershire tell us about patterns of social organization, specifically the role of violence, trauma and funerary structures in Romano-British society, and how those systems may have interacted with other aspects of status and identity. This comparative exercise draws upon the six-step process of funerary ritual process (selection, preparation, modification, location, deposition, and commemoration) specific to the Romano-British period (Weekes 2008, 2016, 2017:91-109) in order to define a contextual range of funerary behavior and mortuary treatment of decapitation burials in the study sample. Creating a contextual picture of the full range of mortuary and funerary behavior for decapitation burials in western LRP Britain will allow the results of this thesis to challenge the homogenous picture of these deceased individuals' life narratives and the possible meaning of this treatment by systematically approaching the analysis and interpretive process using multiple sources of evidence.

### **1.3. Aims of the Thesis**

The study presented here includes elements of both the processual and post-processual archaeological perspectives, combining mortuary-, life course-, gender-, age-, and identity-related theories alongside the bioarchaeological analysis of a select sample of individuals (see Chapter Two). These sources of evidence are combined with existing scholarship on decapitation

burials and their contexts in the IA through the LRP, providing a picture of the current themes of research, and presenting a contextual analysis of those burial and social contexts in Oxfordshire and Gloucestershire. The results of this analysis will be compared to previous studies by Tucker (2012, 2014, 2016) and Crerar (2012, 2016) to identify and contextualize any similarities or differences exhibited in decapitation practices in other regions of Roman Britain. This should make it possible to identify specific motivations behind the deployment of the decapitation rite on a case-by-case basis, offering new avenues for future research based on the conclusions presented. The investigation of decapitation burials in relation to other contemporaneous funerary practices in specific regions of Roman Britain could reveal whether decapitation was a single rite employed by different communities in select ways to express varied sentiments towards targeted members of a society and toward Roman hegemony and control. Changes in mortuary behavior associated with decapitation through time will be investigated within the larger social context of social variations in funerary structures in Roman Britain during the study period.

The following section presents a brief history of the IA and Roman periods in Britain, with particular emphasis on archaeological evidence for cultural variations over time, followed by an overview of settlement and burial practices from the LIA (100 BC – AD 43) through the LRP (3<sup>rd</sup> – 5<sup>th</sup> centuries AD) in Britain (Table 1.1). Given that the scope of this thesis explores the archaeological evidence for mortuary practices in western Britain, an overview of the cultural regionalism of Roman Britain is presented first, followed by a broader discussion of the settlement and burial trends from the LIA and LR periods. Lastly, the primary contributions of the thesis and the organization of the remaining chapters are outlined.



Table 1.1. Chronology of the Iron Age and Romano-British Period in Britain (based on Crerar [2012]; Dark [2000]; Pearce [1999, 2013]; Salway [1993]).

Chronology of the Iron Age and Romano-British Period in Britain	
Period/Phase	Temporal Range
Early Iron Age (EIA)	800 - 400 BC
Middle Iron Age (MIA)	400-100 BC
Late Iron Age (LIA)	100 BC – 43 AD
Early Roman Period (ERP)	AD 43-199 (1st – 2nd centuries)
Late Roman Period (LRP)	AD 200-410 (3rd – 4th centuries, beginning of 5th century)

#### 1.4. Iron Age Britain

The IA in Britain (800 – 100 BC) can be divided into three phases (Early, Middle, and Late), and traditionally is considered to end with the arrival of the Romans during the first century AD in the southeastern region of the island (Collis 1977; Cunliffe 1995, 2005; Hill 1989, 2006; S. Jones 1997; T. Moore 2011). During the IA, communities across the island maintained contact with Continental populations through trade and related activities. Indeed, by the end of the first century BC, interactions between territories within Britain and the Continent are described in numerous Classical texts, including Julius Caesar’s *De Bello Gallico* and the works of Strabo, Suetonius, Dio Cassius, and Diodorus Siculus (Champion 2016:152, 162-3; Cunliffe 1991; Haselgrove 1999, 2004; Haselgrove and Moore 2007; Hunter and Ralston 1999; Millett 1995). The archaeological record provides evidence for cultural continuity as well as variation in the artifacts produced and in the methods of production, suggesting trade and cultural exchange between IA indigenous populations, and later, the Romans, were the likely mechanisms for material and social transformation (Allen 1958; Bintliff 1984; Cunliffe 1991, 1995, 1997; Cunliffe and Miles 1984; Haselgrove 1999; Hill 1995; Hingley 2006; Hodson 1964; James and Rigby 1997; Pitts 2005).

Connections between Britain and the Continent again intensified in the LIA with Roman expansion into *Gallia Transalpina* in 120 BC, which introduced Mediterranean merchants to this foreign colony at what was then the edge of the Empire and increased both the influx of Roman materials to the island and the export of raw materials from northwestern Europe and Britain to Rome and its imperial territories (Cunliffe 1991:434-435; Fulford 2001; Haselgrove 2004). Imported goods included drinking sets of bronze and silver, wine, raw glass and ceramic wares from Rome and her colonies (Allen 2000; Cunliffe 1991:435; Gardner 2016; Haselgrove 1999:131; Jay and Richards 2007; Todd 1999:3; van der Veen 2008), while British exports of Kimmeridge shale, grain, salt, cattle and metals such as gold, silver, lead, tin and copper made the return trip to the Continent (Cunliffe 1991:435, 2001:402-405; Champion 2016:157; Todd 2004). Evidence from the site of Hengistbury Head in Dorset and Mount Batten near Plymouth in Devon indicates the presence of entrepôts in the second to first centuries BC (Champion 2016:158; Cunliffe 1991:435; Hamlin 2007; Todd 2004). Trade and related forms of culture contact again appear to have been the primary mechanisms for the introduction of new material culture and different modes of cultural expression in these areas (Evans 2016; Fulford 2004; Gardner 2016).

Culture and technology changed tremendously during the course of the IA in Britain. With iron technology came, via the expanded range of tools, the ability to work larger and more marginal tracts of arable land, and with greater agricultural production came a larger and more diverse population as time progressed (Champion 2016; Cunliffe 1991; Dungworth 2016; Haselgrove 1999; Manning 1972; van der Veen 2016). Population increases are indicated by the proliferation of settlements ranging from single-family farmsteads to hillforts that accommodated larger numbers of individuals (Bewley 1994; Collis 1985; Cunliffe 1991; Gale 2003; Haselgrove

1986, 1999; Hinds 1990). Evidence suggests that a tribal system of social organization began to develop in the sixth century BC, with the probability of tribal confederacies by the third century BC (Cunliffe 1991:93; Darvill 1987; Hodson 1964). As shown in Figure 1.3, at the time of the Roman conquest in the first century AD, the Romans were aware of numerous tribes throughout Britain (Allason-Jones 1989:74; Cunliffe 1991:160; Hill 1995; Hobbs and Jackson 2010; Millett 1990:49, 1995:36; T. Moore 2011).

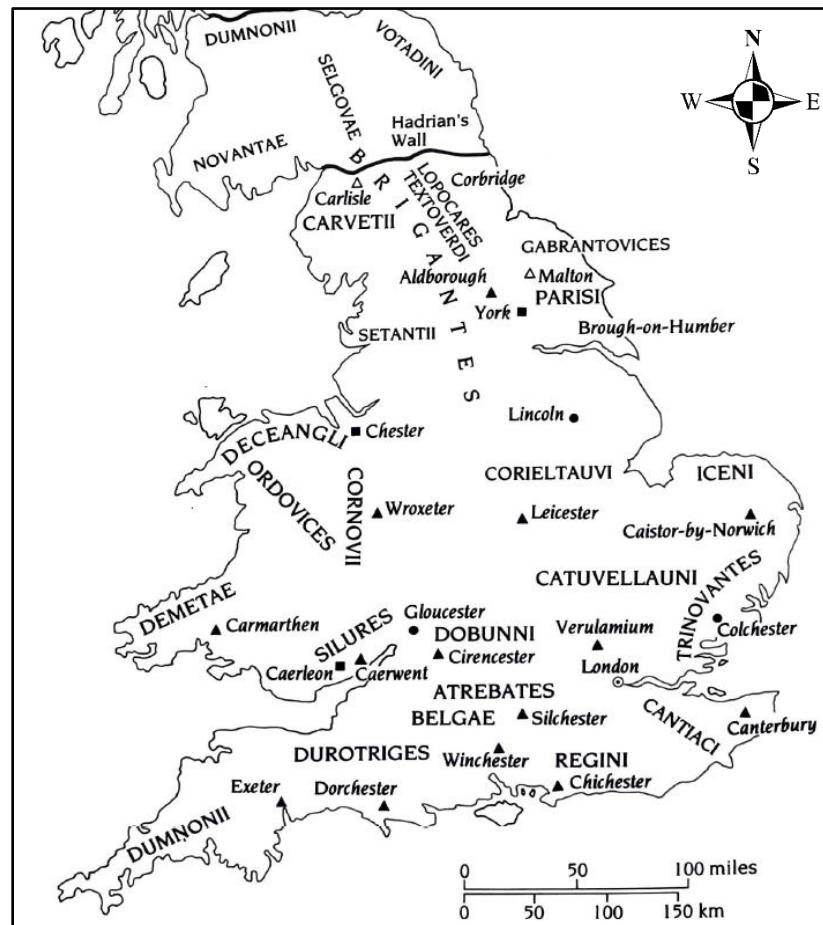


Figure 1.3. Tribal divisions in Britain from the Late Iron Age (c. 1st century B.C.) to the late Early Roman period (A.D. 200-250). Minor settlements not shown (adapted from Salway [1993:124]; modified by author).

## 1.5. Roman Britain

The early expeditions and trade networks established by Caesar during the first century BC were largely exploratory in nature rather than an outright bid to conquer the island (Carreras and De Soto 2013; Millett 1995:13; Pitts 2010; Wallace 2016). Many descriptions of the interactions between indigenous populations and the Romans before the conquest period in the first century AD are available, and provide details regarding the cultural practices (material, ritual, economic trade networks, language, and warfare) encountered by the Romans during this phase (Blagg and Millett 2002; Creighton 2006; de la Bédoyère 1989; Esmonde Cleary 1987, 1999; Frere 1987; Hanson 1999; G. Jones 1984; R. Jones 1991; Millett 1990, 1995; Potter and Johns 1992; Salway 1981, 1993; Todd 1999; Wachter 1979; Webster 1999). Ancient sources, such as Tacitus (*Agricola* 13 [trans. Ireland 1986:32]), also describe these initial encounters with the tribal populations in southeastern Britain:

The deified Julius was indeed the first Roman to enter Britain with an army, but though he intimidated the inhabitants by a victory and gained control of the coast, it is clear he merely pointed it out to those who came after him; he did not bequeath it to them.

By the first century AD, it appears that the Emperor Claudius undertook the invasion of Britain for reasons that were both political and financial. To emphasize the power of the Roman Empire and his position as Emperor, Claudius allied himself with the known achievements (territorial gains, rebuilding and expansion of Rome, military victories, etc.) of Julius Caesar and took advantage of the existing trade networks and relationships with indigenous populations in the northwestern province on the Continent and southeastern and southwestern *Britannia* (Frere 1987; Millett 1990; Potter and Johns 1994; Salway 1993; Somerset Fry 1984). Wallace (2016) notes that the Roman administration was aware that the rural and sea faring population encountered by these early incursions was unlikely to leave their homes and territories when Roman influence and populations of immigrants arrived because of the new opportunities and

diverse materials represented by the changing power structure (Wallace 2014, 2016:130).

However, as the Romans expanded throughout the territories of *Britannia*, they were met with significant opposition in the northern and western regions (Breeze 1982; Cunliffe 2001; Dark 2000; de la Bédoyère 2003; Esmonde Cleary 1990; Frere 1987; Hunter 2016:182-4; Millett 1990; Salway 1993; Todd 1999, 2004). Military incursions and attempts to infiltrate the far north in modern-day Scotland resulted in failed attempts to subdue native populations and establish permanent settlements (Breeze 2006; Hunter 2016:185), with the Antonine Wall (the Roman frontier boundary established c. AD 139-142) being abandoned c. AD 163 in favor of a more southern line-of-defense, Hadrian's Wall (Hanson 1999, 2004; Hunter 2016:192-3; Millett 1990; Scullard 1979; Todd 1999). This frontier was infiltrated and traversed by the Picts and Scoti, although the timeline of this activity and whether it constituted a coalition motivated by tribal rejection of Roman culture or a general decline in the extent of control from within the Roman Empire is debated (Crow 2004; Hunter 2016:193).

Esmonde Cleary (2016:134) states that four major sets of interrelated factors contributed to the erosion of the Roman Empire during the late fourth to early fifth centuries AD:

withdrawal of imperial power; the effects of this on the economic structures of the western provinces (particularly with indigenous and non-Roman populations; the effects of this on aspects of elite culture and representations of Roman affiliation within the civilian populations; and the development of new forms of elite display linked to military-style identities along with changes in settlement types.

Historical sources suggest the formal administrative end to Roman rule in Britain dates to AD 411. The Honorian Rescript, decreed by the Emperor Honorius, involved sending letters to the cities [*civitates*] in Britain bidding them to take precautions on their own behalf in the aftermath of the removal of the Legions from Britain ([Zosimus 6.10.2, trans. Ireland 1986:165] cited in Hamlin 2007). This administrative decision was made during a period when many communities

throughout the territories of the island and other Roman provinces were already experiencing economic and social instability (Esmonde Cleary 2016; Wickham 2005). Trade networks serving prestige/imperial and market economies within and outside Britain were disrupted for various reasons, including warfare, resource allocation, etc., which resulted in the reduction of both the types and quantities of industries and material goods available across Gaul and Britain (Esmonde Cleary 2004). As the imperial taxation and expenditure system broke down throughout the Empire, the archaeological evidence for the reduction of the military presence reflects the massive changes that occurred during this time period (Allason-Jones 2016; Esmonde Cleary 2016:144; Haynes 2016:460; Mattingly 2006), which left regions of the island and other provinces without official supplies, maintenance or protection against invading populations during the fourth and fifth centuries AD (Southern 2004; Wood 2004).

## **1.6. Cultural Regionalism in Roman Britain**

Roman Britain represents a network of geographically distinct regions with populations that participated, to varying degrees, in practices influenced by Continental cultures (Haselgrove 2004; T. Moore 2016; Todd 2004; Wallace 2016). After the end of the second century AD, *Britannia* was divided at first into two provinces, *Britannia Superior* with its capital at London, and *Britannia Inferior*, with its capital at York under the Emperor Septimius Severus. Later, *Britannia Inferior* was divided into four smaller provinces under Emperor Diocletian, (with a fifth, *Valentia*, created around AD 369), each with its own provincial governor (Davies and Grieve 1986; M. Jones 2004:166; Maxwell 2004:79; Watts 1998). However, much recent work has revealed that cultural divisions extended beyond this, evident in the varying methods of self-expression practiced by diverse communities with access to imperial and local trade networks (Allason-Jones 2001, 2016; Hope 2016; Niblett 2004). These will now be reviewed to

demonstrate the heterogeneity of Romano-British (specifically LRP) culture and society, and to make the case for more regionally specific analysis when addressing aspects of social organization, such as mortuary practices (Ammianus Marcellinus XXVII.3.7; Crerar 2016; Millett 1990; Pearce 2013, 2016, 2017).

During the first century AD, the influence of IA tribal divisions and the uneven establishment of the military and Roman administration across the province created a complex system of social and economic networks (Cunliffe 1995, 2004; Creighton 2006; Fulford and Timby 2000; Haselgrove 2004; Weekes 2008). Several authors have argued that the early administration of Roman Britain was intimately linked with the existing pre-Roman infrastructure developed by indigenous populations and exploited by the Romans. New types of cultural sites began to appear as well: the *civitates*—regional land divisions of the Roman period—were imposed on pre-existing IA tribal land divisions and the capitals of the *civitates* often directly superseded IA *oppida*, for example at *Durovernum Cantiacorum* (Canterbury) and *Calleva Atrebatum* (Silchester); these territories and their established spheres of influence may have provided the local impetus needed to successfully supplant Roman cultural impositions (Atkinson and Preston 1998; Champion 2016:156; Cunliffe and Miles 1984; Esmonde Cleary 1999; Haselgrove 2004:25; Hingley 2004; M. Jones 2004:168-70; Millett et al. 2016; T. Moore 2016; Pitts 2010, 2016; Potter and Johns 1992; Rogers 2016; Wallace 2016). This would have had the result of maintaining some social structures, relationships, and divisions among the LIA populations well into the ERP (Todd 2004; Wallace 2014, 2016).

By the third and fourth centuries AD, archaeological evidence for regional variation is apparent in the concentrations of villas throughout the landscape (King 2004; Potter and Johns 1992:84-5). Villas functioned on one level as vehicles for the conspicuous display of private

wealth of the elite, particularly in central southern and south-eastern England (East Anglia, Lincolnshire and the East Midlands), although they appear less frequently in Wales and the northern regions of the country (Henig and Booth 2000; Hingley 2004; King 2004:354; Manning 2004; Millett et al. 2016; Northern Archaeological Associates 2002). Wealth and access to Roman material goods was not limited, however, to regions with villas, for these saw the construction of military sites with well-defined trading networks between garrisons and *civitates* and ports (especially in the north) (Esmonde Cleary 1999; King 2004:356; Mattingly 2006). The proximity of a garrison to a settlement would have substantially affected the social concerns of the civilian inhabitants, the military units acting alternately as an active hub for trade and investment or a relentless burden on local resources (Crow 2004; Hanson 1999, 2004). As the LRP commenced, the cultural divisions throughout the island were hardened/reinforced as financial support from Rome made possible the transformation of the landscape and habitual and material consumption patterns of the military members and civilians (Gerrard 2016; Pitts 2016; Revell 2016; Southern 2004). However, given our knowledge of the disintegrating economic, military, and social control of the island territories during the late fourth to early fifth centuries AD, we must concede its impact on the strength of local civilian and elite relations to Rome's cultural influence, though not necessarily in the same way or to the same degree in every community (Allason-Jones 2016; Copeland 2011; Esmonde Cleary 1999, 2004, 2016; Haynes 2016; M. Jones 2004:187). The transformation of the Roman economy, administrative, and broader socio-cultural ideologies throughout the Romano-British period will now be explored in the context of the archaeological evidence for Roman social and cultural influence in burial practices.



Scholarship focused on the development of local and regional identity has revealed complex connections and diverse responses to the Roman presence and influence in the ERP and LRP (Bush and Stirland 1991; Carroll 2019; Crerar 2012; Harman et al. 1981; McKinley and Egging Dinwiddy 2009; Pearce 1998, 1999, 2000, 2013, 2016, 2017; Philpott 1991; Redfern et al. 2016; Taylor 2008; Tucker 2012, 2014, 2016; Weekes 2008, 2016, 2017). These studies have been made possible largely by the increased use of forensic archaeology and the increased opportunities for regional finds analysis provided by the Portable Antiquities Scheme (PAS) (Champion 2016:152; Crerar 2012; Moore 2009a and 2009b; Sherratt and Moore 2016; Tucker 2014). As an example, work by Redfern (2007, 2009); Redfern et al. (2012), Redfern et al. (2016) and Hamlin (2007) comparing cemetery populations from Roman Dorset and York has revealed noticeably different dental health profiles in each region, which may be interpreted as evidence for distinct regional diets. Redfern also notes that the people of Roman Poundbury were shorter in stature than those buried in the western cemetery of Roman London, again suggesting differences in living conditions and nutritional intake between these two contemporary towns. She concludes that regional variability actually increased in the Roman period compared to the LIA (Redfern 2009; Redfern and DeWitte 2011; see also studies by Cheung et al. 2012; Chenery et al. 2010; Jay and Richards 2007; Meadows 1994; Powell 2014; Richards et al. 2016). Furthermore, Cool's (2007) study of eating and drinking habits throughout the province has been seminal in highlighting the variety of culinary and dietary practices which co-existed in different regions during contemporary periods, indicating a high level of regional variation in food consumption practices (Cool 2004, 2007). As already noted by Redfern and Hamlin, this study has revealed a greater prevalence of dental caries, enamel hypoplasia and cribra orbitalia, in addition to shorter stature, in the population of Poundbury compared to other LRP cemeteries.

Concerning personal appearance and adornment, it has been argued that the regional specificity of certain brooch styles suggests that these were used as visible and deliberate displays of local identity (Allason-Jones 2016; Cool 2016; Crerar 2012:43; Croom 2004; Niblett 2004; Swift 2000, 2010). Such studies into low-level social distinctions are still rare and of different evidential value but suggest that greater diversity existed between local communities than has been previously recognized (Eckardt et al. 2015).

When considering the material evidence recovered by archaeological investigations at larger vs. smaller sites, variations in lifestyle choices are apparent, particularly the adoption/acceptance of Roman cultural practices (feasting, diet, hygiene, etc.). Finds of amphorae and other types of pottery, such as Samian wares and cutlery, are significantly more common in large urban centers than rural settlements, for example (Copeland 2011; Cunliffe 2004:3; Evans et al. 2006; Evans 2016; Fulford 2004; Mattingly 2006; T. Moore 2016). However, while distinctions between large towns and rural settlements are evident, the role of small towns was more complex in Romano-British society (Henig and Booth 2000; M. Jones 2004; Revell 2016). For example, by the fourth century AD some ‘small towns’ such as Water Newton and Ilchester had grown sufficiently in size and economic influence to surpass some *civitas*, with artefact profiles consistent with other large town centers (Esmonde Cleary 2016; Hurst 2016; Millett 2005; Nesbitt 2016; Wallace 2016). Consequently, this evidence for widespread social and cultural diversity throughout Britain must impact how we consider funerary and mortuary practices in different regions of the province, because we know these activities were transformed to varying degrees following intensifying contact with the Romans over time (Brun 2018; Crerar 2012; Philpott 1991). This recognition prompted the approach used in designing and conducting the contextual and regional analysis developed in this thesis. Given

that the scope of this thesis involves an analysis of the archaeological evidence for a particular aspect of mortuary practices in western Britain, we will now move on to review a brief overview of the LIA and Roman cultural connections in the study area.

### **1.7. Roman Oxfordshire and Gloucestershire**

The counties of Oxfordshire and Gloucestershire are located in the geographically diverse south-central and western regions of England, the geology of which influenced the discovery of sites through archaeological investigation (especially aerial photography). As shown in Figure 1.4, the landscape encompassing these two counties shared between them three long-established pre-Roman *civitates* associated with Iron Age *oppida*: the Catuvellauni at *Verulamium* (St. Albans) located in the east, the Atrebates at *Calleva Atrebatum* (Silchester) to the south of the Thames and the Dobunni at *Corinium Dobunnorum* (Cirencester) located in the north-west and western area of Gloucestershire (Allen 2000:31; Copeland 2011; Cunliffe 2004; Cunliffe and Miles 1984; Esmonde Cleary 1999; Henig and Booth 2000:34; M. Jones 2004:163; Rogers 2016, 2018:6-8; Salway 1993:33-5, 69; Wallace 2016).

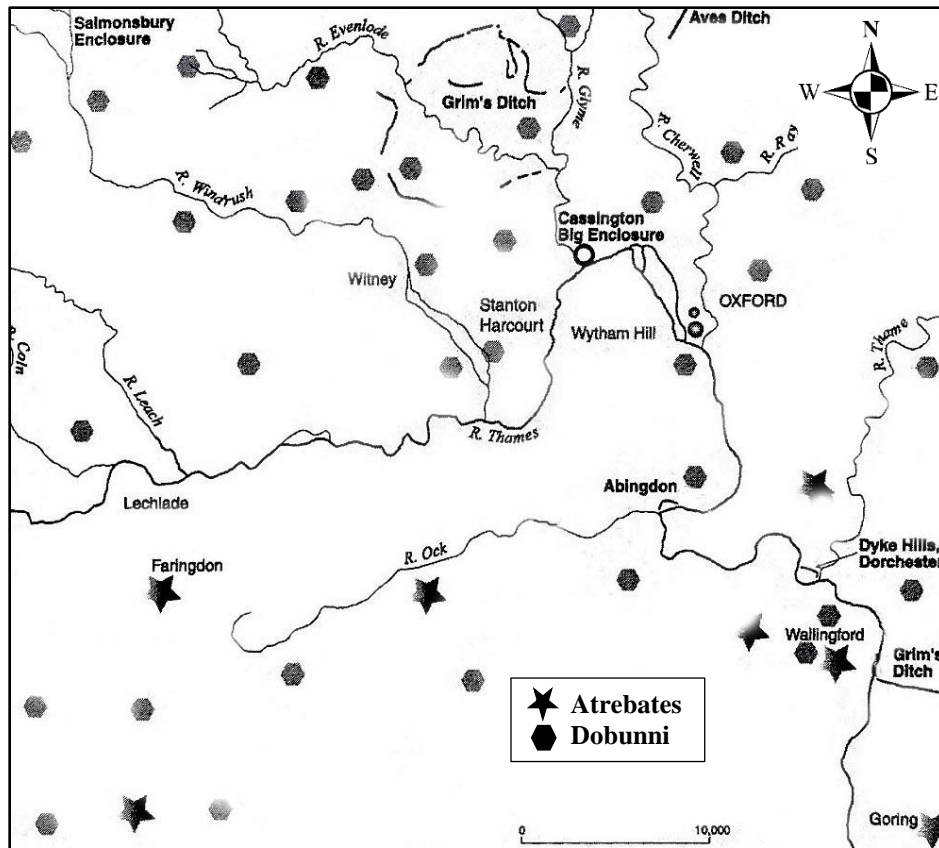


Figure 1.4. Map showing forts and linear dyke systems in relation to coinage distributions of the Dobunni, the Atrebates and Cunobelin of the Catuvellauni (adapted from Allen [2000:31, Fig. 1.15]; modified by author).

*Oppida* were large settlements that served religious, industrial, agricultural and domestic functions, all of which can be spread over a wide area which is often outside that enclosed by the earthwork dykes (Copeland 2011:19-20; Champion 2016; Cunliffe 2004; Hingley 2004; King 2004:355; Rogers 2018:8). The large *oppida* complexes of North Oxfordshire, such as Grim's Ditch, Bagendon and Weston-under-Penyard, may have been erected as the result of newly developed systems of political and economic exchange and growth in both local and foreign commerce during the LIA (Allen 2000; Potter and Johns 1992:82-4; Rogers 2018:6; Salway 1993:17). There are indications that LIA elites emulated both the La Tène III Belgic style and similar Continental Roman practices in terms of fine dining, importing wine and table ware as well as producing coinage that could have been seen as ways of establishing and affirming their

positions without establishing a new site (Evans 2016:518; Fulford 2004; Haselgrove 2004:18-9; Rogers 2018; Salway 1993:11-3, 60). As the power of elites was based on the funds from long-distance trade, there probably were markets operating in a variety of places, and new ones were constructed at *Corinium* to replace them (Copeland 2011:66; Potter and Johns 1992). By embracing the Roman occupation early in the first century AD, much of Oxfordshire and Gloucestershire largely avoided major military conflict, unlike the Iceni in AD 60 to the east, and later, populations in the north during the LRP (Copeland 2011:28-30, 66; Crow 2004; Hanson 2004; Henig and Booth 2000:35; Maxwell 2004; Salway 1993:44, 80-6, 168-71).

Given the increasing evidence for the retention of cultural connections between indigenous and Roman populations during the LIA and ERP transition in Britain, we may interpret those behaviors and choices as ways to express and negotiate cultural and social identities in local contexts (Rogers 2018:12-3). The construction and use of the various funerary sites, cemeteries included, were an important part of the landscape around (and at times within) the settlements throughout Britain and would have communicated the distinctions between indigenous and Roman funerary practices. The following section will explore the development of settlement organization in conjunction with burial trends throughout the Romano-British period, and the challenges of interpreting the mortuary data within the varied settlement contexts.

### **1.8. Settlement and Burial Archaeology in Roman Britain**

The size of a settlement did not necessarily dictate the nature or organization of its cemeteries, particularly as settlements grew, transformed, and were dissolved in the course of the Romano-British period. Settlement in Roman Britain has received considerable attention as a key means of understanding economic infrastructure, provincial administration and military encounters (i.e., Cunliffe 1995, 2005; Haselgrove 2004; King 2004; M. Jones 2004; Todd 1999,

2004). In discussions of the growth of settlements from the transition of the LIA to the ERP, a standardized system of categories has been created to denote some of the different settlements across the Roman Empire. Some of these categories have retained the Roman designations *colonia*, *municipia* and *civitas*, while other terms, such as small towns or villas, have been identified based on modern archaeological criteria (M. Jones 2004; King 2004:349; Rogers 2018). *Coloniae*, *municipia* and *civitas* capitals, known collectively as ‘large towns’, describe urban centers established through Roman intervention (in the case of *colonia*) or a combination of Roman and indigenous choices to create a community, a process initially used in the ERP to facilitate the administration of the province and later used to settle military veterans (Cunliffe 1995, 2005; Haselgrove 2004; M. Jones 2004:166-9; Potter and Johns 1992:81; Wallace 2016; Wachter 1995). ‘Small towns’ is the term used to refer to any other urban site with less evidence formal planning but with evidence of built or maintained architecture with Roman features, and an administrative infrastructure linked to Roman governance (Revell 2016; Rogers 2016, 2018). Settlements with low population density and evidence for an agricultural market economy are referred to as a ‘rural settlement’ (Hingley 1991, 2004; M. Jones 2004; Millett et al. 2016; Pitts 2016).

These distinctions in settlement type are problematic, in particular when discussions of the spaces for the dead are correlated to a settlement category/type or size with an assumed status for the dead or set of expected finds. In the absence of context derived from the analysis of the burial population, such designations may misrepresent the importance of some sites and by association the interpretation of funerary practices, rituals, and the social identities of the dead may be skewed. Studies of large ‘managed’ cemeteries around large urban towns (Lankhills, Winchester, for example [Clarke 1979]), have found that those cemeteries may be substantially

more varied in their mortuary practices compared to burials associated with settlements traditionally classed as ‘small towns’, ‘nucleated rural settlements’ or any other settlement category designated mainly based on size or economic infrastructure (Pearce 1999; Rogers 2018:12). Studies suggest that the classification of a burial context based on its geographic association with a nearby settlement is not heuristically useful when creating a methodology to conduct bioarchaeological or mortuary analyses of a cemetery population (Aspöck 2009; Harding 2016; Keegan 2002; Philpott 1991; Whimster 1981). Variations in burial behavior throughout Roman Britain raise questions about the categorization of burial patterns that are currently defined by region, particularly the normative vs. non-normative or deviant labels, as those burial contexts may have been indirectly affected by associated settlement categorization, resulting in a view of settlement, lifestyle, and burial trends that homogenizes the lived experiences of the Romano-British population (Aspöck 2008, 2009; Crerar 2012:51).

What evidence there is for burial at rural sites is highly variable but where organization in ordered cemeteries is not observed, this is not necessarily the result of a more informal approach to death or the disposal of the deceased. Pearce’s work (Pearce 1998, 1999, 2000, 2002, 2016) has emphasized the significance of isolated burials, particularly of infants, echoed by Dixon (2002) and Scott (1999) in their research around rural settlements. Pearce argues that the consistent locations of infant burials indicate that they reflect an intentional representation of that specific population in liminal spaces meaningful to the community as those contexts may recall the past as well as the present – an invocation of a particular quality of mourning, remembrance, and veneration of ancestors in Roman society rather than a representation of low status (Pearce 1997, 2000, 2017). Indeed, it is very unlikely that the individuals buried in large cemeteries (or vice versa) represent only the residents of the closest urban settlement (Casa Hatton 1999).

Based on pathology and trauma evidence in the burial population of Poundbury in Dorset, Molleson (1992, 1999) and Redfern et al. (2015) have shown that this population was engaged in agricultural labor, and yet were buried in this urban cemetery (Harman et al. 1981; Jennings 2017). The analytical danger posed by overlooking this fact is revealed in previous studies where settlement categories of urban vs. rural vs. villa vs. small town cemeteries (or isolated deposits) created homogenized views of those populations, their exposure to Roman influence, and presumed sense of belonging. This point is particularly cogent given the ethnic and social diversity of the LRP population in Britain revealed by recent isotope and aDNA studies (Leach et al. 2010; Millett 1990; Montgomery et al. 2011; Pearce 1998, 2002; Redfern and Roberts 2005; Swift 2010).

There are many ways to avoid these categorical and type site issues when conducting a burial analysis, a point that was highlighted in the work of Pearce (2013) in *Beyond the Grave: Excavating the Dead in the Late Roman Provinces*. Pearce suggests the path forward is to systematically analyze burial practices (particularly by incorporating bioarchaeological and forensic osteological data) in the context of the known systems of burial in particular settlements or regions rather than to assume that the significance and meaning of burial forms and treatment patterns was uniform through time and space. This idea underpins the methodological approach applied in the intra- and inter-site analysis developed for this thesis, which combines qualitative and quantitative analyses of burial patterns in the study area of western Britain and compares the mortuary patterns there to those in southern and eastern Britain (see Crerar 2012, 2016; Tucker 2012, 2014, 2016). This makes a more nuanced interpretation of the communities practicing complex rituals, including decapitation, during the LRP, possible.

## **1.9. Regional Burial Trends in the Late Iron Age and Romano-British Period**



Previous studies on the mortuary practices and treatment of the dead in Britain have revealed evidence for significant internal and geographic regional variation during the entirety of the British IA. The identification of these IA burial traditions stems initially from large surveys and gazetteer reports completed by Whimster (1981), Wilson (1981), and Wait (1985) that were documented in the annual reports of archaeological societies during the 1970s, 1980s and 1990s. During the EIA (800-400 BC) and MIA (400-100 BC) in Britain, the most common method of disposing of the dead was excarnation or exposure accompanied by a secondary burial trend of placing skeletal remains in pits in settlement areas, including hillfort ramparts and enclosure ditches (Booth and Madgwick 2016; Carr and Knüsel 1997; Collis 1977:26; Esmonde Cleary 1992:29; Harding 2016; Lally 2008; Wait 1985; Whimster 1981:27-8; Wilson 1981). In particular, burials of neonates and infants are disproportionately found within settlement sites, and account for the majority of known EIA to MIA ditch burials. The practice of cremating the dead appeared at the end of the second century BC in southeastern areas of England, becoming established during the first century BC and supplanting inhumation as the predominant burial rite in central and southern regions (Fitzpatrick 1997:208; Haselgrove 1997). Known as the ‘Aylesford-Swarling’ culture, the typical burial consisted of an urned cremation accompanied by grave goods including local and imported pottery as well as items associated with personal appearance, such as brooches, dress accessories, tweezers and nail cleaners (Champion 2016:159; Haselgrove 1995, 2006; Hill 1997:98; Niblett 2004:30; Stead and Rigby 1989).

Another burial type belonging to the Aylesford burial tradition, referred to as the ‘Welwyn’ type, is predominantly found north of the Thames and mainly involved cremation in a large rectangular timbered pit or vault known as a *bustum*, accompanied by extensive grave goods related to feasting and drinking (Esmonde Cleary 1992:29-30; Fitzpatrick 1997:208; Giles

2016). For example, at Welwyn Garden City, Hertfordshire, the ‘Welwyn’ burial type site included five amphorae, an imported silver cup, three bronze-bound wooden containers, a bronze bowl and strainer, a knife, 36 imported and local pottery vessels and a set of glass gaming counters (Niblett 2004:31). Regional variations in the ‘Aylesford’ cremation rite suggest possible immigration of people into southern Britain from Gaul in the first century BC (Champion 2016:160; Hawkes 1968; Rodwell 1976; Whimster 1981). However, after reanalysis of the burial contexts in question, the ‘Aylesford’ rites are now thought to represent an insular trend that was a part of a broader mortuary process with contemporary, and possibly earlier MIA, local manifestations in which concepts of identity and status were negotiated differently in different regions of Britain (e.g. chariot burials or sword burials in Yorkshire, Cornwall, Devon, or Dorset for example) (Hill 1997; Hill et al. 1999; Niblett 2004:38; Pearce 1997; Whimster 1981:155-61).

Many regional burial trends are found across the island during the LIA, although some rites were more visible than others in the archaeological record. The extended inhumation burial trend accompanied by weapons and pottery, and the practice of unaccompanied crouched burials in pits and ditches is found across much of eastern (Greater London, Essex, and Sussex) and southern Britain (Dorset) (Esmonde Cleary 1992:29; Hamlin 2007; Redfern 2008a and b; Whimster 1981). Other regional burial trends will be discussed below. In the southwestern region of Britain in Dorset and Cornwall, for example, crouched inhumations in stone-lined flat graves (cists) with pottery, jewelry and food offerings were the most common form of disposal (Whimster 1981:37-59). In the northern counties of Yorkshire, Cumbria and Humberside, in the Arras Culture burial tradition the deceased were predominantly laid in a crouched position within square barrow enclosures or ditch inhumations accompanied by chariots, animal remains, pottery, beads, and metalwork produced locally in the British La Tène style (Bevan 1997,

1999:7; Brun 2018:15; Esmonde Cleary 1992:29; Giles 2012, 2016; Parker Pearson 1999a; Rogers 2018:12; Stead 1975, 1979, 1991; Whimster 1981:75-7, 87-97, 194). A comparison of a distribution of select British IA mortuary practices and Romano-British period decapitation burials shows that the latter is more widespread despite being concentrated mainly in the eastern, central, and southern regions of England, with clusters around larger cities (such as York (*Eboracum* during the Roman period) in the northern region (Figure 1.5).

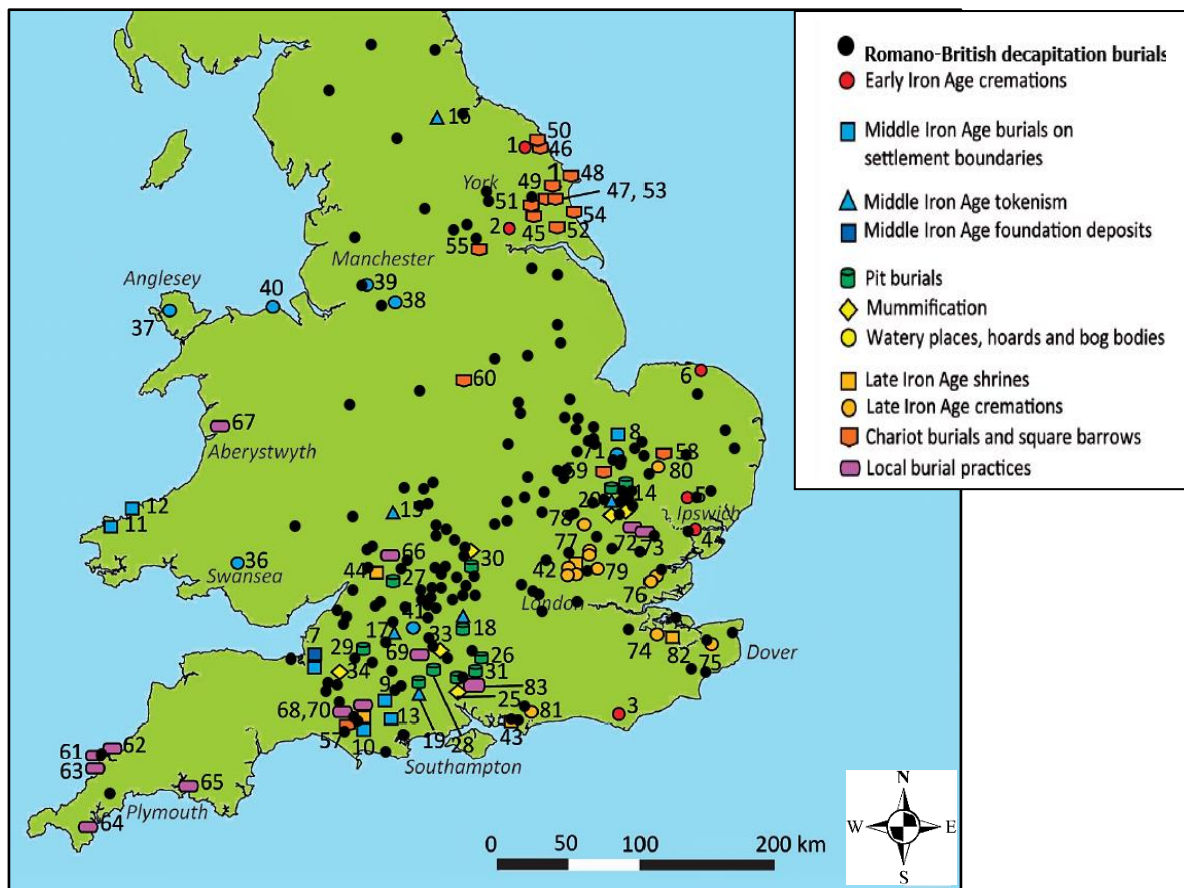


Figure 1.5. Distribution map of select British Iron Age mortuary practices and Romano-British period decapitation burials (adapted from O'Brien [2014:27, Fig. 1]; modified by author).

In Roman Britain, there was a widespread shift from exposure, excarnation, and cremation burials to extended inhumation burials and commemoration in formal cemeteries and along major roadways during the second century AD. A decline in the deposition of grave goods and mortuary inscriptions is generally seen during this time (Keegan 2002:3-4; Pearce 2010:82).

By the second century AD, urned cremation had become the dominant burial rite, although the practice of crouched or cist inhumation continued in the southern, southwestern, western, and northern regions, particularly associated with smaller towns and in rural contexts (Philpott 1991:8). With the transition to cremation came a wider variety of material culture as grave goods, including personal ornaments, toilet equipment, shoes, coins, lamps and glass bottles (Esmonde Cleary 1992:31; Philpott 1991:8). The first two centuries of Roman Britain saw the establishment of formal urban cemeteries on the outskirts of the new towns, and a corresponding increase in visible burial practices in rural areas (Esmonde Cleary 1992:31). During this period, infants began to appear in formal cemetery contexts on the periphery of cemeteries, either within boundary ditches or clustered together in defined areas (Farwell and Molleson 1993; Pearce et al. 2000:136; Philpott 1991:98-9).

By the late second and early third centuries AD, inhumation cemeteries dominated at rural, villa and urban sites, while cremation burials were more common at minor centers (Pearce 1999:26). The inhumation tradition is best represented in southeastern and southern Britain, extending to the northeastern counties through Lincolnshire (Hamlin 2007; Pearce 1999; Stead 1979), while the most poorly represented regions are those in northern and western Britain (Pearce 1999). Despite this general shift, cremation practices persisted in two regions of Roman Britain: 1) the southeastern counties of West Sussex, Essex, Kent, Surrey, Suffolk, and Buckinghamshire, and 2) the northwestern counties of Cheshire, Derbyshire, Cumbria, and Shropshire (Pearce 1999; Philpott 1991). By the third century AD, cremation burial rites began to be replaced by inhumation burials more broadly across Britain, and inhumation is the dominant rite by the early fourth century AD. Within urban contexts, ‘managed’ cemeteries containing inhumations of all age groups became the norm, consisting of supine, predominantly

east-west confined burials with few or no grave goods (Bello et al. 2006:27; Esmonde Cleary 1992:34; Philpott 1991:53; Stirland 1999:6; Toynbee 1971:40).

Another feature of Roman urban cemeteries is that they are more likely to exhibit burial trends from other areas of the Empire; for example, the use of lime or plaster on the body, the use of coffins of stone or lead and the use of tombstones, none of which are features of indigenous mortuary practice (Mattingly 2006:478; Philpott 1991). Occasionally the reasons for such variations may not be related to different forms of identity expression through burial but may have a functional explanation. For example, the distribution of stone-lined cists closely follows the Jurassic limestone belt, which diagonally transects Britain from western Dorset in the south to the Tyne and Wear Rivers in the north (Philpott 1991). This implies that the availability of different natural resources impacted funerary practices in certain geographical regions and alerts us to the need to consider the individual circumstances of the community and wider region when interpreting funerary behavior. In contrast to the urban centers, Roman rural contexts included both cremation and pre-Roman traditions of inhumation. Evidence also suggests that excarnation, decapitation, crouched, and prone burials in ditches, isolated deposits, and cemeteries within or near settlement sites may reflect a more culturally conservative indigenous identity (Mattingly 2006:478-9; Moore 2009a:36-7).

Despite the large numbers of mortuary studies that reveal a great degree of diversity in burial practices, it has been assumed that, by the late third century AD, the disposal of the dead throughout Britain had become largely homogenized under the banner of 'Roman' practices (Pearce 1999; Philpott 1991). It is certainly the case that inhumation was widely adopted after the second century AD; however, diverse practices within and between communities contradicts a superficial view of 'Roman' or 'Romanized' burial practices and funerary rituals as overriding

LIA and ERP local or alternate regional mortuary practices (Philpott 1991:111). Indeed, by the LRP the variation in mortuary practices within and between communities, large, small, rural, urban, and everything in-between, implies that deliberate selection and engagement was the norm, with complex and flexible social systems using the dead to mark a specific status or identity situated within that time and place (Pearce 2013, 2016; Pearce and Weekes 2017). When the contextual evidence drawn from burial data is considered in greater detail, regional differences do become apparent in the burial patterns of the LRP. This thesis focusses on those components of mortuary activity related to decapitation burials from sites in western Britain in order to consider what those activities might be able to tell us about the role of bodies and violence as aspects of cultural expression and conceptions of social identity more generally.

## **1.10. Conclusion**

### **1.10.1. Contributions of the Thesis**

This study represents the only in-depth analysis of decapitation burials in western England during the LRP that examines bioarchaeological, taphonomic, and funerary variables on an inter- and intra-site basis and compares these contexts to the results of regional studies of the practice in northern, southern, and eastern England. This thesis utilizes published and unpublished reports and archival data, some of which were included in previous studies (Crerar 2012; Harman et al. 1981; Philpott 1991; Tucker 2012, 2014) but most of which are excavation reports that describe in detail extensive find contexts without necessarily putting them into a larger comparative framework. The data analyzed here augment our understanding of the deployment of this practice in western Britain specifically and in Roman Britain more generally. One of the primary goals of the thesis is to investigate whether communal membership marking was the main reason for decapitation of particular individuals, or whether fragmentation

activities were utilized into the LRP as a primary method of disposing of the dead as a continuation of LIA practices in the study region. The spatial analysis of the decapitation burials has shown that relationships between the living and victims of decapitation and fragmentation practices were maintained to varying degrees and challenges the idea that decapitated individuals were more likely to be buried in isolated deposition contexts or suffered increased levels of intentional disarticulation or corpse mutilation compared to the non-decapitation burial population. Overall, only a small percentage of the decapitation burials received treatment distinctly different from the main burial population, which suggests few were ostracized or associated with a negative connotation. The primary motivations for decapitation in the majority of cases appear to have been associated with execution, *poena post mortem*, and preventing the dead from rising.

A primary contribution of this study is the methodological approach taken to assess each decapitation burial in turn in terms of the mortuary contexts and inclusion of bioarchaeological data, which allowed for the identification of a main burial group and an atypical sub-group. Individual assessments of each decapitation burial further allowed for identification of those specific variables that may have differentiated an individual from other decapitation and non-decapitation burials in the study sample, and showed, importantly, that no specific variable automatically distinguished the individual as an outlier associated with a deviant social status. Defining the mortuary treatment patterns for each burial made it possible to outline the primary funerary structure for the region, and contexts from each decapitation burial could be compared, revealing variations in the death processes in the study region (disputing this area as a part of a ‘deviant burial zone’). A significant finding of this research is the fact that most decapitation burials were provided similar mortuary treatment overall compared with the non-decapitation

burial population. This result suggests that the decapitation rite was not reserved for one specific group or type of individual, but rather was a tool used pre- and post-mortem, with little regulation, in a suite of contexts that were engaged with by the living primarily in the modification, deposition, and commemoration phases of the funerary structure during the LRP in western Roman Britain.

In addition to adding to our knowledge of the archaeological documents and skeletal collections, the analysis of these data contributes to studies of violence, ritual/religious practices, and social organization in the discipline of archaeology as well as forensics and medical/clinical studies. More broadly, this study illustrates the importance of analyzing these data from a multi-scalar approach to avoid perpetuating the idea that the decapitation act was deviant or negative in nature. In large part, this is due to our own cultural bias and response to these forms of killing and body processing, which are considered non-normative in contemporary contexts.

### **1.10.2. Organization of the Thesis**

This introductory chapter has presented a review of the history of cultural change in Britain from the LIA through the LRP, especially as they are reflected in mortuary practices and burial contexts, as well as a brief history of archaeological investigations in Oxfordshire and Gloucestershire.

Chapter Two provides a review of the literature related to the study of mortuary archaeology, identity studies, the body as material culture, violence in Roman society, a review of life course and osteobiography theories and the ways in which these have been applied to analyze and interpret bioarchaeological, taphonomic and mortuary data. Lastly, a brief synthesis of the previous studies of decapitation burials in Roman Britain is outlined.



Chapter Three outlines the methodology employed in this study of the bioarchaeological, taphonomic, and mortuary evidence for decapitation in the inhumation burial record in Oxfordshire and Gloucestershire. The analysis was designed to clarify the ways in which data from the western region of Britain may be evaluated through a combined qualitative and quantitative statistical analysis to address questions regarding aspects of social organization and identity construction during the LRP. This chapter also provides the reader with the methodology developed by Tucker (2012) to distinguish between different types of decapitation and explains the typology employed in Chapters Four and Five for identifying the different forms of decapitation evident in the archaeological record.

Chapter Four presents the results of these analyses and addresses the main and secondary research questions in turn. Questions related to the homogeneity of mortuary practices are addressed following the analysis of the data placing individuals into the cultural contexts of the communities to which they belonged in western Roman Britain. The regional approach adopted here follows the work of Crerar (2012) in order to ensure comparability of results while expanding on the definition of temporal and cultural characteristics of the funerary structures and practices of this part of the Roman Empire. The key aim of the chapter is to provide a usable framework for the interpretation of the material and skeletal evidence from the region, which is then employed to investigate whether there are similarities or differences in mortuary treatment of decapitated individuals and non-decapitated individuals in western Roman Britain and other areas of the island, providing a clearer picture of how the former were conceptualized.

Chapter Five discusses the archaeological identification of decapitated burials and outlines patterns of similarity and differences identified in the mortuary behavior, comparing these to the non-decapitation population with the aim of contextualizing those findings for

comparison with other regions in the country. The aim of the chapter is to present a summary of the data presented in Chapter Four and discuss what these data tell us about changing patterns of mortuary behavior and social organization in western Britain during the LRP.

Chapter Six presents a summary of results, provides concluding remarks with regard to the funerary activities revealed within the 44 sites selected for analysis as well as the other regions researched by previous scholars, and suggests possible future research directions relating to the topics of decapitation, violence, and mortuary practices in Roman Britain.

## **Chapter Two: Literature Review**

### **2.1. Introduction**

Archaeologists from around the world have used a range of methodologies and epistemological approaches to interpret material culture and skeletal remains recovered from archaeological sites for more than a century. Mortuary studies, born out of the efforts of early antiquarian archaeologists to make sense of archaeological sites and finds related to the disposal of the dead, including burrows, burials, ossuaries, catacombs, and tombs, have grown over time to include a greater emphasis on explaining how death related phenomena, such as the disposal of individuals outside accepted normalized contexts, may be linked to knowledge systems linked to religion, social organization, economic cooperation, law, or other socio-ideological concepts. Advancements in scientific inquiry and methodological practices in archaeology and similar disciplines have enhanced our ability to critically examine material and skeletal remains and ground those findings in their geospatial, temporal, and ideological contexts, while remaining aware of our own modern analytical filters and biases.

Given the historical concerns about imposing our own subjective understanding of the world onto the past, this project draws on those thematic developments, exploring how they have shaped the study of human populations in Roman Britain, and contributing a contextualized interpretation to the study of decapitation practices, violence, and identity in mortuary contexts in the Roman world. In order to situate the current study in its larger historical context, the literature review that follows highlights the theoretical and methodological practices in archaeology as a whole and the subdiscipline of mortuary archaeology specifically. This chapter provides a summary discussion of the theoretical and methodological approaches to the study of

identity, the body, and violence in Roman culture. Lastly, a brief overview of previous studies of decapitation in Roman Britain is presented that provides the foundation for the comparative analysis that is the focus of this thesis.

## **2.2. Theoretical Approaches in Mortuary Archaeology**

Many influential studies from the nineteenth century, such as the work of Adolf Bastian (1860), N.D. Fustel de Coulanges (1901), and E.B. Tylor (1866, 1871, 1878), focused on the universal and evolutionary experiences of religious practices and behavior, as well as belief in the afterlife. Tylor's interpretation of the uniformities of belief in a soul, an afterlife, and fear of the dead in all societies helped lay the groundwork for the cognitive structural approaches that would develop in the decades to follow in anthropological schools of thought. Although their interpretations of the meaning and application of these cultural practices differed, those studies offered later anthropologists opportunities for debate and further interrogation through ethnographic study in the course of the twentieth century. Early archaeologists, such as John Lubbock (1882), contributed to the studies of structural and unilateral religious development by synthesizing travelers' accounts and ethnographic data (Carneiro 1973:99 [cited in Bartel 1982]). However, unlike those earlier studies, Lubbock presented descriptions of burial treatment and grave goods in relation to religious beliefs; his work represents one of the earliest attempts to interpret burial practices in terms of the status of the individuals using an early form of statistical analysis in tandem with a qualitative analysis (Lubbock 1882:285-6; 1900:134-43 [cited in Bartel 1982]). He acknowledged that identifying variability is key to understanding the vast differences in mortuary practices reported worldwide.

Numerous studies beginning in the late nineteenth century built on these works with greater emphasis on the classification and chronology of the material and architectural remains

uncovered (Frazer 1886; Robertson 1889; Spencer 1876; Worsaae 1843, 1849 [cited in Bartel 1982:34-42]). Early twentieth century archaeologists established more formal systematic excavation techniques and methodological approaches to the study of past populations in response to those earlier efforts to organize and typify material and skeletal remains (Chapman et al. 1981). New interpretations of socio-cultural responses to death-related phenomena developed within different schools of thought during the early twentieth century at universities located in both the United States and Europe, with notable contributions by A.R. Radcliffe-Brown (1922), Bronislaw Malinowski (1925), Raymond Firth (1967), and Max Gluckman (1962) in the British social anthropology tradition, and Emile Durkheim (1965 [1915]), Robert Hertz (1960 [1915]), Arnold Van Gennep (1960 [1908]), and Marcel Mauss (1924) in the French sociologist tradition.

The British structural-functionalist anthropologists, influenced by early antiquarian efforts to establish the study of archaeology within the expanding academic scientific spheres, sought to link mortuary behavior not only to the social functions of group membership and identity, but to the individual biological desire for self-preservation and emotional expression (Malinowski 1925/1944:73-4; Radcliffe-Brown 1922:287 [cited in Bartel 1982]). In this view, both the individual and the collective systems are intertwined, and a mortuary event represents a space for the biological and social needs of the community to be observed and parsed further for analysis and interpretation. The French sociological tradition considered the ways mortuary practices are interlinked within the social system of different cultures and highlighted the need to understand mortuary behavior contextually, as each individual's role within the practice represents a unique means of coping with death within a collective and transitional system. These points were developed further in the studies of Van Gennep and Durkheim, each of whose work dealt with the creation of culturally specific mortuary practices that served to maintain

stability and cohesion within the community's social system. Max Gluckman (1962) criticized the lack of depth in the analysis of the social relationships and ritualization discussed in Van Gennep's study, arguing that researchers should consider the different ways both the individual and the collective have overlapping connections and roles that may not present themselves clearly in the mortuary behavior associated with the separation, transition and reintegration process (Gluckman 1962:5-34 [cited in Bartel 1982]).

The ethnographic works of the early twentieth century continued to shape the themes of mortuary themed research during the 1930s-1960s. In an effort to build on the classification systems developed during the late nineteenth and early twentieth centuries, new interpretations of cultural practices were put forth influenced by the rising nationalist influences of biological determinism, social Darwinism, European imperial leadership, and developments in the physical sciences, including eugenic studies. New consideration was given to the mode and methods by which cultural practices developed within and between cultures over time, particularly diffusion of material culture, and how those materials could be used to recognize and distinguish ethnic groups and foreign immigrants in the archaeological record (Chapman et al. 1981:3; Trigger 2006). Influential works associated with the culture-historical approach include seminal publications by V. Gordon Childe (1929, 1945, 1956), A. L. Kroeber (1927) and Franz Boas (1940), among others. Many of the archaeological interpretations of large-scale population movements incorporated and built upon Gustaf Kossinna's (1911) *Kulturkreis* concept, which posited that archaeologically distinct cultures were congruent with specific regions based on associated artifact types and assemblages (Hamlin 2007:8). When changes in material culture were present, this could be explained through mechanisms of diffusion and trade (Chapman et al. 1981; Trigger 2006:148-205). Childe posited that burial rites were an especially useful tool for

the identification of archaeological cultures and ethnic groups because the artifact groups reflected local tastes that were resistant to change and the shared similarities in recovered material culture were emphasized in a culture's mortuary practices. Unusual burials might have been those of immigrants, or, in other cases, signs of 'foreign rituals' introduced by chiefs from another culture (Childe 1929).

In the late 1960s and 1970s, a number of archaeologists began calling for more formalized theoretical and methodological themes grounded in hypothesis testing to be developed for the investigation of archaeological sites and collections. This paradigm shift became known as the New Archaeology, or processual archaeology, and it sought to illuminate social conditions and systems and the stages in the evolution of socio-political complexity, from egalitarian tribes to hierarchical chiefdoms and states in the past (Fried 1967; Sahlins and Service 1960; Service 1962). Archaeologists became more aware of the works of sociocultural anthropologists concerning mortuary practices at this time and began to use those perspectives to develop a more systematic approach towards data recovery and collection, as well as the scales of analysis, in challenging earlier approaches to interpreting mortuary contexts (Bartel 1982:47; Ucko 1969). Ucko's study revealed the inherent analytical issue of equating burial methods and grave good allotment with the presumed status of the deceased or belief in the afterlife (Ucko 1969:263-4). Other important mortuary studies by processual archaeologists include those by Lewis Binford (1971), James A. Brown (1971), Andrew Fleming (1972, 1973), Colin Renfrew (1973) Arthur A. Saxe (1970), and Joseph Tainter (1975, 1978). The predominant theme explored in these works was concerned with shifting away from the use of mortuary data for constructing cultural chronologies, to the use of ethnographic analogies and quantitative analysis

to study the social context, and social personae, of death and the dead in society (Aspöck 2009:8-9; Bartel 1982:48-55; Chapman 2013; Deetz and Dethlefsen 1971; Hamlin 2007:10-2).

Lewis Binford contributed by challenging the previous culture-historical perspective, especially the work of Kroeber (1927), which viewed archaeological cultures as bodies of customs of socio-cultural traditions that were uniform and varied in their interactions with other cultures (Binford 1972: 217-9). Binford proposed that social phenomena were symbolized through ritual acts in mortuary practices, specifically the social persona of the deceased (a composite of the age, sex, social position, social affiliation, location and contexts of death) and the composition of the social unit in the community. In his study of the ethnographic samples drawn from the Human Relations Area Files (HRAF) Binford concluded that the pattern of variation in mortuary practices was determined by the social situation and complexity of the social system in question (Binford 1971:15-7). In cases where the dead experienced a peculiar death, Binford acknowledged that they might be treated as members of a post-mortem social unit, and their burial treatment would be appropriate to the group as defined by the living, perhaps at the expense of the recognition of other components of their social identity (Binford 1972:226). Binford's cross-cultural examination of ethnographic case studies revealed that the variability in mortuary practice could be studied by dividing the components into ritual and technical components to identify the links between the symbolic approval of funerary behaviors and the social referents of the deceased (P. Biehl 2010; Binford 1971:16; Chapman 2013).

Saxe's thesis *The Social Dimensions of Mortuary Practice* (1970), offered some of the first comprehensive theoretical perspectives of the processual theme applied to the individual's burial rites within the larger context of the social hierarchy and socio-political complexity of a given society. Drawing on ethnographic case studies, Saxe's approach suggested that mortuary



behavior should be examined within the context of the larger social system, particularly the links between social organization, evolutionary change and the disposal of the dead (Saxe 1970). Like Binford (1971), Saxe suggested certain circumstances in the life or death of an individual could alter the mortuary treatment afforded by the living in the community – Saxe refers to this as their ‘duty relationship’ (Saxe 1970:10-2) – and in those instances, the *deviant social persona* is referred to and consequently the deceased will not be subject to normal funerary treatment but rather handling procedures appropriate to their category of deviancy. In the study of different kinds of *deviant social personae*, archaeologists should expect to see less divergence in the mortuary treatment if the society had a “simpler sociocultural system”; however, this hypothesis proved difficult to test against the datasets used by Saxe in his analysis (Saxe 1970:118). It would not be until the work of Pader (1980 and 1982) and Shay (1985) that quantitative burial analyses would attempt to test this hypothesis.

Early archaeological literature shows that initially there was a lot of doubt regarding whether deviant or unusual burials result from deliberate or intentional burial practices on the part of community members burying the dead (Becker 1963). Antiquarian literature suggested that individuals buried in prone or exposed contexts had undertakers too drunk or too lazy to bury the dead in formal ways (Leeds and Harden 1936:30; Rolleston 1869:477), for example. Prone burials were investigated more closely as well and some studies suggested that this kind of evidence could result from soil movements connected with the decomposition of wooden structures at some time after deposition (N. Reynolds 1988). In these later studies archaeologists began to claim that though post-depositional processes must be taken into account, and some cases are indeed ambiguous, body positioning or manipulation can be a deliberate part of the

burial ritual (Chapman 2010; Chapman 2013; Crerar 2012; Hirst 1985:38-43; 1993:42-3; Murphy 2008; Nilsson Stutz 2003:131-59).

Saxe's position on differential treatment at death relates in some ways to the views put forth by Brown (1971) wherein mortuary practices and behaviors distinguish mortuary populations within and between regions, providing a heuristic perspective from which, archaeologists may be able to identify the social identity of the deceased. Building on these points, Tainter (1975, 1978) conducted his mortuary studies utilizing systems theory models that suggest the level of energy expenditure in the mortuary treatment of the deceased is correlated to rank (Tainter 1978:125). Efforts to explore mortuary variability and differentiated burials through increased application of quantitative methods in archaeology included an emphasis on differentiation, with deviation used to imply elements of mortuary behavior that were statistically outside the defined norm (Aspöck 2009:11; Murphy 2018). However, attempts to remain analytically objective were not always successful, which resulted in a biased application of the term 'deviant' or 'deviancy' throughout the 1970s and beyond (Murphy 2018; Prus and Grills 2003). According to Saxe (1970:10-1), "... 'deviance' defines the ego as having breached the rights/duties relationships with alter egos and hence brings an end to normal reciprocity, a 'deviant' life and/or death would elicit only the social persona culturally congruent with that deviance..." (Saxe 1970:10-1). This is problematic if archaeologists wish to examine the social relationships between the living and the dead, the process of death and dying, and the larger social system (Erikson 1975; Murphy 2008, 2018; Pader 1980; Shay 1985:222).

The term 'deviant' has been used by archaeologists as a term to denote degrees of variation in more than one dimension when compared with the dominant theme of mortuary traditions (body position or treatment, location or construction of the grave/site, grave type, or of

grave goods) characteristic of specific cultures in particular regional and temporal contexts (Aspöck 2008:17; Chapman 2010:32; Leggett and Damman 2018; Pader 1980, 1982; Taylor 2008:92; Tucker 2012). As a heuristic device, the term deviance has been used in European archaeological literature (our focus here will be on Anglophone literature) as a catch-all term referring to ‘inappropriate’ expressions of behavior. Ellen Jane Pader’s (1980, 1982) studies on Anglo-Saxon burials was the first to advance the theoretical and methodological approaches used to interrogate the variability encompassed by the term “deviance” as applied to mortuary contexts (Aspöck 2008, 2009; Crerar 2012; Leggett and Damman 2018). Pader argued that mortuary practices reflect ideal social realities rather than reflecting the social system directly. Her work focused on the arrangement of the body and position of grave goods and emphasized the fact that archaeologists should not assume a negative identity of the dead nor view the symbolic order as directly reflected in the mortuary record. The concept of deviance has also been utilized to acknowledge the need to reassess the idea of non-absolute, culturally specific, burial contexts in the archaeological record (Aspöck 2009; Pader 1980, 1982; Shay 1985).

Processual studies in the late 1970s and early 1980s continued to improve on methodological techniques for investigating mortuary behavior. Important works by Buikstra (1976); Chapman et al. (1981); Goldstein (1980); O’Shea (1984); Peebles and Kus (1977), Rathje (1970); Schiffer 1987; and, Shay (1985), ushered in both new perspectives on cultural processes, and criticisms of earlier processual approaches to mortuary studies (Chapman et al. 1981:20-3). As challenges to social systems theory – a hallmark of the processual paradigm – grew, theoretical and methodological models focused on context, agency, and meaning of cultural practices ushered in the post-processual paradigm. Calls for contextual analyses of all types of recovered data and assemblages, not just material remains, increased, and there was a

renewed emphasis on use of the archaeological, rather than ethnographic, evidence for building hypotheses (see Cannon 1989; Conkey 1990, 1991; Conkey and Tringham 1996; Hodder 1980, 1982a, b, 1986, 1991; Morris 1992; O'Shea 1984; Pader 1980, 1982; Parker Pearson 1982, 1999a; Shanks and Hodder 1998; Wylie 1985; 1991a, b, 1992a, b). Many key contributions relating to the theoretical and methodological shifts of the 1980s and 1990s can be found in *The Archaeology of Death* (Chapman et al. 1981). One key conclusion emerging from this volume was a critique of the tenet put forth by Binford (1971) that complex mortuary structures correlate to the socio-cultural complexity of the society being investigated. Rather, post-processual studies suggested that mortuary patterns were 'complementary to, but not mirror images of patterns of life' (Hodder 1982b:139-40; O'Shea 1984:254) and that those patterns could not be parsed through a linear perspective linking grave structure and social complexity, particularly if given the role of individual agency within the wider social system.

Studies by O'Shea (1984) and Shay (1985) combined ethnographic material with archaeological data and utilized quantitative methodologies in their analyses to highlight whether historical sources that addressed deviant burial contexts had any ethnographic precedents (O'Shea 1984:250). An important study on mortuary practices of Native American tribes by O'Shea (1984) found that although some deviant burials in cemeteries dating to the seventeenth and eighteenth centuries AD were recorded in ethnographic sources some were not, and details regarding the location of some burials outside community boundaries could not be confirmed by archaeological excavations (O'Shea 1984:250-4). O'Shea's study concluded that although archaeologists may not be able to recover all forms of deviant burial rites, interdisciplinary efforts and a holistic approach to various forms of evidence increase the chances of identifying the meaning and significance of those forms of burial practice (O'Shea 1984:254). Following

Saxe's hypotheses (1970), Shay's study drew on ethnographic, historic and archaeological data to investigate the extent to which deviance in life and death might be expressed in mortuary practices. Drawing on archaeological, anthropological, and sociological studies, Shay conducted an analysis of a Bronze Age burial of an adult male from Jericho and formulated a deviant identity scale ranging from high/positive (complex social persona) to low/negative connotations (similar to Saxe's suggestion of a "shallow social persona" [Saxe 1970]) (Shay 1985:223-6, 231).

However, critics of Shay's analysis emphasized that not all ethnographic studies can be directly applied to the interpretation of the archaeological record, especially when those studies are cherry-picked to exclude variability present in the mortuary treatment or expressions outside the defined norm. Differing from Shay's approach, O'Shea's suggestion that archaeologists avoid relying on one form of evidence to test their hypotheses and to be mindful of attempts to classify or create summary descriptions of normal mortuary behavior echoed other theorists' arguments that all interpretation of archaeological remains are subjective and influenced by current socio- and political-cultural contexts (Hodder 1980, 1982a:1-6, 1991; O'Shea 1984:255; Parker Pearson 1982:100, 1984; Shanks and Tilley 1987:46-67, 122-9).

Mortuary studies from the 1980s and 1990s were influenced by larger social movements in the United States and Europe, including Neo-Marxism, feminism, structuralism, agency and critical and performance theories. Important works by Conkey (1990:13), Morris (1987, 1992), and Pader (1982:30) emphasized symbol and ritual as an active part of social practice within specific cultural contexts (Shanks and Tilley 1982). Hodder (1982a) proposed a framework for identifying the meaning of an object or changes in practices based on a contextual, cultural and historical approach influenced by earlier culture-historical tenets. Hodder's ethnoarchaeological

studies (1980, 1982) and Parker Pearson's (1982) analysis of British mortuary practices showed that death and burial are not necessarily structured by social role or status in society, but instead in terms of relationships in symbolic systems embedded and represented through material forms and social action (Parker Pearson 1982:110, 1984, 1999b). Shanks and Tilley (1982) argued that mortuary practices might be instrumental in misrepresenting the social realities to make them appear natural in society. To combat these concerns, many theorists sought to improve the methodological frameworks applied to mortuary analysis to generate a context-dependent approach to actions and behaviors in the past (see Bloch and Parry 1982; Conkey 1990; Hodder 1982a, b; Morris 1992; Wylie 1985). Morris (1992) developed a five-axes analytical framework wherein variables could be compared based on time, space, contexts of deposition, typology and demography (Morris 1992:24-7). While the post-processualism paradigm led to positive developments in theoretical models, later critiques pointed out that the methods being applied lacked a connection with important aspects of the archaeological record, especially the ability to problematize and reconceptualize the body as a material object capable of creating embodied knowledge interlinked with the cultural structure (Fahlander and Oestigaard 2008; Hamilakis et al. 2002; Kus 2013:71; Meskell 1996; Nilsson Stutz 2008:161).

During the 1990s and 2000s, archaeologists began to incorporate theoretical and methodological techniques from both the processual and post-processual paradigms into their mortuary studies (Parker Pearson 1999a; Pearce 1999; Renfrew 1994). In *The Archaeology of Death and Burial*, Parker Pearson (1999a:3) draws on ethnographic studies to explore the variability in funerary rituals and cultural conceptions of death and the afterlife. Another important contribution to mortuary studies was *The Archaeology of Death*, wherein the editors discuss cross-cultural examples of funerary and mortuary practices across temporally and

spatially diverse cultures. By examining mortuary variability at different scales and levels, the ability to produce more nuanced picture of the mortuary behavior through space and time improved (see Beck 1995; Buikstra and Charles 1999; Goldstein 1995, 2002, 2006; Metcalf and Huntington 1991; Mytum 2004).

Influenced by themes advanced in the post-processual paradigm, mortuary studies focused on topics of agency, performance, gender and queer studies, and other elements of social theory were produced during the 1990s and early 2000s (Arnold 2001, 2002; Arnold and Wicker 2001; Beck 1995; Brumfiel 2000; Cannon 2005; Chapman 2000; Dobres 2000; Dobres and Robb 2000; Gero and Conkey 1991; Gilchrist 1999; Glencross 2011; Kus 2013; Robb 1997). Mortuary studies focused on human agency and performance theories were heavily influenced by the sociological concepts of structuration theory (Giddens 1976, 1979, 1984) or *habitus* (Bourdieu 1993 [1977]), which emphasizes human action as performed with intent, but perhaps with unintended consequences to the social structure (see Barrett 1990, 2001; Shanks and Tilley 1982). This theoretical model suggests that archaeological evidence represents the structure of past actions and reveals to archaeologists the contextual possibilities and restrictions in the mortuary practices performed (Barrett 2001:149; Mizoguchi 1993:232). Parker Pearson (1999b:60) argues Giddens' structuration theory was designed for investigating agency and structure in industrial and post-industrial societies, and therefore, the term *agency* should be used contextually with well-defined parameters for understanding the contextual structures of ancient societies.

Gender archaeology also developed in response to critiques of processual social systems theories, which relied on cross-cultural and ethnographic case studies to test hypotheses and draw correlations between gender and objects or perceived behaviors in ancient and historically

documented societies (Stig Sørensen 2000). Influenced by social theorists such as Giddens, archaeologists including Gilchrist (1999), MacGregor (1994), Stig Sørensen (2000), and Spector and Whelan (1989) suggested that gender is interlinked with the structure of society as an intimate part of the process of social reproduction (see Gilchrist 1999; Stig Sørensen 2000), although it is difficult to determine in some cases based on the archeological evidence available (Arnold 2006). In this way, gender could be used to represent a “multi-faceted social phenomenon with several components including gender role, gender identity, gender attribution and gender ideology” (Geller 2016; Spector and Whelan 1989:69). In addition, gender archaeologies offer archaeologists the opportunity to address the “meanings and values attributed to gender categories in a given culture...” (Hays-Gilpin and Whitley 1998:1 [cited in Hamlin 2007:17]). In previous decades, androcentric perspectives of gender behaviors dominated the archaeological literature and made use of a male driven interpretive schema that limited the visibility of contributions by women in human history (Conkey 1991; Hamlin 2007:18).

Gender archaeologies produced during the 1990s and 2000s continued to challenge feminist works from the 1980s, such as Conkey and Spector (1984), with an emphasis on efforts to explore themes related to feminist concerns in both mortuary studies (Arnold 2002; Conkey and Tringham 1996). Many key contributions resulted from these studies, including a challenge of binary gender systems (Arnold 2002:240-55), recognition of the difference between the terms ‘sex’ and ‘gender’ and how to interrogate them in mortuary contexts, and the impact of gendered labor, disease, violence, and movement on the skeleton (Arnold and Wicker 2001; Cohen and Bennett 1993; Effros 2000; Gero and Conkey 1991; Hamlin 2007; Lucy 2000; Mays 1998; Redfern 2005, 2007; Shepherd 2013; Sofaer 2006; Sofaer and Stig Sørensen 2013).



Building on the contributions of those studies, increasing attention was paid to the importance of age as another social element to investigate that had been given little consideration in past theoretical paradigms (Baxter 2005; Scott 1997). Important contributions by Baxter (2005), Gowland (2006, 2007), Kamp (2001), Moore and Scott (1997), Pearce (2000, 2001), Scott (1993, 1999), and, Sofaer Derevenski (1994, 1997, 2000) argued that the traditional perspectives on the lives of children in prehistory placed children in relation to the adult actors rather than as decision-making individuals capable of strategic actions that affected the larger social system (Baxter 2005). In addition, the presence of children in mortuary contexts was often viewed as oppositional to the normative burial patterns of the adult population infanticide or deviance was often invoked without the benefit of rigorous contextual analysis (Baxter 2005; Gowland and Chamberlain 2002; Mays 1993, 2000; Millett and Gowland 2015; Moore 2009a; Scott 1997, 2001a, b; Sofaer Derevenski 1994, 1997, 2000). Key contributions of these studies included critiques of *ad hoc* arguments about the status and role of subadults as reflective of the construction of models of childhood in the present, and argued childhood identities are “cultural constructions that ascribe culturally specific roles” that may be investigated through greater theoretical and methodological analytical frameworks (Baxter 2005:3; Bello and Andrew 2006; Gilchrist 1999; Gowland 2000, 2006; Robb 2002; Sofaer Derevenski 2000). The implications for the advancement of these frameworks in mortuary studies and bioarchaeology (especially life course theory) resulted in increased understanding of age-based identities and how those corresponded to gender identity and social transitions within communities (Gowland 2017; Knudson and Stojanowski 2009; Meskell and Preucel 2008).

Developing alongside agency, gender and age themes in the 1990s and 2000s, practice theory focuses less on the underlying meaning of ritual, and more explicitly on the actions taken

in the performance of ritual practices by individuals and communities (Nilsson Stutz 2003, 2008:162). Important works associated with practice theory in the 1990s and 2000s include Bell (1992, 1997); De Boeck (1995); Humphrey and Laidlaw (1994); and Parkin (1992), among others, all drawing heavily on the theoretical perspectives related to practice in sociology, cultural anthropology, and social theory (see Bourdieu 1980, 1993 [1977]; Durkheim [1965/1912]; Rappaport [1999]; Turner [1967, 1969]; and Van Gennep [1960]). When compared at multiple scales through time and space, variability in mortuary practices could be considered in detail compared to earlier analytical methods. The term *practice* has been used to denote *behavior* and actions, which are simultaneously and dialectically both structured and structuring (Bourdieu 1993 [1977], 1980; Giddens 1984). A key contribution of this theoretical perspective is the recognition that different individuals who had different kinds of relationships to the deceased fulfill different roles linked to different customs of the mortuary practices and rituals within the community. It follows, then, in cases of differential or exceptional mortuary treatments that a culturally specific set of customs or traditions was acted upon by agents to varying degrees. Such mortuary practices may represent formalized or approved actions each time they are performed but may shift over time as the core practices are repeated and reinterpreted, resulting in small variations (Nilsson Stutz 2003:337-9). According to Bell (1997:80-3), although the meaning of the actions may not be entirely clear to archaeologists, the specific contexts of the body are crucial for experiencing the existing (and potentially shifting) values determined by the environment.

In her analysis of Mesolithic burial practices in Sweden, Nilsson Stutz (2003) focused on practice combined with taphonomic processes that may result in variations (including unintended ones), and provide a clearer picture of the ritual processes associated with normative and

exceptional mortuary practices (Nilsson Stutz 2003:204-315). Influenced by the work of Bell (1992), her study contributes a methodological framework for identifying a ‘standard norm’ in mortuary practices by analyzing and summarizing the performed elements of the mortuary process that can be identified for the majority of the dead at each site in her study, while acknowledging the interconnection of identifiable exceptional burials to the social structure (Nilsson Stutz 2003:338). In this way, this study brings together previous and recent cross-disciplinary theoretical and methodological approaches in mortuary studies to showcase how practice theory may be applied to identify socially significant actions and interpret the sense of structure resulting from the embodied experience (reinterpretation and appropriation) of rituals (Bell 1992:92; Bourdieu 1993 [1977]:120; Gowland 2017; Lambek 2018; Nilsson Stutz 2008). Embodied knowledge gained from the ritual response to death and subsequent performance of actions may differ among participants, but the resulting cosmology associated with the practice is shared, making the ritual meaningful within the community (Nilsson Stutz 2008).

Attempts to identify embodied knowledge and visualize its traces in ritual practices and death processes is one of the key contributions of practice theory. Influenced by the application of (micro)taphonomic approaches in mortuary and bioarchaeological studies developed in France, termed the *anthropologie “de terrain”*, post-depositional practices (interventions, manipulations, etc.) as part of the developing field of archaeoethanatology have gained greater interest in the 2000s for their focus on the contextual technological decisions which comprised social norms of engagement or reflection (a “coming into form/being”) between the living and the dead (Aspöck et al. 2020:4; Biehl 2010; Boulestin and Duday 2006; Duday et al. 1990; van Haperen 2010; Klevnäs 2010 [2013]; Knüsel and Smith 2014:15; Knüsel and Schotsmans 2022:3; Kümmel 2007 [2009]; Moilanen 2018; Zintl 2012 [2019]). This approach views the

handling and treatment of the deceased body as the central component of mortuary ritual and allows archaeologists to identify aspects of the structure created during the performance by those practices on a case-by-case basis, providing insight into the larger cosmological system of the society at the community level (Aspöck 2002 [2005], 2009; Aspöck et al. 2020:7; Charles and Buikstra 2002:22; Crossland and Joyce 2015:15). An important contribution of this approach was the development of a methodological framework to bridge the understanding of the totality of changes, both natural (bioturbation, sediment type, putrefaction and decomposition, erosion, etc.) and cultural, to the body from time of death to its excavation in order to reconstruct how the deceased were treated as part of the mortuary practices of the society (Aspöck and Fera 2015; Aspöck et al. 2020:7; Knüsel and Schotsmans 2022:5; Nilsson Stutz 2008:168, 2018). Two taphonomic phenomena used to visualize the treatment of the dead include: “1) the relative chronology of the decomposition of the articulations of the skeleton, and 2) the dynamics involved in the creation and infilling of empty spaces within the burial feature as soft tissues and other organic materials decompose” (Nilsson Stutz 2008:168). General criteria for identifying those phenomena in burial contexts have been outlined in Table 2.1.

However, additional questions need to be addressed, including those posed by Aspöck et al. (2020:10). Evidence gathered from archaeological excavations, particularly from structured depositions, can be used to address such phenomena and reconstruct mortuary contexts at multiple scales while highlighting elements of the ritual performance shared by the people in a community (Aspöck 2018; Arriaza 1995; Fahlander 2018; Knüsel and Schotsmans 2022:5, 9; Nilsson Stutz 2010, 2015, 2018; Tarlow and Nilsson 2013).

Table 2.1. Diagnostic information for identifying decomposition processes in burial contexts following the anthropologie “de terrain” [archaeoethanatology] approach (Nilsson Stutz 2003:142-156; 2008:167-8; Schotsmans et al. 2022).

Taphonomic Considerations Associated with Movement of the Body	
Phenomena	Diagnostic Criteria for Identification
1) Chronology of decomposition of skeletal articulations	<p>Two main criteria considered:</p> <p>1) Soft tissue decomposition often occurs last at the ligaments and tendons of the articular joints. Most of the bones in the body are categorized as diarthroses and are moveable during decomposition (Nilsson Stutz 2003:151). The articulations that decompose early (liable articulations) (up to two months) impact the phalanxes (feet), carpals/metacarpals, cervical vertebrae, sternum/ribs, and the scapula-thoracic junction (Schotsmans et al. 2022:511, 530-1).</p> <p>The articulations between the atlas and the occipital, the lumbar vertebrae, the sacrum, the ilium, the femur and the pelvis, the tarsal bones, knees and ankles are often the most persistent in terms of preservation (up to months to years) (Duday 2009:27; Nilsson Stutz 2003:152; Schotsmans et al. 2022:513).</p> <p>2) Distinguishing between primary and secondary burial. Primary burials are identified when the labile articulations are preserved in anatomical connection. Secondary burials are identified when the bones joined by labile articulations are the ones that are often dispersed or missing (Nilsson Stutz 2003:152).</p>
2) The dynamics involved in the creation and infilling of empty spaces within the burial as soft tissue decomposes	<p>Two types of space assessed:</p> <p>1) The empty spaces forming inside the initial volume of the cadaver: If the spaces within the burial or cadaver are filled immediately post-mortem, there will be minimal movement of bones at the articulation sites as the soft tissue decomposes. However, when time passes prior to deposition of the cadaver into the burial, then the movement of the bones is likely to be more drastic as the filling of the spaces with sediment is less progressive and gentle. For example, if a cadaver decomposes in an empty space or without a container, some bones are likely to fall away from the body during decomposition (a main diagnostic of this may be the positions of the coxal elements and lower limbs) (Nilsson Stutz 2003:154).</p> <p>2) The empty spaces outside of the initial volume of the cadaver: This is caused by, for example, an artifact made from organic material placed close to or on the cadaver disintegrating over time. A main diagnostic of this may be detected by its effect on the spatial distribution and orientation of the skeletal elements in the grave. Traces of an organic artifact may be left on the skeletal elements during the decomposition process (Nilsson Stutz 2003:155).</p>

The bioarchaeological study of human remains analyzes biological parameters,

such as sex, age, pathologies, DNA, trauma, and stable isotopes, to reconstruct the life experiences of individuals and communities by revealing aspects of demography, health and disease, well-being and illness, life history, identity, and cultural practices including food consumption, weaning, body behaviors, care and abuse, and migration (across short and long distances). The contexts in which archaeologists recover human remains are predominantly in burials or deposits wherein the materialized traces of mortuary practices may be used to reveal a living past, to greater or lesser degrees. Reconstruction of past lives is a fundamental goal of approaches to analyzing the deceased body in mortuary studies. In the following section, a review of the studies focused on investigating the ritual experiences of the body in life and death through social interactions and the reconstruction of identities will be discussed.

### **2.3. Identity Studies**

Mortuary studies have contributed greatly to our understanding of identity in ancient populations, mainly due to the vast amounts of data gathered from mortuary sites through archaeological excavations. As discussed above, these data often include material culture and skeletal information that reflects multiple types of identities and relationships of the deceased as well as the social groups in the community who were involved in the disposal of that individual (Buikstra and Scott 2009:25). As a result, mortuary traditions and behaviors contribute to the negotiation and renegotiation of narratives of identity and personhood specific to time and place and are therefore especially accessible through regional and diachronic approaches (Beck 1995; Goldstein 1995, 2002). Regional mortuary studies help highlight the nature of the multidimensional past and emphasize the fact that archaeologists will never recover all of the elements involved in identity formation in the past (Thurston 2018:2-3, 6). Given the diverse nature of processes of identity formation that have been examined more recently in mortuary

studies, especially evidence for social exclusion and deviant behavior, researchers have concluded that such non-conforming social identities may or may not be suppressed, depending on the situation. Particular forms of transformation and negotiation may take place in the mortuary ritual(s) regarding the expression of the social identities and role(s) of the deceased individuals in life (Aspöck 2008; Chapman et al. 1981; Crerar 2016; Leggett and Damman 2018; Murphy 2008, 2018; Pader 1980, 1982; Thomas 1996; Turner 1974). The next section reviews influential theoretical and methodological approaches to the study of identity in mortuary and bioarchaeological studies, with an emphasis on the evidence for reconstructing cultural and social identity in Romano-British society.

In the 30 years since the tenets of bioarchaeology were first outlined (Buikstra 1977), the field has witnessed substantial growth (Buikstra 2006; Larsen 2006; Roberts 2006). Bioarchaeology has moved beyond its origins as a subsidiary descriptive form of osteology (Buikstra and Beck 2006; Charles and Buikstra 2002) and has responded to earlier critiques of its basic operational assumptions. In *Contextual Analysis of Human Remains*, Buikstra and Beck (2006) review the history of bioarchaeology in the United States through a series of detailed explorations of different aspects of the field, from documenting evidence to planning, excavation, and curation beginning in the late 1970s. The discipline has matured and emerged from these challenges in a more theoretically informed and methodologically robust form, as witnessed by the expansion of training and academic programs in the United States and abroad (Roberts 2006) and the breadth of new research areas to which bioarchaeologists are contributing. Although methodological refinement has continued (e.g., Baker et al. 2005; Hoppa and Vaupel 2002), the expanded significance of contextual analysis of human remains reflects a certain comfort with the data and methods and discontent with purely descriptive and

methodological studies as a *raison d'être* for archaeological research programs (e.g., Armelagos and Van Gerven 2003; Stojanowski and Buikstra 2005; Wright and Yoder 2003).

During the 1990s, archaeologists and bioarchaeologists began to work more closely with one another to provide as much information about the deceased and their community(ies) as possible (Buikstra and Scott 2009; Gowland 2002; Keegan 2002; Larsen 2006; Parker Pearson 1999a; Roberts 2006, 2013; Roberts and Cox 2003). Through the application of improved methodological procedures in biochemical and aDNA analyses as well as age and sex metrics, archaeologists were able to explore social aspects of identity, including diet, migration and social affinity within communities and networks in ancient populations (Gowland 2017; Gowland and Knüsel 2006; Hamlin 2007; Knudson and Stojanowski 2009; Leach et al. 2009; Leach et al. 2010; Müldner et al. 2011; Prowse et al. 2007; Redfern 2007, 2017; Redfern and Roberts 2005; Redfern et al. 2012; Redfern et al. 2016).

Anthropologically, the term identity can reference individual (self) identities or group (collective) identities – both are considered to be constructed in a continual process through social interaction (Cohen 1994; Díaz-Andreu and Lucy 2005:2; Thurston 2018:6-7). An individual's identification with broader groups is based on “differences socially sanctioned as significant” (Díaz-Andreu and Lucy 2005:1). Collective identities such as gender, age, cultural affiliation, ethnicity or social status, traditionally have been the focus of anthropological identity studies (Barnard and Spencer 1996:292; Díaz-Andreu and Lucy 2005:1; Gilchrist 2000; Gilchrist 2004). These were first dubbed “social identities” by Goodenough (1965) because of their dependence on social relationships. An individual's “social persona” represents the composite of social identities selected for action in a given situation (Goodenough 1965:7; Saxe 1970).



Unlike other social scientists who can rely on living individuals in mapping interpersonal relations in identity research, archaeologists deal with the contextual interpretation of material culture. At the same time, the diachronic timespan that archaeology can draw upon offers a chronological perspective on identities that socio-cultural and sociological approaches may lack. By including cultural items such as dress, spatial layout of domestic, production and ritual built environments, and all media “through which many social relationships and interactions are negotiated, archaeology can detail how the material world both engages, and is engaged in, the articulation of social identity, both of the individual and of the group” (Díaz-Andreu and Lucy 2005:9; Effros 2006; Keegan 2002; Shepherd 2013; Williams 2013). Identity then, in an archaeological context, “is the material outcome of a series of choices made by individuals” (Wells 1998:243), or an individual’s cultural designation or, “a set of prescriptive learned norms of behavior” (S. Jones 2007:46). These attributes will all be considered in the analysis that follows, which attempts to demarcate individual and group identity in a variety of contexts (mortuary and settlement) during the ER and LR periods in Roman Britain.

Cultural identity may be defined as the self-conscious identification of shared culture, enabling an emphasis on similarity and difference between groups (van Dommelen 1998:26). In this sense, ethnic and cultural identities are analogous, and it has been claimed that ethnicity is in effect politicized cultural identity, in which culture and identity are linked through the materialization of symbols (Cohen 1994:198-200; Thurston 2018:7). However, whilst the emphasis on cultural similarity and difference also distinguishes the construction of ethnicity, it is argued (and accepted here) that belief in shared ancestry and origin differentiates ethnic from cultural identity (Bentley 1987; Jenkins 2008; S. Jones 1997:86). It is therefore suggested that cultural identity might be differentiated from ethnicity (and from alternative forms of cultural

appropriation and manipulation) when the emphasis of a shared culture within a common worldview (that clearly influences the structures of everyday life) incorporates the idea of a common ancestry. It is hoped that the results of this research might be used to inform future data collection strategies, so that we come closer to recognizing these subtle differences in the mortuary and bioarchaeological data.

More recent archaeological research on individual and group identity in the Roman Empire has focused on distinguishing complex regional and temporal distinctions between social groups (Pearce 2000:3). Studies of Romano-British society, by contrast, for many decades relied on defining and describing these divisions based in part on antiquarian reports, poor excavation documentation, inadequate dating information, and Classical sources – all of which are problematic in various ways. Due to the lack of reliable geographical and temporal dimensions of normative, alternate, and non-normative cultural practices in Romano-British communities in the southeastern, southern, central and north-central regions, additional questions regarding the nature of socio-political structure(s), diverse forms of cultural and identity expressions, and the geographical and temporal relationships that individuals in these communities had with each other and the landscape can be very difficult to interrogate. Regional studies that provide the geographical and temporal dimensions of the decapitation rite can help avoid the misidentification of diverse cultural practices and are more likely to reveal the heterogeneous nature of socio-cultural relationships in the lives of ancient populations in Roman Britain.

### **2.3.1. Group Identity**

Most early archaeological literature focused on identifying group identities and affiliation based on similar material culture, regional artifact distributions, language, and dietary preferences within archaeological cultures, all of which were assumed to map onto cultural

identities (Díaz-Andreu and Lucy 2005:2; Childe 1940; Kossinna 1911). In this way, archaeologically defined cultures were tied to particular dominant histories, places, and peoples (S. Jones 2007:47). Later archaeological research focused on the diversity and complexity (rather than the predictability or dominance of a set of traits) of identity expression in ancient populations, especially the use of material culture in understanding geo-temporal expression of difference and related situational interactions (Barth 1969; Díaz-Andreu and Lucy 2005:2, 6; Duke 1998:119; Hodder 1982b; S. Jones 1997:27-31; Jones and Graves-Brown 1996:7; Shennan 1978, 1989). Studies from the 1990s onwards demonstrated that there is no universal mode or methodology of socio-cultural differentiation or group identification that can be used to classify spatial and temporal variation, because studying identity in any form is context dependent and is subject to change situationally and potentially from generation to generation (Pearce 2013; Thurston 2018:14).

To more effectively access identity expression in the material record of the past, archaeologists have moved beyond utilizing simple artifact distributions in their interpretations. Cultures are not discrete bounded monolithic entities comprised of clearly defined material culture complexes and cannot be relied upon to wholly reproduce or represent past populations (Arnold 1998; S. Jones 1997). Later studies in the 1990s and 2000s have shown that group identities are continually formulated in context specific situations and at different scales through time and space. It has been suggested that by having access to a diachronic approach to the material record archaeologists can potentially identify shifts in the expression of group identities in those elements of culture that may signify such changes over time (S. Jones 2007; Lucy 2005). Exploring the intersections of various group identities is also more likely to reveal the diversity in how identities are marked in a given spatio-temporal context (Brumfiel 1996, 2006). For

example, an individual may experience their local communal identity differently, depending on the particularities of other identities such as age, sex, or social status (Lucy 2005:100). In addition, improved bioarchaeological approaches and methods have contributed to more recent studies by supplying more fine-grained information about past populations that makes it possible to distinguish between geographic and temporal differences for the first time in some cases (Bayliss 2009; Fahlander 2021; Fernández-Götz 2013; Whittle et al. 2008; Whittle et al. 2010). The inclusion of intra- and inter-site spatial analyses, as well as various forms of geochemical and bioarchaeological analyses, have also provided fruitful avenues of research in the identification and study of material manifestations of the articulation of individual and group social identities (Díaz-Andreu and Lucy 2005:9; Lucy 2005:106-109; Montgomery et al. 2011; Müldner et al. 2011; Murray and Schoeninger 1988; Price et al. 2002; Stodder and Palkovich 2012).

Identity may be marked by the way in which individuals express themselves or by means of an acquired style (e.g., the clothes they wear, their jobs, their ethnicity and age, or having a tattoo on their body), the group or subculture that they associate with (e.g., believing in one religion or another), and the way they perceive and describe themselves (e.g., American) (Thurston 2018). Díaz-Andreu and Lucy (2005:1–2) state that identity is never in stasis but changes throughout the life of an individual, and as people “live” out or practice the expressions of their identities, we are able to detect, through the bioarchaeological analysis of skeletal remains, some of those biocultural (pathogens and the environment) and sociocultural (diet, resources, activities, violence) aspects that affect the body (see technological choice and *habitus* discussions following Bourdieu 1993 [1977], 1990). These and other biocultural factors often leave decipherable “signatures” on the skeletal system due to the ways in which bone responds

(grows, develops, maintains, or breaks due to stressors) to those different stimuli. Another way to think about this is that the physical body is actually an embodiment of the biological, social, and material worlds that people live in and through and may be used to communicate identities in ways that are archaeologically accessible (Martin et al. 2013:151). The following section will briefly review archaeological studies of the body and the theoretical approaches that served as the basis of the interpretive approaches applied in this thesis.

## **2.4. The Body in Archaeological Studies**

The body in society has been the subject of numerous studies in the social sciences and humanities, with increased contributions in the archaeological literature from the 1990s onward (e.g., Hamilakis 1999; Joyce 1998; Kus 1992; Meskell 1996; Tarlow 2000; Thomas 2000). Part of the reluctance to engage with ‘the body’ in archaeology prior to this period can be linked to a disciplinary division between archaeology and osteology and the view of the physical body as a largely “passive ‘absent presence’” (Shilling 1993:9), with its biological aspects better suited to the rigors of bioarchaeological or osteology studies. While the physical remains of the body have been viewed by bioarchaeologists as an essential source of data for reconstructing past lifeways since the 1970s, the more explicit theorization of the skeleton as the physiological embodiment of social processes has only been developed comparatively recently (Agarwal and Glencross 2011; Gowland and Knüsel 2006; Knudson and Stojanowski 2009; Sofaer 2006). With the early work of sociologists such as Turner (1984) and Shilling (1993), as well as Lock (1993), Scheper-Hughes and Lock (1987), and Krieger and Davey Smith (2004), the dialectical relationship between the physical and social body became a renewed area of archaeological and bioarchaeological focus. These developments coincided with the reassessment of previous

perceptions of Westernized history, particularly in studies of violence, gender and feminism, age, memory, identity and agency in past populations.

Scheper-Hughes and Lock (1987:7–8) provide a theoretical framework for viewing aspects of the body by considering how those characteristics would have affected a person's life experiences in a particular culture. In an effort to explore the complexity of the social body, their theoretical model posits that individuals are made up of three bodies: 1) the individual or biological body; 2) the cultural body; and 3) the political body or body politic (Scheper-Hughes and Lock (1987:7-8). The individual body, or “bodyself”, can be defined through the biological identity gleaned from age, sex, stature, health status, and other variables to reveal the biological realities influenced by specific social and environmental worlds. The cultural body may be assessed through the assessment of skeletal remains and the contextual reconstruction of the lived experience of the deceased individual based on site descriptions, location, size, and mortuary contexts. The body politic may be assessed with more difficulty through the cataloging of skeletal remains from a specific place and time as reflected in varying levels of healed and unhealed trauma, pathologies related to beatings and torture, massacres and warfare, and diseases due to the lack of proper diet and subsequent starvation. Scheper-Hughes and Lock (1987:7) suggest this type of evidence may be indicative of political oppression or institutional forms of social control and domination of bodies through structural violence. This theoretical model is one of many dealt with in the bioarchaeological and social theory literature in the wake of increasing interest in the multidimensional nature of identity formation, relations of social power and resistance, and the sensory experiences of the body-subjects within “body-worlds”, following the approaches of Ingold (2000, 2011) and Harris and Robb (2013:3) (see also: Agarwal and

Glencross 2011; Foucault 1978, 1988; Fowler 2002; Hamilakis 2002; Hamilakis et al. 2002; Knudson and Stojanowski 2009; Martin et al. 2013; Osterholtz 2012).

Within the social sciences and humanities, this increasing emphasis on the role of representation in producing and reproducing cultural meaning was instrumental in laying the foundations for small-scale and localized contextual and interpretive narratives of the experiential aspects of human existence through social power, agency and embodiment (Dobres and Robb 2000; Geller 2009, 2016; Hamilakis et al. 2002:3-4; Joyce 1998, 2005; Knapp and Meskell 1999; Meskell and Preucel 2008; Rautman 2000; Robb 2002; Sofaer 2006; Tarlow 1999, 2000; Thomas 2000). Calls to historicize the categories of reference in relation to the body developed out of the movement away from the mind-body dualism philosophies theorized by Descartes and others, which held “...there are distinct and less physically tangible entities (spirits, souls, minds) which may be variously associated with the bodily component of people” (Hamilakis et al. 2002:6; Harris and Robb 2013:4; Redfern 2020a:321). The historicization of the body, in essence, attempts to raise awareness of the genealogies of the body and their constitution within specific social and historical frameworks, as well as the genealogy of our embodiment as situated researchers (Foucault 1980:117 [cited in Hamilakis et al. 2002:7]). In grounding the exploration of the body in theories of embodied practice, this thesis takes on the opportunity and task of reassessing a complex set of social processes using multi-disciplinary perspectives and methodologies. The following section reviews the previous bioarchaeological literature on the development of the life course approach, the Roman life course, the body-centered osteobiography-influenced approach and its potential for defining social identities and individual narratives in the past.

## **2.5. Life Course Approach in Bioarchaeology**

The analytical framework developed for this thesis draws on methodological approaches in practice theory, and the bioarchaeological analysis draws on the biocultural and life course approaches developed in the 1900s and 2000s (and influenced by earlier paradigms previously described). The life course approach is based on methodologies derived from the social and natural sciences to understand populations in the past (biology, psychology, sociology, history, economics, and demography) (Glencross 2011:391). In anthropology, the life course approach aids in the reconstruction of rites of passage and in identifying the role played by age and gender as fundamental principles of social organization. A life course perspective recognizes that a person experiences different types of ageing: biological, physiological, chronological and social (Hunt 2005; Myerhoff 1984; Ottenberg 1988; Redfern 2017:84). Biological ageing includes changes in blood pressure, bone mass, hearing, menstruation and menopause but crucially, anthropological and clinical studies show that their onset is not cross-cultural or universal, but is influenced by lifestyle factors, socio-cultural environments and degree of industrialization (Ikels and Beall 2001 [cited in Redfern 2017:84]). Physiological aging includes changes to the cardiovascular, gastrointestinal, metabolic and musculoskeletal systems, and transformations to the sensory and cognitive faculties (Lata and Alia 2007 [cited in Redfern 2017]). Chronological age is defined as the time elapsed since birth, although this should not be equated with culturally constructed social age, which is structured according to different sets of expected behavior at certain ages and intersects with a person's gender (Gowland 2006; Joyce 2000; McGovern 2019:20-1; Moen 2001; Perry and Joyce 2005; Redfern 2017:85; Sofaer 2006; Sofaer Derevenski 1997, 2000). These groupings, which lack a consistent definition across studies, can lead to problems when comparing different populations over time and space. It is therefore necessary to



develop a robust methodological framework using a multi-scalar and holistic approach that draws on multiple forms of social elements and conceptions of embodiment.

Bioarchaeology is particularly well-suited to providing a holistic view of the different stages of the life course in the past as reflected in the mortuary record, which may be used to track the manifestation of concepts of gender and age, while health and well-being may be examined through biological indicators such as pathologies or injuries visible on the skeletal remains (Lewis 2018:477-8). Those data may be used to construct a picture of a life event, which is defined as a significant occurrence involving a relatively abrupt change that may produce serious and long-lasting effects (such as the death of a parent or domestic abuse occurrence), and a ‘turning point’ or transition (such as puberty or marriage), that produces a lasting shift in the life course trajectory as a result of the event(s) (Glencross 2011:393; Gowland 2007:154-6; McGovern 2019:19; Redfern 2017:84). Therefore, it is possible to construct some aspects of an individual’s trajectory through examining the remains (such as severe illness or injury) while other aspects are less visible and may depend on the availability of additional textual and material evidence from the mortuary or historical record to deduce their occurrence (marriage, education, domestic abuse, etc.) (Carroll 2013:569-569; McGovern 2019; Moore 2009b; Rosten 2007:17-9). By examining the evidence for the Roman life course of populations in Oxfordshire and Gloucestershire, it should be possible to determine whether or not conceptualizations of social age or gender influenced decapitated burials on an inter – and inter-site basis. In addition, the reconstruction of each individual’s biocultural narrative, or osteobiography (see Hosek and Robb 2019:2; Robb 2002), may reveal whether and how social elements of their identity played a role in their funerary treatment and perhaps inform the interpretation of the significance of the application of decapitation or other forms of bodily manipulation in those LRP British burial

contexts. The studies discussed above indicate that age identity at the beginning and end of the life span are influenced by social organization and gender construction (Allison 2018:166-9). Similarly, the attitudes and expectations towards these social sub-groups in the Roman world would have reflected the prevalent social hierarchy and cultural expectations of gender identity and its expression in material form (Carroll 2018:155-9; Lynch 2007:77-82; Philpott 1991; Rosten 2007:17-9; Saller and Shaw 1984:117-32, 134-8). The following section explores Roman attitudes to age and gender, utilizing evidence from surviving epigraphic, iconographic and textual sources to construct the broad trajectory of the idealized male and female life course.

### **2.5.1. Roman Life Course**

In part, this thesis aims to consider the relevance of social identity for the treatment of decapitated individuals at the site, community, and regional levels. In order to contextualize and define the identities of the decapitation burials, local/regional conceptions of gender and age group identities in Roman Britain are explored in the following section. This thesis combines the life course approach with an osteobiography-influenced approach to access additional bioarchaeological and mortuary treatment variables among decapitated burials. The goal is to determine whether significant patterns in pre-, peri- or post-mortem treatment can be identified and if aspects of physical characteristics in life, such as violence, trauma and usewear, may reflect the intersection of elements in the expression of their identity in the mortuary context. The life course approach allows many variables to be compared in the reconstruction of contextual osteological narratives for LRP individuals subjected to decapitation. Those results allow a contextual comparison of the individual narratives and identities of the decapitation and non-decapitation burials on an intra- and inter-site level. Finally, any patterns are compared to burial

trends in other regions of Roman Britain as presented in Moore (2009b), Crerar (2012, 2016), and Tucker (2012, 2014, 2016).

The cultural construction of age, gender, and status affected the life course of members of Roman society in different ways (Moore 2009b:216; Redfern 2018; Revell 2005). Previous studies have shown that the Roman life course was heterogenous both socially and biologically throughout the provinces over time, including in Roman Britain (Allason-Jones 2004:273-6, 279-82, 284-6; Allison 2018:165-9; Harlow and Laurence 2007:9-10, 12-9; McGovern 2019:27-64; Moore 2009b:21-9, 30-4, 37-9; Noy 2000). Codification was based on the idealized social roles of males and females and can be seen on monuments and tombstones (Allason-Jones 2004:275-6, 286; Huskinson 2007, 2018; Kleiner 2010; Lusnia 2020; Toynbee 1971), in material culture (Allason-Jones 2004:274; Carroll 2006, 2013; Pearce 1999, 2000; Philpott 1991), and in legal documents and other texts (Allason-Jones 2004:283; Cantarella 2016; Dixon 2016; Gamauf 2016; Harries 2007, 2016; Knapp 2016; Taylor 2016:349-61). The ideal Roman family was comprised of a father at its head, known as the *paterfamilias*, who had legal rights over his wife, children, children of his sons, and any slaves he owned (Allason-Jones 2004:273; Vuolanto 2016). Upon the death of the *pater*, the living sons became the *paterfamilias* of their households (if any), while the widow and younger children were designated *sui iuris*, independent of the deceased, although family connections were maintained when possible in establishing a guardianship role relative to surviving family members (McGovern 2019:64). Without a designated *postestas*, or male guardian, a woman under Roman law could not own property, exercise legal control over her children or adopt a child (Allason-Jones 2004:273, 282; Gardener 1986; Taylor 2016:350). In cases where slaves were owned, Romano-British families considered them to exist in a patron-client relationship to their owners. However, inscriptions from

Northumberland and Chester, for example, suggest bonds of affection between freed slaves and the families they served existed in some cases (Allason-Jones 2004:282; Gamauf 2016; Lenski 2011:188). Although these sources deal primarily with the Roman male elite, the evidence indicates that relatively rigid and binary concepts relating to gender, age and other social identities were present at birth and were maintained throughout the life course.

Moore's (2009b) thesis compared burial treatment in the bodies recovered from eleven cemeteries, intra-mural sites and isolated deposits from eastern (the *colonia* of Colchester and the *civitas capital* of St. Albans) and western (the *colonia* of Gloucester and the *civitas capital* of Cirencester) Roman Britain to determine whether specialized mortuary treatment based on age and gender could be identified. The study investigated whether age or gender identities were conceptualized by life course stages as a reflection of a time cycle filtered through social organization. The results of this mortuary analysis are briefly discussed below as the findings provide a baseline for the formation of age and gender identities in Roman Britain, in particular the western region known as the Cotswolds.

The rural burial data set included villas, *vici*, temples and small isolated settlements. The life course analysis of 4,392 inhumation and cremation burials revealed that gender was expressed in a feminine burial assemblage consisting mainly of jewelry and dress accessories, suggesting that females were designated primarily by gender in burial. The focus of the Romano-British female life course based on this study was on puberty, fertility and the social duties of marriage, or its biological potential, and the role of motherhood as a pivotal event to be commemorated in funerary or burial contexts (see Allason-Jones 1999:42-3; Allison 2018:169; Carroll 2006, 2013:562; McGovern 2019:63-5; Puttock 2002:41-55). The analysis indicated that high levels of grave good provision across all adult age stages and through the provision of

gender-specific grave goods, particularly among individuals aged 11-39 years, defined females as in binary opposition to the male identity. In cases where the individual was no longer of childbearing or rearing age, either biologically or socially, the female life course was ambiguous and designated by little to no provisions in the burials, particularly for the elderly females with a transition period beginning in the years from 40-49 (Moore 2009b:177-8, 205-6). In some cases, it appears that elderly female burials shared similarities in burial treatment with subadults (6-10 year age group) while adult females of childbearing age in the western region were provided with the highest concentration of grave goods, with a particular emphasis on jewelry. If these material culture markers represented a non-adult status, it could suggest a potential symbolic link between adult females, subadults, and the elderly, identity groups which were marginalized in contrast to the young male social identity (Moore 2009b:211; 2010; 2016:326-8).

The expression of gender among males revealed a lack of a distinct 'masculine' burial assemblage, lower rates of grave good provision in each age category and increased variability in age emphasis on a regional level, which suggests males were not primarily defined on the basis of material culture provisions as much as females of marriageable age. With regard to the male life course, the emphasis for males was also concentrated primarily on young adulthood (20-39 years), on average around a decade later than the peak phase of the female life course as reflected in grave wealth, which suggests marriage was an important event for males at a later age compared to females. It is also possible that the expression of the male life course was based more on external factors, such as labor activities or practices common in urban or rural environments connected to socio-economic status (regarding the average marriage age for males, commonly a decade later than females, see Saller [1987] and Shaw [1987] (Allason-Jones 2004:276-8; Moore 2009b:178-9). Elderly males were, by contrast, given fewer grave goods and

care, suggesting the expression of their life course was reduced in terms of public acknowledgement of status and may have been considered outside the “younger adult male burial norm” (Moore 2009b:210). Elderly male citizens were typically aligned with public civic positions as military members (and later veterans), traders, artisans, general laborers, etc., which were considered respectable positions in Roman society (Allason-Jones 2004:275; Carroll 2013:566; Harlow and Laurence 2002, 2007). It is possible that the gendered identity of women was on a par with that of the elderly and the ambiguity reflected in mortuary rituals associated with such persons may have signified a degree of social marginalization or a reduction in the need to visually showcase identities aligned with the private rather than public sphere in Roman society (Carroll 2013:572; Gowland 2007:167; McGovern 2019:63-5). Gowland (2007) suggests elderly females may have passed on items of jewelry to their daughters at marriage, or bequeathed them as heirlooms, resulting in their reduced presence as grave goods in the burial assemblages of older women in Roman Britain (Gowland 2007:167).

The analysis of the cemeteries in eastern and western Roman Britain reveals that the expression of an age identity was a visible factor in burial practice, with some local variations, along a life course trajectory consisting of four stages: infancy/early childhood (0-5 years), later childhood (6-15 years), adult (16-39 years), and elderly (40-50+ years) (Moore 2009b:208-10). The first stage was characterized by restricted levels of grave good provision, simple grave treatment, and during the first year of life, burial in non-cemetery contexts (see Allison [2013:325-7, 252-3, and 2018:170] for discussion of burial in the *infantia* age group in non-cemetery contexts in Roman elite households vs. Roman military bases). In broader Roman contexts, this period, known as *infantia*, extends the age range to seven years during which the

main concern for parents was the early development of the infant, and later, the education, discipline, and social development of the young child (Allison 2018:166).

The second stage was characterized by a high proportion of grave goods and an increased formality in grave treatment and burial practice. In broader contexts, this age group was known as *puerita*, during which freeborn Roman children would leave the household to attend school during the day and may have participated in other social activities alongside parents in the home, such as dining together (Allison 2018:168; Laes 2011:107-47). Freeborn children of non-elite families at this stage may have stayed with their parents or begun apprenticeships, participated in household chores or learned a trade, particularly in peripheral areas of the Roman world (Laes 2011:126-8, 191-5). Children born into slavery at this stage were likely minimally educated and were trained to perform household tasks or other laborious activities in the public sphere at a later stage (Allison 2018:168). Freeborn boys around the age of fourteen were expected to “leave their *bulla* on the *laraium*, don the *toga virilis*, and begin lessons in philosophy and rhetoric”, entering public life (sometimes including a year of military service) and being increasingly involved in the lives of their fathers (Laes 2011:132-7 [cited in Allison 2018:169]; Rawson 2003:145-53). A *bulla* is a personal ornament described as a protective amulet, sometimes found in burial contexts to mark the transition of an infant from child to adolescent, and symbolizes the ritually pure, non-sexual and freeborn status of a newborn Roman male upon acceptance into their respective families (Moore 2009b:22, 198). The *puerita* stage ended a little earlier for freeborn girls, around the age of 12, when they were deemed eligible for marriage, while girl slaves may have performed work chores beginning around the age of five in some cases (Allason-Jones 2004:280-1; Harlow and Laurence 2002:61). Under Roman law slaves were not permitted to contract legal marriages, although evidence of tombstone and epigraphic

inscriptions suggests informal familial relationships were formed, similar to those of soldiers serving in the Roman military under the rank of centurion (until the Severan Edict of 197) (Allason-Jones 2004:282; Gamauf 2016; Roxan 1989:462-7). By the second century AD, a high proportion of retirement diplomas issued by the military for retiring soldiers revealed that many had the equivalent of a wife and dependents, although they were considered illegitimate if born during their father's military service (Roxan 1981:265-86 [cited in Allason-Jones 2004:284]).

The third stage was characterized by a gendered pattern of grave goods in which the wide range of material culture and a similarity in functional categories suggests there was little overall age differentiation. The fourth stage was characterized by ambiguity in the burial treatment in the sense that there was a decline in the number of grave goods and a transition in functional categories (Moore 2009b:208-9, 2016:330). Moore suggests the burial of subadults and elderly adults was the primary vehicle for both regional and local expression of negotiation to an individual's identity (in that it appeared less formalized and possibly more subject to individual agency either of the deceased or those burying them), indicating that the life course was in some respects a fluid concept. Indeed, although it would appear that the greatest emphasis was placed on the two key stages of 6-15 years and 20-39 years in the life course, both stages associated with the beginnings of familial and public/social organization centered on the young adult females and males, Moore states that there was "no defined chronological age at which an individual passed from one life course stage to the next" (2009b:209) in the cemeteries sampled. Variation in the patterns of provisions was noted within each age stage, however, which may suggest that age transitions in Roman Britain were negotiated on an individual basis that was dependent upon both private and public perceptions of physical development, gendered



expectations, and socio-economic transitions in status during the ER and LR periods (see Laes 2006; McGovern 2019; Moore 2016:329).

On a regional and local level, different patterns in grave treatment and provision of types of material culture connected to identity configurations impacted the degree to which the Roman life course was expressed, suggesting a complex interaction of LIA localized identities as reflected in the selection of types of material culture and mortuary treatment. For example, in the western region the inclusion of a coffin was rare while coins and hobnail shoes were common forms of grave goods. The most recognizable local and regional constructions of identity appeared within the socially marginalized subadult and elderly adult age groups (Moore 2009b:184-5), which exhibited greater variation in localized mortuary treatment patterns. This was particularly true for subadult burials in urban and rural locations. The social sub-groups identified by this study provide insight into the concepts associated with personhood in Roman Britain, including the idea that as an individual developed (under normal circumstances that were locally determined) their age identity was increasingly aligned with physical and social growth. The burial of subadults in the second stage of the life course reveal increasing numbers of grave goods and more frequent inclusion in formal burial spaces and other treatment, in contrast to infants and very young children in the first stage of the life course (Moore 2009b:154-5). This suggests on a regional level that children aged 6-10 years may have been afforded greater emphasis in burial treatment due to their social value, as contributors to future socio-economic and familial prosperity (McGovern 2019:63). Burials of elderly people in both regions suggest that old age as a life course stage was viewed as distinct, although there is some variation in the expression of the transition to older adulthood. In the western region, Moore notes that certain elderly adult females were buried in similar ways to subadults, suggesting their age identity was

viewed conceptually as aligned with their place within the age spectrum (Moore 2009b:212). In the contexts of social organization, this patterning may have reflected the different adult social expectations of status and familial continuity in urban culture, relative to the socio-economic concerns or traditional lifeways of the rural communities (Moore 2009b:211). In both regions, but particularly the western region, the expression of gender in old age was influenced by local practice, and if the elderly were considered conceptually linked to subadults, the concept of a life cycle may have been viewed as cyclical (birth, death, regeneration as an endless cycle), rather than strictly linear (a straight progression from birth to death), in specific communities throughout western Roman Britain. The young and the old, by virtue of their age, are conceptualized as being closest to this process of death and rebirth, and thus are potentially more likely to be associated with non-normative social behaviors.

Applying a life course methodology to the funerary record in this study should reveal age-and gender-based population changes in the burial record that correspond with transitions in social identity. The life course approach also reveals the key characteristics of each age group and can provide information about the social attitudes and expectations associated with each gendered age stage. In the context of Roman Britain, a combination of life course and osteobiography-influenced methodologies provides an ideal approach to examining mortuary behavior and the social construction of identity on a macro and micro-level. In addition to age and gender aspects of identity, skeletal injuries and health are components of the life course history that may illuminate our understanding of the lifeways of Roman individuals and their social contexts (Glencross 2011; Redfern 2017).

Bioarchaeological studies utilizing paleopathology research on bone fractures and other signs of injury have added to the methodological approaches available in the biocultural

contextualization of violence (accidental and intentional) (Glencross 2011; Domett and Tayles 2006; Judd 2004; Perez 2016; Redfern 2017; Redfern and Roberts 2019; Roberts 2000a, 2006; Torres-Rouff and Costa Junqueira 2006). For example, improvements to those methodologies and inclusion of the life course theoretical approach have produced scholarship focused on the developmental origins of bone fragility and the impact of cumulative injuries and their effects over the life span. Variability of skeletal maturation, environment, habits, societal pressures and a number of other factors influence the risk of fracture, direction of fracture mechanisms, healing efficacy, precise age of the individual when the injury healed, and likelihood for future injury and quality of life after healing (if any) (Buhr and Cooke 1959; Glencross 2011; Lewis 2000; Redfern 2017; Rizzoli et al. 2010; Roberts 2006; Scheuer and Black 2000). The results of such studies form the basis for identifying age- and gender- related patterns of skeletal injuries incurred over time at the population level as well as in individual cases, allowing osteological narratives to be constructed. The following section will provide an overview of relevant scholarship in osteobiographical and biocultural studies and their utility in contextualizing the evidence for health, trauma, and taphonomic processes gathered from the skeletal remains included in this thesis. Those data will be used to refine what we know about the Roman life course evidence, providing an avenue for generating biological and social categories of data comparable to other Romano-British bioarchaeological studies.

## **2.6. Osteobiography Studies**

The term ‘osteobiography’ as first outlined in Saul (1972) refers to an assemblage of “all information available from the skeleton to create a life narrative for a single individual” (Hosek and Robb 2019:2). An evaluation of the cultural construction and fluidity of social identity in Romano-British society requires an osteobiographical-influenced approach that provides

contextual insight into the variability of individual lifeways, which is difficult to ascertain from larger population- or group-based studies (Heinz and Krüger 2001; Hosek and Robb 2019). Osteobiography developed in tandem with bioarchaeological research in the 1970s, and renewed interest in (post-mortem) agency, the life course, identity, embodiment, affect theory and social theory more recently has accelerated its use (Baker and Agarwal 2017; Crandall and Martin 2014; Guise Sheridan and Gregoricka 2020; McClelland and Cerezo-Roman 2016; Robb and Harris 2013; Roberts et al. 2016; Sofaer 2006). Biographical studies in archaeology have also been used in reference to material culture histories focused on “the life of artifacts” via use-life studies, including larger-scale or long-term changes in artifacts, technologies, and their representation over time (Appadurai 1986; Gilchrist 1999; Joy 2009; Kopytoff 1986; Meskell 2004; Meskell and Joyce 2003; Mytum 2010). At its conceptual and methodological core, osteobiography studies attempt to: 1) understand how ancient people perceived, felt, and responded to bodily processes; 2) identify, evaluate, and understand how general factors and historical contingencies interact to create specific human lives and their experiences; and, 3) develop new methods for analyzing osteobiographies not only as individual life histories but also as comparative points of reference that reveal the intersectionality of identities and their role in shaping human lives (Hosek and Robb 2019:3). In essence, life course and osteobiography narratives acknowledge that the concepts of time, scale, and sequence must be analyzed through a multi-scalar lens and considered in their respective social and cultural contexts.

Early uses of osteobiography have been criticized for their lack of consideration of the archaeological contexts of skeletal remains and for approaching population-based research questions with data derived at the individual level (Buikstra and Scott 2009). Two key themes in osteobiography research have influenced the use of this approach in more recent

bioarchaeological studies: 1) the biosocial nature of the body as a material object influenced by specific cultural and temporal biological and cultural forces (e.g. Cave and Oxenham 2016; Lewis 2007; Sofaer 2006, 2011; Sofaer Derevenski 2000; Sofaer and Stig Sørensen 2013); and, 2) the acknowledgement that the life course and the exploration of the age- and gender-related biological development events and occurrences are experienced within specific social contexts. These key themes have led to a greater prioritization of the social relationships inherent in a humanistic approach to skeletal remains in osteobiographical bioarchaeology studies (Agarwal 2012, 2016; Agarwal and Glencross 2011; Crossland and Joyce 2015; Gowland and Knüsel 2006; Knudson and Stojanowski 2009; Robb 2002; Stodder and Palkovich 2012). The approach taken in this thesis will consider those themes in the analysis of the decapitated individuals in the burial sample in order situate their individual “biographies as “cultural narrative” encompassing the history of those remains after death” (Robb 2002:160).

The breadth of information that can be gleaned from the osteological, paleopathology, and isotopic/aDNA analysis of human remains includes socio-economic and cultural contexts as well as individual paths taken and how these may have been entangled with the wider social structure of a community over time (Hosek and Robb 2019:7). Death histories, biocultural narratives, and ethnographic accounts have provided support to osteobiographic approaches in bioarchaeology by acknowledging the social role of the dead and their post-mortem agency, among other things (Arnold 2014; Bonogofsky 2011; Crandall and Martin 2014; Konigsberg and Buikstra 1995; Nilsson Stutz 2013; Perez 2016; Pearce and Weekes 2017; Roberts 2000a; Tarlow and Nilsson Stutz 2013; Velasco 2014; Williams 2004). Criticisms of the application of recent osteobiography and death history methodological and theoretical approaches have argued that investigating an individual’s life sheds little light on our understanding of history and runs

the risk of selective bias toward extraordinary circumstances of death, famous individuals or events (Gowland 2002, 2015; Kessler-Harris 2009; Robb 2002, 2009:123; Robb et al. 2019; Duncan and Stojanowski 2017). However, as will be described later in the chapter, Roman decapitation burials, often termed deviant burials, have long been associated in antiquarian and contemporary archaeological literature with negative social narratives (Crerar 2012, 2016; Smith 2017). Indeed, the general public perception of the practice of decapitation in ancient societies includes sensationalized and mocking reactions to new discoveries, particularly in discussions of these cases on the internet and other arenas of public engagement (e.g., Curry 2016; Knapton 2019). A corrective seems to be indicated and only more systematic approaches of the kind presented in this thesis are likely to be able to provide it.

What differentiates a multi-scalar life course and osteobiography approach from other bioarchaeological analysis frameworks is its focus on the individual life span as one unit of analysis and the arrangement of data within the life span to form a temporally integrated sequence that considers how earlier processes create the contexts for later ones. Through a systematic analysis of the sequence of an arrangement of data it may be possible to determine whether an individual life course followed a normal or “alternative” or “discrepant” pathway, providing the researcher with another avenue for interpreting the conditions that impacted individual lifeways in their particular socio-cultural contexts (Hosek and Robb 2019:8-9; Robb 2002:166). In essence, osteobiography and mortuary studies are both complementary to and dependent on traditional bioarchaeology, particularly when burial taphonomy and body modification or manipulation evidence are included in the analysis (P. Biehl 2010, 2012; Aspöck et al. 2020:13-4). Therefore, a narrative approach combining the life course and osteobiography-

influenced methodologies has the potential to produce a microhistory of previously overlooked phenomena in the analysis of Romano-British decapitation mortuary contexts.

A comparative regional analysis of the life course and osteobiography-influenced narratives of decapitated individuals in western Roman Britain allows the question of the influence of localized or regional conceptions of social and cultural identity expression in relation to violence, rituals, and processes of death to be explored. Comparing aspects of social and cultural identity in Oxfordshire and Gloucestershire to regions in eastern and southern Roman Britain (Crerar 2012, 2016; Montgomery et al. 2011; Tucker 2012) those burial trends may be compared for future analysis. This will recontextualize identity marking in the life narratives of decapitated individuals, including the role of bodies and violence in the social organization of Roman Britain. The following section will review some of the relevant archaeological and anthropological studies of violence in the past.

## **2.7. Anthropological and Archaeological Studies of Violence**

Throughout human history violence has been a key feature of human interactions in every society and can only be understood in its social, economic, political and environmental contexts (Knüsel and Smith 2014:7; Whitehead 2005:23). Conflict as a social and biological phenomenon has been studied in numerous disciplines, especially the humanities, resulting in a large number of terms, frameworks, and approaches for interpreting the forces that shape violence, and the ways institutions and beliefs may support or structure violence in past and present societies (Dwyer and Damousi 2020:2; Martin et al. 2012:1). In the social sciences, studies of violence from a multi-scalar perspective allow events, processes and developments to be understood synchronically and diachronically. The language used to describe acts of violence in its many forms influences how these phenomena are understood, which complicates categorization efforts

(Ralph 2013:2; Redfern 2017:3; Walker 2001). Many definitions for the study of violence exist in the anthropological literature, including: "...an act of physical hurt deemed legitimate by the performer and illegitimate by (some) witnesses" (Riches 1986:8), and "violence is pervasive, ancient, infinitely various, and a central fact of human life" but it is poorly understood in general (Whitehead 2004:55). One key element here in the consideration of those actions is identifying archaeological markers for the intentional infliction of pain or death, and for the purposes of this thesis, violence will be defined as not only the use of physical force by a person, a group of people or an institution against one or more other living beings, but also as a psychological, social and emotional phenomenon that may encompass any coercive or exploitative relationship (Dwyer and Damousi 2020:4; Guise Sheridan and Gregoricka 2020; following Kelly's definition (2000:3-5) [cited in Knüsel and Smith 2014:12]; Perez 2012:14).

As Redfern (2017) has noted, "within the social sciences, violence is regarded as having 'several natures' and is an important 'ingredient' in reality (Aijmer 2000:1)" that may be used to legitimize power for successful individuals through the cultural performance of those acts. While violent acts may be viewed as either creating or destroying the natural order (Stewart and Strathern 2002:2; Turpin and Kurtz 1997), Whitehead (2005), among others, argues that viewing violence from this perspective without placing the acts and events in their cultural contexts may lead researchers to believe violence is a natural occurrence in every society at all times rather than a phenomenon contingent upon historical actions (Ember and Ember 1997; Ferguson 1997; Scheper-Hughes and Bourgois 2004; Whitehead 2005:23). The danger in viewing certain types of violence as natural vs. unnatural is that we may prejudge those acts and ignore the social and cultural dimensions that support its structure, distinguishing good from bad, or normal from deviant (Knüsel and Smith 2014; Perez 2012:15). Anthropologists have a responsibility to



attempt to (re)construct past examples of violence without reducing its cause(s), consequence(s) and impacts upon individuals, groups, communities, and societies over time to a limited set of explanations (Whitehead 2005:23).

Throughout the 1900s, studies of prehistoric violence and warfare were traditionally based on two competing assumptions: 1) intergroup violence is grounded in human biology and ecology and is in the genetic make-up of our species; and 2) small-scale societies typical of our deep past were largely characterized by low levels of conflict (Dolfini et al. 2018:1). These approaches suggest warfare emerged from an increase in socio-cultural complexity or the rise of states in prehistory, or during periods of contact between egalitarian and complex stratified societies (Armit et al. 2006:1). Western political philosophy shaped early anthropological and historical perspectives on violence and warfare by contrasting those acts with peaceful established authority and civility (following Thomas Hobbes 1996 [1651]), or, alternatively, viewing it as integral to human nature but subject to control through the imposition of laws and organized social customs in society (following Jean-Jacques Rousseau 1984 [1775]). This led to a division amongst scholars of violence with one group believing human aggression is characteristic of all human societies, grounded in human behavioral development since the start of the species (Wrangham and Peterson 1996 [cited in Dolfini et al. 2018:2]), or later, during the Pleistocene or Paleolithic when the competition for resources amongst hunter-gatherer societies, foragers, or early agriculturalists ensued (Hutton Estabrook and Frayer 2014; Knüsel and Smith 2014:12, 657). The second group argues that non-complex foragers normally exhibit low levels of intergroup conflict but may in turn experience high levels of intragroup violence (Allen 2014; Fry 2006, 2013 [cited in Dolfini et al. 2018:2]). Early cultural historical approaches in archaeology suggested that widespread violence may have resulted from waves of migration and

the inability of cultures to cope with the pressures of invasion (e.g., Childe) (Trigger 2006:246-7). Early diffusionist studies of violence and social change in European prehistory influenced later research traditions of the material instruments of aggression and warrior aristocratic elites, especially those found in Bronze Age European weapon burials (Kristiansen 1987, 1999; Kristiansen and Larsson 2005). By avoiding consideration of martial interpretations of weapons drawn from graves as inherently linked to violence and viewing those items as markers of prestige, status, and the conferral of power over the dead, early researchers imposed their own socio-political Western ideologies on this period (and those following) in the past (Dolfini et al. 2018:4; Keeley 1996; Milisauskas 2011:16; Vandkilde 2013).

The second group viewed prehistoric European societies as “combat-free and egalitarian”, drawing on an ecological approach to culture change developed by the British archaeologist Graham Clark (Vandkilde 2013:39-40). Rejecting the notions of sudden warfare or destructive diffusion due to reduced resources, the ecological approach suggested cultural adaptation and change during prehistory resulted from gradual and peaceful transitions (Trigger 2006:480-3). Interestingly, Blok (2000) observed that in state level societies, violence is most often understood as an instrument used by the state to achieve its political goals and maintain order amongst the population while “protecting its foreign interests”, which suggests that any other acts of violence are social acts in opposition to this norm. The tendency for cultural historical, and to an extent processual, archaeologists to view prehistoric societies as largely peaceful apart from external aggression in many ways reified the idea that violence was somehow adaptive and had a pragmatic purpose, undermining the opportunity to theorize it in any other way (Armit et al. 2006:1; Dolfini et al. 2018:4).

A new wave of archaeological and anthropological research surfaced during the 1990s after the publication of Keeley's monograph, *Warfare before Civilization* (1996), which questioned existing understandings of the levels of conflict and aggression in past populations. Within the broader parallel theoretical movements of the time (an increasing focus on gender, age, agency, practice theory, spatial and sensory, and social archaeology), renewed interest in the warrior societies, supported by elite hegemony in early or developing states as distinct from the egalitarian narratives associated with earlier European prehistory developed rapidly in the American and European archaeological and bioarchaeological literature (Allen 2014; Horn and Kristiansen 2018; Knüsel and Smith 2014:9; Vandkilde 2013). Following this study, Guilaine and Zammit (2001) and Walker (2001) [cited in Knüsel and Smith 2014:9] provided robust studies analyzing physical evidence of violence-related injuries drawn from Old and New World archaeological contexts. However, the broad geographic and temporal scale of these studies called into question the interpretive impact of this approach to the study of violence in the past. Increasing attention and efforts to improve the identification and documentation of trauma in skeletal remains and reassess the nature, social significance and occurrence of intergroup and sanctioned forms of violence began to appear, exemplified by Frayer and Martin's (1997) volume *Troubled Times: Violence and Warfare in the Past* (see also: Armit et al. 2006; Carman and Harding 2013; Horn and Kristiansen 2018; Keeley 1996; Ortner 2003; Ralph 2013; Schulting 2013; Schulting and Fibiger 2012; Smith et al. 2007; Thorpe 2003). Building on these theoretical and methodological advances, bioarchaeological studies combining forensic approaches and social theory frameworks have come to the forefront of the study of violence during the 2000s and 2010s (e.g. Bonogofsky 2011; Brødholt and Holck 2012; Chacon and Dye 2007; Klaus et al. 2010; Knüsel 2005; Knüsel and Smith 2014; Larsen 1997; Livingstone-Smith

2007; Martin et al. 2012; Orschiedt and Haidle 2012; Redfern 2005, 2017, 2020a; Redfern and Booney 2014; Schulting and Fibiger 2012; Verano 2008; Walker 2001).

Bioarchaeology offers many methodological and theoretical frameworks for the analysis of empirical data and the theoretical interpretation of violence and its power on a micro- and macro-scale. Two key research themes in the bioarchaeological literature have come to dominate efforts to study the complex phenomenon of violence: the ‘web of violence’ model and the ‘ecological model of violence’ (Redfern 2017:3). The latter analytical model examines the intersection between the environment, culture, society and trauma, and developed from studies focused on violence against children and youth as well as domestic and elder abuse (World Health Organization 2002 [cited in Redfern 2017:5]). Under this model, violence is seen as a result of the layered intersectionality of individual, relationship, social, cultural, and environmental factors linked to the social structure. Here we can understand those overlapping stages to mean,

“...the individual examines the biological and personal history reasons that affect a person’s behavior; the relationship stage looks at close personal relationships – those between peers, partners and family; the community stage identifies the social environment in which the relationship stage exists, such as schools, population density and levels of crime or unemployment in a person’s community; finally, the societal stage studies the factors which determine rates of violence such as: cultural norms which allow violence to be the ‘right away of solving conflicts, norms that support male dominance over women and children, and those which support political conflict and the use of excessive force by the police against citizens” (World Health Organization 2002:13).

In addition, the societal stage includes conflict between groups and nations caused by unequal access to power and resources, social inequalities, and rapid demographic changes that cannot be coped with by the state (Ember and Ember 1994; Redfern 2017:6).

In turn, the ‘web of violence’ model conceptualizes violence and its consequences as phenomena linking individuals, groups, communities and nations (Turpin and Kurtz 1997 [cited

in Redfern 2017:6]). Turpin and Kurtz (1997) suggest violence is endemic to social life, violence experienced early in life may predispose an individual to be both a victim and/or perpetrator of violence later in life, and structural violence impacts the micro- and macro-scales of violence in society over time. Both of these models have provided bioarchaeologists and social theorists with the analytical frameworks for exploring the connections between violence, age, gender, environment, health, demography, and social and economic statuses in past populations (Zuckerman et al. 2014). Complementing those models, Schroder and Schmidt's (2001:1) review of the different studies of violence in the social sciences identified three common analytical approaches: 1) the operational approach that focuses on material and political causes of conflict; 2) the conflict approach which examines the specific cultural construction of war in society; and, 3) the experiential approach that recognizes that violence structures everyday lives and is not restricted to inter-group conflict or nation states (Redfern 2017:10). Violent events are frequently incorporated into society's collective memory over time as it is reenacted and performed to allow a group to remember those actions and ideologies – in essence, the production of a multigenerational social structure (Klaus 2012:13; Ralph 2013:5; Schroder and Schmidt 2001:6-14; Tung 2020:225). Graham and Haidt (2010) suggest that social structures such as violent rituals or events create both positive and negative responses for every witness, which may be used to control a group at the time and in the future by determining which individuals are allowed to, or required to, use violence to perform acts of belonging or exclusion. In this way, with the selection of a performer(s), victim(s) and witness(es), violence serves as a biological, social, or adaptive mechanism that redistributes power manifested in the performative and ritual features of acts of violence and aids in the production of individual and group solidarity, identity, and belonging, particularly if the acts elicit a negative response (Dwyer and Damousi 2020:10;

Foucault 1978:91-2; Graham and Haidt 2010; Martin and Harrod 2015; Osterholtz and Martin 2017; Ralph 2013:5; Scheper-Hughes and Bourgois 2004; Tung 2020).

As mentioned previously, embodiment theory explores the intersectional ways in which various social processes affect and are experienced through the body. Scheper-Hughes and Lock (1987:31) state “...the individual body should be seen as the most immediate terrain where social truths and social contradictions are played out...as well as the locus of personal and social resistance and struggle”, a position shared by other anthropologists researching the embodiment of suffering and pain and other ways that bodies are implicated in ideological, political, economic, and social processes in society (e.g. Guise Sheridan and Gregoricka 2020; Harris and Robb 2013; Harrod et al. 2012; Klaus 2012; Nilsson Stutz 2013, 2015; Perez 2012; Robb 2008, 2013; Sofaer 2006; Sofaer and Stig Sørensen 2013). This approach uses the analysis of physical processes over the life course to highlight the dynamic interactions between social structure and individual agency, and rules of behavior relating to biological processes of the human skeleton (Bourdieu 1993 [1977]; Crandall and Martin 2014; Shapland and Armit 2012). In recent years, with the growth of forensic anthropology and social archaeology there have been greater efforts to incorporate bioarchaeological data and collection methods into the broader archaeological literature on violence and conflict in societies (Aldhouse Green 2001; Armit et al. 2006; Bello and Andrews 2006; Duday 2009; Duncan and Stojanowski 2017; Knüsel and Robb 2016; Martin et al. 2001; Murphy et al. 2010; Smith et al. 2007).

Drawing on Martin and Harrod’s (2015:120) analytical model, Perez (2016:457) offers a compelling way to think about violence theory at three levels of analysis: skeletal data, contextual data, and social theory are combined in his bioarchaeological approach to violence in the past. Perez argues that each level is embedded within a system of “poetics”, meaning, ...“our

[the researchers'] understanding of violence as being the core cultural expression of an essential and complex component of a society" (Whitehead 2004:68 [cited in Perez 2016:457]). Before we can understand the structures of violence within a society, we must understand it in terms of systemic violence and ask the following: who occupies the structures, how were they formed and maintained, and what are the conditions under which the structures in systemic violence are permitted to the point of physical violence in the past? It is critical to address these questions using multiple lines of evidence to interpret and understand the circumstances surrounding the role violence played in the life histories of individuals subjected to decapitation and other forms of violence. The following section will review the broad archaeological approaches and forms of evidence used to inform the study of violence in the Roman world.

## **2.8. Violence in the Roman World**

Scholarship of the late nineteenth and early twentieth centuries depicted the study of violence and Roman imperial power as restrained, principled or humane, rather than overtly bloody or brutal over time (Frank 1914; Mommsen 1862-6). This is most likely a consequence of the imperial and philosophical background of many nineteenth- and twentieth-century scholars, which involved a focus on military structures, and until the shift in archaeological discourse to processualism, most scholarship focused on the civilizing effects of conquest and conflict on "barbarian" peoples (Gosden 2006; Hingley 2000, 2017; James 2001). Post-processual studies tended to interpret sites, weaponry, and burials as ritually symbolic rather than evidence of frequent or varied forms of violence, effectively pacifying European prehistory, particularly the Bronze Age (James 2007, 2018; King 2014). This prompted interest in the reevaluation of the role of violence and warfare, its prevalence, its forms, and the methods for evaluating its presence and appearance in various lines of evidence, especially skeletal remains (e.g. Aldhouse

Green 2004, 2005; Armit 2011; Armit et al. 2006; P. Biehl 2007, 2010; Craig et al. 2005; Giles 2008; King 2014; Redfern 2005, 2007, 2008a, 2012, 2014, 2017, 2020a).

The publication of *War and Imperialism in Republican Rome* (Harris 1979) shifted the views of many on the nature of violence and warfare in Roman society by drawing on a breadth of literary and material evidence. Historical, classical and archaeological studies published over the course of the next twenty years viewed Roman violence and aggression more negatively, comparing the strategies the Romans used to control the Mediterranean and beyond to the actions of a “criminal syndicate” (Cornell 1995:367 [cited in Roth 2020:239]). However, others have challenged this approach to the evidence, suggesting Rome was only one of several militaristically oriented states with similar economic and political goals in the Mediterranean (Fagan 2020; Roth 2020:239).

The Roman world provides a range of evidence relating to violence and conflict from the Republic through the decentralization of the Empire in the fifth century AD, including personal and official documents (e.g. letters and judicial records), cultural materials (e.g. the arts, textiles/clothing, weaponry and armor), architecture (military forts, garrisons), and funerary and skeletal evidence (e.g. tombstones and skeletal remains with signs of trauma) (Fagan 2016; Lusnia 2020:671-81; Nippel 1995). The Roman state recognized that violence was an important coercive tool of social control (Dillon and Welch 2006; Kyle 2015) that could be used to establish and reinforce socioeconomic hierarchies, power, and status through legal and judicial rulings, religious practices, and the creation of imagery and weaponry used by the military (Allason-Jones 2016; Ferris 2009; Gamauf 2016; Goldsworthy and Haynes 1999; Harries 2007; James 1999; Kelly 2016; Varner 2012). Material culture, architecture, epigraphy, art, and physical presence allowed the Romans to advance complex cultural narratives while



simultaneously reinforcing stereotypes of barbarians and outlaws as inherently violent and uncivilized (Ferris 2009; Fields 2005:59-62; Grünewald 2004; Harries 2007:128; Knapp 2016, 2016:362-72; Östenberg 2009; Saller and Shaw 1984; Taylor 2016; Williamson 2016). Ample evidence exists for large- and small-scale conflict, aggression, and violence in various contexts throughout the Roman world, but it should not be interpreted without distinctions being drawn between different types/levels of violence or consideration of the participants, their relationships, and contexts (Redfern 2014).

### **2.8.1. Violence and Material Culture in the Roman World**

Roman monumental art and material culture provide rich sources of iconographic evidence for the commemoration of violent military, political, religious and entertainment events (Östenberg 2009). For example, Trajan's Column (second century AD) located in Rome depicts scenes of the Roman victory over the Dacians through judicial execution via the decapitation of captors (non-citizens including their leader Decebalus) and the presentation of their body parts to the Emperor Trajan (see scene 24, a soldier holding the severed head in his teeth, and the 'Great Trajanic Frieze, slab VI' [later reset in the Arch of Constantine]) (Fields 2005:59-62; Harries 2007:14-5, 27, 36; Lepper and Frere 1988; Lusnia 2020:674; Östenberg 2009:17-8, 244, 258). Following the death of Nero during the first century AD, Plutarch records angry crowds dragging down and destroying the Emperor's statues throughout the Forum Romanum (*Galba* 8.5) (Varner 2012:122). Coin issues also reveal Trajan standing with his foot on the severed head of a Dacian leader (Ferris 2009). Similar motifs appear in the late second century AD on the Column of Marcus Aurelius with the depiction of Roman soldiers decapitating captives and the presentation of their severed heads as offerings to the Emperor (Beckmann 2011; Fagan 2016:556; Ferris 2009:84, 100; Lusnia 2020:674), and again, during the early fourth century AD

on the Arch of Constantine (Armit 2012:40-3; Lusnia 2020:678-80). Varner (2012:122) writes of Pliny the Younger's account of the "decapitation" of the portraits of Domitian after his death in AD 96:

In Pliny's account, the faces of the portraits are trampled in the dust and the images are threatened with the sword, attacked with axes, and finally hacked into mutilated limbs and pieces. Furthermore, Domitian's portraits are violated as sentient beings able to experience pain. The conceptual collapsing of image and body underscores the portraits' functions as *simulacra*, artistic doubles of the emperor's physical presence (Baudrillard 1994; Hersey 2009; Stewart 2003:184–222 [cited in Varner 2012:122]). By Late Antiquity, statues and portraits could function quite literally as effigies that "allowed access to the spiritual through the material" (Stewart 1999:162; Ambrose, Expos. Psalm 118.10.25 [cited in Varner 2012:122]).

Interestingly, damage to many portraits, *imago*, statues and coins is confined to the sensory organs (eyes, ears, nose, and mouth) while other areas of the body remained untouched, making it possible in some circumstances to identify the individual's likeness – in essence, this may be reflecting a systematic disfigurement and narrative of political overthrow and social death (see statues of Nero (from Rome, now in Istanbul, Archaeological Museum, inv. 506), or, Geta (Arch of Septimius Severus, Lepcis Magna). Works of art, coins, and other forms of architecture depicting an emperor or citizen or a description of their deeds were common targets of political violence functioning as memory sanctions, particularly after the reign of Caligula. State sponsored monumental art in the Roman world reveals violence occurred on many levels and was integrated to differing degrees into the structure of the society over time (Östenberg 2009; Varner 2001, 2005).

## **2.8.2. Violence and Mortuary Evidence in the Roman World**

The funerary practices of the communities incorporated into the Roman world directly influence the human remains available for study, as the two main forms of corpse disposal were cremation or inhumation, with the remains placed in the ground and/or a range of tomb structures

(McKinley 2000; Toynbee 1971). Differences in corpse preparation and disposal (particularly in relation to the life course), diverse burial environments across the Roman world, and commercial excavation and publication processes have contributed a heterogeneous array of mortuary treatments from this period (Duday 2009; Hope 1997, 2009; Pearce 2008, 2010; Pearce et al. 2000). Depictions of war and violence in military battles, gladiatorial games, and mythological scenes first appear in funerary contexts during the third century BC in Rome (the tomb of Quintus Fabius, for example). Lusnia (2020:666) suggests scenes like these, spread throughout the Roman world, “...reinforce Roman conceptions of power: in this case, Romans’ ability to wield power over non-Romans through military conquest and territorial expansion”. Sarcophagi were used widely during the second century AD as vehicles for the display of social status, wealth, violent myths, battles and commemoration of the dead throughout the Empire, particularly in the Mediterranean territories (Lusnia 2020:667; Zanker and Ewald 2012). Depictions of military exploits and the commemoration of victories over barbarian peoples increased during the late second century AD (see the Portonaccio Sarcophagus, c. 190-200 AD, for an example of a biographical sarcophagus). In this example, the military, civic, and domestic roles of the adult Roman male, with valor and virtue being specifically associated with violence, are on display for mourners to view. This shift in the use of funerary monuments to display individual achievements and commemorative worth in more private settings during the Empire period corresponds with the shift in power to one centralized leader, the emperor, and his public display of power through triumphal monuments (Lusnia 2020:671). Representations of war and violence in public and private spaces served as reminders of Roman power over non-citizens, the power of Roman males, especially the elite, over households (including women, children, slaves and clients), and the power of the emperor over his subjects. Triumphal monuments and other

forms of material culture, both through allusive and actual representations of battle, functioned as visual representations of power as the Romans engaged with violence in numerous social and political spheres (Östenberg 2009:139-41, 170). The following section will survey the responses to communal and legal violence in Roman law and primary source literature.

### **2.8.3. Roman Civil and Criminal Law**

Roman sources such as Vergil (*Aeneid*) and Livy (*Dionysius of Halicarnassus* 1-4) describe the origins of Rome during the Republic as bloody and filled with clashes near the borders of the earlier territories (Fagan 2016; Fields 2005; Roth 2020), although they were not produced until centuries after the birth of Rome and cannot be considered direct evidence of conquest events documented historically. During the formation of the Republic in the sixth century BC, most martial violence was undertaken by the army and/or auxiliary troops (made up of propertied citizens) on the periphery of Roman territories (Erdkamp 2007; Fagan 2016; Roth 2020). During the fifth century BC in Italy, clashes between the two major socio-economic classes, *plebians* and *patricians*, occurred but not at a level suggestive of endemic intra-state sanctioned violence. The complexity of the diverse responses to real or perceived criminal threats (*maiestas*) to the state (*res publica*), or later to the emperor, are described in personal and judicial documents from the late Republic period (Williamson 2016:333-43). As conceptions of the state changed over time, so too did the methods for marginalizing, sentencing and punishing citizens and non-citizens (Garnsey 1970; Knapp 2016:364-5). According to laws recorded in the *Twelve Tables* in the early Republic, acts punishable by death included killing one's parents, a patron harming his client, bearing false witness, and stealing crops (Fagan 2016:561; Williamson 2016:334). The institutionalization of a judicial system in the early formation of Roman political structure served as a mechanism for resolving internal conflict through the system of magistrates

within the domain of Latium before those differences increased within the population (Knapp 2016; Williamson 2016:334). Over the entire period of the Republic, the greatest offense to the state was to aid an enemy of Rome, a recognizable offense known as *perduellio*. If convicted the penalty was death, potential loss of property to heirs and *damnatio memoriae* (Harries 2007). As the Republic entered the second century BC, formal courts were established to supervise and carry out the first *lex maiestatis* (an act that “diminished the superiority of the Roman people”), the *lex Appuleia*, which focused mainly on controlling elite competition manifested in criminal offenses such as extortion, electoral bribery, embezzlement, forgery of documents or counterfeiting coins, assault, and murder by stabbing or poison (Harries 2007:107; Williamson 2016:335). To assist with this rise in controlling public disorder and violence, the first official *lex de vi* (law concerning violence) was written in 78 BC (Fagan 2020:563).

The marginalization of social groups in Roman society was legal, although there was no specific law defining a group on the basis of geographic origin, education, personal appearance, economic activity, or political affiliation. However, equal access to and representation in the judicial process was not codified or guaranteed (Knapp 2016). One’s social position in public society influenced fair treatment and consideration, particularly among the common people (*plebians* or *humiliores*), including freedmen/women and non-citizens (Fagan 2016; Taylor 2016). A father as the head of the household (*paterfamilias*) had total control over the other people living under his roof, giving him the legal right to enact physical violence, sell, or kill members of his family unit (Fagan 2016:566; Joshel 2010). As a distinct social group in the Roman world, the profession, familial relationships, wealth, religious practices, and citizenship status of a pleb influenced their experiences with the law within a community. Examples include morticians, ushers, auctioneers, pimps, prostitutes, those associated with arena games (gladiators,

etc.), or those with dishonorable discharges from the military, loss of certain civil suits, charges of fraud or theft, and familial misconduct brought on the social, moral and legal condition known as *infamia* (*infamis*) (Fagan 2016; Knapp 2016:367; Taylor 2016:351-7). Individuals with this black mark could not appeal a charge in court, represent others in court, bring an accusation of a criminal case, or hold public office or positions. In essence, this charge could strip a person of their *dignitas* and effectively sideline their social mobility in Roman society (Fagan 2016:567; Knapp 2016:370).

With the founding of the Roman Empire during the late first century BC, and the establishment under Augustus of power through the *maiestas principis* (superiority of the emperor), the roles of chief lawmakers and prosecutors (the senate and magistrates) of the accused were centralized for maximum efficiency and stability, particularly for elites (*honestiores*), in the reconfigured social structure (Kelly 2016:379; Knapp 2016). A significant statute enacted during the first century AD, the *lex Iulia maiestatis*, allowed for the conviction of a wrongdoer based upon the same offenses as outlined in many of the statutes from the Republican period. However, the range of punishments if convicted expanded to include interdiction of fire and water (expulsion from the community), the stripping of Roman citizenship, loss of property and titles for heirs, and *damnatio memoriae* (Kelly 2016; Knapp 2016; Williamson 2016:340).

From the Republic period onward, the public severing and displaying of heads and other body parts of perceived criminals is referenced often in Roman literature and epigraphic evidence. In his *Meditations* 8.34, Marcus Aurelius commented on the sight of these types of displays, “And you have seen a severed hand or foot or a decapitated head lying at some distance from the body” (Varner 2012:130), likely due to the display of the heads of numerous political

figures in Roman history: Pompey, Cicero, Brutus, Galba, Vitellius, Avidius Cassius, Perinax, Pescennius Niger, Clodius Albinus, Macrinus, Diadumenianus, Maximinus Thrax, among others (Fields 2005). Other forms of *poena post mortem*, or corpse abuse after death, provide evidence for changing political realities and power relationships marked by the disposal of the images and bodies of criminals, traitors, and victims from the arena in the Tiber River near Rome – a blatant sign of disrespect was indicated by the denial of a proper burial due to a perceived “bad” reputation or social marginalization (Kyle 1998:213-228; [Suetonius, *Tiberius* 75.1] cited in Varner 2012:130).

As the Empire expanded, by the second century AD the ability of the Roman state to exercise authority and power via the judicial process was codified by the prosecution of individuals accused of committing *perduellio* (actions that put the security or existence of the Roman state at risk from an external enemy), a death sentence with the additional loss of property and status, and the negation of proper funerary mourning rites by the living (Kelly 2016; Williamson 2016:341). The distinction between prosecuting citizens and non-citizens in the courts became more fluid as jurisdictions overlapped throughout the provinces and the power of authorities to act (*imperium*) without major judicial oversight increased (Knapp 2016:368). For minor financial or non-public offenses, citizens were charged with fines, legal liabilities or other physical actions. Non-citizens, particularly those deemed outlaws (robbers, fraudsters, or those thought to be plotting war), were punished more harshly than citizens accused of the same crimes, although in both cases the legal designation of *pro damnatis* (treated as already found guilty) could be applied with a summary treatment similar to that of *lex Iulia maiestatis*, although the application of torture of slaves and non-citizens prior to death was possible (Harries 2007:33; Östenberg 2009:163).

During the second and third centuries AD, the state expanded its conception of perceived threats to include religious activity (the practice of magic, for example) in opposition to the observance of the rituals of the Imperial cult, which undoubtedly impacted the practitioners of Christianity, Judaism, and other eastern religions, such as Mithraism (Carter 2012; Harries 2007; Knapp 2016:371). Once judicial torture was legalized in the early Empire, its application became more widespread, and its use extended to all acts of treason requiring interrogation (Harries 2007:34). During the fourth century AD, the Emperors Arcadius and Honorius issued a constitution to expand the conception of *maiestas* and its defined offenses, with significant emphasis on the association between *maiestas* and *sacrilegium* after Christianity became the official religion of the state (Knapp 2016). Under the Theodosian Code of AD 438 (*Codex Theodosianus*), observing or professing a Christian creed other than Catholicism was considered *sacrilegium* (heresy) as mandated by the council of Nicea in AD 325 (Harries 2007:109-10; Williamson 2016:342), or committing *superstitio* (magic activities, such as predicting the future) were both punishable by torture and death (Harries 2007:35). However, Knapp (2016:372) suggests practicing Christians could be welcomed back into lawful Roman society if they recanted the faith and served to as a deterrent to abhorrent social behavior by self-reintegration through resuming acceptable religious practices.

In this way, pain and violence, when considered in the context of punishment, were unequally levied as a deterrent or as an affirmation of the power of the state over the lives and bodies of individuals considered criminal or deviant in Roman society. As Harries (2007:35-7) suggests, the status of the offender directly influenced their experience with the rule of law in both the Republic and Empire periods:

The rich criminal always fared better than his 'humble' counterpart, not only because he had a better chance of manipulating the result of his trial through connections and



patronage, but also because respect for status extended to protection even of the guilty from the humiliations inflicted on inferior people. Thus, while the convicted *honestior* faced execution by beheading, the *humilior* might be burned alive, crucified or thrown to the wild beasts. In the latter case he might have to wait for a while in prison minus his civil rights, which were already forfeit, until the time of the next public games...”, and, “...Punishments for people of lower status were physically humiliating as well as painful. Suffering in the mines was less visible, but still profoundly degrading. In the arena the executions of criminals, including bandits, were public and often prolonged and bizarre, sometimes with mythological themes attached [Coleman 1990] (Harries 2007:36).

The Roman legal system created, meted out and controlled the power dynamics among and between the social classes of Roman society from its founding to its fall, providing scholars with an opportunity to understand how the Roman state ensured “stability” and justice through acts of sometimes unpredictable civilly sanctioned and institutionalized acts of violence. The following section reviews the association between violence and the public’s engagement with it through entertainment practices.

#### **2.8.4. Roman Entertainment and Violent Spectacle**

The most famous settings for violent spectacle were the public spaces of entertainment (i.e., arena and circus) where many hundreds of thousands of people lost their lives (Kyle 1998, 2001) in the course of the Republic and Empire periods. On the origins of the gladiatorial games, Fagan (2020:556) writes, “...the best evidence points to roots in the funerary games celebrated in the fourth century BC in southern Italy”, and Carter (2020:504) suggests the first gladiatorial spectacle was held at the funeral of Decimus Iunius Brutus in Rome in 264 BC (Livy, *Epit.* 16 [cited in Carter 2020:504]). By the time of the Emperor Augustus, animal hunts, the execution of prisoners, and gladiatorial fights were combined into mass spectacle events (Östenberg 2009:156-7; Redfern and Booney 2014). The public witnessing of torture, execution, exposure to wild animals, gladiatorial games, chariot races and theater shows in amphitheaters, wooden arenas within a town’s Forum, within the Colosseum or Circus Maximus, was vital to the

security, civic engagement, and the political and economic structure of Roman society throughout Italy and the provinces (Fagan 2020:557-60; Harries 2007:41; Meijer 2010; Östenberg 2009:170-1; Potter 2010). For example, in Roman Lyon during the second century AD, prompted by a citizen mob, local Christians and other criminals were subjected to illegal public torture and prosecution, and later, approved judicial execution by decapitation (although hanging was also acceptable at the time) and were subjected to public torture and a fight to the death in the arena (Eus. *Church History* 5.1.43-4 and 5.1.47-8). Access to arena spectacles appears to have been based in many cases on connections to those who could provide individuals with tickets, or who could afford to purchase tickets, while the viewing and seating positions within arenas were based on social status and connections to powerful sponsors and other local elites (Carter 2020:509; Fagan 2020:559). In 70 BC, Cicero condemned C. Verres for the torture and murder of Roman citizens, stating they were killed ‘in the manner of slaves’ or ‘in the manner of public enemies’, suggesting the infliction of pain was acceptable when it was administered to the lower classes, slaves, or non-citizens (Cicero, *Tusc.* 2.41 [cited in Carter 2020:505]; [Cicero, *Verr.* 1.5.13, (‘slaves’), 2.1.7, 2.1.8, 2.1.9, 2.3.13, 2.3.6, 2.3.59, 2.4.26, 2.5.72-3 (‘public enemies’)] cited in Fagan 2020:568-9). In this way, spectacles of death and destruction in its many forms and spaces served to reflect, regulate, and reproduce inter-state Roman social ideals of dominance, social hierarchy, and stability through ordered violence as a feature of everyday life (Carter 2020; Redfern 2014, 2020a). In order to place the practice of decapitation in the wider Roman social and political context, the following section surveys the primary sources, material and skeletal evidence for small- and large-scale violence over time in the Roman world.

### **2.8.5. Violence during Expansion: The Continent and Roman Britain**

Material evidence indicates that regular cross-cultural interactions occurred between the LIA tribes of Britain and the northwestern region of the Continent controlled by the Roman Empire. Early explanations for the relationship between southern Britain and the Continent during the LIA emphasized the economic nature of relations between the tribal groups and Roman contacts reflected in the evidence for diet, architecture, trade, and burial evidence (T. Moore 2016:263). These complex political connections are also reflected in the coinage that appears in southern Britain beginning in the second century BC (T. Moore 2016:266). With indigenous elites in south-east England acting as ‘middlemen,’ it was argued that this region became a core zone that exploited the peripheries of eastern and western England for commodities – such as slaves, precious metals, and foodstuffs – to supply Rome (Haselgrove 2004; Lenski 2011:193). This indicates that the expansion of the Roman Empire was not necessarily the prime instigator of change, nor was change forced on LIA communities of the Continent and Britain. By the time of Caesar’s progression through northwestern Gaul, Britain was already part of a range of cultural interaction zones experiencing increasing populations, agricultural intensification, and the dynamics of existing social systems that were also important in stimulating changes in social structures, forms of identity, and burial rites over time in the region (Cunliffe 2005; T. Moore 2016:267; Redfern 2020a:321, 329; Salway 1993:30; Wells 2003:148-53).

After emerging victorious from the Battle of Actium in 31 BC, Octavian, later Augustus Caesar, used visual and literary propaganda to spread messages of peace and prosperity following the restructuring of Roman society. In spite of the idea that glory and virtue could only be achieved through victory in battle, diplomatic missions were nearly as desirable as conquest through invasion and once established Roman provinces needed to be protected (Wells

2003:153-58). A good example was Augustus' visit to Gaul in 16 BC to negotiate and trade with local leader Tincommius (Salway 1993:40). However, Roth (2020) suggests an important attitudinal change occurred in Rome over the course of the second century BC wherein many wealthier Romans became less willing to serve in the legions voluntarily, perhaps indicating a shift in the perceived status associated with positions achieved through military service. As elite Romans became less likely to be personally engaged in warfare toward the end of the Roman Republic, Roth suggests that the notion of *virtus* (literally 'manliness') shifts from an association with military skill and courage to the philosophical idea of virtue, which illustrates the complexity of the motivations and meanings of violence in Roman society (Roth 2020:246; Wells 2003:142). Indeed, violence was deployed in some scenarios to denigrate and punish an individual, potentially to strip them of their virtue, not just to achieve virtue through the perpetration of violent action. For example, the soldiers of Cinna displayed the decapitated crania of political opponents in Rome in 87 BC, a type of violence that became more frequent as the Empire gained territory beyond the Mediterranean world between the first century BC and the first century AD, particularly during the Gallic Wars and the Claudian invasion of *Britannia* (Roth 2020:247; Wells 2003:126-131).

Salway suggests the ripple effects of Rome's involvement in violent events may have impacted the maintenance of economic, political, and social relationships with tribes and the speed of imperial expansion into *Britannia*, particularly following the loss of three Roman legions in an ambush by German warriors in the Battle of Teutoburg Forest (Germany) in AD 9 (Salway 1993:44). In the *Annals*, Tacitus described the event and its marked violence and brutality, which is reflected in the archaeological remains recovered, and includes skeletal remains of humans and animals (Tacitus, *Annals* 1.61; Wells 2003:28-9, 49-55). During the rule

of Gaius, otherwise known as Caligula, it is known archaeologically that preparations for the invasion of *Britannia* began with the movement of Roman troops to the shores of Gaul, the erection of military supply bases, the transportation of military naval ships, and the collection of supplies needed to support those troops abroad (Salway 1993:46). However, it would not be until the rule of Claudius that those plans were acted upon with the deployment of Roman troops across the Channel.

The Romans invaded Britain in AD 43 under the command of Aulus Plautius, a relative and associate of Claudius, legate of Pannonia and a respected military commander; they expanded their power there over the succeeding decades. A number of auxiliary units and four legions formed the core of the invasion force: the Second Legion *Augusta* (from Strasbourg), the Ninth Legion *Hispana* (from Pannonia), the Fourteenth Legion *Gemina* (from Mainz) and the Twentieth Legion *Valeria* (from Neuss) (Todd 2004:45-7). The landing of the Roman troops in southeastern *Britannia* near Richborough, Dover, or other nearby ports in the modern county of Kent was apparently not openly opposed by indigenous populations, allowing the army to solidify its position and open diplomatic negotiations. Sites such as Richborough, Dover, Chichester, Fishbourne, Maiden Castle, and Reculver have yielded material in the form of pottery and coinage demonstrating the advance of the Roman legions in AD 43, following the Thames River to what eventually became *Londinium* (Todd 2004:46-7).

Violence toward indigenous IA tribes after the arrival of the Romans in Britain varied in the first and second centuries AD, ranging from small scale skirmishes to regional revolts, such as the Boudiccan Revolt in AD 60-1 (Redfern 2012:84). New urban centers were created whose architecture and internal organization would have changed the way people moved within and between these communities, with the new structures creating new age and gender restrictions on

mobility and access to resources, reinforcing Rome's imperial power. However, Todd (2004) suggests the indigenous elite at *Camulodunum* and other IA centers, such as Hod Hill, and later, Ham Hill and Maiden Castle, continued to observe and express some of their traditional practices, including mortuary rituals (Hamlin 2007; Redfern 2020a:323; Todd 2004:48, 51). The experience of invasion, combined with the fragmentation of communities (particularly in the southeast, the Thames Valley, and the Cotswolds) due to military conscription and relocation to new settlements, enslavement and colonization, likely subjected indigenous populations to psychological and physical trauma (Redfern 2020a). The evidence for military activity in Roman Britain is twofold: 1) distinctive architecture and the creation of physical boundaries and roadways to define the territory over time (e.g., Hadrian's Wall, Fosse Way), and 2) military bases/centers designed to impose and enforce the imperial will on the province (Todd 2004:50). Distinctive military forms of dress and weaponry distinguished Roman soldiers from common citizens and indigenous populations in *Britannia*, while the material culture used to mark their presence in death was carved on their tombstones and included, in some cases, soldiers from auxiliary units depicted holding the trophy heads of adversaries (Hope 2003; Redfern 2020a:332).

The bioarchaeological evidence for military activity and violence in the ERP comes from settlement as well as mortuary contexts. Human remains associated with the AD 43 Claudian invasion have been uncovered at several of Britain's hill forts, one of the most famous being Maiden Castle in Dorset (Redfern 2005, 2007, 2012, 2020a). The burials of young adult males with high rates of peri-mortem evidence of sharp and blunt force trauma from weapons discovered in the eastern entrance likely reflect episodes of conflict in the LIA and the conquest period (Redfern 2020a:334). Primary sources (Dio Cass. 62.1-12; Tacitus, *Agricola*, 1.16.31) for

the Boudiccan Revolt describe how the rebels mutilated the bodies of indigenous tribal women who had married Roman men, while layers of destruction discovered during the excavation of *Camulodunum* contained burnt human remains and a mandible with a sharp force weapon injury most likely belonging to inhabitants who were unable to escape a massacre event (Redfern 2020a:334).

Most of the evidence for post-conquest military activity takes the form of display and/or disposal of trophy body parts in military settlements. These consist of disarticulated crania or limbs, usually recovered from pits within the settlement or in external defensive ditches – a common mortuary activity of the LIA, particularly in the west (Aldhouse Green 2018:4; Armit 2011, 2012, 2018; Armit and Ginn 2007; Armit et al. 2006; Brun 2018; Carr and Knüsel 1997; Craig et al. 2005; Harding 2016; King 2010, 2014; Pearce 1998; Philpott 1991; Redfern 2020a:334; Western and Hurst 2014; Whimster 1981). Examination of the remains recovered from the legionary ditch at *Camulodunum* indicates that heads and other body parts were displayed in the fort. At Vindolanda on Hadrian's Wall in northern Roman Britain, a young adult male cranium recovered from a ditch exhibited a sharp force weapon injury and evidence of being mounted on a pole for display. Urban centers have produced evidence for group or isolated killings during the Romano-British period, with body parts deposited in pits, ditches, wells, or waterscapes (rivers, bogs), often located in liminal spaces (Armit 2018; Butler 2006:38-41; Philpott 1991; Redfern and Booney 2014; Tucker 2012; Wait 1985). Regardless of context, these finds demonstrate that in contrast to rural areas, local and foreign peoples were routinely killed, often in large groups, perhaps as the result of judicial execution or as victims of the conflict staged for arena games (Crowder et al. 2020; Montgomery et al. 2011; Östenberg 2009; Tucker 2014, 2016).

Bioarchaeological evidence for violence towards indigenous women, mainly in the form of enslavement, violent oppression and sexual violence, is also documented for the Romano-British period (Aldhouse Green 2001, 2005, 2006; Lenski 2011; Redfern 2012, 2014). Redfern (2020a) states, “in this period there are many more females with healed assault and sharp force weapon injuries, whose distribution and patterning conform to assault and inter-personal violence...”, injuries which may reflect the lower status of many women and their subjugation in communities in the ERP. For example, at *Corinium Dobunnorum* (Cirencester) in the Cotswolds, female skeletal remains with multiple rib fractures and a healed weapon injury to the cranium were found (Redfern 2020a). Gowland (2015) identified several cases of elder abuse in older females, including one individual who had sustained multiple peri-mortem blows to her face. According to Redfern (2017, 2020a), the web of violence approach reveals that during these periods, similar types of violence took place in communities. The bioarchaeological evidence for violence can be incredibly complex and need not be limited to singular episodes of bodily injury; violence may be experienced throughout the life course in ways that impact health and mortality, as well as funerary rituals (Agarwal and Glencross 2016; Glencross 2011; Gowland 2018; McGovern 2019; Moore 2009a; Redfern 2012).

In the mid to late first century AD, there were various rebellions and violent upheavals in distant regions of the Empire. In the Jewish War of AD 66-73, it is estimated that nearly 1,197,000 Jews were killed by Roman military units. Josephus’ description of the slaughter and mass enslavement in the aftermath of the Jewish War has been interpreted as a common kind of violence in the Roman Empire (Östenberg 2009:157-9, 258; Roth 2020). While the Jewish War was underway, a revolt between the Romans and the Batavians living near the Rhine delta of the Netherlands occurred, leaving mass casualties on both sides (Roth 2020:251). These revolts drew



military resources from other territories in the Empire, which resulted in a military challenge to the Emperor Nero's rule that ultimately led to his death. Following the end of the Julio-Claudian dynasty, the Empire experienced the Year of the Four Emperors (AD 69–70), a period of immense political upheaval in Roman society that ended with the soldier Vespasian being established as the first Emperor of the Flavian dynasty (Roth 2020).

The period of AD 71-193, designated the *Pax Romana*, or the Roman Peace, was characterized by a widespread decline in violent warfare within the Imperial territories under the Flavian and subsequent Antonine Emperors. This period was not without gaps in this push for peace: in the second century AD, the Emperor Trajan waged two wars against the populations of Dacia (AD 101–2 and 105–6) (Roth 2020). Trajan's Column, built in around AD 110, includes propaganda illustrating these campaigns with graphic representations showing soldiers carrying poles with the heads of Dacians displayed on them (Fields 2005:59-62; Harries 2007:14-5, 27, 36; Lepper and Frere 1988; Lusnia 2020:674). In addition, the Parthians invaded from the east in AD 161 and proved troublesome until AD 166, while the German confederations of the Marcomanni and the Quadi, along with the Sarmatians, pushed back against the Roman boundary along the Danube frontier. The military campaigns against the Germans led by Emperor Marcus Aurelius were commemorated on the eponymous column in Rome (Beckmann 2011; Fagan 2016:556; Ferris 2009:84, 100; Lusnia 2020:674). In one scene, some Germans are decapitating other Germans, apparently under Roman supervision. In another scene, Roman soldiers burn down a village and enact more extreme violence against unarmed enemies and non-combatants than is depicted on Trajan's Column (Roth 2020:252-3). The Roman Empire's Crisis of the Third Century (AD 235–85) was marked by endemic civil war, plague, economic inflation and foreign invasion throughout the Empire, particularly on the fringes. An important point to

note relating to the complexity of meanings of violence, as Roth (2020) points out, is that “...through a series of soldier-emperors the army did not use its predominance to loot the empire’s accumulated wealth but fought strenuously to keep the state united and to defend it” (Roth 2020:254-55).

Understanding the prevalence of violence in the Roman world necessitates the contextual analysis of treatment of the body in public and private spheres, in order to situate conceptions of ancestor veneration, fear of the dead, community membership, or outsider status in funerary and mortuary contexts. If decapitation practices in the LRP in western Britain were deployed to demarcate individuals based on an existing spectrum of social behaviors and expressions linked to the local community or wider structures of violence, then this rite and its associated mortuary treatment of the body may have functioned as a way to express, negotiate, or blur meaningful relationships between the deceased and the wider community while introducing recursive tension to the established social order. Decapitated individuals appear in a number of mortuary contexts and were subjected to a range of body treatments, indicating that communities actively created spaces to engage, transform, and enchain the deceased to the world of the living in various ways similar to the disarticulation patterns observed in the LIA in Britain and the Continent (Aldhouse Green 2018:11; Armit 2011, 2012, 2018:7-9; Armit and Ginn 2007; Armit et al. 2011; Cunliffe 1995; Merrifield 1995; Rogers 2018; Shapland and Armit 2012; Schulting and Bradley 2014; Sharples 2010:251-3). This thesis seeks to explore if decapitation was used to distinguish individuals for socio-political or spiritual purposes during the LRP by situationally introducing liminal spaces in mortuary practices associated with the negotiation of status and power within a site and between sites in connection with specific individuals or groups. Another important question is whether decapitation can be archaeologically distinguished from other disarticulation

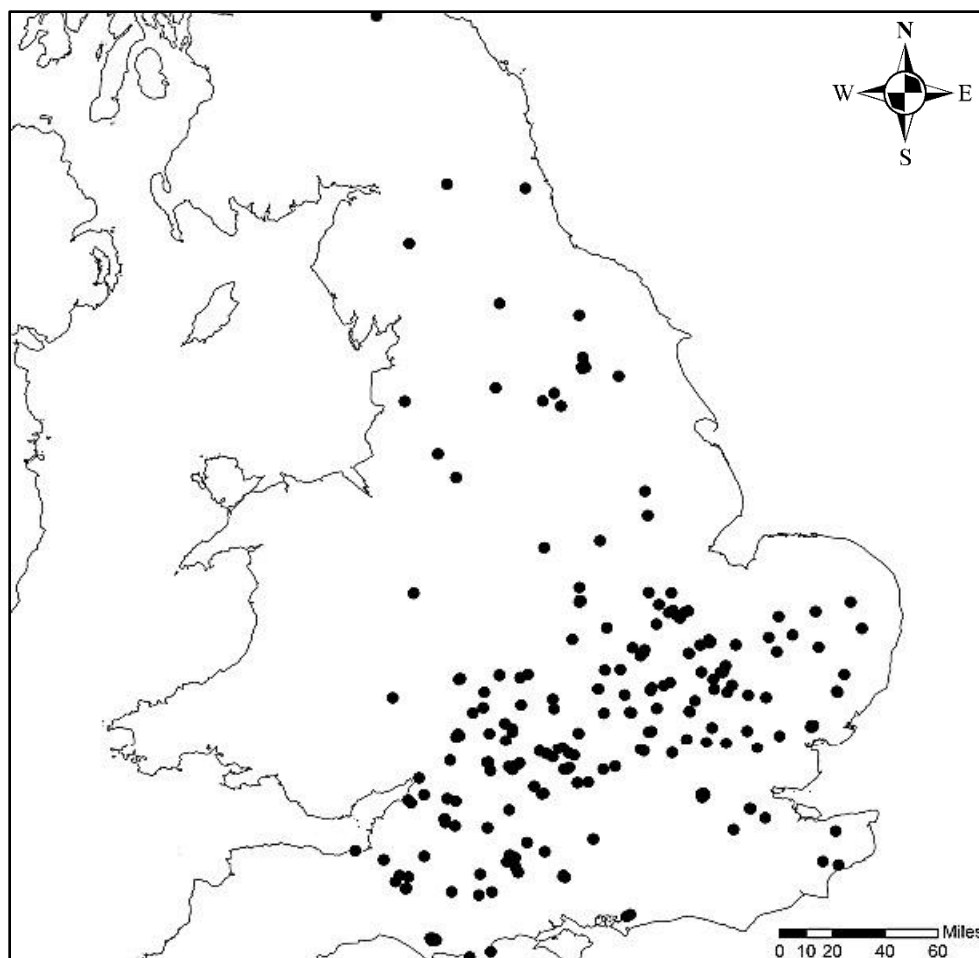
and manipulation practices. The following section provides an overview of the previous studies of decapitation in Roman Britain and will describe how this thesis will contribute to this topic and the broader anthropological literature on identity and violence in society.

## **2.9. Previous Studies of Decapitation Practices in Britain**

Early research into the practice of decapitation in Britain appeared in nineteenth century in reports published based on archaeologically excavated cemeteries, barrows, and settlements. Details regarding the material culture discovered in and around the burials or deposits appears to have been a primary focus for many antiquarian archaeologists, with bioarchaeological analysis and other potentially useful information about mortuary treatment generally provided as an afterthought in most cases. However, those early reports provided the foundational knowledge of the differential treatment of skeletal remains and established a baseline for recording the details of such bodies (Pitt-Rivers 1887:36; Royce 1882:77), highlighting the slow methodological advances of the discipline at the time (Tucker 2012:5-10). Few reports contain detailed notes related to evidence for trauma relating to the recorded decapitations, although an early publication by Mansell-Playdell (1893:24) recorded the age, sex, body position, location of the head and which vertebrae were found with the cranium. In another instance, Brooke (1892) recorded evidence for cut marks on the sixth cervical vertebra of a burial from Manton Down, Wiltshire, where the head had been buried between the feet, and an ampulla was found where the head should have been. Although these contextual details appeared with greater frequency in reports published during the mid- to late-nineteenth centuries (Akerman 1860; Bateman 1861; Cardew 1865; Davis and Thurnam 1865; Greenwell 1877; Mortimer 1905; Pitt-Rivers 1887, 1892, 1898) and early twentieth centuries (Calkin 1947; Cornwall 1954; Fox and Lethbridge 1926; Hencken 1939; Lethbridge 1936; Wheeler 1943, 1954) there would be no larger synthesis

attempting to delineate temporal variation of decapitation practices based on mortuary treatment and evidence for trauma until Clarke's (1979) comparative study of seven decapitated burials from the Romano-British cemetery at Lankills, Winchester.

Previous syntheses have demonstrated that decapitation burials in Roman Britain have a limited geographical distribution in the eastern, central and southern regions of England, with some outliers in the northern regions of the country (Figure 2.1) (Crerar 2012; Smith 2017; Tucker 2012). The spatial distribution and patterning of many of the locations for the concentration of inhumation burials across the aforementioned regions is primarily associated with “the relatively small number of substantial cemeteries, [which] betrays more nuanced intra-regional trends” (Smith 2017:43). Although a limited number of these burials can be dated to the first to second centuries AD, the majority of decapitated individuals seem to belong to the third and fourth centuries AD, a period which has been described as being characterized by increased regionalization across the Empire, in terms of trade (Millet 1990:157-64; Smith 2017:43) and building styles (Burnham 1988:44-45; Hadman 1978). It has been suggested that decapitation burials in the geographically designated “deviant burial zone” were another way of marking the regional and local social identities of individuals of low or criminal status in Roman Britain (Aldhouse Green 2001; Redfern 2020a:323; Smith 2017:45; Tucker 2012:243); an association that is challenged from an analytical perspective in this thesis by a reconsideration of the term ‘deviant’ and the automatic association of decapitation with negative social status.



*Figure 2.1. Romano-British archaeological sites represented with decapitated skeletal remains (adapted from Tucker [2016:48, Fig. 6]; modified by author).*

Clarke's (1979) synthesis of twenty-nine Romano-British sites, containing a total of 76 decapitation burials, explored the mortuary treatment of the decapitation burials and compared identifiable patterns to seven decapitated burials excavated from the cemetery at Lankhills, Winchester. The study revealed evidence for diverse placement of the cranium in several places within the burials, and using those data, Clarke concluded that the majority of decapitation burials date to the LRP and were primarily located in rural sites in the southern and central regions of Britain (Clarke 1979:372-5). Harman et al. (1981) published a synthesis of 144 decapitation burials recovered from forty-nine Romano-British period sites, predominantly dating to the LRP. One of the key contributions of this study was to demonstrate that

decapitation burials were concentrated in the northeastern and southwestern areas of the country, in both rural and urban contexts, with a major cluster in southern and central England roughly between the Severn to the west and the Wash to the east (Harman et al. 1981:163-6; Smith 2017). In addition, this study provided a detailed analysis of age, sex, stature, pathologies, trauma, and the most common patterns of mortuary treatment of the bodies using updated methodological approaches, which revealed some of the first regional patterns for decapitation practices hinted at in earlier antiquarian reports (Harman et al. 1981:165-6).

A seminal survey published by Philpott (1991) of burial practices in Roman Britain, including details of the known decapitation burials from seventy sites, combined the existing archaeological and osteological evidence from all previously documented studies in a comprehensive review of burial forms and practices from the ERP to the LRP (Philpott 1991). Philpott's key contributions confirmed Clarke's (1979:374) suggestion that decapitation was mostly a rural practice that spread to urban sites during the fourth century AD, as well as the finding that in most cases the cranium was removed from the front between the third and fourth cervical vertebrae with a sharp instrument, and a degree of care and precision, before the body (or parts of the body) were placed in the grave. If the cranium was present, it was placed adjacent to or on the lower part of the body in almost all cases. Philpott suggests individuals were already drugged or dead when the decapitation occurred, indicating the existence of a post-mortem rite (Philpott 1991:78-80). Lastly, the study supported Harman et al. (1981) who concluded that the mortuary treatment of the cranium consisted of three distinct patterns: severed but left in the correct anatomical position, severed and located in a displaced location, or missing from the grave entirely (Philpott 1991:305-9).

The gazetteer produced by O'Brien (1999) mainly examined the state of known Post-Roman and Early Medieval burial practices in England, although a small number of additional Roman decapitation sites were also discussed. Although the study did not provide demographic or specific temporal periods for the new sites with decapitation burials, it did provide brief summaries for each site where new decapitation burials had been recorded and contributed an updated map of sites and the locations of those burials (O'Brien 1999:440-1). The survey by Roberts and Cox (2003) analyzed the evidence for pathological conditions and trauma in 5,716 individuals from fifty-two Romano-British sites. The analysis of fifty-eight confirmed decapitated individuals from nine sites revealed the presence of cut marks to the cervical vertebrae, cranial base or mandible, from the front of the neck with a high degree of skill, apart from a little bone damage, and a nearly 2:1 prevalence of males to females (Reece 1988:98; Roberts and Cox 2003:153-8, Table 1.2). Interestingly, Roberts and Cox also that decapitation was typically carried out post-mortem due the absence of evidence of additional damage to the vertebrae (if severed from the front the arterial blood vessels would produce enough blood to obscure the view of the precise spot of the original cut) and precision of the cuts (a living individual would have struggled and made a precision cut difficult to complete) (Boylston et al. 2000:250; Harman 2007:43; Jones 2003:35; Reece 1988:98; Roberts and Cox 2003:153-8; Stirland 1998:121; Taylor 2003; Witkin 2005:184). However, if these decapitations were part of sacrificial rituals, the shedding of blood may have been an integral part of the process and may not have left traces on the skeleton after the initial cut(s) was performed, and therefore decapitation as a post-mortem activity could not be ruled out (Aldhouse Green 1998:173, 2001, 2005; Armit 2006:3, 2011, 2012, 2018; Bradley 1995:9-10; Brun 2018; Tucker 2014).

A variety of interpretations for decapitation practices in Romano-British mortuary and settlement contexts have been posited, although none of them explain all existing archaeological contexts (Tucker 2012:17-21). The act of decapitation has been assumed to be a post-mortem burial ritual, although recent studies have found some evidence for its use in peri-mortem contexts (Montgomery et al. 2011; Tucker 2014). During the Romano-British period, isolated head burials are occasionally found and have been interpreted as possible offerings to the gods to ensure fertility (Henig 1984:24; Watts 1998:82) or as ritual items connected to LIA head cults in the form of trophies of war or display of venerated ancestors (Armit 2006, 2010, 2012, 2017, 2018; Armit and Ginn 2007; Armit and Schulting 2007; Armit et al. 2011; Holst 2004:11; Leary and Butler 2012; Mattingly 2006:476-79; Mays and Steele 1996; Redfern and Booney 2014; Timby et al. 2007:156; Watts 1991:197, 1998; Wells 2020; Wilkinson and Barker 1997; Wilmott and Rahtz 1985:173). It has also been suggested that the burials were part of a sacrificial rite associated with animals and/or humans (Aldhouse Green 2001, 2005; Anderson 2001:404; Armit 2010, 2018; Armit et al. 2011; Brun 2018:16; Esmonde Cleary 2000:135; Philpott 1991:86; Timberlake et al. 2007:57; Western and Hurst 2014), or to aid the souls of individuals denied proper burial rites to enter the afterlife and prevent the souls of individuals who were deemed to have died prematurely, or in an unusual manner, to enter the afterlife (Casa Hatton and Wall 2006:19; Henig and Booth 2000:133; McDonald 1979:416-17; Merrifield 1987:75-6).

Contradictory interpretations include the idea that decapitation was performed in order to prevent the dead from reaching the afterlife (Wait 1995:507-9; Watts 1998:82), as well as preventing the dead from returning to haunt the living (Lethbridge 1936:117; McKinley and Egging-Dinwiddy 2009:58; Merrifield 1987:71). Another view holds that decapitation was carried out as a form of *poena post mortem* (punishment after death) on the corpse of an



individual deemed to have committed some crime or broken a social taboo during their lifetime (Jones 2003:35; Taylor 2008:96). Despite the work of Pader (1980, 1982) and Shay (1985) on the variability inherent in ‘deviant’ identities, the idea that the term ‘deviant’ has ‘negative’ connotations has seeped into the subconscious of the discipline as a whole. More recent publications on the subject focus on atypical burial practices as representing evidence for a ‘darker attitude towards corpses’ (Taylor 2008:92). This has resulted in what can be viewed as a ‘checklist’ of archaeological mortuary variables that are seen as evidence for a negative social identity. Interpretations of the bodies of people who received these burial treatments frequently conclude that they had, in some way, affronted social rules or standards, either deliberately or involuntarily (Prus and Grills 2003:75). However, in the last decade, more recent studies have challenged the ‘normative’ template created by previous authors, and have shown by means of the burial evidence that there was significant regional variation and the creation of strong, local, heterogeneous traditions in communities throughout Britain (Allason-Jones 2001; Aspöck 2008, 2009; Crerar 2012, 2016; Crowder et al. 2020; Giles 2012, 2016; Harding 2016; S. Jones 2007; Leach et al. 2010; Mathisen and Shanzer 2011; Mattingly 2004, 2011; Millett 1990; Rogers 2018).

Recent studies focused on contextual and multi-disciplinary approaches have embraced ‘deviant’ burials and consider them from current perspectives in archaeological theory (Betsinger and Scott 2014; Gregoricka et al. 2014; Gregoricka et al. 2017; Leggett and Damman 2018; Murphy 2008, 2018; Tsaliki 2008, Tucker and Melisch 2018), including the specific meaning of places of deposition in a natural landscape or within areas of human activity. Reynolds (2002:188; 2009) has for example argued that early Anglo-Saxon deviant burials in cemeteries should be viewed differently from those of the later Anglo-Saxon period, which were placed on

boundary lines. In particular, research on non-normative deposition of human remains, i.e., not in formal mortuary contexts, has focused on the use of the location of these deposits as a way of interpreting their purpose (Esmonde-Cleary 2000:138; Isserlin 1997:92; Reynolds 2009). Taylor (2002:144-69), for example, has argued that the liminal character of bogs was an important aspect of the rituals performed on IA bog bodies in northern Europe, an idea that has been further developed by several scholars since (Armit 2018; Crerar 2012, 2016; Williams 2003).

In Romano-British contexts, deviant burials quite often exhibit evidence for pathologies, which would have been visible during life in some instances, possibly marking them as different during their lifetimes (Crerar 2012; Lynch 2007; McKinley and Egging-Dinwiddy 2009; Montgomery et al. 2011; Redfern and Booney 2014; Tucker 2012). Topics involving disability and social inclusion/exclusion have recently gained attention and have highlighted the question of how to make visible the disadvantaged and socially excluded in the archaeological and skeletal record (Graham 2013; Hubert 2000; Murphy 2018:112; Reusch 2018; Roberts 2000b:47). Burying disabled people differently from other members of their community may reveal how they were perceived during their lifetime and provide information about the ‘attitude’ shown towards disabled people in past societies (Buck et al. 2019; Murphy 2000:74-5; Papadopoulos 2000; Roberts 2000b:56; Tucker 2012). Some of these later studies incorporate theoretical concerns about agency, rituals, death, and marginal groups in society, concerns generally favored in post-processual studies. In the context of such post-processual studies, deviant burials are not merely considered a by-product of mortuary practices within a given society but are assumed to be able to reveal socio-political and ideological changes (Aspöck 2008:27; Becker 1963:8-9; Leggett and Damman 2018:5).

Lastly, as the term has become more widely used as a heuristic device for archaeologists of diverse backgrounds, a major focus on refining the terminology of deviance has developed in archaeological discourse (Aspöck 2008, 2009; Harries 2007:127-30; Murphy 2018). The English word ‘deviant’ traditionally has a negative and/or sexual connotation and might imply that the individual in the burial context was a social deviant or that the burial ritual itself was in some way perverse and/or inappropriate (Hodgson 2013; Leggett and Damman 2018). The use of this term and its associated limited and pejorative meaning is problematic, especially given the scant archaeological evidence available and the often-unsound excavation methods used in early discoveries. In some cases in North American and Canadian archaeology, in lieu of using the term ‘deviant’, archaeologists instead favor classifications such as ‘unusual’, ‘non-normative’, ‘extraordinary’, or ‘atypical’ burials, which raises the question of the usefulness of the archaeological concept of deviancy (Aspöck 2008; Balter 2005; Pearce 2013; Taylor 2008; Tsaliki 2008). Whatever the chosen classification, normative and deviant burial traditions are linked through the involvement of the community, and perhaps if the concept is to be a useful heuristic device, it should not be dichotomized by archaeologists (Aspöck 2008:30, 2009; Murphy 2018:112; Prus and Grills 2003:31-70). At minimum, archaeologists must be sure to provide clear definitions of any terminology utilized and be wary of applying vague or over generalized interpretations of burial rites in deviant burial contexts.

A recent large-scale study of decapitation practices in British prehistory by Tucker (2012) has significantly advanced our osteological understanding of this category of mortuary treatment but the temporal scope of the project precluded the kind of deeper study presented by this thesis project. Drawing largely on secondary sources, Tucker compiled an extensive database of decapitation examples dating to the Neolithic Period (4000–2500 BC), Bronze Age (2500–800

BC), Iron Age (800 BC–AD 43), Roman Period (AD 43–410), and Medieval Period (AD 450–1500) that included detailed osteological analysis of the types of cut marks and trauma related to decapitation (Tucker 2012:22-3). Tucker’s goal was to place decapitations from the Neolithic Period through the Medieval Period in the United Kingdom and Continental Europe in a broader mortuary context to identify possible spatial and temporal continuities in decapitation practices.

Tucker amassed the available mortuary and bioarchaeological data of the known 512 decapitation burials from previously published records, and conducted in-person osteological analysis and photographed the physical remains of 169 individuals from fifty-two sites throughout Britain in order to assess decapitation form as well as the health profile and evidence of trauma exhibited by decapitated individuals through time. Of the total number of individuals sampled in-person for her analysis, only 124 dated to the ER and LR periods. Tucker used standard osteological methods to record different skeletal variables and burial treatment data for each individual analyzed (Table 2.2). The criteria influencing the selection of Tucker’s sample included degree of preservation of the remains, the date the remains were excavated, reliability of reports and current availability of skeletal remains (Tucker 2012:27-44). Data gathered from secondary sources and the results of the physical examination were added to a database and analyzed for cross-correlated patterns using Fisher’s exact test for small samples, the chi-square test for larger sample sizes, and the *t-test* and one sample *t-test* to compare means of continuous data (Shennan [1997] cited in Tucker [2012:44]).

*Table 2.2. Overview of variables and related sources in Tucker (2012).*

<b>Methods and variables assessed in Tucker (2012)</b>	
<b>Variables</b>	<b>References (cited in Tucker 2012)</b>
Age	Buikstra and Ubelaker 1994; Scheuer and Black 2000
Sex	Buikstra and Ubelaker 1994; Cox and Mays 2000
Pathologies	Aufderheide and Rodriguez-Martin 1998; Ortner 2003
Trauma fractures	Boylston 2000; Buikstra and Ubelaker 1994; Knüsel 2005; Loe 2009; Lovell 1997; Novak 2000; Sauer 1998
Decapitation type	Tucker 2012:109
Absence or presence of skeletal elements	Knüsel and Outram 2004; Tucker 2012:82-3, 83-92
Metric data	Gosden 2006; Larsen 1997; Trotter 1970
Non-metric data	Buikstra and Ubelaker 1994; Tyrrell 2000
Burial treatment: Grave inclusions (coins, pottery, hobnails, other objects), Body container presence, body position, and placement of head	Coins: Reece 1991, 1995 Glass vessels: Cool and Baxter 1999 Ceramics: Evans 2001 Animal bones: Grant 2004; King 1984, 1999, 2004; Maltby 1994, 2007; Tucker 2012:82-3, 83-92

The results of Tucker's overview of the physical evidence for peri-mortem trauma and post-mortem mutilation in formal and informal burials and isolated deposits in Britain and Continental Europe suggest that none of the patterns detected can be attributed to a pan-British or pan-European standardized set of decapitation practices (Table 2.3). The Roman period examples of decapitation from Continental European contexts mainly consist of isolated skull deposits and articulated inhumations, which closely parallels earlier Neolithic and Bronze Age forms of decapitation and depositional practices. However, the comparison of decapitation and modes of deposition and burial on Romano-British sites revealed localized and diverse patterns (Tucker 2012:112), suggesting that decapitation in Roman Britain was an autochthonous development and not the result of Continental European influence diffusing into Britain during earlier periods or after Roman contact (Tucker 2012:133-9; 2016).

Table 2.3. Decapitation practice trends in British Prehistory (Tucker 2012).

Evidence for decapitation practices in British Prehistory					
Period	No. of sites	No. of indiv.	Sex	Age	Burial context
Neolithic (4000-2500 BC)	28	44	M/F (40% female)	A/Non-A (33% Non-A)	Mainly isolated deposits of crania and mandibles
Bronze (2500-800 BC)	47	64	M/F (33% female)	A/Non-A (25% Non-A)	Mainly isolated deposits of crania Isolated burials or barrows
Iron Age (800 BC-AD 43)	62	113	M/F (25% female)	A/Non-A (14% Non-A)	Mainly isolated deposits of crania Isolated burials in caves, barrows, settlements
Roman Periods (Early-Late)	218	512	M/F (28.7% female)	A/Non-A (10.1% Non-A)	Mainly in cemeteries or roadside plots, followed by isolated deposits in settlements or ditches
<b>Total</b>	355	733			

Another contribution of Tucker's study was the development of a list of osteological signatures for determining whether decapitation was deployed ante-, peri-, or post-mortem on an individual basis (Tucker 2012:87–92), as well as a standardized definition for decapitation. Tucker defined a decapitation burial as a burial in which a) the head has been removed from its anatomical position and replaced elsewhere in the grave, b) the head is missing entirely from the burial, or c) the head is in the correct anatomical position yet shows evidence of decapitation trauma. These definitions were adopted by the current project with additional qualifications where required during the analysis. The presence of cut marks on the cervical vertebrae, cranial base, mandible or shoulder girdle are considered markers of decapitation (Tucker 2012:5). In comparing the health, trauma, and other demographic features of decapitated individuals within each site type (e.g., urban, rural, small town, villa) by temporal period, Tucker identified two trends: highly variable decapitation practices and an increase in their use during the Roman period. A number of significant patterns were discovered in types of mortuary treatment,

demographic evidence, health profiles, and evidence of trauma in the Roman period decapitation sample (Tables 2.4, 2.5 and 2.6).

*Table 2.4. Variability in decapitation contexts in urban sites compared to the wider population in Britain (based on Tucker [2012]).*

<b>Decapitation contexts in urban sites compared to the wider population</b>			
<b>Pattern</b>	<b>More</b>	<b>Fewer</b>	<b>Variety</b>
Age	Adults	Immature	-
Sex	Males	-	-
Location of head	-	-	More
Burial position	Prone	-	-
Grave goods	-	Fewer	-
Coffin	-	Fewer	-
Pathologies	More	-	-
Decapitation form	-	-	Males – posterior; Females – anterior Females – more Type 3 decapitation
Trauma	-	-	Males – one blow; females – two or three blows Urban decapitation: one blow

*Table 2.5. Decapitation burial and depositional trends in rural/small town sites compared to the wider population in Britain (based on Tucker [2012]).*

<b>Decapitation contexts in rural/small town sites compared to the wider population</b>			
<b>Pattern</b>	<b>More</b>	<b>Fewer</b>	<b>Variety</b>
Age	Adults	Immature, elderly	-
Sex	Females	-	-
Burial position	-	-	Likely supine
Location of head	-	-	Fewer
Grave goods	More likely	-	-
Coffin	More likely	-	-
Pathologies	-	Fewer	-
Decapitation form	-	-	Type 2 more common
Trauma	-	-	Rural decapitations: four blows

*Table 2.6. Decapitation burial and depositional trends compared to wider population in Britain (based on Tucker [2012]).*

<b>Overall decapitation contexts compared to the wider population in Roman Britain</b>			
<b>All counties</b>	<b>Burial practice</b>	<b>Health profile</b>	<b>Trauma</b>
Rural/small town	Similar overall	Fewer pathologies; poss. connection w/ visible path	More trauma; mutilation
Urban	Age and sex diffs	More pathologies; poss. connection w/ visible path	More trauma; mutilation; amputation

While Tucker’s study provides an important first step in developing a regional analysis of decapitations in Britain through time, her interpretations, particularly the prevalence of violence and the associated meaning or motivations of the rite on a case-by-case basis or over time, were limited by a static consideration of site types and their development throughout the Romano-British period. As a result, Tucker’s conclusions regarding the practice of decapitation and its correlates over time may not be completely representative of actual practices. Moreover, her study does not include a discussion of the relevance of the decapitation phenomenon within the larger context of the conceptual and theoretical literature of ‘othering’, the body as material culture, identity more generally, or the significance of the diverse mortuary treatment of decapitated individuals from a cross-cultural perspective, such as the intentional fragmentation of select decapitated individuals vs. other individuals, for example, as is attested in some Romano-British period cemeteries (see Armit 2012; Bonogofsky 2011; Crandall and Martin 2014; Martin et al. 2012; Montgomery et al. 2011; Robb and Harris 2013; Sofaer 2006; Tucker 2012, 2014, 2016). This thesis makes these connections in the context of an in-depth analysis of both Tucker’s broader treatment of Romano-British decapitation practices and Crerar’s (2012, 2016) contextual regional treatment of Romano-British decapitation practices and social identity analysis.



Crerar (2012) analyzed the mortuary treatment of 3,689 individuals from 59 Romano-British sites with and without decapitation in three regions: Greater London, Dorchester and its hinterlands, and the Fen Edge in Cambridgeshire. Her study presents evidence for regional variability in decapitation practices by contextualizing the mortuary data considered representative of social identity within and between sites with and without evidence for decapitation. If specific patterns emerged within some sites and not in other sites, they might reveal whether decapitation was utilized by different regions in specific ways focused on particular members of communities. In addition, contextualizing patterns for specific regions resulted in a more nuanced picture of cultural construction of identities through mortuary treatment within Roman Britain than was possible based on Tucker's more geographically and temporally wide-ranging but less in-depth analysis (Crerar 2012:1). Crerar's justification for exploring the subject of identity formation in conjunction with decapitation practices is contextualized in a detailed literature review on social deviancy in the archaeological literature and adds to the scholarly discourse of how archaeologists can integrate social theories that have been disassociated from discussions of deviancy in the future (Crerar 2012:6-37).

Crerar compiled mortuary data derived from LRP (3<sup>rd</sup> – 5<sup>th</sup> centuries AD) inhumation burials mainly drawn from large scale assessments completed by Philpott (1991) and Tucker (2012), as well as recently excavated reports. She did not carry out the osteological analysis of the skeletal remains in her sample herself but relied instead on published data from a more narrowly focused geographic region than Tucker's study. In the process of gathering and organizing this data, Crerar used the typology for distinguishing between decapitation forms established by Tucker (2012), including distinguishing deliberate human decapitation from natural disarticulation and distinguishing peri-mortem from post-mortem or post-depositional

decapitation (Crerar 2012:70-1). Crerar integrated data from cemeteries with and without decapitations within the regions selected for the project so that it was possible to compare patterns in the mortuary data to non-decapitation burials within sites, between sites and between regions. Finally, Crerar compared the data from the three regions to the general mortuary trends in cemeteries without decapitation burials (Crerar 2012:77-94, 107-40, 141-75). Based on these results, she was able to build a profile of decapitation trends vs. general normative burial trends for the LRP in each of the three regions in order to contextualize the degree of heterogeneity exhibited in burial trends. The approaches and conclusions generated by these previous studies served as the basis for the approach utilized in the current project in order to make comparisons between the regions involved.

Crerar's contextualized assessment of decapitation practices from three separate regions during the LRP in eastern and southern Britain revealed not only subtle diverse forms of the rite, but revealed no evidence supporting the idea that decapitation was a form of ostracism due to the deviant social persona of the deceased. The practice of decapitation has not been consistently associated with concepts of social ostracism in Roman literary sources, however, broader negative associations between decapitation and punishment in the Roman world have been noted (Crerar 2012:35). Pliny the Elder wrote about a custom of spitting on persons with afflictions such as leprosy or epilepsy to avoid contagion, suggesting a link between physical appearance and perceived ability, and a negative stigma impacting potential behavior in response to such individuals (Crerar 2012:34; Pliny *Natural History* XXVIII.7). From this evidence, it is worth considering that disease was likely a factor in demarcating an individual as a social other in Roman society, which may have influenced their burial treatment (Boylston et al. 2000:251-2;

Crerar 2012:67). There is no mention of burial rites compared to the wider population due to physical affliction as an outcome.

Instances where decapitated individuals had experienced differential burial treatment were noted, but the patterns were not statistically significant (Crerar 2012:177). Crerar's assessment revealed that there were similarities between the burial treatment of these individuals and non-decapitated individuals in the same cemeteries and within the wider population in the region, which suggests decapitation demonstrates integration in many cases with existing and widely expressed mortuary trends that may have been deemed normative in the Roman world (Tables 2.7, 2.8 and 2.9).

*Table 2.7. Decapitation contexts in Greater London compared to general regional trends (Crerar 2012).*

<b>Summary of mortuary patterns in Greater London</b>		
<b>Cemetery sites</b>	<b>Decapitation/Non-decapitation similarities</b>	<b>Decapitation/Non-decapitation differences</b>
Eastern cemetery	Burial patterns, spatial distribution, removal of non-cranial bones, fragmentation and disarticulation	Spatial distribution and grave good presence and similar position of cranium for decapitation with type 1a and type 2 decapitation form
Lant Street	Burial patterns, location, leaving behind long bones and disarticulation bones	No decapitation burials Dismemberment and manipulation
Trinity Street	Burial patterns, location, leaving behind long bones and disarticulation bones	No decapitation burials Dismemberment and manipulation

*Table 2.8. Comparison of decapitation contexts in the Fen Edge region (Crerar 2012).*

<b>Summary of mortuary patterns in Fen Edge region</b>		
<b>Cemetery sites</b>	<b>Decapitation/Non-decapitation similarities</b>	<b>Decapitation/Non-decapitation differences</b>
Baraham	Burial patterns, pathologies, geographical origin, trauma, sex	Age (adult age) and stature
Jesus Lane	Burial patterns, pathologies, geographical origin, trauma, demography	N/A Decapitations compared: differences in pathologies and body posture
Foxton	Pathology, spatial distribution, demography	Grave good and coffin presence, two burial traditions links, demography of two elderly females (others)

Table 2.9. Comparison of decapitation and normative burials in Dorchester and hinterlands (Crerar 2012).

Summary of mortuary patterns in Dorchester region		
Cemetery sites	Decapitation/Non-decapitation similarities	Decapitation/Non-decapitation differences
Poundbury	Burial patterns, spatial distribution, location, pathologies, geographical origin, trauma, demography	Manipulation
Little Keep	Burial patterns, pathologies, geographical origin, trauma, demography	Grave good presence, variety in burial position, demographic spatial segregation

Crerar's connection of the decapitation rite with more prevalent but under-reported fragmentation of human and non-human remains has revealed that these practices in eastern and southern Roman Britain were connected and may have constituted a sub-class of mortuary behavior practiced throughout the Roman period to differing degrees – as shown in the Greater London cemetery analysis (Crerar 2012:177, 179-80; 2016). The diversity of mortuary practices documented by Crerar's study sheds light on the need for more in-depth investigation of the ways in which broader mortuary trends are related to the decapitation practices within sites and regions; western Roman Britain was chosen for the current study to expand the scope of the geographic contexts associated with the practice of decapitation. Different regions may have practiced different forms of decapitation and may have been either more or less similar to more widely practiced mortuary trends. Using Crerar's results as a baseline allows us to test the idea that heterogenous funerary activities, uses of the body, and its connection to the community, as represented by the Foxton cemetery in the Fen Edge region, were not restricted to her study area (Crerar 2012:94, 106).

Crerar demonstrated that the distribution of evidence for decapitation does not correspond to an increase in mortuary homogeneity and conservatism in burial rites due to the urbanization of settlements in the course of the Romano-British period, as she also suggests

(Crerar 2012:176). She noted an increased use of fragmentation of the body more generally in the LRP (especially in London cemeteries), despite growing numbers of settlements with normative inhumations in highly ordered cemeteries (Crerar 2012:177). This implies that a complex relationship existed between the disposal of human remains and the integration of rites similar to those found in the LIA involving fragmentation of disarticulated or whole remains, rather than a rejection of such practices as Roman Britain became more urbanized (Aldhouse Green 2018:4; Armit 2006, 2010, 2011, 2012, 2018; Armit et al. 2011; Brun 2018; Butler 2006:38-41; Harding 2016; King 2010, 2014; Leary and Butler 2012; Montgomery et al. 2011; Pearce 1998; Philpott 1991; Redfern 2014, 2020a:334; Redfern and Booney 2014; Rogers 2018; Shapland and Armit 2012; Schulting and Bradley 2014; Tucker 2012; Wait 1985; Western and Hurst 2014; Whimster 1981). Crerar concludes with a suggestion that future projects should investigate locations where decapitation is rare, such as Kent, in order to test whether this pattern holds true throughout Britain, or whether fragmentation in mortuary contexts was regionally specific (Crerar 2012:181). This thesis will test the possible trends revealed by Crerar and Tucker against the evidence for decapitation in mortuary contexts from Gloucestershire and Oxfordshire, counties that were not included in Crerar's analysis and were only superficially addressed by Tucker in her study of more general trends of violence to the body and the cultural prevalence of such practices.

Crerar's overall assessment of the variability exhibited by the decapitation sample in her three study regions revealed decreased coffin use, increased presence of grave goods, and potential non-supine body position in association with decapitation, which may imply that such beheadings were closely tied to a particular mortuary treatment 'package'. As such, Crerar suggests that the act of decapitation seems to have been the product of particular regional beliefs

about the burial of the dead held by certain persons or communities rather than an automatic response to the death of someone with a particular social persona in life: an indicator of group membership rather than a marker of individual social identity (Smith 2017:43-6). The former concept was a broad construct encompassing citizens and non-citizens, both included for community membership consideration assuming no outstanding moral behavioral offenses were known (Fagan 2020:553; Williamson 2016). The latter may have been reflected mainly in the choice of funerary materials, which lends credence to the existence of regional differences in how these rites were applied and the profiles of the decapitated populations in response to these differences (Crerar 2012:178).

Crerar notes that even when morphological uniformity is present in a general sense, decapitation may not have had the same meaning across all contexts and subtle differences within sites, within regions, and between regions in the use of decapitation may reflect the individualized nature of the rite and the selection of funerary activities and materials by the living within each community (Crerar 2012:180). Crerar suggests that archaeologists focusing on this rite during the LRP should view it as a widely practiced funerary behavior that was subject to regionally specific beliefs and activities that manipulated subtle outcomes of the rite within individual burials. Identifying these patterns of use on a regional basis need not require archaeologists to conceive of distinct or rigid funerary treatments automatically assigned to individuals associated with a negative social persona or status. Instead, the analysis should contextualize the rite by comparing it to other biological and social variables observed within the mortuary treatment patterns of the wider burial population in each region (Crerar 2012:180). A more in-depth comparison of these alternate rites with the normalized more widely practiced funerary activity suggests that although there was a general shift from cremation to inhumation

burials around the third century AD, this did not preclude the alternate practices from continuing in Roman Britain. The study concludes by suggesting that the corpse could have been a ‘ritually empowered object’ used by Roman society as a vehicle for self-expression in certain contexts. With the exception of Crerar’s (2012) regional study, broader surveys have provided a wealth of data regarding burial practices, including decapitation, but have not included finer levels of analysis, and thus have tended to perpetuate interpretations that stress a homogenous picture of the status of the individuals discovered in these contexts (Philpott 1991; Taylor 2010). A few less comprehensive analyses have followed Crerar (2012, 2016) in concluding that decapitation practices were variable and the treatment of the body can reveal complex views of the dead and their relationships with the living or place in the community that may have been defined by influences from concepts of structural violence in Roman society (Aldhouse Green 1998, 2001, 2005; Armit 2012; Müldner et al. 2011; O’Brien 1999; Redfern 2012, 2014, 2017, 2020a; Tucker 2016).

The variability observed in mortuary practices should be viewed as a way to interrogate the mortuary contexts more holistically and explore whether or not an individual may have been marked as more or less different compared to the local population. In this thesis, decapitation burials and the funerary treatment to which they were subjected will not be dichotomized as ‘deviant’: ‘normative’; instead, data gathered from the mortuary contexts and skeletal evidence will be analyzed using an approach that draws on earlier studies by Pader (1980) and Aspöck (2008, 2009), known as ‘the relativity of normality’. This approach stipulates that non-normative burials should not be interpreted in relation to the normative/standardized burial program representative of the rest of the population; rather, they should be analyzed along a spectrum of characteristics deemed specific to the funerary structures of the community at the time (Aspöck

2009:107; Harries 2007:128; Pearce 2013; Pearce and Weekes 2017; Scarpitti 1975:6). This contextual approach has been adopted in this thesis to avoid directly linking preconceived notions of the social identity of the decapitated individuals in the study sample with observed patterns in the funerary treatment documented in local and regional cemetery contexts.

## **2.10. Conclusion**

This chapter has outlined the theoretical approaches to mortuary archaeology, identity studies, the body and practice theory, life course and osteobiography, anthropological studies of violence, violence in the Roman world, and previous studies of decapitation practices in Roman Britain. This thesis situates the decapitation burials and their mortuary contexts within the larger context of the range of burial treatment and fragmentation of the body documented for Roman Britain. Distinguishing between the range of forms of mortuary treatment on an inter- and intra-site basis in LRP Oxfordshire and Gloucestershire will allow any observed patterns to be compared to those identified in previous studies of decapitation inhumation burials from Roman London, Dorchester and Cambridgeshire (Crerar 2012, 2016) to gain a better understanding of the geographic range of these diverse practices. Chapter Three outlines the methodology employed to examine the bioarchaeological, taphonomic and mortuary treatment data and the typology for distinguishing between the different forms of decapitation practices within the study area.



## **Chapter Three: Methods**

### **3.1. Introduction**

This chapter outlines and describes the parameters of the data set on which this thesis was based as well as the data collection procedures and the types of qualitative and quantitative analyses carried out to address the initial hypothesis and secondary research questions. The aim was to examine diverse mortuary contexts and socially marked funerary behavior in inhumation burials recovered from cemeteries and isolated burials in Oxfordshire and Gloucestershire during the LRP (3<sup>rd</sup> – 5<sup>th</sup> century AD) in order to contextualize the phenomenon of decapitation practices at the site and community levels. This approach makes possible a more nuanced and fine-grained examination of the chronological development of mortuary behavior associated with decapitation acts and contributes to a broader understanding of the factors influencing and governing the social variation displayed in localized funerary structures in Roman Britain. In addition, the results of the analysis presented in Chapter Four are compared to previous studies of decapitation (Crerar 2012, 2016; Tucker 2012, 2016) in Chapter Five to identify any similarities or differences in decapitation practices in regions of Roman Britain not covered in those studies.

Most broader surveys (but see Crerar [2012]) have provided a wealth of data regarding non-normative burial practices, including decapitation, but do not include more fine-grained levels of analysis comparing patterns of decapitation and non-decapitation burials between or within sites and across regions and time periods. Interpretations have tended to assume that decapitation marked a consistently defined status, role, origin or association of the individuals discovered in these contexts (Moore 2009b; Philpott 1991; Taylor 2010). A few limited case

studies have analyzed these contexts on a more fine-grained scale, including examining presumed status or motivations for variable mortuary treatment (especially body treatment), the place of the individual or communal group, and identity within Romano-British society (Aldhouse Green 1998; Armit 2012; Harman et al. 1981; Müldner et al. 2011; O'Brien 1999; Tucker 2016; Wiseman et al. 2021). The anthropological perspective, which this study contributes to the existing body of literature on the decapitation phenomenon, either is absent or only superficially applied in the majority of these studies.

This thesis analyzes all of the known LRP decapitation inhumation burials and deposition contexts (122) from a total of 44 sites in a region congruent with the modern counties of Gloucestershire and Oxfordshire in the United Kingdom in order to explore the ways in which the decapitation rite varied through time and space in that region, and whether there is evidence to support its continued use over time as a vehicle for self-expression, including the marking of a particular type of identity. This project explores the use of the decapitation rite by combining mortuary and bioarchaeological analysis to explore the possible use of decapitation to mark various forms of social difference on a scale that allows the proposed research questions to be addressed within a contextual framework than has hitherto been applied to this phenomenon.

### **3.1.1. Research Questions**

The central research question is: Were all decapitation burials and deposits of disarticulated human remains in the cemeteries and settlements of Gloucestershire and Oxfordshire from the LRP (3<sup>rd</sup> – 5<sup>th</sup> centuries AD) in Britain part of a sub-class of mortuary treatment used to mark communal membership, ostracism, or some other identity? The associated hypothesis states: If decapitation inhumation burials in cemeteries and settlements in Gloucestershire and Oxfordshire were part of a sub-class of mortuary treatment meant to signal

communal membership then the archaeological evidence and osteological data should reveal a) statistically significant similarities between decapitation burials and non-decapitation burials within sites, and, b) statistically significant differences in the mortuary treatment of decapitation burials compared to non-decapitation burials in the wider community. The comparative analysis tests whether or not decapitation burials exhibit significant patterns in frequency, distribution or temporal incidence a) among burials at the same site; b) between sites; and c) across western Roman Britain. A comparison of any significant patterns in the mortuary treatment “package” of decapitation burials vs. non-decapitation burials across the sites in Oxfordshire and Gloucestershire may also indicate if the rite was utilized to mark localized communal membership vs. individualized or sets of trait(s) connected to the deceased.

Secondary questions that follow from the primary question above are:

1. Are there differences in the mortuary treatment of individuals in decapitation burials and depositional contexts compared to non-decapitation burials in the same site or region based on age, sex, health, spatial distribution, burial context, or other categories?
2. How does the decapitation variable correlate with other categories of mortuary evidence (grave goods, body position or orientation, sex, age, date of context, post-mortem modification/manipulations, intentional fragmentation, animal inclusions, etc.) within the same site and between sites and regions?
3. Are there signs of an increase or decrease in the occurrence of decapitation burials or related modification or fragmentation deposits in specific sites in Gloucestershire or Oxfordshire during the LRP?
4. Are there signs that fragmentation and/or disarticulation in inhumations or deposits in Gloucestershire or Oxfordshire change in frequency or type during the LRP?

The aim is to investigate the nature of decapitation practices documented at LRP sites in Gloucestershire and Oxfordshire in order to further flesh out the current picture of this diverse practice (Bush and Stirland 1991; MacDonald 1979; McKinley 1993; Philpott 1991; Taylor 2008). Apart from Philpott’s synthesis (1991) and Tucker’s (2012) study of decapitation

practices throughout Britain, there has been no contextual analysis of this phenomenon in the study area, which offers the opportunity to challenge the notion such contexts represent a geographically defined ‘deviant burial’ zone.

The approach is drawn from and compared to source material found in other studies of decapitation and manipulation of the body (see Armit 2010, 2012; Bonogovsky et al. 2011; Tucker and Armit 2010, for example) in prehistoric and historic contexts in order to gain insights into the potential function and significance of these rites, and, more importantly, the analysis of the life course for select individuals from LRP communities in Britain. This study complements the work of Armit et al. (2006), Armit et al. (2011), Armit (2012, 2017), Montgomery et al. (2011) and Tucker (2014) by focusing on the cultural practice of decapitation in the Roman world, but more specifically western Roman Britain during the LRP. In addition, due to the systematic compilation of archaeological sites with evidence of decapitation, and the insular focus of the practice in Roman Britain, this study will start from the position that decapitation practices were deployed using various strategies in case-by-case specific ways with varying motivations over time.

Rather than challenging the notion of a pan-Celtic or Continental attitude, meaning, or tradition of veneration of the head (Armit 2012:9, Ch. 9), this study acknowledges the evidence for diverse methods of manipulation of bodies revealed in previous mortuary studies in other regions of the Roman Empire, including northern, eastern, and southern Britain. Although the study area may appear narrow in comparison to other ethnographic studies (Bonogofsky 2011, for example), such a focused dataset allows a more nuanced comparison of social practices relating to the uses of bodies on various levels (site, local, and regional) to be carried out. Ultimately, adding taphonomic and trauma data to existing mortuary treatment and Classical

source data provides the basis for a comprehensive review of complex social and ideological structures in Romano-British society. This in turn may deepen our understanding of the significance of manipulating the bodies of the living and the dead by applying statistical and qualitative analyses of relationships defined and linked within those data sets. Those results may then be used to interpret and contextualize the complex performative behaviors related to decapitation practices during LRP western Britain. Given the narrow geographical scope, sample size, temporal period, aforementioned lines of evidence, inclusion of new osteological data, and ability to methodologically compare results to those documented in other regions, this study offers the opportunity to more clearly define and categorize the behaviors that contributed to the deployment of this specific practice, the manipulation of bodies more generally, and the maintenance of funerary rituals and ideological structures in communities in western Roman Britain.

This study applies a multi-scalar and contextual approach to published and grey literature burial records, as well as data gathered from osteological analyses focused on trauma and taphonomic changes to skeletal remains. Drawing together these various lines of evidence and using a theoretical framework that articulates culturally nuanced mortuary treatment of the body alongside funerary activities on a site level as well as at the level of the wider community provides new insight into how individuals within and between communities used this complex system of corporeal-cranial manipulation to intertwine, transform, and reaffirm physical and conceptual ideals of belonging, punishment, veneration, or ostracism during the LRP.

### **3.2. The Dataset**

The thesis synthesizes bioarchaeological and mortuary data from 122 decapitation burials (7.9%) and 1424 non-decapitation burials (92.1%) (1546 total burials) from 44 LRP sites in

Gloucestershire and Oxfordshire to contextualize identifiable mortuary patterns among the burials (Figure 3.1). The low percentage of decapitation burials is an indication of the relative rarity of this practice and the likelihood that it held some sort of special significance in this region of the country - an area referred to by Smith (2016:141) as the “Central Belt” of Britain.

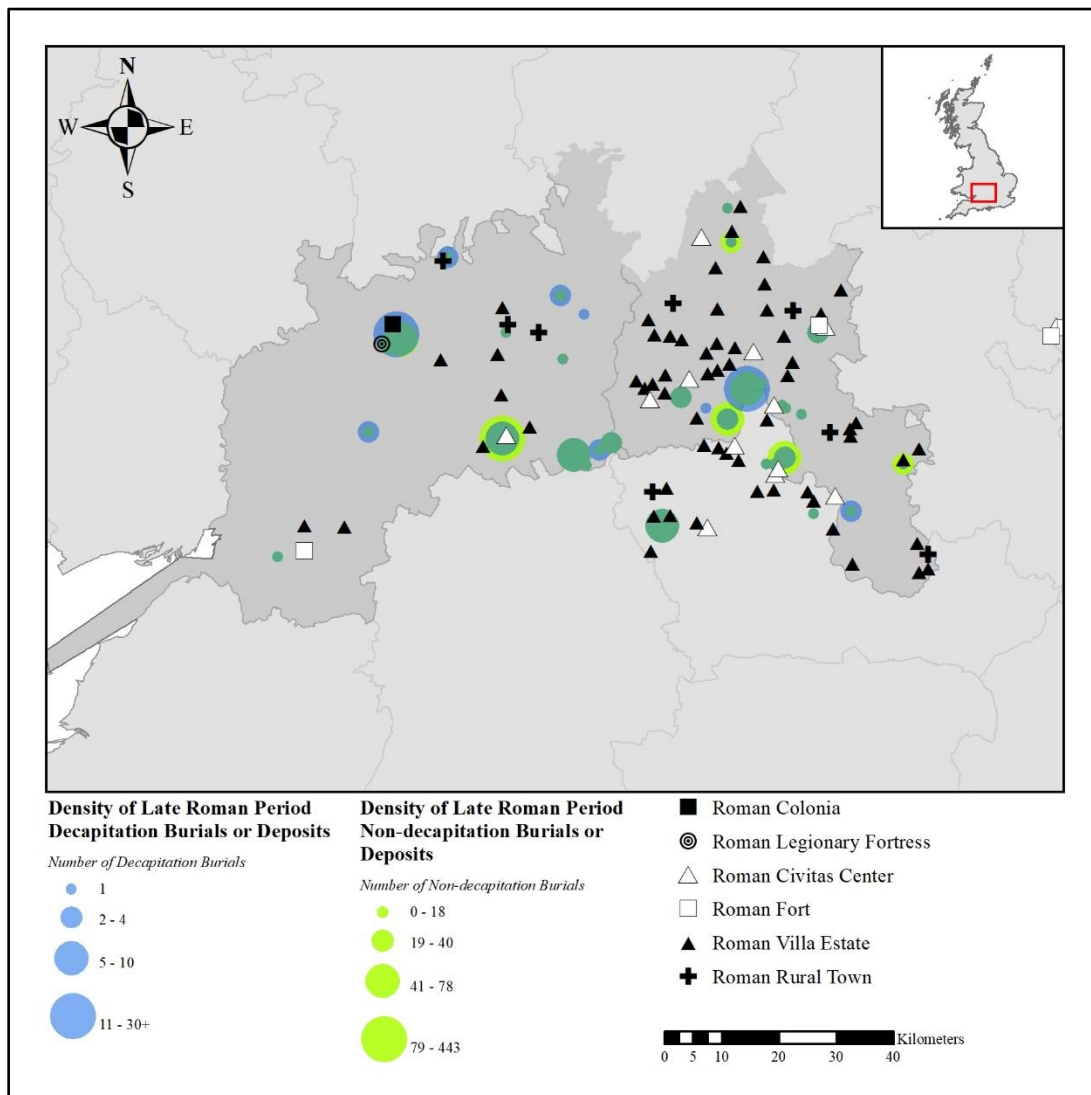


Figure 3.1. Late Roman period sites in Gloucestershire and Oxfordshire region (dark grey outline) in Britain with decapitation and non-decapitation burials or deposits (based on evidence drawn from ADS Database and Tucker [2012]).

According to Smith et al. (2016, 2018) in the *Roman Rural Settlement Project*, the “Central Belt” refers to a region covering the central-to-central-western region of England,

including the Quantock Hills of Somerset County. This region of the country contains many areas of low-lying lands, several river valleys, claylands, plains and major rivers (such as the Severn in the west) as well as small rivers which were contributors to the economic and agricultural growth of settlements and small towns built during the Romano-British period (Smith 2018:141-2). Most of the soils in the landscape outside the Fens (in the central east) and the Somerset Downs (in the southwest) are less acidic, making the preservation of inhumation burials and deposits, faunal remains and botanical evidence more likely in the Central Belt region. In total, 15579 human burials have been recorded from 1162 sites in the Central Belt region, including 250 decapitation burials from 101 sites (Smith 2018:226-280); comparing and contextualizing the mortuary patterns associated with decapitation and non-decapitation burials in this thesis contributes to the existing information available for the region.

The modern boundaries of the counties Oxfordshire (1006 mi<sup>2</sup>) and Gloucestershire (1216 mi<sup>2</sup>) were mapped by the Ordnance Survey during the 19<sup>th</sup> century but were not defined as such during the LIA or the Roman occupation of western Britain. However, the primary land area defined by the OS encompasses the landscape primarily associated with the LIA Dobunni tribe and in the 3<sup>rd</sup> century AD corresponds to *Britannia Superior* and in the 4<sup>th</sup> century to *Britannia Prima* (Salway 1993:218). The sites included in the study sample were categorized by county to make comparisons with studies in contiguous regions easier (Table 3.1). In addition, searching for such data in digital archives and repositories (Archaeology Data Service, for example) is best achieved using the county name; the skeletal collections also are most often stored at institutions within the county corresponding to the site location. Categorizing site and burial locations based on the county will also make it easier for future researchers to incorporate the results of this study into their own databases.

*Table 3.1. The total number of decapitation and non-decapitation burials in the sample by modern county location.*

<b>Summary of the total number of individuals in the study region</b>			
<b>Burial Status</b>	<b>Oxfordshire</b>	<b>Gloucestershire</b>	<b>Total Number of Individuals</b>
Non-decapitation	398 (28%)	1026 (72%)	1424 (92.1%)
Decapitation	55 (45%)	67 (55%)	122 (7.9%)
<b>Total Number of Individuals</b>	453 (29.3%)	1093 (70.6%)	1546 (100%)

### 3.2.1. Site Selection

The Romano-British sites in Oxfordshire and Gloucestershire analyzed in this project were selected based on reliability completeness of data, time period, and context in order to ensure that the results could be compared to studies of decapitation and non-decapitation burials in contiguous regions (Crerar 2012, 2016; Jennings 2017; Moore 2009b; Müldner et. al. 2011; Tucker 2012, 2016). The study area was chosen for the following reasons: 1) its geographic proximity to the regions of Cambridgeshire, Greater London, and Dorset, where a study of decapitation burials was carried out by Crerar (2012, 2016); 2) the comparable ratio of decapitation burials to non-decapitation burials in Oxfordshire and Gloucestershire compared to other regions of Britain where decapitation practices are attested; and 3) the types of sites in the regions selected for study are comparable to those included in both Crerar (2012) and Tucker's analysis (2012).

Assemblages selected for inclusion in this project were recovered from previously excavated archaeological sites with good chronological and contextual integrity as defined below: 1) all or some of the data gathered from published and unpublished sources were available for qualitative and quantitative analysis; 2) the data were professionally handled when recovered with good provenience, and osteological analysis was conducted using accepted professional standards (decapitations from excavations before 1950 were therefore not included



unless the material was subsequently reanalyzed); and, 3) if archival records or reports did not contain contextually specific details and could not be clarified, or there was no reliable provenience, these burial data were not included in the quantitative analysis but were referenced in the qualitative comparison and discussion.

### **3.2.2. Sources of Information**

These data were derived from four primary sources: 1) published excavation reports and archaeological journals; 2) unpublished materials, such as skeletal analyses, context forms, X-rays, photographs and illustrations from cemetery and grave records obtained from museums or storage facilities; 3) HER (Historic Environmental Records) archives; 4) and skeletal analysis completed in-person. The selection of information for inclusion in this thesis was based on the results of the initial site identification process, depending on whether the remains were still in existence, were accessible, and could be located.

An assessment of the assemblages associated with the decapitated skeletal remains included in the sample revealed that thirty-five of the sites with a total of 107 decapitation burials had at least a 1-2 integrity rating (IR) (Tables 3.2 and 3.3), while a total of nine sites with fifteen decapitation burials had an integrity rating of 3 (Table 3.4).

Table 3.2. Gloucestershire sites with decapitation burials (N=16 sites) (1-2 IR).

Site	Type	No. Decap. Burial	No. of Burials	Institution
Bath Gate, Cirencester	Cemetery	13 (3.1%)	411	Corinium Museum
Horcott Quarry	Cemetery	8 (11%)	72	Corinium Museum
Bridge's Garage, Tetbury Road, Western Cemetery	Cemetery	8 (10.5%)	76	Corinium Museum
Gambier Parry Lodge, Kingsholm	Cemetery	8 (8.3%)	96	Museum of Gloucester (objects); University of Bradford (human remains)
124-130 London Road, Gloucester	Cemetery	5 (9.2%)	54	Museum of Gloucester (objects); Liverpool John Moore University (human remains)
Frocester Court	Cemetery	2 (11%)	18	Museum of Gloucester (objects); University of Wolverhampton (human remains)
Claydon Pike	Cemetery	2 (20%)	10	Corinium Museum
College of Art, Gloucester	Cemetery	5 (2.6%)	188	University of Wolverhampton; University of Exeter
120-122 London Road, Gloucester	Cemetery	1 (1.6%)	61	Museum of Gloucester (objects); Liverpool John Moore University (human remains)
Post Farm, Thornbury	Cemetery	1 (6.6%)	15	Cotswold Archaeology
Parliament Street, Gloucester	Cemetery	1 (12.5%)	8	Museum of Gloucester (objects); Liverpool John Moore University (human remains)
St. Mary de Lode Church, Gloucester	Cemetery	1 (33.3%)	3	Museum of Gloucester (objects); University of Wolverhampton (human remains)
Kempsford Quarry	Cemetery	1 (25%)	4	Corinium Museum
Cotswold Community, Water Park	Cemetery	1 (3.3%)	30	Corinium Museum
Sea Mills, Bristol	Cemetery	1 (25%)	4	Unknown location
Great Meadow, Bradley Stoke	Cemetery	1 (25%)	4	Unknown location
<b>Total Number of Individuals</b>		59 (5.6%)	1054	

Table 3.3. Oxfordshire sites with decapitation burials (N=19 sites) (1-2 IR).

Site	Type	No. Decap. Burial	No. of Burials	Institution
Cassington	Cemetery	16 (21.3%)	75	Unknown location
White Horse Hill, Uffington (1) from 1854 ex.; (4) 1993 ex.	Cemetery	5 (21.7%)	23	The Oxfordshire Museum
Barrow Hills II, Radley	Cemetery	4 (7%)	57	Unknown location
Stanton Harcourt	Cemetery	3 (8.1%)	37	The Oxfordshire Museum
Alchester	Cemetery	3 (10%)	30	The Oxfordshire Museum
Curbridge	Cemetery	3 (14.2%)	21	The Oxfordshire Museum
Barrow Hills I, Radley	Cemetery	2 (5.7%)	35	Unknown location
Wroxton St. Mary	Cemetery	1 (25%)	4	The Oxfordshire Museum
The Vineyard South, Abingdon (FGW)	Cemetery	1 (33.3%)	3	The Oxfordshire Museum
Vineyard Site, Abingdon	Cemetery	1 (33.3%)	3	The Oxfordshire Museum
Bloxham	Cemetery	1 (4.7%)	21	Unknown location
Brightwell-cum-Sotwell (South Moreton)	Isolated burial	1 (33.3%)	3	The Oxfordshire Museum
Great Western Park, Didcot	Isolated burial	1 (10%)	10	Oxford Archaeology
No. 16 Winchester Road, Oxford	Isolated burial	1 (50%)	2	Oxford Archaeology
Churchill Hospital, Headington	Isolated burial	1 (100%)	1	The Oxfordshire Museum
Gill Mill, South Leigh	Isolated burial	1 (7.1%)	14	Oxford Archaeology
Gill Mill, Ducklington	Isolated burial	1 (5%)	20	Oxford Archaeology
Yarnton, Cassington	Cemetery	1 (11%)	9	Oxford Archaeology
2-4 New Chemistry Laboratory, South Parks Road, Oxford	Isolated burial	1 (100%)	1	Oxford Archaeology
<b>Total Number of Individuals</b>		48 (13%)	369	

Table 3.4. Gloucestershire and Oxfordshire sites with decapitation burials (N=9 sites) (3 IR).

Site	Type	No. Decap. Burial	No. of Burials	Institution
Cold Harbour Farm, Crowmarsh (Ox.)	Cemetery	3 (15.7%)	19	Wallingford Museum (all reburied)
Roughground Farm, Lechlade (Glouc.)	Cemetery	2 (8.6%)	23	Unknown location
Kinton Hill, Temple Guiting (Ox.)	Cemetery	2 (28.5%)	7	Unknown location
Ashchurch Railway Bridge (Glouc.)	Cemetery	2 (40%)	5	Unknown location
White Horse Hill, Uffington (1854 ex.)* (Ox.)	Cemetery	1 (6.6%)	45	University of Cambridge (1 cranium and post-cranial remains reburied)
Ashville Trading Estate, Abingdon (Ox.)	Cemetery	1 (8.3%)	12	The Oxfordshire Museum (all <i>in situ</i> )
Syreford Mill, Wycomb (Glouc.)	Cemetery	1 (12.5%)	8	The Wilson Museum, N/A for analysis
Wessex Water Field 28, Lower Farm, Cowhill, Oldbury-on-Severn (Glouc.)	Isolated burial	1 (100%)	1	Unknown location
Grange Farm, Marshfield Road, Tormarton (Glouc.)	Isolated burial	1 (100%)	1	Unknown location
Kingweston Villa (Glouc.)	Isolated deposit	1 (100%)	1	Unknown location
<b>Total Number of Individuals</b>		15 (12.2%)	121	
*Remainder of decapitation burial assemblage from this site included in the 1-2 IR table (this site is not counted in the total (9) number of sites in this table).				

During the data collection phase, only seven institutions granted access for analysis of skeletal material (Table 3.5). A total of sixty-one (50%) decapitation burials from twenty-two sites could be analyzed in person, including recording pathological, taphonomic changes or evidence for trauma. These data supplemented the bioarchaeological data from previously published reports and served as a primary source for addressing the fourth research question. The remaining sixty-one decapitation burials (50%) from twenty-two sites in the study area could not

be analyzed in person because the material was on loan, could not be located, had been left *in situ* or reburied, or access was declined due to concerns regarding integrity or preservation (Table 3.6).

*Table 3.5. Institutions with skeletal collections and site archives where in person osteological analysis could be carried out.*

<b>Institutions with skeletal collections analyzed in-person</b>	
<b>Institution</b>	<b>Number of Decap. Individuals</b>
Corinium Museum	32
The Oxfordshire Museum Oxfordshire Research Center	15
University of Bradford	5
Oxford Archaeology	4
University of Wolverhampton	3
University of Cambridge	2
The Museum of Gloucester (MoG)*	0 (Archive only for Gambier Parry Lodge site)
<b>Total</b>	61 (50%)
*MoG staff could not locate documentary site archives for the following sites: 124-30 London Road, Gloucester; Frocester Court; 120-122 London Road, Gloucester; College of Arts, Gloucester; Parliament Street, Gloucester; St. Mary de Lode Church, Gloucester.	

Table 3.6. List of sites with skeletal material not analyzed in-person (N=22 sites).

Sites in study area with missing, reburied, or access to skeletal material was declined		
Sites	Number of Decap. Indiv.	Justification
Cassington	16	Unknown location
124-130 London Road, Gloucester	5	Access declined (Liverpool John Moore University)
White Horse Hill, Uffington (1854 and 1993 excavations)	4	Cranial remains were removed and traded with other institutions, while post-cranial remains were left <i>in-situ</i>
Barrow Hills Field II, Radley	4	Unknown location
Cold Harbour Farm, Crowmarsh	3	Skeletal remains were analyzed and reburied by museum staff due to limited storage space
College of Arts, Gloucester	3	Collection not located until 2021 (University of Exeter)
Gambier Parry Lodge, Kingsholm	3	Unknown location
Barrow Hills Radley, I	2	Unknown location
Kinton Hill, Temple Guiting	2	Unknown location
Roughground Farm, Lechlade	2	Unknown location
Ashchurch Railway Bridge	2	Unknown location
Bath Gate, Cirencester	1	Corinium Museum (was unknown until archive review post-in person review period)
Frocester Court	1	Unknown location
Syreford Mill, Wycomb	1	Located at the Wilson Museum, not available for access
Grange Farm, Marshfield Road, Tormarton	1	Unknown location
Kingsweston Villa	1	Unknown location
Ashville Trading Estate	1	Skeletal remains were analyzed and left <i>in situ</i> by original excavator(s)
120-122 London Road, Gloucester	1	Access declined (Liverpool John Moore University)
Parliament Street, Gloucester	1	Access declined (Liverpool John Moore University)
Sea Mills, Bristol	1	Unknown location
Great Meadow, Bradley Stoke	1	Unknown location
No. 16 Winchester Road, Oxford	1	Could not be located (reburied by Oxford Archaeology)
Post Farm, Thornbury	1	Published in June 2021 (Cotswold Archaeology)
Wessex Water, Cowhill	1	Unknown location
Bloxham	1	Unknown location
Gill Mill, Ducklington	1	Unrecovered
<b>Total Number of Individuals</b>	61 (50%)	
*Cranial remains from decapitation burials analyzed at UC were included in the pathology, taphonomy and trauma analysis.		

To identify and evaluate variations within the decapitation burial sample and between decapitations and normative mortuary treatments in the selected region, burial data were sorted into two groups: 1) decapitation burials; and 2) non-decapitation burials from cemeteries with decapitation burials. Mortuary treatment patterns identified in other regional studies were used to contextualize the results prior to carrying out an osteological analysis. Following the methodological approach taken by Crerar (2012, 2016), these categories were designed to contextually explore whether broader differences in mortuary behavior governed burial practices in those mortuary contexts that contained decapitated burials, whether the decapitation rite(s) were the only element marking individuals within those sites as different or if the practice fluctuated in its use (distribution, frequency, and change) during the LRP.

### **3.3. Data Collection and Recording Procedure**

Phase I of data collection was conducted using published materials, followed by the collection of unpublished materials from sources mentioned above. Phase II of data collection involved gathering unpublished reports, notes, miscellaneous archival evidence (radiographs, X-ray images, etc. where available) and in-person photographic recording. Every skeleton that was located and made available for in-person analysis was photographed for inventory recording purposes using a Cannon D5600 digital camera with a Nikkor 18-55 mm lens, scale, and label (institution name, accession name/code, site name, skeleton ID number/letter and lot number, associated human remains (HR) lot number, date started/completed, and box number). This initial step proved useful for confirming whether the skeletal remains were consistent with the published or unpublished reports, and for assessing the curation methods used post-excavation. All human remains included in the study sample were handled with care and respect in

accordance with the guidelines provided in the Code of Ethics by the British Association of Biological Anthropologists and Osteoarchaeologists (BABAO 2019).

Next, each skeletal element present was photographed using the 18-55 mm lens, scale(s) (cm) and label(s) against either a black velvet sheet if light permitted or within a 20x20 inch light box studio with additional LED dimmable lights in cases where there was dim overhead or natural light resulting in unsuitable conditions for photographic recording standards (Baez-Molgado et al. [2013]; Errickson et al. [2014]; Gilbert and Roberts [2000]; RHOI [2008]; Sedgewick [2008]; Trussel and Vrhel [2008]; White et al. [2011]). After each side of the element was photographed, the next step involved recording osteological data (age, sex, pathology, taphonomic, and trauma) using an inventory form (adult or juvenile [infant, early child, late child, adolescent]), curation form, pathology form, taphonomy form, and trauma form (see Appendix B for copies of each form). Every skeletal element was analyzed and photographed using the 18-55 mm lens and 105 mm Nikkor macro lens where evidence of pathologies, taphonomic changes, or trauma were present, which was especially useful in capturing various types of post-mortem cultural vs. natural modifications to the skeletal remains. In cases where the macro lens could not capture the depth or clarity of a variable on the bone, a digital microscope (Dino-Lite Edge (AM4515ZTL) with 5x~140x 1.3MP Polarizing model) was used to visually photograph, measure, and record such features with a magnification readout to the author's computer.

Phase III of the data collection process involved coding and recording the skeletal and mortuary treatment data in a Microsoft Access relational database designed so that mortuary treatment, osteological, site and burial context variables could be compared to reveal the degree



of mortuary differentiation and social variation (if any) over time within and between sites in Late Roman Gloucestershire and Oxfordshire (see Appendix A for variables and definitions list).

### **3.3.1. Database Organization and Relationships**

The Microsoft Access database was organized into two main tables (Sites and Burial Contexts) with numerous sub-tables connected by mortuary, osteological, and other associated elements such as site and period. The Sites table contains information about the sites surveyed in the study area (ID, Site, Northing, Easting, Chronology, Number of non-decapitation burials, Number of decapitation burials, Comments/Notes, and References). The Burial Contexts table contains information about the mortuary, osteological, and curation contexts associated with each decapitation burial included in the study sample (Context Type, Burial Location, Burial Number, Skeletal ID number, Coffin, Sex, Age, Body Side, Grave Orientation, Body Orientation, etc.), and linked to this overarching table are a sub-set of categorical sub-form tables (Trauma/Taph, GraveGoods, Animal Inclusion, Pathology, and Mortuary Tab), each containing a table with categorical fields containing information about the contexts associated with the mortuary and osteological data.

The Trauma/Taph sub-form table records osteological information about the burial, cause, trauma type, classification, fracture type, decapitation type, trauma timing, skeletal element, facing side, direction, distance, number of traumas, length (cm), depth (cm), width (cm), shape, supernumerary, and related/associated trauma, comments, photo name and photo link data. Like the Trauma/Taph sub-form table, the Pathology sub-form table includes osteological information by burial detailing the types of pathologies present, including dental caries, enamel hypoplasia, periodontal disease, periostitis, osteomyelitis, treponematosi, tuberculosis, leprosy, cribra orbitalia, osteoporosis, osteoarthritis, Schmorl's Nodes, and

degenerative joint disease. The Grave Goods sub-form table records mortuary information by burial regarding the grave good class, type, material, position near the skeleton, and comments. The Animal inclusion tab records information by burial regarding the species, completeness, position near the skeleton, and comments. The Mortuary tab sub-form table records the body position of the skeletal remains within each burial or deposit, including details on the presence or absence of skeletal elements, placement (anatomical, upper left/right, lower left/right, missing, and indeterminate), extension, supernumerary, and element association. Each of the sub-form tables is linked to the Burial Contexts table, which allows the data fields to be used as variables for queries as part of the inter- and intra-site analysis of the decapitation burials. The results of those queries were used to identify any patterns of similarities or differences in relation to the distribution, frequency or change in the mortuary treatment and funerary rituals associated with the decapitation burials and the broader mortuary trends in the study area.

### **3.3.2. Cataloging of the Burials**

#### **3.3.2a. Sex**

The sex, age, pathology and the majority of the trauma data were derived from published and unpublished analyses of verifiable quality (IR 1-3). This was determined to be the most expedient course given the financial and temporal constraints of this study. At the same time, using already reliably assessed data ensured that the sample was sufficiently large to be subjected to statistical Correspondence Analysis, as well as providing more time for archival research on site contexts, locating disparate human remains in individual collections, and photographing, examining, and analyzing the skeletal material (especially the taphonomic changes and trauma data). Adult skeletons were recorded as male, female, probable male (male?), probable female (female?), or indeterminate depending on the degree of sexual dimorphism exhibited (Table 3.7).

Skeletal sex determinations used by previous researchers were based on the morphology and measurements of the cranium, pelvis, tibia and humeri, distinct from gender designations based on grave good assemblages and other mortuary features (Buikstra and Ubelaker 1994; White et al. 2011:408-18). Individuals designated in osteological reports with a specific estimation term were coded as such, and individuals aged 17 years or younger (sub-adults) were coded as unidentifiable.

*Table 3.7. Estimated sex definitions based on physical assessment of all sexually dimorphic structures (adapted from Buikstra and Ubelaker [1994:21]; White et al. [2011:408]).*

<b>Terminology and symbols used in the determination of sex estimation</b>		
Code Term	Interpretation	Meaning
Female	Female	Analyst has full confidence in the determination of structures for the remains
Male	Male	Analyst has full confidence in the determination of structures for the remains
Female?	Possibly female	Analyst does not have full confidence in the determination but feels the structures of remains are probably the stated sex.
Male?	Possibly male	Analyst does not have full confidence in the determination but feels the structures of remains are probably the stated sex.
Indet.	Sex indeterminate	The remains have been analyzed but are lacking sufficient diagnostic morphology for a determination of sex.
Unknown	Unknown Sex	The remains have not been analyzed; no determination of sex has been attempted or reported.

### 3.3.2b. Age

Approaches to osteological determination of the age of the human remains applied in the publications accessed for this study was based on standard metrics such as dentition (eruption rates), crania (suture closure), long bone length, epiphyseal closure, pelvis (pubic symphyseal surface, pubic symphysis, and auricular surface), and sternal rib end (Buikstra and Ubelaker 1994; Scheuer and Black 2000; White and Folkens 2005). For the purposes of this analysis the skeletal data sets were broadly categorized as adults, sub-adults and indeterminate, if necessary, to avoid fracturing the data set into statistically unanalyzable categories (Table 3.8). A list of

characteristics and descriptions of the categories and associated sub-categories (adherents, chemical and natural, and curation-related) included in the analysis can be found in Appendix A.

*Table 3.8. Estimated age definitions and classification systems based on physical assessment of all developmental milestones (adapted from Buikstra and Ubelaker [1994:39-44]; White et al. [2011:384-5]).*

<b>Terminology and symbols used in the determination of age estimation</b>		
Code Term	Interpretation	Meaning
Subadult	Subadult	Analyst has full confidence in the determination of structures for the remains as juvenile (fetus (before birth), infant (0-2 years), early child (3-7 years), late child (7-12 years), adolescent (13-19 years))
Adult	Adult	Analyst has full confidence in the determination of structures for the remains as adult (young adult (20-35), middle adult (36-50 years), old/elderly adult (50+ years))
Indet.	Age indeterminate	The remains have been analyzed, but are lacking sufficient diagnostic morphology for a determination of age.
Unknown	Unknown Age	The remains have not been analyzed; no determination of age has been attempted or reported.

### **3.3.2c. Pathological Conditions**

Osteological determinations of pathological conditions present on the human remains were based on observable changes in skeletal remains resulting from an imbalance in bone resorption, formation, or growth-related disorders as observed during the in person analysis as well as published analyses (Mensforth et al. 1978 cited in White and Folkens 2005:309-10). Recorded pathological conditions were mainly based on existing archaeological reports with reliable diagnoses based on the application of standardized and updated osteological applications (Aufderheide and Rodríguez-Martín 1998; Ortner 2003). If a pathological condition was present, the location, side and distance of the condition was recorded on forms and illustrations (see Appendix B) and photographed to document the presence and prevalence of the condition(s). In cases where pathological conditions were determined by the researcher, these were specifically indicated. A list of the characteristics and descriptions of the pathological conditions included in the analysis can be found in Appendix A.

### **3.3.2d. Trauma**

Osteological descriptions and assessments of the evidence of trauma were based on standardized osteological and forensic analysis guidelines. Osteological determination of the presence, types and classification of trauma, including decapitation type, were mainly based on previously completed archaeological reports with reliable osteological applications, however, in cases where trauma presence and types were determined by the researcher, standardized bioarchaeological methods of recording were utilized (Buikstra and Ubelaker 1994, among others). Decapitation types were determined and recorded based on the criteria defined by Tucker's (2012, Appendix 9) schema and Cramer's (2012:72-3) adapted schema. In addition to classification and type of trauma, fracture type, timing, facing, distance and direction, superimposition, shape, measurements, cultural modification, and disarticulation (intentional peri-mortem vs. natural post-decompositional) by skeletal element were assessed and recorded.

Where sharp force trauma to the skeleton was present, especially on the cervical vertebrae, it was interpreted as evidence of intentional disarticulation. In burial contexts where there was no clear evidence for cut marks, although the cranium had been removed from its anatomically correct position, the burial was designated as a possible decapitation since taphonomic disturbances (subsidence of soil, changes in the water table, organic material causing some skeletal elements to disarticulate naturally and shift from their anatomical position, for example) can result in the natural movement of skeletal elements in the grave or other depositional contexts (Madgwick 2008). However, in cases where only the cranium was present, or the cranium was found away from the shoulders (near the pelvis or the feet, for example) but the post-cranial skeleton shows no indication of extreme disarticulation via sharp force trauma, intentional manipulation of the corpse rather than taphonomic disturbance was recorded as the

cause. Other examples of post-mortem human disturbance include cases where only the cranium was displaced or removed but the mandible and cervical vertebrae were still articulated. A list of the types of trauma, their characteristics and descriptions, the typological schema, and any associated sub-categories of evidence included in the analysis can be found in Appendix A.

### **3.3.2e. Taphonomy**

Recording evidence for taphonomic changes to human bone in the sample was intended to capture the post-mortem processes affecting preservation and the reconstruction of the circumstances of an individual's death (Broughton and Miller 2016; Haglund and Sorg 1997:13). Descriptions of taphonomic changes were based on standardized osteological guidelines (see list provided in Data Analysis section below). Evidence for broad categories of taphonomic changes due to animal, environmental, and cultural (human post-mortem fragmentation and modification), as well as curation practices were recorded, photographed and categorized before those data were entered into the Microsoft Access database. In addition to recording the categories and types of taphonomic change(s), the instigator, timing, side, facing, distance, frequency, superimposition, and associated taphonomic markers by skeletal element were recorded. If a "decapitation" burial was determined during analysis to be due to post-decompositional processes, this was noted and that datum point was not included in the sample for later analysis. In cases where the published or unpublished reports contained descriptions or images of evidence of taphonomic changes, those data were noted and added to the determinations made by the researcher for comparison. A full list of characteristics and descriptions of the categories and the associated sub-categories (adherents, chemical and natural, and curatorial) included in the analysis can be found in Appendix A.

### **3.3.3. Cataloging Material Culture**

Information regarding artifact class, type, material, date, species (where necessary), and position in the burial were recorded based on published excavation reports and other documentary materials. In cases where the information was not known or included in published reports, the information was requested from museum or lab staff, commercial unit or company, or the archives were consulted during Phase II of the data collection process, which involved the burial or context forms. It was particularly useful to review every available burial or context record and visually compare the information and details provided against the available skeletal and material remains in order to confirm the initial findings and notes produced by the excavation technicians and lab analysts. If a mistake was discovered on the burial or context sheets, a note was recorded for future identification and awareness (grave goods appearing on the right side of a skeleton when the published report stated the left side, for example). These data were input into the database with other skeletal variables for each burial where the information was available. A list of characteristics and descriptions of the material categories and associated sub-categories included in the analysis can be found in Appendix A.

### **3.4. Data Analysis**

#### **3.4.1. Bioarchaeological Analysis**

Osteological data (age, sex, pathology, taphonomic changes, and trauma) from 107 decapitated skeletons from thirty-five sites were drawn from previously published reports (Philpott 1991; Tucker 2012, etc.) and the minimum number of individuals per grave (MNI) was determined based on standardized guidelines (Boylston [2000]; Buikstra and Ubelaker [1994]; Larsen [1997]; Lyman [1994c]; Ortner [2003]; Scheuer and Black [2000]; Schaefer et al. [2009]; White and Folkens [2005]). Sixty-one (50%) of the total number of decapitation burials (122) in the study area were examined, inventoried and photographed during Phase II of in-person data

collection for evidence of pathologies, taphonomic processes and trauma. Inventory and illustration forms were used to record those data and organize them prior to being input into the Microsoft Access database. Examples of the summary, inventory, curation, pathology, taphonomy, and trauma forms and illustrations can be found in Appendix B. Osteological data from the sixty-one (50%) decapitated skeletons that could not be analyzed during the in-person data collection phase were gathered from previously published reports, articles, or unpublished archive materials.

### **3.4.2. Pathology**

Evidence for pathological conditions was predominately determined based on reports of previous researchers using standardized methodological approaches outlined in seminal bioarchaeological, paleopathological, archaeological and unpublished archival sources: Barnes [1994]; Buikstra and Ubelaker [1994]; Lovell [2000]; Ortner [2003]; Ortner and Putschar [1981]; Roberts [2000b]; Roberts and Cox [2003]; Roberts and Connell [2010]; and, White and Folkens [2005]. Lovell (2000:219) suggests researchers should consider the appearance of lesions, their position on a skeletal element, and the distribution of lesions in the skeleton and the population from which it derives, because this may reduce the likelihood that prevalence rates for disease will be inflated by avoiding over-reporting normal variation. The following parameters were considered by the researcher while recording and photographing the previously reported pathological conditions (as well as potentially unreported conditions) such as lesions during the Phase II of data collection:

- Determine which bone or tooth is affected and the side
- Determine what part of the bone or tooth is affected, and which aspect (medial, for example)
- Determine if bone has been formed, is it woven (porous, disorganized and indicating active disease at the time of death) or lamellar (smooth and organized), indicating a healed and chronic lesion, or is it in the process of healing



- If bone is destroyed, determine if there appears to be any sign of healing (rounding of the edges of the lesion)
- Determine the distribution pattern of the lesions if more than one bone/tooth is involved. Different disease processes have different patterning (for example, leprosy affects the facial, hand, and foot bones)
- Consider all potential diagnoses for the abnormalities recorded

In addition, the extent to which the bone has changed or has been affected was described for any pathologies noted, including the specific area of the skeleton on which these occurred (in cases with periostitis, osteomyelitis, etc., for example) (Ortner 2003). For specific infections such as treponemal disease (Hackett 1976; Rogers and Waldron 1989), tuberculosis (Rogers and Waldron 1989), or leprosy (following Anderson et al. 1992; Anderson 1994; Ortner 2003; Rogers and Waldron 1989), diagnostic criteria were consulted prior to final determination. For example, with enamel hypoplasia, the type of defect (linear horizontal grooves or pits, or non-linear pits), the position on the tooth, the severity (scale from 1-3 with 3 rating as “gross defects”), and hypocalcifications was recorded as yellow/cream/white, orange or brown and the position of those colorations on the tooth was noted (Reid and Dean 2000 cited in Roberts and Connell 2010).

### **3.4.3. Taphonomy**

Taphonomy assesses the depositional environment and identifies peri- and post-mortem alterations affecting the preservation and degradation of skeletal material, allowing researchers to discriminate between human, animal and other natural processes (Schotsmans et al. 2017:3). Identifying the taphonomic and cultural factors that may influence the preservation of human and skeletal remains can aid in the reconstruction of their treatment and the sequence of post-mortem events, although evaluating the evidence for animal, environmental and human post-mortem cultural modifications, as well as curation practices, may be difficult or even impossible where those data are inaccessible or unavailable (Ubelaker 1997). In this thesis, the evidence for

taphonomic changes to the accessible skeletal remains was based on both published and unpublished reports and archive skeletal recording sheets as well as in-person observations by the researcher based on standardized methodological approaches outlined in seminal bioarchaeological archaeological literature (Table 3.9).

*Table 3.9. List of the main methodological sources used in establishing a method of recording taphonomic changes observed in human remains.*

<b>Taphonomy Methodology Sources</b>			
<b>Category</b>	<b>Type</b>	<b>Characteristic(s)</b>	<b>References</b>
Human cultural modification/fr agmentation	Post-mortem trauma; use wear; removal	Post-mortem cuts/scrapes/chops; handling (polishing; whittling; perforation); selective removal of specific element (MNE assessment)	Bonogofsky 2011; Boylston 2000, 2010; Buikstra and Ubelaker 1994; Cannon 2013; Craig et al. 2005; Dirkmaat 2012; Haglund and Sorg 1997; Hamilton 2005; Johnson 1985; Karr and Outram 2012; Knüsel 2005; Knüsel and Outram 2004; Knüsel and Robb 2016; Kunst 2010; Lyman 1994a; Outram et al. 2005; Redfern and Roberts 2019; Roberts 2000a; Roberts and Connell 2010; Runnings et al. 1989; Sauer 1998; Shipman et al. 1981; Steadman 2003; Stone 2013; Symes 1992; Symes et al. 2012; Symes et al. 2014; Tucker 2012, 2014; Ubelaker 1997; Ubelaker and Adams 1995; Ubelaker and Montaperto 2014; Verano 2000, 2001, 2005, 2008; Verano et al. 1999; White et al. 2011
Animal	Carnivore; rodent	Puncture; pitting; scoring; furrow; trampling	Behrensmeyer and Hill 1980; Beisaw 2013; Binford 1981; Broughton and Miller 2016; Dirkmaat 2012; Domínguez-Solera and Domínguez- Rodrigo 2009; Haglund 1997a, b; Haglund et al. 1989; Lyman 1994b; O'Connor 2000; Olsen and Shipman 1988; Shipman and Rose 1983; Pobiner 1997; Pokines 2015; Pokines and Symes 2014; Ubelaker 1997; Villa et al. 2004; White and Folkens 2005
Environmental	Weathering; root etching; sun bleaching;	Splintering; u- shaped grooves and cross-sections; non-	Behrensmeyer 1978; Brickley and McKinley 2004; Broughton and Miller 2016; Buikstra and Swegle 1989;

	erosion; burned	uniform lightening on bone surface; charred or calcined bone	Gilchrist and Mytum 1986; Haglund and Sorg 1997, 2002; Lyman 1994c; Lyman and Fox 1989; Mayne Correia 1997; Schotsmans et al. 2017; Ubelaker 1997; White and Folkens 2005
Curatorial	Cleaning; handling/exca vation marks or breaks; destructive sampling; bleaching; glue/adhesive	Soil, root, adipocere removal; thin white scratches, striations, cracks or breaks; clean cut sections of bone (square or circular); near uniform white color on bone surface; yellow/brown/orang e adhesive or sticky substance (may bubble away from bone); pen/marker ink	Broughton and Miller 2016; Christensen et al. 2019; Mays 2010; White and Folkens 2005; White et al. 2011

These resources were consulted in establishing the most effective bioarchaeological and osteological methods to apply in identifying, evaluating, and recording taphonomic processes for analysis where the skeletal remains were accessible (for forms and illustrations, see Appendix B and high-resolution photographs). If evidence for taphonomic changes was present, then the category (human, animal, environmental, and cultural), type/characteristics, location (element), side, facing, direction, and measurements (for post-mortem human modifications) were recorded (length, width, depth in cm) and total number of marks before scaled (cm) photographs were taken (standard lens and macro lens) and those data were entered into the Microsoft Access database. The recording procedures for evidence of stains, burns, or any other suspect coloration change followed the steps above, and a Munsell Chart was used to note color variation (Buikstra and Ubelaker 1994:105-6).

To address concerns about bone preservation and identifying potential selectivity as it relates to intentional fragmentation post-mortem, Knüsel and Robb (2016:6) created the Bone Preservation Index, which estimates the amount of original bone remaining (Bello and Andrews 2006); this is similar to the method proposed by Buikstra and Ubelaker (1994) and the zonation method of Knüsel and Outram (2004) and Outram et al. (2005). To calculate the amount of original bone remaining or present the researcher may use a method of separating each bone element into a set number of regions before estimating the percentage of each region that remains (the percentage ranges include: 0-24%, 25-49%, 50-74%, 75-100%). A more definitive percentage of the remaining original bone can be calculated by dividing the number of regions present by the total number of zones possible for each element. The resulting percentage of each element's count allows the researcher to estimate the Minimum Number of Elements (MNE) to avoid counting highly fragmented bones multiple times; it allows the assemblage to be compared to others (human and animal). The Zonation Method allows researchers to determine if evidence exists for bone selectivity by element, its prevalence, pattern (if any) and scale (individual, site, and region). The method is not without concerns due to excavation method bias and taphonomic influences on overall preservation, so all resulting MNE or bone count percentage calculations were considered in light of the local environmental conditions and other burials (if any) within the same site in order to contextualize results.

#### **3.4.4. Trauma**

Evidence of trauma was determined using seminal bioarchaeological and forensic analysis sources as guides: (Beisaw [2013]; Bonnicksen and Sorg [1989]; Boylston [2000]; Buikstra and Ubelaker [1994]; Johnson [1985]; Larsen [1997]; Lyman [1994c]; O'Connor [2000]; Ortner [2003]; Redfern and Roberts [2019]; Roberts and Connell [2010]; Scheuer and

Black [2000]; Schaefer et al. [2009]; Shipman et al. [1981]; Symes et al. [2014]; Ubelaker and Montaperto [2014]; White and Folkens [2005]). In this thesis, the term trauma refers to “any event that results in partial or complete discontinuity of a bone” (Lovell 1997; White and Folkens 2005, for example). The following parameters were considered while recording and photographing the previously reported evidence for trauma (fractures, cuts, scrapes, punctures, blows, healed wounds, abrasions, etc.) during Phase II of data collection:

- Identify the bone affected
- Identify the location on the bone and point of impact
- Identify if there is internal beveling
- Identify the fracture (spiral, comminuted, transverse, oblique, greenstick, compression, depressed)
- Identify direction and side
- Identify classification (sharp, blunt, projectile)
- Identify the size and shape of the injury site and the extent of any radiating fractures
- Is there evidence of healing?
- Is there superimposition of trauma?
- Identify timing (ante-, peri-, post-mortem)
- Identify angle direction
- Measure each fracture, scrape, cut, blow, etc. (width, length, depth) (cm, mm)

When recording and photographing evidence of trauma caused by weapons or other sharp and blunt instruments, it is important to gather information and record those details using the criteria above and follow up by allocating a specific classification to each injury: sharp force, blunt force and projectile trauma (Boylston 2010). Following this step, distinguishing each piece of evidence for the timing of the event(s) is crucial, as well as determining the difference between cultural or natural processes (taphonomic) which may have occurred at some point in time (Buikstra and Ubelaker 1994; Sauer 1998; Symes et al. 2002). Roberts and Connell (2010:42) suggest that in the case of decapitation, evidence for cut marks should be recorded on both the anterior and posterior of the vertebrae; transverse slices which remove a section of the

vertebral body or arch should also be recorded (if possible). Other skeletal elements, such as the mandible, zygomatic, clavicle, and scapula may also show signs of attempts to decapitate an individual or corpse (Boylston et al. 2000). After completing the data collection phase of the thesis, Crerar's (2012) typology schema was used to distinguish the peri-mortem from post-depositional decapitations and Tucker's (2012) typology schema was applied to develop a clearer picture of the prevalence of specific types of trauma, their timing, and possible motivation(s) for such activity. The results produced by the analysis of the trauma data and typology schema patterns (if any) should improve our understanding of how decapitation and bodies were engaged in mortuary contexts and violence frameworks in the LRP.

### **3.4.5. Quantitative and Qualitative Analysis**

Basic quantitative analyses were carried out using data from all decapitation burials and deposits at multiple scales (intrasite, intersite) using multiple variables, and correspondence analysis was applied to test the significance of observed patterns as well as the clustering of different variables. Elissa Hult (M.S., RPA), GIS Coordinator and statistical specialist with Chronical Heritage in Milwaukee, WI, assisted in conducting and mapping the statistical results. Working within the framework previously proposed, appropriate statistical tests were used to evaluate each claim in sequence. First, Multiple Correspondence Analysis (MCA) was used within the R statistical workspace to identify commonalities and possible meaningful clustering of traits among the decapitation burials (Nenadic and Greenacre 2007; R Development Core Team 2014). Multiple and Joint Correspondence Analysis (MJCA) allows the researcher to compare multiple categorical variables, even when the categorical variable has more than two levels, by calculating an indicator matrix where each possible trait is coded as present or absent (Abdi and Valentin 2007; Nenadic and Greenacre 2007). For each set of assumptions to be

tested, decapitation burials were evaluated to determine whether any definable osteological or mortuary characteristics (age, sex, pathology, trauma, grave goods, taphonomic changes, etc.) were consistently associated with this rite across time and space from the sites in the Gloucestershire and Oxfordshire sample. The absence of spatio-temporal differences would indicate that decapitation burials were defined by a set of mortuary norms that can be compared to non-decapitation burials as a subset of the study group. The presence of temporal patterning would indicate the utility of focusing subsequent analysis on regional and social differences between groups through time. The study sample was refined to inhumation burials and deposits dated to the LRP (3<sup>rd</sup> - 5th century AD) and MJCA was applied to determine whether decapitation burials differ from non-decapitation burials during this period. Evidence of regional and social patterning prompted a focus on identifying possible geospatial patterns between regional groups in the form of Point Pattern Analysis (Baddeley and Müller 2000; Baddeley and Turner 2005). The number of variables assessed in the analysis impacted the readability and effectiveness of some Burt Matrix figures, which necessitated the removal of those data labels in some cases. However, the significant patterns revealed by each JCA test are described within the text.

Homogeneity across all decapitation burials in the study regardless of regional or temporal parameters is unlikely based on recent studies (Aspöck 2009; Crerar 2012, 2016; Taylor 2008; Tucker 2012) and reports. It was anticipated that additional statistical analysis would show in-site variation to be more similar between sites located close to one another than between sites located far from one another. Any patterns then could be compared to non-decapitation burials from sites where decapitations were present and against more widely practiced burial trends in the region. Multiple correspondence analysis was used to evaluate

differences between decapitation burials and non-decapitation burials in terms of demographic evidence and pre/post-mortem treatment of the body, for example. Furthermore, after MJCA was used to categorize types of decapitation and non-decapitation burials, marked point pattern analysis was used to evaluate differences between Oxfordshire and Gloucestershire (Baddeley and Müller 2000). Marked point pattern analysis examines geospatial data for patterning based on additional categorical data (O’Sullivan and Unwin 2010). Using the categorical data generated by the research questions and the results of the overall MJCA, the decapitation burial dataset was further analyzed for evidence of patterns in distribution, frequency and change through time and space in western Britain.

The results of the quantitative analysis informed the discussion of how to interpret similarities or differences in the mortuary treatment and osteological decapitation burial data, allowing osteological profiles to be created and compared to one another at the individual level within and between sites. In cases where biographical variables were distinctive (for example, if visible pathologies or intentional post-mortem fragmentation were deemed unique) within the decapitation burial group, the variable(s) was compared to the non-decapitation burial group data for contextual details (i.e., to determine whether the variable(s) was indeed uncommon within or between sites). These inquiries revealed how those individuals experienced life and add to our understanding of the ways their bodies were engaged with after death. In addition, the resulting life course patterns of the decapitated individuals can be determined and compared to regional Romano-British life course trends for their frequency, distribution, and change over time, perhaps indicating if locally determined forms of social constructions of identity can be discerned at the community level in those mortuary contexts. The osteological profiles can be



compared to the regional social and cultural mortuary and osteology trends described in the results presented by Crerar (2012, 2016) and more broadly by Tucker (2012, 2014, 2016).

Evidence for exposure to violence within the decapitation burial sample was analyzed based on the prevalence, types, and timing of injuries present within and between sites over time. Tucker's (2012) decapitation typology outlines six types of decapitation associated with different methods of decapitation, including peri-mortem trauma, placement, presence of other peri-mortem trauma, frequency, period, type of site, individual age, position of the head, injury timing, and possible interpretation/motivation. To address whether evidence exists for bone selectivity (removing, or intentionally fragmenting or modifying a skeletal element), the preservation percentage range and MNE (Minimum Number of Elements) of the decapitation burials was compared for similarities or differences within sites and between sites in the sample. When evidence for bone selectivity in some form was observed, the next step was to consider whether any elements were missing, replaced, post-mortem secondary disturbance, or intentionally disarticulated. To contextualize the results of site and community level pattern(s) of violence found through the injuries (healed and unhealed) noted in the skeletal remains (if any), with the results were compared to the osteological patterns described in Tucker (2012, 2014) and Redfern (2005, 2007, 2011, 2012, 2014, 2020a; Redfern and Booney 2014), among others. In addition, cultural responses to force and violence may be evaluated by the increasing development of small towns, farmsteads, and cities through trade, industry, and militarization (forts and garrisons in *Glevum* and *Corinium*, for example) in the region as the Roman occupation of *Britannia* took hold during the ERP. In those instances where trauma injuries could not be attributed to inter- or intra-personal or societal levels of violence, the injuries (healed or unhealed) may have been caused by agricultural or trade labor activities or common

everyday accidents, as recorded in many communities in Roman Britain (see Gowland 2002, 2015; Jennings 2017; Powell 2014; Redfern et al. 2017; Redfern and Roberts 2005; Roberts 2013; Roberts and Cox 2003; Roberts and Cox 2004).

To contextualize the diverse social behaviors and mortuary contexts associated with decapitation rites, mortuary and bioarchaeological data patterns were compared to the evidence for mortuary and funerary traditions associated with normative burials in Roman Britain. Weekes (2017:91-109) describes a funerary analysis methodology that groups funerary evidence classes into human remains, associated material, and cut features and layers; while six ‘phases’ comprise the funerary components, including selection, preparation, modification, location, deposition, and commemoration. Much like Tucker’s (2012) typology, this range of funerary behavior based on the most common features of Romano-British mortuary contexts provides a conceptual starting point for the development of a contextual range of mortuary and funerary behavior of decapitation burials that is not automatically directly linked to concepts of deviancy. In completing this analytical step, along with building a picture of the osteological narratives for the better-preserved individuals, it was possible to discern whether aspects of social identity might have influenced funerary or mortuary treatment within a site or between sites, and if so, determine where on the contextual range these treatments appear compared to other decapitation burials, challenging earlier views of a homogenous social identity of the dead in the process. The creation of this contextual funerary and mortuary spectrum of body treatments may also be used to systematically monitor the frequency, distribution, and sequence of the phases, as well as any temporal changes in their application, all while considering the broader cultural trends of violence, power, and commemoration of memory through engagement of the dead (whether parts

or wholes) in its many forms in Roman Britain and the Roman world (i.e., Roman law, architecture, art, religious contexts, military campaigns, etc.).

### **3.5. Conclusion**

This chapter has outlined the methodological approaches employed in this study to analyze the bioarchaeological, taphonomic, and mortuary treatment data decapitation inhumation burials and deposits from Roman Oxfordshire and Gloucestershire. The analytical approaches and associated appendices were designed to clarify the ways in which data from this western region of Britain may be evaluated using a combined qualitative and quantitative statistical analysis to address questions regarding aspects of social organization during the LRP. The following chapter will provide a presentation of the results of the data analysis.

## **Chapter Four: Data Analysis and Results**

### **4.1. Introduction**

In this chapter, I discuss the results of the statistical and qualitative analysis of the bioarchaeological and mortuary data. The chapter begins with a description of the bioarchaeological data, including demographic patterns, pathological, trauma and disarticulation evidence. This is followed by a description of the mortuary context data, including burial location, context, coffin, body side, body position, body manipulation, grave orientation, grave goods and animal inclusions. Multiple Joint Correspondence Analysis statistical comparisons of the dataset to test for definable similarities and differences in the mortuary treatment of decapitated and non-decapitated individuals within and between the sites are presented in the next section. Variance of five percent or less ( $<5\%$ ) is regarded as relative parity or less significant, while variance greater than this is noted by degrees or percentage of prevalence. Statistical analysis was not possible for all synchronic and diachronic elements due to the small sample size and comparison of variables for which consistent data were not available.

Next, the bioarchaeological and mortuary treatment patterns associated with the decapitation burials were compared with patterns observed in the non-decapitation burial data to provide further context for the frequency and distribution of this practice and the ways individuals subjected to this treatment may have been considered in western Roman Britain. The chapter concludes with a review of the funerary practices represented in the region and an assessment of the place of decapitation burials and associated patterns along the spectrum of relative normativity represented by the normative funerary framework.

### **4.2. Data Results**

#### **4.2.1. Demographic Patterns**

The data universe consisted of 1546 burials from 44 sites across Oxfordshire and Gloucestershire in western England. Only 122 individuals (7.9%) in the data sample were decapitation burials while 1424 (92.1%) were non-decapitation burials (Table 4.1). Most of the decapitation burials (95.9%) were found in sites where non-decapitation burials were also present, while just five decapitation burials (4.1%) in the sample were recovered from isolated deposits or burials (Table 4.2). The site of Cassington in Oxfordshire contains the highest concentration of decapitation burials within a single site (27.1%), consisting primarily of the adult inhumation burials (7 males, 7 females, and 1 unsexed).

*Table 4.1. Total number of decapitation and non-decapitation burials by age category.*

<b>Decapitation and non-decapitation burials by age category</b>			
<b>Age Category</b>	<b>Decapitated</b>	<b>Non-decapitated</b>	<b>Total</b>
Adult	103	1135	1238 (80%)
Subadult	13	230	243 (15.7%)
Indeterminate	6	59	65 (4.2%)
<b>Total</b>	122 (7.9%)	1424 (92.1%)	1546 (100%)

*Table 4.2. Total number of decapitation burials from burial contexts near non-decapitation burials compared to isolated decapitation burials by site location in Gloucestershire and Oxfordshire.*

<b>Summary of decapitation burials by site type in Oxfordshire and Gloucestershire</b>			
<b>Site Type</b>	<b>Oxfordshire</b>	<b>Gloucestershire</b>	<b>Total</b>
Cemetery/structure/pit /ditch/well	54	63	117 (95.9%)
Isolated only	2	3	5 (4.1%)
<b>Total</b>	56 (45.9%)	66 (54%)	122 (100%)

#### **4.2.2. Age**

Adults accounted for 1238 burials (80%) of the burial sample, representing 103 decapitation burials (84.4% of the decapitation sample, and 6.6% of the total burial sample) and 1135 non-decapitation burials (73.4% of the total number of burials in the sample). The adult decapitation burials represented 8.3% of the adult burial sample while the non-decapitation

burials represented 91.6% of the adult burial sample. Most of the adult decapitation burials were in burial contexts similar to non-decapitation burials (96.1%); just four decapitation burials (3.9%) in the sample were recovered from isolated deposits or burials (Table 4.3).

*Table 4.3. Total number of adult decapitation burials from burial contexts near non-decapitation burials compared to isolated adult decapitation burials by site location in Gloucestershire and Oxfordshire.*

<b>Summary of adult decapitation burials by site type in Oxfordshire and Gloucestershire</b>			
<b>Site Type</b>	<b>Oxfordshire</b>	<b>Gloucestershire</b>	<b>Total</b>
Cemetery/structure/pit /ditch/well	48	51	99 (96.1%)
Isolated only	2	2	4 (3.9%)
<b>Total</b>	<b>50 (48.5%)</b>	<b>53 (51.4%)</b>	<b>103 (100%)</b>

None of the sites with decapitation burials examined in this thesis contained more adults compared to sites in the region without decapitation burials. Sites with a high percentage of adults in their burial population typically are associated with large populations in nearby cities or mid-size towns (see, for example, Bath Gate, Cirencester, Glouc., or College of Arts, Gloucester, Glouc.). The site of Post Farm, Thornbury, Glouc. had the largest number of adults in the burial sample with 11 adults and 4 subadults (1 adult male decapitation burial, 10 adult non-decapitation burials and 4 subadult non-decapitation burials). However, the large number of adults (73.3% of the cemetery) in this instance may represent an extended family buried adjacent to farm-related buildings close to a nearby rural farmstead settlement (Cotswold Archaeology 2017:5, 25-9). The practice of burying family members in clusters in proximity to one another was common in Late Roman Britain and was observed at other sites within the burial sample (see Wroxton St. Mary – Barn Lodge, for example (Chambers and Harman 1986:42)).

The data sample included 13 subadult decapitation burials (5.3% of the subadult burial population, 10.6% of the total decapitation burial sample, and 0.8% of the total burial

population) and 230 subadult non-decapitation burials (94.6% of the subadult burial population, 16.8% of the total non-decapitation burial sample, and 14.8% of the total burial population) (Table 4.4). Most of the subadult decapitation burials (38.4%) were in the adolescent age category and were concentrated (80%) at sites in Oxfordshire, although the sample size of this age sub-set category is small.

*Table 4.4. Total number of subadult decapitation burials by site location in Gloucestershire and Oxfordshire.*

<b>Summary of subadult decapitation burials by site location in Oxfordshire and Gloucestershire</b>			
<b>Age Category</b>	<b>Oxfordshire</b>	<b>Gloucestershire</b>	<b>Total</b>
Infant (0-2 yrs.)	1	0	1 (7.7%)
Early Child (3-7 yrs)	0	3	3 (23.1%)
Late Child (7-12 yrs)	0	3	3 (23.1%)
Adolescent (13-19 yrs)	4	1	5 (38.4%)
Indeterminate	1	0	1 (7.7%)
<b>Total</b>	6 (46.1%)	7 (53.8%)	13 (100%)

Most of the subadult decapitation burials were in burial contexts similar to non-decapitation burials and adult burials (92.3%), with just one subadult decapitation burial (7.6%) in the sample recovered from an isolated burial (Table 4.5). All the subadult decapitation burials in the burial population were single burial contexts.

*Table 4.5. Sites with subadult decapitation burials and sites with only isolated subadult decapitation burials or deposits.*

<b>Summary of subadult decapitation burials by site type in Oxfordshire and Gloucestershire</b>			
<b>Site Type</b>	<b>Oxfordshire</b>	<b>Gloucestershire</b>	<b>Total</b>
Cemetery/structure/pit /ditch/well	5	7	12 (92.3%)
Isolated only	0	1	1 (7.6%)
<b>Total</b>	5 (38.4%)	8 (61.5%)	13 (100%)

Subadult decapitation burials were not concentrated in any particular site in the sample but occur at eleven of the 44 sites in the study area. The sites of White Horse Hill, Uffington and 124-130 London Road, Gloucester each contained two subadult decapitation burials, while the other nine sites contained only one subadult decapitation burial each. Across the eleven sites containing subadult decapitation burials, there were a total of 35 subadult non-decapitation burials, decapitation rate of 27% (13/48) for the subadult population. This finding suggests that at those sites some subadults were selected for decapitation because of their association with adults buried nearby or reflect an earlier selective use of the practice at those sites that continued after the arrival of the Romans.

A Chi-Square test revealed no significant difference in the representation of age groups in the site sample ( $\chi^2=13$ ,  $df=9$ ,  $p\text{-value}=0.2133$ ). Overall, the JCA and Chi-Square tests suggest that biological age alone does not seem to have influenced whether an individual was selected for decapitation or significantly different burial treatment in the region.

#### **4.2.3. Sex**

The total number of males in the burial population is 586 (38%), while the total number of females is 347 (22.4%). The total number of probable males is 99 (6.4%), while the total number of probable females is 76 (5%). The total number of unsexed individuals in the burial sample is 438 (28.3%), usually due to taphonomic conditions, the immature status of the skeletal remains, inadequate recording or lack of osteological methods available for post-excavation analysis. The total number of male decapitation burials is 47 (38.2% of the total decapitation burial sample), very close to the total number of male non-decapitation burials at 38% of the total burial sample. The total number of probable male decapitation burials is 12 (9.7% of the total decapitation burial sample) and the total number of probable male non-decapitation burials



is 87 (5.6% of the total burial sample). The total number of female decapitation burials is 30 (24.5% of the total decapitation burial sample, and 1.9% of the total burial sample) and the total number of female non-decapitation burials is 317 (20.5% of the total burial sample). The total number of probable female decapitation burials is 6 (4.9% of the total decapitation burial sample and 0.3% of the total burial sample), and the total number of probable female non-decapitation burials is 70 (4.5% of the total burial sample) (Table 4.6).

*Table 4.6. The total number of individuals (n=1546) represented in the burial population by expanded sex categories examined in this thesis.*

<b>Decapitation and non-decapitation burial population by sex category</b>			
<b>Sex Category</b>	<b>Decapitated</b>	<b>Non-decapitated</b>	<b>Total</b>
Male	47	539	586 (38%)
Female	30	317	347 (22.4%)
Probable Male	12	87	99 (6.4%)
Probable Female	6	70	76 (5%)
Unsexed	27	411	438 (28.3%)
<b>Total</b>	122 (7.9%)	1424 (92.1%)	1546 (100%)

If the probable male and female data are combined with the sexed individuals, the total number of male decapitation burials increases to 59 (48% of the decapitation sample and 3.8% of the total burial sample) while the total number of female decapitation burials increases to 36 (29.5% of the decapitation burial sample, and 2.3% of the total burial sample). The total number of male non-decapitation burials increases to 626 (40% of the total burial sample) and the total number of female non-decapitation burials increases to 387 (25% of the total burial sample). The total number of unsexed individuals from the decapitation burial sample is 27 (22% of the decapitation burial sample, and 1.7% of the total burial sample) and the total number of unsexed non-decapitation burials is 411 (26.6% of the total burial sample) (Table 4.7).

*Table 4.7. The total number of individuals (n=1546) represented in the burial population by refined sex categories examined in this thesis.*

<b>Decapitation and non-decapitation burial population by sex category</b>			
<b>Sex Category</b>	<b>Decapitated</b>	<b>Non-Decapitated</b>	<b>Total</b>
Male	59	626	685 (44.3%)
Female	36	387	423 (27.3%)
Unsexed	27	411	438 (28.3%)
<b>Total</b>	122 (7.9%)	1424 (92.1%)	1546 (100%)

The site of Bath Gate, Cirencester, Gloucestershire contained 12 adult male decapitation burials, representing the highest number of male decapitation burials within one site in the burial sample. The adult male decapitation burials within this site represent 5.1% of the total number of adult male burials at Bath Gate, 20.3% of the total adult male decapitation burials in the sample, 9.8% of the total decapitation burial sample, and 1.8% of the total adult male burials in the sample. The site of Cassington, Oxfordshire contained seven adult male decapitation burials, representing the highest percentage of male decapitation burials within one site in the burial sample. The adult male decapitation burials within this site represent 19.4% of the total number of adult male burials, 11.8% of the total adult male decapitation burial in the sample, 5.7% of the total decapitation burial sample, and 1% of the total adult male burials in the sample. The site also contained seven adult female decapitation burials, representing the highest number and percentage of female decapitation burials within one site in the burial sample. The adult female decapitation burials within this site represent 50% of the total number of adult female burials, 19.4% of the total adult female decapitation burial in the sample, 29.2% of the total decapitation burial sample, and 1.6% of the total adult female burials in the sample (Table 4.8).

Table 4.8. The total number of individuals represented at the Bath Gate, Cirencester and Cassington sites by expanded sex categories.

Site	Burial Status	Male	Female	Probable Male	Probable Female	Ind.	Total
Bath Gate, Cirencester	Decapitation	12	1	0	0	0	13
Bath Gate, Cirencester	Non-Decapitation	221	80	14	20	63	398
Cassington	Decapitation	6	7	1	0	2	16
Cassington	Non-Decapitation	31	12	5	2	9	59

To explore whether there were any correlations between burial contexts and burial treatment based on sex, age and decapitation status (application vs. non-application), a query was conducted comparing those data for the 1546 individuals (1424 non-decapitated and 122 decapitated individuals) in the sample (Figure 4.1).

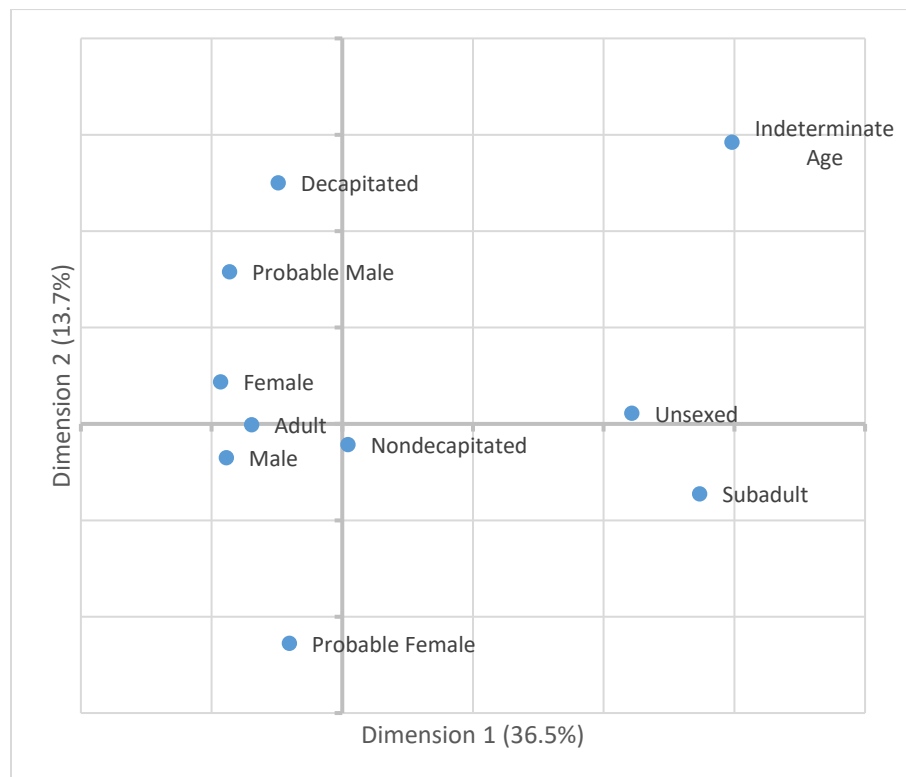


Figure 4.1. Burt Matrix depicting the results of the JCA testing for correlation between burial contexts and the sex, age, and decapitation application variables within the burial population.

The joint correspondence analysis (JCA) with the Burt Matrix compared those variables from those individuals and burials and found subadults and undetermined age categories cluster with indeterminate sex far from the center, however, this result is not unexpected as it is difficult to assign sex to subadults (hence the indeterminate designation association). This finding has no significance therefore as a meaningful pattern relating to whether subadults were more or less likely to be decapitated. The second axis shows decapitation relative to probable male and indeterminate categories, which are distinguished and opposed to probable female, while non-decapitation is not distinguished from the main cluster in Figure 4.1. This finding suggests that adult males and adult indeterminate sex were more likely based on sheer numbers to be associated with decapitation compared to adult females. However, based on the percentage of adult females represented in the sample, the rate of prevalence of decapitation for females is not significantly less than for the adult males in the sample. To test whether the various sexes are represented differently between the decapitation and non-decapitation burial population, a Chi-Square test revealed there is not a significant difference ( $\chi^2=30$ ,  $df=25$ ,  $p\text{-value}=0.2243$ ). In addition, when the sex and age distributions of the decapitation and non-decapitation populations are compared, they are not significantly different, suggesting that neither age or sex biological or social variables impacted the likelihood of being subjected to decapitation in this region.

#### **4.2.4. Summary of Demographic Patterns**

Decapitation burials represent just 7.9% of the inhumations in the burial population examined in this thesis. Most of the decapitation burials are recovered from sites where non-decapitation burials are present, mainly in cemeteries with formally defined perimeters. While sites such as Bath Gate, Cirencester have a higher number of decapitation burials compared to small rural sites nearby, the site of Cassington (Ox.) contained the highest concentration (%) of decapitation burials within a single site. The decapitation burial population is comprised mostly

of adult males according to assessment of the age and sex distribution (a similar trend observed in the non-decapitation burial population as well), however, there was no statistically significant difference in the representation of either age or sex between the burial populations, which suggests those variables were unlikely to directly influence whether an individual was decapitated.

#### **4.3. Pathology and Disability**

Historically, certain diseases have caused the stigmatization of those groups afflicted, in both life and death, and therefore it is worthwhile to consider whether this variable is reflected in the treatment of the burial population in western Roman Britain. Congenital conditions, such as dwarfism for example, resulting in visible health or cosmetic defects could have impacted the life experience and mortuary treatment of the individual. While congenital conditions severe enough to leave osteological traces were rare in Roman Britain, examples do exist within the archaeological record. Classical sources that refer to the treatment of individuals with visible health/cosmetic defects include Pliny the Elder (Pliny *Natural History* XXVIII.7, 50). While severe cases of congenital diseases were rare, infectious or progressive conditions were more common across Roman Britain (Rohnbogner 2018:345). The prevalence of Schmorl's Nodes, degenerative joint disease, infectious diseases such as tuberculosis, or non-specific infectious diseases such as osteomyelitis and periostitis are observed in all age categories, especially measureable in adults, in Roman Britain (Roberts and Cox 2003; Rohnbogner 2018:286-7). However, it is important to bear in mind that many individuals may have suffered from conditions which left no osteological trace or may have perished from an illness during its early stages before leaving any obvious osteological trace (a factor that may have impacted all age groups, especially subadults) (Orner 2003; Rohnbogner 2018:328). Lastly, non-specific

infectious diseases in some cases, such as the presence of periostitis, may not indicate a specific illness but may instead represent a response by the injured bone due to trauma (whether intentionally or accidentally caused) or ulceration. Given the potential for individual health or disability to be a factor in the burial treatment of the individual, including decapitation, in Roman Britain it is crucial to explore the prevalence of common illnesses on a cemetery specific and wider regional basis.

The proportion of recorded pathological conditions (both congenital and infectious) identified in the available skeletal remains of 916 individuals in the burial population (835 non-decapitated and 81 decapitated individuals) is presented in Figure 4.2. When considering the prevalence of pathological conditions in the burial population by site, some sites exhibit higher rates of pathologies than others in the study sample. For example, the sites of Bath Gate (27%), Bridge's Garage (11%), Horcott Quarry (9%), the College of Arts (9%), 120-122 London Road (8%), and Gambier Parry Lodge (8%) exhibited the highest rates in the sites in the sample, while the remaining sites exhibited a pathological incidence rate of no more than 0-4%, suggesting individuals in those populations were less affected by osteologically identifiable pathologies. All the sites with greater incidence rates of conditions associated with dental disease were from locations in Gloucestershire where most of the burials were found within cemetery boundaries or in groups marked by an informal perimeter. These frequency trends reflect a similar pattern observed more broadly in the Central Belt region of statistically significant dietary variation between settlement types (Rohnbogner 2018:338). On the other hand, the smaller number of individuals present compared to the larger populations associated with the aforementioned sites (mainly cemeteries), and the relatively recent excavations, analyses, and publication of those osteological and site reports, may have affected these results. Nevertheless, the relatively

consistent distribution of incidence rates between those sites with higher percentages suggests there is no significance in the rate of pathological incidence in those burial populations compared to those sites with fewer individuals and lower incidence percentage rates.

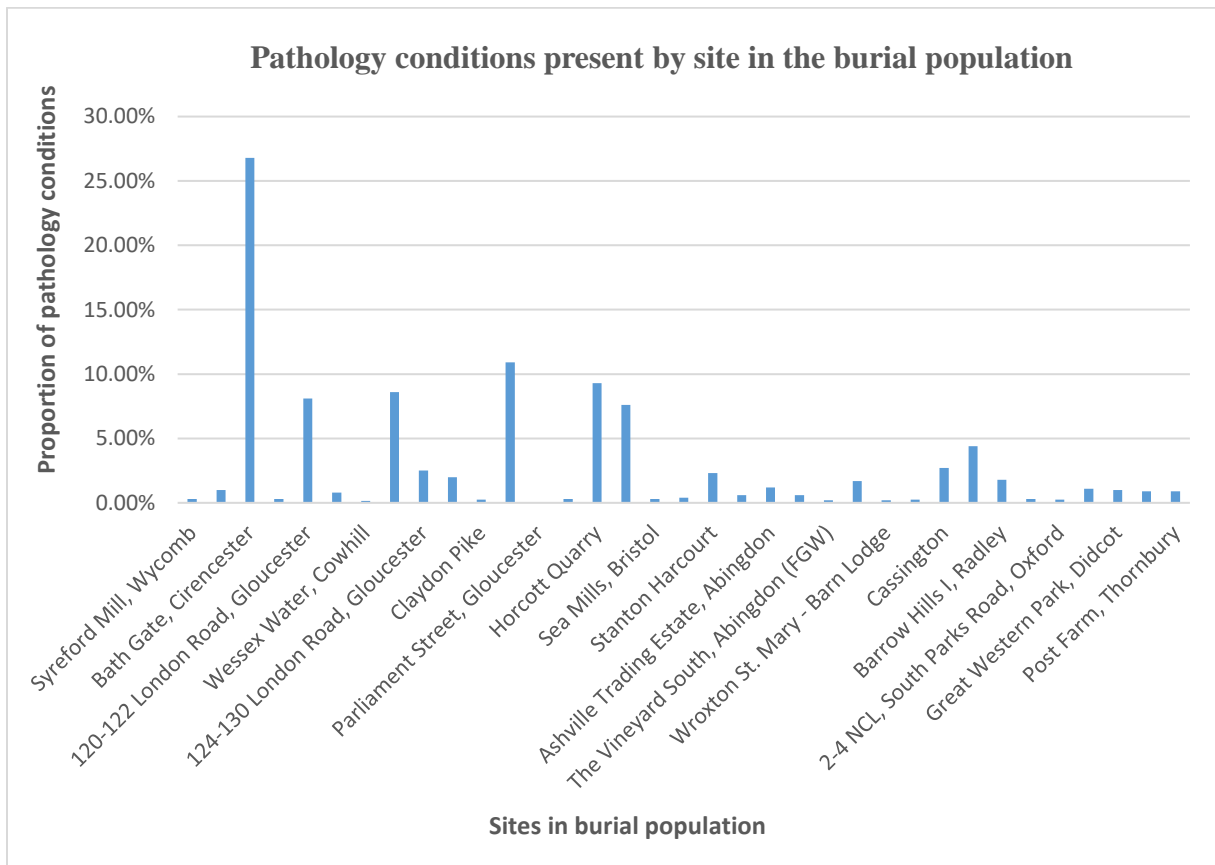


Figure 4.2. The proportion of pathological conditions identified in 916 (n=) individuals in the burial population (835 non-decapitated and 81 decapitated individuals).

The percentage of most pathological conditions present in the decapitation burial population is 10% or less, except for dental caries (13.6%) and periodontal disease (21.2%). The proportion of cases of these pathological conditions seems to indicate a burial population that was affected by conditions like those in other regions of Roman Britain (Rohnbogner 2018:330, 337) (Figure 4.3). While most of the pathological conditions appear in the non-decapitation population, this may be due to the larger number of individuals in this burial population.

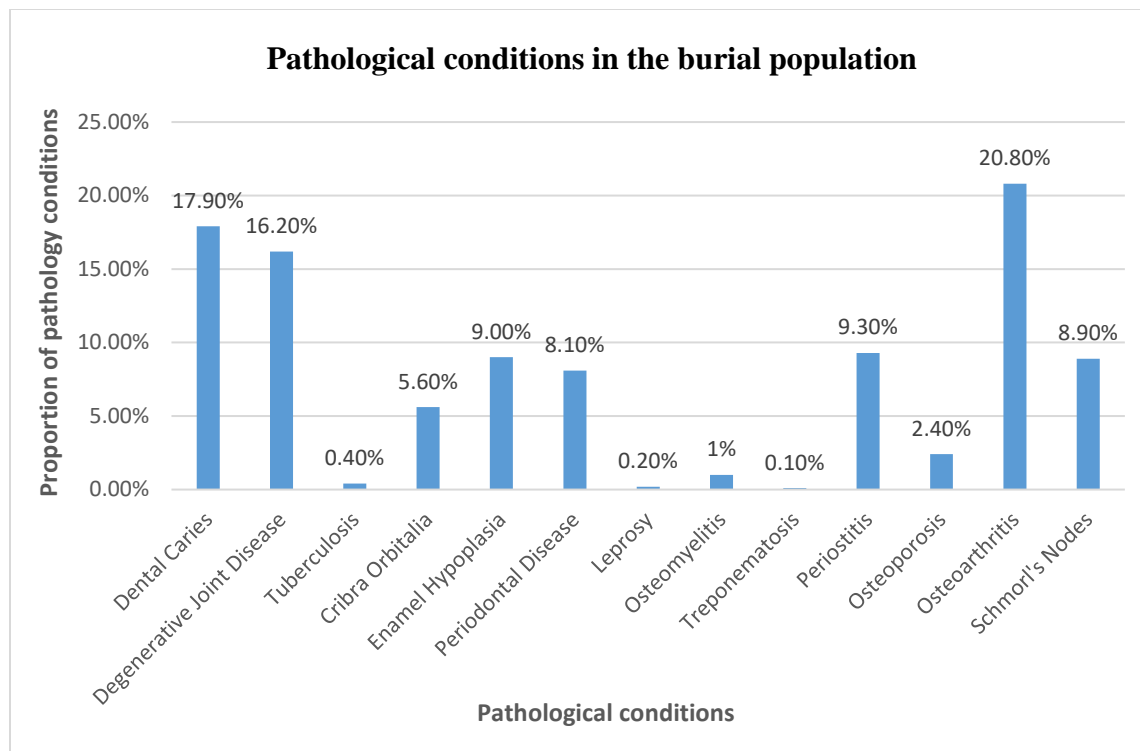


Figure 4.3. The proportion of pathological conditions (n=2036) in the burial population where data were available.

When the proportion of the incidents of pathological conditions in the decapitation and non-decapitation burial populations are compared, there are relatively even distributions of some of the conditions, such as osteomyelitis, cribra orbitalia, enamel hypoplasia, and degenerative joint disease (Figure 4.4). However, regional studies of the pathological conditions by burial status, Rohnbogner (2018:325) suggest adult decapitation burials in the Central Belt region had significantly higher rates of enamel hypoplasia (17.4%), trauma (19.6%), and dental caries (39.1%) compared to the non-decapitation burials in the region. The proportion of dental caries and periodontal disease was greater in the decapitation burial population compared to non-decapitation burials, indicating rates of poor oral health and suggesting some or all of those individuals may have had reduced access to healthier food options compared to others in their communities. Periostitis, osteoarthritis and Schmorl's Nodes was more common in the non-



decapitation burial population compared to the decapitation burials, suggesting that the decapitation population experienced slightly lower rates of injury due to stress- or accident-related activities in daily life.

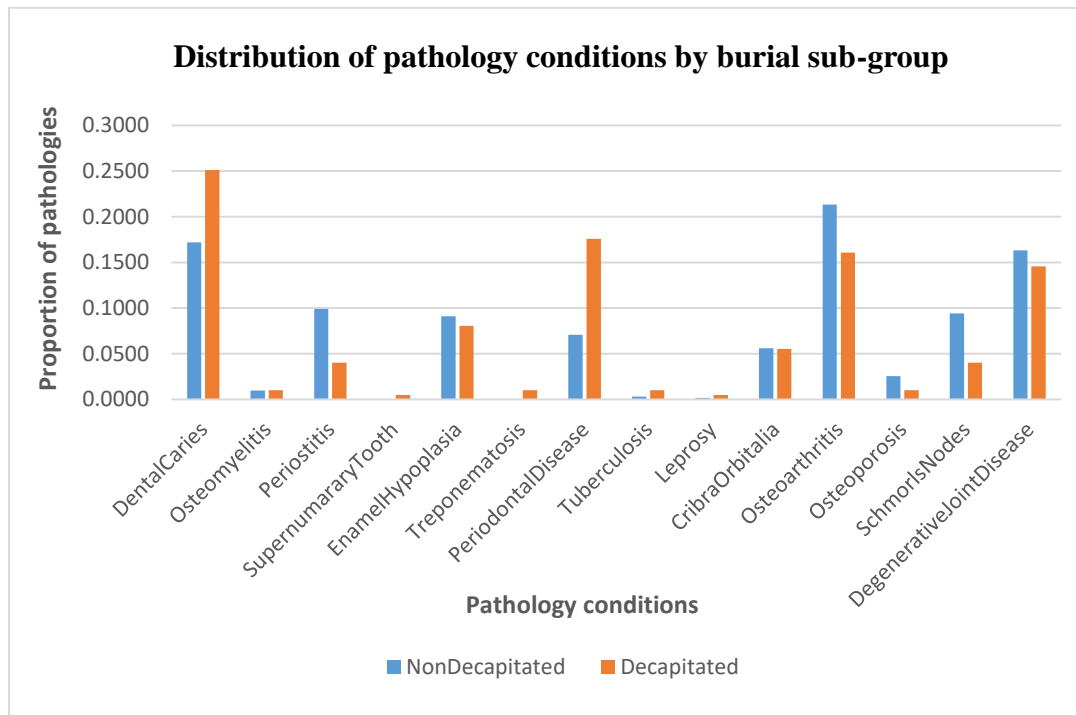
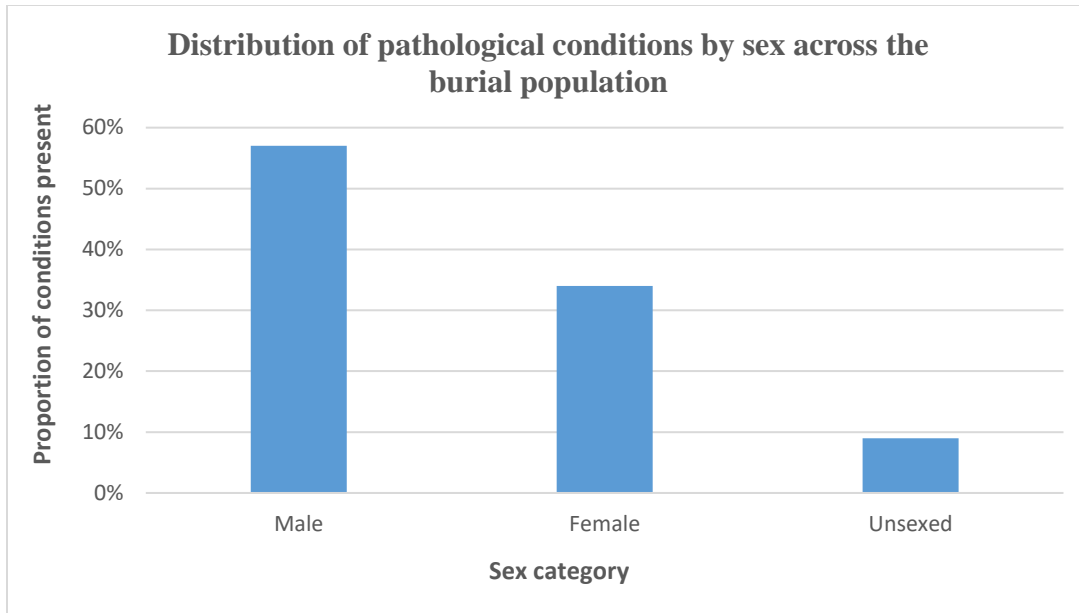


Figure 4.4. The proportion of pathological conditions by type identified in 916 (n=) individuals in the burial population (835 non-decapitated and 81 decapitated individuals).

The sex distribution analysis of the number and rates of incidence of pathological conditions indicates that adult males exhibited more of the pathological conditions present in the burial populations (nearly 60%), followed by adult females as the next most commonly effected (20-30%), while unsexed individuals accounted for 10% or less of the sample (Figure 4.5).



*Figure 4.5. The sex distribution of individuals with observed pathological conditions present (n=2035).*

This trend held for most of the pathological conditions, except tuberculosis, periostitis and dental caries, which were more equally distributed in their representation in the three sex categories (Figure 4.6). This general trend of the frequency and variety of pathological conditions was also observed in the sex categories of the burial population of many other sites in the Central Belt region (Rohnbogner 2018:345). However, the rate of tuberculosis in adult females and unsexed individuals appears higher largely due to the limited number of individuals with the disease.

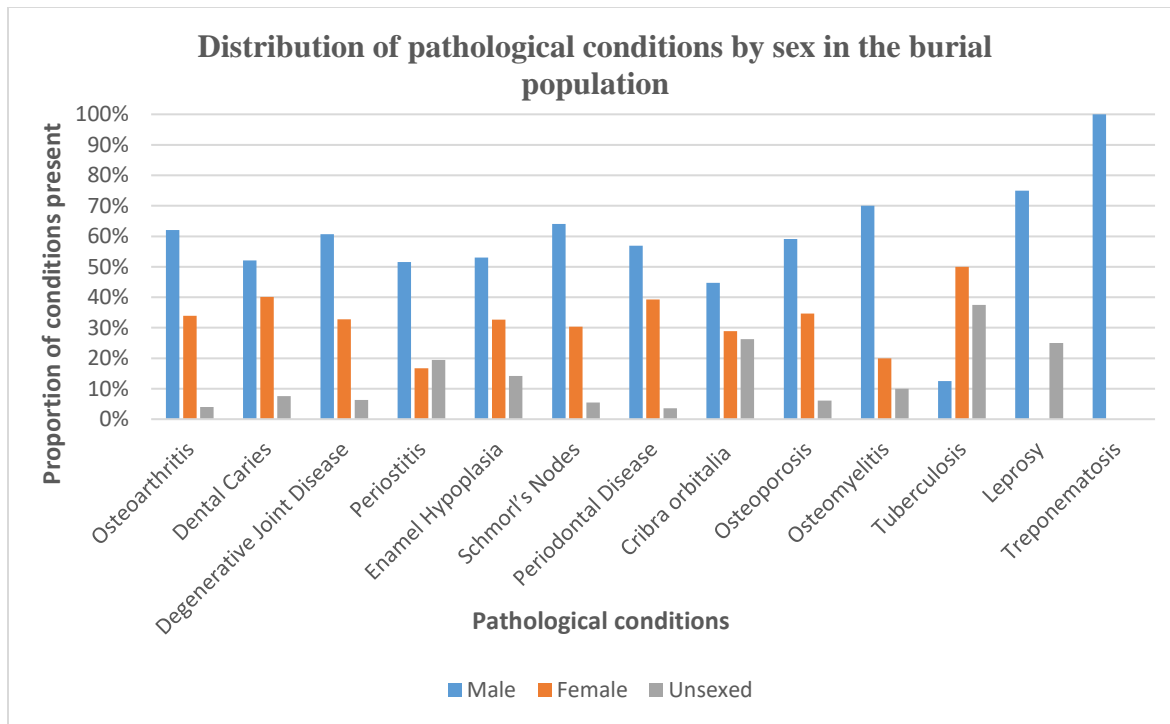


Figure 4.6. The proportion of pathological conditions (n=2035) by sex category within the burial population.

After assessing the rates of incidence by sex, it is difficult to determine whether the patterns observed are significant or simply reflect the greater number of adult males compared to adult females and unsexed individuals. Given these findings, it was necessary to conduct statistical tests to determine the significance of the observed incidence rate patterns across the burial population within and between sites.

The age distribution associated with the number and rates of incidence of pathological conditions shows most pathological conditions impacted adults (75-90%) to a greater degree than subadults (5-15%); the smallest number impacted were indeterminate aged individuals (1% or less) (Figure 4.7).

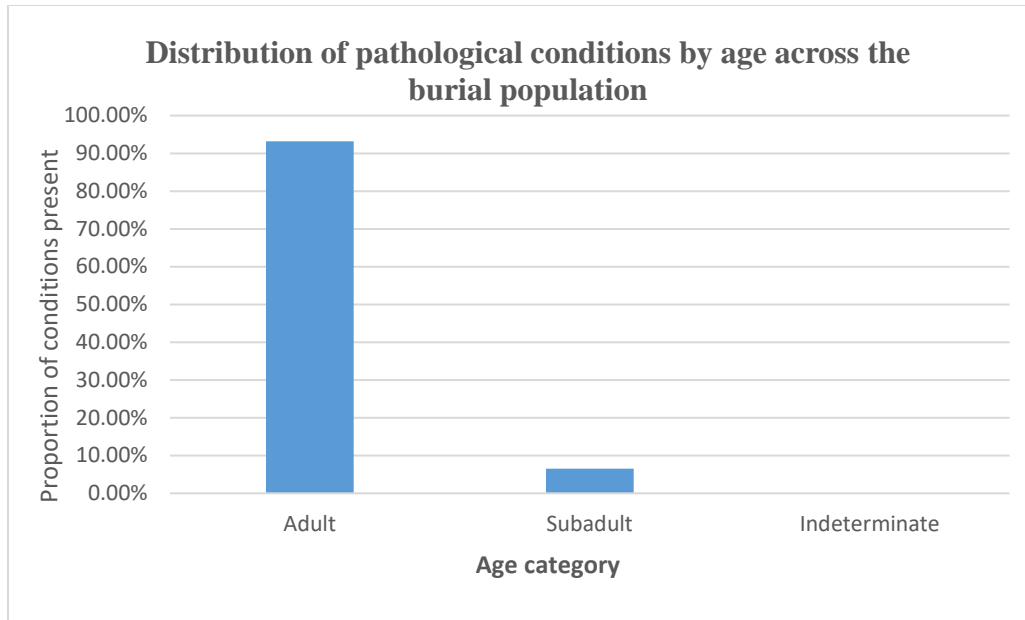


Figure 4.7. The age distribution of individuals with observed pathological conditions (n=2035).

This general trend held for most of the pathological conditions, except cribra orbitalia and enamel hypoplasia, which were more evenly distributed in the adult and subadult age categories (Figure 4.8).

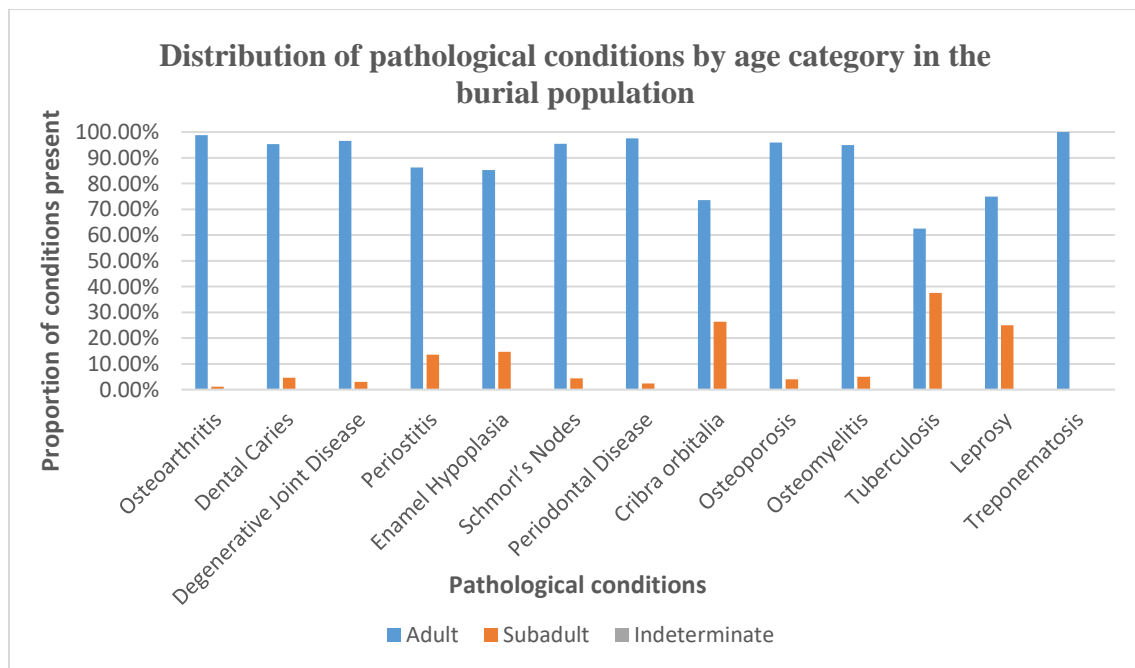
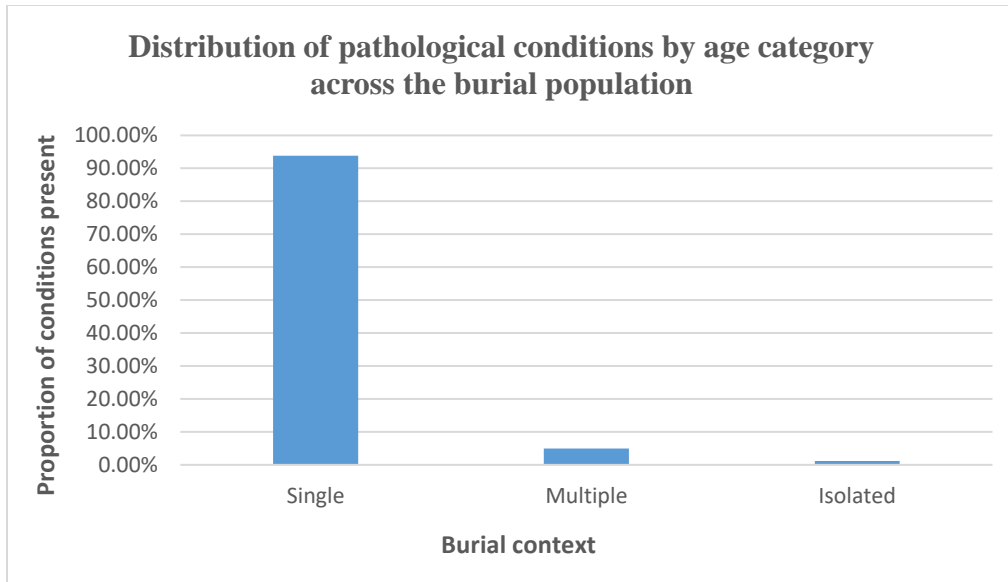


Figure 4.8. The proportion of pathological conditions (n=2035) by age category within the burial population.

These findings reflect similar incidences of pathological conditions recorded for these age categories in the wider Central Belt region, with higher rates of childhood stressors in urban sites compared to rural sites and in adults, stressors indicative of a physically active lifestyle and poor oral care connected with consumption of nutrient deficient food resources (Rohnbogner 2018:333-4). After assessing the rates of pathology by age, it is difficult to determine whether the patterns observed represent significant rates of prevalence or if those patterns are due to the higher number of adults compared to subadults and indeterminate aged individuals.

Interestingly, there were no reported incidences of pathology in indeterminate aged individuals (except one reported case of degenerative joint disease); however, this is more suggestive of a lack of osteological assessment for pathological conditions and higher rates of fragmentation or poor preservation of skeletal remains in this category, hindering the identification process during analysis. Similarly, in the assessment of prevalence rates for pathological conditions on a regional level, we are hindered by the mechanics of diseases that do not leave osteological traces if the individual died in the early stages or soon after infection. Despite these analytical challenges, it is still possible to explore the treatment of individuals exhibiting signs of chronic illness while keeping the osteological paradox of pathological prevalence in mind (Ortner 2003:100). Given these findings, it was necessary to conduct statistical tests to determine the significance of those incidence rate patterns across the burial population within and between sites.

The total proportion of pathological conditions represented across the burial population by burial context type are presented in Figure 4.9.



*Figure 4.9. The proportion of pathological conditions (n=2035) represented in the burial population by burial context type.*

Most pathological conditions appear in single burial contexts, ~90% or more, except treponematosi s (0%) and leprosy (75%), which is due to the rarity of these conditions across the region. The multiple burials were associated with ~4-7% of the pathological conditions, with a slightly higher rate of osteoporosis (8.1%) and treponematosi s (50%) compared to the other pathological conditions in this burial category. The isolated burial category was associated with 1-3% of the pathological conditions, with a slightly higher rate of incidence in periodontal disease (2.4%) and leprosy (50%) compared to the other pathological conditions in this burial category. The total proportion of pathological conditions represented in the burial population by burial context type are presented in Figure 4.10.

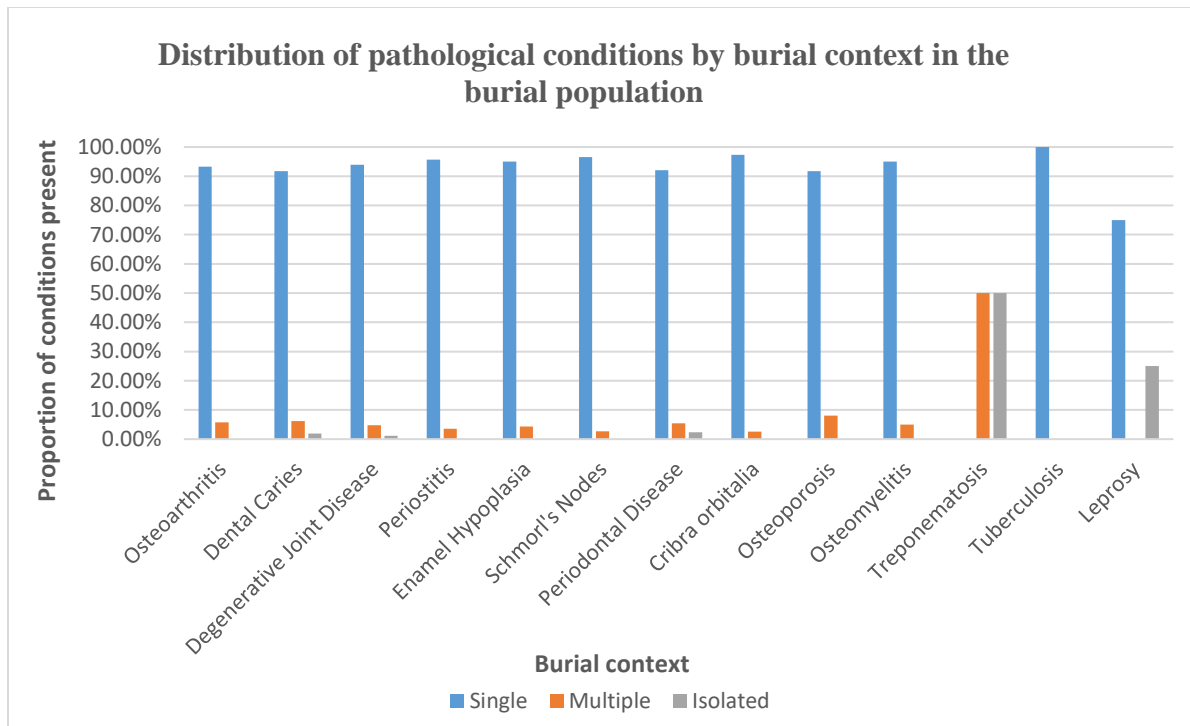


Figure 4.10. The proportion of pathological conditions ( $n=2035$ ) represented in the burial population by burial context type.

To explore the higher rate of incidence of pathological conditions associated with single burials and the lower rate of incidence associated with multiple and isolated burials, it was necessary to conduct statistical tests to establish the significance of those patterns across the burial population within and between the sites.

To explore whether there were any correlations between the presence/absence of pathologies or the prevalence of a specific pathology in the decapitation burials and wider non-decapitation population, a query using JCA with a Burt Matrix was conducted comparing those data where available from 916 ( $n=$ ) burials (835 non-decapitated individuals and 81 decapitated individuals) (Figure 4.11).

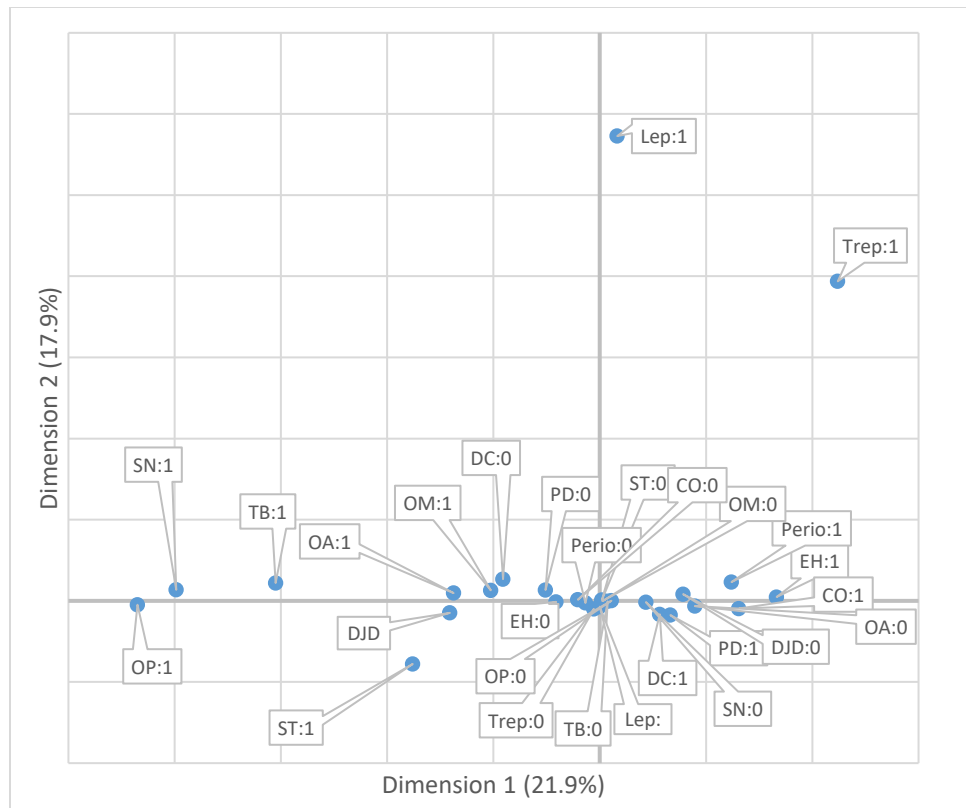


Figure 4.11. Burt Matrix depicting the results of the JCA test for correlations between the presence/absence of pathologies and rate of a specific pathology in 916 (n=) individuals in the burial population.

The initial result of the test revealed that in the decapitation burials (n=81) where data were available based on presence/absence of a specific pathology, leprosy and treponematosi were differentiated from the rest of the burial sample. The only instances of these pathologies are in three adult males (SK 2500 from an isolated burial in Wessex Water, SM 11 in a single burial from Syreford Mill, and SK 305 in a single burial from Bath Gate) who appear otherwise healthy compared to the other adult males in the sample (no conditions such as osteomyelitis, osteoporosis, and Schmorl's Nodes, but also no tuberculosis or cribra orbitalia). This could suggest that those three individuals were selected for decapitation due to the highly visible nature of leprosy and treponematosi. When the data from these three individuals were selected and compared to the other decapitation burials through the JCA test, the individual SK 2500 from an



isolated burial at the Wessex Water site appears as an outlier compared to the other decapitation burials (Figure 4.12).

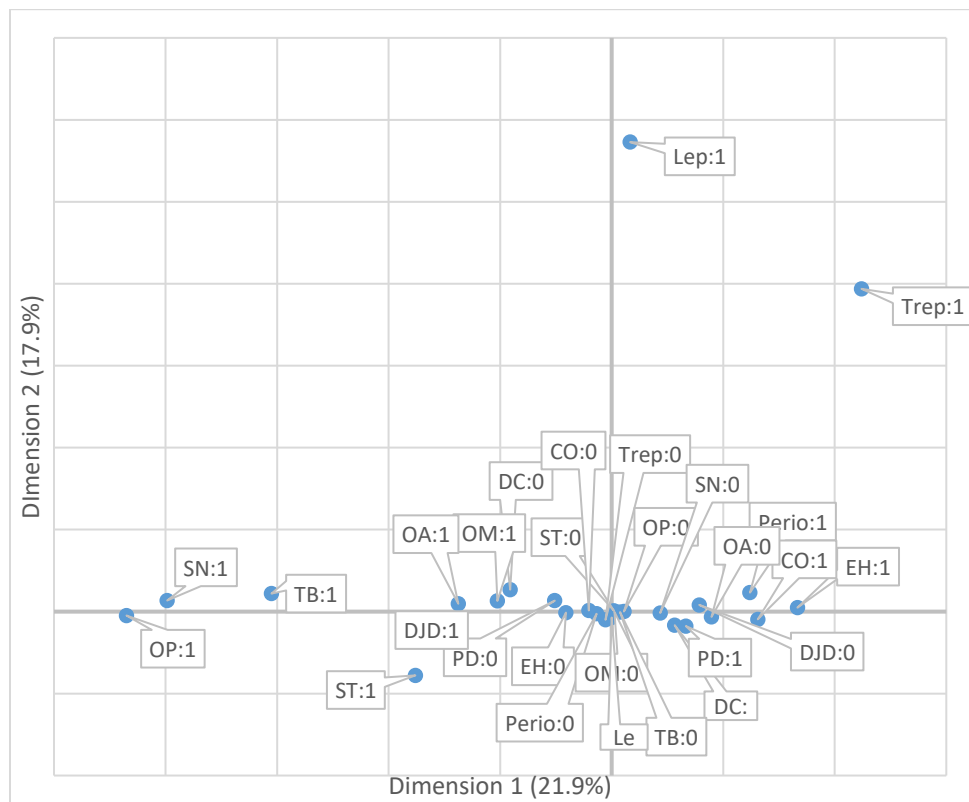
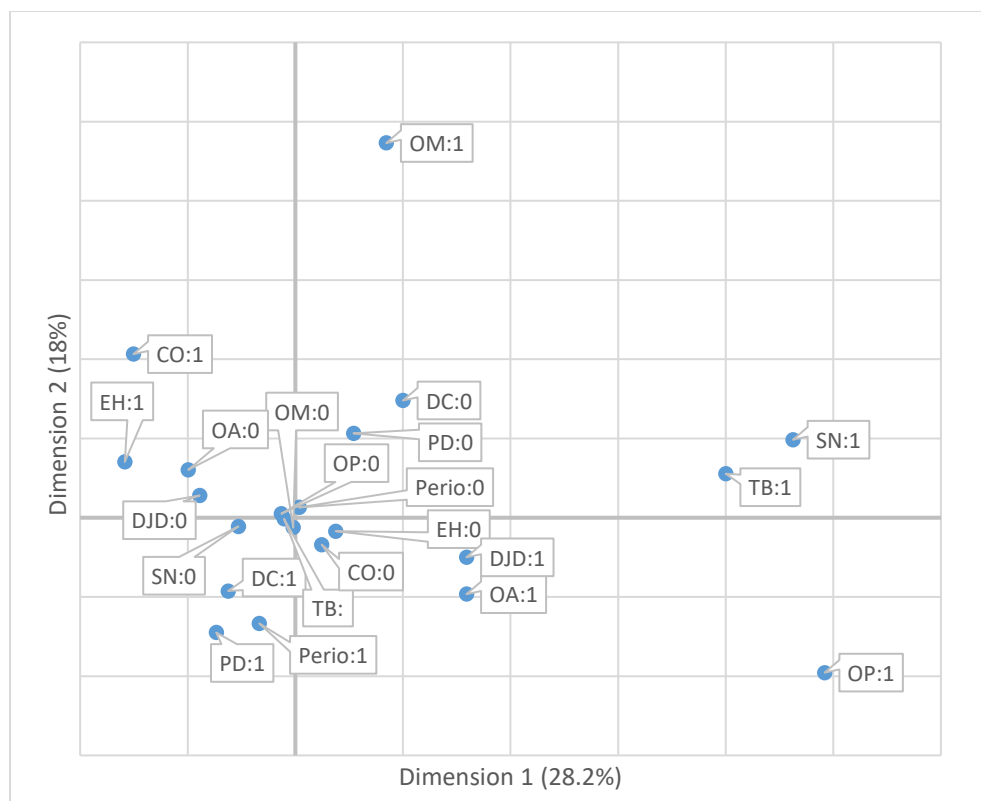


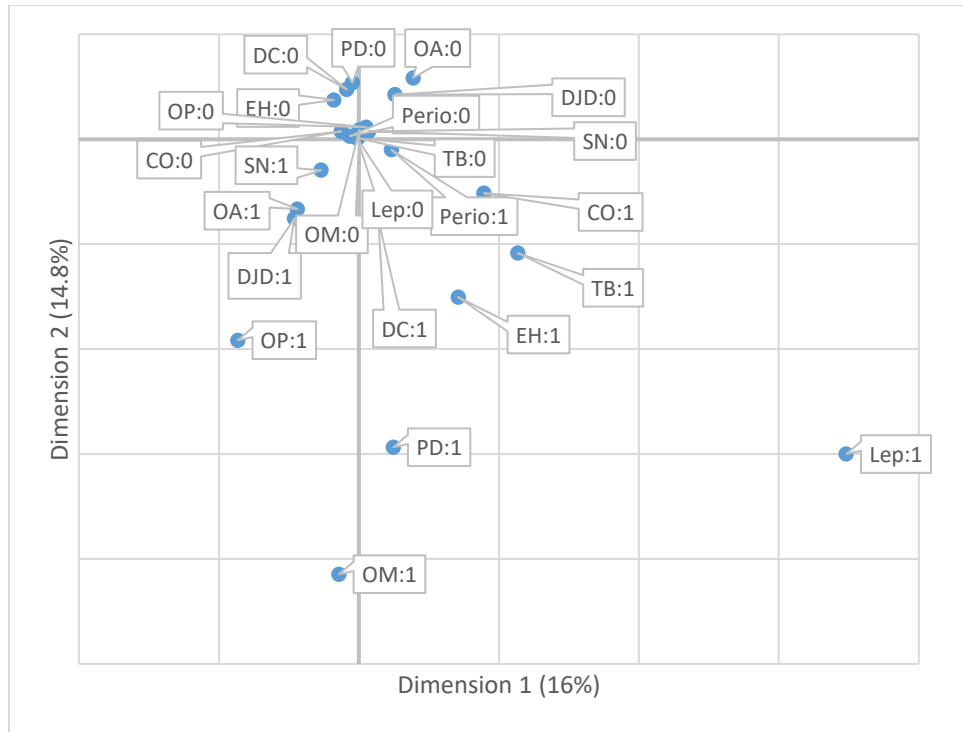
Figure 4.12. Burt Matrix depicting the results of the JCA test for correlations between the presence/absence of pathologies, and prevalence of a specific pathology in 81 (n=) decapitated individuals in the burial population.

To determine whether other patterns of the presence/absence of a specific pathology could be identified, those three individual cases were removed from the query and the JCA test was run to reveal a diffuse pattern (Figure 4.13). On the first axis of the matrix there is an opposition of the presence of Schmorl's Nodes, tuberculosis, and osteoporosis against cribra orbitalia and enamel hypoplasia, suggesting many of the individuals with progressive age-related conditions did not have a high number of identifiable nutrient deficient-related conditions (and vice versa). The second axis of the matrix shows an opposition of osteomyelitis to osteoporosis.



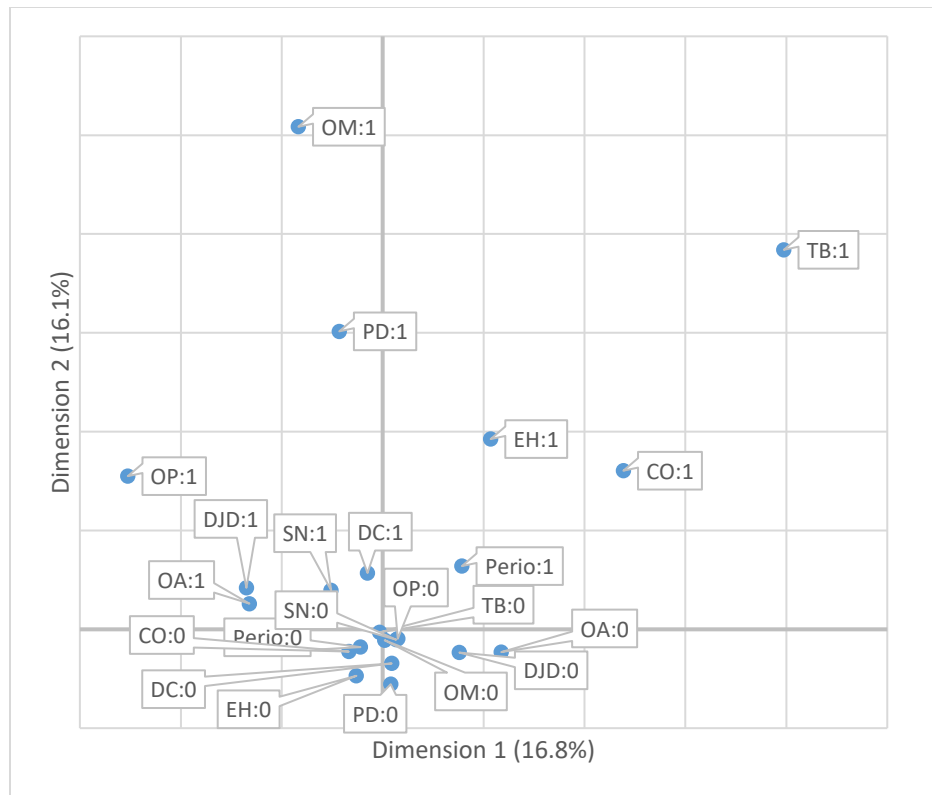
*Figure 4.13. Burt Matrix depicting the results of the JCA test for correlations between the presence/absence of pathologies, and prevalence of a specific pathology in 78 (n=) individuals in the burial population.*

The non-decapitated individuals (n=835) were assessed to determine whether a pattern of presence or absence, or a specific pathology prevalence could be identified based on age, sex, or non-decapitation status by means of a JCA test with a Burt Matrix (Figure 4.14).



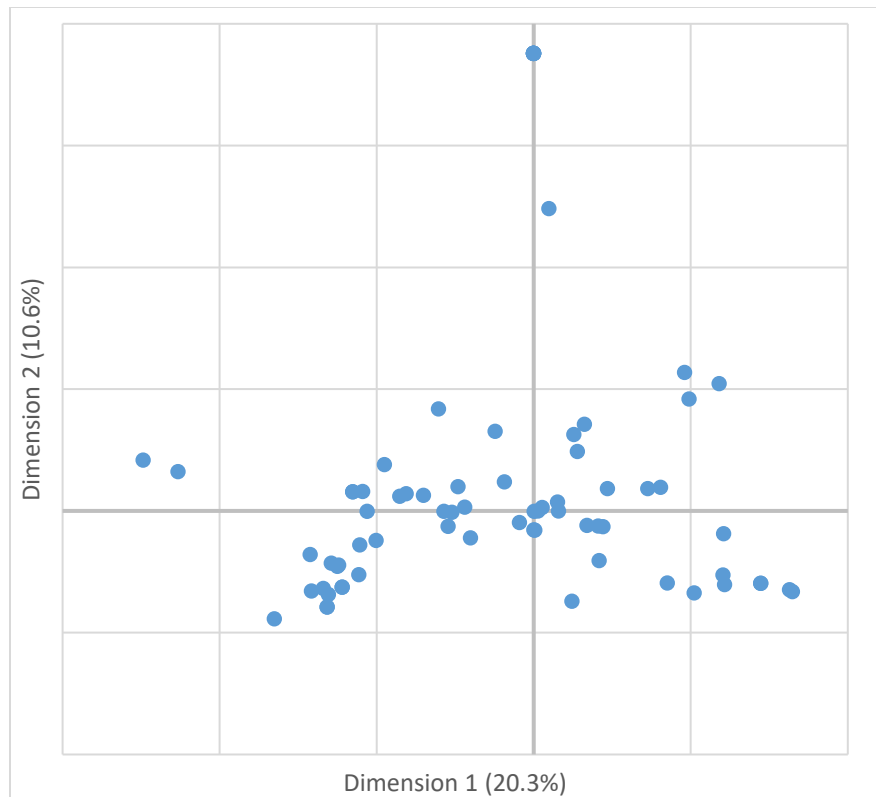
*Figure 4.14. Burt Matrix depicting the results of the JCA test for correlations between the presence/absence of pathologies, and prevalence of a specific pathology by age, sex, or non-decapitation status in 835 (n=) non-decapitated individuals.*

The initial results of the test reveal that in the non-decapitation sample there is one case of leprosy distinguished from the rest of the cases on the first axis, indicating the rarity of the condition in the wider population in the region. With the removal of the leprosy case from the query, the JCA test was performed again (n=834), revealing similar young age-related nutrient-deficient conditions opposed to older age-related conditions related to infirmities or hard physical labor on the first axis, whereas injury-related conditions were opposed to chronic conditions on the second axis (Figure 4.15).



*Figure 4.15. Burt Matrix depicting the results of the JCA test for correlations between the presence/absence of pathologies, and prevalence of a specific pathology by age, sex, or non-decapitation status in 834 (n=) non-decapitated individuals.*

To test whether any pattern(s) of pathological conditions were present on specific skeletal elements of individuals in the decapitation group, those data were selected (n=81) and JCA with a Burt Matrix was run (Figure 4.16).



*Figure 4.16. Burt Matrix depicting the results of the JCA test for correlations between the pathological conditions present on specific skeletal elements in decapitated individuals (n=81).*

The initial results of the test reflect a similar pattern of identifying the presence of leprosy and treponematosiis as outliers to the main cluster of pathologies, with leprosy appearing on the right and left arms and legs, and treponematosiis on the head (leaves the main cluster first axis) and an association with periostitis on the head, and treponematosiis associated with leprosy on other sections of the body (leaves the main cluster on the second axis). This result is not unexpected given that both leprosy and treponematosiis are rare in the sample and therefore those conditions separate themselves as outlier variables. Osteoarthritis of the pelvis appears outside the main cluster of location of conditions on the second axis, however, a Chi-square test showed no evidence that the location distribution of osteoarthritis in decapitated and non-decapitated individuals was significantly different ( $p\text{-value} = 0.2265$ ). In addition, a Chi-square test showed no evidence that the location distribution of osteoarthritis in males or females in the decapitated

and non-decapitated individuals was significantly different ( $p\text{-value} = 0.2417$ ). What these findings suggest is while osteoarthritis was common in both burial samples, its absence in the pelvic region may have been due to preservation bias, limited osteological assessment of the remains, or because the condition was limited to the joints.

Overall, the initial JCA test results show that the variation in the location of pathological conditions on the skeletal elements in the decapitation sample exhibit no distinct patterns. For commonly occurring conditions, such as degenerative joint disease, the only examples of outlier pathological condition and location on the remains are the three individuals who appear relatively healthier than the other adult male decapitated individuals (SK 2500 from Wessex Water, SM 11 from Syreford Mill, and SK 305 from Bath Gate identified previously in the presence/absence test). With those three cases removed from the query, a follow up JCA test was performed ( $n=78$ ) and those results revealed increased variation within the sample with a marked presence of Schmorl's Nodes, osteoporosis, tuberculosis, degenerative joint disease, and osteoarthritis opposed to cribra orbitalia, enamel hypoplasia, dental caries, periodontal disease, and periostitis on the first axis. This suggests two groupings of pathological conditions persisted in the decapitation sample in opposition to one another: those with nutrition deficiency-related pathological conditions and those with labor or stress-related pathological conditions (Figure 4.17).

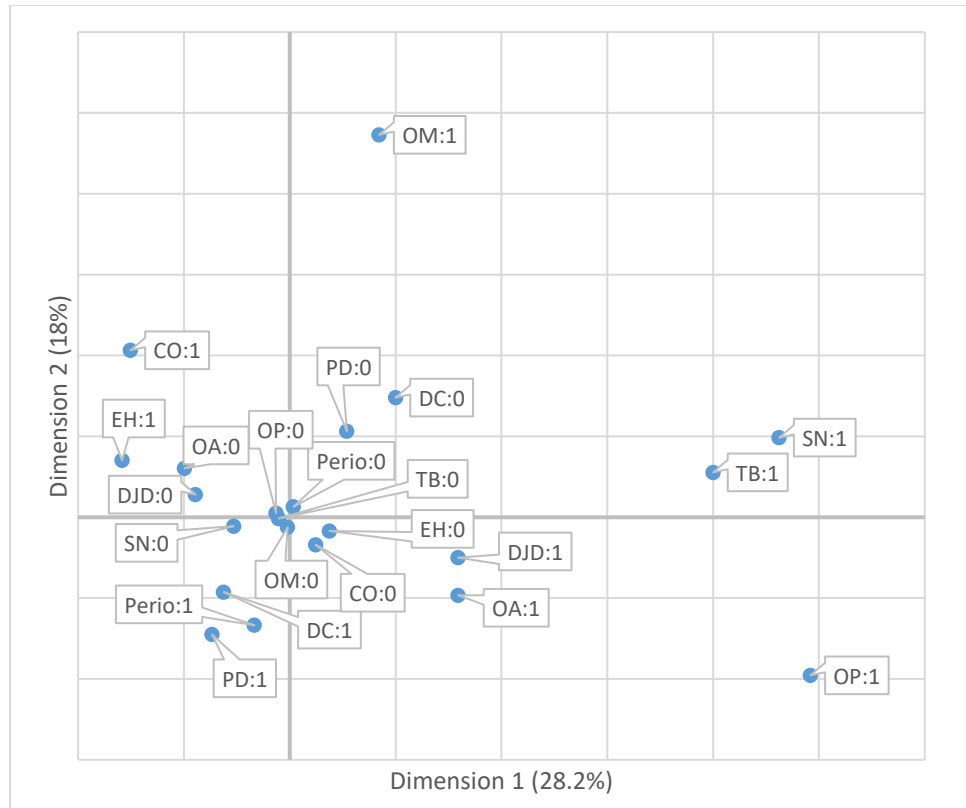


Figure 4.17. Burt Matrix depicting the results of the JCA test for correlations between the location of pathological conditions present on specific skeletal elements from 78 (n=) decapitated individuals.

When selecting for the age and sex data to explore whether those biological variables reveal any associations with specific pathological conditions and their appearance on the skeleton, a JCA test was performed on those data (n=81). The results show a distinction between two groups on the second axis in the upper left quadrant: subadults and indeterminate unsexed individuals, in opposition to the rest of the decapitation cases on the first axis (Figure 4.18).

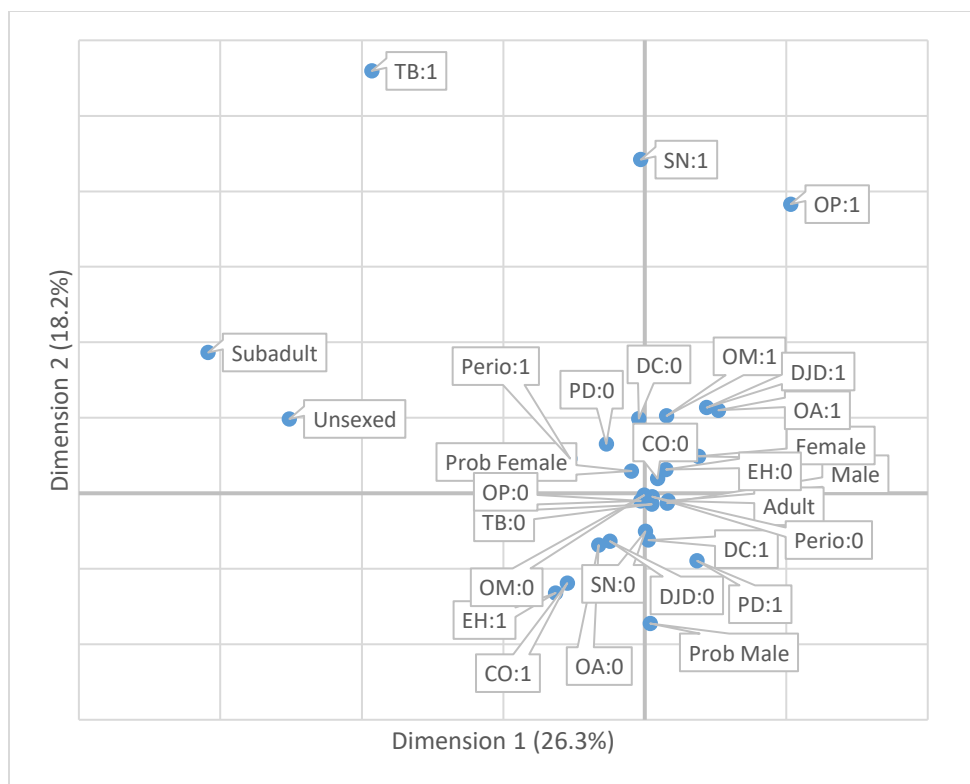
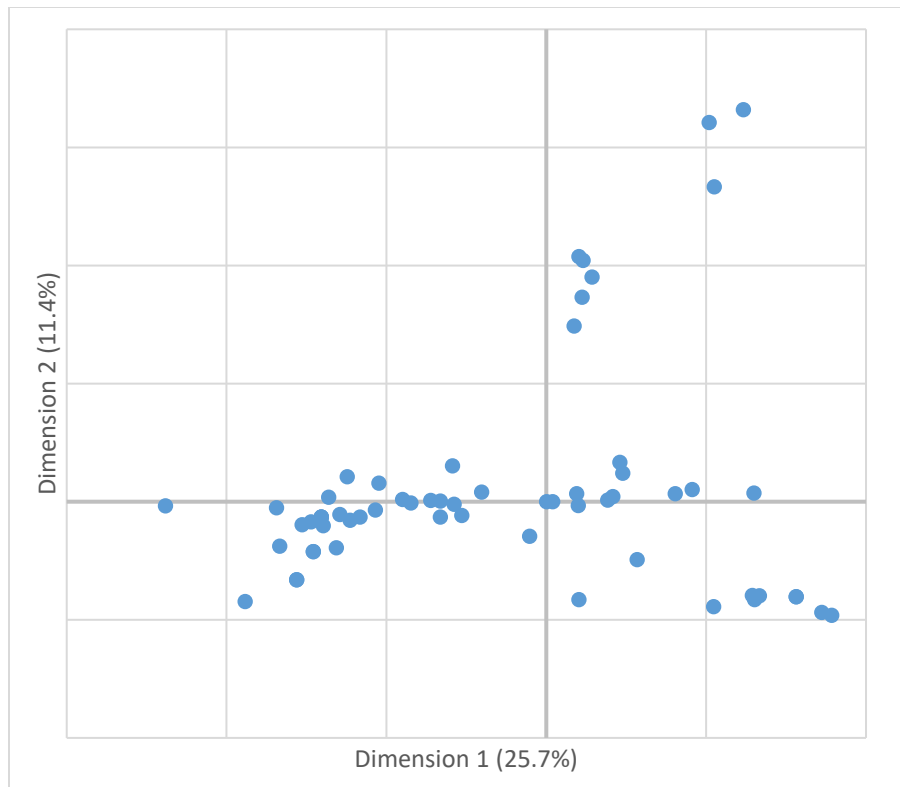


Figure 4.18. Burt Matrix depicting the results of the JCA test for correlations between the location of pathological conditions present on specific skeletal elements by age and sex categories in 78 (n=) decapitated individuals.

There is some distinction between tuberculosis and osteoporosis in the same direction along the first axis, although those conditions are not necessarily connected with subadults or indeterminate sexed individuals. A secondary pattern emerges along the second axis with males, enamel hypoplasia and cribra orbitalia opposed to Schmorl's Nodes, osteoporosis, and tuberculosis. This suggests a potentially meaningful grouping of adult male decapitated individuals with evidence for nutritional-related conditions and a lack of labor- or stress-related injury conditions distinguished from the other decapitation cases.

When the age and sex variables were removed from this query, a follow up JCA test was performed (n=78) and the results show three locational groupings of pathological conditions on the skeletal remains of the remaining decapitation cases (Figure 4.19).





*Figure 4.19. Burt Matrix depicting the results of the JCA test for correlations between the location of pathological conditions present on specific skeletal elements from 78 (n=) decapitated individuals.*

The first pattern of pathological conditions can be seen in the lower right (Table 4.9), the second set of conditions in the upper right (Table 4.10), and the third set of conditions appear near the clumped average grouping, therefore only the first and second set of locations on the skeletal remains represent the significant or main variations from most of the remaining decapitation burials. The first pattern of pathological conditions suggests degenerative, progressive, stress-related conditions associated with laborious agricultural activities were performed most by adults in the region. The lower right cluster reflects work-related patterns of injury likely related to overuse of the back, shoulders, and arms over time. In the pathological and injury trends in the region, this pattern is associated more with injury patterns in adult females, although it could reflect the injury profile of adult males of fighting age or those

working in industries like blacksmithing that could lead to overuse of those skeletal elements (Rohnbogner 2018:320-1).

*Table 4.9. The skeletal elements with pathological conditions in the decapitation burial population (n=78) in the lower right quadrant of the Burt Matrix (Figure 4.19).*

<b>Lower right skeletal element pattern of pathological conditions in the decapitation burial population</b>	
<b>Pathology</b>	<b>Skeletal Element</b>
Osteoarthritis	Right arm
Enamel Hypoplasia	Tooth
Degenerative Joint Disease	Thoracic vertebrae
Degenerative Joint Disease	Sternum
Schmorl's Nodes	Thoracic vertebrae
Osteoarthritis	Left arm
Degenerative Joint Disease	Right arm
Thoracic vertebrae	Thoracic vertebrae
Lumbar vertebrae	Lumbar vertebrae
Degenerative Joint Disease	Ribs
Osteoarthritis	Sternum

The second set of pathological conditions in the upper right reflects work-related patterns of injury likely related to overuse of the back, legs, and pelvis due to work-related stress over time in the region (Rohnbogner 2018:345). This pattern appears to be associated more often with adult males and some subadults (older children/juveniles 6-12 years old) in the pathological and injury trends exhibited in the region (Rohnbogner 2018:333).

*Table 4.10. The skeletal elements with pathological conditions in the decapitation burial population (n=78) represented in the upper right quadrant of the Burt Matrix (Figure 4.19).*

<b>Upper right skeletal element pattern of pathological conditions in the decapitation burial population</b>	
<b>Pathology</b>	<b>Skeletal Element</b>
Cribra orbitalia	Skull
Periostitis	N/A
Periodontal Disease	Tooth
Dental Caries	Tooth
Osteoarthritis	Pelvis
Degenerative Joint Disease	Left leg
Osteoarthritis	Right leg
Degenerative Joint Disease	Right leg
Osteoarthritis	Thoracic vertebrae
Osteoarthritis	Lumbar vertebrae

Schmorl's Nodes	Cervical vertebrae
Degenerative Joint Disease	Lumbar vertebrae
Osteoarthritis	Right hand
Schmorl's Nodes	Pelvis
Osteoporosis	Left leg
Osteoarthritis	Ribs
Schmorl's Nodes	Lumbar vertebrae

To test whether any pattern(s) of pathological conditions were present on specific skeletal elements from individuals in the non-decapitation group (835 individuals), those data were selected and a JCA test with a Burt Matrix was run (Figure 4.20).

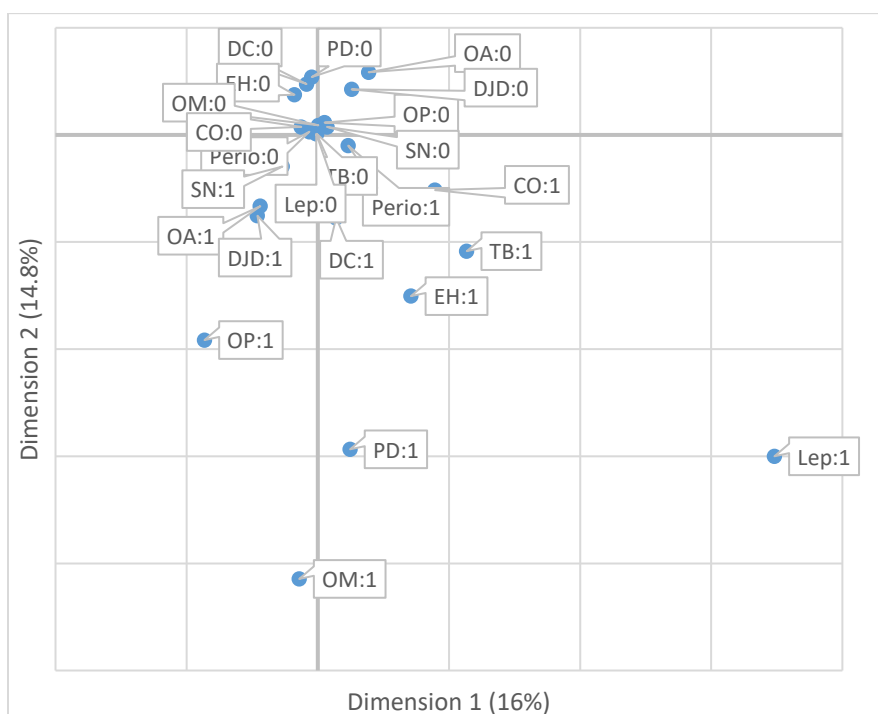
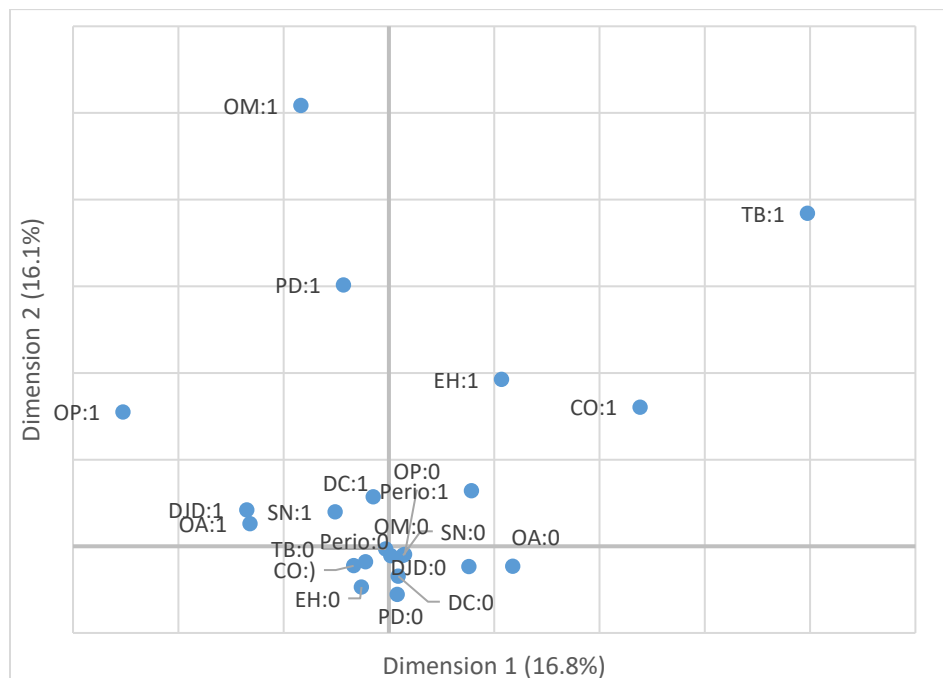


Figure 4.20. Burt Matrix depicting the results of the JCA test for correlations between the pathological conditions on specific skeletal elements in the 835 (n=) non-decapitated group of individuals.

The initial results of the test show that leprosy along the first axis is distinguished from the average group of pathological conditions, although this is represented in only one adult (SK 27/4045 from White Horse Hill, Uffington) in the non-decapitation sample and represents a rare condition in the wider population in this region. After this case was removed from the query, a follow up JCA test was performed (n=834) and the results show the presence of osteoporosis and

to a lesser degree, degenerative joint disease, Schmorl's Nodes, and osteoarthritis opposed to presence of tuberculosis, cribra orbitalia, enamel hypoplasia and periodontal disease along the first axis (Figure 4.21). This suggests progressive age-related pathologies are distinguished within the group, while another set of conditions linked to nutrient deficiencies, poor hygiene- or oral health-related diseases that may result in death at a young age are also distinguished. On the second axis, there is a group distinguished by the lack of osteoarthritis, degenerative joint disease, and periodontal disease opposed to a grouping of osteomyelitis, osteoarthritis, and periodontal disease. This suggests when the contractible disease (tuberculosis) is accounted for in the query, the greatest variation appears to be between individuals with a lack of progressive age-related or oral health conditions (potentially subadults) in one group and those with evidence for infectious, oral health and stress-related conditions (often associated with adult populations) in the other group.



*Figure 4.21. Burt Matrix depicting the results of the JCA test for correlations between the pathological conditions present on specific skeletal elements in 834 (n=) non-decapitated individuals.*

To explore whether there were any patterns of healed or unhealed trauma by age and sex within the decapitation burial population, a query was conducted using the JCA with a Burt Matrix comparing those data where available from 81 (n=) decapitated records (Figure 4.22). The initial results of the test show on the first axis there is an opposition of healed in all sexes except unsexed, and an opposition of the adult age to the unsexed subadults and indeterminate aged individuals. The unhealed variable appears on the opposite side of healed variable, although it is placed close to the origin, which indicates the unhealed variable is not strongly opposed to healed. This suggests that due to the difficulty of connecting any patterns of healed pathologies or injuries vs. those unhealed at the time-of-death, the main conclusion that can be drawn is that subadults with injuries may have been less likely to heal from their injuries compared to adults.

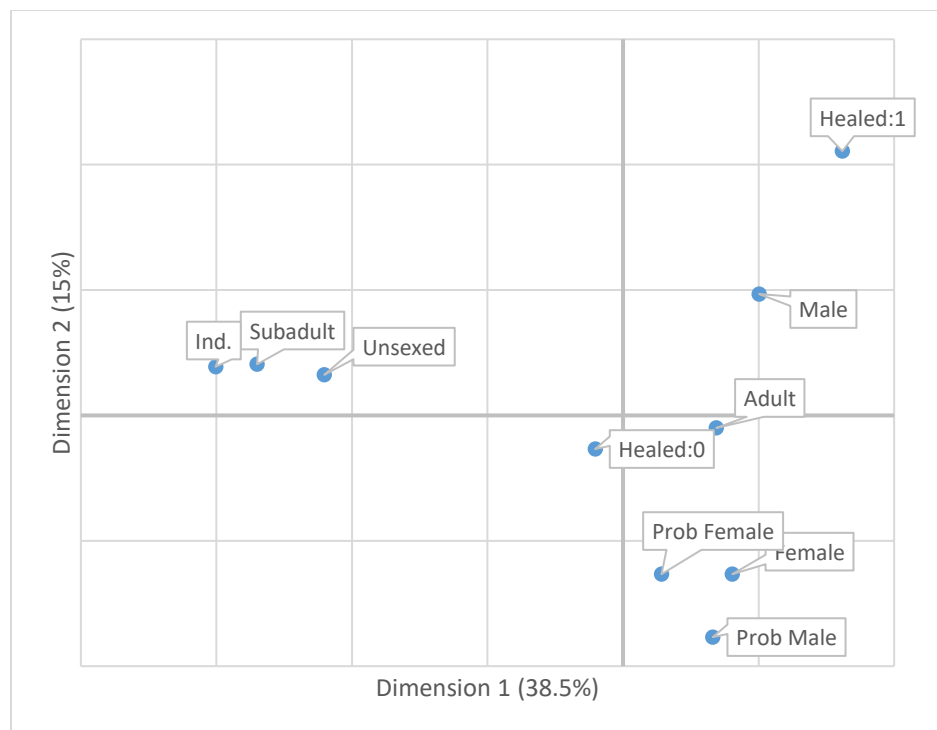
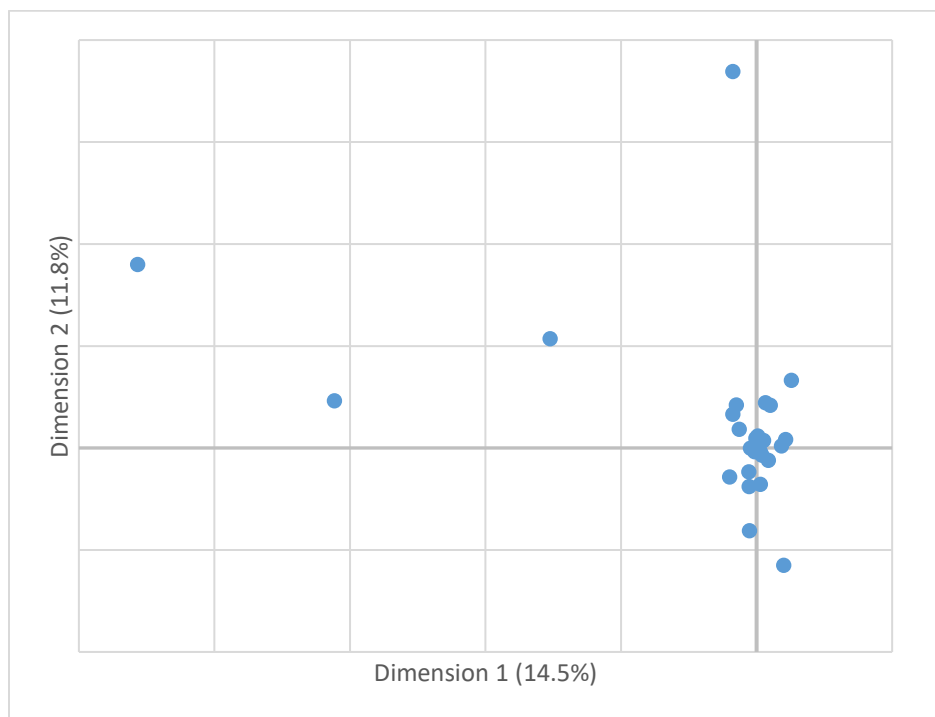


Figure 4.22. Burt Matrix depicting the results of the JCA test for correlations between healed or unhealed trauma by age and sex categories in the sample of 81 (n=) decapitated individuals.

To explore the significance of the pathological incidence patterns associated with the burial population by burial context, those data were selected (n=916) and a JCA test with a Burt

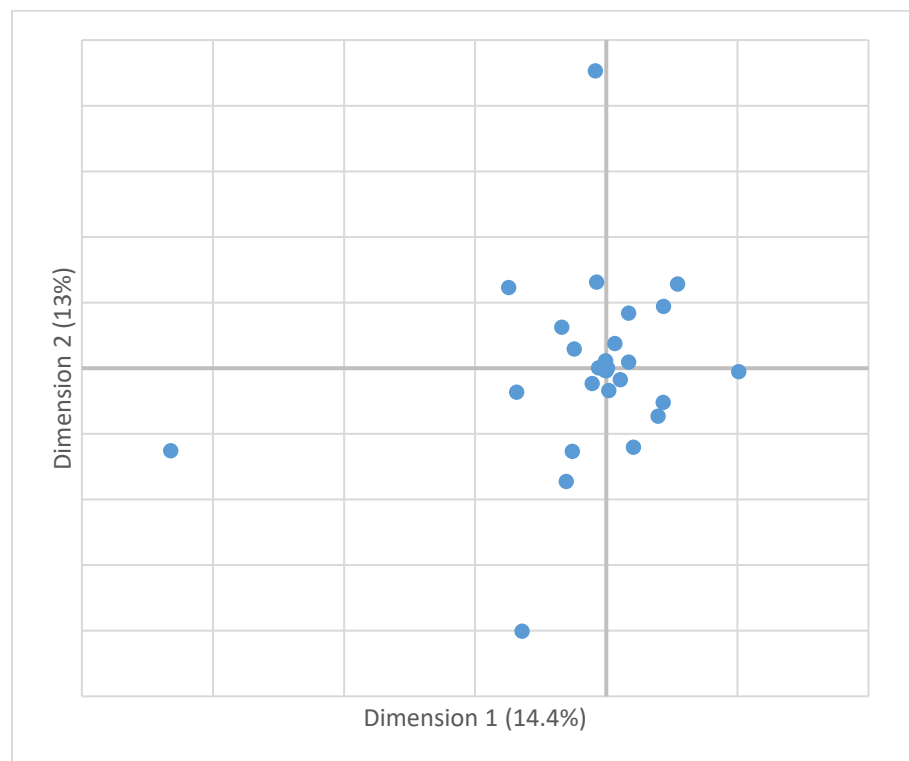
Matrix was performed (Figure 4.23). The initial test results show an opposition of the pathological conditions of leprosy and treponematosi s with isolated burials on the first axis opposed to the other pathology variables and burial contexts. Within the isolated burial context, there are 27 isolated burials, and only one individual (decapitation burial SK 2500) has leprosy and treponematosi s. This rare case within the statistical sample causes the range of patterns from the pathology and burial context data to mask the broader significance of potential rates of incidence by burial context (if any), therefore removing SK 2500 from the query was necessary prior to conducting a secondary query with the JCA using the Burt Matrix.



*Figure 4.23. Burt Matrix depicting the results of the JCA test for correlations of pathological incidence patterns associated with the burial population (n=916) by burial context type.*

When the leprosy/treponematosi s incidences were removed from the query, a follow up JCA test was performed (n=915) and the results show the pathology incidence patterns and burial context data move toward the center with less variance, although the few individuals with treponematosi s and leprosy deviate from the main cluster pattern on the first axis. Neither the

treponematosi nor the leprosy condition exhibits a strong association with a specific burial context (single, multiple, or isolated) given the rare occurrence of its incidence. On the second axis, the singular case of the supernumerary tooth has moved away from the cluster of traits around the average, however, given that this is representative of one case in a singular burial it is not reflective of a significant association between pathological incidence and burial context in this sample. Overall, the patterns reflected in the matrix suggest there are no significant associations between the presence of the pathological conditions in the burial population and burial context as defined in this thesis (Figure 4.24).



*Figure 4.24. Burt Matrix depicting the results of the JCA test for correlations of pathological incidence patterns associated with the burial population (n=915) by burial context type.*

#### **4.3.1. Pathology and Disability Summary**

Data results show 916 individuals (59.2%) within the burial population have pathological conditions common in the LRP and Central Belt regional patterns observed in previous studies.

While some sites in the study area appear to have slightly higher rates of pathological conditions compared to others, it is important to acknowledge certain pathological conditions do not leave osteologically identifiable markers of their presence and the lack of consistent analysis for such conditions across the sample creates a bias against those few sites excavated prior to methodological advances. The relatively consistent distribution of the proportion of pathological conditions present across the sites suggests individuals in the burial population were unlikely to have their health impacted by living in one specific site or site type in the study sample. However, the decapitation population did show evidence for higher rates of enamel hypoplasia, dental caries and trauma compared to the non-decapitation population, a pattern observed elsewhere in Romano-British health and mortuary studies, which suggests to some degree of differential access to healthier foods with nutritious value and a greater reliance on carbohydrate-based foods. Slightly higher rates of specific pathological conditions among the non-decapitation burial group suggests they were exposed more to labor/stress-related activities compared to the decapitated individuals.

The age and sex distribution of those individuals with pathological conditions show higher proportions of adult males with an observable condition, especially those related to labor/stress-related activities. Higher rates of fragmentation among the burial sample, especially impacting those designated as indeterminate aged and subadults, and a lack of osteological analysis in early excavated burials, makes it difficult to draw comparative conclusions with other mortuary studies. The distribution of pathological conditions by individuals and their burial context shows that most individuals with pathological conditions were buried similarly to one another and others in the study area, which suggests their inclusion in main cemetery contexts rather than exclusion due to pathological conditions, visible or otherwise. Only three adult male



decapitated individuals in the sample showed any indication of potential selection for decapitation possibly linked to the presence of a visible pathology or deformity (leprosy and treponematosi) and isolated burial contexts (which is an outlier variable as well). Further statistical testing of the element location of pathological conditions based on age and sex categories show there was no significant differences in the burial population, which suggests the burial population performed many physical activities similarly to one another within the study area. The higher presence of pathological conditions linked to labor intensive activity among the non-decapitation burial population and the higher rate of trauma identified among the adult male decapitation burial population does suggest some adult male individuals were more exposed to or more likely to participate in activities linked to agricultural or other work-related activities perhaps linked to their class compared to others in the burial population with a lack of evidence for physical- or-nutritional stress conditions.

#### **4.4. Trauma and Taphonomy**

##### **4.4.1. Trauma**

Most of the individuals in the burial population do not exhibit evidence for trauma (82.1%) and belong to the non-decapitation burial sub-set (n=1224) (Table 4.11). A lower percentage of individuals (17.8%) in both burial sub-sets exhibited evidence for trauma (including healed trauma).

*Table 4.11. The total number of individuals in the burial population (n=1546) with and without evidence of trauma or additional trauma.*

<b>Presence or absence of trauma or additional trauma in the burial population</b>			
<b>Burial Status</b>	<b>With (Additional) Trauma</b>	<b>Without (Additional) Trauma</b>	<b>Total</b>
Non-decapitation	200	1224	1424 (92.1%)
Decapitation	76	46	122 (7.9%)
<b>Total</b>	<b>276 (17.8%)</b>	<b>1270 (82.1%)</b>	<b>1546 (100%)</b>

Within the decapitation burial sub-set, most individuals (62.3%) appear to show evidence for trauma in addition to the trauma related to the decapitation (often in the form of cut(s) or chop mark(s)), while a lower percentage of individuals (37.7%) show evidence for trauma related only to the decapitation act (Table 4.12).

*Table 4.12. The total number of individuals in the decapitation burial population (n=122) with trauma related only to the decapitation act and individuals with additional evidence of trauma.*

<b>Presence or absence of trauma or additional levels of trauma in the decapitation burial population</b>			
<b>Burial Status</b>	<b>Non-Decap Trauma</b>	<b>Decap Trauma Only</b>	<b>Total</b>
Decapitation	76 (62.3%)	46 (37.7%)	122 (100%)

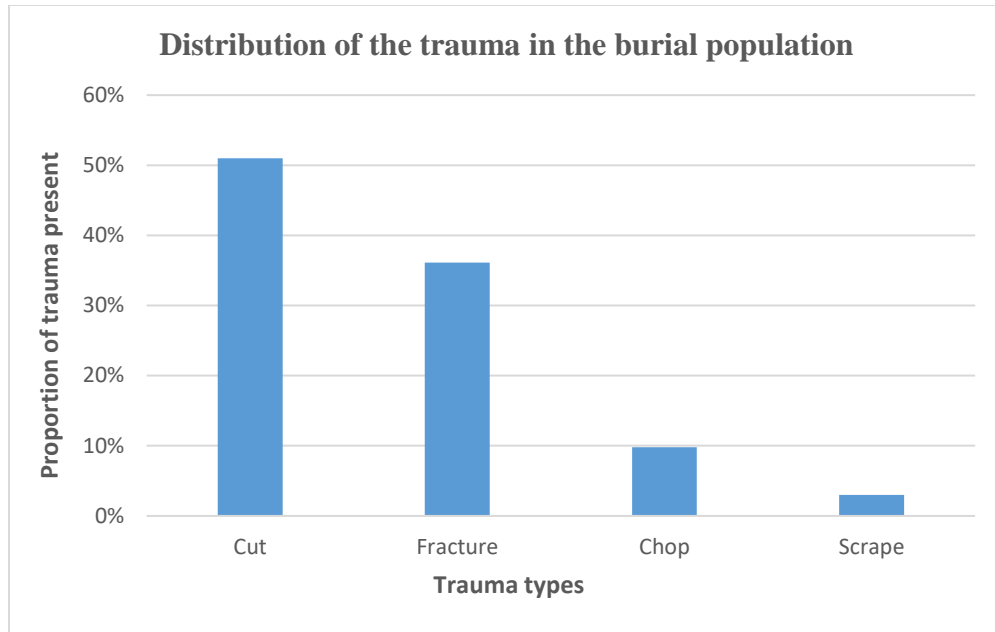
Within the non-decapitation burial sub-set, most individuals (86%) do not exhibit evidence of trauma, while a smaller percentage of individuals (14%) exhibit evidence of trauma (cuts, scrapes, fractures, chops, healed injuries) (Table 4.13).

*Table 4.13. The total number of individuals in the non-decapitation burial population (n=1424) with and without evidence of trauma.*

<b>Presence or absence of decap-related and/or additional trauma in the non-decapitation burial population</b>			
<b>Burial Status</b>	<b>With Trauma</b>	<b>Without Trauma</b>	<b>Total</b>
Non-decapitation	200 (14%)	1224 (86%)	1424 (100%)

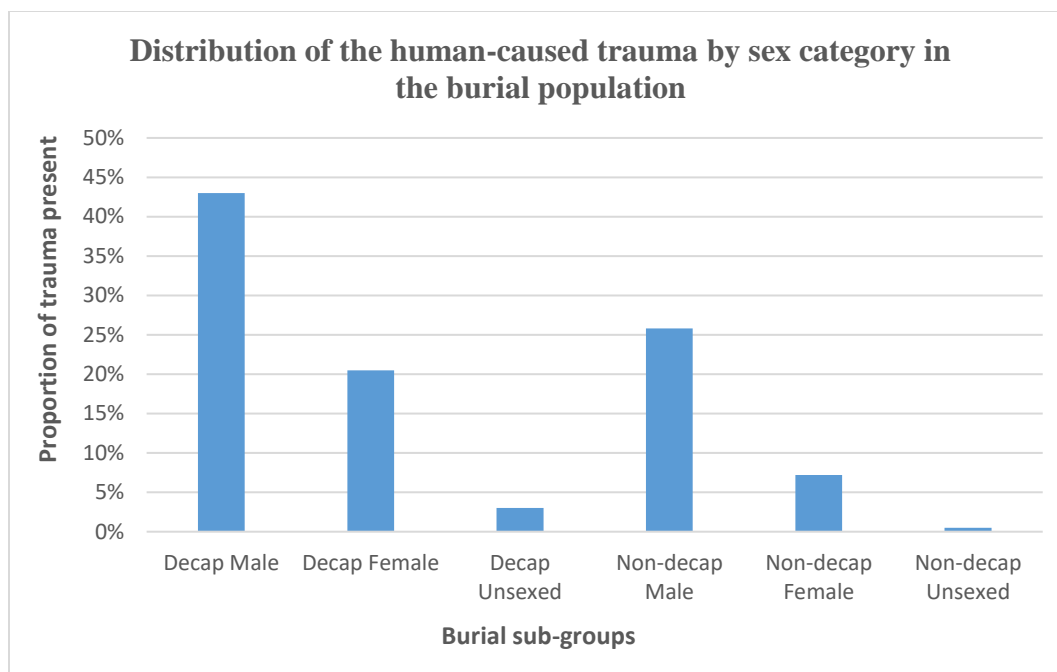
To test for the significance of the presence of trauma unrelated directly to the decapitation act, a Chi-square test was performed that indicates that there is a different rate of non-decapitation trauma in the two burial samples ( $\chi^2=233.31$ ,  $df=1$ ,  $p\text{-value}< 2.2e-16$ ).

The total numbers of trauma types found in the burial population indicate that most of the trauma appears in the form of cuts (51%), followed closely by fractures (36.1%), with less evidence of chops (9.8%) and scrapes (3%) (Figure 4.25).



*Figure 4.25. The proportion of human-caused trauma types (n=842) in the burial population.*

Most of the trauma types appear to be associated with adult male decapitated individuals (43%) and adult male non-decapitated individuals (25.8%), followed by adult female decapitated individuals (20.5%) and adult non-decapitated female individuals (7.2%). Decapitated unsexed individuals (3%) and non-decapitated unsexed individuals (0.4%) exhibited the lowest incidence of evidence for trauma (Figure 4.26).



*Figure 4.26. The proportion of human-caused trauma types (n=842) by sex category in the burial population.*

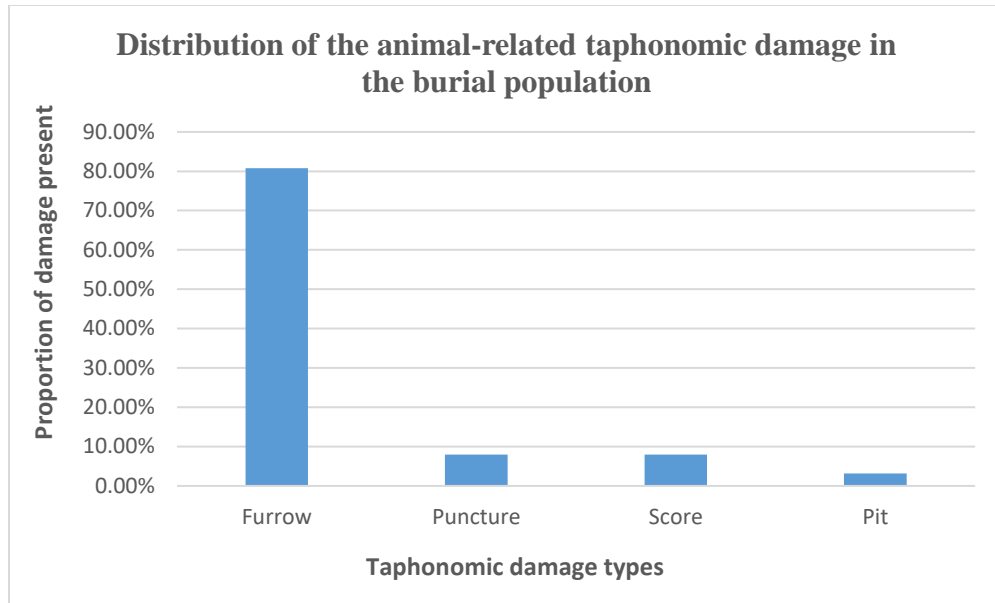
A sub-set of 276 individuals (n=) exhibited evidence for trauma not directly attributable to the decapitation act. In the decapitation burial sub-set there are 76 individuals (n=) (43 males, 25 females, and 8 unsexed) with evidence related to decapitation, representing 27.5% (76/276) of the burial population sample with evidence for additional trauma, 61.7% (76/123) of the total decapitation burial population, and 4.9% (76/1546) of the entire burial population. To test for the significance of the distribution of trauma (cuts, scrapes, chops, fractures) using the ratios of incidence in the decapitation burial sub-set (n=76) by sex category compared to the proportion of trauma in the non-decapitation burial sub-set (n=200) by sex category, Chi-square tests were performed that show no difference in the distribution of cut mark trauma between the sexes (X-squared = 0.11705, df = 4, p-value = 0.9984). There is also no difference in the distribution of scrape mark trauma between the sexes (X-squared = 0.11875, df = 4, p-value = 0.9983), or in the distribution of chop mark trauma (X-squared = 0.073596, df = 4, p-value = 0.9993). Finally,

there is no difference in the distribution of fracture injuries between the sexes (X-squared = 0.29213, df = 4, p-value = 0.9903).

While these results suggest a balanced distribution of the total number of injury types by sex between the two burial sub-sets, the higher percentage of additional trauma in combination with decapitation trauma (62.3%) suggests some of the decapitated individuals may have experienced increased levels of trauma compared to others in the burial population, particularly through cuts or injuries involving fractures (i.e., chop marks). Within the decapitation burial population, adult males had the highest percentage of trauma at 72.8% (43/59), followed by the adult females at 69.4% (25/36), and the unsexed individuals had the lowest percentage of trauma at 29.6% (8/27). The adult females comprise 29.5% of the total decapitation burial population, and 69.4% of them have evidence for additional trauma. In comparison, the adult males comprise 48.3% of the total decapitation burial population and 72.8% of them show evidence for additional trauma, while the unsexed individuals comprise 22.1% of the total decapitation burial population and only 29.6% have evidence for additional trauma. This suggests the additional trauma was distributed rather evenly in the adult females and males and was more likely in that category than in the unsexed burial category.

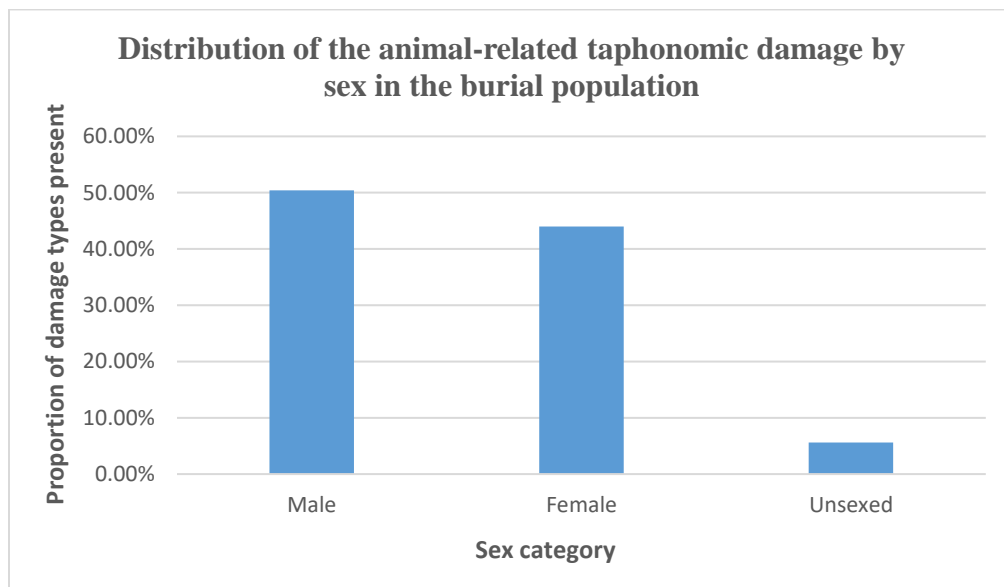
#### **4.4.2. Taphonomic Changes**

The most common animal-related taphonomic changes observed in the burial population are the furrow (80.8%), followed by the puncture and scoring types at 8% each, with the lowest incidence represented by the pit marks (3.2%) (Figure 4.27). Furrow marks are characterized as long channel scratches along the bone surface that often taper to a point (Beisaw 2013:112).



*Figure 4.27. The proportion of the animal-related taphonomic damage (n=125) observed in the burial population.*

The sex and age distribution of individuals with evidence for animal-related taphonomic-related damage in decreasing order of prevalence is adult male individuals (63/125, 50.4%), followed closely by adult female individuals (55/125, 44%) and finally by unsexed adult individuals (7/125, 5.6%) (Figure 4.28).



*Figure 4.28. The proportion of the animal-related taphonomic damage (n=125) by sex category in the burial population.*

Most of the animal-related taphonomic damage is associated with the adult female decapitated individuals (41.6%), followed closely by adult male decapitated individuals (39.2%). The adult male non-decapitated individuals were represented by 11.2%, followed by adult unsexed decapitated individuals (4.8%) and least represented were adult female non-decapitated individuals (0.8%) and adult unsexed non-decapitated individuals (0.8%) (Figure 4.29).

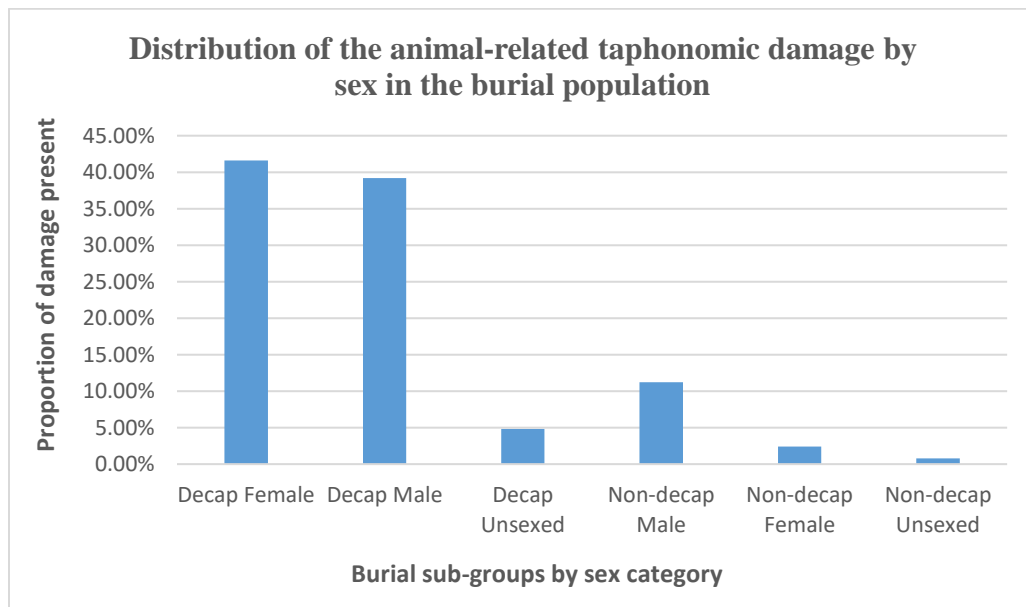
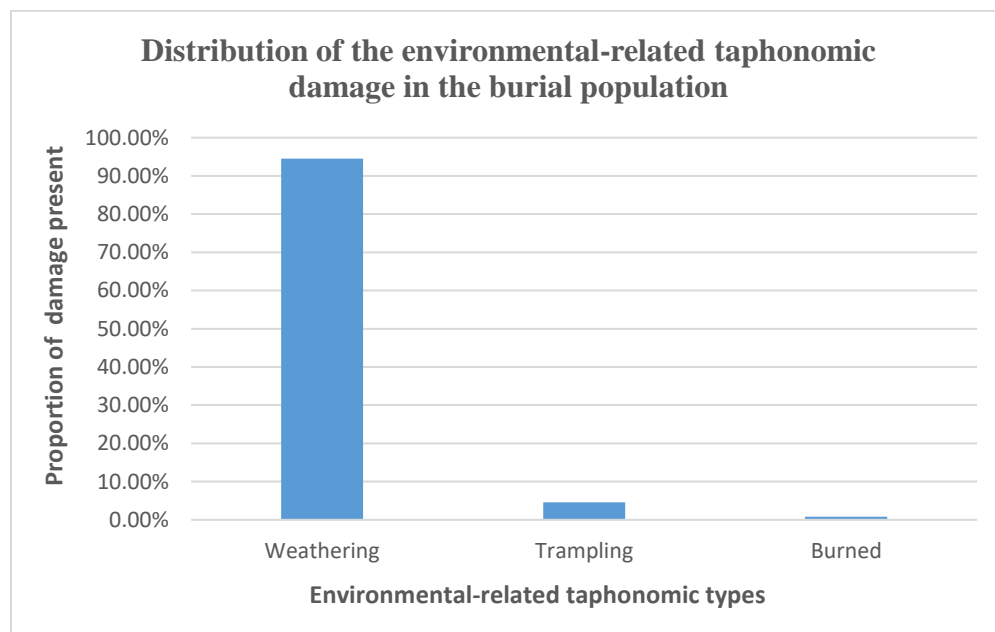


Figure 4.29. The proportion of animal-related taphonomic damage (n=125) by sex and burial sub-group in the burial population.

To test for the significance in the distribution of animal-related taphonomic damage (punctures, pits, scoring, furrows) using the ratios of incidence in the decapitation burial sub-set (n=76) by sex category compared to the proportion of taphonomic alteration recorded in the non-decapitation burial sub-set (n=200) by sex category, Chi-square tests were performed. The results demonstrate that there is no difference in the distribution of taphonomic puncture marks between the sexes (X-squared = 0.050758, df = 4, p-value = 0.9997). Similarly, there is no difference in the distribution of pit damage between sexes (X-squared = 0.86801, df = 4, p-value = 0.9291), or in the scoring category in the decapitation burial sub-set. Chi-square tests cannot assess cases

where all responses are absent in the burial sub-sets, making a complete absence of this type of taphonomic damage notable while only ten cases of scoring were recorded in the non-decapitation burial sub-set. Lastly, there is no difference in the distribution of furrow marks on bone between the sexes ( $X^2 = 0.31913$ ,  $df = 4$ ,  $p\text{-value} = 0.9885$ ) based on the Chi-square test results.

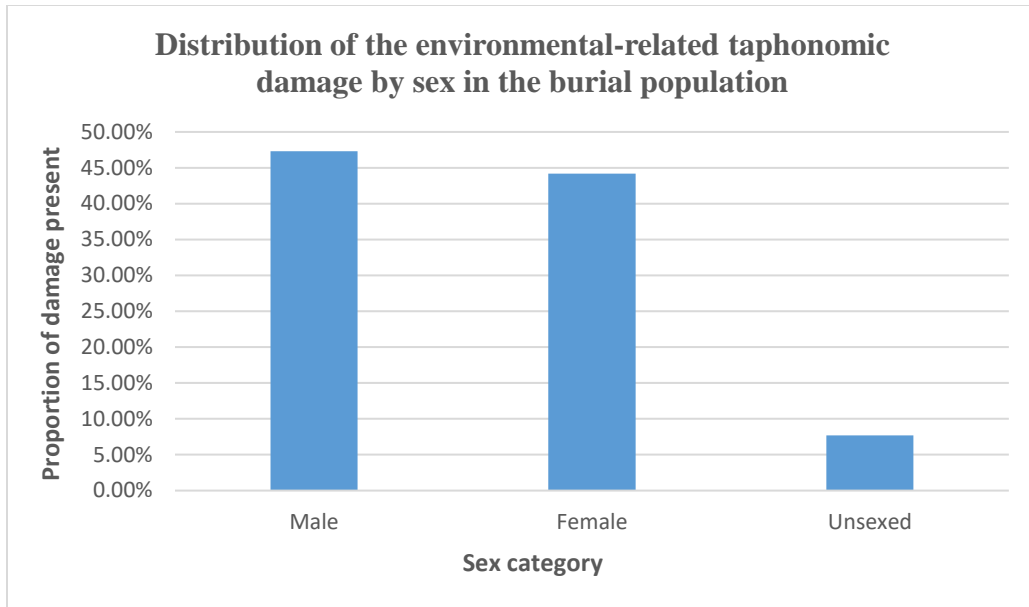
The most common type of environmental-related taphonomic damage ( $n=945$ ) in the burial population is due to weathering (94.5%), followed by trampling (4.6%) and burning (0.8%) (Figure 4.30).



*Figure 4.30. The proportion of environmental-related taphonomic damage ( $n=945$ ) in the burial population.*

Taphonomic damage is clearly more prevalent in adult males (447/945, 47.3%), followed closely by adult females (419/945, 44.2%) and unsexed individuals (73/945, 7.7%) (Figure 4.31).





*Figure 4.31. The proportion of environmental-related taphonomic damage (n=945) by sex category in the burial population.*

Weathering damage was most prevalent in decapitated adult males (414/447, 92.6%) while the other types of taphonomic damage were less prevalent. The adult female decapitation sub-set exhibited the greatest prevalence of weathering (405/419, 96.6%) while the other taphonomic damage categories occurred less frequently. In the unsexed adult decapitation sub-set, the weathering damage had the highest percentage (72/73, 98.6%) while the only other taphonomy damage present was one case of trampling (Figure 4.32).

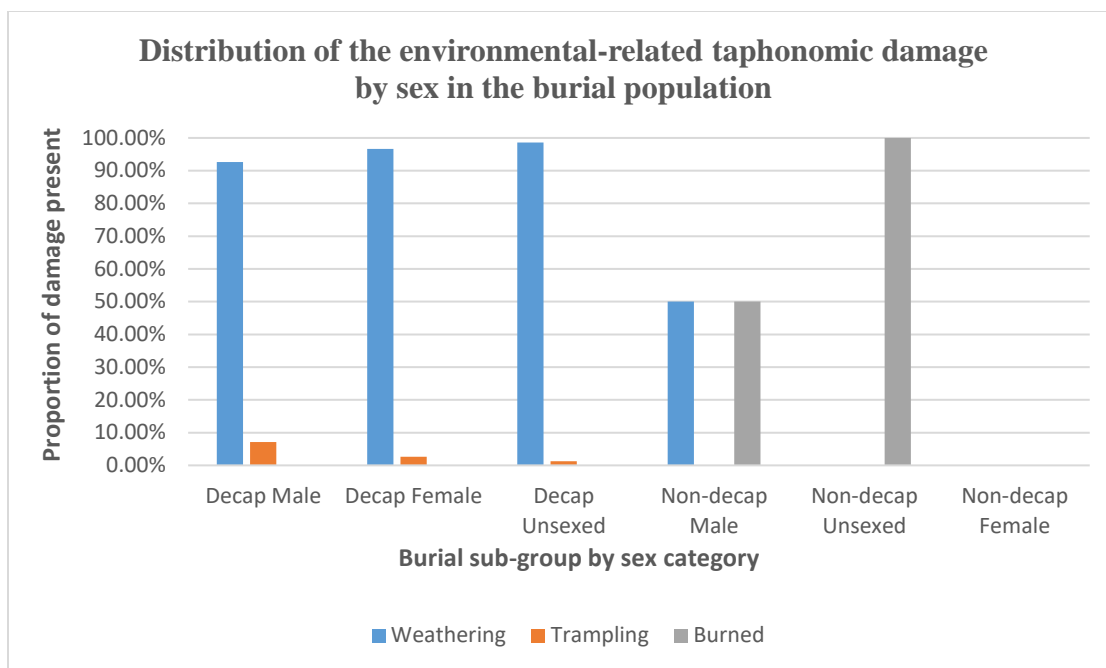
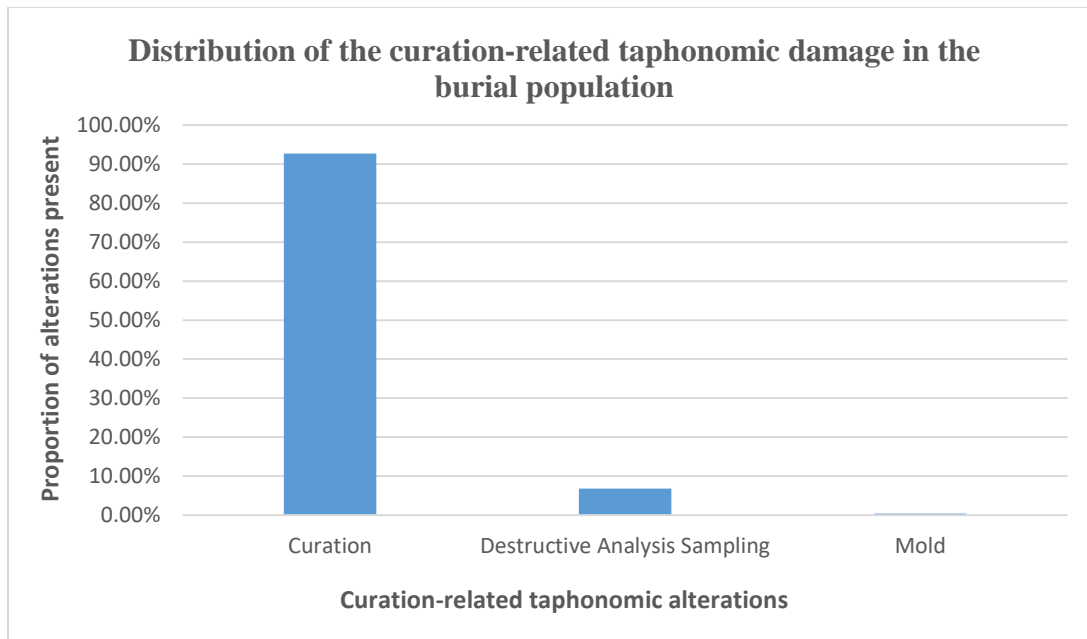


Figure 4.32. The proportion of environmental-related taphonomic damage (n=945) by sex category in the decapitation and non-decapitation burial population.

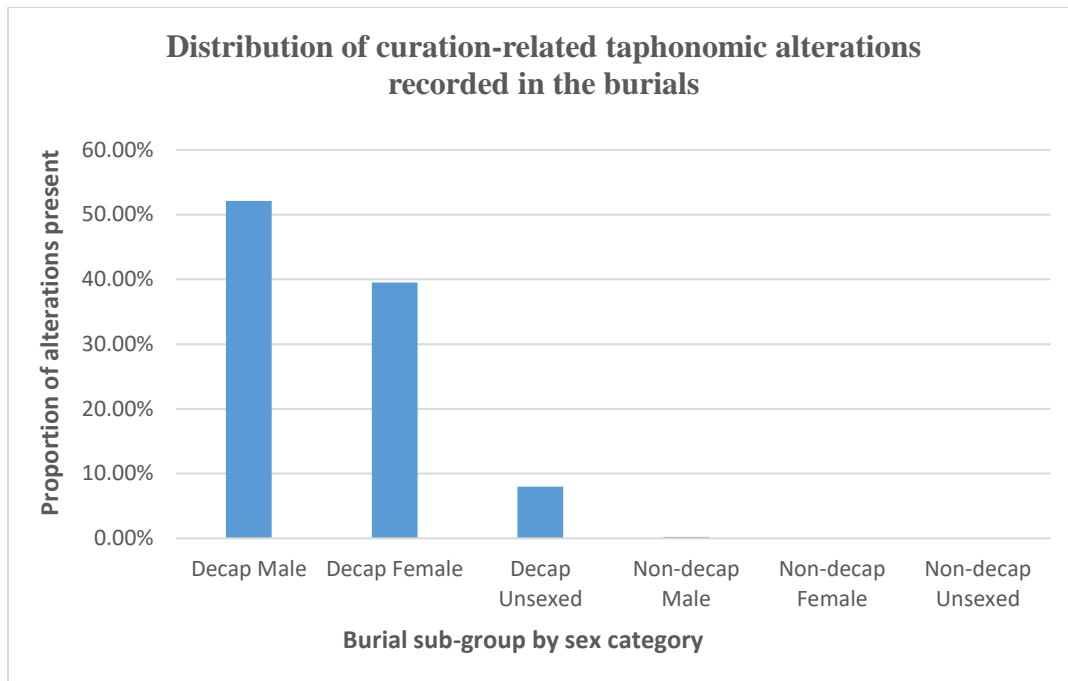
To test for significant differences in the distribution of environmentally-related taphonomic damage (trampling, weathering, burning) using the ratios of incidence in the decapitation burial sub-set (n=76) by sex category compared to the proportion of such evidence in the non-decapitation burial sub-set (n=200) by sex category, Chi-square tests were performed that revealed no difference in the distribution of trampling injuries between sexes (X-squared = 0.27818, df = 4, p-value = 0.9912). Likewise, there was no difference in the prevalence of weathering between the sexes (X-squared = 0.076817, df = 4, p-value = 0.9993), and there was no difference in the distribution of evidence for burning between the sexes (X-squared = 1.2814, df = 4, p-value = 0.8645).

The proportion of the total number of curation-related taphonomic alterations to the remains (n=437) in the burial population is most prevalent in breaks, cuts, scrapes, and fractures associated with post-excavation or curatorial activities (405/437, 92.7%), followed by alterations due to destructive sampling (30/437, 6.8%) and mold (2/437, 0.4%) (Figure 4.33).



*Figure 4.33. The proportion of curation-related taphonomic alterations (n=437) in the burial population.*

Most of the taphonomic curation-related alterations are associated with the adult male decapitated individuals (52.1%), followed by adult female decapitated individuals (39.5%), and unsexed decapitated individuals (8%) (Figure 4.34). Curation-related damage very likely occurred in greater numbers in the non-decapitation burial sub-set than reported in this thesis due to assessment bias, limited scope or access to space or loan availability, so the numbers presented here are conservative.



*Figure 4.34. The proportion of curation-related taphonomic marks (n=437) by sex category in the decapitation and non-decapitation burials.*

To test for significance in the distribution of curation-related taphonomic damage (mold, curation-related breaks/scrapes, destructive sampling analysis) using the ratios of incidence in the decapitation burial sub-set (n=76) by sex category compared to the proportion of trauma in the non-decapitation burial sub-set (n=200) by sex category, Chi-square tests were performed and show there is no difference in the distribution of mold between sexes (X-squared = 1.303, df = 4, p-value = 0.8609); there is no difference in the distribution of curation-related damage between sexes (X-squared = 0.028548, df = 4, p-value = 0.9999); and there is no difference in the distribution of destructive sampling damage between sexes (X-squared = 0.52294, df = 4, p-value = 0.9712).

#### **4.4.3. Trauma and Taphonomy Results Summary**

Data results show a lack of trauma evidence among most individuals in the burial population, primarily comprised of the non-decapitation burial population. Trauma evidence was

observed more significantly among decapitated individuals compared to non-decapitated individuals and trauma unrelated to the decapitation evidence was present in the majority of the decapitation burials. Cuts and fractures appear to be the most common type of trauma observed among the burials with evidence, and the sex and age distribution show adult males in both burial populations have the highest proportions of trauma compared to adult females or unsexed subadults. However, the trauma evidence in the adult female and male decapitation burials is proportionally similar, which suggests the adult age category increased the likelihood of experiencing trauma in this sub-set of the burial population. Within the sub-set of individuals with evidence for (additional) trauma, statistical testing does not suggest those forms of trauma were distributed significantly differently by age or sex between the two burial populations. This result does not preclude the possibility that some decapitated individuals were singled out for the practice or for performing activities that may have increased the chance for accident-related trauma.

The data show a low proportion of individuals in the burial population with evidence for observable taphonomic changes to the skeletal remains, however, those results are influenced by bias in the incomplete assessment of those skeletal collections that were inaccessible during the data collection phase or were beyond the scope of the initial thesis goals (assessment of the non-decapitation burials, for example). Animal-related taphonomic changes data observed during the analysis indicate that furrow marks are the account for most of the changes to the bone surface, which suggests rodent activity occurred in the post-deposition phase in most of the individuals exhibiting such evidence. The age and sex distribution of the burial population show a higher proportion of taphonomic changes to female and male decapitated individuals compared to subadults and non-decapitated individuals. Statistical testing shows no significant difference in

the distribution of the animal-related taphonomic types between the sex and age categories, although the differential access and assessment of adults vs. subadults in the study sample has likely contributed to bias in the data results. Similar trends were also identified in the environmental-related taphonomic changes observed in the burial population; weathering changes were observed at higher proportions among adult individuals compared to subadults, although statistical tests revealed there was no difference in the distribution of environmental-related change types by sex or age category. The results of the curation-related changes observed suggest bias toward the non-decapitation burial sample due to differential access and scope of the assessment, however, the results also highlight the impact that post-excavation processing activities can have on the preservation of skeletal remains and the integrity of observable evidence, such as trauma, pathologies, or animal- or environmental-related changes or alteration to the skeletal remains.

#### **4.4.4. Decapitation Types**

The types of decapitation analyzed in the burial sample were assessed based on the protocols established by Tucker (2012) and Crerar (2012) for identifying osteological signatures of the decapitation act in mortuary contexts. Tucker's (2012) decapitation designations are presented below in terms of their distribution in the decapitation burial population (Table 4.14). The 4b type (36/122, 29.5%) was the most common, followed by the 4a type (21/122, 17.2%), the 5a type (16/122, 13.1%) and the 5b type (10/122, 8.1%).

Table 4.14. The distribution of the Tucker decapitation types in the decapitation burial population.

<b>Tucker decapitation types present in the decapitation burial population</b>		
<b>Type</b>	<b>Total</b>	<b>Total Percentage</b>
1a	3	2.4%
1b	0	0%
2a	4	3.2%
2b	2	1.6%
2c	1	0.8%
3a	9	7.3%
3b	9	7.3%
4a	21	17.6%
4b	36	29.5%
4c	5	4%
5a	16	13.1%
5b	10	8.1%
5c	1	0.8%
6a	2	1.6%
6b	1	0.8%
7	2	1.6%
<b>Total</b>	<b>122</b>	<b>100%</b>

Most of the male decapitation burials were of the 4b (12/59, 20.3%), 4a (9/59, 15.2%) and 5a (9/59, 15.2%) types, while males were absent in the 1b, 5c, and 6b types. Most of the female decapitation burials were associated with the 4b (8/36, 22.2%), 5a (6/36, 16.6%), and 4a (5/36, 13.8%) types, however, no females were associated with the 1b, 2c, 6a, or 7 types. Most of the unsexed decapitation burials were associated with the 4b (16/27, 59.2%), and 4a (7/27, 25.9%) types, however, no unsexed individuals were associated with the Types 1, 2, 6, and 7, as well as the 4c and 5c types (Figure 4.35).

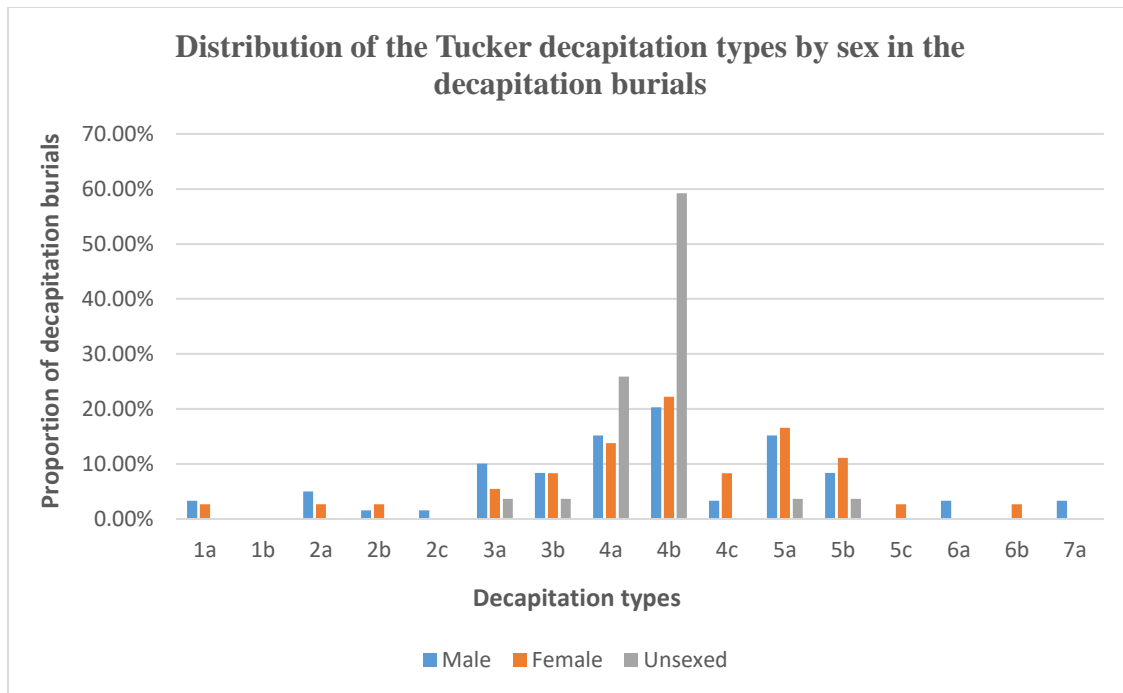


Figure 4.35. The proportion of the Tucker decapitation types by sex category in the decapitation population.

Most adult decapitation burials were associated with the 4b (25/102, 24.5%), 5a (16/102, 15.6%) and 4a (15/102, 14.7%) types, while adults were absent from the 1b type. Adults were the main age group represented in each of the Tucker decapitation categories, particularly in the 5a (16/16, 100%), 3a and 3b (8/9, 88.8%) types. Most of the subadult decapitation burials were associated with the 4b (7/13, 53.8%) and the 4a (4/13, 30.7%) types, and no subadult decapitation burials were associated with the Types 1, 2, 6 or 7. Most of the indeterminate decapitation burials were associated with the 4b (4/7, 57.1%) and 4a (2/7, 28.5%) types, and no indeterminate burials were associated with Types 1, 2, 5, 6, and 7, as well as 3b, 4c, 5a or 5c (Figure 4.36).



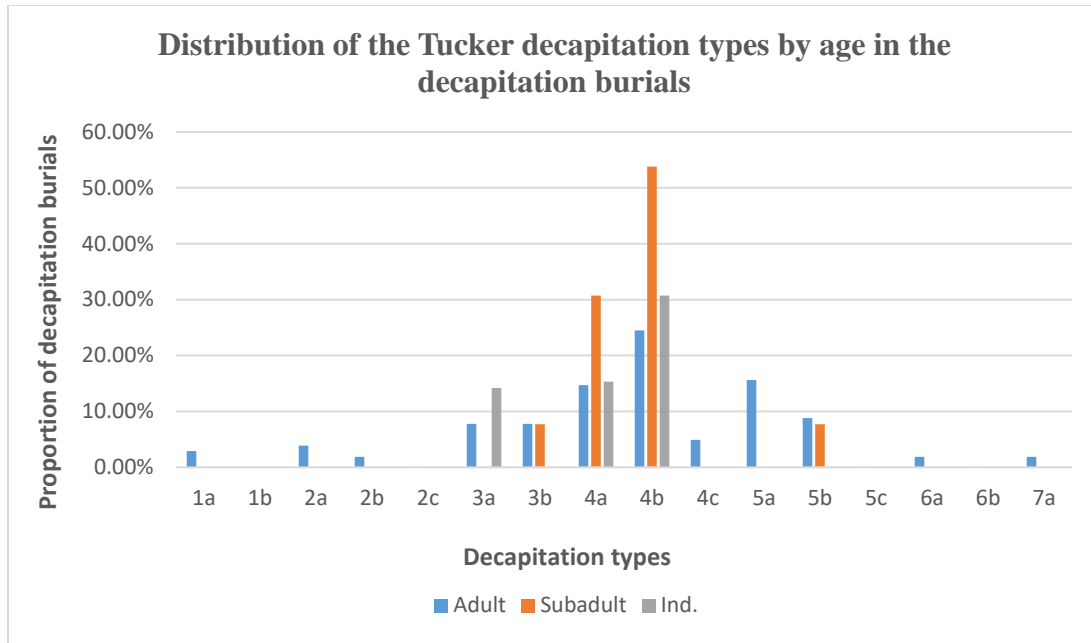


Figure 4.36. The proportion of Tucker decapitation types by age category in the decapitation population.

Most of the decapitation types were evenly distributed in the peri-mortem (50/122, 40.9%) and indeterminate (46/122, 37.7%) trauma timing categories (Figure 4.37).

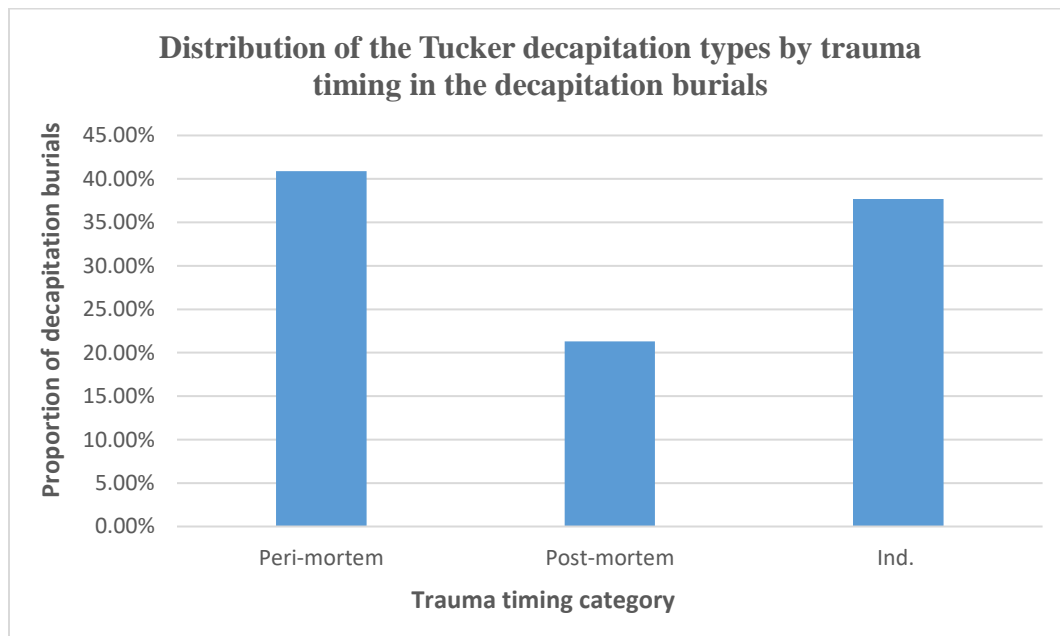


Figure 4.37. The proportion of Tucker decapitation types by trauma timing category in the decapitation population.

Most of the decapitated individuals exhibiting peri-mortem trauma were in the 4b (9/50, 18%), 5a (9/50, 18%), and 5b (9/50, 18%) types. Most of the decapitated individuals exhibiting post-mortem trauma were in the 4b (8/26, 30.7%), 4a (5/26, 19.2%), and 5a (3/26, 11.5%) types. Most of the decapitated individuals recovered from indeterminate locations were in the 4b (19/46, 41.3%) and 4a (12/46, 26%) types, with the highest percentage associated with the 6b (1/1, 100%) and 1a (2/3, 66.6%) types (Figure 4.38).

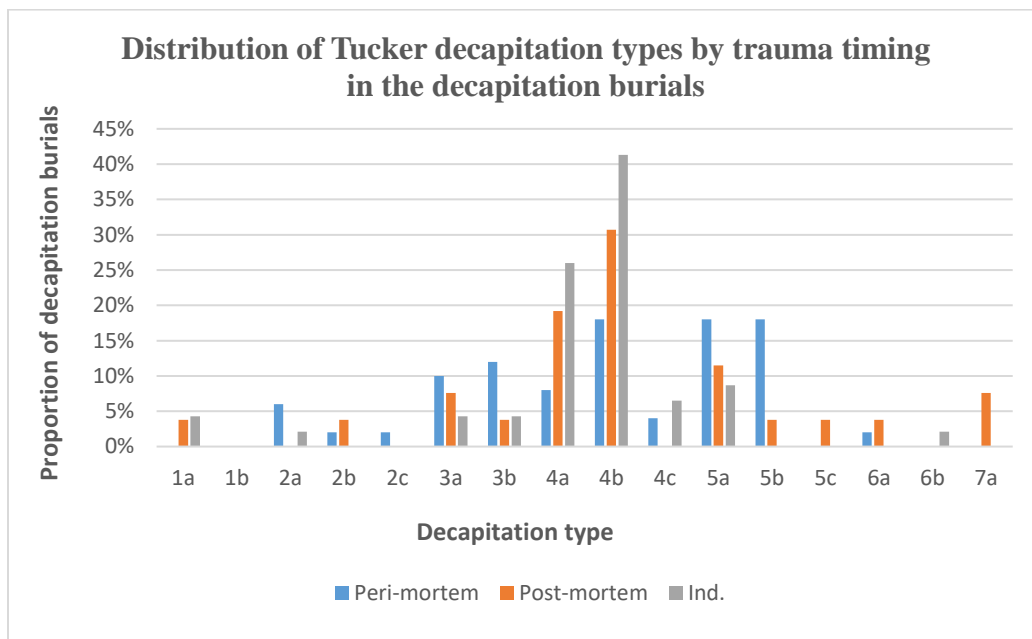


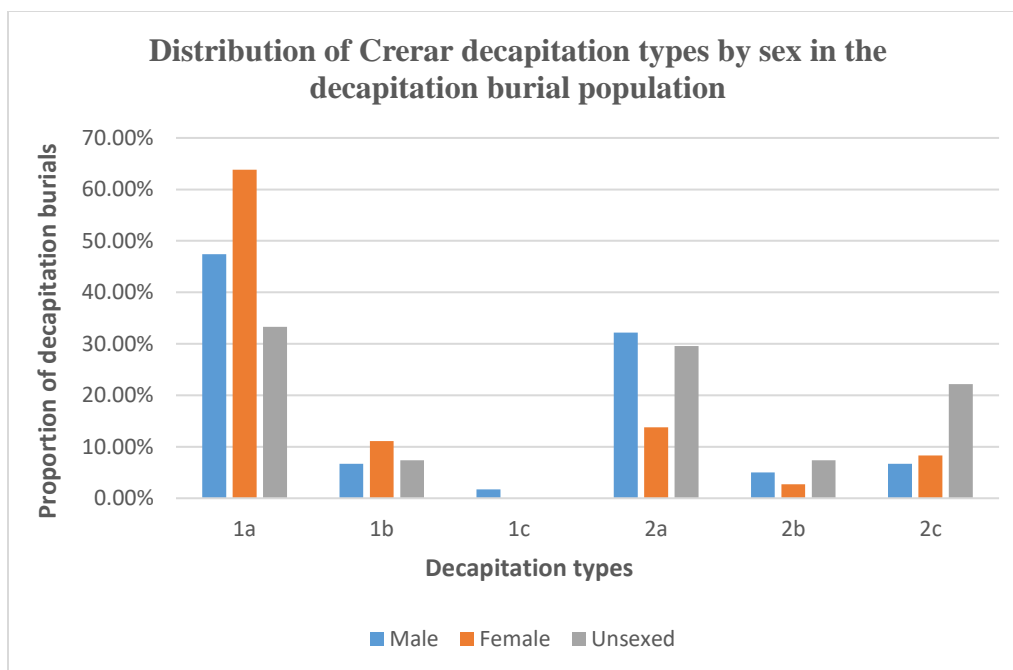
Figure 4.38. The proportion of the Tucker decapitation types by trauma timing category.

The total number of Crerar decapitation types and their distribution within the decapitation burial population is discussed below. The 1a type (60/122, 49.1%) was the most common with the highest percentage representation, followed by the 2a (32/122, 26.2%), 2c (13/122, 10.6%) and 1b (10/122, 8.2%) types (Table 4.15).

Table 4.15. The distribution of the Crerar decapitation types in the decapitation burial population.

<b>Crerar decapitation types present in the decapitation burial population</b>		
<b>Type</b>	<b>Total</b>	<b>Total Percentage</b>
1a	60	49.1%
1b	10	8.2%
1c	1	0.8%
2a	32	26.2%
2b	6	4.9%
2c	13	10.6%
<b>Total</b>	122	100%

Most of male decapitation burials were associated with the 1a type (28/59, 47.4%), followed by the 2a type (19/59, 32.2%) and an equal distribution of burials in the 1b (4/59, 6.7%) and 2c (4/59, 6.7%) types. Most of the female decapitation burials were associated with the 1a type (23/36, 63.8%), followed by the 2a (5/36, 13.8%) and 1b (4/36, 11.1%) types, while no females were associated with the 1c type. Most of the unsexed decapitation burials were associated with the 1a type (9/27, 33.3%), followed by the 2a type (8/27, 29.6%), while unsexed burials were absent from the 1c type (Figure 4.39).



*Figure 4.39. The proportion of the Crerar decapitation types by sex category in the decapitation population.*

Most adult decapitation burials were associated with the 1a type (53/102, 51.9%), followed by the 2a (27/102, 26.4%), 1b (9/102, 8.8%), and 2c (7/102, 6.8%) types. Most subadult decapitation burials were associated with the 1a (5/13, 38.4%) and 2a (4/13, 30.7%) types, while no subadult decapitation burials were associated with the 1c type. Most of the indeterminate decapitation burials were associated with the 2c (4/7, 57.1%) and the 1a (2/7, 28.5%) types, while the indeterminate burials were absent from the 1b, 1c and 2b types (Figure 4.40).

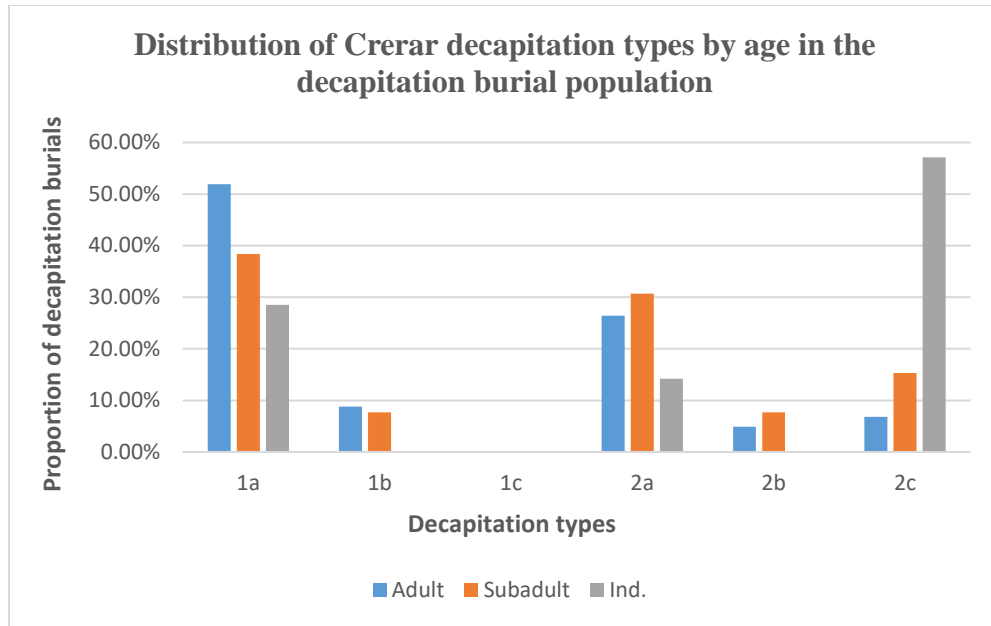


Figure 4.40. The proportion of the Crerar decapitation types by age category in the decapitation population.

Most of the decapitation types were associated with peri-mortem trauma timing, specifically the 1a type (36/50, 72%), followed by the 2a (6/50, 12%), and 1b (5/50, 10%) types, while there was no association with the 2b type (Figure 4.41).

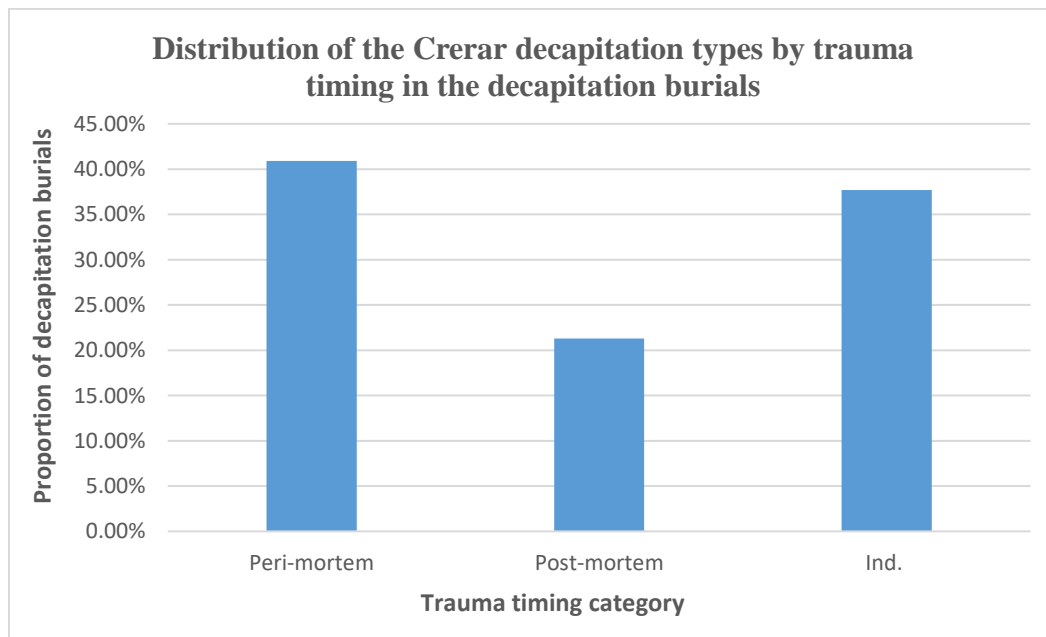


Figure 4.41. The proportion of Crerar decapitation types by trauma timing category in the decapitation population.

The decapitation type with the highest percentage in association with the peri-mortem trauma timing category was the 1a (36/50, 72%). The decapitation types with the highest percentages in association with the post-mortem trauma timing were the 1a (9/26, 34.6%) and 2c (9/26, 34.6%) types, followed by the 1a type (4/26, 15.3%). The decapitation types with the highest percentage in association with the indeterminate location context were the 1a (20/46, 43.4%) and 2a (17/46, 36.9%) types (Figure 4.42).

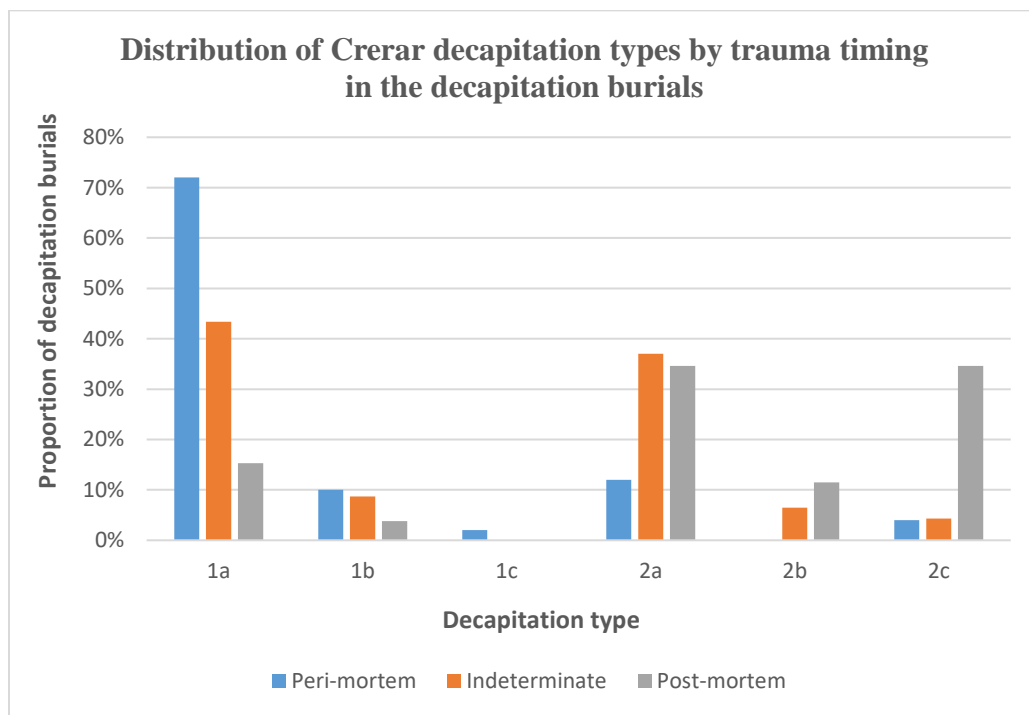


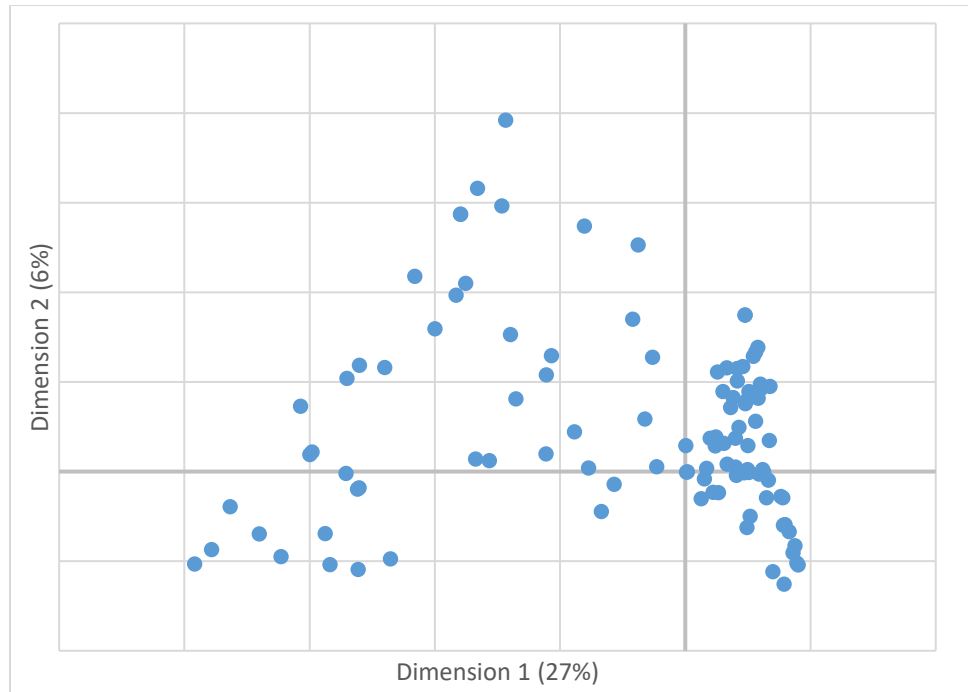
Figure 4.42. The distribution of the Crerar decapitation types by trauma timing category in the decapitation population.

To explore whether there were any patterns of trauma, including variables such as timing, location of trauma by element, direction, distance, shape, decapitation type, or superimposition in the decapitation burials, those data were selected in a query for a JCA test. In this test, to differentiate the two decapitation type variables (Tucker Type and Crerar Type), two queries were run with only one of the variable types present at a time. In the first query, the Crerar Type

was selected, and in the second, the Tucker Type was selected. In the first query, 1134 cases of trauma were found to be associated with decapitation burials using the Crerar Type method.

Those cases were selected in the first query and the JCA test with Burt Matrix showed no distinct variable or set of variables as outliers from the average to explain variability in the burials

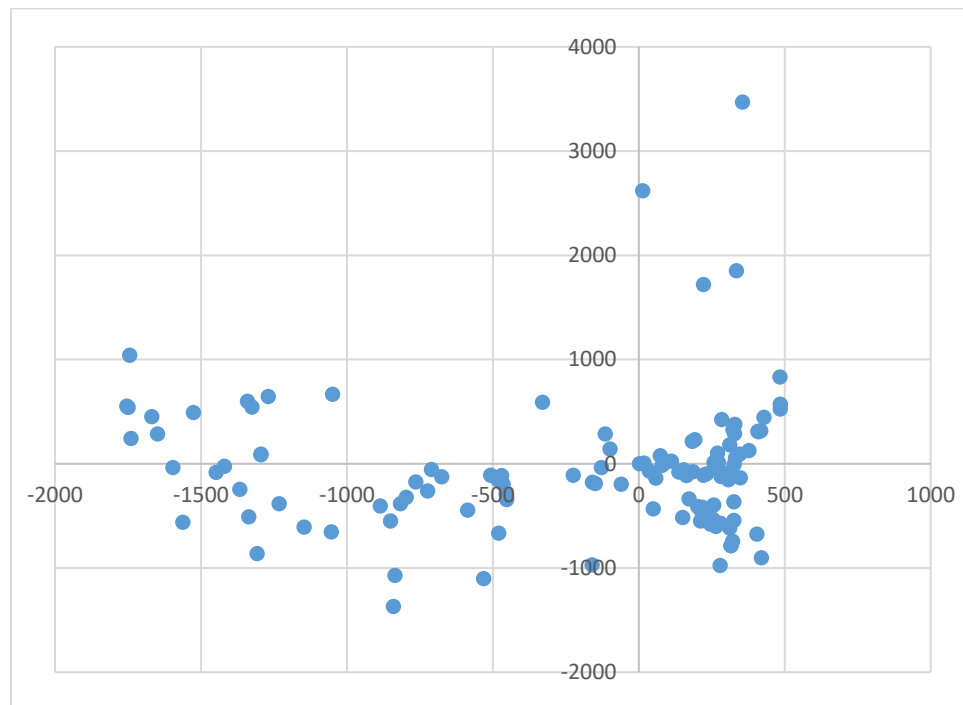
(Figure 4.43).



*Figure 4.43. Burt Matrix depicting the results of the JCA test for correlations between 1134 incidences of trauma in the decapitation population using Crerar's decapitation types.*

The initial results show an opposition between all the skeletal elements compared to the cranium, mandible, and cervical vertebrae. There does not appear to be any pattern of trauma that differentiates the types of decapitation, although Crerar 2c type is the only one on the left side of the origin, while the rest of the Crerar Types are on the right side of the matrix. Interestingly, Crerar 2c type is associated with post-mortem movement/manipulation of the body, including removal of a body part after observable decomposition has occurred, which would indicate the body or skeleton was disturbed by an action unlikely to be solely due to a taphonomic change.

In the second query, a total of 2047 cases of trauma were found associated with Tucker's decapitation burial Types. Those cases were selected in the second query and the JCA test with Burt Matrix showed no distinct variable or set of variables as outliers from the average on the figure to explain the variability in the cases (Figure 4.44).



*Figure 4.44. Burt Matrix depicting the results of the JCA test for correlations of 2047 (n=) incidences of trauma based on Tucker's decapitation categories.*

Most of cases in the sample appear to show a wide variety of the main trauma types, although there are some cases with a consistent grouping of trauma types in addition to the other variables. The initial results show on the first axis there appears to be one main cluster on the right side with a more diffuse cluster of Trauma shapes, trauma types, and Decap 1a and 2a, opposed to the other trauma variables. Along the second axis, this shows a slight clustering of the unknown trauma type, unknown skeletal element, unknown trauma timing, and unknown instigator/cause variables, which could indicate that when the variation between the decapitation types is taken into account in the query, there is a lack of recoverable data perhaps due to issues of skeletal



preservation, excavation recovery, unknown provenience, lack of osteological analysis, or curatorial activities preventing the recording of such data.

In examining the results of both queries, Crerar's 1a type and 2a type were slightly in opposition to many other variables and may be associated with a specific set of trauma variables/profile characteristics (Table 4.16).

*Table 4.16. Trauma characteristics associated with Crerar's decapitation Types 1 and 2.*

<b>Trauma profile characteristics associated with the decapitation types</b>		
<b>Characteristics</b>	<b>Primary</b>	<b>Secondary</b>
Cause	Human	-
Trauma	Chop	-
Trauma	Pit	-
Trauma	Decapitation	-
Trauma Class	Sharp	Blunt
Fracture Type	Flaking	-
Trauma Timing	Peri-mortem	Indeterminate
Skeletal Element	Cervical vertebrae	-
Distance	Inferior	Superior
Direction	All directions	-
Shape	V-shaped	Broad linear/Oval
Related trauma	Yes	-

The results show there are only three 1a decapitation type cases (SM 11, Grave 14, and SK 12) and three 2a decapitation type cases (SK 1018, SK 1026, and SK 6) in the sample, so perhaps these two decapitation types are consistent in terms of the trauma treatment, especially regarding location, timing, direction, shape and superimposition.

#### **4.4.5. Decapitation Type Trauma Results Summary**

Data results show most of the decapitation burials to be associated (in descending order) with the Tucker 4b, 4a, 5a, and 5b types. The age and sex distribution assessment revealed the adult male and female individuals were associated with similar decapitation types, while the unsexed individuals (including subadults) were primarily associated with the Type 4 category and were absent from association with Types 1, 2, 6, and 7, which suggests some degree of

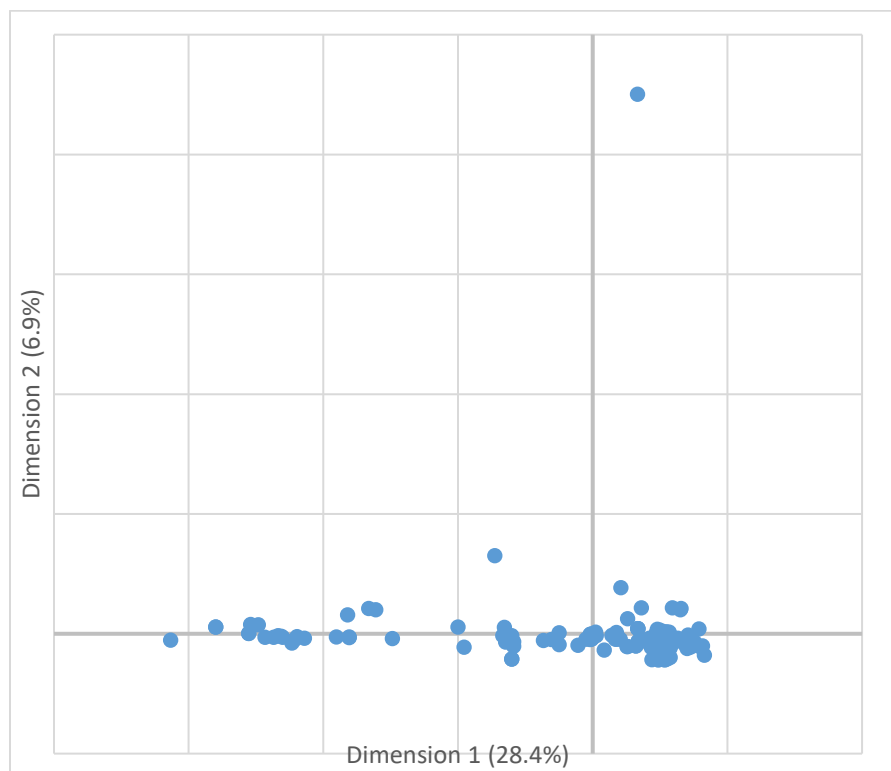
selective application in terms of method, timing, direction, location and possibly influence of the location (Tucker's rubric considers such variables per type). Most of the decapitated individuals show evidence for peri-mortem trauma, however, this result may be bias due to inconsistencies in the osteological analysis (the indeterminate timing category is the second most common type) or the unavailability of the skeletal elements needed in order to identify the decapitation type.

Data results show most of the decapitation burials to be associated (in descending order) with the Crerar 1a, 2a, 2c, and 1b types. The age and sex distribution assessment revealed the decapitation burials by sex category were associated with the same decapitation types (in descending order): 1a, 2a, and 1a or 2c. However, among adult female decapitation burials there was a higher proportion (63.8%) of the 1a types compared to the adult male (47.4%) and unsexed subadult (33.3%) proportions, which suggests a potential link between the female sex and adult age categories and this decapitation type. The Crerar decapitation type distribution by timing category revealed similar patterns to the distribution associated with the Tucker decapitation types; most of the decapitated individuals show evidence for peri-mortem trauma. JCA testing for a relationship between the Crerar decapitation type and the other trauma variables showed no distinct variable(s) as outliers from the average to explain variability in the distribution, however, the 2c type associated with post-mortem manipulation of the body was distinguished slightly as an uncommon mortuary behavior from the more common forms of treatment. Similar patterns were also observed in the JCA results of the Tucker decapitation types alongside the other variables. JCA testing did reveal three individuals in the decapitation burial population associated with the 1a Crerar type and three individuals associated with the 2a Crerar type may have been singled out based on a set of shared profile characteristics that were consistent in

terms of trauma treatment (location, timing, direction, shape, etc.), which suggests the intentional selection of certain individuals for specific decapitation rites.

#### 4.5. Mortuary Treatment

To explore whether there were any patterns in mortuary treatment in the decapitation burials a query was conducted where those data were available for the 122 decapitation burials in the sample (list of variables available in Appendix A). The joint correspondence analysis (JCA) with the Burt Matrix compared those variables from those burials and shows one variable group in the upper right quadrant of the matrix in opposition to the main cluster around the average (Figure 4.45).



*Figure 4.45. Burt Matrix depicting the results of the JCA test for patterns of similarity or differences in mortuary treatment in the 122 decapitation burials.*

The cluster in the upper right corner of the matrix appears to represent the main variation outlying most of the other decapitation burials, seemingly matching with mortuary treatment

patterns present from one decapitation burial (SK 2500 from Wessex Water, Cowhill) where the adult male individual was buried prone with the head placed on the back (the only decapitation burial with this placement of the head position) and both legs were missing due to truncation (Table 4.17).

*Table 4.17. Outlier mortuary treatment variables (associated with SK 2500) identified in the Burt Matrix assessing patterns of similarity or difference in the 122 decapitation burials.*

<b>Mortuary treatment variables outlying the main cluster</b>		
<b>Characteristics</b>	<b>Primary</b>	<b>Secondary</b>
Head position	On back	-
Associated vertebrae	Eroded	-
Right leg associated	Missing from thigh down	Truncated
Right foot associated	Truncated away	-
Left leg associated	Missing from thigh down	Truncated
Left foot associated	Missing	Truncated

When this combination of variables was removed and a follow up query was run using the JCA test for the remaining 121 decapitation burials, three additional variable groups representing the observed variation on the second axis appear in the Burt Matrix (Figure 4.46). Each of the groups in this case has distinct variables associated with three separate decapitated individuals, each from a different site within the burial population.

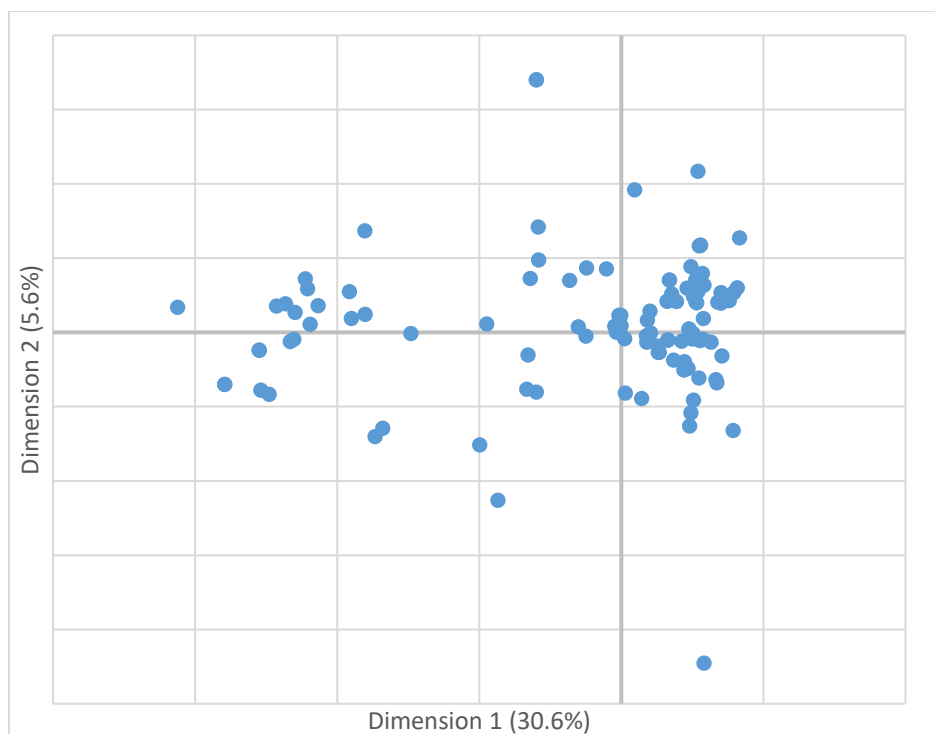


Figure 4.46. Burt Matrix depicting the results of the JCA test for patterns of similarity or differences in the mortuary treatment in the 121 decapitation burials.

The first individual appears to be SK 10635 from Cotswold Community Water Park, Gloucs. with some variables related to placement and location of skeletal elements (Table 4.18), but not all, differentiating from the main cluster.

Table 4.18. Outlier mortuary treatment variables (associated with SK 10635) identified in the Burt Matrix assessing patterns of similarity or difference in the 121 decapitation burials.

Mortuary treatment pattern outlying the main cluster		
Characteristics	Primary	Secondary
Right arms	Out/away from body	Flexed at elbow
Right hand	Behind right pelvis	-
Left arm	Flexed at elbow	-
Right leg	Truncated at lower leg	-
Left leg	Truncated at mid-lower leg	-

The second individual appears to be SK 4917 from Kempsford Quarry with some variables related to location and preservation of skeletal elements (Table 4.19), but not all, differentiating from the main cluster.

*Table 4.19. Outlier mortuary treatment variables (associated with SK 4917) identified in the Burt Matrix assessing patterns of similarity or difference in the 121 decapitation burials.*

<b>Mortuary treatment pattern outlying the main cluster</b>		
<b>Characteristics</b>	<b>Primary</b>	<b>Secondary</b>
Vertebrae	Fragmented due to truncation	-
Right leg	Truncated/fragmented due to post-Roman ploughing	-
Right foot	Truncated due to ploughing	-
Left leg	Truncated/fragmented due to post-Roman ploughing	-
Left foot	Truncated due to ploughing	-

The third individual appears to be Grave 14 from Frocester Court with some variables related to preservation and taphonomic movement/location of some skeletal elements (Table 4.20), but not all, differentiating from the main cluster of mortuary treatment variables.

*Table 4.20. Outlier mortuary treatment variables (associated with Grave 14) identified in the Burt Matrix assessing patterns of similarity or difference in 121 decapitation burials.*

<b>Mortuary treatment pattern outlying the main cluster</b>		
<b>Characteristics</b>	<b>Primary</b>	<b>Secondary</b>
Supernumerary head	Fragmented from ploughing	-
Vertebrae	Sternum beneath vertebrae	-
Ribs	-	-
Left scapula	Located above ribs and left humerus	-

If this combination of mortuary variable patterns are also accounted for within the larger mortuary treatment query, and removed, a follow up query using the mortuary treatment data from 118 decapitation burials was run using JCA test with a Burt Matrix (Figure 4.47).

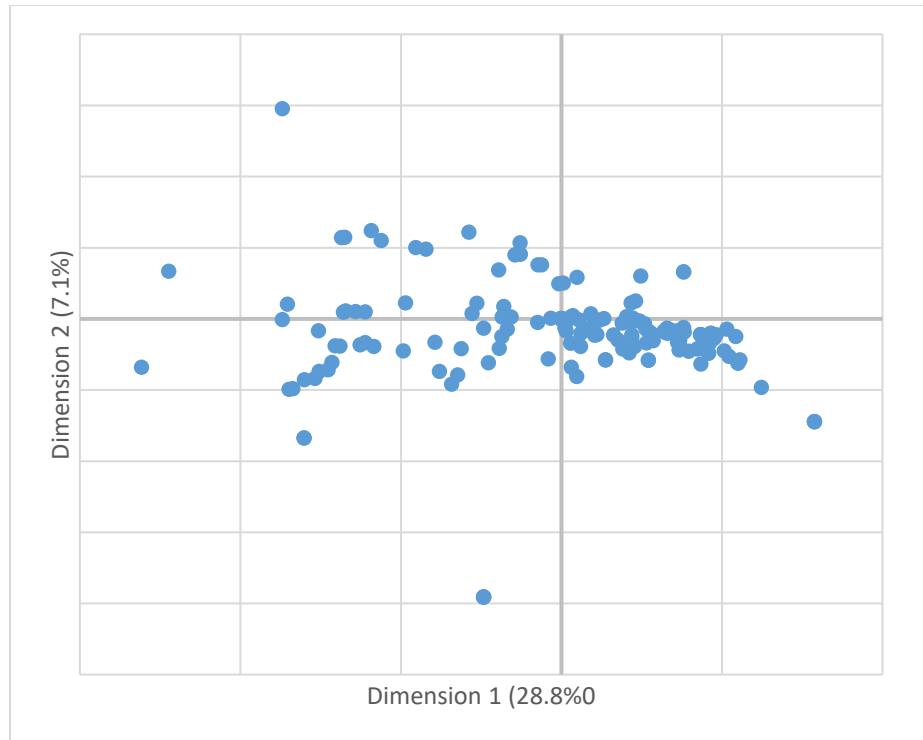


Figure 4.47. Burt Matrix depicting the results of the JCA test for patterns of similarity or differences in the mortuary treatment in the 118 decapitation burials.

This analysis shows there is a gradient of possible mortuary treatment variables grouping slightly in the lower right quadrant off the first axis in opposition to the variables clustered around the average (Table 4.21).

Table 4.21. Outlier mortuary treatment variables identified in the Burt Matrix assessing patterns of similarity or difference in the 118 decapitation burials.

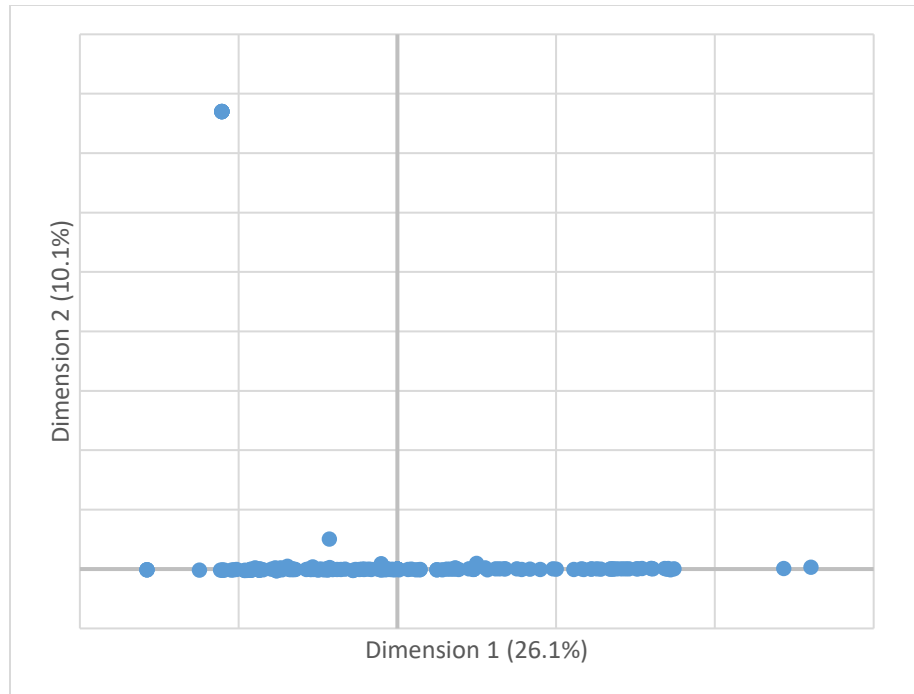
Mortuary treatment pattern outlying the main cluster		
Characteristics	Primary	Secondary
Head supernumerary associated	Prone	-
Right hand	Indeterminate	Lower left
Left hand	Indeterminate	-
Ribs	Indeterminate	-
Vertebrae	Indeterminate	-
Left foot	Indeterminate	-
Right foot	Indeterminate	-

It appears that the indeterminate positioning of feet, hands, ribs, and vertebrae is outside the norm within the burial population, however, as discussed in the ‘Representation of the Body’

section, those specific remains were most likely to have been impacted by post-Roman plough truncation and other environmental taphonomic processes and archaeological recovery bias. However, the overlap between the supernumerary head in the prone position and the right hand in the lower left of the burial variable distribution may be associated with one adult male decapitation burial (SK 3293) from Post Farm, Thornbury. This decapitation burial is the only burial with the head in the prone position and the right hand in the lower left position (Cotswold Archaeology 2017).

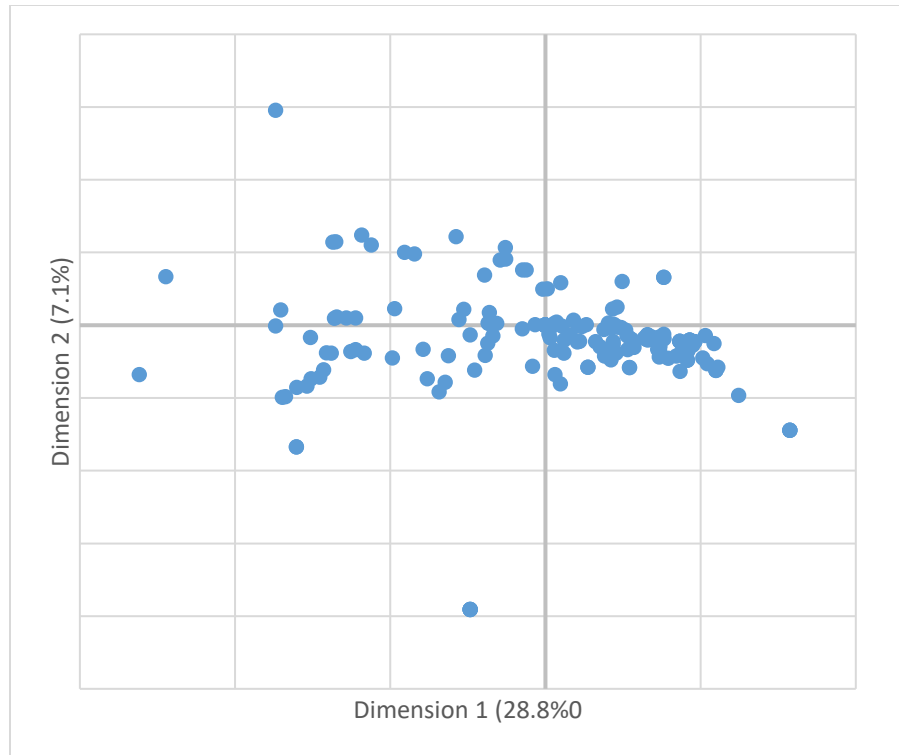
To explore whether there were any patterns in the mortuary treatment in the non-decapitation burial category a query was conducted where those data were available for 1409 burials. The joint correspondence analysis (JCA) with the Burt Matrix compared the burial treatment variables and showed a clear grouping of variables in the upper left quadrant away from the main cluster near the average (Figure 4.48). The mortuary treatment variables associated with the identified outlier group in the matrix include the right and left legs where no information was provided as to their known location (i.e., they were not present in the burial) so their extension/flexion positioning is unknown. Those outlier variables are associated with only one decapitation burial in the sampled burial population (SK 1480 from 120-122 London Road, Gloucester).





*Figure 4.48. Burt Matrix depicting the results of the JCA test for patterns of similarity or differences in the mortuary treatment in the sample of 1409 non-decapitation burials.*

When those missing attributes are accounted for and removed from the query, a follow up query analyzing the remaining mortuary treatment variables using a JCA test with the Burt Matrix (Figure 4.49) showed no outlier patterns of significance away from the average cluster, suggesting that most of the non-decapitation burials experienced fairly similar mortuary treatment across the sites included in this thesis. The variables represented in the lower left quadrant of the matrix (no species present, none listed, and above the body in the grave fill) do not appear in close association with the other two group patterns represented in the sample.



*Figure 4.49. Burt Matrix depicting the results of the JCA test for patterns of similarity or differences in the mortuary treatment variables for 1408 non-decapitation burials.*

#### **4.5.1. Burial Location**

The burials included in the study sample were deposited in a variety of contexts, including cemeteries, ditches, within/beneath structures, in pits, and in wells. These burial contexts were commonly used spaces to inter and deposit the dead throughout Britain, with an increase in the use of cemeteries in the LRP, including for decapitation burials.

Most of the decapitation burials were found in cemeteries (80.3%), followed by ditches, pits, within/beneath structures, and one burial example in a well (Table 4.22). Of the male (88.1%) and female (81%), and unsexed (63%) (including nine subadults and 2 indeterminate) decapitation burials in the sample were located in cemeteries (Table 4.23). Most of the adult (84.4%) and subadult (69.2%) decapitation burials were located in cemetery sites (Table 4.24).

Table 4.22. The distribution of 122 decapitation burials based on burial location.

Distribution of decapitation burials by location type		
Location type	Total	Total Percentage
Cemetery	98	80.3%
Ditch	10	8.1%
Pit	8	6.5%
Structure	5	4%
Well	1	0.8%
Shaft	0	0%
<b>Total</b>	122	100%

Table 4.23. The sex distribution of the 122 decapitation burials based on burial location.

Sex distribution of decapitation burials by location						
Sex Category	Cemetery	Ditch	Pit	Structure	Well	Total
Male	52	5	0	1	1	59 (48.3%)
Female	29	3	2	2	0	36 (29.5%)
Unsexed	17	2	6	2	0	27 (22.1%)
<b>Total</b>	98 (80.3%)	10 (8.1%)	8 (6.5%)	5 (4%)	1 (0.8%)	122 (100%)

Table 4.24. The age distribution of the 122 decapitation burials based on burial location.

Age distribution of decapitation burials by location						
Age Category	Cemetery	Ditch	Pit	Structure	Well	Total
Adult	87	9	2	4	1	103 (84.4%)
Subadult	9	1	2	1	0	13 (10.6%)
Indeterminate	2	0	4	0	0	6 (4.9%)
<b>Total</b>	98 (80.3%)	10 (8.1%)	8 (6.5%)	5 (4%)	1 (0.8%)	122 (100%)

In the non-decapitation burials sub-group, most of burials were found in cemeteries (98.6%), followed by pits, ditches, within/beneath structures, and one well burial (Table 4.25). Most of the adult male (99.3%) and adult female (100%), and unsexed (96.5%) burials in the sample were located in cemeteries (Table 4.26). Most of adult (98.9%), subadult (96.9%), and indeterminate (98%) aged burials were found in association with cemetery sites, with only 20 non-decapitation burials found in other burial location contexts (ten pit burials, five ditch burials, four structure burials, and one well burial) (Table 4.27).

Table 4.25. The distribution of 1424 non-decapitation burials based on burial location.

Distribution of non-decapitation burials by location type		
Location type	Total	Total Percentage
Cemetery	1404	98.6%
Pit	10	0.7%
Ditch	5	0.35%
Structure	4	0.3%
Well	1	0.07%
Shaft	0	0%
<b>Total</b>	1424	100%

Table 4.26. The distribution of 1424 non-decapitation burials by location and sex categories.

Sex distribution of non-decapitation burials by location						
Sex Category	Cemetery	Pit	Ditch	Structure	Well	Total
Male	857	1	1	3	1	863 (60.6%)
Unsexed	395	9	4	1	0	409 (28.7%)
Female	152	0	0	0	0	152 (10.7%)
<b>Total</b>	1404 (98.6%)	10 (0.7%)	5 (0.35%)	4 (0.3%)	1 (0.07%)	1424 (100%)

Table 4.27. The distribution of the 1424 non-decapitation burials by location and by age categories.

Age distribution of decapitation burials by location						
Age Category	Cemetery	Pit	Ditch	Structure	Well	Total
Adult	1127	6	1	4	1	1139 (80%)
Subadult	223	3	4	0	0	230 (16.1%)
Indeterminate	54	1	0	0	0	55 (3.9%)
<b>Total</b>	1404 (98.6%)	10 (0.7%)	5 (0.3%)	4 (0.3%)	1 (0.07%)	1424 (100%)

As mentioned previously, most of the decapitation burials were located in sites where non-decapitation burials were also present, with just five decapitation burials found in isolated contexts. The spatial distribution of the decapitation burials shows that most (105/122, 86%) were located next to or near non-decapitation burials in the same sites, while the remaining seventeen decapitation burials (17/122, 14%) were either isolated from the non-decapitation burials in the same location perimeter (i.e., cemetery boundaries) (5), were isolated from the non-

decapitation burials within the same site (i.e., ditch, well, structure) (7), or were in isolated deposits outside site boundaries entirely (5) (Table 4.28).

*Table 4.28. The spatial distribution of 122 decapitation burials in the Gloucestershire and Oxfordshire sample.*

<b>Spatial distribution of decapitation burials from sites in Gloucestershire and Oxfordshire</b>	
<b>Spatial locations</b>	<b>Total</b>
Next/near other burials in same site	105 (86%)
Isolated from burials in same site (structure, well, ditch)	7 (5.7%)
Isolated (singular) burial	5 (4.1%)
Isolated from burials in same location perimeter (cemetery, etc.)	5 (4.1%)
<b>Total</b>	<b>122 (100%)</b>

The decapitation burials located spatially near/next to other burials in the same site, most (91/122, 74.5%) were in cemeteries or other informal burial groupings within the site perimeter. Most of the adult males (46/59, 78%) and females (29/36, 80.5%), as well as subadults (10/13, 77%) in the burial sample were buried next to/near other burials. A much smaller percentage (14/122, 11.4%) of the decapitation burials were located near/next to other burials outside the same perimeter as other burials within the same site (i.e., outside the cemetery but within settlement boundaries). Most of those individuals were adults, with a slightly higher number of adult females, unsexed adults and unsexed indeterminate individuals. There was only one subadult decapitation burial (SK 4039, White Horse Hill, Uffington) in this location sub-set (Table 4.29).

Table 4.29. The age and sex distribution of 105 decapitation burials located near/next to other burials within and outside settlement burial contexts.

<b>Age and sex distribution of decapitation burials located next/near to other burials</b>							
<b>Location Type</b>	<b>Adult Male</b>	<b>Adult Female</b>	<b>Subadult Unsexed</b>	<b>Adult Unsexed</b>	<b>Ind./ Unsexed</b>	<b>Total</b>	<b>% of Decap Total (122)</b>
Next/near other burials, in cemetery, etc.	46	29	10	4	2	91 (86.6%)	(74.5%)
Next/near other burials, outside cemetery (within settlement boundaries)	2	5	1	3	3	14 (13.3%)	(11.4%)
Next/near other burials, outside cemetery (outside settlement boundaries)	0	0	0	0	0	0 (0%)	(0%)
<b>Total</b>	48 (45.7%)	34 (32.3%)	11 (10.4%)	7 (5.7%)	5 (4%)	105 (100%)	(86%)
<b>% of Decap Total (122)</b>	(39.3%)	(27.8%)	(9%)	(5.7%)	(4%)	(86%)	

Most of the decapitation burials in those isolated location contexts were adult males (10/17, 58.8%), which were evenly distributed across the three isolated location types. Although the sample size is small, it is interesting that the isolated adult female decapitation burials (3) were all located spatially on the perimeter of or completely outside the site perimeter compared to the other burials at the same site (structure, ditch). The subadult decapitation burials (2) were deposited either in isolated singular or isolated from burials in the same location perimeter locations. The one unsexed adult individual (SK 2744 from Claydon Pike) present was located away from the other burials in isolation on the perimeter or outside the site, while the one unsexed indeterminate individual (SK N/A1 from No. 16 Winchester Road, Oxford) was located away from the other burials within the same perimeter location (Table 4.30).

Table 4.30. The age and sex distribution of seventeen decapitation burials located in isolated burial contexts.

Age and sex distribution of decapitation burials from isolated burial location							
Location Type	Adult Male	Adult Female	Subadult Unsexed	Adult Unsexed	Ind./Unsexed	Total	% of Decap Total (122)
Isolated from burials in same site (structure, well, ditch)	3	3	0	1	0	7 (41.1%)	(5.7%)
Isolated singular only (structure, well, ditch)	4	0	1	0	0	5 (29.4%)	(4%)
Isolated from burials in same location perimeter (cemetery, ditch, etc.)	3	0	1	0	1	5 (29.4%)	(4%)
<b>Total</b>	10 (58.8%)	3 (17.6%)	2 (11.7%)	1 (5.8%)	1 (5.8%)	17 (100%)	(13.9%)
<b>% of Decap Total (122)</b>	(8.1%)	(2.4%)	(1.6%)	(0.8%)	(0.8%)	(13.9%)	

#### 4.5.2. Burial Context

Most of the decapitation burials were single burials (101/122, 82.8%), followed by multiple burials (12/122, 9.8%) and isolated deposits (9/122, 7.4%). Slightly more females (34/36, 94.4%) were found in single burials compared to males (48/59, 81.3%), while unsexed individuals (including subadults) were represented in nineteen burials (19/27, 70.3%). Adult males are represented by a higher number in the multiple burials sub-set (7/12, 58.3%) compared to adult females (1/12, 8.3%) and unsexed individuals (4/12, 33.3%) (Table 4.31).

Table 4.31. The sex distribution of 122 decapitation burials by context type.

<b>Sex distribution of the decapitation burials by burial context</b>				
<b>Sex Category</b>	<b>Single</b>	<b>Multiple</b>	<b>Isolated</b>	<b>Total</b>
Male	48	7	4	59 (48.3%)
Female	34	1	1	36 (29.5%)
Unsexed	19	4	4	27 (22.1%)
<b>Total</b>	101 (82.8%)	12 (9.8%)	9 (7.4%)	122 (100%)

Most adult burials were single burials (90/104, 86.5%), while most of subadults were also single burials (10/13, 77%). Interestingly, none of the subadult decapitation burials were multiple burials (Table 4.32).

Table 4.32. The age distribution of 122 decapitation burials by context type.

<b>Age distribution of the decapitation burials by burial context</b>				
<b>Age Category</b>	<b>Single</b>	<b>Multiple</b>	<b>Isolated</b>	<b>Total</b>
Adult	89	8	6	103 (84.4%)
Subadult	10	0	3	13 (10.6%)
Indeterminate	2	4	0	6 (4.9%)
<b>Total</b>	101 (82.7%)	12 (9.8%)	9 (7.3%)	122 (100%)

Most of the non-decapitation burials were also single burials (1311/1424, 92.1%), followed by multiple burials (95/1424, 6.6%) and isolated deposits (18/1424, 1.3%). Adult male (93.5%) and female (93.3%) decapitation burials were evenly distributed by proportion in the single burial context, while unsexed individuals had a lower proportion in comparison (88.5%). Adult males represent most of the burials associated with the multiple burials type (50.5%), followed by the unsexed individuals (38.9%) and female burials (10.5%), which were the least represented. Unsexed individuals represent most of the isolated burials (55.5%), followed by the male burials (44.4%) with the next highest representation (Table 4.33).



Table 4.33. The sex distribution of 1424 non-decapitation burials by context type.

<b>Sex distribution of the non-decapitation burials by burial context</b>				
<b>Sex Category</b>	<b>Single</b>	<b>Multiple</b>	<b>Isolated</b>	<b>Total</b>
Male	807	48	8	863 (60.6%)
Unsexed	363	37	10	410 (28.8%)
Female	141	10	0	151 (10.6%)
<b>Total</b>	1311 (92.1%)	95 (6.6%)	18 (1.3%)	1424 (100%)

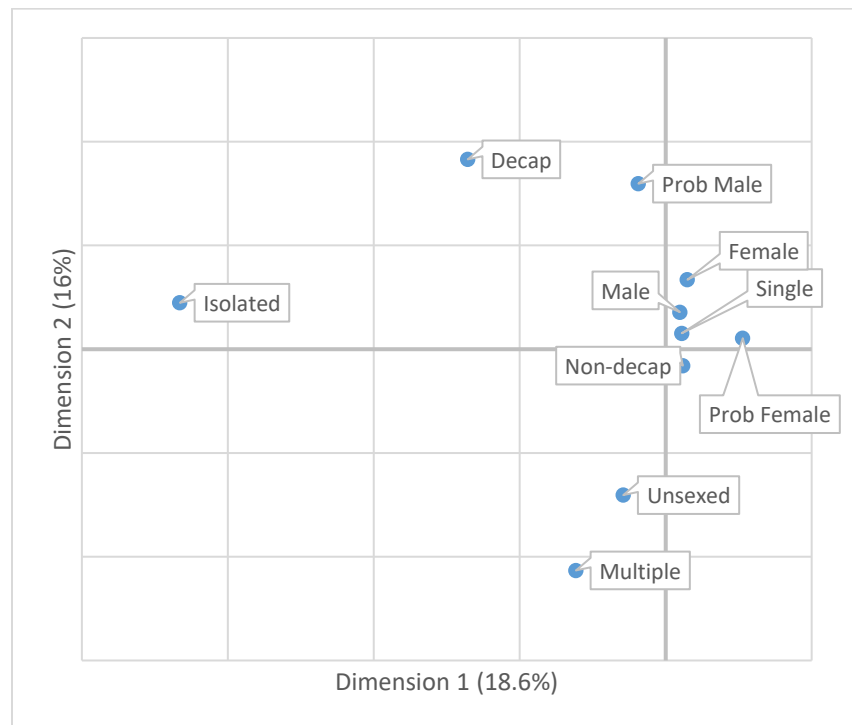
The age distribution of the non-decapitation burials by burial context show that most of the adult burials (1060/1311, 80.8%), subadult burials (198/1311, 15.1%), and indeterminate aged burials (53/1311, 4%) were associated with the single burials sub-category (Table 4.34). Most of the multiple burials were adults (72.6%), followed by the subadult burials (27.3%); no indeterminate aged individuals were associated with this burial type. Most of the isolated burials were adults (55.5%), followed by the subadult burials (33.3%) and the indeterminate aged burials (11.1%).

Table 4.34. The age distribution of 1424 non-decapitation burials by context type.

<b>Age distribution of the non-decapitation burials by burial context</b>				
<b>Age Category</b>	<b>Single</b>	<b>Multiple</b>	<b>Isolated</b>	<b>Total</b>
Adult	1060	69	10	1139 (80%)
Subadult	198	26	6	230 (16.1%)
Indeterminate	53	0	2	55 (3.9%)
<b>Total</b>	1311 (92.1%)	95 (6.7%)	18 (1.3%)	1424 (100%)

To test for possible correlations between burial context when including sex and decapitation status (application vs. non-application), a query using JCA with a Burt Matrix was conducted for all 1546 individuals (1424 non-decapitated and 122 decapitated individuals) in the sample (Figure 4.50). The initial test results shown on the first axis suggest the greatest amount of variation is associated with decapitation and isolated and multiple burial contexts for male and unsexed individuals compared to the non-decapitation variable and opposed to males, females, unsexed and single burial contexts. On the second axis, the probable male decapitation burials in

isolated burial contexts are opposed to unsexed individuals in multiple burial contexts. This opposition pattern may reflect a pattern observed previously where a few specific male burials (SK 10635, SK 2500, SK 3696) in isolated burial contexts deviated from the main cluster. This pattern also shows that the subadult burials, which were largely unsexed, stand out from the main cluster, but do not cluster with the probable male burials on the basis of burial context.



*Figure 4.50. Burt Matrix depicting the results of the JCA test for correlations between burial contexts based on sex and decapitation status (application vs. non-application) from 1546 individuals (1424 non-decapitated and 122 decapitated individuals).*

If we remove the unsexed variable from the query, the secondary results show that decapitation burials are in opposition to non-decapitation burials, however, the decapitation burial variable is now closer to the multiple burial context and remains clustered with the probable male variable (Figure 4.51). On the first axis, male and female, single burial context and non-decapitation burials are close to the matrix origin, which suggests those variables do not vary much on this first and largest amount of variation. However, there is an opposition on the

second axis between the male vs. female, probable female, and probable male sex variables, which may suggest that adult males were less likely to be decapitated and buried in multiple burials. The Chi-square statistical test performed previously in the Demography section showed there is no difference in representation of the sexes between the decapitation and non-decapitation burial populations ( $\chi^2=30$ ,  $df=25$ ,  $p\text{-value}=0.2243$ ). If the male vs. the female, probable female, probable male sex variables are separated and the decapitation variable is not considered, a Chi-square query was run to assess whether a sex based difference in burial contexts exists in the burial population and shows there does not appear to be any difference in burial contexts between the male and the combined female/probable female/probable male burial group ( $\chi^2=$ ,  $df=4$ ,  $p\text{-value}=0.1991$ ). The relative continuity of the isolated burial context away from the main cluster suggests this burial type was less likely to be associated with females, probable males and probable females and was not closely associated with decapitation burials compared to non-decapitation burials.

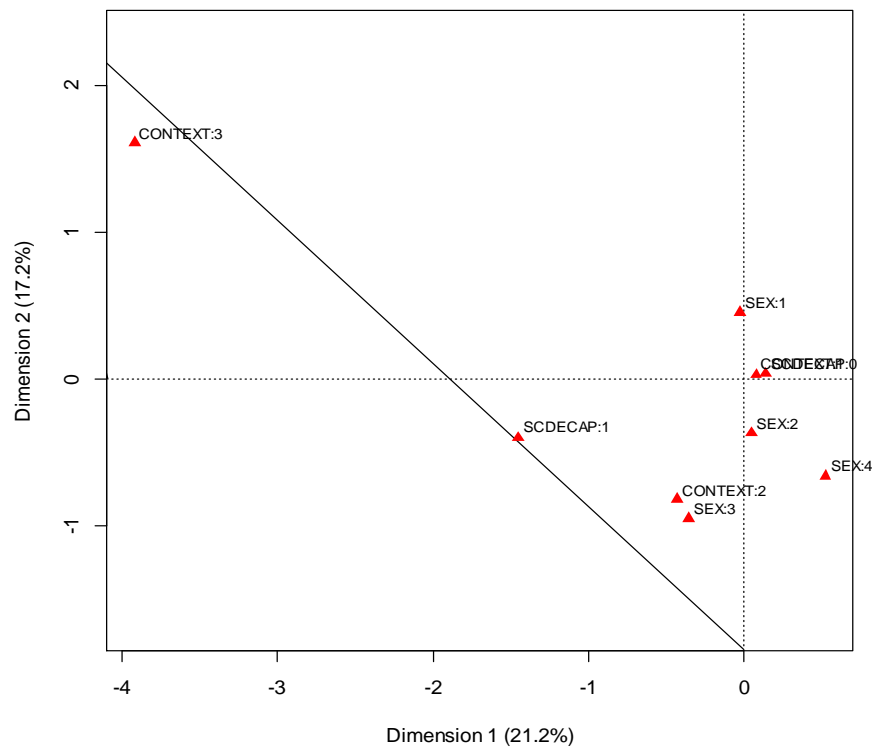


Figure 4.51. Burt Matrix depicting the results of the JCA test for correlations between burial contexts based on sex and decapitation status (application vs. non-application) for 1109 individuals ( $n=$ ) (1014 non-decapitated and 95 decapitated individuals).

### 4.5.3. Body Side

Most of the decapitation inhumations were buried in the supine (face up) position (84/122, 68.8%), while twenty-two burials (18%) were prone (face down). The remaining body positions were represented by a smaller number of burials with nine burials with an unrecorded body side (i.e., where only the cranium was present) (7.4%), four burials on the right side (3.3%), and three burials on the left side (2.5%) (Table 4.35).

Table 4.35. The distribution of 122 decapitation burials by body side/position.

Distribution of decapitation burials by body side/position		
Type	Total	Total percentage
Supine	84	68.8%
Prone	22	18%
N/A skull only	9	7.4%
Right side	4	3.3%
Left side	3	2.5%
Semi-prone	0	0%
<b>Total</b>	122	100%

The sex distribution in the supine side sub-set includes adult males (39/84, 46.4%), adult females (28/84, 33.3%) and unsexed individuals (17/84, 20.2%). Adult males (12/22, 54.5%), adult females (6/22, 27%) and unsexed individuals (4/22, 18.1%) were represented in the prone position with males (12/59, 20%), females (6/36, 16.6%) and unsexed individuals (4/27, 14.8%) represented at lower levels than in the supine sub-set. The sex distribution in the left side group includes only adult males (3/3, 100%); no adult females or unsexed individuals were present. The sex distribution in the right side sub-set includes adult males (1/4, 25%), adult females (1/4, 25%) and unsexed individuals (2/4, 50%). The sex distribution in the N/A side sub-set includes adult males (4/9, 44.4%), adult females (1/9, 11.1%) and unsexed individuals (4/9, 44.4%). This sub-set of burials was the third most common body side position, with a higher percentage of unsexed individuals compared to the supine position (Table 4.36).

Table 4.36. The sex distribution of 122 decapitation burials by body side/position.

Sex distribution of the decapitation burials by body side/position							
Sex Category	Supine	Prone	Semi-prone	Left	Right	N/A	Total
Male	39	12	0	3	1	4	59 (48.3%)
Female	28	6	0	0	1	1	36 (29.5%)
Unsexed	17	4	0	0	2	4	27 (22.1%)
<b>Total</b>	85 (69.6%)	22 (18%)	0 (0%)	3 (2.4%)	4 (3.2%)	9 (7.3%)	122 (100%)

The age distribution in the decapitation burials shows adults (103) were most commonly buried in a supine (74/103, 71.8%) or prone (20/103, 19.4%) position, although prone adult burials by majority percentage (20/22, 91%) are slightly more common than supine (75/85, 88.2%) burials. As in the adult burials, the subadult burials (13) were primarily in the supine position (9/13, 69.2%) with the remaining subadult decapitation burials represented in the right (2/13, 15.3%), prone (1/13, 7.6%), and N/A (1/13, 7.6%) positions. The indeterminate aged decapitation burials (6) were found in the N/A (3/6, 50%), supine (2/6, 33.3%), and prone (1/6, 16.6%) positions. Within this age group sub-set, most individuals were associated with the N/A (3/8, 37.5%), followed by supine (2/85, 2.3%) and prone (1/22, 4.5%) positions. In comparison with the adult and subadult age groups, the indeterminate age group is associated most often with the N/A side, while the prone position occurred at a slightly higher percentage than in the subadult age group (Table 4.37).

*Table 4.37. The age distribution of 122 decapitation burials by body side/position.*

<b>Age distribution of the decapitation burials by body side/position</b>							
<b>Age Category</b>	<b>Supine</b>	<b>Prone</b>	<b>Semi-prone</b>	<b>Left</b>	<b>Right</b>	<b>N/A</b>	<b>Total</b>
Adult	74	20	0	3	2	4	103 (84.4%)
Subadult	9	1	0	0	2	1	13 (10.6%)
Indeterminate	2	1	0	0	0	3	6 (4.9%)
<b>Total</b>	85 (69.6%)	22 (18%)	0 (0%)	3 (2.4%)	4 (3.2%)	8 (6.5%)	122 (100%)

When assessing the mortuary treatment by body side for the non-decapitation burials, most of the burials were in the supine position (81.8%), while 88 burials (6.2%) were in the prone position. The remaining body positions were represented by a smaller number of burials with 47 burials on the left side (3.3%), 23 burials on the right side (1.6%), and four burials in the

semi-prone position (0.3%). There were 96 burials (6.7%) with an unrecorded body position in the non-decapitation burial population (Table 4.38).

*Table 4.38. The distribution of 1424 non-decapitation burials by body side/position.*

<b>Total number of non-decapitation burials by body side/position</b>		
<b>Type</b>	<b>Total</b>	<b>Total percentage</b>
Supine	1166	81.9%
Unrecorded	96	6.7%
Prone	88	6.2%
Left	47	3.3%
Right	23	1.6%
Semi-prone	4	0.3%
<b>Total</b>	<b>1424</b>	<b>100%</b>

The sex distribution in the non-decapitation burials by body position shows that most of the male (85.7%), female (85.5%) and unsexed (72.3%) burials in the sample are associated with the supine position (which comprises 81.9% of the body positions) (Table 4.39). The next most common burial position is the prone position (6.2%), followed by the left (3.3%) and right sides (1.6%). The semi-prone position was associated with just four non-decapitation burials, making this a rare body position (0.3%). Male burials appear to dominate the prone (68.2%), supine (63.4%), the right side (60.8%), and the left side (51%) positions.

*Table 4.39. The sex distribution of 1424 non-decapitation burials by body side/position.*

<b>Sex distribution of the non-decapitation burials by body side/position</b>							
<b>Sex Category</b>	<b>Supine</b>	<b>Prone</b>	<b>Semi-prone</b>	<b>Left</b>	<b>Right</b>	<b>Un-recorded</b>	<b>Total</b>
Male	740	60	2	24	14	23	863 (60.6%)
Unsexed	296	22	2	2	7	64	409 (28.7%)
Female	130	6	0	5	2	9	152 (10.7%)
<b>Total</b>	1166 (81.9%)	88 (6.2%)	4 (0.3%)	47 (3.3%)	23 (1.6%)	96 (6.7%)	1424 (100%)

The age distribution in the non-decapitation burials by body side position shows that most of the adult (85.7%), subadult (71.3%) and indeterminate aged (69%) burials are associated

with the supine position. Adult burials dominate all the body position categories while in the subadult burials the supine position is the most common, followed by the left and prone positions. Most of the indeterminate aged burials were associated with the supine position, followed by the unrecorded position, which limits our ability to draw many conclusions about the significance of the burial position variable in association with this age category. There were no subadult or indeterminate aged burials associated with the semi-prone position, and no indeterminate age burials associated with the left position (Table 4.40).

*Table 4.40. The age distribution of 1424 non-decapitation burials by body side/position.*

<b>Age distribution of the non-decapitation burials by body side/position</b>							
<b>Age Category</b>	<b>Supine</b>	<b>Prone</b>	<b>Semi-prone</b>	<b>Left</b>	<b>Right</b>	<b>Unrecorded</b>	<b>Total</b>
Adult	977	73	3	31	19	36	1139 (80%)
Subadult	164	16	0	18	6	26	230 (16.1%)
Indeterminate	38	4	1	0	0	12	55 (3.9%)
<b>Total</b>	1179 (82.7%)	93 (6.5%)	4 (0.02%)	25 (1.7%)	49 (3.4%)	74 (5.2%)	1424 (100%)

#### **4.5.4. Burial Position**

Most of the decapitation burials were in the extended position (91/122, 74.5%), while fifteen burials containing only the skull (12.2%) were in the second most common N/A position. The remaining burials were flexed (10/122, 8.1%) and semi-flexed (6/122, 4.9%) (Table 4.41). The adult male burials represented the most in each of the position types: extended (43/91, 47.2%), skull only (7/15, 46.6%), flexed (6/10, 60%), and semi-flexed (3/6, 50%) positions. The adult female burials were represented primarily by the semi-flexed position (3/6, 50%), followed by the flexed (4/10, 40%), extended (27/91, 29.6%), and skull only (2/15, 13.3%) positions. The adult unsexed burials were exclusively found in the extended burial position (8/91, 8.7%). The subadult unsexed burials were represented by a balance between the extended position (11/91,



12%) and the skull only (2/15, 13.3%) positions. Most unsexed indeterminate burials were in the skull only position (4/15, 26.6%), followed by the extended (2/91, 2.1%) position.

Most adult males were buried in the extended position (43/59, 72.8%), followed in order of representation by the skull only (7/59, 11.8%), flexed (6/59, 10.1%), and semi-flexed (3/59, 5%) positions. Within each burial position type, the age and sex distribution shows that most of the adult females were associated with the extended position (27/36, 75%), followed in order of representation by the flexed (4/36, 11.1%), semi-flexed (3/36, 8.3%), and skull only (2/36, 5.5%) positions. Across the burial position types, the age and sex distribution shows that the adult unsexed individuals were exclusively associated with the extended position (8/8, 100%). Most of the unsexed subadults were buried in the extended position (11/13, 84.6%), followed by the skull only position (2/13, 15.3%). Most unsexed indeterminate burials were associated with the skull only position (4/6, 66.6%), followed by the extended position (2/6, 33.3%).

*Table 4.41. The age and sex distribution of 122 decapitation burials by burial.*

<b>Age and sex distribution of decapitation burials by burial position type</b>					
<b>Age and Sex</b>	<b>Extended</b>	<b>Flexed</b>	<b>Semi-flexed</b>	<b>Skull only</b>	<b>Total</b>
Adult Male	43	6	3	7	59 (48.3%)
Adult Female	27	4	3	2	36 (29.5%)
Subadult Unsexed	11	0	0	2	13 (10.6%)
Adults Unsexed	8	0	0	0	8 (6.5%)
Indeterminate Unsexed	2	0	0	4	6 (4.9%)
<b>Total</b>	91 (74.5%)	10 (8.1%)	6 (4.9%)	15 (12.2%)	122 (100%)

Most of the non-decapitation inhumations were in the extended position (88%), followed in order of representation by the unrecorded (6.7%), flexed (4.9%) and lastly, the semi-flexed (0.2%) positions (Table 4.42). The adult male burials represented the highest percentage of burials across all position types, except in the unrecorded category, where the adult unsexed and subadult unsexed burials were in the majority (27% each). Across each age and sex category, the

extended position was the most common: adult male (92.7%), adult female (89.4%), adult unsexed (72.5%), subadult unsexed (80.8%), and indeterminate unsexed (76.3%). There were no non-decapitation burials associated with the skull only position, as this is only present in the decapitation burial population.

*Table 4.42. The age and sex distribution of 1424 non-decapitation burials by burial position.*

<b>Age and sex distribution of non-decapitation burials by burial position</b>					
<b>Age and Sex</b>	<b>Extended</b>	<b>Flexed</b>	<b>Semi-flexed</b>	<b>Unrecorded</b>	<b>Total</b>
Adult Male	800	38	2	23	863 (60.6%)
Subadult Unsexed	186	18	0	26	230 (16.1%)
Adult Female	136	7	0	9	152 (10.6%)
Adults Unsexed	90	7	1	26	124 (8.7%)
Indeterminate Unsexed	42	0	1	12	55 (3.8%)
<b>Total</b>	1254 (88%)	70 (4.9%)	4 (0.2%)	96 (6.7%)	1424 (100%)

#### **4.5.4a. Spatial Distribution by Burial Position**

The spatial distribution of sites with decapitation burials near/next to other burials within the same perimeter and outside of the perimeter in the same site shows that most burials (105/122, 86%) were in the extended (79/105, 75.2%), followed by flexed (10/105, 9.5%) and skull only (10/105, 9.5%) positions. The semi-flexed (6/105, 5.7%) position was represented by the lowest percentage compared to the other position types in this spatial location sub-set. The spatial distribution of sites with decapitation burials isolated from burials in settlement and isolated outside of the site shows that most of those burials (17/122, 13.9%) were in the skull only (5/15, 33.3%) position, followed by the extended position (12/91, 13.1%) (Table 4.43).

Table 4.43. The spatial distribution of 122 decapitation burials by body position type.

Spatial distribution of decapitation burials by body position					
Spatial Location	Extended	Flexed	Semi-flexed	Skull only	Total
Next/near other burials (in cemetery, outside in settlement and outside site)	79	10	6	10	105 (86.1%)
Isolated (singular), isolated from burials in settlement and isolated outside site	12	0	0	5	17 (13.9%)
<b>Total</b>	91 (74.5%)	10 (8.1%)	6 (4.9%)	15 (12.2%)	122 (100%)

The spatial distribution of the decapitation burials by body position types revealed a subgroup of fifteen burials represented only through the presence of a skull/cranium or a skull/cranium with vertebral bodies attached. This group of decapitation burials were found in greater numbers in sites where those burials were located near/next to other burials (10), while a smaller number were found in isolation away from other burials (5). Most of the burials in these groups were of adult age (13/104, 12.5%; 13/15, 86.6%), with just two unsexed subadults present (2/13, 15.3%; 2/15, 13.3%), and most of the adults were males or unsexed individuals, while only two adult females were present (Table 4.44).

Table 4.44. The age and sex distribution of 15 decapitation burials represented only by a skull/cranium or skull/cranium with vertebral bodies.

Spatial distribution of decapitation burials by age and sex with only skull/cranium or skull/cranium and vertebral bodies present				
Age and Sex	Isolated Decap Burials and Deposits	Next/near other Decap and Non-Decap burials	Total	% of Decap Total (122)
Adult Male	3	4	7	(5.7%)
Ind./Unsexed	0	4	4	(3.2%)
Adult Female	2	0	2	(1.6%)
Subadult Unsexed	0	2	2	(1.6%)
Adult Unsexed	0	0	0	(0%)
<b>Total</b>	5 (33.3%)	10 (66.6%)	15 (100%)	(12.3%)
<b>% of Decap Total (122)</b>	(4%)	(8.1%)	(12.3%)	

Most of the burials found next/near to other burials were associated with cemetery locations or pits located near many other burials. Most of the burials in this sub-group were assigned the N/A body position (9) if the position was not recorded by the original excavators or post-excavation assessment, and the next most common position type was supine (4), while the prone (1) and right (1) sides were represented by one example each (Table 4.45). The sole example of skull/vertebra in a well is unique in the study sample; the deposit included the front half of a young sheep, a rare animal inclusion in a decapitation context. This individual, the adult male SK N/A from the Churchill Hospital, Headington (Oxfordshire) site, was clearly distinguished from the others in this sub-group and the wider decapitation burial population in the region.

*Table 4.45. The selective mortuary treatment of 15 decapitation burials represented only by a skull/cranium or skull/cranium with vertebral bodies.*

<b>Mortuary treatment variables associated with decapitation burials with only skull/cranium or skull/cranium and vertebral bodies present</b>							
<b>Sites</b>	<b>SK ID</b>	<b>Sex</b>	<b>Age</b>	<b>Burial Context</b>	<b>Location</b>	<b>Body Side</b>	<b>Total</b>
Churchill Hospital, Headington	N/A	Male	Adult	Single	Well	N/A	1
Bath Gate, Cirencester	81	Male	Adult	Single	Cemetery	Prone	1
Bath Gate, Cirencester	11	Male	Adult	Single	Cemetery	N/A	1
Bath Gate, Cirencester	152	Male	Adult	Single	Cemetery	Supine	1
Bridge's Garage, Tetbury Road	5188	Male	Adult	Single	Ditch	N/A	1
Bridge's Garage, Tetbury Road	5189	Male	Adult	Single	Ditch	N/A	1
College of Arts, Gloucester	B21	Male	Adult	Single	Cemetery	Supine	1
College of Arts, Gloucester	B32	Unsexed	Ind.	Single	Cemetery	Supine	1

White Horse Hill, Uffington	4036	Unsexed	Sub-adult	Single	Pit	N/A	1
Bridge's Garage, Tetbury Road	5187	Female	Adult	Multiple	Ditch	N/A	1
Gambier Parry Lodge	F70	Unsexed	Ind.	Multiple	Pit	N/A	1
Gambier Parry Lodge	F95	Unsexed	Ind.	Multiple	Pit	N/A	1
Gambier Parry Lodge	F132	Unsexed	Ind.	Multiple	Pit	N/A	1
Gill Mill, South Leigh	4400	Female	Adult	Isolated	Ditch	Supine	1
White Horse Hill, Uffington	4039	Unsexed	Sub-adult	Isolated	Ditch	Right	1
<b>Total</b>							15
<b>% of Decap Total (122)</b>							(12.3%)

#### 4.5.5. Placement of the Head

In decapitation burials in which the head is no longer in anatomical position it is most often found in association with the lower half of the body (74/122, 60.6%), with the upper half of the body accounting for a smaller percentage of the burial sample (33/122, 27%). Crania that were missing entirely represent the third most common category of decapitation burial (16/122, 13.1%). The two most common position types when the head was associated with the lower body were on/at knees (42/122, 34.4%) and at the feet (23/122, 18.8%). There were fewer examples of heads placed to the lower right (6/122, 4.9%) or left compared to the aforementioned categories, although the lower right was represented slightly more than the lower left (3/122, 2.4%). When the head was placed in the upper half of the burials, the most common position type was in the anatomical position (27/122, 22.1%), followed by the head in the upper left (3/122, 2.4%), upper right (2/122, 1.6%), and lastly, on the back (1/122, 0.8%) of the individual (Table 4.46).

*Table 4.46. The distribution of the position of the head in the 122 decapitation burials.*

<b>Distribution of the position of the head in the decapitation burial population</b>	
<b>Position of head categories</b>	<b>Total</b>
On/at knees	42 (34.4%)
Anatomical Position	26 (21.3%)
At feet	23 (18.8%)
Missing	16 (13.1%)
Lower right	6 (4.9%)
Upper left	3 (2.4%)
Lower left	3 (2.4%)
Upper right	2 (1.6%)
On back	1 (0.8%)
<b>Total</b>	<b>122 (100%)</b>

#### **4.5.6. Manipulation of Head Position**

The manipulation of the position of the head provides potential insight into the possible activities involved. The discussion that follows is not restricted to evidence of manipulation of the head position (as other skeletal elements were also moved during post-mortem and secondary burial activities). However, the skull was the skeletal element most frequently manipulated in the decapitation burials that were analyzed in this thesis.

Most of the cases of cranial manipulation involved the movement of the head out of anatomical position (77/122, 63.1%), followed by the anatomical position (26/122, 21.3%), the removed/missing category (16/122, 13.1%), and the moved and replaced category (3/122, 2.4%) (Table 4.47).

*Table 4.47. The distribution of the manipulation types in the head position category for the 122 decapitation burials.*

<b>Categories of manipulation of the head in the decapitation burial population</b>	
<b>Category</b>	<b>Total</b>
Moved	77 (63.1%)
Anatomical Position	26 (21.3%)
Removed/Missing	16 (13.1%)
Moved and Replaced	3 (2.4%)
<b>Total</b>	<b>122 (100%)</b>

While the age and sex distribution concentrations associated with each type of head remain consistent within the manipulation categories, there was a slight deviation in the on/at knees position (2/42, 4.7%) and the at feet position (1/23, 4.3%). In each of these decapitation burials, the skull had been moved and was replaced with another object. In the first example, an adult male decapitation burial, SK 3696, was found located in an infilled ditch at the site of 2-4 NCL, South Parks Road, Oxford buried in a supine extended position. An incomplete ancillary 4<sup>th</sup> century AD burnt ware jar was found in the anatomically correct position of the cranium, which in its turn had been placed on or between the knees with the C1-C3 vertebra intact (Biddulph 2005:167; Bradley et al. 2005:149; Burnham et al. 2002:317). In the second example, an adult female decapitation burial, SK 5411, was found in a single burial within a cemetery at the site of Great Western Park, Didcot buried in the prone extended position (Hayden et al. 2019:423, 551-2). In the final example, an adult female, SK 5597 (Grave 5598), was found in a single burial in a cemetery at the site of Alchester buried in a supine flexed position (Booth et al. 2001; Boyle 2001); here, too, the cranium had been placed at the feet and replaced by a ceramic vessel. These examples demonstrate that there were variations in the manipulation of the head position, and without coding for both the position of the head (and other skeletal elements) and the movement of the head these examples of additional intentional manipulation of the corpse

would have been subsumed within the categories recorded in the other burials associated with those position types (Table 4.48).

*Table 4.48. The distribution of the head position categories in the 122 decapitation burials and associated manipulation of the head position category.*

<b>Position of the head position and associated manipulation category in the decapitation burial population</b>										
<b>Category</b>	<b>On/at knees</b>	<b>Ana. Pos.</b>	<b>At feet</b>	<b>Missing</b>	<b>Lower Right</b>	<b>Upper Left</b>	<b>Lower Left</b>	<b>Upper Right</b>	<b>On back</b>	<b>Total</b>
Ana. Pos.	0	26	0	0	0	0	0	0	0	26 (21.3%)
Moved	40	0	22	0	6	3	3	2	1	77 (63.1%)
Removed-Missing	0	0	0	16	0	0	0	0	0	16 (13.1%)
Moved and Replaced	2	0	1	0	0	0	0	0	0	3 (2.4%)
<b>Total</b>	42 (34.4%)	26 (21.3%)	23 (18.8%)	16 (13.1%)	6 (4.9%)	3 (2.4%)	3 (2.4%)	2 (1.6%)	1 (0.8%)	122 (100%)

#### **4.5.7. Representation of the Body**

To explore the potential for a relationship between decapitation and fragmentation or disarticulation activities, the presence and absence of skeletal element groups within each burial were assessed for each site. In the decapitation burials, most of the twelve element groups were represented in the 70-80% range (Table 4.49), with the skull element in the highest percentage present at 86.8%, while the right foot (72.9%) and left foot (73.7%) had the lowest percentages in the sample.

*Table 4.49. The total number of skeletal element groups (12 groups possible per burial) represented across the decapitation burial population.*

<b>Skeletal element groups present in the decapitation burials</b>		
<b>Element Group</b>	<b>Total Number of Element Groups Present</b>	<b>Total Percent of Element Groups Present</b>
Skull	106	86.8%
Right leg	103	84.4%
Left leg	103	84.4%
Right arm	101	82.7%
Ribs	100	81.9%
Left arm	100	81.9%



Pelvis	99	81.1%
Vertebrae	98	80.3%
Left hand	93	76.2%
Right hand	92	75.4%
Left foot	90	73.7%
Right foot	89	72.9%

In the non-decapitation burials, most of the twelve element groups were presented in the low to mid 70% range (Table 4.50), with the skull element in the highest percentage present at 84.9%. However, five of the element groups that contained lower percentages in the 55-60% range, the right foot (50.8%) and left foot (51%), had the lowest percentages in the sample. The other three element groups with lower percentages compared to the decapitation sample were the ribs (61.7%), and the right (56.9%) and left hand (57%). This may suggest a potentially targeted selection of those skeletal element groups for removal from the non-decapitation burials; however, excavation bias and preservation of the skeletal remains must also be taken into account, especially in the case of vertebral elements and foot/finger bones.

*Table 4.50. The total number of skeletal element groups (12 groups possible per burial) represented across the non-decapitation burial population.*

<b>Skeletal element groups present in the non-decapitation burials</b>		
<b>Element Groups</b>	<b>Total Number of Element Groups Present</b>	<b>Total Percent of Element Groups Present</b>
Skull	1210	84.9%
Right leg	1114	78.2%
Left leg	1107	77.7%
Left arm	1059	74.3%
Vertebrae	1043	73.2%
Pelvis	1041	73.1%
Right arm	1035	72.6%
Ribs	880	61.7%
Left hand	813	57%
Right hand	811	56.9%
Left foot	727	51%
Right foot	724	50.8%

To investigate the possibility of selective manipulation of a certain section of the body in the decapitation and non-decapitation burials, the skeletal elements were compared by axial vs. appendicular groupings and divided in the ranges of preservation zones. The axial skeletal elements in most of the decapitation burials were represented in the 67-100% range (65.6%) (Table 4.51), while the appendicular skeletal element groups were represented in the 75-100% range (75.4%) (Table 4.52).

*Table 4.51. The distribution of axial skeletal elements in the decapitation burials by preservation level.*

<b>Preservation of the axial skeletal element groups in the decapitation burials</b>				
<b>Zone</b>	<b>0-33%</b>	<b>34-66%</b>	<b>67-100%</b>	<b>Total</b>
<b>Total</b>	19 (15.6%)	23 (18.8%)	80 (65.6%)	122 (100%)

*Table 4.52. The distribution of appendicular skeletal elements in the decapitation burials by preservation level.*

<b>Preservation of the appendicular skeletal element groups in the decapitation burials</b>					
<b>Zone</b>	<b>0-24%</b>	<b>25-49%</b>	<b>50-74%</b>	<b>75-100%</b>	<b>Total</b>
<b>Total</b>	18 (14.7%)	2 (1.6%)	10 (8.2%)	92 (75.4%)	122 (100%)

In the non-decapitation burials, the axial skeletal element groups were represented in the 67-100% range (55.6%) (Table 4.53), while the appendicular skeletal element groups were represented in the 75-100% range (54.3%) (Table 4.54).

*Table 4.53. The distribution of axial skeletal elements in the non-decapitation burials by preservation level.*

<b>Preservation of the axial skeletal element groups in the non-decapitation burials</b>				
<b>Zone</b>	<b>0-33%</b>	<b>34-66%</b>	<b>67-100%</b>	<b>Total</b>
<b>Total</b>	378 (26.5%)	254 (17.8%)	792 (55.6%)	1424 (100%)

*Table 4.54. The distribution of appendicular skeletal elements in the non-decapitation burials by preservation level.*

<b>Preservation of the appendicular skeletal element groups in the non-decapitation burials</b>					
<b>Zone</b>	<b>0-24%</b>	<b>25-49%</b>	<b>50-74%</b>	<b>75-100%</b>	<b>Total</b>
<b>Total</b>	289 (20.3%)	68 (4.8%)	293 (20.6%)	774 (54.3%)	1424 (100%)

When comparing the prevalence of the two skeletal element groups in the decapitation and non-decapitation burial populations, greater variation appears in the percentages represented in the preservation zone ranges in the non-decapitation burial population. This may suggest a preferential selection of skeletal element groups associated with extremities in the non-decapitation population, however, issues related to preservation, excavation bias and truncation due to post-Roman ploughing or modern development activities may have impacted their representation here. A similar trend was observed in a comparison of the axial section of the body between the two burial populations; the non-decapitation burials continued to show greater variation between the preservation zone ranges, with reduced representation in the 67-100% zone (55.6%) and a higher representation in the 0-33% zone (26.5%) compared to the decapitation population.

If the level of completeness (75%+) versus incompleteness (0-74%) based on skeletal element groups present is compared across the two burial populations, 92 decapitation burials (75.4%) qualify as ‘complete’ (Table 4.55), whereas 765 non-decapitation burials (53.7%) qualify as ‘complete’ (Table 4.56). In keeping with the patterns mentioned previously, this may indicate more selective manipulation or disarticulation of skeletal remains or bodies in non-decapitation burials and suggests that in this area of Roman Britain decapitation burials were not specifically singled out for disarticulation activities.

Table 4.55. The distribution of the preservation levels of the decapitation burials based on the presence of the skeletal element groups.

Total number of decapitation burials by preservation level			
Preservation of skeletal elements present	Complete (75%+)	Incomplete (0-74%)	Total
<b>Total</b>	92 (75.4%)	30 (25.6%)	122 (100%)

Table 4.56. The distribution of the preservation levels of the non-decapitation burials based on the presence of the skeletal element groups.

Total number of non-decapitation burials by preservation level			
Preservation of skeletal elements present	Complete (75%+)	Incomplete (0-74%)	Total
<b>Total</b>	765 (53.7%)	659 (46.3%)	1424 (100%)

When comparing the representation of the twelve skeletal element groups by preservation zone (1 lowest – 4 highest) in the two burial populations, the decapitation population included more skeletal element groups in zone 4 (83.3%) followed by zone 3 (16.6%) (Table 4.57), while the non-decapitation population included more elements in zone 3 (66.6%) followed by zone 4 (33.3%) (Table 4.58).

Table 4.57. The distribution of the preservation levels of the skeletal element groups across the decapitation burial population.

Preservation zone by skeletal element group present in the decapitation population					
Zone	0-24%	25-49%	50-74%	75-100%	Total
<b>Total</b>	0 (0%)	0 (0%)	2 (16.6%)	10 (83.3%)	12 (100%)

Table 4.58. The distribution of the preservation levels of the skeletal element groups across the non-decapitation burial population.

Preservation zone by skeletal element group present in the non-decapitation population					
Zone	0-24%	25-49%	50-74%	75-100%	Total
<b>Total</b>	0 (0%)	0 (0%)	8 (66.6%)	4 (33.3%)	12 (100%)

#### 4.5.8. Manipulation and Fragmentation of the Body

Nine (9/44, 20.4%) of the sites included in this study yielded evidence for the deposition of additional disarticulated human bone: a total of 27 burials (2 decapitation (7.4%) and 25 non-decapitation (92.6%) representing 1.7% of the entire burial population) included additional skeletal material (Table 4.59). The sites of Gambier Parry Lodge, Kingsholm and Bath Gate, Cirencester each yielded nine burials with additional skeletal elements, while Roughground Farm, Lechlade yielded three burials with additional elements, and the remaining sites each yielded a single burial with additional elements.

*Table 4.59. The total number of inhumation burials (n=27) from sites examined in this thesis with evidence for additional (supernumerary) deposits of skeletal elements.*

<b>Inhumation burials from sites with supernumerary skeletal elements</b>		
<b>Sites</b>	<b>Total</b>	<b>Total Percentage</b>
Gambier Parry Lodge, Kingsholm	9	33.3%
Bath Gate, Cirencester	9	33.3%
Roughground Farm, Lechlade	3	11.1%
Wroxton St. Mary-Barn Lodge	1	3.7%
Horcott Quarry	1	3.7%
Stanton Harcourt	1	3.7%
Curbridge	1	3.7%
Bloxham	1	3.7%
120-122 London Road, Gloucester	1	3.7%
<b>Total</b>	<b>27</b>	<b>100%</b>

When a review of the skeletal element groups present within those burials was conducted, most of the groups (16/27, 59.3%) contained only one additional skeletal element group, followed closely by those with two skeletal element groups (6/27, 22.2%) (Table 4.60). Two of the burials in the non-decapitation category contained more skeletal element groups compared to the others in this group: SK 66, an unsexed subadult from Bath Gate, Cirencester, was buried with additional vertebrae, ribs and a tibia, while SK 52, an adult female from Bath Gate, Cirencester, was buried with additional right and left metatarsals of an adolescent (Bush and Stirland 1991; McWhirr et al. 1982). Most of the additional skeletal elements found in those

burials were crania (25%), metatarsals (18.7%), and humeri (14.6%), while the lowest represented skeletal elements were one example each of a scapula, clavicle and pelvis (Table 4.61).

*Table 4.60. The total number of additional skeletal elements found in inhumation burials with supernumerary deposits (n=27).*

<b>Inhumation burials with supernumerary skeletal elements</b>		
<b>Number of additional skeletal elements present</b>	<b>Number of burials</b>	<b>Total Percentage</b>
1	16	59.3%
2	6	22.2%
3	1	3.7%
4	2	7.4%
5	1	3.7%
6	0	0%
7	0	0%
8	1	3.7%
<b>Total</b>	<b>27</b>	<b>100%</b>

*Table 4.61. The distribution of skeletal elements (n=48) associated with inhumation burials with supernumerary deposits (n=27).*

<b>Types of skeletal elements present in the inhumation burials</b>		
<b>Skeletal Element</b>	<b>Total</b>	<b>Total Percentage</b>
Skull/Cranium	12	25%
Metatarsal	9	18.7%
Humeri	7	14.6%
Ribs	5	10.4%
Femur	4	8.3%
Tibia	4	8.3%
Vertebrae	4	8.3%
Scapula	1	2.1%
Clavicle	1	2.1%
Pelvis	1	2.1%
<b>Total</b>	<b>48</b>	<b>100%</b>

The sex distribution of the twenty-seven burials with supernumerary skeletal elements indicates most of them were adult females (12/27, 44.5%), followed by unsexed individuals

(9/27, 33.3%) and adult males (6/27, 22.2%) (Table 4.62). The age distribution in this group indicates that most of the burials with supernumerary elements were adults (20/27, 74.1%), followed by subadults (6/27, 22.2%) and individuals of indeterminate age (1/27, 3.7%) (Table 4.63).

*Table 4.62. The sex distribution of the inhumation burials (n=27) with supernumerary skeletal elements.*

<b>Distribution of inhumation burials with supernumerary skeletal elements present by sex category</b>		
<b>Sex Category</b>	<b>Total</b>	<b>Total Percentage</b>
Female	12	44.5%
Unsexed	9	33.3%
Male	6	22.2%
<b>Total</b>	<b>27</b>	<b>100%</b>

*Table 4.63. The age distribution of the inhumation burials (n=27) with supernumerary skeletal elements.*

<b>Distribution of burials with supernumerary skeletal elements by age category</b>		
<b>Age Category</b>	<b>Total</b>	<b>Total Percentage</b>
Adult	20	74.1%
Subadult	6	22.2%
Indeterminate	1	3.7%
<b>Total</b>	<b>27</b>	<b>100%</b>

The adult burial sub-group accounted for nine of the twelve supernumerary skulls in the sample, six of which were in adult female burials. This could suggest adult females were singled out for deposition of additional disarticulated skeletal elements, particularly skulls, in burials. In addition, the two adult decapitation burials associated with the burial group were females: SK 546 from Gambier Parry Lodge, Kingsholm (buried supine with the skull missing, and three additional skulls (F70, F95, F132) and one pelvis (F180) in the grave fill) (Cameron and Roberts 1984); and, SK F1 from Wroxton St. Mary – Barn Lodge (buried supine with the head next to the knees (in the prone position), and cranial fragments from an infant in the grave) (Harman 1986:39). The presence of the skull in the prone position with the body in the supine position is

not a singular occurrence (this practice will be discussed further below) despite the fact it appears only once in this burial sub-group, and therefore is unlikely to be strongly linked to the practice of interring additional disarticulated human bone (Table 4.64).

*Table 4.64. The distribution of the inhumation burials (n=27) with supernumerary skeletal elements present by body position.*

<b>Inhumation burials with supernumerary skeletal elements present by body position</b>		
<b>Types</b>	<b>Total</b>	<b>Total Percentage</b>
Supine	22	81.5%
Left	3	11.1%
Prone	1	3.7%
N/A	1	3.7%
Right	0	0%
<b>Total</b>	27	100%

Eight decapitation burials (8/122, 6.5%) all within the moved manipulation category and all with the skull located at the knees or the feet (except one with the skull located at the lower right), were distinguished from the rest of the burials through specialized manipulation of the head by placing it in the prone position while the body remained in the supine body position. Five of the eight individuals (62.5%) in this subgroup were buried with or next to an individual buried in the prone position. The elderly adult females SK 256, SK 306 and SK 392 from Horcott Quarry were buried to the southwest (in the former two burials) and southeast (in the latter burial) of the grave of a prone non-decapitation elderly female adult (SK 3307) (Hayden et al. 2017:136, 151-2). The adult male SK 3293 was buried with a prone non-decapitation unsexed subadult (SK 3292) at Post Farm, Thornbury (Cotswold Archaeology 2017:26). Lastly, the adult female, SK F1, from Wroxton St. Mary-Barn Lodge was buried next to a prone non-decapitation adult male (SK F2), and interestingly, a small number of unsexed subadult fetal skull fragments were included in their grave (Chambers and Harman 1986:39-44).



This sub-group included one unsexed subadult decapitation burial (1/8, 12.5%; 1/122, 0.8%) while the remaining seven decapitation burials were adults; six of them were female (6/8, 75%; 6/122, 5%). The group of female adult decapitation burials included three elderly females (50-60+ years old) from the site Horcott Quarry that shared the same trauma timing types (peri-mortem), the same skeletal elements with evidence of trauma related to the decapitation act (C3/C4 and mandible) and exhibited similar decapitation types (1a/2a Crerar Types, and 3a/3b/5a Tucker Types). In addition, all three of these decapitation burials were buried in a cluster, surrounded by other non-decapitation burials (Hayden et al. 2017:133-6). One of the three adult females from Horcott Quarry, SK 392, was differentiated from the other two with the head placement in the lower right side of the grave (5a Tucker decapitation type), which is rare compared to other Romano-British decapitation burials (Tucker 2012:237-8; 2016:191). However, the decapitation evidence associated with the 5a Tucker decapitation type (chopping blows associated with non-decapitation related trauma, typically in the form of sharp/blunt force cranial injuries performed peri-mortem) was also found in two other adult female decapitation burials, both with the head placed on the knees, in this sub-group (SK F1 from Wroxton St. Mary, and SK 894 from Roughground Farm, Lechlade), suggesting those three adult females may have been subjected to additional trauma to the cranium and upper body (in addition to the decapitation chops/cuts). Only one of those three adult females, SK 894, exhibited evidence of post-mortem decapitation activity (Allen et al. 1993:100-1, 169-71), compared to the other two adult females, SK F1 and SK 392, which exhibited evidence of peri-mortem decapitation activity (Harman 1986:39, 43; Hayden et al. 2017:332).

The adult male decapitation burial, SK 3293, was found in a multiple burial with a subadult in the prone position at the site of Post Farm, Thornbury. This rural farmstead site

contained a small population, most likely an extended family and local laborers associated with the farmstead, but not a formal cemetery with a defined perimeter for those interred at the site (Cotswold Archaeology 2017:26). The Post Farm, Thornbury site contained a higher rate of prone burials than most of the other sites in this study (40%), however, this adult male individual was the only decapitation burial present and was distinguished by being placed supine while the skull was placed prone at the feet of the individual (next to the ankles of the non-decapitation subadult prone burial) (Cotswold Archaeology 2017:26). Of note with this adult male decapitation burial was the potential secondary post-mortem interaction with the corpse through the deliberate removal of the mandible during decomposition rather than during the peri-mortem decapitation, suggesting this individual was intentionally selected for additional fragmentation activity compared to the other burials in the site and within this burial sub-group. The notation of the 0.6m gap at the north of the grave located between the adult individual's shoulders and the grave cut may suggest the skull was once in anatomical position but was later moved to the bottom of the grave, placed in the prone position, prior to the interment of the 4-5 year old subadult (SK 3292) in the prone position within the same burial (Cotswold Archaeology 2017:27).

In these eight decapitation burials, all the trauma evidence was restricted to the vertebrae and cranium except on two individuals where additional trauma was present on the fibula (adult male SK 3293 from Post Farm, Thornbury) and the right ulna (adult female SK 11182 from Brightwell-cum-Sotwell). The cuts and chops recorded were consistently associated with peri-mortem trauma timing, although post-mortem secondary removal of the mandible was documented in the adult male individual (SK 3293) from Post Farm, Thornbury. There was a relatively even distribution of the anterior to posterior and posterior to anterior directions

associated with the cut(s) and chop trauma in the individuals in the sub-group, although in two cases the direction could not be determined (the unsexed subadult, SK 705, from Ashchurch Railway Bridge, and the adult male, SK 3293, from Post Farm, Thornbury). The three adult females from Horcott Quarry (SK 256, SK 306, and SK 392) yielded evidence for peri-mortem chop marks on the cervical vertebra in the anterior to posterior direction. All three had additional trauma to the mandible, possibly due to secondary swings during the decapitation process rather than fragmentation activity associated with corpse mutilation. One adult female individual, SK 11182, from the Brightwell-cum-Sotwell site exhibited evidence for one peri-mortem cut (1.15cm length x 0.11cm wide x 0.04cm depth) to the right ulna from the anterior side in a left to right direction and an inferior to superior angle. This individual's right radius was bowed and slightly twisted, possibly indicating some type of healed trauma or bone stress response on the right arm. This evidence may be the result of trauma associated with a defensive injury or possible secondary trauma resulting from the movement of the corpse directly after the decapitation was performed.

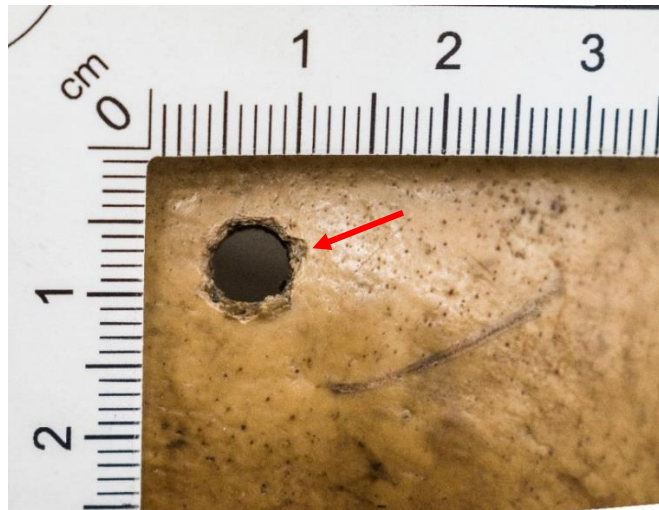
In addition to the observable manipulation of the cranium or skull in the previously described eight decapitation burials, three adult (two males, one female) decapitation burials from three different sites yielded evidence for manipulation of the corpse possibly indicating restraint of limbs or tying of wrists and intentional placement of body in the prone position post-mortem (Table 4.65). All three were single burials, in the extended and prone position, and were all located within a cemetery perimeter and were relatively complete with good preservation. The adult male burial (SK 6550) from the College of Arts, Gloucester and the adult male burial (SK 4063) had their arms flexed slightly behind the pelvis, rather than by their side as was common in prone and supine burials. The burial of SK 4063 was missing the skull, while the burial of SK

6550 had the skull placed between the feet (Cotswold Archaeology 2016). The burial of the adult female, SK 5077, from Bridge's Garage, Tetbury Road, Cirencester was similar to the previous two examples, however, the placement of the arms in this case were flexed to the right side of the grave with the wrists together, and were placed on the anterior of the individual rather than flexed and placed on the posterior side of the individual upon the pelvis (Holbrook et al. 2016:70). While these burials are rare in the decapitation burial population analyzed in this thesis, they provide evidence for the kind of intentional corpse manipulation that has been observed in other regions and may be associated with instances of judicial execution (Tucker 2016:20, 132; Wiseman et al. 2021).

*Table 4.65. Examples of selective manipulation of the corpse post-mortem (SK 6550, SK 4063, and SK 5077) observed in three decapitation burials from three sites in the region.*

<b>Mortuary treatment variables associated with decapitation burials with selective manipulation of the corpse</b>								
<b>Site</b>	<b>SK ID</b>	<b>Sex</b>	<b>Age</b>	<b>Burial Position</b>	<b>Burial Side</b>	<b>Burial Location</b>	<b>Placement of Head</b>	<b>Element(s) Positioned</b>
College of Arts, Gloucester	6550	Male	Adult	Extended	Prone	Single, Cemetery	Between feet	Complete; arms slightly flexed behind pelvis, wrists together
124-130 London Road, Gloucester	4063	Male	Adult	Extended	Prone	Single, Cemetery	Missing	Complete; arms slightly flexed behind pelvis, wrists together
Bridge's Garage, Tetbury Road, Cirencester	5077	Female	Adult	Extended	Prone	Single, Cemetery	Between knees	Complete; arms flexed across the body to the right side, wrists together

In the decapitation burial sub-group identified by the presence of only the skull or skull and vertebrae in the grave described previously in the Burial Position section, four were further distinguished by intentional manipulation of the skull unrelated to the decapitation process. All four individuals were adults, two female and two males, although the remains were recovered from two different sites. The first example was the adult female, SK 4400, from the Gill Mill, South Leigh, Oxfordshire site, an isolated burial in an enclosure ditch with the skull (frontal) the only skeletal element present. Modifications to the frontal bone were observed in the form of a circular perforation, micro-striations and linear fractures, the latter of which show no signs of healing and may have been peri-mortem (Boyle 2011:198-200) (Figure 4.52). Interestingly, Boyle (2011:198) suggests that the beveling associated with the circular perforation was associated with a forceful puncture that resulted in small radiating fractures and striations indicating the blow was driven from inside of the frontal bone to the outside, an act that must have been performed post-mortem. Instruments in the Roman period that could have made such a perforation include nails or a drill intended for surgical or craft working purposes; both are known to have been utilized in other locations in the Roman period (Mays and Steele 1996:155-160; Redfern and Roberts 2005:124-5).



*Figure 4.52. Circular trauma perforation located on the frontal of the adult female SK 4400 from Gill Mill, South Leigh, Oxfordshire (author photograph).*

The linear fractures present on the frontal bone suggest this individual experienced an assault that may have contributed to their death, while the cut marks represented by the micro-striations possibly made by a bladed instrument were applied at death or shortly after. While there is evidence in the Roman period for the use of drilling or trephination to relieve pressure from impacted or infected bone(s), in this case the perforation was performed post-mortem and is not in a location typically associated with such surgical interventions (i.e., parietals or temporal bone, for example) (Boylston 2000:367; Redfern and Roberts 2005:124; Redfern and Roberts 2019:268-9; Roberts 2000a:344-5; Verano 2016). The possible curation of this individual's frontal bone is indicated by the presence of a greasy, oil-like substance due to the application of an abrasive substance or handling, leading to its polished appearance (Boyle 2011; Olsen and Shipman 1988:551) (Figure 4.53). Taylor (2010:25-6), in others, suggests this type of intentional modification of the bone to be associated with the potential suspension of the bone for personal or public viewing (Aldhouse-Green 2001:104; Quinnell 1991:21; Tucker 2012:71; Tucker and Armit 2010; Wilkinson and Barker 1997:368).



*Figure 4.53. Grease polish appearance present on the exterior anterior and superior sides of the frontal bone of the decapitated adult female SK 4400 from Gill Mill, South Leigh, Oxfordshire site (author photograph).*

The second set of examples exhibiting evidence of the intentional modification of cranial remains is from Bridge's Garage, Tetbury Road, Cirencester. The cranial remains of three individuals, two adult males (SK 5188 and SK 5189) and one adult female (SK 5187), were found at the base of an isolated multiple burial cluster located in ditch D/F around 14m away from the western edge of a walled cemetery (Holbrook et al. 2016:81-2). Holbrook (2016:81) states that there was no evidence of an observable cut through the fill of Ditch F, therefore the skull fragments may have been placed on the base of the ditch while it was still open. The adult female, SK 5187 (Burial 1279a), was represented by a frontal bone with evidence for a cut on the right side in an anterior to posterior direction (Figure 4.54).



*Figure 4.54. Trauma cut mark located on the right side of the frontal bone of the decapitated adult female, SK 5187 (Burial 1279a), from Bridge's Garage, Tetbury, Cirencester (author photograph).*

Additional environmental taphonomic evidence in the form of trampling marks near the temporal bone and a red/orange/brown stain between and above the orbits was observed, suggesting some level of exposure to the elements before interment. A left femur associated with this individual recovered from a nearby deposit exhibited evidence of fragmentation in the form of 3-4 per-mortem cuts on the posterior, lateral side and distal end of the element (Figure 4.55). Additional taphonomic evidence in the form of rodent gnawing on the lateral side and distal end, as well as trampling on the anterior side and proximal end and some evidence of weathering on the anterior side of the element suggest some exposure to the elements prior to deposition.





*Figure 4.55. Cut mark and trampling marks on the posterior, lateral side toward the distal end of the left femur of the decapitated adult female, SK 5187 (Burial 1279a), from Bridge's Garage, Tetbury, Cirencester (author photograph).*

The adult male, SK 5188 (Burial 1279b), was represented by a skull vault (occipital, parietal, frontal and left temporal) with features indicating the individual was an older adult. The skeletal remains exhibit cut marks related to the fragmentation of the skull, possibly made post-mortem (Figure 4.56).



*Figure 4.56. Cut marks related to the fragmentation of the skull vault of the decapitated adult male, SK 5188 (Burial 1279b), from Bridge's Garage, Tetbury, Cirencester (view from left side) (author photograph).*

While no pathological conditions were reported for SK 5188, small holes in the endocranial side of the cranial elements may indicate the presence of tuberculosis or syphilis (Ortner 2003:100-1, 279-80). Additional taphonomic evidence in the form of trampling marks on the right parietal posterior side, as well as orange stains in two locations on the left frontal anterior side suggest the skull vault elements were exposed to the elements prior to deposition in the ditch (Figure 4.57).



*Figure 4.57. Minor trampling on the superior parietals and a fracture line radiating upward on the left side of the parietal related to the fragmentation of the skull vault of the decapitated adult male, SK 5188 (Burial 1279b), from Bridge's Garage, Tetbury, Cirencester (view from superior left side) (author photograph).*

The adult male, SK 5189 (Burial 1279c), was represented by a skull vault (frontal and left parietal) exhibiting evidence for peri-mortem sharp force trauma to the left frontal bone in an

anterior to posterior direction, with the sharp edge on the lateral margin of the coronal suture (Figure 4.58).



*Figure 4.58. Trauma cut along the coronal suture on the left side of the frontal related to the fragmentation of the skull vault of the decapitated adult male, SK 5189 (Burial 1279c), from Bridge's Garage, Tetbury, Cirencester (view from anterior) (author photograph).*

It is likely that the decapitation was performed post-mortem based on the anterior position of the damage, and interestingly, this trauma evidence appears consistent with Tucker Type 7, the only example of its kind in the decapitation population examined in this thesis. Additional taphonomic evidence in the form of trampling marks were observed on elements of the skull vault, indicating the remains were exposed to the elements prior to deposition in the ditch (Holbrook et al. 2016:133) (Figure 4.59).



*Figure 4.59. Trauma cut mark on the left side of the frontal of the skull vault of the decapitated adult male, SK 5189 (Burial 1279c), from Bridge's Garage, Tetbury, Cirencester (view from left lateral side) (author photograph).*

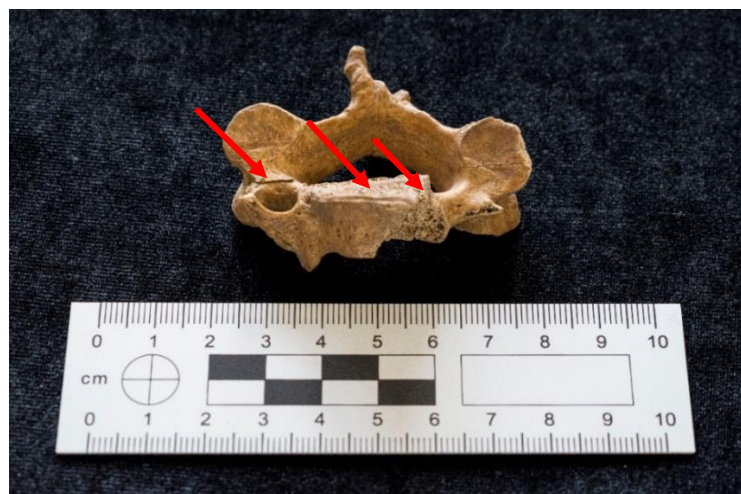
There are some additional examples of the manipulation of the corpse in the decapitation population in the form of fragmentation and potential use/distinguishing of the skeletal elements unrelated to the decapitation process/act. These include the site of Cold Harbor Farm, Crowmarsh in the scoop pit burial of Burial C, which contained a 2-year-old indeterminate sexed individual in the supine extended position. Nearly all the skeletal elements of this individual were present in the grave (left *in situ* post-excavation), however, the top of the skull was removed and placed in an indentation deposit cut into the west side of Burial B located 85cm away (Clark 1996:74). Burial B contained a lead coffin in a wooden outer coffin with an adult male in the supine extended position. The two pieces of skull in Burial B were identified through a yellow stain on the chalk mark, located approximately 3.5cm above the second piece of skull. In the primary deposit of Burial C, the left arm was placed in a position above the head; a piece of flint was recovered 3.5cm from the mandible and is believed to be associated with the infant (Clark 1996:73-5).



A second example of intentional fragmentation may be observed at the cemetery of Bath Gate, Cirencester in the single burial of SK 123, which contained an adult male individual in the supine extended position. In addition to the peri-mortem cut and chop marks identified on the C3 (Figure 4.60), C4 (Figure 4.61) and mandible related to the decapitation process (Figure 4.62), cut marks and scrapes on the distal end and anterior side of the right femur in medial to lateral, lateral to medial, and distal to proximal directions, were observed (Figure 4.63).



*Figure 4.60. Trauma chop mark on the inferior side of the third cervical vertebra of the decapitated adult male, SK 123, from Bath Gate, Cirencester (author photograph).*



*Figure 4.61. Trauma cut marks on the inferior side of the fourth cervical vertebra of the decapitated adult male, SK 123, from Bath Gate, Cirencester (view from anterior) (author photograph).*



*Figure 4.62. Trauma chop and fracture break on the right side of the mandible of the decapitated adult male, SK 123, from Bath Gate, Cirencester (view from posterior) (author photograph).*

While the cuts appear to have a distinct v-shaped cross-section, the scrapes are relatively consistent in length and width, taking the form of broad-linear lines across the bone intersected by thin, shorter lines, with supernumerary examples of cuts over the top of scrape markings (Figure 4.63 and Figure 4.64). The cuts and scrapes appear to have been made post-mortem and given the location suggest the kind of fragmentation typically associated with butchering to remove flesh by disarticulating the remains at the joint locations (Boylston 2000:368; 2010:40-1; Craig et al. 2005:170; Knüsel and Outram 2006:264-5; Lyman 1994a:298-9; Olsen and Shipman 1988:550-1; Symes et al. 2012:361-65).

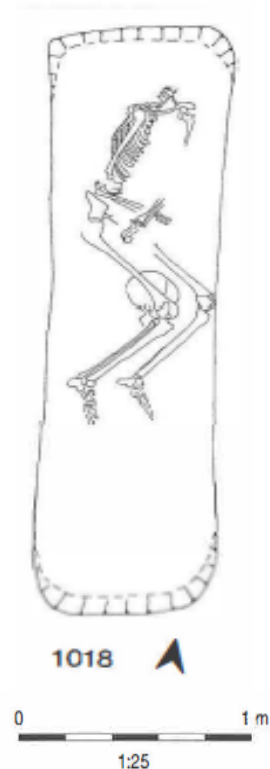


*Figure 4.63. Trauma cut marks on the distal end on the lateral side of the right femur of the decapitated adult male, SK 123, from Bath Gate, Cirencester (view from the anterior/inferior side) (author photograph).*



*Figure 4.64. Trauma cut marks on the distal end of the lateral side of the right femur of the decapitated adult male, SK 123, from Bath Gate, Cirencester (view from the inferior side) (author photograph).*

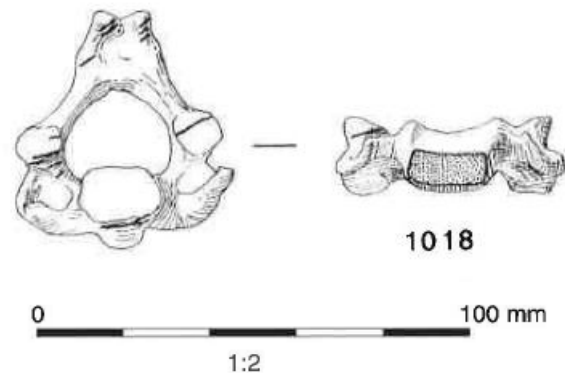
The over-application or over-use of disarticulation efforts directly after decapitation was observed in two decapitation burials at the cemetery from Barrow Hills II, Radley. An instance of this excessive disarticulation was observed in the single burial of a young adult male, SK 1018, who was placed in the grave on his left side with legs in the flexed position, wrists crossed and placed above the left femur, and cranium placed beneath the right knee (Figure 4.65).



*Figure 4.65. Planview map of the grave of the decapitated young adult male, SK 1018, from Barrow Hills, Radley II, Oxfordshire (Chambers and Boyle 2007:46).*

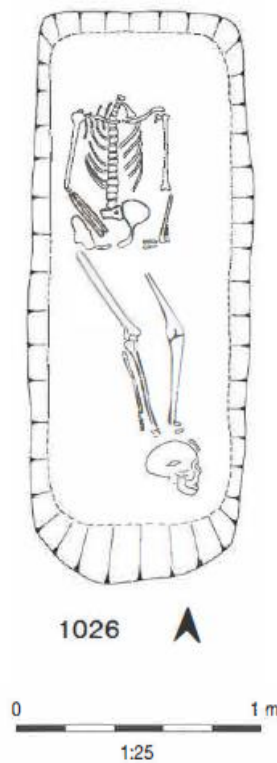
At least twelve cut marks were observed on the second cervical vertebra, mainly delivered from the anterior, angled superior to inferior in a left to right direction, indicating the individual possibly experienced a slit throat. Additional cuts were observed on the inferior facet of the second cervical vertebra, and the inferior spinous process from the anterior side, which further indicates those cuts were made when the vertebrae were separated. Two incised cuts to the anterior of the right superior facet of the third cervical vertebrae angled superior to inferior in a left to right direction were observed, typically an indication of severing or manipulating the neck post-mortem (Figure 4.66) (Harman 2007:42; Tucker 2012).





*Figure 4.66. Two incised cuts to the anterior of the right superior facet of the third cervical vertebrae angled in a superior to inferior direction of the decapitated young adult male, SK 1018, from Barrow Hills, Radley II, Oxfordshire (Chambers and Boyle 2007:44).*

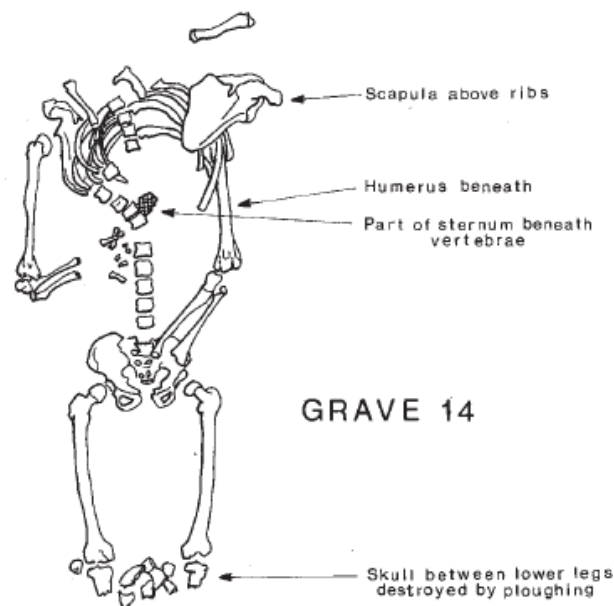
The second example of excessive disarticulation efforts above and beyond what was required for decapitation was observed in the single burial of an adult female, SK 1026, who was placed in a supine position with legs slightly flexed, left arm extended, and right arm flexed at the elbow with the hand on the abdomen; the skull was placed to the left of the body at the feet (Figure 4.67).



*Figure 4.67. Planview map of the grave of the decapitated adult female, SK 1026, from Barrow Hills, Radley II, Oxfordshire (Chambers and Boyle 2007:47).*

At least seven cut marks were observed on the superior body of the fifth cervical vertebra, from the anterior, angled superior to inferior from left to right, indicating the individual had experienced a slit throat similar to SK 1018. Two incised cuts were observed on the anterior and lateral side of the left superior facet of the sixth cervical vertebra, delivered from the anterior, angled superior to inferior from left to right. Three additional cuts were observed on the same vertebra on the anterior and lateral right side of the neural arch, delivered also from the anterior, angled superior to inferior from right to direction, which indicates additional cuts were made to sever or manipulate the neck post-mortem (Harman 2007:42; Tucker 2012). The over-application of cuts intended to manipulate the corpse post-mortem with the intention to disarticulate the cranium from the corpse is of note, because most of the decapitated individuals analyzed in the study region exhibited only 2-4 cuts on the cervical vertebrae.

While examples of potential intentional corpse mutilation and curation of skeletal remains have been described above, other forms of post-mortem engagement with the corpse during advanced stages of decomposition were also observed in the decapitation population. For example, in the decapitation burial of an adult male, Grave 14 (Pp16F1), in the Frocester Court cemetery most of the skeletal elements were present except the feet and distal half of the tibia due to truncation from ploughing. This individual was part of a burial group that included the non-decapitation burials Grave 15, 16 and 17. While the pelvis and legs were in anatomical position, the skeletal elements associated with the trunk appear disordered in a way that was unlikely due to taphonomic or environmental factors. For example, although the skeletal remains were found in a supine position, the left scapula was lying prone on top of the left ribs and humerus, the left clavicle was found in the upper left corner of the grave, the thoracic vertebrae appeared to be pushed to the right, and part of the sternum was found beneath those vertebrae (Figure 4.68).



*Figure 4.68. Drawing of the burial position of the decapitated adult male, Grave 14, in situ from the Frocester Court, Gloucestershire site (Price 2000:214).*

Jumbled skeletal elements were also noted in the non-decapitation burial of Frocester Court Grave 8, which Price (2000:212-4) suggests may have been buried in a bag (Figure 4.69).



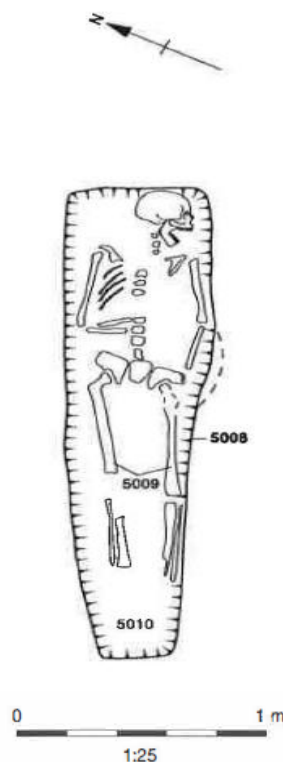
*Figure 4.69. Field photograph of the burial position of the non-decapitated adult female in Frocester Court, Gloucestershire Grave 8 (Price 2000:212).*

Interestingly, an articulated neonatal lamb forelimb was found beneath the right elbow of the decapitated individual in Frocester Court Grave 14, while a sheep bone was recovered below the left femur of the non-decapitated individual in Grave 9, which indicates that the fragmentation of animals and the inclusion of portions of their bodies in these burials was not limited to decapitated individuals at this site (Price 2000:213).

Additional examples of the potential binding of the corpse post-mortem prior to deposition in a grave may have occurred in the non-decapitation burial, SK 1089, from the cemetery site at 120-122 London Road, Gloucester. This individual was an adult male who was 50-75% complete but whose skeletal elements were found in an intentionally packed disarticulated cluster in the grave as though the individual had been bound, placed in a bag, or

placed in the grave in an organic container that compressed the appendicular elements close to the ribs on both sides (Simmonds et al. 2008:94). This is the only example of this practice at this site, but it seems to have been a recognized funerary treatment applied to both decapitated and non-decapitated individuals at other sites in the region (Simmonds et al. 2008:24).

An example of post-mortem engagement with the corpse that shows a lack of care may be observed in the burial of a non-decapitated young adult male (18-25 years old), SK 5009 (Grave 5008), at the cemetery of Kempsford Quarry, Gloucestershire. The skeleton was found in an extended prone position, with the left arm flexed tightly beneath the torso and the right arm extended next to the body, suggesting to Booth and Stansbie (2007:20-2) that the individual was laid in a supine position in the north end of the grave before being rolled face down into the grave (Figure 4.70).



*Figure 4.70. Planview map of the grave of the non-decapitated adult male, SK 5009 (Grave 2008), from Kempsford Quarry, Gloucestershire (Booth and Stansbie 2007:24).*

Of note with this individual was the complete absence of the hands and feet, which may be due to poor preservation but may also be due to selective element removal pre- or post-mortem (no notation was provided by the authors regarding the osteological evidence). This individual was buried in a group with Grave 4619 and Grave 4917 (decapitation burial), and Grave 5012 (the hands and feet of this individual were also absent) (Witkin 2007:35).

#### 4.5.9. Coffins

Most of the burials analyzed did not yield evidence for the presence of a coffin (85.3%) irrespective of whether they were decapitation or non-decapitation burials. Coffins were present in only 16% of decapitation burials and 15% of non-decapitation burials (Table 4.66).

*Table 4.66. The total number of burials with coffins in the burial population (n=1546).*

<b>Inhumation burials and coffins by type of burial</b>			
<b>Burial Status</b>	<b>Present</b>	<b>Absent</b>	<b>Total</b>
Non-decapitation	207 (15%)	1217 (85%)	1424 (92.1%)
Decapitation	20 (16%)	102 (84%)	122 (7.9%)
<b>Total</b>	227 (14.7%)	1319 (85.3%)	1546 (100%)

In the decapitation burials with a coffin present (n=20), most were constructed of wood (85%), followed by gypsum/stone (10%) and a single example of a lead coffin (5%). Within this burial sub-set, most of those with a coffin were male (70%), followed by unsexed individuals (25%), and only one female burial (5%) (Table 4.67).

*Table 4.67. The sex distribution of the decapitation burials with coffins (n=20) by coffin type.*

<b>Sex distribution of decapitation burials with a coffin present by coffin type</b>				
<b>Type</b>	<b>Male</b>	<b>Female</b>	<b>Unsexed</b>	<b>Total</b>
Wood	13	1	3	17 (85%)
Gypsum/Stone	0	0	2	2 (10%)
Lead	1	0	0	1 (5%)
<b>Total</b>	14 (70%)	1 (5%)	5 (25%)	20 (100%)

When the entire decapitation burial population is analyzed, however, it is clear that most of the burial population was not interred in a coffin (56.7%), and the percentage of the wood coffin type represented decreases to 13.9%. When the absence of a coffin is assessed by sex category, the unsexed burials (66.6%) had the highest percentage (this indicates a preservation bias due to the absence of the coffin), followed by female burials (58.5%) and male burials (52.5%). The significance of the presence or absence of a coffin as a mortuary treatment variable and its association with each age and sex category is limited due to the number of unknown/unrecorded cases (27%) in this burial sub-set (Table 4.68).

*Table 4.68. The sex distribution of the decapitation burials (n=122) with coffins by coffin type.*

<b>Sex distribution of decapitation burials by coffin type</b>						
<b>Sex Category</b>	<b>None</b>	<b>Unknown</b>	<b>Wood</b>	<b>Gypsum-Stone</b>	<b>Lead</b>	<b>Total</b>
Male	41	23	13	0	1	78 (63.9%)
Unsexed	18	4	3	2	0	27 (22.1%)
Female	10	6	1	0	0	17 (13.9%)
<b>Total</b>	69 (56.7%)	33 (27%)	17 (13.9%)	2 (1.6%)	1 (0.8%)	122 (100%)

In the non-decapitation burials with a coffin present (n=207), most were constructed of wood (79.2%), followed by gypsum/stone (18.8%) and four of lead (1.9%). In this burial sub-set, adult males were most likely to have a coffin (62.3%), followed by unsexed individuals (24.1%), and least represented were adult females (13.5%) (Table 4.69).

*Table 4.69. The sex distribution of the non-decapitation burials with coffins (n=207) by coffin type.*

<b>Sex distribution of non-decapitation burials with coffins by coffin type</b>				
<b>Sex Category</b>	<b>Wood</b>	<b>Gypsum-Stone</b>	<b>Lead</b>	<b>Total</b>
Male	97	30	2	129 (62.3%)
Unsexed	39	9	2	50 (24.1%)
Female	28	0	0	28 (13.5%)
<b>Total</b>	164 (79.2%)	39 (18.8%)	4 (1.9%)	207 (100%)

When the entire non-decapitation burial population is analyzed, however, it becomes clear that most of the burial population did not have a coffin (73.5%), and the percentage of the wood coffin in this burial population decreases to 11.5%. When the absence of a coffin is assessed by sex category, the unsexed burials (78.7%) are most likely to be buried without a coffin (likely partly due to preservation bias), followed by adult female burials (74.1%) and adult male burials (70.8%). As in the decapitation burial population, the difficulty in assessing the significance of the presence or absence of the coffin as a variable of the mortuary treatment and its association with each age and sex category in the non-decapitation population is limited due to the number of unknown/unrecorded cases (12%) in this burial sub-set (Table 4.70).

*Table 4.70. The sex distribution of the non-decapitation burials (n=1424) with coffins by coffin type.*

<b>Sex distribution of non-decapitation burials by coffin type</b>						
<b>Sex Category</b>	<b>None</b>	<b>Unknown</b>	<b>Wood</b>	<b>Gypsum-Stone</b>	<b>Lead</b>	<b>Total</b>
Male	611	123	97	30	2	863 (60.6%)
Unsexed	323	37	39	9	2	410 (28.8%)
Female	112	11	28	0	0	151 (10.6%)
<b>Total</b>	1046 (73.5%)	171 (12%)	164 (11.5%)	39 (2.7%)	4 (0.3%)	1424 (100%)

#### **4.5.10. Grave Orientation**

In the decapitation burial population 27.9% of the burials lacked recorded orientation details (Table 4.71). Most of the burials for which orientation was recorded appear to have been oriented NE-SW (22.1%), N-S (19.7%), or NW-SE (9.8%). There are fewer burials associated with the cardinal south/southeast/southwest orientations, and the cardinal west or east orientations, with just one example of an adult male burial oriented S-N and just one example of an adult female burial and unsexed burial oriented W-E. The sex distribution of the burials exhibits an even distribution across the orientation types, although most of adult male burials (44%) had no recorded orientation, which makes it difficult to draw conclusions about this



mortuary treatment variable and its significance in this decapitation burial sub-set. In the adult female burials, the majority (58.3%) appear to be associated with the cardinal north orientations (N-S; NE-SW; NW-SE), and a similar pattern appeared in the unsexed burials (59.2%).

*Table 4.71. The sex distribution of the decapitation burials (n=122) according to grave orientation where those data were available.*

<b>Sex distribution of decapitation burials by grave orientation</b>				
<b>Type</b>	<b>Male</b>	<b>Female</b>	<b>Unsexed</b>	<b>Total</b>
Unknown	26	5	3	34 (27.9%)
NE-SW	14	12	1	27 (22.1%)
N-S	7	5	12	24 (19.7%)
NW-SE	5	4	3	12 (9.8%)
SE-NW	2	4	2	8 (6.6%)
SW-NE	1	3	4	8 (6.6%)
E-W	3	2	1	6 (4.9%)
W-E	0	1	1	2 (1.6%)
S-N	1	0	0	1 (0.8%)
<b>Total</b>	<b>59 (48.4%)</b>	<b>36 (29.5%)</b>	<b>27 (22.1%)</b>	<b>122 (100%)</b>

Unfortunately, 50% of the non-decapitation burials have no orientation details (Table 4.72). Most of the burials with recorded orientation appear to be in the N-S (13.4%), NE-SW (11.6%), or NW-SE (9.5%) categories. There are fewer burials associated with the cardinal south/southeast/southwest orientations, and the cardinal west or east orientations, a pattern that was also observed in the decapitation burials. While the sex distribution in the burials is fairly even across the orientation types, there are more male burials associated with the cardinal north orientation types (N-S, NE-SW, and NW-SE) compared to the female and unsexed burials. As observed in the decapitation burial sub-set, the number of burials associated with the unknown orientation type makes it difficult to draw conclusions about the significance of sex in relation to this mortuary treatment variable. There was a slightly higher number of burials associated with

the S-N orientation type in the non-decapitation burials compared to the decapitation burials, perhaps suggesting this orientation type was avoided in the decapitation burial sub-set.

*Table 4.72. The sex distribution of the non-decapitation burials (n=1424) according to grave orientation where those data were available.*

<b>Sex distribution of non-decapitation burials by grave orientation</b>				
<b>Orientation</b>	<b>Male</b>	<b>Female</b>	<b>Unsexed</b>	<b>Total</b>
Unknown	432	79	210	712 (50%)
N-S	126	21	44	191 (13.4%)
NE-SW	112	12	41	165 (11.6%)
NW-SE	91	9	36	136 (9.5%)
E-W	29	6	31	66 (4.6%)
SW-NE	30	8	23	61 (4.9%)
S-N	23	10	5	38 (2.7%)
W-E	15	4	14	35 (2.5%)
SE-NW	12	2	6	20 (1.4%)
<b>Total</b>	870 (60.8%)	151 (10.5%)	410 (28.6%)	1424 (100%)

#### **4.5.11. Grave Goods**

In the burial population, most of the burials (65.9%) yielded no evidence for grave good inclusions. Grave goods were present in 43% of the decapitation burial population (n=52) and 33% of the non-decapitation population (n=475) (Table 4.73).

*Table 4.73. Total number of burials with grave goods present or absent in the burial population (n=1546).*

<b>Inhumation burials with grave goods present or absent by burial status</b>			
<b>Burial Status</b>	<b>Present</b>	<b>Absent</b>	<b>Total</b>
Non-decapitation	475 (33%)	949 (67%)	1424 (92.1%)
Decapitation	52 (43%)	70 (47%)	122 (7.9%)
<b>Total</b>	527 (34.1%)	1019 (65.9%)	1546 (100%)

#### **4.5.11a. Grave Good Class**

In the burial population, most of the grave goods (by class) recorded (n=13367) were associated with the non-decapitation burials (93.8%) compared to the decapitation burials (6.2%) (Table 4.74).

*Table 4.74. Total number of grave goods by class (n=13367) present in the inhumation burials by burial status.*

<b>Grave goods (class) present in the inhumation burials</b>		
<b>Burial Status</b>	<b>Total Number</b>	<b>Total Percentage</b>
Non-decapitation	12541	93.8%
Decapitation	826	6.2%
<b>Total</b>	13367	100%

In the decapitation burial population, most of the grave goods recorded by class (n=830) were items classified as dress elements (48.7%), such as hobnails associated with footwear, followed by pottery sherds (20.3%), and tools (20.1%) (Figure 4.71). The presence of tiles and coin types explains the representation of the currency class (2.9%) and the Other class (3.5%), and the combination of singular cases of the bead, comb, anklet and bracelets (3) explain the representation of most of the personal ornament class (2.7%). The few examples of pins, especially made of bone, recorded were included in the personal ornament class.

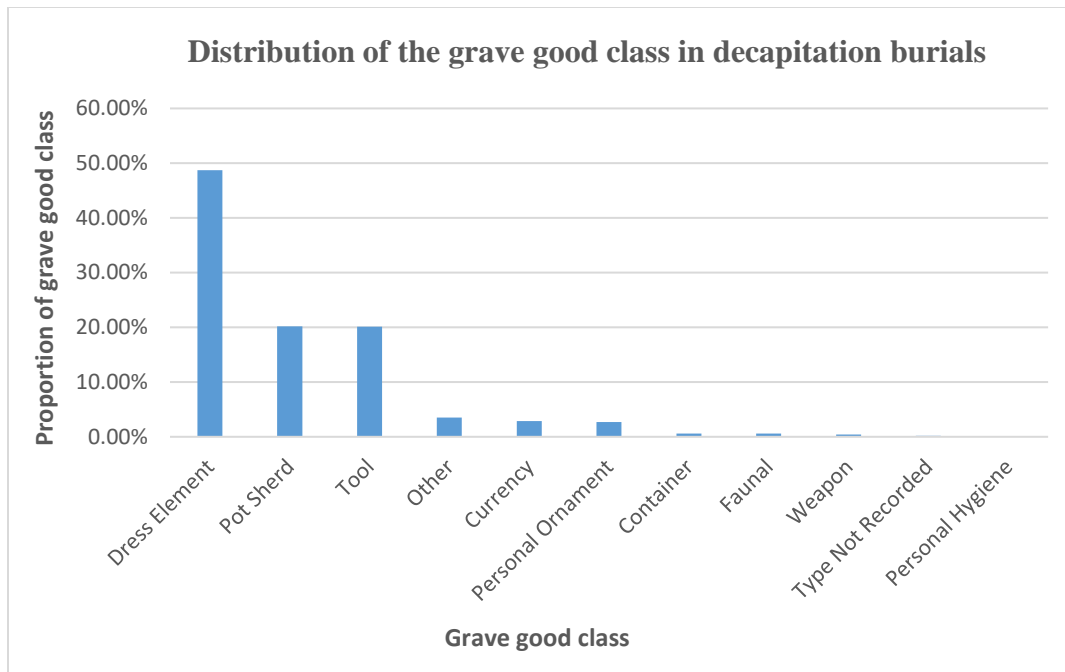


Figure 4.71. The proportion of grave goods by class (n=830) in the decapitation burials.

The sex distribution shows most of the grave goods by class (n=830) were associated with female burials (55.4%), followed by male burials (33.9%) and unsexed burials (10.7%) (Figure 4.72). In the female burials, the dress elements (70%), personal ornaments (45.4%) and tools (46.9%) were more common compared to the male and unsexed burials. In the male burials, coins (62.5%) and Other (72.4%) types were more common, as well as three weapons, and single examples of a personal hygiene item, and small number of faunal grave goods. The container (40%) and pottery sherd (42.2%) types were relatively evenly distributed between the female and male decapitation burials. The distribution of those grave goods is reflective of patterns observed in other regions of Roman Britain (Crerar 2012:60; Philpott 1991; Smith et al. 2018:263; Tucker 2012:82-3), as well as locally in sites throughout the Cotswolds (Moore 2009b:156, 160, 175-6; 2010:111-12). In the unsexed burial population, the tool (41.5%) and pottery sherd (28%) types were most common, although personal ornaments (45.4%) were higher in this group.

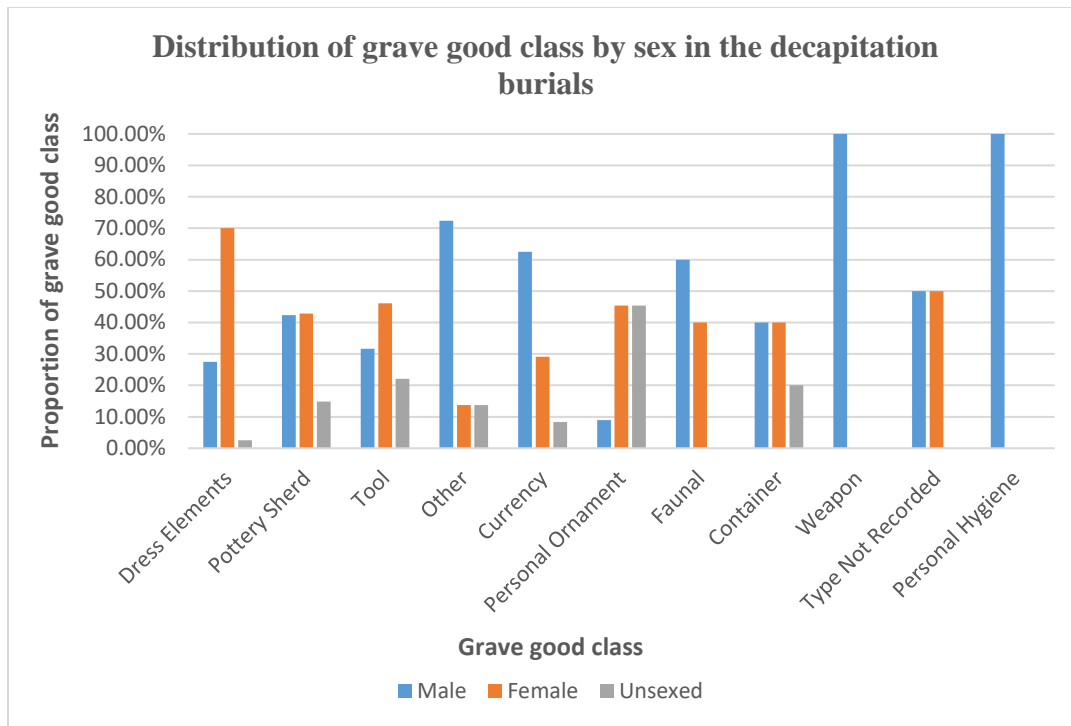
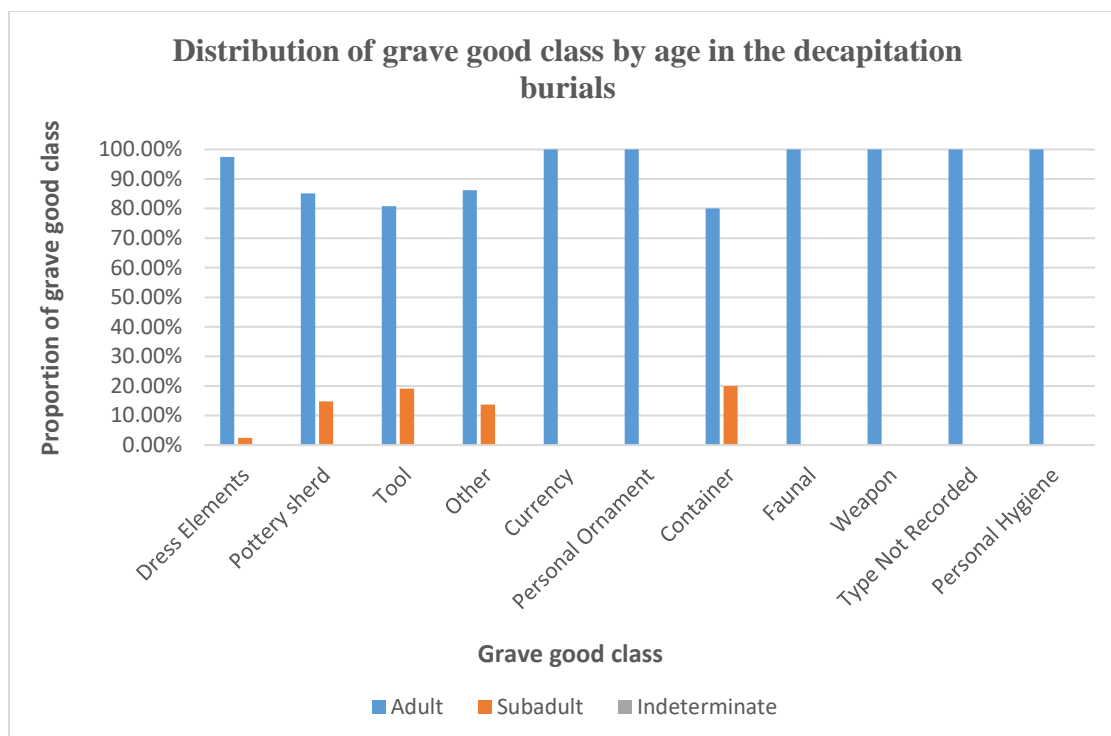


Figure 4.72. The proportion of grave good class (n=830) by sex category in the decapitation burial population.

In the decapitation burial population, most of the grave goods by class (n=830) were associated with adult burials (91.3%), followed by subadult burials (8.7%) and indeterminate aged burials (0%) (Figure 4.73). The currency (100%), dress elements (97.5%), pottery sherds (85.1%) and tools (80.8%) types were more common in adult as compared to the subadult and indeterminate aged burials. In the subadult burials, the tools (44.4%), pottery sherds (34.7%) and dress elements (13.8%) are most common type categories. There were no grave good class details associated with the indeterminate aged burials in this sample.



*Figure 4.73. The proportion of grave goods class (n=830) by age category in the decapitation burial population.*

In the non-decapitation burial population, most of the grave goods by class (n=12520) were dress elements (35.2%), such as hobnails associated with footwear, followed by pottery sherds (25.4%), and tools (20.5%) (Figure 4.74). The presence of beads, rings, bracelets, combs and pins explains the numbers in the personal ornament class (5.1%) in the non-decapitation burial population compared to the decapitation burials. There were more faunal grave goods (2.2%) and containers (6.1%) in the non-decapitation than in the decapitation burial population, although a decrease in dress elements was observed as compared to the decapitation population. This may be due to the greater prevalence of hobnailed footwear in military as compared to civilian dress and is consistent with the idea that a sub-set of the decapitation burials were individuals subject to military rules, including punitive measures like decapitation. The significance of the variations in grave good class between the burial populations is difficult to

determine given the large number of burials in the Type Not Recorded category in the non-decapitation population (2.5%). However, it appears that overall, the pot sherd, dress and tool classes were the main artifact groups in the burial population as a whole while the currency, personal ornament, and faunal classes varied depending on the mortuary treatment.

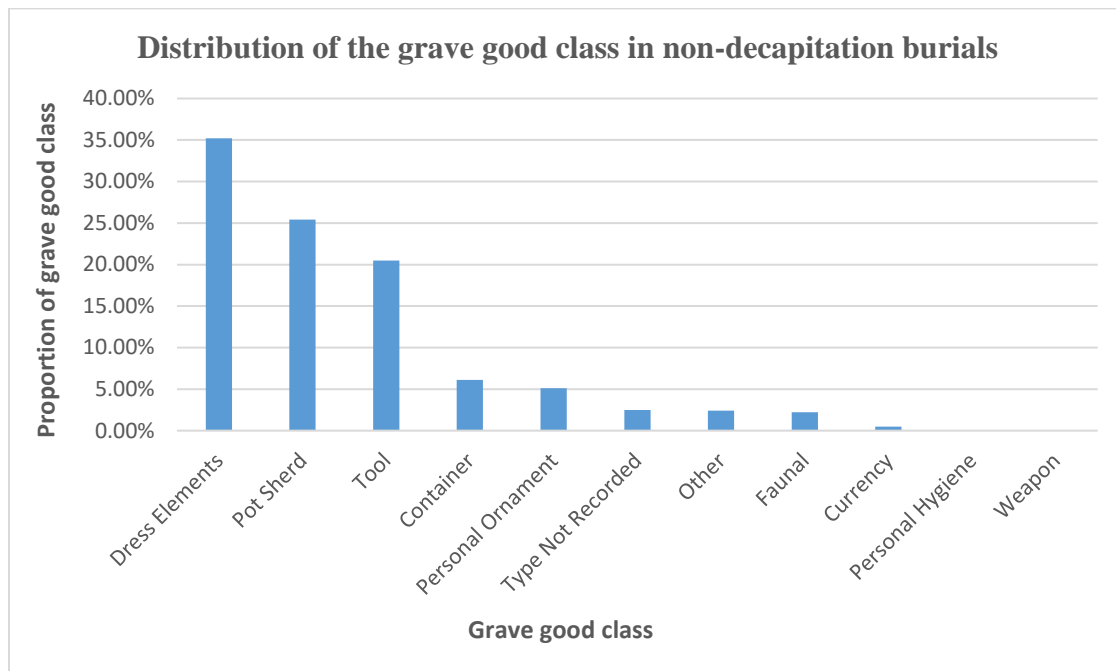


Figure 4.74. The proportion of grave goods by class (n=12520) in the non-decapitation burial population.

Most of the grave goods by class (n=12520) in the non-decapitation sample were found in male burials (41.3%), followed by female burials (30.6%) and unsexed burials (28.1%) (Figure 4.75). In the male burials, the faunal (52.1%), dress elements (46.4%), tools (42.3%), pottery sherds (46%), currency (39.3%), the Other (37.9%), and weapons (knife, spearhead and rod) types are more common compared to the female and unsexed burials. In the female burials, dress elements (30.4%) and pottery sherds (28.4%) are the most common grave good types. In the unsexed burial population, dress elements (33.8%) and pottery sherds (17.8%) were most common, although the personal ornament (64.2%) and container (48.8%) were the most concentrated grave goods compared to the others within those type categories. Additional grave

goods in the Type Not Recorded group (47%) were concentrated in the unsexed burial sub-set, which makes it difficult to define the significance of this grave good class in association with the specific sex categories. The unsexed burials include subadults, which in Roman and IA Europe tended to be buried with more objects that could be considered amulets. This might partly explain the diversity of the grave goods in this group of burials.



Figure 4.75. The proportion of grave goods by class (n=12520) by sex category in the non-decapitation burial population.

In the non-decapitation burial population, most of the grave goods by class (n=12520) were found in adult burials (80.7%), followed by subadult burials (19.1%) and indeterminate aged burials (0.2%) (Figure 4.76). In the adult burials, the dress elements (36.1%), pottery sherds (25.6%) and tools (21.9%) were most common, and every type of class of grave good was concentrated in the adult burials except the personal ornament class. In the subadult burials, the elements (31.5%), pottery sherds (24.7%) and personal ornaments (16.3%) were most common, while the personal ornament type (60.9%) appears to be the most concentrated grave good



compared to the others within those type categories. In the indeterminate aged burials there were few cases where grave goods were present (0.2%), with the tool (47.8%) and container (17.3%) types the most commonly represented. No examples of personal ornaments, dress elements, personal hygiene or Type Not Recorded grave goods were found in the indeterminate aged burials in this sample.

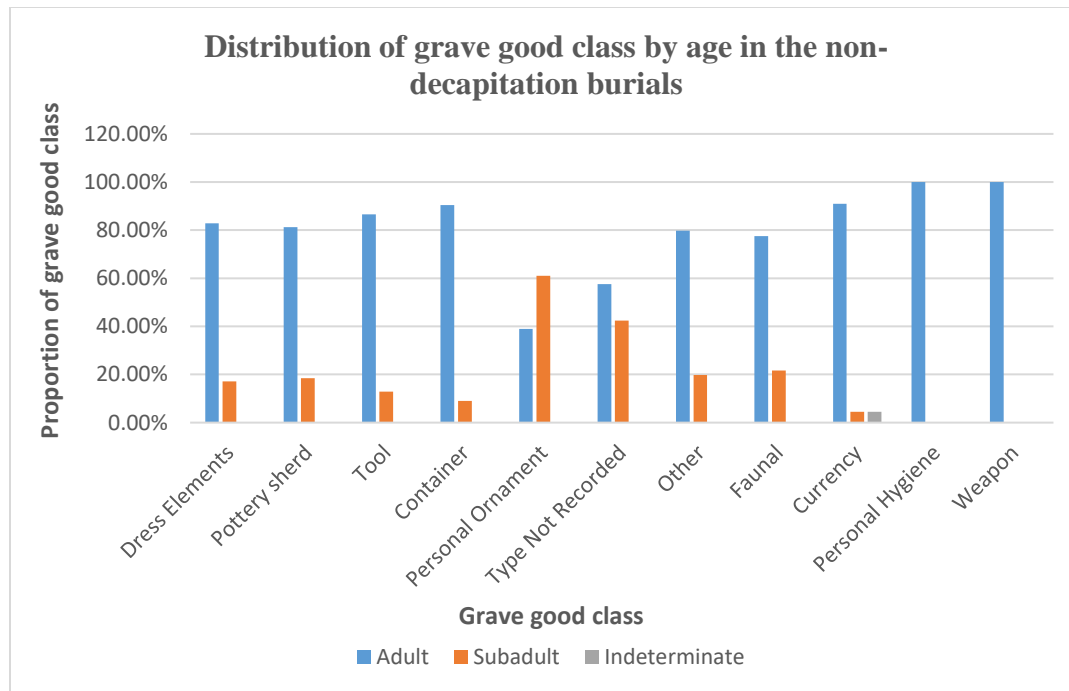


Figure 4.76. The proportion of grave good class (n=12520) by age category in the non-decapitation burial population.

#### 4.5.11b. Grave Good Type

In the decapitation burial population, most of the grave good types recorded (n=652) were hobnails from footwear (64.1%) and pottery (26.4%), followed by a few examples of coins (4.4%) or tiles (2.4%); the remaining object types appeared mainly in singular cases (Figure 4.77). It is worth noting that hobnails may be overrepresented due to their numbers, which in some cases may have been counted individually rather than as a group. In addition, because shoes come in pairs they may have been counted as two items in some reports.

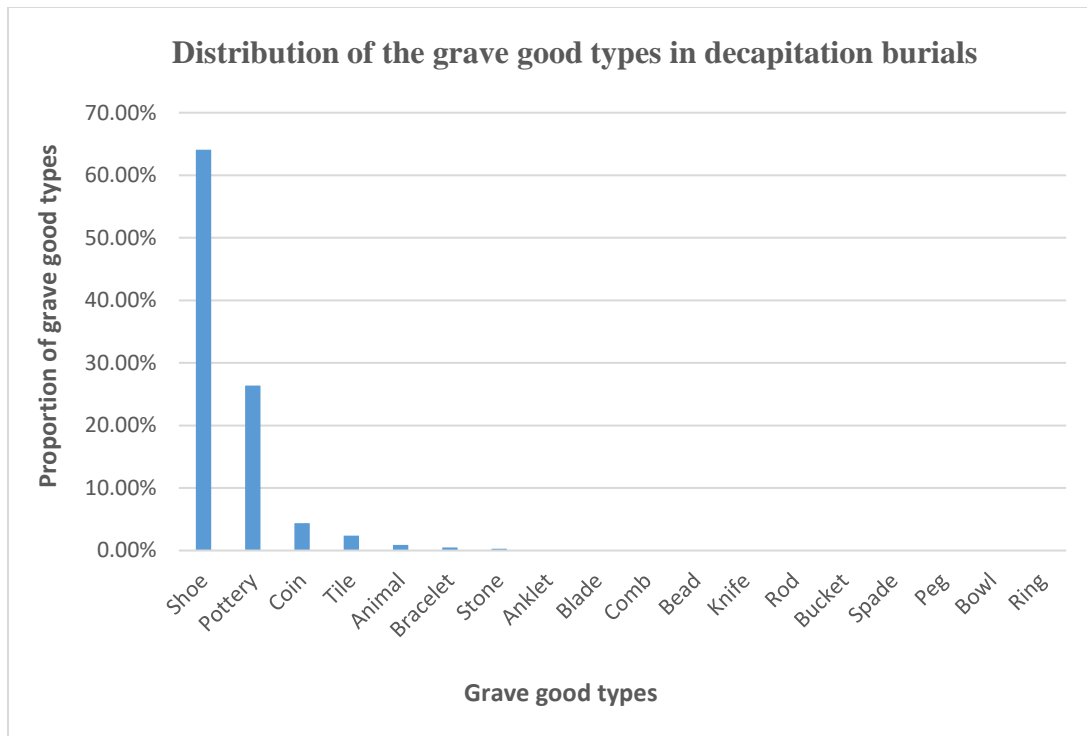


Figure 4.77. The proportion of grave goods by type (n=652) in the decapitation burials.

In the non-decapitation burial population, most of the grave good types recorded (n=9332) were hobnails associated with footwear (47.2%) and pottery (40.7%), followed by fewer examples of beads (4.3%) and animal offerings (3.1%), while the remaining types appeared mainly in singular cases or less than two dozen cases (Figure 4.78). The non-decapitation burial population had a higher percentage of burials with pottery and fewer with hobnails associated with footwear compared to the decapitation burial population. In addition, the non-decapitation burial population contained examples of rings, pegs, and a higher percentage of bracelets (1.9%), beads (4.3%) and combs (0.04%) compared to the decapitation burial population. However, the decapitation burial population appears to have a higher percentage of tiles (tegulae were used to cover Roman burials) and coins present compared to the non-decapitation burial population.

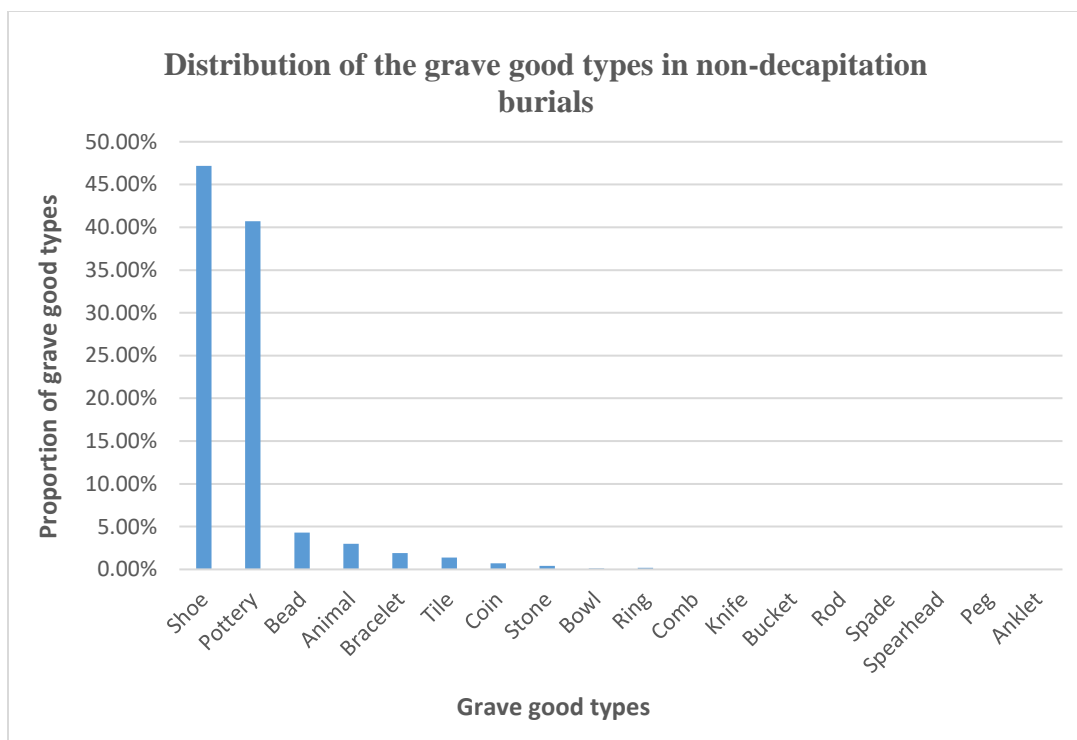


Figure 4.78. The proportion of grave goods by type (n=9332) in the non-decapitation burials.

In the decapitation burial population, most of the grave goods by type (n=652) were found in female burials (57.9%), followed by male burials (34.7%) and unsexed burials (7.4%) (Figure 4.79). In the female burials, the shoe/hobnail (76.3%) and pottery (19.4%) were most common, and the bracelet (100%) type and singular example of a bead and anklet are most concentrated compared to the others in this sex category. In the male burials, the shoe/hobnail (49.3%) and pottery (32.4%) were most common while the coin (68.9%) type is most concentrated compared to the others in this sex category. The animal offering grave goods were equally distributed in the male and female burials (3 in each). In the unsexed burials, pottery (54.1%) and shoe/hobnail (41.6%) were most common, with the only other type present in the burial sub-set represented by two coins (4.1%).

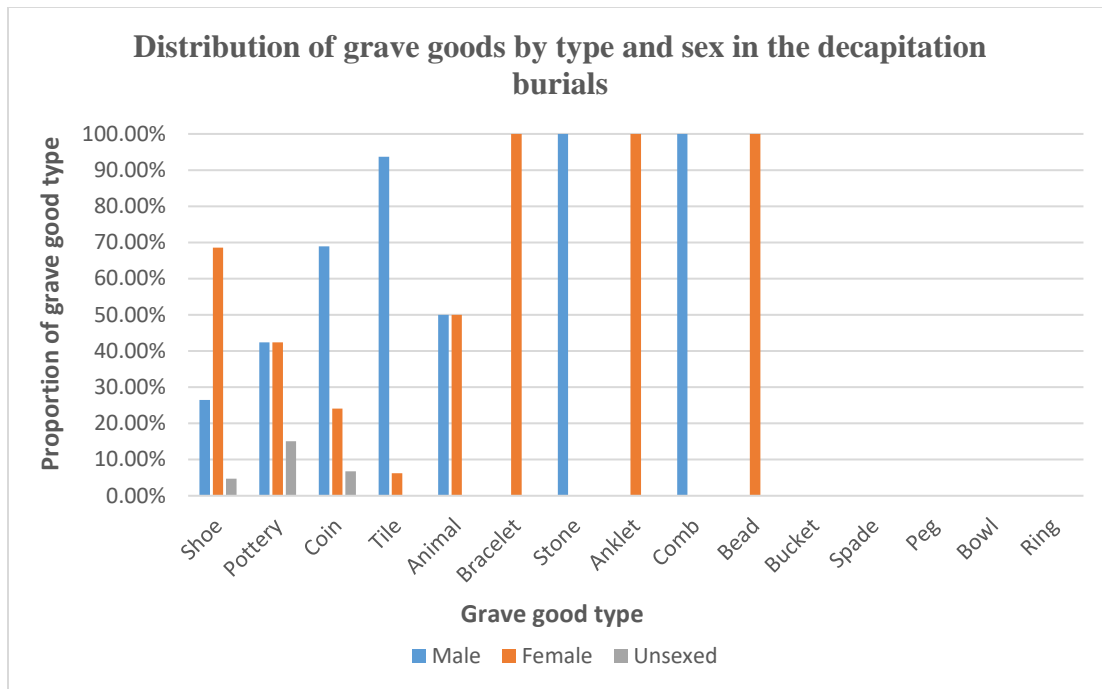


Figure 4.79. The proportion of grave goods by type (n=652) and sex category in the decapitation burial population.

In the non-decapitation burial population, most of the grave goods by type (n=9328) were associated with male burials (41.7%), followed by female burials (29.5%) and unsexed burials (28.7%) (Figure 4.80). In the male burials, the shoe/hobnails (52.5%) and pottery (40.8%) were the most common, while the animal offering (53.3%), coin (38.4%), and bowl (46.1%) were most concentrated compared to the other grave goods in those type categories. In the female burials, the pottery (44.6%) and shoe/hobnail (42.4%) were the most common, while the bracelet (80.3%), stone (45.4%), and tile (44.8%) were the most concentrated compared to the other objects in those type categories. In the unsexed burial population, the shoe/hobnail (44.2%) and pottery (36.5%) were most common, while the bead (89.8%) and ring (52.9%) were the most concentrated grave goods compared to the others in those type categories.

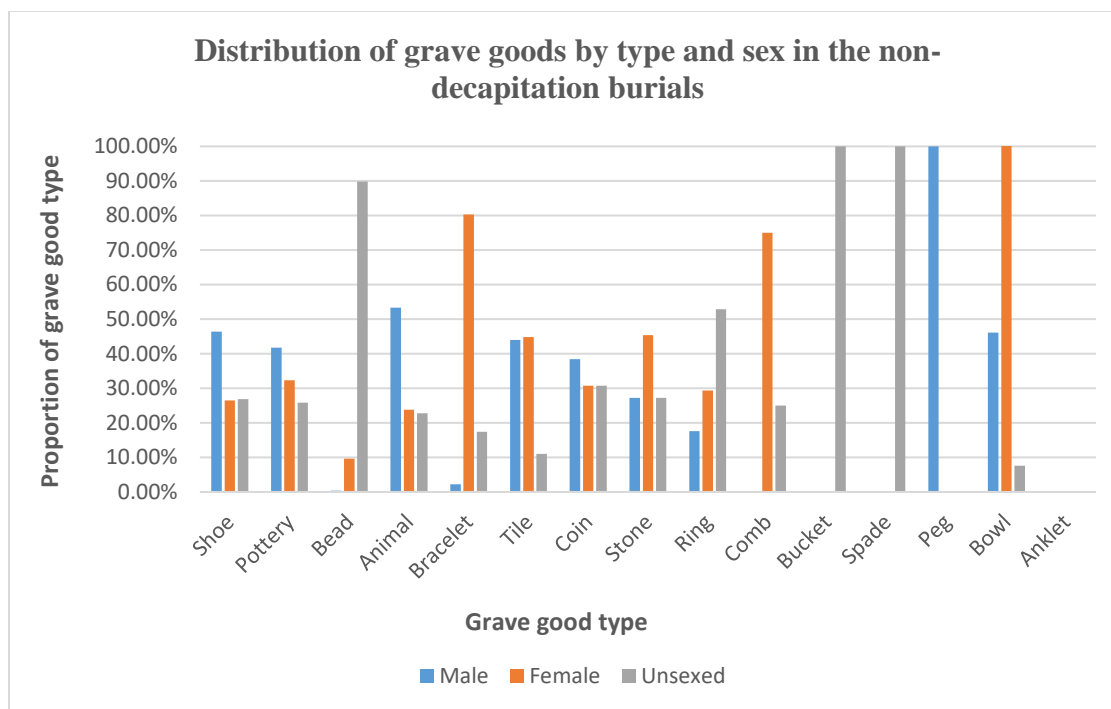


Figure 4.80. The proportion of grave goods by type ( $n=9328$ ) and sex category in the non-decapitation burial population.

In the decapitation burial population, most of the grave goods by type ( $n=652$ ) were associated with adult burials (94.5%), followed by subadult burials (5.5%) and indeterminate aged burials (0%) (Figure 4.81). In the adult burials, the shoe/hobnail (66.2%), pottery sherd (23.7%) and coin (4.7%) types were most common, while the pottery (72.2%) and shoe/hobnails (27.7%) were the only types present in the subadult burials. No grave goods were present in the indeterminate aged burials in this sample.

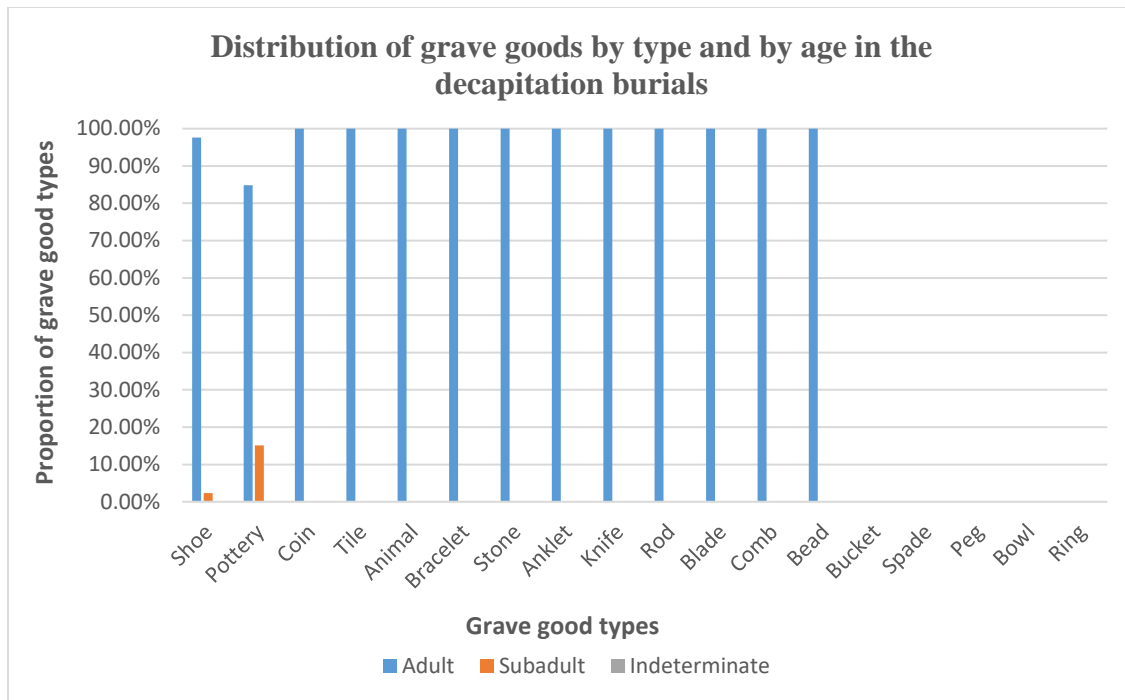


Figure 4.81. The proportion of grave goods by type (n=652) and age category in the decapitation burial population.

In the non-decapitation burial population, most of the grave goods by type (n=9332) were associated with adult burials (79.7%), followed by subadult burials (20.1%) and indeterminate aged burials (0.1%) (Figure 4.82). In the adult burials, the shoe/hobnail (48.9%) and pottery (42.2%) were the most common, and every type of grave good was concentrated in the adult burials except beads (personal ornament class). The use of beads as amulets in IA Europe both before and after the Roman conquest is well attested (Hamlin 2007; Jordan 2009; Moore 2009b). Subadults were at a greater risk of dying prematurely than mature adults (apart from child-bearing women, who also tend to be buried with above-average quantities of beads) and the use of prophylactic objects like beads to protect a vulnerable group in the population is consistent with the pattern identified by this analysis. In the subadult burials, the shoe/hobnail (40.1%) and pottery (34.3%) were the most common artifact types, while the bead (88.6%) and ring (35.2%) were the most concentrated grave goods compared to the others within those type categories.

Few indeterminate aged burials contained grave goods; pottery (40%) and coins (30%) were the most common types represented. No examples of tiles, bracelets, anklets, combs, stone, buckets, spades, pegs, shoe/hobnails, rings or beads were present in the indeterminate aged burials.

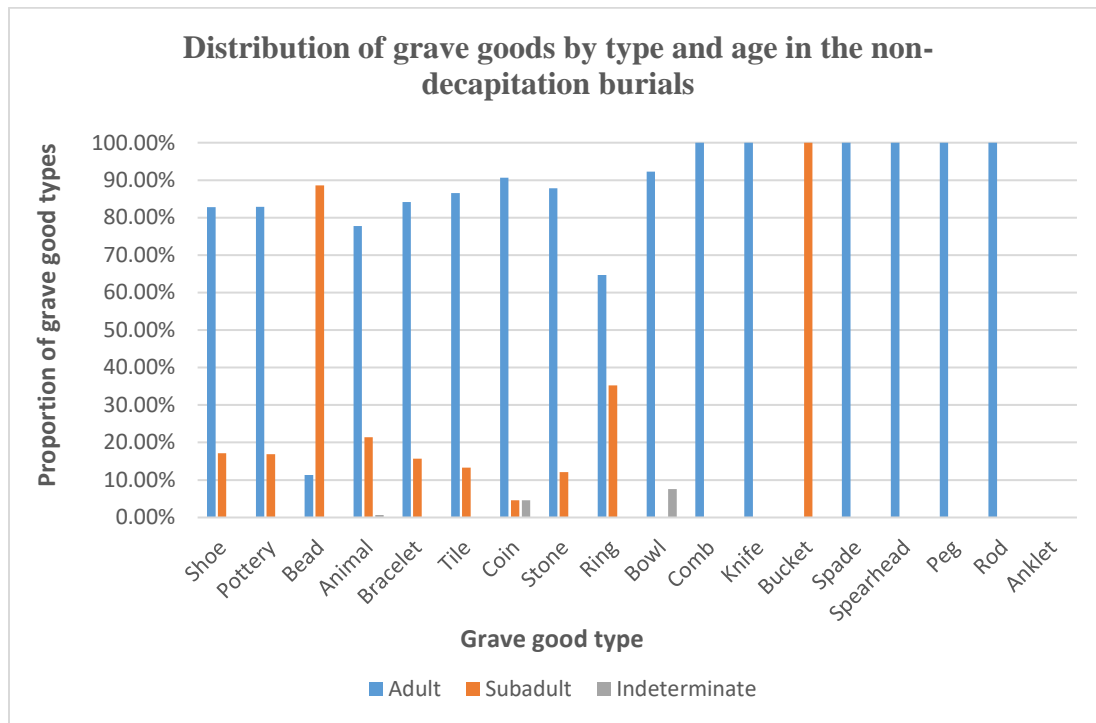
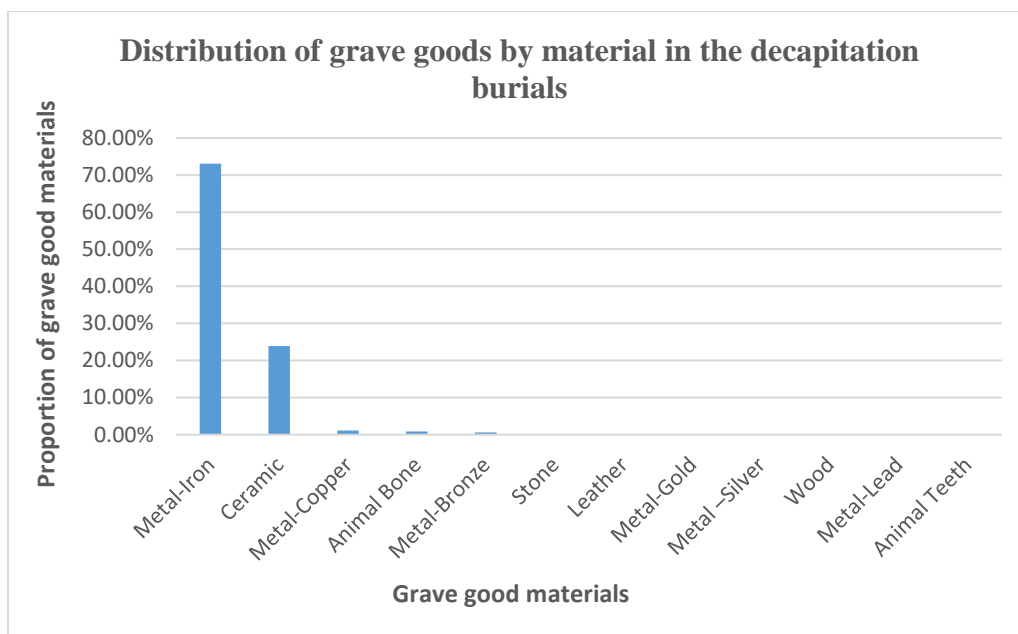


Figure 4.82. The proportion of grave goods by type (n=9332) and age category in the non-decapitation burial population.

#### 4.5.11c. Grave Good Material

In the decapitation burial population, most of the grave goods by material (n=811) were items made of metal, especially iron (73.1%) (again, the dominance of hobnails associated with footwear play a role here), followed by ceramics (23.9%) and much smaller percentages of other materials represented (Figure 4.83). Examples of copper, stone, leather, bronze and animal bone were rare in the decapitation burial population.



*Figure 4.83. The proportion of grave goods by material (n=811) in the decapitation burial population.*

In the non-decapitation burial population, most of the grave goods by material (n=11529) were items made of metal, especially iron (60.4%), followed by ceramics (35.1%) and much smaller percentages of other materials (Figure 4.84). In the non-decapitation burial sub-set, there appears to be variability in the presence of each metal type compared to the decapitation burial sub-set (where no examples of gold, silver or lead were found in the grave goods). Examples of gold, lead and wood were rare in the non-decapitation burial population. Overall, there is a difference in the types of materials used to create grave goods in the two burial populations, particularly of the greater number of metal objects not made of iron, leather, and (to a lesser extent) animal bone, all of which are more common in the non-decapitation burials.



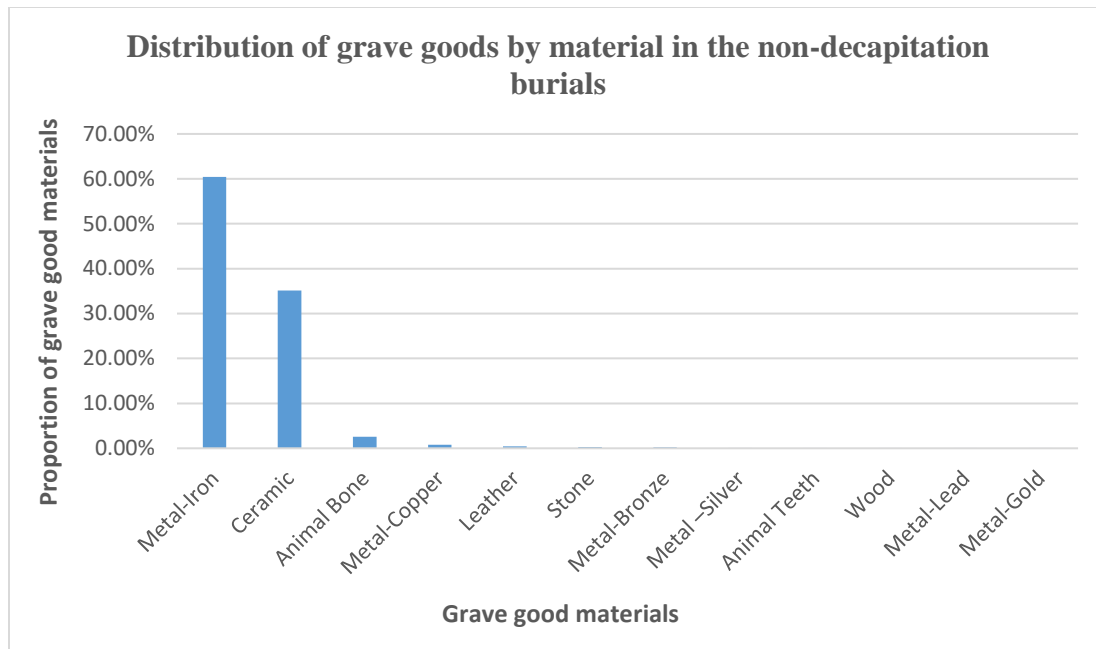
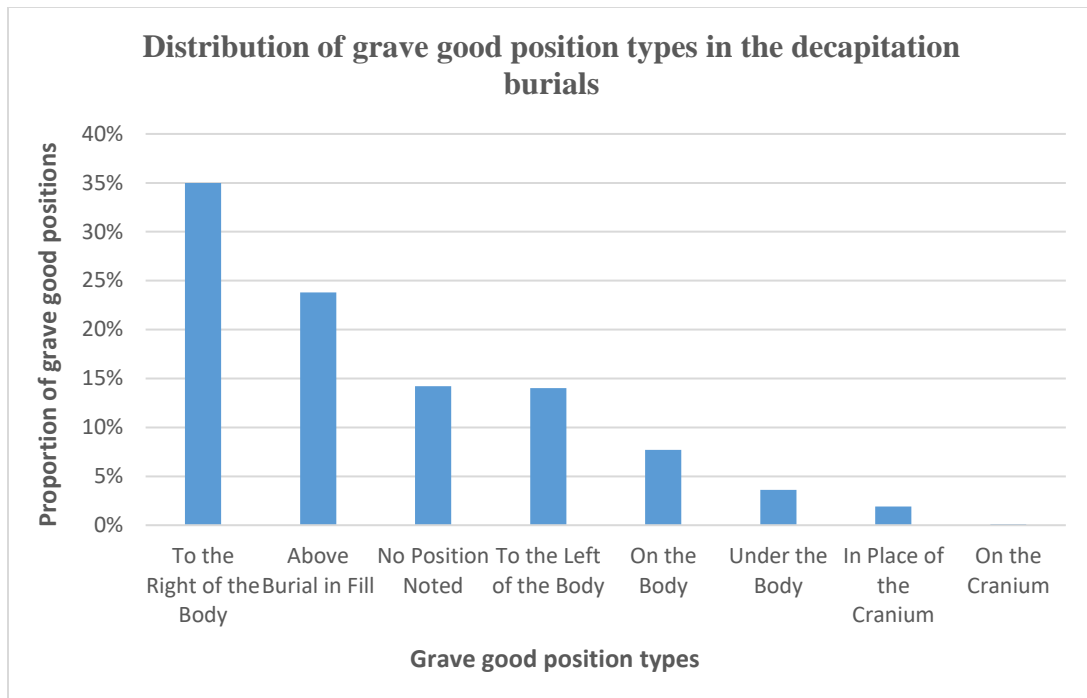


Figure 4.84. The proportion of grave goods by material (n=11529) in the non-decapitation burial population.

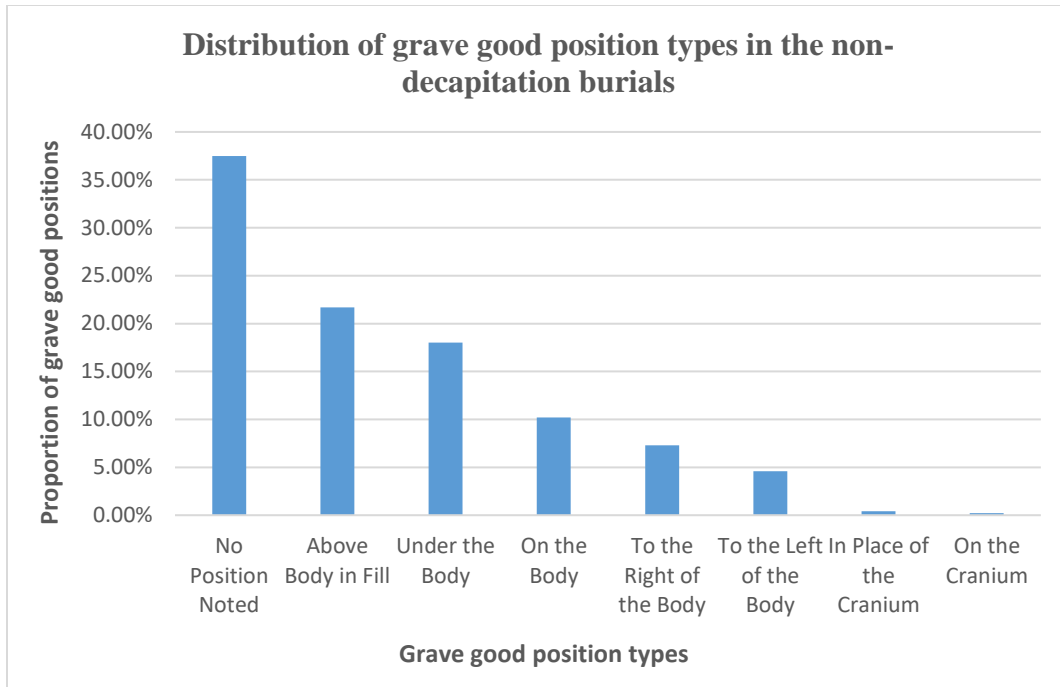
#### 4.5.11d. Grave Good Position

In the decapitation burial population, most of the grave goods were placed to the right of the body (35%), followed by placement above the burial (in fill) (23.8%), no position recorded (13.2%), to the left of the body (14%), and on the body (7.7%). Few examples of under the body (3.6%), in place of the cranium (1.6%), or on the cranium (0.1%) were recorded in the decapitation burial population (Figure 4.85).



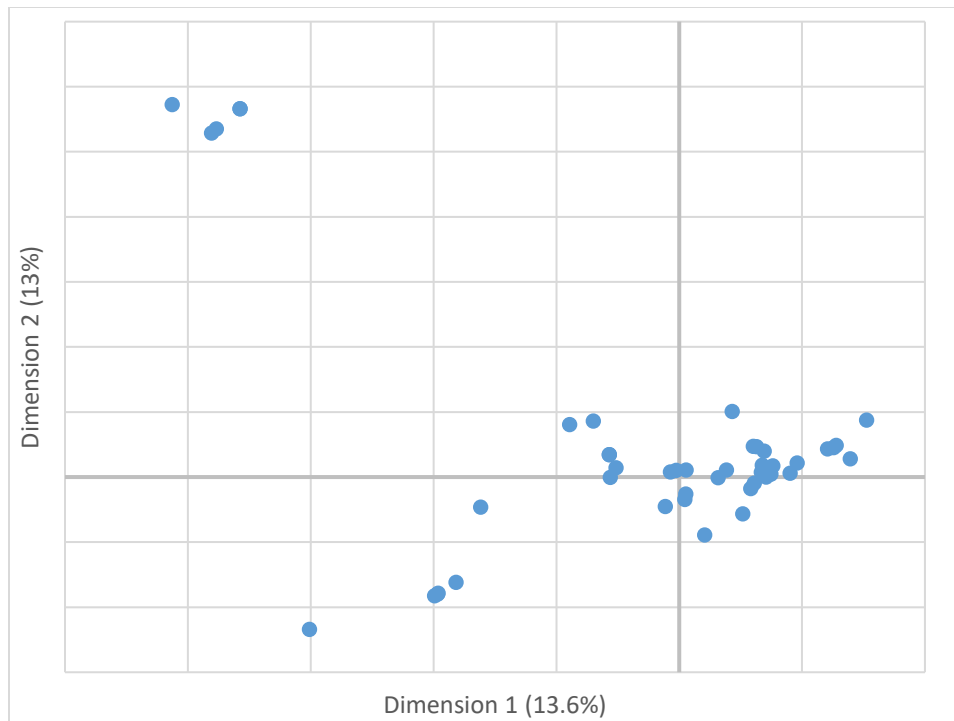
*Figure 4.85. The proportion of grave goods (n=826) by placement position type in the decapitation burial population.*

In the non-decapitation burial population, the absence of a recorded position for the grave goods was most common (37.5%), followed by above the burial (in fill) (21.7%), under the body (18%), and on the body (10.2%). Few examples of the to the right of the body (7.3%), to the left of the body (4.6%), on the cranium (0.2%), and in place of the cranium (0.4%) were present in the non-decapitation burial population (Figure 4.86).



*Figure 4.86. The proportion of the grave goods (n=12537) by placement position types in the non-decapitation burial population.*

To explore whether there was any correlation between burial treatment through inclusion of grave goods, classification, type, material, number and placement in the decapitation burials, those data were selected in a query for comparison using JCA with a Burt Matrix. The grave good variables were present in 144 instances (n=) in the decapitation burial sample (Figure 4.87).

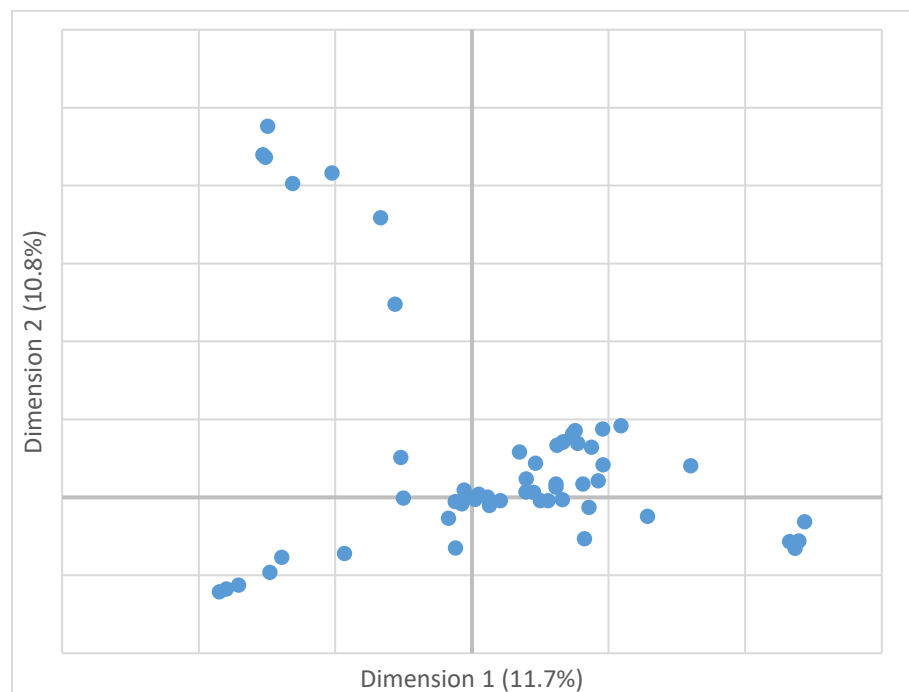


*Figure 4.87. Burt Matrix depicting the results of the JCA test for correlations between the inclusion of grave goods, type, material, number and placement in 144 instances (n=) in the decapitation burial population.*

The initial results of the test show two groups of grave good variables sorting themselves on the first axis to the right of the average, although the two groups oppose each other on the second axis. The group of grave good variables located in the upper left quadrant is comprised of the combs, animal, animal bone, and personal hygiene and faunal. The second group located in the bottom left quadrant is comprised of pottery, ceramic, container, potsherds, and in place of the cranium. These two groupings may indicate that the main variation in the grave good inclusions in the decapitation burials is characterized by the presence of these items and their selective opposition to one another. For example, in burials where animal bone combs are present, ceramic vessels in place of the head (which is present in only two cases) are unlikely to be present. To a lesser degree, the location of the age and sex variables around the main cluster indicates unsexed and subadults are less likely to have these kinds of grave goods in their burials,

however, when those grave goods are present, they are more closely associated with ceramic vessels compared to combs. The probable male and probable female variables are associated more closely with combs made of faunal bone in their burials.

To explore whether there was any correlation between burial treatment through inclusion of grave goods, classification, type, material, number and placement in the non-decapitation burials, those data were selected in a query for comparison using JCA with a Burt Matrix. The grave good variables were present in 1284 instances (n=) in the non-decapitation burial sample (Figure 4.88).



*Figure 4.88. Burt Matrix depicting the results of the JCA test for correlations between the inclusion of grave goods, type, material, number and placement in 1284 instances (n=) in the non-decapitation burial population.*

The initial results of the test show three groups of grave good variables that demonstrate the largest amount of variation by differentiating themselves from the main cluster around the average. The first group in the upper left quadrant is distinguished by animal teeth and animal bone material, comb and peg items, presence of animal species, and the personal hygiene and

faunal grave good class. The second group in the lower left quadrant contains container and pot sherd, pottery and bowl, and ceramic. The third group in the lower right quadrant contains dress element, leather, shoe, and under the body. These patterns may indicate that the main variation on the first axis (horizontal) is the opposition of ceramic or faunal grave goods to the presence of leather or shoes in the non-decapitation burials. When this variation pattern is accounted for in this group, the next greatest source of variation in the variables is the opposition of ceramic to faunal grave goods.

The pattern of the variables on the second axis appears to reflect the pattern previously noted in the grave goods in the decapitation burials, however, the pattern identified along the first axis above (containing the larger share of the variation) does not match that in Figure 4.87, which may suggest there are differences in burial treatment in the two burial populations that were marked by the use of grave goods (especially the Class and Type of grave good). This pattern may be further explored by means of a Chi-square test (if we accept a p-value of .10 at an exploratory level), which shows there is a difference in the proportions of materials between the decapitation and non-decapitation burials ( $\chi^2=107.1$ ,  $df=88$ ,  $p\text{-value} = 0.08129$ ), as well as a difference in the distribution of grave good types between the decapitation and non-decapitation burials ( $\chi^2=118.13$ ,  $df = 88$ ,  $p\text{-value} = 0.01773$ ).

#### **4.5.12. Animal Inclusions**

In the burial population, most of the burials (97.2%) did not contain evidence of animal inclusions. Animal inclusions (whole or partial animals of any species where no evidence of butchery was recorded) were present in 42 (2.7%) burials in the population analyzed in this thesis, suggesting that this was a relatively rare selective practice in this region (Table 4.75). In the decapitation burial population ( $n=122$ ), only five (4%) burials contained animal inclusions, while ( $n=1424$ ), 37 (3%) in the non-decapitation burials contained an animal inclusion.

*Table 4.75. The total number of inhumation burials with animal inclusions in the burial population (n=1546).*

<b>Animal inclusions by burial status</b>			
<b>Burial Status</b>	<b>Present</b>	<b>Absent</b>	<b>Total</b>
Non-decapitation	37 (3%)	1387 (97%)	1424 (92.1%)
Decapitation	5 (4%)	117 (96%)	122 (7.9%)
<b>Total</b>	42 (2.7%)	1504 (97.2%)	1546 (100%)

The animal inclusions recorded in the decapitation burial population were rare, with just five burials (4%) containing those remains (Table 4.76). The two dog (40%) inclusions are associated with an adult female burial (SK 2016) from Yarnton, Cassington, and an adult male burial (SK 602) from Cassington. The two sheep (40%) inclusions were associated with an adult male burial (SK N/A) from Churchill Hospital, Headington, and an adult male burial (Grave 14) from Frocester Court). The singular example of an unrecorded animal deposit (20%) is associated with an adult male burial (SK 5189) from Bridge's Garage, Tetbury Road. No examples of horse, chicken, or fish were found in association with the decapitation burials, although those species are found in other burials in similar site types.

*Table 4.76. Animal inclusion by species in decapitation burials (n=5) where evidence was available.*

<b>Animal inclusion species in the decapitation burials</b>		
<b>Species</b>	<b>Total</b>	<b>Total percentage</b>
Dog	2	40%
Sheep	2	40%
None Listed	1	20%
Horse	0	0%
Chicken	0	0%
Fish	0	0%
<b>Total</b>	5	100%

Animal inclusions were uncommon in the non-decapitation burial population, with 37 (3%) of burials containing those remains (Table 4.77). Most of the species-level details for those

animal inclusions were unrecorded (86.5%), which complicates efforts to explore the significance of patterns in burial status, animal species, age, sex, or other potential social factors that may have influenced this mortuary practice within and between sites in this sample. In the remaining five cases, the species recorded were two sheep (5.4%), one dog (2.7%), one horse (2.7%), and one chicken (2.7%) in the non-decapitation burials. No examples of fish were found in association with the non-decapitation burials in this sample.

*Table 4.77. The total number of animal inclusions by species in the non-decapitation burials (n=37) where evidence was available.*

<b>Animal inclusion species in the non-decapitation burials</b>		
<b>Species</b>	<b>Total</b>	<b>Total Percentage</b>
Not listed	32	86.5%
Sheep	2	5.4%
Dog	1	2.7%
Horse	1	2.7%
Chicken	1	2.7%
Fish	0	0%
<b>Total</b>	<b>37</b>	<b>100%</b>

Most of the animal inclusions recorded in the decapitation burial population (5 cases, 80%), were incomplete based on the recorded skeletal elements present, while just one dog inclusion in a burial was recorded as being complete (Table 4.78). Interestingly, the skeletal elements associated with both sheep inclusions represented the front portions of the animals (Merrifield 1987:45-46; Young 1972:16), with the inclusion from Grave 14 recorded as an “articulated neonatal lamb forelimb by the right elbow” of the adult male (Reece in Price 2000:214).



*Table 4.78. The total number of animal inclusions by species and completeness status associated within the decapitation burials (n=5) where evidence was recorded.*

<b>Animal species inclusions by completeness status in the decapitation burials</b>						
<b>Category</b>	<b>Dog</b>	<b>Sheep</b>	<b>Horse</b>	<b>Chicken</b>	<b>None Listed</b>	<b>Total</b>
Partial	1	2	0	0	1	4 (80%)
Whole	1	0	0	0	0	1 (20%)
<b>Total</b>	2 (40%)	2 (40%)	0 (0%)	0 (0%)	1 (20%)	5 (100%)

Most of the animal inclusions recorded in the non-decapitation burial population (81.3%) were incomplete. In cases where the inclusions were complete (18.7%), the majority were sheep, followed by single examples of a dog, a horse, and a chicken. In cases where the inclusions were designated as incomplete, the species was not recorded, which complicates the task of exploring the significance of the use of specific species as an uncommon mortuary practice in the burial population in this sample (Table 4.79).

*Table 4.79. The total number of animal inclusions by species and completeness status in the non-decapitation burials (n=32) where evidence was available.*

<b>Animal species inclusions by completeness status in the non-decapitation burials</b>						
<b>Category</b>	<b>Dog</b>	<b>Sheep</b>	<b>Horse</b>	<b>Chicken</b>	<b>None Listed</b>	<b>Total</b>
Partial	0	0	0	0	26	26 (81.3%)
Whole	1	2	1	1	1	6 (18.7%)
<b>Total</b>	1 (3.1%)	2 (6.2%)	1 (3.1%)	1 (3.1%)	27 (84.3%)	32 (100%)

#### **4.5.12a. Age and Sex Distribution of Burials with Animal Inclusions**

In the decapitation burial population, most of the animal inclusions were associated with adult male burials (80%), while one of two dog inclusions was associated with an adult female burial (20%). No animal inclusions were found in association with the unsexed burials (Table 4.80).

Table 4.80. The distribution of animal inclusion species in the decapitation burials (n=5) by sex category.

<b>Distribution of animal species inclusions in the decapitation burials by sex category</b>						
<b>Sex Category</b>	<b>Dog</b>	<b>Sheep</b>	<b>Horse</b>	<b>Chicken</b>	<b>None Listed</b>	<b>Total</b>
Male	1	2	0	0	1	4 (80%)
Female	1	0	0	0	0	1 (20%)
Unsexed	0	0	0	0	0	0 (0%)
<b>Total</b>	2 (40%)	2 (40%)	0 (0%)	0 (0%)	1 (20%)	5 (100%)

In the non-decapitation burial population, most of the animal inclusions were associated with the unsexed burials (51.3%), followed in order of representation by the male burials (29.7%) and the female burials (18.9%) (Table 4.81). Most of the animal inclusion cases are associated with the unrecorded category (86.5%), although for those cases where the species was recorded (five), most were associated with male burials (80%). The single example of an animal inclusion was a horse (20%) associated with an unsexed burial.

Table 4.81. The distribution of animal inclusion species in the non-decapitation burials (n=37) by sex category.

<b>Distribution of animal species inclusions in the non-decapitation burials by sex category</b>						
<b>Sex Category</b>	<b>Dog</b>	<b>Sheep</b>	<b>Horse</b>	<b>Chicken</b>	<b>None Listed</b>	<b>Total</b>
Unsexed	0	0	1	0	18	19 (51.3%)
Male	1	2	0	1	7	11 (29.7%)
Female	0	0	0	0	7	7 (18.9%)
<b>Total</b>	1 (2.7%)	2 (5.4%)	1 (2.7%)	1 (2.7%)	32 (86.5%)	37 (100%)

In the decapitation burial population, most of the animal inclusions were associated with adult burials (100%). No animal inclusions were found in association with the subadult or indeterminate aged burials (Table 4.82).

*Table 4.82. The distribution of animal inclusion species in the decapitation burials (n=5) by age category.*

<b>Distribution of animal species inclusions in the decapitation burials by age category</b>						
<b>Age Category</b>	<b>Dog</b>	<b>Sheep</b>	<b>Horse</b>	<b>Chicken</b>	<b>None Listed</b>	<b>Total</b>
Adult	2	2	0	0	1	5 (100%)
Subadult	0	0	0	0	0	0 (0%)
Indeterminate	0	0	0	0	0	0 (0%)
<b>Total</b>	2 (40%)	2 (40%)	0 (0%)	0 (0%)	1 (20%)	5 (100%)

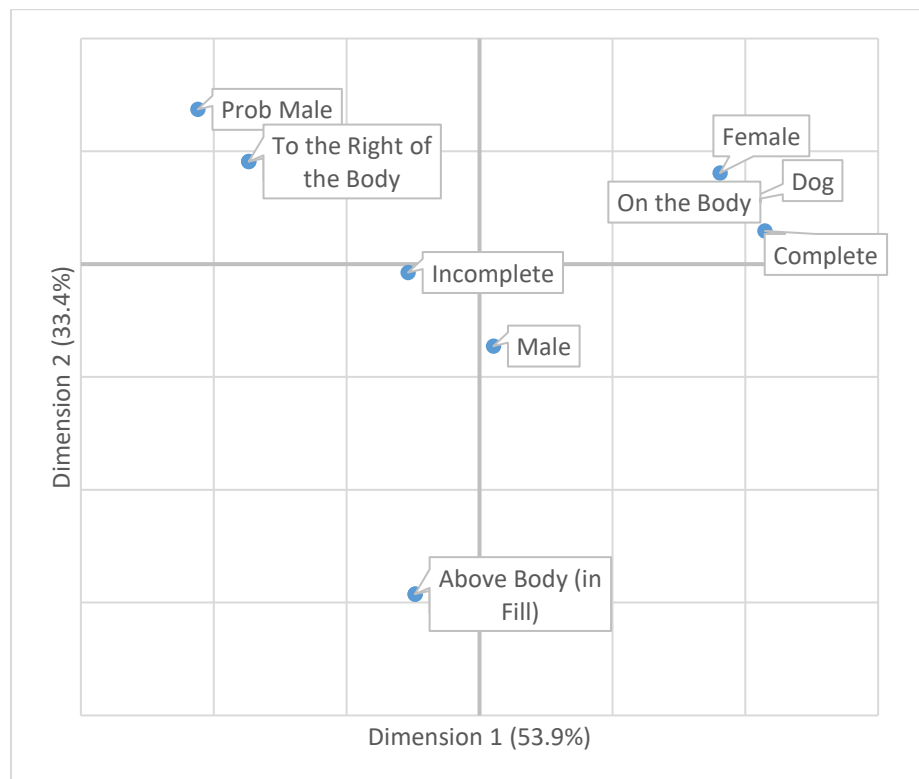
In the non-decapitation burial population, most of the animal inclusions were associated with adult burials (86.5%), followed by subadult burials (13.5%). No animal inclusions were found in association with the indeterminate aged burials (Table 4.83). All the inclusions of a known species were associated with the adult burial population sub-set, which complicates the interpretation of the significance of animal inclusion species selection in relation to the age of the deceased within and between sites where this mortuary practice was observed. However, in both the burial population sub-sets, dog, sheep, horse and chicken species were exclusively found in adult burials.

*Table 4.83. The distribution of animal inclusion species in the non-decapitation burials (n=37) by age category.*

<b>Distribution of animal species inclusions in the non-decapitation burials by age category</b>						
<b>Age Category</b>	<b>Dog</b>	<b>Sheep</b>	<b>Horse</b>	<b>Chicken</b>	<b>None Listed</b>	<b>Total</b>
Adult	1	2	1	1	27	32 (86.5%)
Subadult	0	0	0	0	5	5 (13.5%)
Indeterminate	0	0	0	0	0	0 (0%)
<b>Total</b>	1 (2.7%)	2 (5.4%)	1 (2.7%)	1 (2.7%)	32 (86.5%)	37 (100%)

To explore whether there was any pattern in the inclusion of animal by species and their completeness and placement in decapitation burials by sex category, those data were selected in

a query for comparison using JCA with a Burt Matrix. There were only five burials (n=) (all adults) with animal inclusions in the decapitation burial population (Figure 4.89).



*Figure 4.89. Burt Matrix depicting the results of the JCA test for correlations between the presence of animals by species, skeletal completeness and placement in decapitation burials (n=5) by sex category.*

The initial results of the test show two patterns in the matrix in opposition to each other: the first group in the upper right quadrant on the first axis suggests an association between completeness, dog species inclusion, body position, and the female sex category while the second group in the upper left quadrant on the first axis suggests an association between sheep inclusion, to the right of the body position, and the probable male sex category. In addition, those burials are all adults, suggesting a connection between animal inclusions and this age category, at least in the decapitation burial sample. Given the presence of a small number of decapitation burials with animal species inclusions (5/122, 4%), interpreting these patterns presents a

challenge and will therefore be compared to the JCA pattern results (if any) in the non-decapitation burial population.

To explore whether there were any patterns in the burial treatment of animal based on species, completeness and placement in the burial in the non-decapitation burials by sex category, those data were selected in a query for comparison using JCA with a Burt Matrix. There were 37 burials (n=) with animal inclusions in the non-decapitation burial population (Figure 4.90).

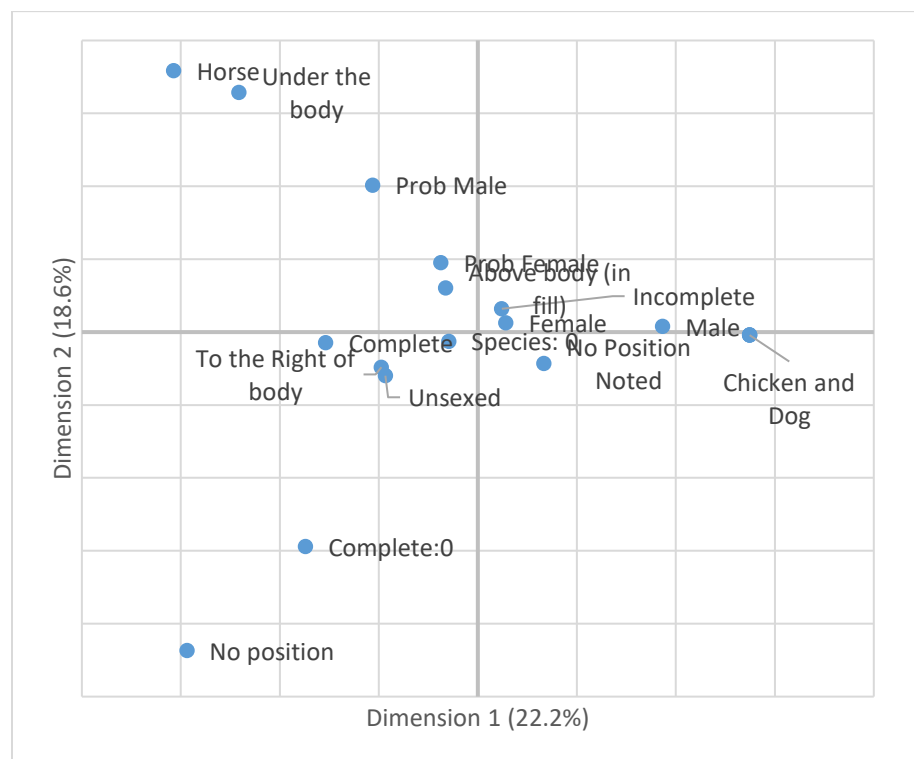


Figure 4.90. Burt Matrix depicting the results of the JCA test for correlations between the burial treatment by animal species, skeletal completeness and placement in non-decapitation burials (n=37) by sex category.

The initial results of the test show two patterns in the matrix in opposition to each other, which account for the main variation in the sample. The first group in the upper left quadrant on the second axis suggests an association between horse species inclusion, remains positioned under the body placement position, and the probable male sex category, while the second group

in the upper left quadrant on the second axis suggests an association between the completeness of animal inclusions and the unrecorded and no position recorded variables. Neither of those traits were observed in the patterns identified in the decapitation burial population, and therefore may represent outliers (i.e., animal species inclusions positioned under the body only occur in two non-decapitation burials, and one of those burials was the only example of a horse species inclusion, which suggests that this unsexed adult individual (SK 22 from the site of Curbridge) was further distinguished from the other non-decapitation burials through this specific form of mortuary treatment). The burial of this unsexed adult (SK 22) appears to have been placed on top of an underlying feature, however, the inclusion of the horse mandible underneath the left arm and ribs in the grave was not determined to be accidental (Chambers 1976:47).

Overall, the comparison of the patterns between the two burial populations is not particularly useful due to the low numbers of animal inclusions represented, however, the species recorded in the decapitation population were better identified in their recording during post-excavation and therefore their potential significance may be further explored in the following chapter. The inclusion of animal species in burials of Roman date are not uncommon, particularly in the form of disarticulated or incomplete grave goods, some of which can be interpreted as food offerings. The burials with animal inclusions observed here in both burial populations sub-sets (42/1546, 2.7%) were likely distinguished through this mortuary treatment activity, however, the extent to which the significance of a specific species inclusion, its completeness preservation level, number, or placement within the burial can be explored is limited due to differential recording of those details in the non-decapitation burials compared to the decapitation burials in the sample.

#### **4.5.13. Mortuary Treatment Summary**

#### **4.5.13a. JCA Test Results**

The initial JCA testing of all the mortuary treatment variables among the decapitation burials revealed select variables as outliers associated with one individual from the main cluster of variables associated with the remainder of the decapitation burials. Follow up testing revealed three additional clusters of outlier variables linked with three other decapitated individuals in the burial population. With those variables removed from the analysis, further testing revealed indeterminate locations of skeletal elements and placement of the skull in the prone position as outlier variables from those around the average/norm. Those outlier mortuary variables are linked with intentional disruption of the body's integrity, post-Roman ploughing, differential recording and recovery or environmental processes and occur in few burials (only one decapitation burial is associated with all those outlier variables from the indeterminate testing round).

The initial JCA testing of all the mortuary treatment variables among the non-decapitation burials revealed a set of select variables as outliers associated with the unknown location of the right and left legs in the burial; those outlier contexts were associated with one individual in the non-decapitation burial population. Follow up testing of the mortuary variables in the non-decapitation burials revealed no other variables distinguished from the main/average cluster, suggesting most of those individuals experienced very similar mortuary treatments.

#### **4.5.13b. Burial Location**

The primary burial location for both burial populations was within cemetery locations. The age and sex distribution assessment reveals males, females, unsexed individuals and adults, subadults and indeterminate individuals are associated with the cemetery category and were spatially located near/next to each other in most of the sites included in the study sample. Greater

variability is observed in the burial location of unsexed subadult decapitation burials based on proportions compared to the other age categories and the other decapitation and non-decapitation burial groups. Burials located in ditches, pits, structures, or walls are considered outlier variables, and spatially in isolated singular or outside of perimeter locations are considered outlier variables.

#### **4.5.13c. Burial Context**

The primary burial context for both burial populations was in the single contexts. The age and sex distribution assessment reveals each category is associated with the single contexts; however, a slightly higher proportion of decapitated females are associated with this variable compared to adult male decapitation burials. Greater variability is observed in the burial contexts of adult male decapitation burials with a higher proportion of multiple burials compared to the female and unsexed subadult decapitation burials. Greater variability in the burial contexts is observable (higher percentage of multiple and isolated burials) in the decapitation burial population compared to the non-decapitation burial population. Burials located in multiple and isolated location contexts are considered outlier variables in the burial context category.

#### **4.5.13d. Body Side**

The primary burial side for both burial populations was the supine position. The age and sex distribution assessment reveals each category is associated with the single contexts; however, there is a higher proportion of the prone type among the decapitation burial population in comparison to the non-decapitation burial population. This pattern has been observed in previous studies of decapitation in other regions of Roman Britain, which suggests the continuation of a link between intentional placement of decapitated individuals in a face down position (or placement of the skull in the prone position among a low percentage of burials in the supine



position). Burials positioned in the prone, N/A, left and right side types are considered outlier variables in the burial side category.

#### **4.5.13e. Burial Position**

The primary burial position for both burial populations was the extended position. The age and sex distribution assessment reveals each category is associated with the extended position type, however, there is a higher proportion of the N/A skull only type among the decapitation burial population in comparison to the non-decapitation burial population. This presence of the N/A skull only type is correlated with the decapitation burial population, which is linked with the intentional manipulation of select bodies compared to others within this subgroup in the study sample, as well as in decapitation burials in other regions of Roman Britain according to previous studies. The spatial distribution of the position types associated with the isolated decapitation burials show that the extended and N/A skull were the only position types present, although only the N/A skull only variable is outlier variables. Burials positioned in the N/A skull only, flexed and semi-flexed position types are considered outlier variables in the burial position category.

#### **4.5.13f. Placement of the Head**

The primary type for the position of the head variable for the decapitation burial population was the lower half of the body, although retaining the skull in the anatomical position was the second most common placement position, both patterns were observed in previous studies of decapitation burials from other regions in Roman Britain. Placement of the head positions in the missing, lower right, upper left, lower left, upper right and on the back position types are considered outlier variables in the placement of the head category.

#### **4.5.13g. Manipulation of the Head**

The primary type for the manipulation of the head position for the decapitation burial population was movement of the skull and placement of it somewhere else in the grave (outside of the anatomical position). The age and sex distribution of the decapitation burials associated with the manipulation categories appears to be relatively even. Anatomical position, missing/removed, and moved/replaced categories are outlier variables in the manipulation of the head category.

#### **4.5.13h. Representation of the Body**

The primary form for the representation of the body variable shows most decapitated individuals were represented by a high proportion of skeletal elements present. The skull and long bone skeletal elements have the highest proportion of elements present in the decapitation burial population, whereas the feet and hand bones had lower proportions most likely due to recovery or recording bias. Those patterns were similarly observed in the non-decapitation burial population; however, the proportions of the skeletal elements present were slightly less compared to the decapitation burial population. The axial skeletal elements in most of the decapitation burials were represented in the 67-100% range (65.6%), while the appendicular skeletal element groups were represented in the 75-100% range (75.4%). In the non-decapitation burials, the axial skeletal element groups were represented in the 67-100% range (55.6%), while the appendicular skeletal element groups were represented in the 75-100% range (54.3%). Those results suggest a differential selection of targeted skeletal elements from specific sections of the body in each burial group. For example, skeletal elements belonging to the axial skeleton appear to have been selected for removal more than the appendicular section, however, the non-decapitation burials appear to have experienced removal of skeletal elements at higher rate compared to the decapitation burial group. In keeping with the patterns mentioned previously,

this may indicate greater selective manipulation or disarticulation of skeletal remains or bodies in non-decapitation burials and suggests that in this area of Roman Britain decapitation burials were not specifically singled out for disarticulation activities.

#### **4.5.13i. Manipulation and Fragmentation of the Body**

Evidence for the manipulation or fragmentation of the body is observed in twenty-seven burials in the burial population, making this type of mortuary treatment rare and an outlier in the study sample. Most of the individuals with evidence for fragmentation are non-decapitated individuals, although the distribution by burial status is proportionally even between the two burial groups, which suggests decapitation was not directly linked with disarticulation practices alone. While the evidence for this practice is spread across only nine sites in the study sample, it may be possible this number is underrepresented due to recovery bias wherein small skeletal elements are overlooked or their preservation is low due to taphonomic factors. Most of the burials in this sub-group contained only one supernumerary skeletal element, some of which may be explained by the crowding of burials in cemeteries at sites with higher populations during the LRP (such as Bath Gate, Cirencester, or Gambier Parry Lodge, Kingsholm). The skeletal elements associated the most with this burial sub-group are crania, metatarsals, and humeri. The age and sex distribution assessment shows that adult females received more supernumerary skeletal elements in their burials compared to the unsexed subadults and adult males in this burial sub-group. This could suggest adult females were singled out for deposition of additional disarticulated skeletal elements, particularly skulls, in burials. As previously mentioned, an example of an outlier mortuary behavior linked to the intentional manipulation of the body is the placement of the skull in the prone position when the remainder of the body remains in the supine position; a practice observed in eight decapitation burials (7%). Additional examples of

outlier mortuary treatment linked to manipulation of the body include restraint of limbs, post-mortem selective removal of skeletal elements (possibly for use as objects), perforation of a skeletal element, intentional placement of skeletal elements in uncommon locations or in clusters, post-mortem exposure of select skeletal elements, fragmentation linked with butchering activity, over-use of cuts/chops, binding of the corpse, buried in a bag prior to deposition. While those examples are rare in the burial population examined in this thesis, this pattern is consistent with the prevalence of those treatments in other regions of Roman Britain, which suggests those individuals were distinguished for those specialized forms of treatment possibly influenced by their adult age.

#### **4.5.13j. Coffin**

The primary coffin type for both burial populations where coffins were present (coffins were absent in most burials evenly in both burial populations) was the wood material. While the significance of the presence or absence of a coffin as a mortuary treatment variable and its association with each age and sex category is limited due to the number of unknown/unrecorded cases (27%), the data results from the age and sex distribution assessment show adult males were more likely than adult females or unsexed subadults in both burial populations to receive a coffin. Burials with a coffin, therefore, are considered an outlier, particularly those with the gypsum/stone and lead material type.

#### **4.5.13k. Grave Orientation**

The primary grave orientation for both burial populations where the data was recorded are the N-S or NE-SW orientations. The age and sex distribution assessment show a fairly even distribution of the orientation types across the decapitation and non-decapitation burials, although adult male non-decapitation burials have a higher proportion of burials with the north

orientation types compared to the adult females or unsexed subadult burials. While there does appear to be a slightly higher number of burials associated with the S-N orientation type in the non-decapitation burial population, those patterns suggest a general conformity to the relied upon grave orientation which reflects the trends observed in previous Romano-British mortuary studies. Burials oriented to the S-N, E-W, W-E, SW-NE, and SE-NW are considered outlier variables in the grave orientation category.

#### **4.5.13l. Grave Goods**

Most of the burials in the population did not contain evidence for grave good inclusions, however, when present, a higher proportion of decapitation burials contained grave goods compared to non-decapitation burials. Grave goods classified as dress elements, currency, pottery and tools were the most commonly represented across the burial population with grave goods present. The age and sex distribution assessment shows most of the grave goods by class (n=830) were associated with female burials (55.4%), followed by male burials (33.9%) and unsexed burials (10.7%). In the female burials, the dress elements (70%), personal ornaments (45.4%) and tools (46.9%) were most common. In the male burials, coins (62.5%) and Other (72.4%) types were most common. The container (40%) and pottery sherd (42.2%) types were relatively evenly distributed between the female and male decapitation burials. In the unsexed burials, the tool (41.5%) and pottery sherd (28%) types were most common, although personal ornaments (45.4%) were higher in this group. Adult individuals were more likely to receive grave goods compared to subadult individuals across the burial population.

The distribution of those grave goods is reflective of patterns observed in other regions of Roman Britain (Crerar 2012:60; Philpott 1991; Smith et al. 2018:263; Tucker 2012:82-3), as well as locally in sites throughout the Cotswolds (Moore 2009b:156, 160, 175-6; 2010:111-12).

The significance of the variations in grave good class between the burial populations is difficult to determine given the large number of burials in the Type Not Recorded category in the non-decapitation population. However, it appears that overall, where present in burials, the pot sherd, dress (mainly footwear) and tool classes were the main artifact groups in the burial population while the currency, personal ornament, and faunal classes were varied in their proportions by age and sex, as well as burial group status (decapitation vs. non-decapitation). Burials with grave goods, therefore, are considered an outlier, particularly those with personal ornaments, faunal remains, gold, silver, lead, animal bone or teeth. Interestingly, a potential preference for placement of grave goods to the right side of the body is observed among those decapitation burials with grave goods present in comparison to the non-decapitation burials with ‘no position noted’ or ‘above the body in the fill’ as the most common placement positions. This pattern suggests that the decapitation status of select individuals influenced the decision of type of grave good inclusion(s) as well as placement near the deceased during the funerary process.

JCA test results of the grave good variables in the decapitation and non-decapitation burial populations suggest there are differences in burial treatment in the two burial populations that were marked by the use of grave goods (especially the Class and Type of grave good). Statistical testing of the grave goods present in the decapitation burials and non-decapitation burials shows there is a difference in the proportion of materials between both burial populations, as well as a difference in the distribution of the grave good types between the two burial populations.

#### **4.5.13m. Animal Inclusion**

In the burial population, most of the burials did not contain evidence for animal inclusions, however, when present, there appeared to be an even proportion of decapitation (4%)

and non-decapitation burials (3%), which shows this was a rare outlier form of mortuary treatment. Dog and sheep species were most common in the decapitation burial population, while the majority of the animal inclusions in the non-decapitation burial population were unfortunately unrecorded, which limits our ability to assess the species, completeness, and placement of the inclusions for comparative purposes across the burial population. Adult males had the highest proportion of animal inclusions compared to unsexed subadults and female burials in the burial population. Most of the animal inclusions present in the decapitation and non-decapitation burials were partial rather than complete, which is similar to patterns observed in previous studies of Roman mortuary treatment in other regions of Britain. JCA test results show a connection between the adult age category and animal inclusions in the burial. The burials with animal inclusions observed here in both burial populations sub-sets (42/1546, 2.7%) were likely distinguished through this mortuary treatment activity, however, the extent to which the significance of a specific species inclusion, its completeness preservation level, number, or placement within the burial can be explored is limited due to differential recording of those details in the non-decapitation burials compared to the decapitation burials in the sample.

The previous sections have provided a detailed discussion of the bioarchaeological data (demography, pathological, trauma and disarticulation evidence present on the skeletal remains) and mortuary treatment data (burial location, context, coffin, body side, body position, disarticulation and corpse manipulation, grave orientation, grave goods and animal inclusions) available for the burial population analyzed in this thesis. The mortuary practice patterns identified and outlined above will be used in the following section to contextualize the diverse social behaviors and mortuary contexts represented within the larger context of Late Roman Britain. This funerary analysis methodology groups the evidence presented above into classes of

human remains, associated material, and cut features/layers and assesses their presence in six ‘phases’ of the funerary or death process: 1) selection; 2) preparation; 3) modification; 4) location; 5) deposition; and 6) commemoration. The development of this funerary structure with an associated spectrum of normative behavior has the analytical potential for assessing a range of mortuary practices, including those traditionally interpreted as outside the norm, without relying solely on earlier concepts of social deviancy.

#### **4.6. Burial Practice Trends and Funerary Structure**

The development of the spectrum of mortuary and funerary behaviors represented in the archaeological record of IA and Roman period Gloucestershire and Oxfordshire relied upon the identification of the main burial practice(s) that were not subject to variation from the main cluster. The identification of those patterns in the burial practice(s) that were repeated the most allow for the establishment of the ‘relativity of normality’ within the burial structure for sites with decapitation burials in the region and has the potential to be delineated down to the level of the site and the individual burial. The previous sections of the analysis presented the biological and mortuary treatment data that define the diverse forms of mortuary treatment patterns in the study region.

The following section will briefly outline features of the main/norm burial treatment patterns in the region and present an assessment of the phases of the funerary sequence associated with those contexts. Those burials identified as outliers based on the presence of two or more uncommon mortuary and/or biological variables will be further interrogated to identify the extent to which each falls outside the norm by degrees of variance. Following this, a consideration of which phase(s) of the funerary sequence were subject to engagement through those variation(s) outside the norm is explored for each decapitation burial with the goal of



identifying and establishing the relationship between the use of those differential treatments within the funerary structure by decapitation burial, especially those of the atypical burial group.

#### 4.6.1. Main Mortuary Treatment Patterns in the Burial Population

The main burial practice patterns were identified based on the prevalence data for each primary variable examined in the previous sections, and those burials with the trends which were not subject to variation of those variables serve as the main burial group (Table 4.84) (Figure 4.91).

*Table 4.84. The primary biological and mortuary variables associated with the majority burial trends of the decapitation and non-decapitation burial populations (n=1546) with little to no variation.*

<b>Main biological and mortuary treatment variable patterns by burial status</b>		
<b>Variables</b>	<b>Decapitation</b>	<b>Non-decapitation</b>
Age	Adult	Adult
Sex	Male	Male
Pathology	Adult male	Adult male
Animal Inclusion	Very uncommon	Very uncommon
Body Side	Supine	Supine
Burial Context	Single	Single
Burial Location	Cemeteries	Cemeteries
Burial Position	Extended	Extended
Coffin	Uncommon	Uncommon
Deposition of Additional Skeletal Elements	Uncommon	Uncommon
Grave Goods	Uncommon	Uncommon
Grave Orientation	North oriented	North oriented
Manipulation and Fragmentation of the Body	Uncommon	Very uncommon

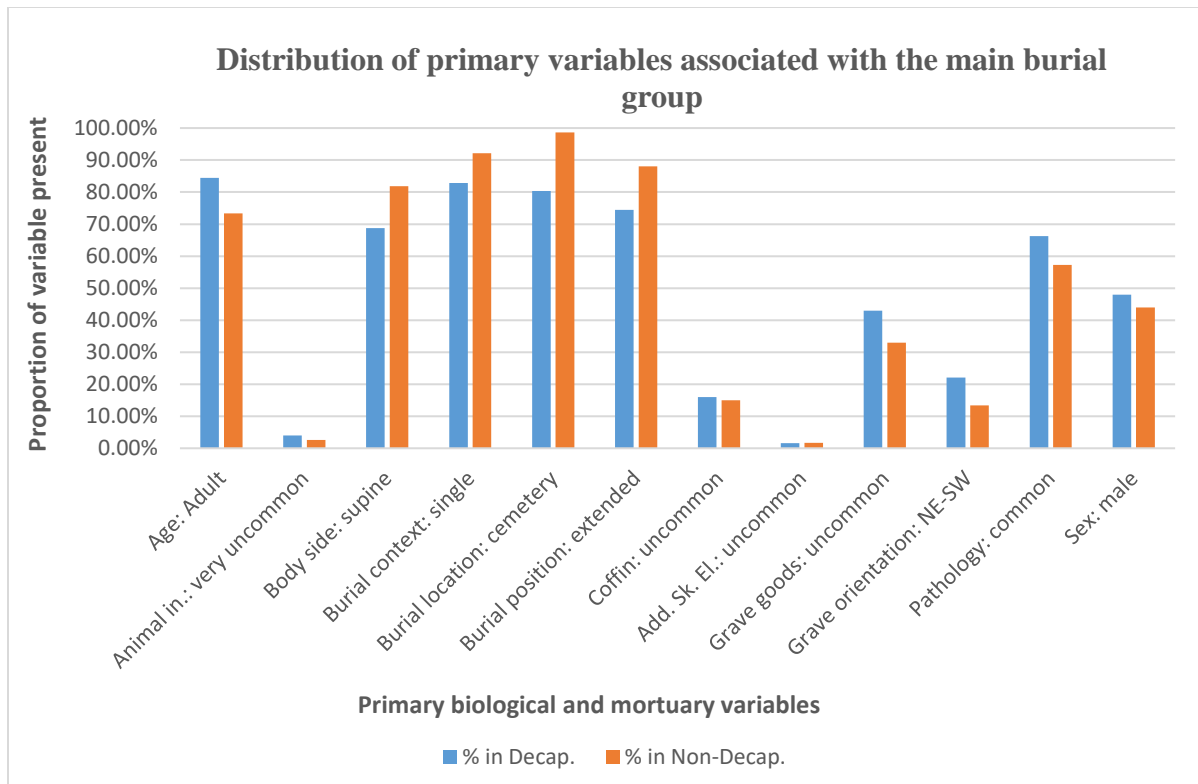


Figure 4.91. Visualization of the primary biological and mortuary variables associated with the main burial practices of the burial population (n=1546).

The primary variables present which show variation between the decapitation and non-decapitation burials and depart from the main burial patterns include trauma (and timing), including the decapitation type, placement and manipulation of the head, and representation of the body (Table 4.85; Figure 4.92).

Table 4.85. The primary biological and mortuary variables associated with the main burial trends of the decapitation and non-decapitation burial populations (n=1546) with notable variation.

Primary variables displaying variation within the main burial group by burial status		
Variables	Decapitation	Non-decapitation
Decap. Type	Tucker 4b/Crerar 1a	0%
Head Placement	On/at knees	Anatomical position
Head Manipulation	Moved	0%
Representation of body	Mid 70s-mid 80s %; 67-100% Axial (65.6%) 75-100% Append. (75.4%); More complete (75.4%)	Low - mid 70s %; 67-100% Axial (55.6%), 75-100% Append. (54.3%); Less complete (53.7%)
Trauma	Common: cuts/chops	Uncommon: fractures

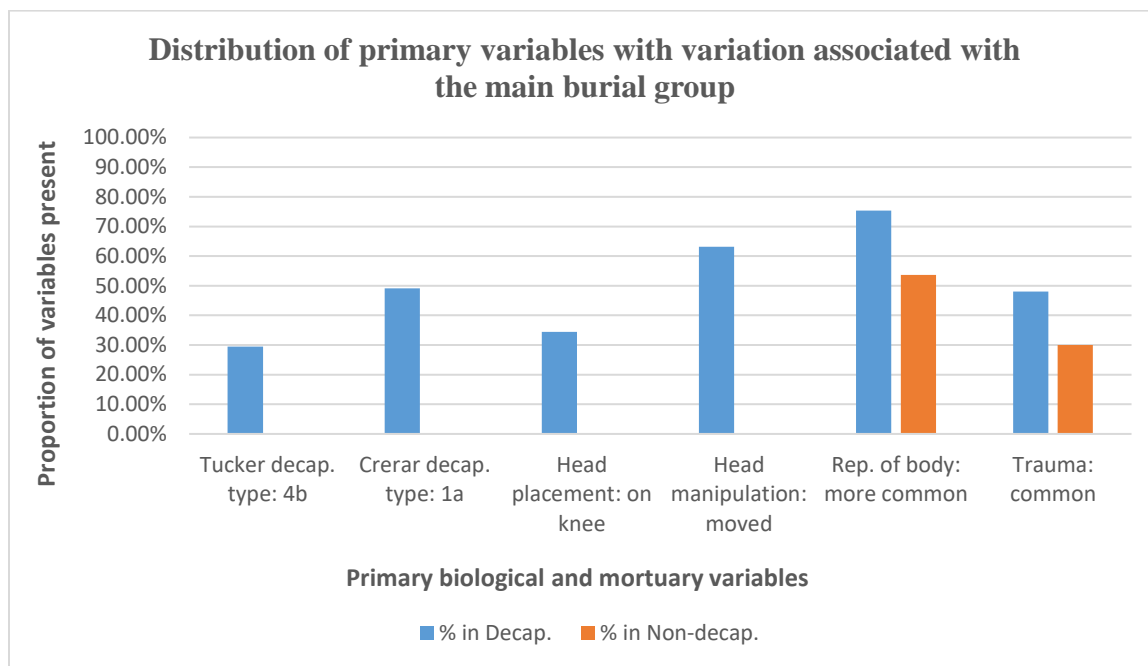


Figure 4.92. Distribution of the proportion of the primary biological and mortuary variables associated with the main burial trends of the decapitation and non-decapitation burial populations ( $n=1546$ ) with notable variation from the norm.

The sub-types of each variable presented above reveal the minor variation observable between the two burial populations. Despite the variation exhibited, those variables remain a part of the range of normativity within the wider burial spectrum and will be shared below.

#### 4.6.2. Variation of Mortuary Treatment Patterns

The mortuary variables that show variation from the main burial practices may represent forms of treatment meant to distinguish certain individuals from others in the community (Table 4.86). Decapitation burials with variables subject to variation that still represent part of its structure are referred to as an atypical burial group. This classification does not automatically assign a positive or negative connotation to those burial contexts, but rather serves as a neutral analytical term from which further analysis may be conducted to identify the extent of the range of normativity within the burial spectrum (Aspöck 2008:29, 111).

Table 4.86. The biological and mortuary variables associated with the atypical burial trends of the decapitation and non-decapitation burial populations (n=1546).

<b>Atypical biological and mortuary treatment variable trends by burial status</b>		
<b>Variable</b>	<b>Decapitation</b>	<b>Non-decapitation</b>
Age	Female; unsexed	Female; unsexed
Sex	Subadult; indeterminate	Subadult; indeterminate
Pathology	Adult Female; Unsexed subadult	Adult Female; Unsexed subadult
Animal Inclusion	Uncommon (dog, sheep, unrecorded); mostly partial (of those present, whole)	Uncommon (unrecorded, sheep, dog, horse, chicken); mostly partial
Body Side	Prone; N/A skull only; right; left	Prone; N/A (unrecorded); left; right; semi-prone
Burial Context	Multiple; isolated	Multiple; isolated
Burial Location	Ditch; pit; structure; well	Pit; ditch; structure; well
Burial Position	N/A; flexed; semi-flexed	Flexed; semi-flexed
Coffin	Wood; lead; gypsum/stone	Wood; gypsum/stone; lead
Decap. Type	Tucker 4a, 5a, 5b, 3a, 3b; Crerar 2a, 2c, 1b, 2b, 1c	N/A
Deposition of Additional Skeletal elements	Very uncommon (1.6%) (mainly crania)	Very uncommon (1.7%) (feet, cranium, arm, leg, ribs, vertebrae, clavicle, scapula)
Grave Goods	Uncommon (hobnails/shoes, pottery, tool, currency); To right of body, above burial in fill	Uncommon (hobnails/shoe, pottery, tool, container, faunal); No position recorded and above burial in fill; under body
Grave Orientation	South, West, East oriented	South, East, West oriented
Manipulation of Head	Anatomical position; removed/missing; moved and replaced	Anatomical position
Manipulation and Fragmentation of the Body	Less common (in addition to the decap. trauma)	Uncommon
Placement of the Head	Anatomical position; at feet; missing; lower right; upper left; lower left; upper right, on back	Anatomical position
Representation of Body	34-66% Axial. (18.8%) 0-24% Append. (14.7%); Hands and feet with lowest representation; Incomplete (25.6%)	0-33% Axial (26.5%) 50-74% Append. (20.6%) Append. skeletal elements have lower representation (ribs, hands, feet, arms and legs); Incomplete (46.3%)
Trauma	More common	Uncommon

Following Aspöck (2009:253-4), some atypical burials (‘different burials’) may contain more significant variation than others, and it is only through a contextual analysis of each burial

that it is possible to delineate whether a practice(s) might have been intended to mark the dead in a negative way (and thus, be categorized as a deviant burial). While this definition of a deviant burial was utilized in Aspöck's (2009:111) mortuary analysis, it was not used in the analysis presented here as the goal was to establish the range of variation among the variables, the prevalence of the dimensions of difference, and what patterns might exist (if any) among those decapitation burials associated with the atypical burial practices.

#### **4.6.3. Analysis of Variation Observed in the Decapitation Burials**

To determine the degrees of variance in the mortuary treatment of the decapitation burial population, the main and atypical burial practices identified above were compared to the biological and mortuary variables associated with each decapitation burial in turn. A visualization of the distribution of the main primary variables present or absent in each decapitation burial are plotted and show a portion of the decapitation burial population received differential mortuary treatment across the burial spectrum as shown in Figure 4.93.

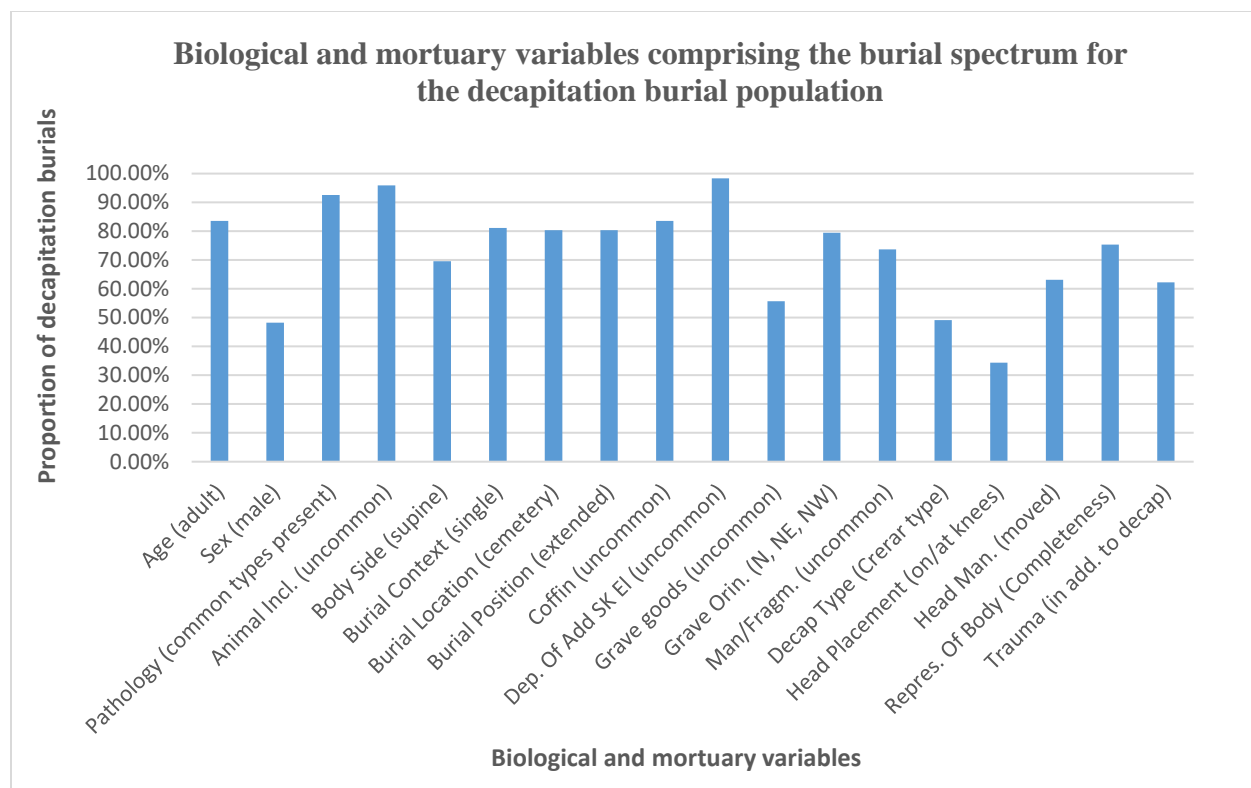


Figure 4.93. Distribution of the biological and mortuary variables (present or absent recorded) for each decapitation burial ( $n=122$ ) in the study sample.

The results of this assessment indicate that 62 decapitation burials (50.8% of the decapitation burial population) were subjected to similar mortuary treatment (apart from the decapitation) as the non-decapitation burial population and can therefore be considered part of the main/norm burial group. The remaining 60 decapitation burials (49.1% of the decapitation burial population) exhibited two or more biological or mortuary variables different from the main burial group (see Appendix C for main and atypical burial lists).

According to Pader (1980:155), ‘deviant’/non-normative burials are categorized as such based on the expression of more than one variable (dimension) of difference from the established norm of the mortuary treatment of a burial at a site. However, to establish the range of normativity represented in the entire burial structure, an additional dimension allowance was incorporated into the assessment screening to produce a nuanced assessment of each burial

(following the approach developed by Aspöck (2009:107-8). The expansion of the dimension threshold was conducted to avoid automatically defining decapitation as a variable of difference. Within the atypical burial group distinguished as ‘different’ through their association with outlier variables, most of those appear to have only one (31.6%) or three (25%) biological or mortuary variables that vary from the norm (Table 4.87).

*Table 4.87. The total number of decapitation burials (n=60) in the sample with outlier variables associated with the atypical burial practice sub-set.*

<b>Decapitation burials associated with outlier variables</b>	
<b>Variables (degrees of difference)</b>	<b>Total number of decapitation burials</b>
1	19 (31.6%)
2	10 (6.6%)
3	15 (25%)
4	11 (18.3%)
5	3 (5%)
6	1 (1.6%)
7	0 (0%)
8	1 (1.6%)
<b>Total</b>	<b>60 (100%)</b>

The majority (44.8%) of the 60 decapitation burials potentially distinguished as different from the main burial group are adult males exhibiting one dimension of difference. The adult female burials (35.3%) were the next most common group with the majority associated with four dimensions of difference. The unsexed burials (21.4%) were the least common group with an even distribution associated with one and five dimensions of difference (Figure 4.94). The age distribution within this group shows that most of the individuals are adults (80%), followed by the subadult burials (11.7%) and the indeterminate aged burials (8.3%). Within this burial sub-group, most of the adult burials (37.5%) are associated with the one dimension of difference category, while most of the subadult burials (28.5%) are associated with three dimensions of

difference category, and lastly, the indeterminate aged burials are mostly associated with five dimensions of difference category (Figure 4.95).

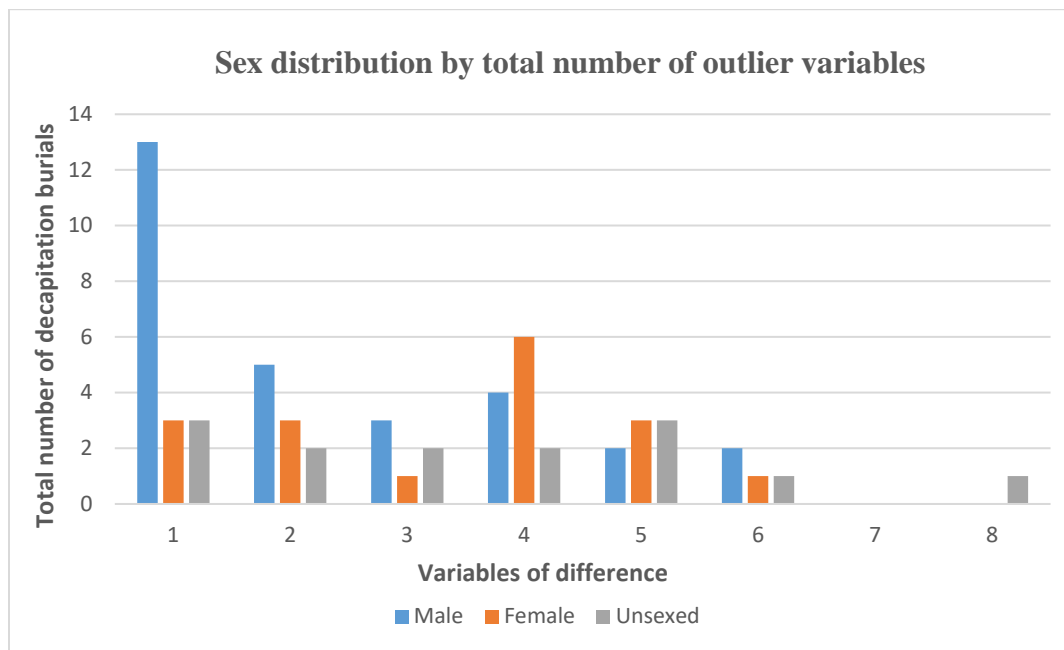


Figure 4.94. The sex distribution of the decapitation burials (n=60) in the normative burial group associated with the main burial group.

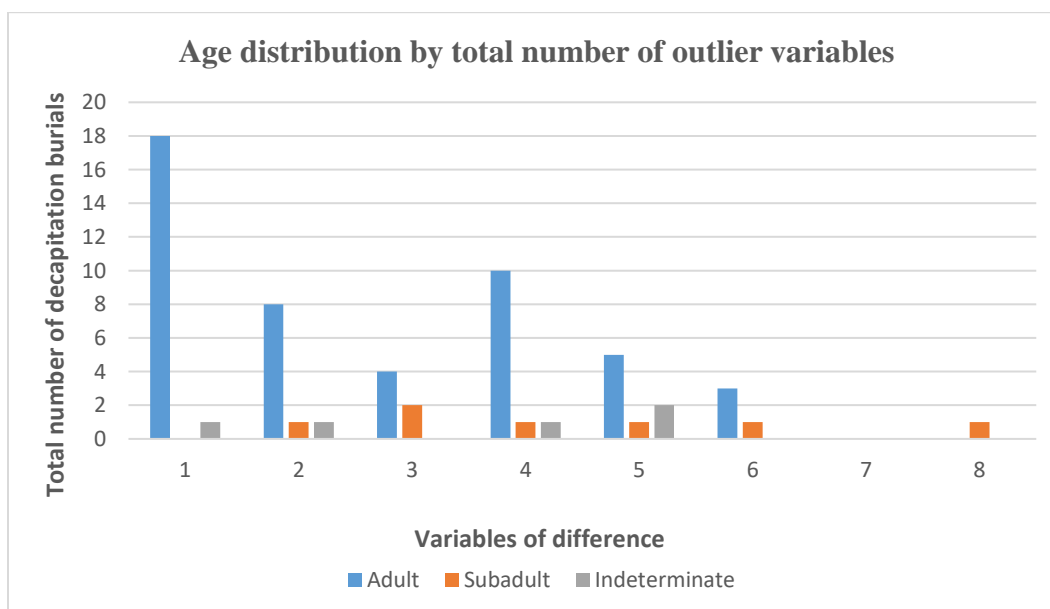


Figure 4.95. The age distribution of the decapitation burials (n=60) in the atypical burial population with one – eight outlier variables.

## 4.6.2. Funerary Structure



In an effort to define the spectrum of funerary rituals and differential engagement with that spectrum by the living in the communities represented in this thesis, the variables associated with the main burial trends identified previously were linked with their appropriate phases of the funerary structure per the definitions outlined below (following the definitions outlined by Weekes (2017)).

1) Selection: denotes those individuals who were the subjects of the funerary treatments represented in the archaeological record. In addition to selection of an individual, the selection of associated material that relates to the lived context of the individual(s), including the specialized funeral treatment or selection of objects for the grave. The main feature types contributing to an understanding of who was selected for certain types of funerals are the grave, cremation or similar deposit. While ‘burials’ are generally defined as structured deposits of human remains within discrete features (‘graves’), interment of remains in an existing feature or a developing layer, perhaps meant for another purpose, such as a ditch or well, are alternative locations to consider.

2) Preparation: denotes the body positioning, body side, shrouding, wrapping the dead, hair style, clothing, or evidence of preliminary storage. For example, the body position may be supine, extended, with arms flexed at the waist and legs straight, which may indicate the main type of laying out position of the dead. In addition, this chiefly relies on considerations of *in situ* dress accessories which are likely to have been placed on the body prior to transportation to the burial site, but any objects within the area of a reconstructed coffin, which may well have been closed before leaving the preparatory ritual context, should be considered. Coffins themselves may reveal a certain style of laying out and preparation acts or rituals; as well as those already mentioned (i.e., the coffin nails may indicate the orientation and position of the body). In

addition, the preparation of the grave through the act of digging represents a preparatory behavior belonging to this phase of the funerary sequence.

3) Modification: denotes pre- and post-mortem changes to the body, skeletal remains, or objects. Intentional fragmentation of the body is typically identifiable through movement of the body and osteological evidence for cutting, chopping, or perforations made pre- or-post mortem. Additional evidence of fragmentation of the skeletal remains may be observed through the absence or addition of specific element(s) from the grave or deposit, indicators of selective recovery that may have occurred at the time of burial or post-mortem. Modification may also be measured by items that are retained or removed from the individual/species/object within the burial (i.e., destructive analysis sampling, etc.), and need not be restricted to the initial deposition.

4) Location: denotes the movement and positioning of human remains during funerals in relation to settlements, structures, cemeteries (and other burials), boundary ditches and other local topography with known cosmological symbolism, etc. Detailed evidence of the conceptual importance of location may be observed in the placement of the positioned skeletal remains in a specific quadrant, orientation or alignment of elements within the grave. Other material evidence which may allude to acts related to the location phase include modes of transportation of the dead to the grave/deposit (i.e., nails, fittings or handles associated with use of a coffin).

5) Deposition: denotes the number of individuals, materials or objects interred within the burial or deposit (single vs. multiple, etc.), as well as their placement, class and type. If grave cuts/shapes are relatively consistent within a given location or region, this may imply that the size and shape of this feature or aspect of this phase was important.

6) Commemoration: denotes the disturbance of layers within or next to the grave cut, as this may indicate secondary, post-mortem, access to the grave context. Additional evidence of commemoration through the use of grave markers may be indicated by a lack of inter-cutting of the burials, which may have aided in their preservation and allowed future access to particular burial contexts and locations long-term. Objects or non-human skeletal remains intended as grave goods can also represent symbolic forms of commemoration and need not be restricted to the initial/primary burial period, as secondary closure deposits (typically in the form of structured deposits) were utilized for continued access to the remains at some sites during the Romano-British period.

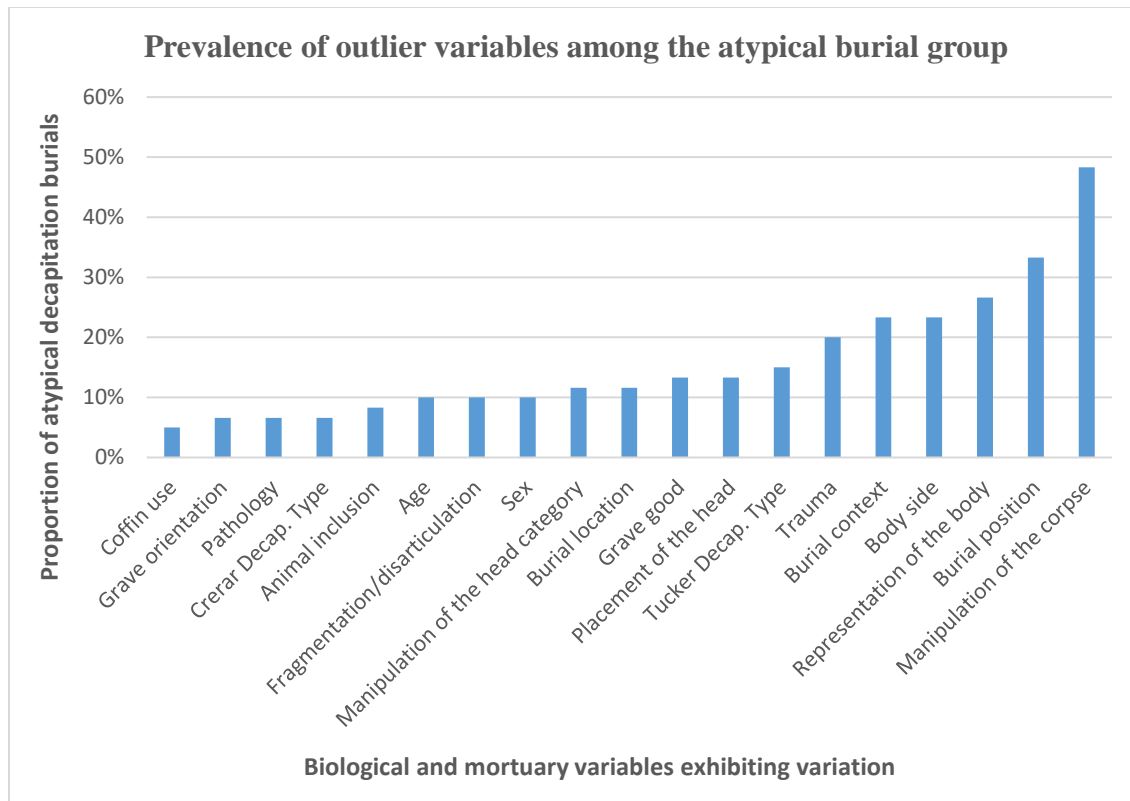
The funerary phases described above were then used to organize the main biological and mortuary variables associated with the main burial trends and to define the range of normativity of the funerary structure for the burial population. When comparing the main burial practice trends in the study region to those associated with the decapitation population, most of the differences in the expression of outlier variables and engagement with specific phases of the funerary structure are associated with the modification, deposition and commemoration phases (Table 4.88).

Table 4.88. *Funerary structure sequence phases and their associated biological and mortuary treatment variables linked to the main burial trends representing the burial population (n=1546).*

<b>Funerary structure phases of the burial population</b>			
<b>Sequence phases</b>	<b>Mortuary and biological variables</b>	<b>Total number of associated variables</b>	<b>Total number of variables differentiating decapitation burials from the main trends</b>
Selection	Inhumation; age; sex; pathology; burial location	5	0 (0%)
Preparation	Coffin use; grave orientation; body side; burial position; grave goods; animal inclusion	6	0 (0%)
Modification	Grave goods; animal inclusion; trauma; decap. type; representation of the body; placement of the head; frag/disart.; manipulation of the corpse	8	8 (100%)
Location	Burial location; coffin use; burial position; grave goods; placement of the head	5	1 (20%)
Deposition	Burial context; grave goods; animal inclusion; frag/disart.; manipulation of the corpse	5	2 (40%)
Commemoration	Grave goods; animal inclusion; representation of the body; frag./disart; manipulation of the corpse	5	3 (60%)

In the group of 60 decapitation burials associated with the atypical burial group, the most common biological and mortuary variables that stood out as outliers are linked to trauma activities impacting skeletal integrity as well as the manipulation of burial context types and body side types. Most of the specific variables linked to those types of activities appear in association with less than 50% of the burials included in this sub-group (Figure 4.96). Upon review of those specific variables identified as outliers in the atypical burial group, some of those variables (grave orientation, grave good, and coffin use) can be associated with the selection and preparation phases (which were previously listed as having 0% deviation dimension). However, those variables do not appear in high enough numbers across the burial sub-set to warrant

categorizing them as significant outliers associated with those specific phases. Nevertheless, the inclusion of those variables is crucial to our understanding of the full spectrum of practices associated with atypical burials and the varied ways the funerary structure was communicated and engaged with in certain circumstances or for certain types of decapitated individuals, if only observable a limited number of times.



*Figure 4.96. Distribution of the prevalence of outlier variables among the atypical decapitation burial group.*

To estimate the varied levels of differential engagement with specific phases of the funerary structure in the atypical burial group, the total number of instances each phase appeared was calculated by burial (Table 4.89).

*Table 4.89. The total number of atypical decapitation burials (n=60) associated with each phase of the funerary structure based on outlier variables present by burial.*

<b>Total number of decapitation burials in the atypical sub-group with outlier variables by funerary structure phase</b>	
<b>Phases</b>	<b>Total number of burials (% of total atypical burials)</b>
Selection	19 (31.6%)
Location	41 (68.3%)
Preparation	48 (80%)
Deposition	32 (53.3%)
Modification	45 (75%)
Commemoration	42 (70%)

The results suggest specific biological and mortuary variables were selectively responded to, deployed and utilized to distinguish specific individuals during each phase of the funerary structure, with an emphasis placed on activities intentionally meant to transform or manipulate the body during the modification, deposition and commemoration funerary phases. The use of the full spectrum of the funerary structure, with specific attention and engagement in those three phases, and in differential circumstances and with specific bodies in the decapitation burial population demonstrates the communities across this region of western Roman Britain utilized a set of main burial practices and a sub-set of atypical mortuary burial practices without a specific set of ‘ideal’ processes for the treatment of the dead.

#### **4.7. Conclusion**

This chapter presented the bioarchaeological variables and mortuary context data associated with the burial population from sites assessed in this thesis. The data were analyzed quantitatively and qualitatively with the goal of identifying the main burial practice trends and range of differential treatment patterns (if any) by burial status (decapitation and non-decapitation) sub-group. Next, the bioarchaeological and mortuary treatment patterns associated with the burial sub-groups were compared to one another to provide further context for the

observed minority mortuary treatment patterns in the burial population. This analytical step allowed a structured set of funerary practices across the burial population to be identified and consisting of specific mortuary treatment phases that were engaged with differently in the decapitation burial population. This suggests that the non-decapitation and decapitation burials reflect similar normative mortuary practices, with 62 decapitation burials conforming to the standard mortuary trends and 60 decapitation burials associated with the atypical burial group. The analysis revealed that nearly half of LRP decapitation burials (60/122, 49.1%) were associated with diverse atypical burial practices that included funerary phases during which activities related to the application of the decapitation rite, manipulation of the body, and other forms of mortuary treatment (such as context and body side) were selectively engaged in on an individual and site-by-site basis in Gloucestershire and Oxfordshire.

Chapter Five presents the summary data results of the main burial and atypical burial practice trends, as well as the less common qualitative burial treatment patterns. The primary and secondary research questions outlined previously in Chapter One (Introduction) of this thesis are considered in light of these results. Regional mortuary treatment patterns are considered to contextualize the variations observed in the burial treatment patterns and funerary behavior identified in the analysis presented above. Lastly, select decapitation burials associated with the main burial treatment sub-group and the atypical burial sub-group are subjected to an osteobiographical-influenced approach to demonstrate the potential of this analytical method for our understanding of the significance of biological and social variables in the treatment of bodies and spaces as a means of expressing belonging, difference or exclusion in the sample burial population.

## Chapter Five: Interpretation and Discussion

### 5.1. Introduction

In this chapter, I will address the primary research question and the four secondary questions presented in the Introduction with reference to the qualitative and quantitative results outlined in the previous chapter. This chapter will also incorporate mortuary treatment and funerary ritual data from sites in other regions where Romano-British decapitation burials have been studied to contextualize the results of the analysis presented in the previous chapter. The chapter will conclude with osteological profiles of select decapitation burials associated with the atypical burial group with the goal of demonstrating the potential of this analytical method for our understanding of the significance of biological and social variables in relation to the treatment of bodies, spaces, and diverse social frameworks in Late Roman society.

### 5.2. Question 1

***Question 1:** Are there differences in the mortuary treatment of individuals in decapitation burials and depositional contexts compared to non-decapitation burials in the same site or region based on age, sex, health, spatial distribution, burial context, or other categories?*

#### 5.2.1. Patterns in Mortuary Treatment Variables

Identifiable patterns in the mortuary treatment of the decapitation burials demonstrate that most of those burials are similar in most respects to the non-decapitation burials in the study sample. The analysis results of the biological and mortuary treatment patterns of the burial population presented in Chapter Four (Table 4.84; Figure 4.91) show that 62 of the decapitation burials (50.8%) received similar burial treatment as the non-decapitation burials. The mortuary treatment patterns exhibiting the most similarities in use within the burial population comprise the main burial group and are summarized in Chapter Four (Sections 4.6.1 - 4.6.3).



The results of the mortuary analysis conducted in Chapter Four (Table 4.85; Figure 4.92) revealed that the differences in the main burial practice trends when the decapitation and non-decapitation burials were compared related to rates of trauma, trauma types (including decapitation type), and manipulation of the placement of the cranium or its preservation/integrity. Additional variation in the sub-variables (types) was observed in the mortuary treatment of the remaining 60 decapitation burials (49.2%) and a small sub-set of non-decapitation burials compared to the main burial group described and represented in figures throughout Section 4.6.2. in Chapter Four. Those sub-types of the primary variables (summarized in Table 4.86) that differ from the main burial practices represent the outlier range of normativity within the burial spectrum and comprise the atypical burial group.

### 5.2.2. Patterns in Biological Variables

The biological variables that exhibit greater variation from the main normative burial trends are based on patterns identified in Chapter Four and are summarized below (Table 5.1). The two biological variables exhibiting the greatest degree of difference are demographic in nature, with female, unsexed, subadults and indeterminate aged individuals less commonly represented in the sample. In the decapitation burial population, there is a higher percentage of dental caries and periodontal disease, while the non-decapitation burial population exhibits a higher percentage of periostitis, osteoarthritis and Schmorl's Nodes.

*Table 5.1. Biological variables (age and sex) shared by decapitation and a subset of non-decapitation burials from LRP sites in Oxfordshire and Gloucestershire.*

<b>Atypical biological variables exhibiting difference by burial status</b>				
<b>Variable</b>	<b>Decapitation</b>	<b>Percentage</b>	<b>Non-decapitation</b>	<b>Percentage</b>
Age	Subadult	10.6%	Subadult	16.1%
	Indeterminate	4.9%	Indeterminate	4.1%
Sex	Female	29.5%	Unsexed	28.8%
	Unsexed	22.1%	Female	27.1%

### 5.2.3. Patterns of Greater Variation among Variables

The mortuary treatment patterns exhibiting the greatest degree of variation are trauma, skeletal integrity, placement/manipulation of the head or corpse, and inclusion of supernumerary skeletal remains and grave good inclusions. When assessing the patterns in the decapitation burial population, the group exhibiting the greatest degree of variation based on sex is Tucker Type 4b (Figure 5.1). There are some similarities between the age categories (Type 4b), but subadult burials are absent in some types associated with the adult burials (Type 1, Type 2, Type 6 and Type 7) (Figure 5.2).

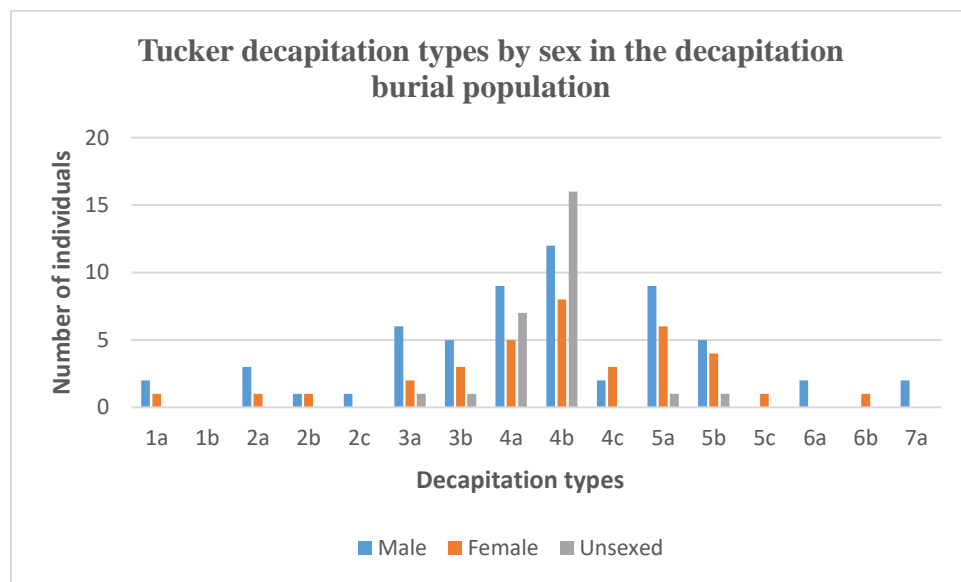


Figure 5.1. Distribution of the Tucker decapitation types in the decapitation burial population (n=122) based on sex category.

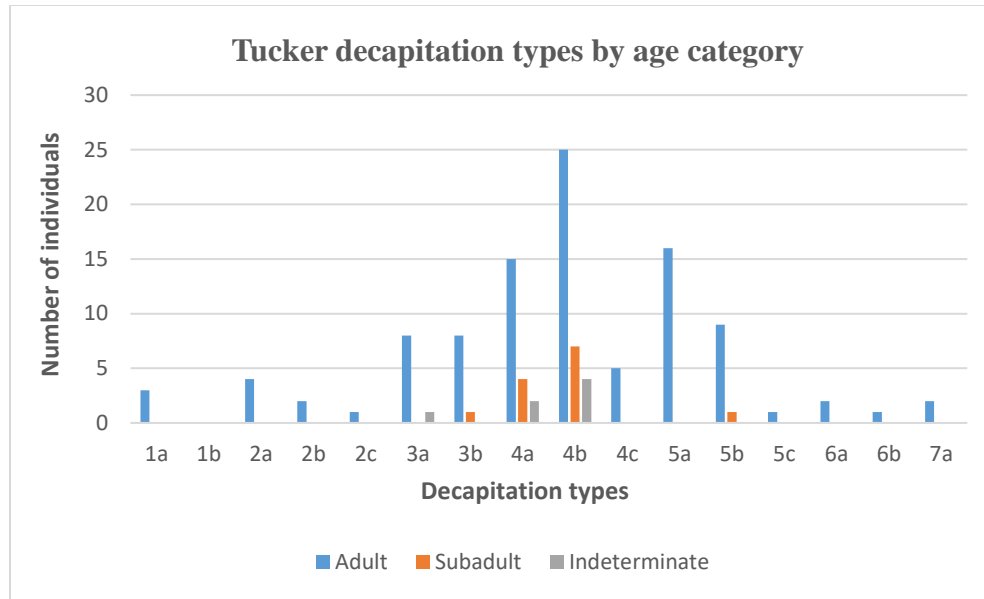


Figure 5.2. Distribution of the Tucker decapitation types in the decapitation burial population (n=122) based on age category.

Most of the decapitation burial population exhibited good preservation of the axial and appendicular skeleton despite the intentional removal of the head pre- or post-mortem (Figure 5.3 and Figure 5.4).

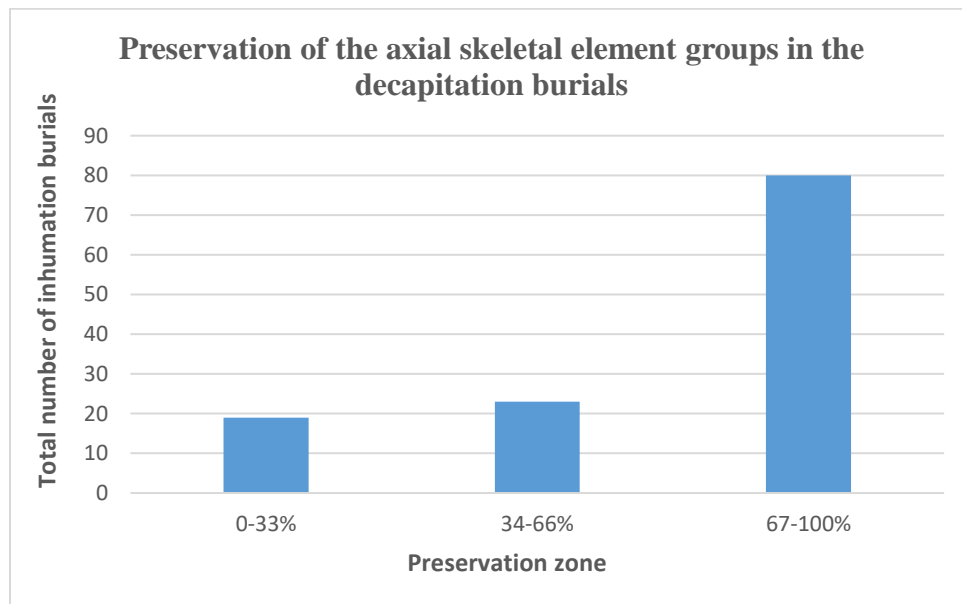
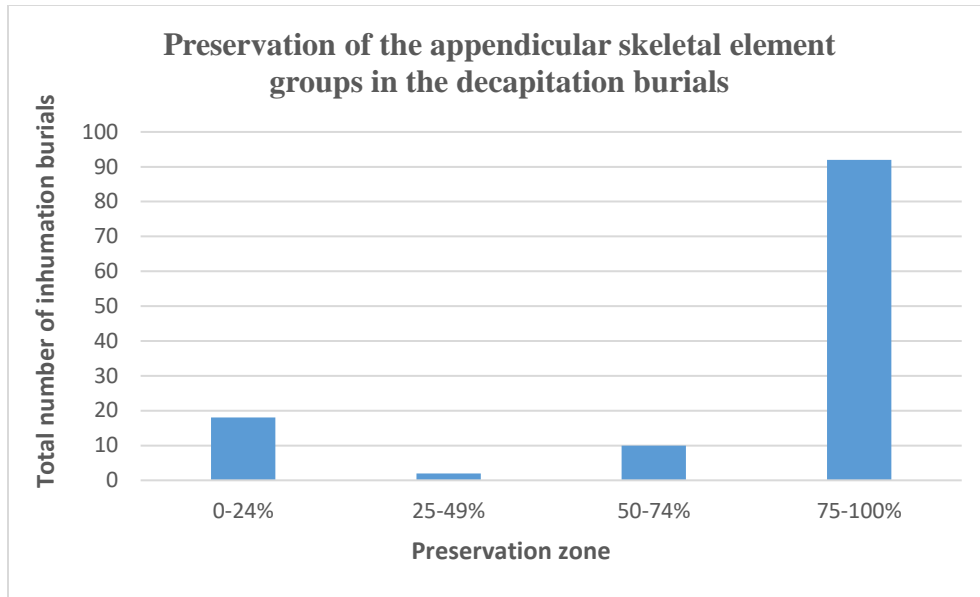
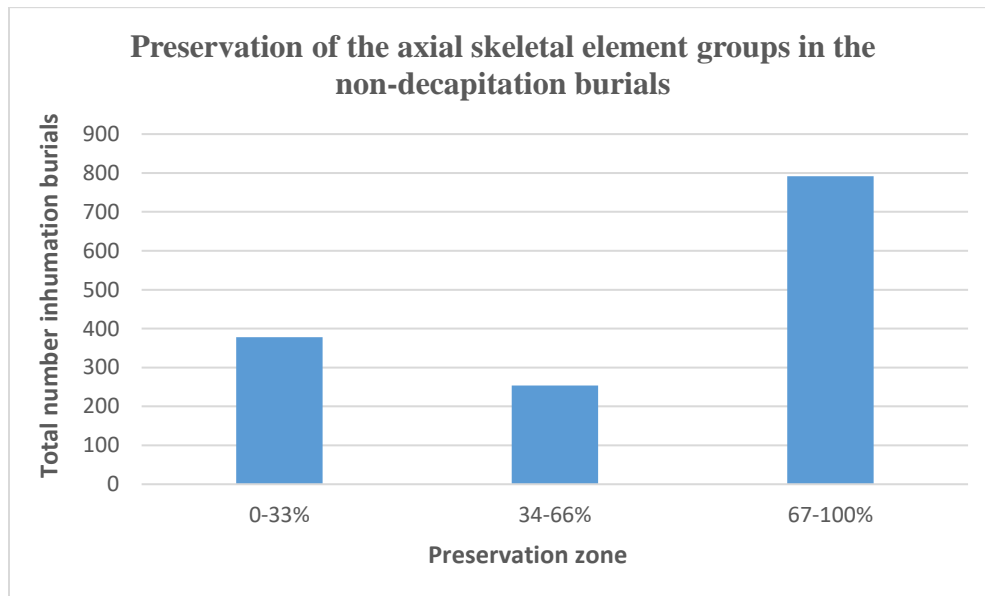


Figure 5.3. Distribution of the preservation of the axial skeleton in the decapitation burial population (n=122).

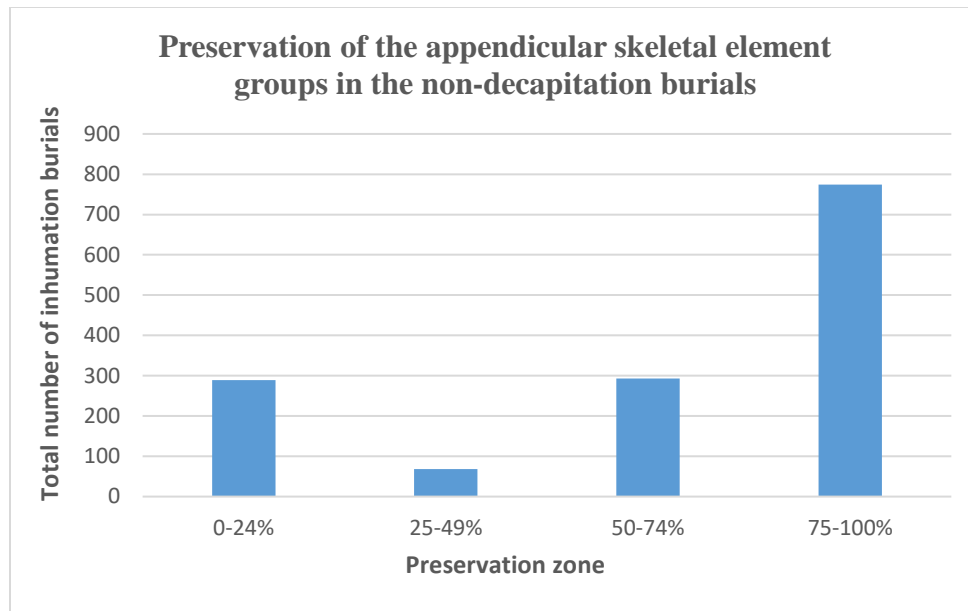


*Figure 5.4. Distribution of the preservation of the appendicular skeleton in the decapitation burial population (n=122).*

Most of the non-decapitation burial population exhibited poor preservation of the axial and appendicular skeleton compared to the decapitated individuals (Figure 5.5 and Figure 5.6).



*Figure 5.5. Distribution of the preservation of the axial skeleton in the non-decapitation burial population (n=1424).*



*Figure 5.6. Distribution of the preservation of the appendicular skeleton in the non-decapitation burial population (n=1424).*

The isolated decapitation burials (13.9%) located spatially away from the main burial group in their respective sites was a less common variable compared to the other decapitation burial subgroup and the non-decapitation burials in cemetery locations. As shown in Figure 5.7, of the total number of decapitation burials in isolation (17), adult females and subadults were only isolated from other burials yet remaining in the same site boundaries, however, more adult male decapitation burials were found in isolation and were found in contexts outside of settlement boundaries (in fields, ditches, etc.) and isolated from burials in the same immediate location (within cemetery boundaries, etc.).

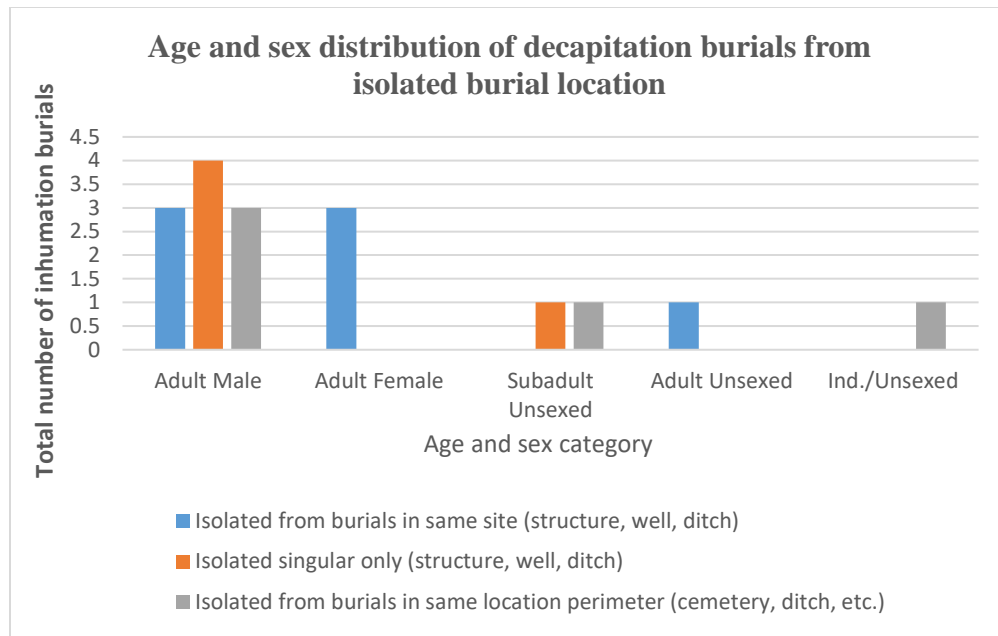


Figure 5.7. The distribution of decapitation burials located in isolated burial contexts based on age and sex categories.

### 5.3. Question 2

**Question 2:** How does the decapitation variable correlate with other categories of mortuary evidence (grave goods, body position or orientation, location, context, post-mortem modification/manipulations, fragmentation, animal inclusions, etc.) and bioarchaeological data (sex, age, trauma, pathological conditions, etc.) between sites and regions?

Correlations between the decapitation variable and mortuary/biological variables were identified based on the comparative analysis of the decapitation and non-decapitation burial populations presented in Chapter Four. The analysis of the main burial patterns revealed similarities in the treatment of the dead in the selection, preparation and location of the funerary structure. The main differences in the mortuary treatment of the decapitation burials compared to the non-decapitation burials are rates of trauma, placement of the head, manipulation and fragmentation of the body, and secondarily, burial position (N/A type), burial location (isolated), and body side (prone, left, right). The percentage of those variables that are associated with decapitation will be described in more detail below with an emphasis on their variation within the population and within/between sites in the sample.

### 5.3.1. Trauma

Only ~20% of the entire burial population exhibited evidence of trauma (including healed injuries) (Figure 5.8), and most individuals with cuts or chops are decapitated adult males, while those with fractures are mostly non-decapitated adult males (Figure 5.9 and 5.10).

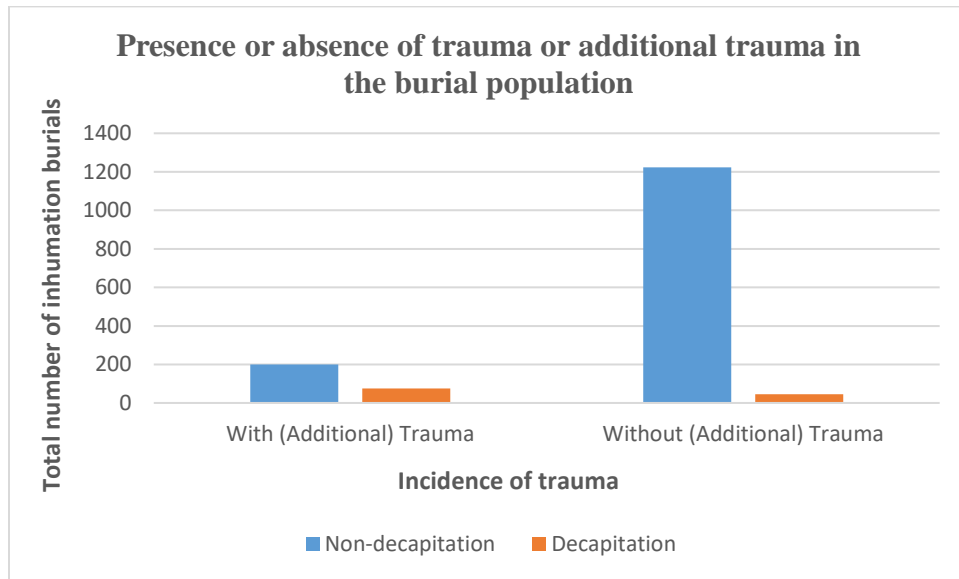


Figure 5.8. The distribution of the presence or absence of trauma injuries (n=842) among the burial population (n=1546) by burial type.

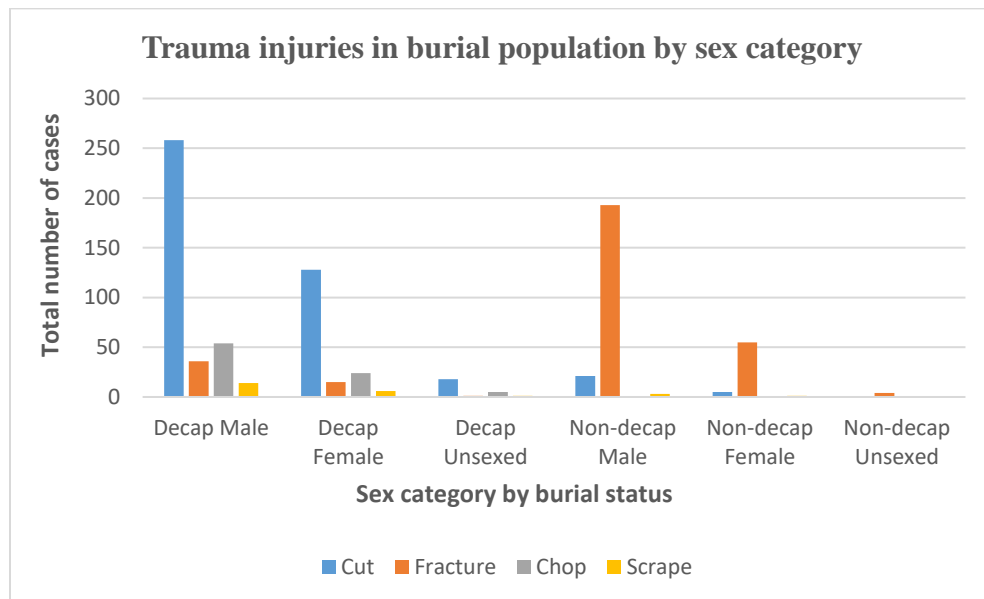


Figure 5.9. Distribution of trauma injuries in the burial population (n=276) based on sex category.

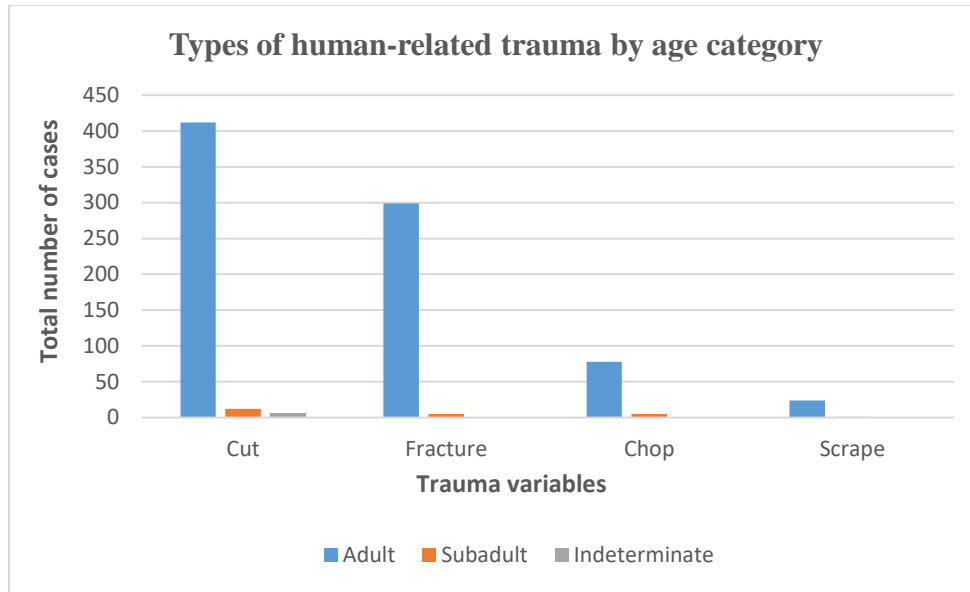


Figure 5.10. Distribution of trauma injuries in the burial population ( $n=276$ ) based on age category.

Within the decapitation burial population, adult males had higher levels of trauma compared to adult females and unsexed individuals, which indicates that this segment of the population was exposed to greater risk of injury and death, likely due to occupation and social role. It also indicates that decapitated males were more likely to belong to a socio-economic stratum where the risk of injury or death was greater than in the population as a whole.

### 5.3.2. Decapitation type

Most of the trauma in the decapitation burials was inflicted peri-mortem and consisted of Type 1a (36/50, 72%), followed by Type 2a (6/50, 12%), and Type 1b (5/50, 10%), while there was no association with Type 2b. The association of peri-mortem trauma with Types 1a and 2a implies that decapitation was more likely to be inflicted on specific individuals whose bodies were then more likely to be subjected to non-normative post-mortem treatment. Most of the decapitation burials in the sample exhibit a range of trauma types, although Crerar Type 2c stands out among the other decapitation types in the JCA analysis, suggesting this type exhibits the greatest variation in its correlation with the decapitation variable.



### 5.3.3. Representation of the Body

The relationship between the representation of the body variable and the decapitation variable can be examined through an assessment of the presence/absence of skeletal element groups in each burial for each site. Among the decapitation burials, most of the twelve element groups were represented (70-80%), with the skull element present 86.8% of the time while the right foot (72.9%) and left foot (73.7%) were poorly represented in the sample. In comparison, in the non-decapitation burial population, most of the twelve element groups were presented (low to mid 70%), with the skull element as the highest percentage present (84.9%) and the right foot (50.8%) and left foot (51%) had the lowest percentage present in the sample.

Most of the decapitation burials (75.4%) qualify as ‘complete’ based on the higher percentages of skeletal element groups present compared to the non-decapitation burials (53.7%). However, this trend may be biased due to the fact that hand and foot bones were the most frequently absent in the non-decapitation sample as a result of loss during excavation and recovery. This means that the percentage of ‘complete’ bodies in the non-decapitation burial population may be higher and with less variation in the preservation zones than the decapitation burial population, which in turn might reflect the selection of those skeletal element groups for removal from the non-decapitation burials. However, when the axial vs. appendicular elements of the body are compared in the decapitation population, the axial section of the body by skeletal element group is relatively rarely represented. This suggests that the skull, ribs, and vertebrae were impacted by intentional selective removal from certain decapitation burials (i.e., those burials represented only by the presence of a skull/cranium, or those with missing skulls/cranium/cervical vertebrae), and thus, there may be only circumstantial correlation of this variable with the decapitation variable.

#### **5.3.4. Manipulation of the Corpse**

In the decapitation burial population, a direct correlation between the decapitation variable and the manipulation of the corpse variable can be observed through variation in types of mortuary treatment. For example, eight decapitation burials (8/122, 6.5%) all within the moved manipulation category and all with the skull located at the knees or the feet (except one with the skull located in the lower right quadrant of the grave), were distinguished from the rest of the burials through specialized manipulation of the head, which was placed in the prone position while the body remained in the supine body position (Chapter Four, Section 4.5.8., pg. 102-105). Among those individuals, the majority were adults (87.5%), female (75%), had similar pathological conditions (mainly nutritional- and stress-related conditions, except SK 705 (subadult with tuberculosis/pneumonia)). These examples of body manipulation suggest some individuals were selected for this manipulation of the corpse based upon a set of characteristics connected with the decapitation variable. While it does not definitively demonstrate a meaningful association with the prone body side position, five of the eight burials in the group (62.5%) were with or next to an individual in the prone position.

A possible shift in the importance of the head as a focus of manipulation or modification is seen in the placement of the head in the decapitation burials dating to the LIA-LRP. Tucker (2012:210-1) notes that most of the IA decapitation burials (46.5%) were represented by the head only, followed by displaced heads (29.7%), absent heads (16.8%), or heads that had been removed but were replaced in the correct anatomical position (6.9%). However, by the LRP, most decapitation burials (75.2%) are represented in the displaced from the anatomical position category, followed by the absent/missing (12%), anatomical position (9.1%), and lastly, the head only position (3.5%) (Tucker 2012:210-1). The majority of the LRP decapitation burials in

Oxfordshire and Gloucestershire were in the displaced (moved) position category (63.1%), followed by the placement in the anatomical position (21.3%), the absent/missing position (13.1%), and lastly, in the moved and replaced position categories (2.4%). While the sub-categories representative of the placement of the head variable may not be entirely compatible, the slight differences in the representation of the categories suggest there were variations in the intentional handling of the head during peri- or post-mortem interment activities over time in Britain, as reflected in the Greater London and Oxfordshire and Gloucestershire burial samples. Crania were intentionally extracted from burials and redeposited in pits, ditches, shafts, etc. most often in isolated contexts during the IA, whereas the displacing/moving of the head while retaining it in the grave in cemetery contexts was most common during the LRP.

Evidence for manipulation of the corpse possibly indicating restraint of limbs or tying of wrists and intentional placement of the body in the prone position post-mortem was observed in three adult decapitation burials (two males and one female) from three different sites. All three were single burials in the extended and prone position and all were located within a cemetery perimeter and were relatively complete with good preservation. While these burials are rare in the decapitation burial population analyzed in this thesis, they are consistent with evidence for intentional corpse manipulation observed in other regions and may represent instances of judicial execution (Tucker 2016:20, 132; Wiseman et al. 2021).

Evidence for the manipulation of the corpse unrelated directly to the act of decapitation and the placement of the head/moved category variables is relatively uncommon within the decapitation burial population. These examples of variation in the manipulation of the corpse, not just in the decapitation burial population, suggests this funerary behavior was not correlated

only with decapitation, although it may be more strongly linked to the age (adult) of the individual, the timing of the trauma timing and the disarticulation/fragmentation variables.

### 5.3.5. Disarticulation/Fragmentation

Across the entire burial population, nine sites produced evidence for the deposition of additional disarticulated human bone in a total of 27 burials, two of which were decapitation burials, representing 1.6% of the entire decapitation burial population, and 25 non-decapitation burials representing 1.7% of the entire non-decapitation burial population (Figure 5.11). This suggests the presence of this funerary behavior was not limited to the decapitation population.

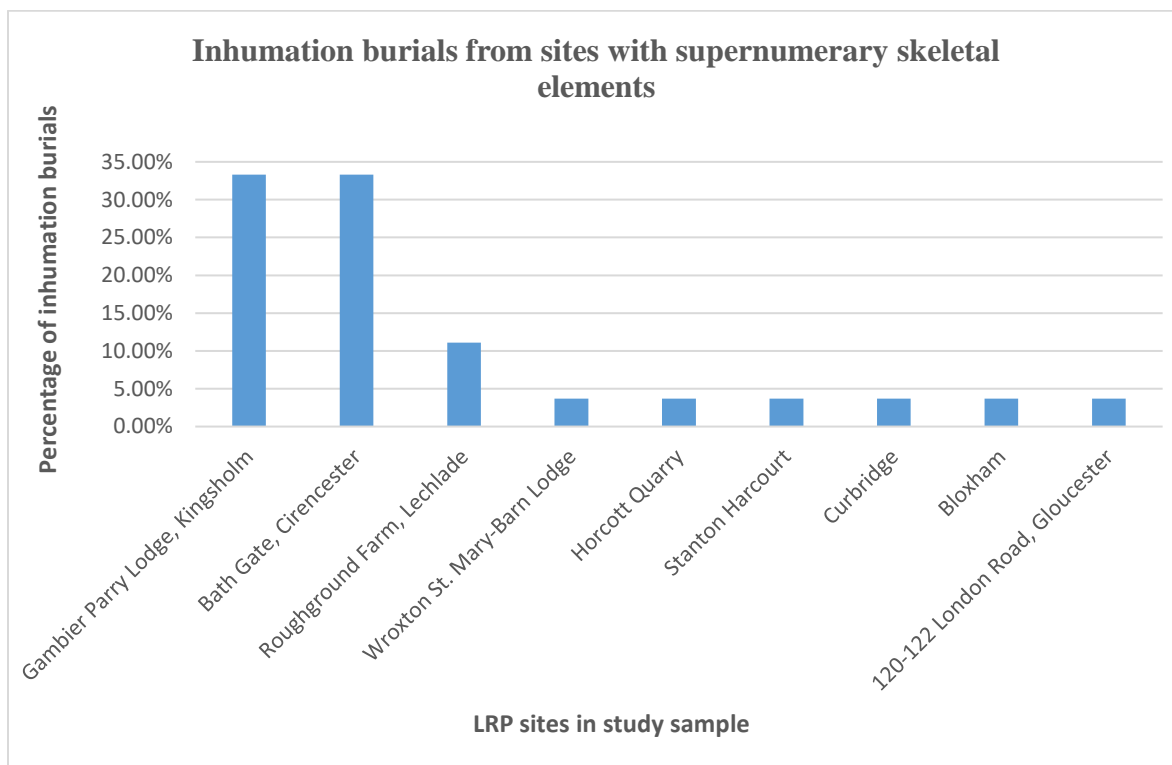


Figure 5.11. Distribution of LRP sites with burials containing supernumerary skeletal inclusions.

Intentional modification for curation or other purposes and fragmentation of the crania of select individuals in the decapitation burial sub-group was observed in four of the eight burials identified by the presence of only the skull or skull and vertebrae in the burial from two different sites (two female (SK 4400 and SK 5187) and two males (SK 5188 and SK 5189)). Additional

examples of the manipulation of the corpse in the decapitation population in the form of fragmentation and potential use/distinguishing of the skeletal elements unrelated to the decapitation process/act can be observed at the site of Cold Harbor Farm, Crowmarsh in the scoop pit burial of Burial C. This burial contained almost all the skeletal elements of a 2-year-old indeterminate sexed individual in the supine extended position with the top of the skull removed and placed in an indentation deposit cut into the west side of Burial B located 85cm away (Clark 1996:74). In the primary deposit of Burial C, the left arm was placed in a position above the head and contained a piece of flint placed 3.5cm from the mandible and is believed to be associated with the infant (Clark 1996:73-5).

A second example of intentional fragmentation comes from the cemetery from the site of Bath Gate, Cirencester in the single burial of SK 123, which contained an adult male individual in the supine extended position. In addition to the peri-mortem cut and chop marks identified on the C3 (Figure 4.60, Chapter Four), C4 (Figure 4.61, Chapter Four) and mandible related to the decapitation process (Figure 4.62, Chapter Four), cut marks and scrapes made to the right femur were observed (Figure 4.63, Chapter Four). Those cuts and scrapes appear to have been made post-mortem to the skeletal element and given the location suggest fragmentation more often associated with butchering to remove flesh by disarticulating the remains at the joint locations (Boylston 2000:368; 2010:40-1; Craig et al. 2005:170; Knüsel and Outram 2006:264-5; Lyman 1994a:298-9; Olsen and Shipman 1988:550-1; Symes et al. 2012:361-65).

Excessive disarticulation was rare in the decapitation sample, with only one example from SK 1018, Barrow Hills, Radley II in the form of several cut marks to the cervical vertebrae, delivered from the anterior in a left to right direction from an assault prior to decapitation and additional cuts to manipulate the neck post-mortem. A second example was observed in the

burial of the adult female (SK 1026) at the same site, in the form of several cut marks on the superior body of the fifth cervical vertebra delivered from the anterior in a left to right direction. The similar treatment observed in those two burials suggest that cut and chop injuries were not just the result of the assault -- the manipulation of the corpse post-mortem was linked to the decapitation variable.

#### **5.3.6. Burial Position - Placement of the Head**

Among the decapitation burials where the head had been moved from its anatomical position, the heads are mainly associated with the lower half of the body, while the next most common position is an association with the upper half of the body. Missing heads were the third most common type in the decapitation burial sample. In the decapitation burial sample adult males are associated primarily with the on/at knees position, followed closely by the anatomical (removed and replaced) position. The adult female decapitation burials are associated primarily with the on/at knees position, followed by the at feet type. Unsexed adult decapitation burials are associated primarily with the on/at knees position type. The subadult unsexed decapitation burials are associated primarily with the on/at knees position type (Figure 5.12).

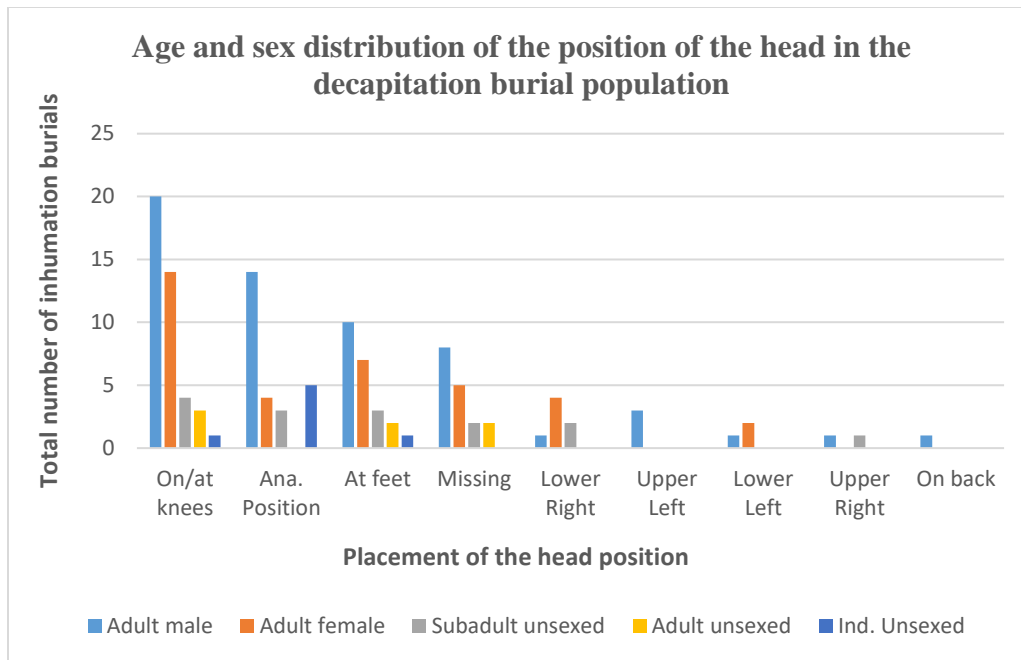


Figure 5.12. Distribution of the placement of the head position in the decapitation burials (n=122) based on age and sex categories.

### 5.3.7. Manipulation of the Head Category

The manipulation of the head variable is associated exclusively with the placement of the head burial position linked to decapitation burials, and aids in the categorization of intentional manipulation of the integrity of the body during various phase(s) of the funerary ritual. When the position of head type was assessed for the decapitation burials, the majority were found to be associated with the moved category (indicating the head was placed in another location in the burial), followed in order of representation by the anatomical position category, where the head was removed but remained in the burial (Chapter Four, Table 4.47). The manipulation of the head category variable is directly linked to the placement of the head variable, with similar age and sex distribution rates between the different categories, and therefore correlated with the decapitation variable. Overall, most of the crania from the decapitated individuals were retained within the burial; however, burials in the crania removed/missing category should still be considered a correlated variation on the decapitation practice.

### 5.3.8. Burial Position

When assessing the mortuary treatment by burial position type, the most common burial position types in the decapitation burial population (Figure 5.13) appears similar to the patterns observed in the non-decapitation burial population (Figure 5.14) although the N/A skull only position is clearly more closely linked to the decapitation variable than the other burial position types. Based on the age and sex distribution by burial position type in the decapitation burial population most of the adult males were buried in the extended position (72.8%), followed in order of representation by the skull only (11.8%), flexed (10.1%), and semi-flexed (5.0%) position types. Most of the adult females were buried in the extended position (75%), followed in order of representation by the flexed (11.1%), semi-flexed (8.3%), and skull only N/A (5.5%) position types. Most of the unsexed subadult burials were associated with the extended position (84.6%), followed by the skull only N/A (15.3%) position type. Most of the unsexed indeterminate burials were associated with the skull only N/A position (66.6%), followed by the extended (33.3%) position type. These age and sex distribution patterns associated with the burial position variable share similarities with the non-decapitation burial population, however, the N/A skull only type is exclusively associated with the decapitation burial population.



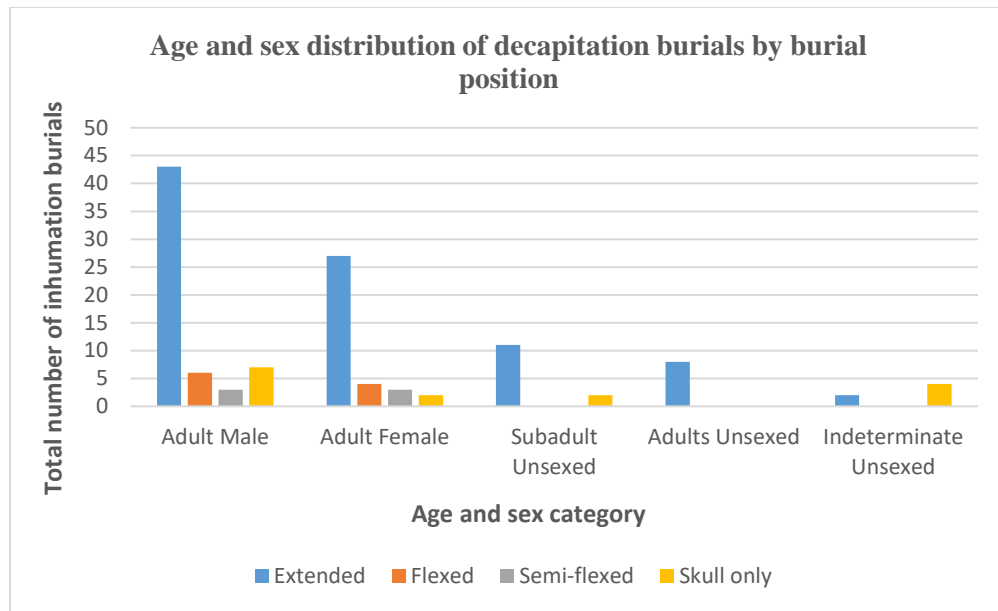


Figure 5.13. Distribution of the burial position type in the decapitation burial population (n=122) based on age and sex categories.

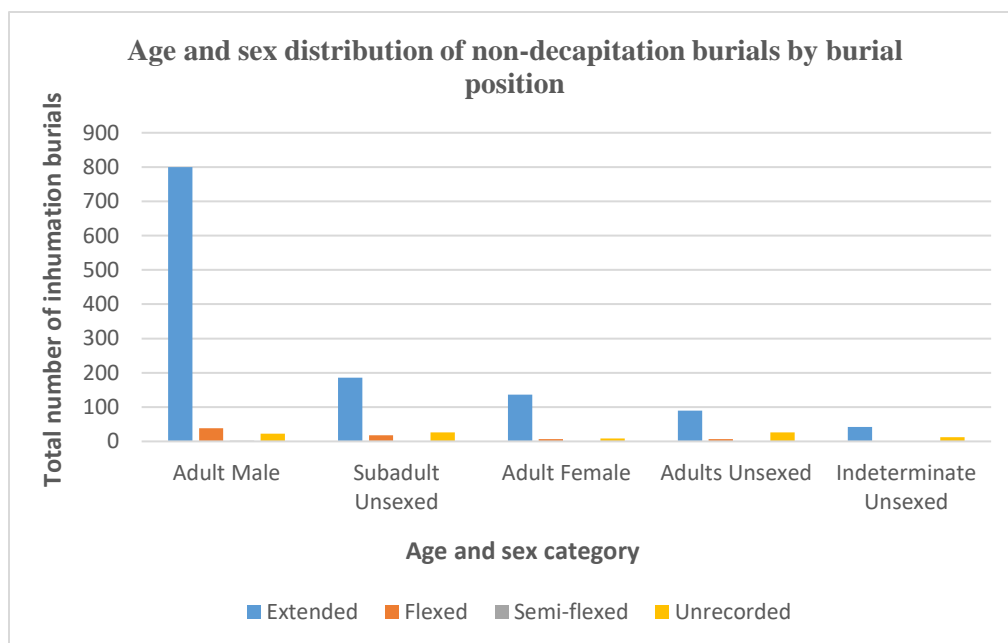


Figure 5.14. Distribution of the burial position type in the non-decapitation burial population (n=1424) based on age and sex categories.

In the decapitation burial sample, fifteen burials (12.2%) were represented only by a skull/cranium or a skull/cranium with vertebral bodies attached. Decapitation burials in the N/A

skull only category were found in greater numbers near/next to other burials (10), while a smaller number were found in isolation away from other burials (5) (Figure 5.15).

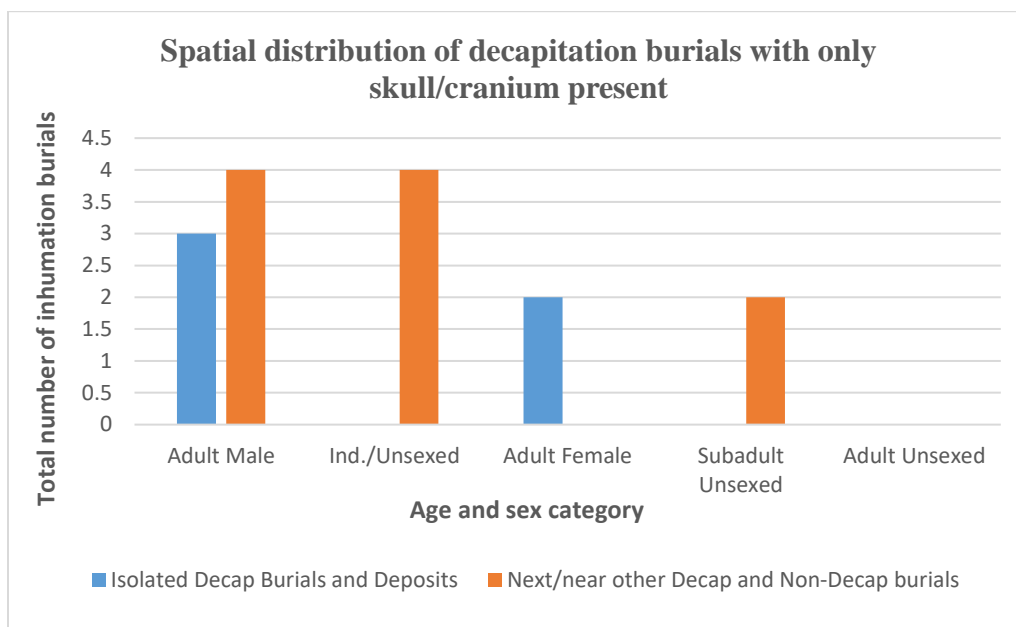


Figure 5.15. Spatial distribution of decapitation burials represented only by the presence of the skull/cranium.

Most of the burials in both groups were adults (13/104, 12.5%; 13/15, 86.6%), with just two unsexed subadults (2/13, 15.3%; 2/15, 13.3%), and most of the adults were males or unsexed individuals, while only two adult females were present. Most of the burials found next/near to other burials were associated with cemetery locations or pits located near many other burials (the multiple burial of SK F70, F95 and F132 from the Gambier Parry Lodge, Kingsholm site, for example). Most of the burials in this group were assigned the N/A body side position (9) if the author did not record the position, while the next most common positions were supine (4), prone (1) and right (1) sides.

### 5.3.9. Body Side

Most of the inhumations were buried in the supine position (68.8%), followed by the prone side position (18%), unrecorded position (7.4%), right side (3.3%), and left side (2.5%).

While the body positions by age and sex in the decapitation burial population appear similar to the patterns observed in the non-decapitation burial population, the body position that exhibits the greatest variation in the decapitation population is the N/A side category (12.3%), which is represented only by the presence of the cranium or skull, which appears more often in the near/next spatial distribution group compared to the isolated burial group, and specifically correlates with the intentional differential treatment of decapitated individuals in comparison with the non-decapitation burial population. Overall, decapitation burials had greater proportions of individuals in positions outside of the supine norm, especially in the prone position, which is three times higher in the decapitation group than in the non-decapitation group. This has been noted in LRP mortuary contexts in other regions by previous researchers, suggesting this sub-variable is correlated with the decapitation variable with a measure of consistency that is incompatible with the normative display of the deceased during phases of the funerary process, including the deposition and commemoration stages. This also suggests there were broadly held beliefs about the appropriate use of the prone position for disposing of certain individuals, linked to decapitation, adult age, and punishment.

#### **5.3.10. Pathology**

Certain groups in the study sample also appear to have been impacted by pathological conditions at a greater rate than others. These frequency trends reflect a similar pattern observed more broadly in the Central Belt region of statistically significant dietary variation between settlement types (Rohnbogner 2018:338). The relatively consistent distribution of incidence rates between sites is reflected in the absence of a significant correlation in the incidence rates by site and burial context. There is a higher percentage of dental caries and periodontal disease in the decapitation group, while the non-decapitation burial population exhibits a higher percentage of

periostitis, osteoarthritis and Schmorl's Nodes. The distribution of pathological conditions by age and sex categories among the decapitation burials suggests a correlation between poor oral health, differential access to nutrient dense resources and overconsumption of carbohydrate rich foods linking the pathology variable and the decapitation variable.

#### **5.4. Question 3**

***Question 3:*** *Are there signs of an increase or decrease in the occurrence of decapitation burials or related modification or fragmentation deposits in specific sites in Gloucestershire or Oxfordshire during the Late Roman period?*

##### **5.4.1. Demographic Trends**

Tucker (2012) noted that there is an increase in the number of decapitated individuals across sex and age categories in post-Roman Conquest Britain. In her Iron Age decapitation burial sample, consisting of 36 males, 13 females, 11 non-adults, there are more adult males (60%) than adult females (21.7%) and non-adults (18.3%), as well as more adults (81.7%) than non-adults (18.3%). In the Romano-British decapitation burial group (212 males, 147 females, 52 non-adults), a similar demographic trend emerges, although there were fewer adult males (51.5%) compared to subadult males (12.5%) as well as an increase in adult female decapitation burials (35.7%), with more adults (87.3%) than subadults (12.4%) (Tucker 2012:209). The sex distribution of the decapitation burials (n=122) in this sample show the adult males (48.3%) represented the majority of the burial group, followed by adult females (29.5%), and least represented were unsexed individuals (22.1%), which suggests a slight decrease in the presence of adult males and adult females, and an increase in the non-adult/unsexed individual category compared to the broader regional Romano-British decapitation population.

In Tucker's (2012) study, there were more young adults (47.1%) than individuals in the middle (35.3%) and mature (17.6%) age categories (with the mature category the least well

represented). However, in the Romano-British decapitation burial sample, a shift can be seen where more adult burials were observed, with a greater emphasis on the representation of the middle age group (71.1%), followed by the mature age group (17.1%), and the young adult age group (11.7%) (Tucker 2012:209). When comparing the Iron Age and Romano-British decapitation burial groups, Tucker concluded there were no demographic differences in the incidence of decapitation in the Iron Age compared to the Romano-British urban sample. However, a statistically significant difference between adult females and adult males was present in the Romano-British rural/small-town sample compared to the Iron Age decapitation sample (Tucker 2012:209).

The decapitation burial sample analyzed in the present study (n=122) is dominated by adult burials (84.4%), which represent the majority of the burial group, followed by the subadult burials (10.6%), and indeterminate burials (4.9%). Compared to the age distribution in the Romano-British decapitation burial sample examined by Tucker (2012), the age distribution of decapitation burials in this thesis shows a slight decrease in the prevalence of decapitation among adults (3% decrease), and an increase in the non-adult/subadult decapitation burials (3% increase) over time. This slight difference in the subadult decapitation sample may be linked with a finding that infants and small children are more common in the 3<sup>rd</sup> and 4<sup>th</sup> centuries AD compared to earlier periods in the study area (Pearce 2001) – a trend that cannot be entirely explained by the increase in the number of cemeteries due to the overall increase in the population size observed in the LRP settlements in the Thames and Vale Valley in the Central Belt region (Smith 2018:234). The Chi-square tests conducted comparing the decapitation and non-decapitation samples indicated that the age proportions are not significantly different,

suggesting that neither age nor sex was a determining factor in the decapitation of an individual in Oxfordshire or Gloucestershire during the LRP.

#### **5.4.2. Spatial and Numerical Distribution Trends**

The distribution of decapitation burials in Roman Britain shows that these burial contexts are concentrated in various settlement types in the southern, central and eastern regions of England dating mainly to the late 2<sup>nd</sup> – early 5<sup>th</sup> centuries AD (Clarke 1979; Crerar 2012; Philpott 1991; Smith 2017; Tucker 2012). Previous syntheses of the distribution of the practice of decapitation and its prevalence in the Romano-British period have suggested that the 3<sup>rd</sup> and 4<sup>th</sup> centuries AD saw the largest increase in the occurrence of such burials as well as associated burials with disarticulated deposits, albeit varying by site type (Smith 2018:226-7). Smith's (2018) study focused on Romano-British burial practices in rural contexts in England reports 250 decapitation burials (2.4%) from 101 sites with 10351 inhumation burials recovered in rural settlement contexts. The majority of those burials (86%) were spread across all site types but are particularly frequent in nucleated settlements (locations with dedicated and defined cemetery grounds). Decapitated individuals were found primarily in cemetery sites as opposed to isolated sites and dispersed interments in association with 165 nucleated settlements (20% of the sample) with burial evidence as opposed to 7-8% of the 520 farmsteads, 106 villas, and 284 rural sites (Smith 2018:226). The distribution trends identified by Smith (2018) show similarities to those identified in the analysis presented in Chapter Four (Section 4.5.1), which suggests there was a socially acceptable decapitation rite in the broader burial program that was applied on a case-by-case basis during the LRP. On a broader scale, then, it appears that regional decapitation burial distribution trends as defined in previous studies show similarities in comparison to the

decapitation burial distribution trends reflected in the burial population from LRP sites in Oxfordshire and Gloucestershire.

Most of the LRP sites in the study sample yielded five or fewer decapitation burials, which on average represented ~5-15% of the total burials present at each site. A similar pattern was observed in the distribution of decapitation burials across the site types analyzed by Smith et al. (2010) at the site of Cotswold Community Park, where an estimated 6-10% of decapitation burials were recorded in Oxfordshire during the LRP (Smith et al. 2010:256). The aforementioned ~5-15% range falls within the range recorded in Smith's (2018) rural burial contexts project, where decapitation burials accounted for ~20% of nucleated sites with burial evidence and 7-8% of farmsteads, villas, 'rural' and industrial sites. The sites of Cassington, Bath Gate (Cirencester), Horcott Quarry, Bridge's Garage (Cirencester), and Gambier Parry Lodge (Kingsholm) are distinguished from the other sites in the sample as they contain the highest number of decapitation burials, however, only Cassington had a percentage higher than 20% (21.3%) and yielded the highest number of decapitation burials in the entire sample with 16. Most of the sites with multiple decapitation burials had designated a dedicated space, whether bounded or unbounded, for the interment of the dead, and represented a range of site types, including nucleated settlements, farmsteads, and rural small towns. By comparison, the sites containing isolated decapitation burials were mainly located in the outskirts of 'rural' small towns, farmsteads, quarry/industrial sites, and in one case, a rural villa.

An assessment of the spatial distribution of the decapitation burials within the sites included in this sample by age category indicates that there are no sites with a significant concentration of adults vs. subadults. The adult decapitation burials represent 8.3% of the adult burial sample, and the non-decapitation burials represent 91.6% of the adult burial sample (Table

4.3, Chapter Four) irrespective of site type. Sites with a high number of adults in the burial population tend to be in cities or mid-size towns with large populations (see, for example, Bath Gate, Cirencester, Glouc., or College of Arts, Gloucester, Glouc.). The site of Post Farm, Thornbury, Glouc. had the largest number of decapitated adults in the burial sample with 11 adults and 4 subadults (1 adult male decapitation burial, 10 adult non-decapitation burials and 4 subadult non-decapitation burials). The subadult decapitation burials represented 5.3% of the subadult burial sample at this site while the non-decapitation subadult burials represented 94.6% of the subadult burial sample. Subadult decapitation burials were present at eleven of the 44 sites (25%) in the study area, reflecting the dominance of adults in this disposal category. The sites of White Horse Hill, Uffington and 124-130 London Road, Gloucester each contained two subadult decapitation burials, while the other nine sites contained just one subadult decapitation burial each. None of those sites are in close proximity to one another, with the exception of 124-130 London Road, Gloucester and Parliament Street, Gloucester, both sites associated with urban and nucleated settlements. This finding suggests that perhaps in those sites those subadults were selected for decapitation due to the proximity of adult decapitations or that there was a selective use of the practice at those sites.

The number of decapitation burials and associated human skeletal deposits in the sites examined in this thesis suggest the frequency of decapitation practices increased during the LRP in Oxfordshire and Gloucestershire in comparison to the Iron Age and earlier Romano-British periods. The contextual distribution of the decapitation burials in Oxfordshire and Gloucestershire across all site types is similar to distribution patterns observed in other regions of Britain, especially the central, southern and eastern regions (Harman et al. 1981; Smith 2018; Tucker 2012). Demographically, in the sites examined in this thesis, there are slightly fewer



adult male burials, and slightly more adult female burials and subadult burials, compared to the demographic patterns observed in the Iron Age and urban Romano-British burials described by Tucker (2012). The demographic patterns observed in this thesis are more similar to the rural decapitation burial population described by Tucker (2012:209), suggesting that proximity to urban centers might have been a determining factor in the practice of decapitation toward individuals on the basis of gender and potentially occupation.

Overall, the percentage of LRP decapitation burials reported in the sites examined in this thesis (7.9%) falls within the range (3.7% - 10%) observed by Smith (2018:226) for other sites in the Thames Valley and Avon Vales of the Central Belt. However, other regions in the Central Belt, such as Cambridgeshire, at 9.4%, appear to have slightly higher proportions of LRP decapitation burials (Crerar 2016:389), suggesting the practice of decapitation and the subsequent interment of those who experienced the rite was dependent upon localized engagement with aspects of social identity and a flexible structure during the funerary process.

## **5.5. Question 4**

***Question 4:** Are there signs that fragmentation and/or disarticulation in inhumations or deposits in Gloucestershire or Oxfordshire change in frequency or type during the Late Roman period?*

### **5.5.1. Temporal Change of Fragmentation and/or Disarticulation Frequency or Type**

During the IA in Britain, evidence associated with mortuary practices has been found in diverse contexts, including large inhumation cemeteries, ditches, pits, waterways, caves, as well as scatters and deposits in fields and settlements (Armit 2018; Cunliffe 1995). The methods of disposal include inhumation, cremation, excarnation, and fragmentation, which may leave only a fraction of the physical remains in the archaeological record (Armit 2017:163; Brun 2018; Lally 2008:121; Whimster 1981:195). Redfern (2020b:532) identifies a shift in the mortuary treatment of the dead in Britain, from the MIA fragmentation of the body, interpreted as linked to group

identity, to the organized burial of individuals in formal cemeteries along with structured classes of grave goods in some communities during the LIA. The regional study conducted by Lamb (2016) of MIA communities along the English Channel and south-central/south-west Britain made note of similar patterns of disposal mainly in pits and other non-funerary location contexts associated with nearby hillforts or other enclosed settlements with broken items without a consistent arrangement. However, by the LIA, burials shift from hillforts to smaller settlements more closely associated with the rural agricultural landscape and take the form of inhumation and cremation in formal cemeteries (Lamb 2016:27-8).

These changes in placement, disposal methods, and arrangement of funerary evidence have been interpreted as a reflection of the “rise of the individual at the expense of the communal identity” during the LIA (Lamb 2016:34). The development of funerary and mortuary traditions meant to distinguish some individuals, materials, and animals in death during this period signals the growing importance of individual social personae and increasing social hierarchy in communities in Britain and throughout Atlantic Europe (Armit 2018; Brun 2018; Redfern 2020b:532). The increased visibility of select individuals in death in specific regions may have been one of the effects of this shift; whether the skeletal remains of the dead were dispersed or buried across landscapes, or within pits and ditches (referred to as the ‘Pit Ritual Tradition’), it is suggested by Craig et al. (2005:165) that the more frequent association of burials with animal bones, pottery and small finds may indicate an intention by the living to transform or objectify the relations with those provisions through the selective visibility of the dead. The translation of whole bodies to parts and finally to fragments may have been an active phase of the funerary process whereby new agencies were created, and the identities of the dead were altered over the course of generations in LIA society (Armit 2010:93; Chapman and Gaydarska 2006:8, 10-5). It

is against this background of the diverse mortuary traditions in Britain that the LRP burial traditions described here will be compared to contextualize changes in frequency or type during this period.

### **5.5.2. Patterns of Skeletal Element Selectivity Change**

The LRP decapitation sites in the Gloucestershire and Oxfordshire region analyzed in this thesis included disarticulated human remains dating to the mid-late Roman period (38.6%) as well as a small percentage of sites (6.9%) with deposits dated to the LIA. The sites with the highest number of disarticulated skeletal elements recovered from deposits (pits, ditches, shafts, etc.) were Bath Gate, Cirencester, White Horse Hill, Uffington, Yarnton (Cassington), and Vineyard South, Abingdon. These locations indicate that such activity can be found in nucleated settlements in rural/agricultural as well as industrial/trade site types in this area of the Thames Valley and Avon Vale during the LRP. Among the deposits with disarticulated human remains, the most common skeletal element groups were fragments of skulls (or skull vaults), teeth, humeri, femoral shafts, tibiae shafts, ribs and vertebrae, which are similar to the most commonly represented element group patterns recovered in LRP decapitation and non-decapitation burials as additional skeletal deposits. The intentional selection of specific skeletal elements in various stages of disarticulation at some of the sites where decapitation practices were also practiced suggests persistence from the LIA to the LRP of fragmentation pre- and post-mortem across the age spectrum (despite the relative rarity of sites in the sample with deposits of disarticulated human remains dating to the LIA).

Across the Central Belt region (including the Thames Valley and Avon Vale), a total of 462 excavated site types have yielded evidence for disarticulated human remains in deposits and burials (some as ‘structured’ deposits found with other objects) in ditches, pits, and other features

(both within and outside settlements), with cranial fragments (30%) the most commonly represented of the skeletal element (Smith 2018:276). Although most 'isolated' rural sites with disarticulated human remains also yielded evidence for formal interment, including a number with cemeteries, there were still many examples of isolated skeletal remains in field ditches as well as in other contexts, such as caves. The proportion of sites with disarticulated remains in the dataset were mainly associated with farmsteads (49%), followed by nucleated settlements (18%), rural sites (11%), villa (9%), hillfort (4%), religious site (4%), vicus (3%), and industry sites (2%) (Smith 2018:277). When evaluating disarticulation practices by site type during the LRP, it appears the majority of those sites were located in rural contexts (farmsteads), and 30% of the sites showed no evidence for formal burial practices well into the LRP (Smith 2018:276-7).

The selection of specific skeletal fragments or whole sections of the element, especially crania and/or mandibles, during the LIA was observed in a small number of deposits in ditches, pits, wells and bogs found in rural and small-town sites (Tucker 2012:80-1). Among the decapitation burials from Iron Age sites analyzed by Tucker, the majority were represented only through the presence of the skull (46.5%), however, in the Romano-British decapitation burial sample, the number was significantly lower (3.5%) as most of the decapitation burials retained the cranium. This tendency to retain the integrity of the complete body in LRP decapitation burials is also reflected in the decapitation burial population sample analyzed in this thesis, with only 13.1% of the burials represented solely by the cranium. Interestingly, axial elements in the decapitation sample (especially the cranium) are less common than skeletal elements from appendicular sections of the body.

In addition to the deposits and burials (isolated and centrally located in cemeteries) with disarticulated skeletal remains in LRP sites in Oxfordshire and Gloucestershire, selected remains

(mainly crania and long bones) were occasionally intentionally deposited in decapitation and non-decapitation burials in the study sample. A total of nine sites (20.4%) examined in this thesis contained evidence for the deposition of additional disarticulated human skeletal remains in a total of 27 burials: 2 decapitation (7.4%), representing 1.6% of the entire decapitation burial population, and 25 non-decapitation (92.6%), representing 1.7% of the entire non-decapitation burial population. The inclusion of additional disarticulated remains in both decapitation and non-decapitation burials during the LRP in Oxfordshire and Gloucestershire suggests this funerary behavior was not correlated strictly with the decapitation variable but was focused on manipulation of the axial skeletal element groups, particularly the cranium, in specific burials with a potential connection to the individual's age, sex, spatial location and, potentially, the site type.

The intentional selection and manipulation of crania and long bones for interment in deposits in cemeteries and non-funerary contexts during the LRP was also observed by Crerar (2012:167-9) in the Greater London region and the Foxton site in the Fen Edge region (Cambridgeshire). While some of the cemeteries located in the Greater London region were subjected to significant reuse during the ERP to LRP, resulting in the disturbance of contemporary burials and the fragmentation of many skeletal remains placed in shallow graves, the intentional deposition of dis- or semi-articulated human skeletal remains in burials was also occurring (Crerar 2012:168-9). This suggests an association between the burial of human remains in various stages of decomposition and deliberate fragmentation without a direct correlation to age or sex categories in this region during the LRP (Crerar 2012:172). The intentional placement of skeletal remains with objects, particularly pottery, and faunal remains in some cases, in both structured and unstructured deposits was also observed by Crerar (2012:173)

and appears in three LRP decapitation burials in the study sample. Crerar interprets these inclusions as symbolic acts of deposition possibly linked to religious beliefs or ceremonies (Crerar 2012:120-1, 174). The examples of disarticulation activity in the cemeteries and non-funerary deposits in this region during the ERP and LRP suggest there was greater diversity in the manipulation of the human head compared to other elements of the body than has been previously assumed. While there is a correlation between disarticulation and decapitation practices, the former practice existed in contexts without a clear association to the latter and in contexts where disarticulation was absent entirely (Crerar 2012:168).

### **5.5.3. Fragmentation and/or Disarticulation Trauma Injury Change**

Differences in the types of trauma and trauma timing (peri- or post-mortem) related to decapitation and other disarticulation processes have been observed in the IA compared to the LRP sample. According to Tucker (2012:214), the decapitation burial population in the IA exhibited mainly chopping blows directed to the posterior of the cervical vertebrae. Decapitated individuals with multiple peri-mortem trauma injuries, incised cuts to the cervical vertebrae related to the removal of musculature tissues in order to remove the head, and isolated crania and mandibulae with non-decapitation related peri-mortem trauma were less common during this time period (Tucker 2012:215). Trauma injuries potentially linked to the manipulation of the cranium post-mortem (i.e., for the display of the cranium) were limited, although the IA decapitation sample contained more individuals with post-cranial non-decapitation related trauma injuries than the Romano-British rural decapitation sample (Tucker 2012:216). The Romano-British decapitation sample included decapitated individuals with incised cut marks related to removal of the cranium and/or mandible post-mortem, and little evidence of peri-mortem trauma, while in the IA decapitation sample the peri-mortem incised cuts represent the

actual cause of death. In addition, in the Romano-British decapitation sample, there is evidence for the use of multiple chopping blows from the posterior direction, and subsequent follow up incised cuts recorded in some individuals to completely remove the cranium (and mandible, in some cases), which suggests that decapitation may not have been solely related to execution of the individuals in question (Tucker 2012:216-17).

The differences between the IA and the RB periods suggest a shift in the purpose and meaning of the decapitation act over time. For example, in the RB decapitation sample, there are a limited number of cases where the individual exhibits evidence for multiple peri-mortem trauma injuries, although some individuals with defensive injuries and incapacitating injuries were recorded. The main form of decapitation in the RB sample in Tucker's (2012) thesis is associated with the slitting of the individual's throat, followed by additional incised cuts through the soft tissue and muscle before completely removing the cranium, making this specific type of performative behavior characteristic of the RB period. In addition, the RB decapitation sample individuals associated with the rural/small-town sites exhibited more evidence for both chopping blows and incised cuts, as well as multiple blows, especially from the anterior direction, compared to the IA decapitation sample (Tucker 2012:214-5). Disarticulated crania, especially skull caps, have been interpreted as trophies used for display or curation, for a variety of purposes, including religious and ceremonial ([Wilkinson and Barker 1997] Tucker 2012:82).

When considering the aforementioned trauma patterns associated with the RB decapitation burials examined in other regions, a contrast emerges between the most commonly represented decapitation patterns documented in the Greater London sites compared to the Oxfordshire and Gloucestershire sites. In the Greater London decapitation burial sample, Crerar suggests the lower incidence of Type 1a and 2a decapitation burials may be due to their

association with less archaeologically visible mortuary practices whereas she argues that the mortuary practices around the Dorchester and Fen Edge regions are associated with more visible rites (i.e., inhumation burials) (Crerar 2012:179).

Interestingly, the decapitation patterns in the skeletal sample analyzed in this thesis closely parallel the trends observed by Crerar (2012) at the Foxton site in the Fen Edge region (Cambridgeshire), in the prevalence of decapitation Types 1a and 2, deposits of contemporaneous disarticulated skeletal remains in decapitation and non-decapitation burials and isolated deposits and non-funerary features. However, differences in the geographic distribution pattern of disarticulation deposits and decapitation burials were observed between the two regions. In the Fen Edge region, Crerar (2012:181) describes a pattern of disarticulated human bone deposits located almost exclusively at sites where decapitation burials were also found, while only 45.4% of the LRP sites with decapitation burials examined in this thesis yielded evidence of deposits of disarticulated human skeletal remains. Those two patterns may suggest a tentative connection between these mortuary patterns and the disruption of the integrity of the corpse. Those patterns may also suggest a shift in the importance of (re)associating disarticulated remains with decapitated individuals, or a disassociation between those practices or ideologies related to their use on a local level in Oxfordshire and Gloucestershire compared to the Fen Edge region.

#### **5.5.4. Variation of Disarticulation and Decapitation Practices in Study Area**

A range of disarticulation and decapitation practices are represented at the 44 LRP sites in Oxfordshire and Gloucestershire. For example, the trauma variables across the decapitation population (Chapter Four, Table 4.16) were consistently associated with two of the decapitation types (Type 1 and Type 2), which suggests the enactment of this rite may have targeted specific



individuals. Among the six decapitated individuals displaying the profile characteristics related to this trauma behavior, the majority were adults (100%), male (4/6, 60%), located in single burials in cemetery settings, the position of the head was at the knees or feet (100%), and the trauma types were evenly distributed between the six individuals with three Type 1 cases and three Type 2 cases. Slight variation among the group was observed with the presence of two females (40%), body side (supine (50%), prone (33.3%), and left side/flexed (16.6%)), the trauma timing (varied between peri-mortem (33.3%), indeterminate (50%), and one case of post-mortem (16.6%) injury), and two individuals with evidence of additional trauma un-related to the injuries sustained related to the decapitation. No subadults or indeterminate aged individuals were included in the group of individuals with this trauma profile, which may indicate that age was an important factor in distinguishing an individual for this specific treatment. Interestingly, two of the individuals (SK 1018 and SK 1026) were interred at the site of Barrow Hills, Radley II, and while they vary in sex (male and female), both received quite similar treatments (although SK 1018 was on the left side, flexed), including the same decapitation type (Type 2), and had evidence for the over-application of cuts/trauma to fully decapitate them possibly after the individuals' throats were cut. The two other individuals in the group (SK 12 and SK 6) from the site of Cassington, a female and a male, also had similar treatments (although SK 12 was buried prone). However, SK 12 was associated with decapitation Type 1 while SK 6 was associated with decapitation Type 2. While the low number of individuals in this group makes it difficult to link observable mortuary treatment patterns related to disarticulation and decapitation to the broader region of Oxfordshire and Gloucestershire, these examples do show a persistence of earlier funerary behaviors within some communities during the LRP.

In summary, the disarticulated skeletal remains appear to have been equally prevalent from the LIA to the LRP, however, nearly half of the locations where those remains have been recorded are rural sites, especially farmsteads, and within cemeteries or within bounded spaces similar to a cemetery setting (Pearce 2013:145; Smith 2018:277). Disarticulated burials and deposits primarily occur in the southern, central and north-central regions of Britain and are largely absent in the southeast during the ERP and LRP, suggesting excarnation in that region declined over time (Smith 2018:277). Disarticulated skeletal remains in deposits and non-funerary features dated to the LRP in the study sample were roughly equally represented by adults and subadults (the latter primarily infants and neonates), although there is a slight increase in the number of female decapitation burials compared to earlier periods. Evidence for an increased presence of incised cut injuries and chopping blows primarily with peri-mortem or indeterminate timing, from both the anterior and posterior directions was observed, as well as additional injuries related to defensive wounds (and some to work-related injuries) on some individuals in the LRP sample. The presence of observable mortuary treatment patterns linked to sets of characteristics related to decapitation and disarticulation activities suggests some individuals were singled out for specific treatments, including multi-stage funerary treatments, in contexts that were deemed situationally appropriate. This implies that a relationship existed between the disposal of skeletal remains and the integration of rites like those from the LIA involving fragmentation of disarticulated or whole remains. As the province evolved throughout the ERP, those rites persisted to varying degrees alongside decapitation practices.

## **5.6. Regional Comparisons with Previous Decapitation Burial Studies**

### **5.6.1. Comparison of Mortuary Treatment Patterns**

The burial trends associated with decapitation burials in other regions of Britain (Crerar 2012, 2016; Harman et al. 1981; Smith 2018; Philpott 1991; Tucker 2012, 2014, 2016; Wiseman et al. 2021, amongst others), are similar to those in the study sample with regard to burial location (cemetery), context (single), body side (supine), body position (extended), spatial distribution (near/next to other burials, non-decapitation burials), and a general lack of grave goods, coffin, standardized grave orientation (often diverse types were recorded across sites), and animal inclusion. Most decapitation burials in Oxfordshire and Gloucestershire were not buried along the perimeter of the sites in which they are located, even the majority of those found in isolation burials or deposits, which is in keeping with the broader trend of interment in or near cemetery settings or a dedicated burial ground clearly separated from other functional spaces (Smith 2018:227, 231). The trend of generally including decapitation burials within the same bounded spaces as non-decapitation burials in other regions of Britain was also observed by Crerar (2012:171) and Wiseman et al. (2021) in the regions analyzed in their theses, although in the Greater London region there was a trend toward the deposition of fragmented human body parts in symbolic locations, possibly for religious purposes that was not observed in the majority of the LRP decapitation burials analyzed in this thesis.

While grave goods, the presence of a coffin or, more rarely, animal inclusions are found in decapitation burials in the study sample, those variations were equally rare in the non-decapitation burial population in the region. However, this is not to suggest that decapitation burials with(out) grave goods, animal inclusions or a coffin should not be subjected to further analysis, especially those with uncommon material types, placement in the burial or total number. For example, Tucker (2012:135) suggests that decapitated individuals from urban centers who were buried prone or without grave goods or coffins may represent individuals of

“poorer” social status who were marginalized in death. The minor variations in the burial treatment of the decapitation burials in the study sample follow similar patterns observed by Tucker (2012:19) in the decapitation burials from rural and urban sites in the northern and southern regions of Britain, which suggests that site type/location itself had little influence on the burial trends in these groups. However, variations in the presence of decapitation burials by site type were observed by Smith (2018:227) in his study of Romano-British burial practices in the rural landscape, where decapitation burials are found in ~20% of nucleated settlements compared to 7-8% of farmsteads, villas and ‘rural’ sites with burial evidence. Rather than suggesting the presence of a selectivity bias against the burial of decapitated individuals by the living in and around farmsteads, villas or ‘rural’ sites, the identification of such burials, a growing tendency to bury the dead within formalized or central cemetery locations, and a continuation of pre-Roman traditions (fragmentation, excarnation, cremation and scatter or water burials) appears indicated in the Upper Thames Valley of the Central Belt during the LRP (Smith 2018:222, 231, 239). Indeed, as Pearce (2013:147) suggests in his discussions of the contextual study of burial traditions and funerary behaviors over time in Roman Britain, there does not appear to be a region-wide cultural reason for the selection of particular rites, which may have been used to express different identities on an individual, group, or community level. Pearce (2013) goes on to suggest this represents a shift in a widespread practice of expressing identities through more formalized, visible, and integrated burial practices, which would be a major cultural change from the LIA, when many communities relied on the disposal of the dead in ways that left little trace compared to the Romano-British period.

### **5.6.2. Comparison of Demographic Patterns**

When comparing the RB demographic patterns associated with the decapitation populations in other regions of Britain as determined by Tucker (2012:84-91) to those in Oxfordshire and Gloucestershire, slight differences in the sex distributions of adult females and adult males appear. Tucker (2012:84-5) suggests the statistically significant greater number of adult females and lower number of subadults among rural burials, as well as the statistically significantly greater number of adult males among the urban burials, imply that the decapitation practice was not carried out on a random basis across the population. Rohnbogner's (2018:229) analysis of the demographic distribution of age, sex, pathologies and associated burial trends across rural Romano-British sites also identified adult males as most likely to be selected for decapitation, which generally mirrors the demographic pattern associated with the main burial trends identified in the LRP decapitation burials in Oxfordshire and Gloucestershire. While adult male decapitation burials were more common than adult females and unsexed burials, and adults were more common than subadults and indeterminate aged individuals, these patterns were not found to be statistically significant in the burial population examined in this thesis. This aligns with the demographic patterns observed by Crerar (2012:96-7) in the decapitation burials from LRP sites in Cambridgeshire, however, a preference toward the decapitation of adult females (and a complete absence of subadults) was observed in the very large cemetery of Poundbury (Dorchester) alongside additional evidence of fragmentation of the corpse in some cases (Crerar 2012:128, 138). This implies that in certain communities, including *colonia*, in the case of Poundbury, or associated with a military *vicus*, were more likely to select individuals for decapitation based on some aspects of social identity, including age and sex.

### **5.6.3. Comparison of Pathological Conditions and Health Patterns**

When comparing the prevalence of specific pathological conditions across the decapitation burial populations in other regions to those conditions observed among the decapitation burial population in Oxfordshire and Gloucestershire, slight differences in the prevalence patterns by age and sex appear. In the decapitation burial sample examined by Tucker (2012), urban decapitation burials had higher rates of enamel hypoplasia, cribra orbitalia, calculus, and the appearance of new bone formed on some rib locations compared to the wider population. However, in the rural/small-town decapitation burial population, adult males had a higher rate of non-specific infections compared to the female decapitation burial sample. Across the decapitation burial populations, overall, those individuals had higher rates of degenerative joint disease, non-specific infections, and ante-mortem fractures compared to the wider population (perhaps indicating that those with visible deformities or disabilities or traumas were associated with the decapitation practice) (Tucker 2012:105-6). Crerar (2012) observed similar trends regarding the presence of conditions related to poor oral health, nutritional deficiencies and degenerative conditions; however, they were equally common in the non-decapitation population in those regions and therefore did not appear to mark a specific group based on burial status or biological sex. Crerar (2012:88, 117) suggests the patterns across the burial groups imply that most individuals experienced similar pathological conditions at this time, although the presence of osteoarthritis was higher among adult male decapitated individuals compared to non-decapitated individuals. She suggests that this may have been due to performative behaviors associated with agriculture-related duties and is unlikely to have been the reason for their selection for decapitation.

In Oxfordshire and Gloucestershire, the prevalence of specific pathological conditions in the decapitation sample was around ~10% across all sites, although specific conditions such as

dental caries and periodontal disease were somewhat higher in the decapitation sample at between 13 - 22%. When the decapitation and non-decapitation populations were compared, their trauma and disease rates were similar in both groups, although the decapitation burial population had higher rates of dental caries and periodontal disease. This is consistent with the results in Rohnbogner's (2018:325) analysis of adult decapitation burials in the Central Belt region, which exhibited slightly higher rates of enamel hypoplasia, trauma, and dental caries than the non-decapitation population. She suggests that those individuals had reduced access to a variety of nutrient rich foods and instead relied more on carbohydrate dense options found locally (Rohnbogner 2018:333-4). The rate of periostitis, osteoarthritis and Schmorl's Nodes recorded in the decapitation population compared to the non-decapitation burial population suggests that agricultural-related or accidental injuries were not as common in the sites analyzed in this thesis, which differs slightly from the higher rates of osteoarthritis in the male decapitation burials from the Jesus Lane site (Fen Edge region) and Little Keep site (Dorchester) analyzed by Crerar (2012:88).

While examples of decapitated individuals with visible pathological conditions which led to deformities or infirmities due to repeated/unhealed or poorly healed injuries are present in low numbers in other regions, there does not appear to be a consistent pattern in those studies, or in the burial population in this thesis, that suggests an association between that variable alone and the decapitation variable is significant. The health status of an individual did not increase the likelihood of decapitation or disarticulation in the study sample, although examples of individuals with rarer pathologies (leprosy or treponematosi) or deformities (hip or foot injuries) were present in the decapitation burial population examined in this thesis and are outliers in the

burial population as a whole (SK 2500 from Wessex Water; SM 11 from Syreford Mill; SK 305 from Bath Gate; and, SK 11182 from Brightwell-cum-Sotwell).

#### **5.6.4. Comparison of Trauma and Injury Patterns**

On a regional scale, both Tucker (2012:100) and Rohnbogner (2018:325) observed that the decapitation burial population displays higher rates of trauma compared to the non-decapitation population (a pattern also observed in the burial population studied in this thesis). Specifically, Tucker noted that the decapitation burials exhibited statistically significant higher rates of ante-mortem trauma, especially fractures, compared to the wider population. This is an important observation relating to the variability of the timing of the rite, particularly as some previous researchers suggested decapitation was strictly a post-mortem rite (Tucker 2012:138, 2014:214). The evidence supporting a higher number of peri-mortem injuries related to the decapitation (as the mechanism of death) was observed through cuts or chops from the anterior side, sometimes showing flexion of the neck, defensive and incapacitating injuries to the upper body and cranium (including peri-mortem dental trauma) (Tucker 2012:139).

Differences in the patterns of trauma by sex category were observed by Tucker (2012:108) wherein the urban adult females were more likely to exhibit two or three cuts related to the decapitation, while the adult females in the rural/small-town sample were more likely to exhibit four or more cuts. This number of cuts/chops was also observed among the adult males in this sample, however, most of the adult males from urban locations were decapitated by a single cut or blow performed from the posterior side, while adult females from urban locations exhibited marks of anterior blows (Tucker 2012:107). Decapitation Type 4b (single posterior chopping blow to the cervical vertebrae) was the most common type for both adult males and females when biological sex was considered. However, there was significant variation in how the



decapitations were performed by age and sex category across the sample. Those patterns align with the observations on the ways decapitation was performed more broadly in the regions examined by Tucker (2012:137) and Crerar (2012:125) (Little Keep, Dorchester), suggesting differences existed in the disarticulation or butchery techniques deployed in specific situations, locations, and for specific purposes without strict regulation within or across communities in LRP Britain.

Across the decapitation burial populations examined in the region, most non-decapitation related trauma was due to agricultural accidents (suggested by Jennings 2017) or interpersonal violence (defensive injuries), especially associated with injuries to the hands, ribs, nasal bones, tibia and fibula (Tucker 2012:101). Those patterns largely align with the trauma timing, location, type, decapitation type and presence patterns observed in the decapitation burial sample examined in this thesis, which suggests the decapitation burials sustained more fractures than was the norm in the Upper Thames Valley region, with the possibility that this was the result of higher levels of interpersonal violence within specific communities. This pattern was also noted in the burial populations of Cambridgeshire and Peterborough analyzed by Wiseman et al. (2021:30-1). While patterns of difference were observed by Tucker (2012) and Allason-Jones (2005 [Rohnbogner 2018:338]) in the crude prevalence of trauma injuries by sex category suggesting men experienced more trauma than females (including the difference in direction of the decapitation blows between the adult male urban sample and the adult female rural sample) in the Central Belt region, within the sample examined in this thesis, Chi-square tests show there is no significant difference in the distribution of injury types by sex category.

These slight patterns of difference in the direction and total number of injuries at different locations in the upper skeleton of males and females/adults and subadults suggest fairly

consistent differences in the day-to-day activities performed by those groups in many of the site types in the region. For example, Rohnbogner (2018:338) observed adult males were more involved in high-risk activities as part of their working lives in agricultural communities in the Central Belt (in extraction industries, construction, ploughing or the clearing of woodland), whereas adult females may have been involved in the day-to-day domestic chores, tending to crops, animals and similar duties that carried less risk of significant injury. This may have caused the greater incidence of stress-related injuries in the upper skeletons of males (Allason-Jones 2005 cited in [Rohnbogner 2018:338]). In the Central Belt, this implies that in some communities the sex (and age, typically adults) of the individual was an important factor in participation in such activities, however, in the Upper Thames Valley and Avon Vale, age and sex did not appear to increase the likelihood that an individual would experience violence or decapitation at a statistically significant level since prevalence rates show individuals of all backgrounds participated in agricultural and domestic labor, and some experienced interpersonal violence (Rohnbogner 2018:340). In this region, however, other forms of bodily manipulation or fragmentation activities may have been deployed in the LRP decapitation burials from Oxfordshire and Gloucestershire in lieu of the sex or age variables observed in those patterns from other regions.

#### **5.6.5. Comparison of the Burial Location and Context Patterns**

Most of the individuals in the LRP burial sample from Oxfordshire and Gloucestershire were interred in segregated burial locations (primarily cemeteries), which is in keeping with the broader trend of burying the dead in a dedicated burial ground throughout most of Britain at the time (Smith 2018:227, 231). However, minor differences were observed where small groups of burials or isolated deposits were found in field ditches, pits, wells, or within and around

structures or shafts throughout the Roman landscape, a trend also observed in parts of Roman Gaul (Pearce 2017; Smith 2018:231-3). In the decapitation burial population examined in this thesis, seventeen burials were located in such contexts, with only five recovered from singular isolated deposits, which seems to align with the patterns identified by Smith (2018:235) wherein the burial evidence from farmsteads and villas is often more dispersed within and around the settlement rather than within a defined formal burial ground (such as cemeteries, which are most frequently located in proximity to nucleated settlements). Specifically, within the Thames Valley and Avon Vales region (located in the western Central Belt) where the modern counties of Oxfordshire and Gloucestershire are located, the sites have relatively little evidence for formal burial prior to the LRP and human skeletal remains were more scattered compared to other regions where formal burial grounds appeared prior to the third century AD (Smith 2018:233). Rather than defined or formal burial locations, such as cemeteries, those burying the dead may have interred them or scattered them on the surface of locations with significant meaning in previous time periods (i.e., the Bronze Age barrow at Radley I and II, or the 2<sup>nd</sup>-3<sup>rd</sup> century AD coffined inhumations aligned upon the southern boundary of the Iron Age ring ditch at the Cotswold Community site (south of Cirencester) (Smith et al. 2010:136; Smith 2018:233).

#### **5.6.7. Comparison of Body Posture and Position Patterns**

A gradient of variation by body side posture was observed in the decapitation burial population examined in this thesis, with the majority in the supine position, followed by prone, skull only, right, left, and unrecorded positions. Similar variations were observed in the decapitation and non-decapitation populations elsewhere, such as Dorchester and Fen Edge, (Crerar 2012:131), and is reflected in the urban and rural/small-town burial populations (Tucker 2012:83). The urban decapitation burial population was statistically more likely to be buried in

the prone position compared to the wider population and when the two decapitation burial samples were combined the statistically significant association with the prone burial position compared to the wider population persisted (Tucker 212:83). This pattern was also observed in Cemetery 3 at Knobb's Farm (Cambridgeshire) (Wiseman et al. 2021:41) and confirms that a broad conceptual link existed between this body position and decapitation (Harman et al. 1981:166; Philpott 1991:74). Wiseman et al. (2021:41-5) suggest that the connection between prone body position and decapitation may represent the family's response to the individual or their manner of death (i.e., prone individuals may have been deemed to be outside normative social boundaries). Another possibility is that prone burial was intended to prevent revenants from rising from the grave.

While the 'crouched' body posture was more common in the LIA, Smith (2018:230) observed that burials with the body in the flexed position (right or left side) continued on into the LRP, although mainly in the northern, central and western regions of Britain. In most cases where this practice is observed, the flexed burials are isolated in settlements across the LRP countryside, although a small percentage (12%) of flexed burials examined by Smith were found in association with larger cemeteries (Smith 2018:230). This suggests that by the LRP, flexed inhumation burial, including examples of those described as 'crouched', and other variations of body side posture (including prone) had become part of the wider range of funerary rites employed in the Central Belt region, and perhaps should not be considered a 'deviant' mortuary variable on its own when observed in a burial. Wiseman et al. (2021:41) conducted an assessment of the burial population in and around Knobb's Farm, Cambridgeshire and demonstrated that a significant proportion of the decapitated individuals were placed in the prone position compared to the wider population, showing that in some sites that those two sub-

variables were correlated and conceived as appropriate body treatments in relation to one another. In such instances where those two body treatments are present, it may be possible those individuals were marked to distinguish punishment or with the intention to limit recognition of the deceased's identity or image during the deposition and commemoration phases of the funerary process.

The gradient of variation in the body side posture implies the use of selective rites within the wider range of possible forms formal interment, and in some ways appears to be influenced by the location of the site type and burial context (cemetery vs. isolated), which is confirmed by Smith (2018:231), who found that prone burials occur more often in isolated interments and less often in nucleated settlements and cemetery settings. This implies that rather than associating the decapitation burials in the prone position automatically with marginalization, researchers should consider the spatial location of such burials within or outside the site, the other body side posture trends at the site, and other factors of the burial and corpse treatment on a contextual basis. For example, in the LRP sites with decapitation burials in Oxfordshire and Gloucestershire, the site of Horcott Quarry, Gloucs., contained 12 prone burials in the main group (20% of total) located around the margins of the site, all with a lack of evidence for coffins or grave goods, and with isotope analysis suggesting a less protein-rich diet (Hayden et al. 2017; Smith 2018:229-30); however, only one of these was a decapitation burial. In this example, the burial of SK 512 contained similar variables associated with the main burial trends, despite the burial in the prone body posture (Clough 2009; Hayden et al. 2017). In addition, at the site of Post Farm, Thornbury, Gloucs., there were 6 prone burials in the main burial group (40%), all located in relatively close proximity to adjacent building enclosures near a rural farmstead; however, only one of those was a decapitation burial (Cotswold Archaeology 2017:25-9). In this example, the

burial of SK 3293 exhibited a range of the variables associated with the atypical burial trends, including an association of the prone body posture with other variations (multiple burial, post-mortem corpse mutilation, specialized placement of the head, and disarticulation efforts) that may have distinguished the individual as marginalized (this pattern was observed at the Knobb's Farm, Cambridgeshire site by Wiseman et al. (2021) and Crerar (2012, 2016)). Therefore, a direct correlation of prone body side posture and decapitation burial is not consistent throughout the country and on its own need not necessarily represent marginalized status in all LRP communities.

### **5.6.8. Comparison of Variables with Increased Variation**

Increased levels of trauma and the mortuary treatment patterns associated with disarticulation and fragmentation, as well as the types of grave goods and their placement in the burial or deposit, appear to be more varied in the decapitation population than the non-decapitation population analyzed for this thesis. While the inclusion of disarticulated remains within burials and deposits in some of the LRP sites examined in this thesis was uncommon, this corresponds to the studies by Tucker (2012) and Crerar (2012), and more broadly across the 462 rural sites analyzed by Smith (2018:276). Although most 'isolated' rural sites with disarticulated human remains also yielded evidence for formal interment in burials and 'structured' deposits within and outside settlements, including a number with cemeteries, there were still many examples of human bones found in field ditches, pits, and contexts such as caves (Branigan 1992:15-6 [Smith 2018:277]; Crerar 2012:173). For example, Smith (2018:276) noted that cranial fragments are slightly more common, at 30% of the sites, with skeletal elements of infants/neonates also relatively common (although disposed of differently than older children and adults) (Rohnbogner 2018:330). The increase in the representation of cranial elements in

disarticulated deposits/burials is reflected in the LRP burial population sample examined in this thesis, as well as in some of the sites examined by Crerar (2012:169), particularly Lant Street, Trinity Street and Eastern Cemetery in the Greater London region.

#### **5.6.9. Comparison of Disarticulation and Decapitation Practices**

When sub-divided by phase, the sites with disarticulated human bone in Smith's (2018) analysis of inhumation burials in the central region of Britain are evenly distributed between the LIA/ERP and the Mid-to-Late Roman periods, which suggests a continuation of disarticulation practices after the Roman Conquest rather than the disappearance of indigenous practices, as suggested by Wilson (1981), upon the introduction of formal interment in cemeteries (Pearce 2013:145). The concentration of both decapitation burials and disarticulation burials and deposits in specific regions such as the Central Belt highlights the fact that these practices were not intrinsically connected. For example, while Smith (2018:228) reports that decapitation burials appear in 18% of rural sites with burial evidence, they only represent 3.7% of the inhumation burials examined in his study. In the LRP sites examined in this thesis, by contrast, the decapitation burials represent 7.9% of the inhumation burials. Crerar (2012, discussed in Chapter Six) noted that LRP deposits of disarticulated bone were uncommon around Dorchester (with the exception of Poundbury), although examples were observed in LRP sites such as Fen Edge (Cambridgeshire) and in the Greater London region. Crerar (2012:133, 173) also notes that specific sites (Trinity Street/America Street) examined in her thesis showed evidence for corpse manipulation in the form of the removal of specific skeletal elements, typically long bones or crania, without redepositing those elements nearby (in non-grave deposits, for example) in the same site (Crerar 2012, discussed in Chapter 5 – Case Study 2 – Dorchester and its hinterland). This implies a lack of administrative or municipal control over the ways in which communities

treated the dead when it came to mortuary practices such as disarticulation, fragmentation or decapitation at many locations during specific phases of the funerary process.

Interestingly, Crerar (2012) noted that burials and deposits of disarticulated remains occurred more often in those regions where decapitation burials were more common (Fen Edge and Greater London), suggesting a tangible relationship existed between these practices, despite the gradual increase in the use of decapitation during the LRP compared to earlier time periods. Alongside the increase in the number of decapitation burials from the LIA to the LRP, Tucker (2012) suggests there is little evidence for the continuity of IA style manipulation of head cult practices during the RB period. Coupled with evidence for regional variations in the manipulation of the head at/after death and the use of specific decapitation types, directions, and trauma timing in the RB period, this suggests an evolution of perceptions of the deceased body and its manipulation, including new/different forms of butchery techniques used to disarticulate the body and the relationship between the body and the living in some communities during the transition from the LIA to the LRP (Tucker 2012:133-4). Crerar (2012:168) notes that some sites around London contain evidence for repeated patterns of mortuary behavior in the form of the inclusion of disarticulated limb bones over time, suggesting chronological and independent changes in the practice of decapitation, disarticulation, and corpse manipulation related to the entire body from the LIA to the LRP. The differences between the methods of decapitation in the urban and rural decapitation burial sample suggest that these practices were not simply imported to rural communities from the Continent before the arrival of the Romans in the first century AD (Tucker 2012:133-4).

#### **5.6.10. Comparison of Position of the Head Patterns**



Among the decapitation burials examined in this thesis, the position of the head is most associated with the lower half of the body (60.6%), while the next most common position is the upper half of the body (27%). In cases in which the head was found below the waist, the two most common position types were on/at knees (34.4%) and at the feet (18.8%). These patterns are reflected in the studies by Tucker (2012) and Crerar (2012:125), and were also noted by Harman et al. (1981:165), Philpott (1991:78-80) and Wiseman et al. (2021:33-4), although Tucker (2012) observed there was statistically greater variability in the position of the head in the urban decapitation burials compared to those in the rural decapitation burial sample, suggesting there were community specific ideas about how to position the head in rural areas while LRP urban communities seem to have had greater flexibility in positioning choices. Crerar (2012:125) suggested variability in the ‘to the right’ or ‘to the left’ placement of the head positions represent evidence for flexibility in community preferences relating to shared concepts of the appropriate arrangement of skeletal elements. Placement of the head on the right or left side of the body was also observed in the decapitation burial population examined in this thesis (8 on the right side (6.6%), 6 on the left side (4.8%) but this position type was less common than the missing category at 13.1%. Such minor variations in the placement of the head echo similar observations made by other researchers (Crerar 2012:125; Wiseman et al. 2021:31) and suggest that within certain communities there was some degree of flexibility with regard to the placement of the head while the removal of the head was the main distinguishing feature of this burial category.

#### **5.6.11. Comparison of Grave Good Distribution Patterns**

Across Roman Britain, previous studies have noted a connection between scanty or absent grave goods and diverse and locally specific funerary practices (Pearce 1999, 2013:141;

Philpott 1991:225; Smith 2018:264; Weekes 2016:438). In rural communities, funerary practices exhibited this trend by both site type and phase (Smith 2018): the inclusion of grave goods was at its peak during the ERP, when ~50% of burials contained grave goods compared to just over 20% of graves by the LRP. Similarly, military *vici* and villas were more likely to contain burials with grave goods compared to nucleated settlements, farmsteads, and isolated burials in the rural landscape/near roadside settlements, which generally had similarly low levels of such inclusions (Smith and Fulford 2016:396 [Smith 2018:265]). Across the regions of Roman Britain, the proportion of grave good inclusions and their decline by phase is relatively evenly distributed, although the southern region (53% ERP to 36% LRP) appears to exhibit less of a decline in the same time span compared to neighboring regions such as the Central Belt (43% ERP to 17% LRP) (Smith 2016:182). The general trend toward decreasing numbers of grave goods in inhumation and cremation burials over time appears in larger urban centers in Roman Britain as well, which suggests the cultural values or inclinations of the local community members overrode the perceived specific status of the deceased. If the status of the deceased was an influencing factor on the decision to include grave goods, those determinates could have been considered on a local basis vs. broader culturally agreed on conceptions of status (Smith 2016:183-8, 2018:265-6).

In the LRP burial population examined in this thesis, most inhumation burials did not have grave goods, however, for those burials with grave good provisions, the most common types recorded in decapitation burials were hobnails and pottery, followed by coins and tiles. In the non-decapitation burials, the most common items were hobnails and pottery, followed by beads and animal offerings. Smith (2018:267) noted that the most common grave goods in the Central Belt was pottery, followed by hobnails in roughly 25% of burials, which have been

interpreted as a reference to the journey of the deceased to the afterlife (Booth et al. 2010:498; Philpott 1991:172-3; Smith 2018:267). Other categories of grave goods were represented around ~10% or less across sites in Britain, including personal ornament or tokens: brooches, coins, pins, necklaces, bracelets, rings, combs, etc. The distribution of grave goods across sites in Roman Britain and the representation of grave goods by type generally align with the patterns observed in the burial population analyzed in this thesis.

Interestingly, while the deposition of pottery or glass vessels in burials appears to peak during the ERP, followed by a slow decline into the LRP, there is an increase in inclusions of hobnailed shoes and other objects associated with personal adornment by the LRP, which suggests there may have been a greater emphasis on distinguishing select members of the community through the medium of dress in death (perhaps a link to perceived local ideals of status/social hierarchy at different stages of the life course), compared to a need to appropriately express commemoration through feasting via the inclusion of pottery/eating and drinking vessels by the LRP (Pearce 2013:143-4). Smith (2018:269) notes that the provision of animals or animal-related objects appeared to be at its peak during the LIA and declined overtime into the LRP, which may align with the lower percentage of animal inclusions in burials examined in this thesis (0.9% in decapitation burials and 3.1% in non-decapitation burials). This pattern of a decline in the inclusion of animal/faunal grave goods in many LRP rural sites over time may extend to the rarity of animal inclusions as well, as just 2.7% of the burial population examined in this thesis contained those inclusions.

Among the burial populations examined by Tucker (2012:88), differences in the inclusion of grave goods and coffins were noted between the urban and rural decapitation burial contexts. Urban male decapitation burials were statistically less likely to have been provided a coffin,

grave good objects, or hobnailed shoes than the female decapitation burials and the non-decapitation burial population, leading Tucker to suggest that they were ‘marginalized’ individuals in those communities (Tucker 2012:83). However, in other communities assessed by Crerar (2012:99), such as Foxton in the Fen Edge, the opposite was observed; decapitation burials had more inclusions than non-decapitation burials, which she interprets as the mark of a minority group rather than marginalized status. In the Fen Edge region, Crerar’s (2012) analysis found grave goods were more common at sites where decapitation was also practiced, and those burials were more likely to have grave goods compared to the non-decapitation burials in those same sites (Crerar 2012:99). Decapitation burials with more grave goods than non-decapitation burials were also observed by Crerar (2012:129-30) in the Dorchester region (Little Keep and Fordington, Old Vicarage) and appeared otherwise to be similar to the wider burial population. Crerar (2012:95) suggested that decapitation burials with grave goods, particularly those with evidence of disarticulation/fragmentation, in regions where the provision of grave goods is rare/less common, may be a meeting of two simultaneous burial traditions practiced by those living in the community.

In the burial population examined in this thesis, where grave goods are present in the non-decapitation burials, their position is either unrecorded or they are found above the body in the grave fill. In the decapitation burials with grave goods, these appear most often to the right of the body or in the fill above the body. The non-decapitation burials appear to have a higher percentage of burials with pottery, and fewer with hobnails associated with footwear compared to the decapitation burials. In addition, the non-decapitation burials contain rings, pegs, and a higher percentage of bracelets, beads and combs compared to the decapitation burials. However, the decapitation burials appear to contain more tiles and coins than the non-decapitation burials.

These patterns suggest that the LRP decapitation burial population was provided with objects associated with more functional uses compared to those associated with communal aspects of eating/drinking/feasting, which may be linked to socio-economic considerations. These materials may have reinforced aspects of perceived social status or membership that was not exclusively reserved for those who did not receive the decapitation rite, and in turn, may have been distinguished through the manipulation of the corpse through the deposition of additional skeletal remains in the burial as well as the manipulation of the body beyond the decapitation itself at the time of death or during various post-mortem stages.

While Smith (2018:265-66, 268-69) notes the general lack of uniformity in the mortuary treatments attested for Roman Britain, particularly by the LRP in terms of burial context, burial rites and furnishing, arguing that this was the norm among across many rural site types. However, Crerar's (2012) thesis shows the methodological utility in examining the mortuary treatment of various populations across different site types in different regions due to the variability in the use of specific variables (grave goods, for example) within and between sites. Her analysis demonstrated that the use of one variable in one location and its absence in another does not necessarily indicate marginalization or group membership. For example, at the site of Poundbury (Dorchester), most LRP burials did not contain grave goods, so this feature in decapitation burials cannot be interpreted as marking exclusion or marginalization. In fact, grave goods were found in the decapitation burials in Little Keep and Jesus Lane in the same region. Citing the Eastern Cemetery site in London, Crerar (2012:159-60) suggests the likelihood that grave good inclusions in Type 1a and Type 2 decapitation burials represent the enactment of "similar channels....associated with theories about the afterlife expressed through material

offerings”, and in this way signaled veneration of the deceased by those living in the community rather than social isolation.

In the Central Belt region, Rohnbogner (2018:330) observed that grave goods were statistically more likely to be placed in adult burials than subadult burials and may be interpreted as higher status with less exposure to childhood stress. Smith notes that the decapitation and prone burials examined in her contribution to the rural landscape project (Smith et al. 2018), do not suggest that ‘deviant’ or special status rites were reserved for a particular group of burials based on age or sex. However, there is a limited relationship between ill-health in life and the subsequent funerary rite provided to the deceased, although this appears to have varied by region (Rohnbogner 2018:230). When considering the decapitation burial population in the Central Belt, Rohnbogner (2018:228) observed higher rates of skeletal trauma, enamel hypoplasia and dental caries, all of which is consistent with the patterns observed in the decapitation burial population examined in this thesis. This suggests that poor quality of life may have influenced the likelihood of decapitation, subsequently marking those individuals as ‘different’ within the community. However, rural and urban communities in the region appear to contain relatively equal incidences pathological conditions associated with physical activity and stress, as well as accidental injuries often observed in agricultural and industrial communities, which suggests that adults who suffered from such conditions and episodes of ill-health during childhood and perhaps poor dental health in adulthood were not outside of the norm, per se, in their communities. Overall, Rohnbogner (2018:330) suggests that ill-health was not likely to have been a deciding factor in the application of the decapitation rite, however, those individuals may have been identifiable lower status, something that could be reflected on a site-by-site basis by the absence of grave goods or prone burial, for example.

Most of the grave goods in the decapitation population analyzed in this study were associated with adult females, followed by adult males, subadults, and indeterminate aged burials. However, in the non-decapitation burial population, most of the grave goods were associated with adult male burials, followed by adult female, subadult, and indeterminate aged burials. These general patterns as well as those described in the section below are also reflected in previous studies of Romano-British burial practices and correlate to some degree with grave good type as well as age and sex (Cool 2011; Keegan 2002; Moore 2016; Philpott 1991:232-3).

In the female decapitation burials, grave goods mainly consist of dress elements, tools and pottery sherds, which are also commonly found in non-decapitation female burials. While female decapitation burials contained a higher percentage (55.4%) of grave goods compared to female non-decapitation burials, there were far fewer variety of types (objects, faunal remains, and type not recorded) grave goods. In the male decapitation burials, dress elements, pottery, and tool related objects are most common, similar to the male non-decapitation burials. However, the male non-decapitation burials contained a higher percentage (41.3%) of grave goods compared to male decapitation burials and were more likely to be buried with containers, faunal remains, personal ornaments and other objects than the male decapitation burials. This suggests that differences in the distribution of the types/classes of the grave good provisions were influenced by decapitation status wherein decapitated females were distinguished mainly through dress elements from the other decapitation burials, however, they were provisioned with a smaller variety of types compared to the non-decapitated females. Non-decapitated males, in contrast, were distinguished with a greater variety of grave goods, especially dress elements and faunal remains, compared to decapitated males. It may also be possible the type not recorded and other type categories in the non-decapitated male burial group are linked with parts of weapons or

tools, or similar objects that were common types associated with male burials when grave goods were present in other regions (Moore 2009b, 2016). Overall, these patterns suggest a difference in perceived status between the decapitation and non-decapitation burial groups, yet a distribution of grave goods along life course patterns observed in other regions of Roman Britain (Crerar 2012, 2016; Philpott 1991; Tucker 2012; Wiseman et al. 2021).

Among the unsexed decapitation burials, the tools, pottery, textile and personal ornament were the most common grave good categories while the unsexed non-decapitation burials were more likely to contain objects in the textile, pottery, and tool classes. This pattern may imply that the distribution of the different grave good classes reflects the primary patterns observed among the subadult burial population (rather than being influenced by the ambiguity of their determined gender category). The tool, pottery sherd and textile types are the most common grave goods in the subadult decapitation burials, while the subadult non-decapitation burials are more often buried with objects in the textile, pottery sherd and the personal ornament categories. This pattern suggests that even though there are similarities in the grave good categories most commonly represented, decapitated subadults were provisioned with grave goods of a more functional nature compared to objects of adornment or dress in the subadult non-decapitated burial population.

An uncommon practice observed in both decapitation and non-decapitation burials in the Romano-British period is the provision of pots, whether broken or whole, in place of or next to the cranium. In the LRP decapitation sample, grave goods, when present, (an alternate practice compared to non-decapitation burials), were generally placed ‘to the right of the body’ or ‘above the burial (in fill)’. Three burials (SK 3696 from 2-4 NCL, South Parks Road, Oxford; SK 5597 from Alchester; and, SK 5411 from Great Western Park, Didcot), which had a pot or flagon



where the cranium should have been (the “moved and replaced” category) clearly deviate from the normative mortuary treatment patterns by at least two or three variables. Other examples of this practice have been observed in LRP decapitation burials in Cambridgeshire, including Babraham (Crerar 2012:82), Knobb’s Farm (Armour and Morley 2009; Wiseman et al. 2021:33-4)), and Lincolnshire (Navenby) (Allen and Palmer-Brown 2001), which suggests an association between manipulation of the head and ceramic vessels, the most common grave good found in Romano-British burial assemblages. While this practice in decapitation burials represents a rare form of post-mortem manipulation of the head, it may represent a physical representation of the connection between the living and the dead, particularly if the dead (or just the severed head) were conceived of as functional objects as suggested by Alexander et al. (2004:84) ([cited in Crerar 2012:81]). Wiseman et al. (2021:44-5) noted that the inclusion of such vessels in place of the head began prior to the rise of decapitation burials during the LRP, and therefore is unlikely to be associated solely with this practice. However, vessels serving as stand-ins for crania may have been viewed as providing divine protection and aid in the afterlife, similar to the interpretations of the face-necked flagons in other parts of Britain (Colchester, London, Welney, Burgh Castle, Irchester, Cirencester, Northstowe and Burgh-by-Sands) and near the Continent (Worms on the Rhine and Trier on the Moselle) (Dövenor 2000:99-146 [cited in Wiseman et al. 2021:13, 38-9]).

#### **5.6.12. Summary**

In summary, the primary difference between the decapitation burial population examined in this thesis compared to decapitation burials from other regions appears to be associated with an increased level of selective and intentional bodily manipulation or trauma (in addition to the decapitation) either pre- or post-mortem (injuries, fragmentation/disarticulation,

removal/addition of skeletal elements, body side type (prone) and placement of the head.

Practices that distinguish the decapitation population relate to the application of manual force, in the form of acts and behaviors most likely adapted from skillsets involving select groups, perhaps regulated to a degree within specific communities, such as butchery, for example. As noted by both Tucker (2012:133-4) and Crerar (2012:168), the variability observed in the methods and application (type, timing, direction) of the decapitation rites reflects localized developments and beliefs about the appropriateness of the treatment of the body within the flexible administrative regulations that characterized Roman Britain, rather than a standardized method, style, or application of bodily manipulation based on the social identity of the deceased. However, despite this divergence between the mortuary treatment of decapitated and non-decapitated individuals in western Roman Britain, many patterns of similarity were observed on the basis of age, sex, burial context, location, position, side, orientation, coffin (mainly absent), and grave goods (mainly absent) and comprise the main burial practices. Minor differences in the percentage of each of those primary variables was expected since demographic differences and changes in the population size existed between communities across Roman Britain over time.

As discussed in previous sections, the diverse uses of select portions of the body, particularly the cranium and long bones, in the mortuary practices of specific communities across LRP Roman Britain not only represents the dynamic connection of the deceased body with situationally appropriate and mediated ideals or processes (status or memory, for example), but also expresses the broader phenomena of transforming the body to enact measures of control in the death process via the manipulation of the body in specific phases of the funerary structure (particularly the modification, deposition and commemoration phases). The use of the full spectrum of the funerary rituals, with specific attention paid to and engagement with those three

phases as applied to specific bodies in the burial population demonstrates that although connections to burial traditions from previous temporal periods undoubtedly influenced Romano-British populations, the confluence of cultural conceptions of the body (as material culture, in some cases) possibly before, at, and after death were transformed independently in communities during the ERP and LRP in Britain.

Those conceptions, however, were very likely determined on an individual basis through community-specific beliefs linked to the demography of the site or community, as well as other relevant cultural variables such as economic activities, administrative development, population and settlement expansion, as well as kinship groups and familial relationships, during the LRP. More broadly, the relationship between the body (either parts or whole), material culture, and space appears to be expressed less through broad patterns of violence within LRP Roman Britain (or a cultural milieu of violence), and more on 1) environmental/natural processes to aid in the disarticulation the body; 2) the use of manual force to fragment/disarticulate the body before dispersal and deposition (i.e., placement of disarticulated remains in ditches, pits, or other similar deposits), or interment in a formal burial in a cemetery; or, 3) an intertwining of both strategies depending on communal norms. It is notable that most of the decapitation burial population analyzed in this thesis were treated in much the same way as the non-decapitation population, which may imply that localized expression of belonging or communal recognition of the individual was fluid, as was the treatment (in public and private) of the individual based on the life course stage at death (as described by Moore 2009b). The following section presents the profiles of eleven decapitated individuals associated with the atypical burial category defined previously in Chapter Four. The goal of creating profiles comprised of the biological and mortuary data drawn from each individual burial in this burial group is to demonstrate the

analytical potential of individual narratives and the primary variables that were utilized by the living in specific phases of the funerary process to distinguish them based on specific beliefs or potential motivations.

### **5.7. Osteological Profiles of Select Atypical Decapitation Burials**

As discussed in Chapter Two, conceptions of social age or gender played a significant role in the lived experiences of individuals in the past, and certainly influenced their mortuary treatment in death. In addition to age and gender aspects of identity, skeletal trauma and health markers are components of the life course history that may aid in our understanding of those experiences in their social contexts. Through the reconstruction of an individual's biocultural narrative, or osteobiography (Hosek and Robb 2019:2; Robb 2002), researchers may reveal whether and perhaps how specific social elements of an individual's identity played a role in their lived experience, including their funerary treatment. In this thesis, one of the goals related to the primary research question is to determine whether particular mortuary treatment patterns were linked to aspects of the individual's identity or if their physical characteristics in life might have contributed to the treatment they received. A biocultural influenced approach allows that goal to be achieved by interrogating those aspects of social identity that may have determined which of the diverse mortuary practices known to have been in use during the LIA through LRP would be applied to the deceased individuals in the communities included in this study.

The data presented in Chapter Four and discussed in earlier sections are the basis of the identification of the age and gender related patterns of skeletal injuries incurred over time at the population level as well as in individual cases, allowing osteological narratives to be constructed. The burial and funerary patterns discussed above indicate that the age variable was linked to the decapitation variable and appeared to influence receiving atypical burial treatment. While

previous studies of the Roman life course (Allison 2018:166-9; Carroll 2018:155-9; Moore 2009a and b; Rosten 2007:17-9; Saller and Shaw 1984:117-32, 134-8) demonstrate that the beginning and end of the life span were influenced by social organization, including and gender, the biological patterns described in response to Question 1 suggest the gender of the individual did not influence the likelihood of decapitation or atypical burial treatment in the burial population in this sample. Nevertheless, age and gender remain influential variables to consider in the osteological profiles presented below and were incorporated into the analysis and determination of the motivation(s) behind the decapitation act by previous researchers (Aspöck 2009; Crerar 2012, 2016; Harman et al. 1981; Philpott 1991; Tucker 2012, 2014, 2016).

The following section will present the osteological profiles of eleven select atypical decapitation burials from the burial sample examined in this thesis to display how the contextual analytical methodology described in Chapter Three can be used to explore individual burial contexts that reflect the diverse patterns of mortuary practices outlined in Chapter Four. These profiles utilize both bioarchaeological and mortuary treatment variables associated with each specific decapitated burial and allow for an exploration into and an assessment of those phases of the funerary structure that were engaged with differently for each individual in the atypical burial group. Determinations regarding the potential interpretation and motivation for the mortuary treatment practices associated with each decapitated individual case presented below were primarily based upon the configuration of the biological and mortuary variables assessed in previous sections based on their alignment with the rubrics developed by Tucker (2012) for mortuary practices, including decapitation, across Roman Britain, and by Redfern (2020b) based on the mortuary treatment of LIA individuals with evidence of trauma related to bodily manipulation or other measures of social marginalization.

### 5.7.1. Adult Male Burial Examples

SK 2500, Wessex Water Field 28, Cowhill, Oldbury-on-Severn (Gloucestershire)

<b>Context Type</b>	Isolated
<b>Burial Location</b>	Cemetery grave
<b>Age</b>	Adult
<b>Sex</b>	Male
<b>Pathology</b>	Treponematosi (legs and arms); Leprosy (legs and arms); Osteoarthritis (pelvis)
<b>Trauma (in addition to decapitation)</b>	Blunt post-mortem fractures to cranium
<b>Trauma Location(s)</b>	Cranium; cervical vertebrae
<b>Decapitation Types (Crerar; Tucker)</b>	2a; 6a
<b>Decapitation Timing</b>	Post-mortem
<b>Decapitation Facing</b>	Unknown
<b>Body Side</b>	Prone
<b>Body Position</b>	Extended
<b>Position of skull or cranium</b>	On back
<b>Manipulation of the head category</b>	Moved
<b>Representation of the body (whole/incomplete)</b>	Whole (75%+); 77% representation
<b>Fragmentation/disarticulation</b>	None
<b>Post-mortem corpse manipulation</b>	None
<b>Body Orientation (direction of shoulders first)</b>	NE-SW
<b>Coffin</b>	Unknown
<b>Grave Goods</b>	None
<b>Animal Inclusion</b>	None
<b>Number of Variables from Norm Burial Trends</b>	4
<b>Variables Outside the Norm</b>	Pathology; Burial context; Placement of head; Representation of the body (marked truncation)
<b>Funerary Phases Engaged</b>	Selection; Modification; Location; Commemoration
<b>Comments</b>	Associated with Romano-British ring ditch; post-mortem breaks to cranium and long bones (due to Medieval ploughing)
<b>Interpretation</b>	Warfare (Tucker 2012); Non-recognized community member (Redfern 2020b)

SK N/A, Churchill Hospital, Headington (Oxfordshire)

<b>Context Type</b>	Single
<b>Burial Location</b>	Well
<b>Age</b>	Adult
<b>Sex</b>	Male
<b>Pathology</b>	None; depressions noted in the parietal (also observable endocranially)
<b>Trauma (in addition to decapitation)</b>	Chop, cut and blow to cranium
<b>Trauma Location(s)</b>	Cranium; cervical vertebrae
<b>Decapitation Types (Cramer; Tucker)</b>	2c; 2c
<b>Decapitation Timing</b>	Peri-mortem
<b>Decapitation Facing</b>	Anterior
<b>Body Side</b>	Supine
<b>Body Position</b>	N/A Skull only
<b>Position of skull or cranium</b>	Anatomical position
<b>Manipulation of the head category</b>	Removed/missing (from post-cranial skeleton)
<b>Representation of the body (whole/incomplete)</b>	Incomplete (74% or less); 10% representation
<b>Fragmentation/disarticulation</b>	Sheep intentionally disarticulated
<b>Post-mortem corpse manipulation</b>	Deposited in well post-mortem
<b>Body Orientation (direction of shoulders first)</b>	Unknown
<b>Coffin</b>	None
<b>Grave Goods</b>	None
<b>Animal Inclusion</b>	Sheep (partial)
<b>Number of Variables from Norm Burial Trends</b>	6
<b>Variables Outside the Norm</b>	Burial location; Burial position; Body side; Animal inclusion; Representation of the body; Manipulation of the head
<b>Funerary Phases Engaged</b>	Selection; Preparation; Modification; Location; Deposition; Commemoration
<b>Comments</b>	Signs of water damage to cranium and C1 and C2 vertebrae; curatorial breaks to cranium
<b>Interpretation</b>	Human sacrifice or execution (Tucker 2012); Captive/non-recognized community member (Redfern 2020b)

<b>Context Type</b>	Isolated
<b>Burial Location</b>	Ditch
<b>Age</b>	Adult
<b>Sex</b>	Male
<b>Pathology</b>	Dental caries; periodontal disease; Periostitis (right and left legs); Osteoarthritis (right arm and left hand); Degenerative joint disease (vertebrae, pelvis, left arm, right and left feet, sternum)
<b>Trauma (in addition to decapitation)</b>	Cuts to C3 vertebra, right parietal, and left ulna
<b>Trauma Location(s)</b>	Cervical vertebrae, cranium, and ulna
<b>Decapitation Types (Cramer; Tucker)</b>	1a; 3a
<b>Decapitation Timing</b>	Peri-mortem
<b>Decapitation Facing</b>	Anterior
<b>Body Side</b>	Supine
<b>Body Position</b>	Extended
<b>Position of skull or cranium</b>	On knees
<b>Manipulation of the head category</b>	Moved and replaced
<b>Representation of the body (whole/incomplete)</b>	Whole (75%+); 100% representation
<b>Fragmentation/disarticulation</b>	None
<b>Post-mortem corpse manipulation</b>	None
<b>Body Orientation (direction of shoulders first)</b>	E-W
<b>Coffin</b>	None
<b>Grave Goods</b>	4 <sup>th</sup> century AD ancillary burnt ware jar (incomplete on deposition with only base and some body and rim sherds present). On east end of grave in place of cranium.
<b>Animal Inclusion</b>	None
<b>Number of Variables from Norm Burial Trends</b>	3
<b>Variables Outside the Norm</b>	Burial context; Burial location; Manipulation of the head;
<b>Funerary Phases Engaged</b>	Selection; Modification; Location; Deposition; Commemoration
<b>Comments</b>	Curatorial cuts/scrapes to left and right humerus, breaks to cranium, right clavicle, scapula, humerus, radius, ulna, ribs, pelvis, femur, tibia, fibula, and breaks to left fibula, tibia, femur, ulna, scapula. Curatorial breaks to left femur, ulna, and scapula. Curatorial cuts to cranium, right humerus, radius, ulna, femur, as well as left femur, ulna, radius and humerus. Signs of reddish/brown stain on cranium on left parietal/occipital and mandible on left side. Erosion on left tibia and femur, right tibia and



	femur, right side of pelvis, right humerus. Root etching present on right humerus and left humerus.
<b>Interpretation</b>	Execution, <i>poena post mortem</i> , prevent dead returning (Tucker 2012); Raiding/poor living conditions/enslavement (Redfern 2020b)

### 5.7.2. Adult Female Burial Examples

SK 4400, Gill Mill, South Leigh (Oxfordshire)

<b>Context Type</b>	Isolated
<b>Burial Location</b>	Ditch
<b>Age</b>	Adult
<b>Sex</b>	Female
<b>Pathology</b>	None
<b>Trauma (in addition to decapitation)</b>	Projectile/drilling to frontal bone; scrapes (2), and chop (2) to cranium
<b>Trauma Location(s)</b>	Cranium
<b>Decapitation Types (Crerar; Tucker)</b>	2c; 6b
<b>Decapitation Timing</b>	Indeterminate
<b>Decapitation Facing</b>	Unknown
<b>Body Side</b>	Supine
<b>Body Position</b>	N/A Skull only
<b>Position of skull or cranium</b>	Anatomical position
<b>Manipulation of the head category</b>	Removed/missing (from post-cranial skeleton)
<b>Representation of the body (whole/incomplete)</b>	Incomplete (74% or less); 10% representation
<b>Fragmentation/disarticulation</b>	Hole created endocranially on frontal bone
<b>Post-mortem corpse manipulation</b>	Hole created post-mortem
<b>Body Orientation (direction of shoulders first)</b>	Unknown
<b>Coffin</b>	None
<b>Grave Goods</b>	None
<b>Animal Inclusion</b>	None
<b>Number of Variables from Norm Burial Trends</b>	5
<b>Variables Outside the Norm</b>	Burial context; Burial position; Representation of the body; Fragmentation; Manipulation of the corpse
<b>Funerary Phases Engaged</b>	Preparation; Modification; Location; Deposition; Commemoration
<b>Comments</b>	Stain marks on the cranium (right frontal, endocranial left side and left frontal side) – grease/oil(?) polish to anterior side
<b>Interpretation</b>	Warfare or massacre (Tucker 2012); Captive/non-recognized community member (Redfern 2020b)

SK F1, Wroxton St. Mary - Barn Lodge (Oxfordshire)

<b>Context Type</b>	Single
<b>Burial Location</b>	Cemetery grave
<b>Age</b>	Adult
<b>Sex</b>	Female
<b>Pathology</b>	Dental caries, Periodontal disease, Osteoarthritis (thoracic vertebrae), Degenerative joint disease (right and left legs)
<b>Trauma (in addition to decapitation)</b>	Chop to mandible
<b>Trauma Location(s)</b>	Mandible, cervical vertebrae
<b>Decapitation Types (Cramer; Tucker)</b>	1a; 5a
<b>Decapitation Timing</b>	Peri-mortem
<b>Decapitation Facing</b>	Anterior
<b>Body Side</b>	Supine
<b>Body Position</b>	Extended
<b>Position of skull or cranium</b>	Between legs
<b>Manipulation of the head category</b>	Moved
<b>Representation of the body (whole/incomplete)</b>	Whole (75%+); 100% representation
<b>Fragmentation/disarticulation</b>	None
<b>Post-mortem corpse manipulation</b>	Cranium in prone position
<b>Body Orientation (direction of shoulders first)</b>	NE-SW
<b>Coffin</b>	None
<b>Grave Goods</b>	Bracelets (2) copper alloy; Anklet (1) copper alloy; Pottery sherds (in top soil above burial)
<b>Animal Inclusion</b>	None
<b>Number of Variables from Norm Burial Trends</b>	5
<b>Variables Outside the Norm</b>	Sex; Body side (next to prone); Trauma (in addition to decapitation); Manipulation of the corpse; Manipulation of the corpse (additional HR (cranial infant remains))
<b>Funerary Phases Engaged</b>	Selection; Preparation; Modification; Deposition; Commemoration
<b>Comments</b>	Buried next to prone burial; infant cranial fragments in burial; Signs of weathering and staining to skeletal remains
<b>Interpretation</b>	Execution (Tucker 2012); Raiding/captive/enslavement (Redfern 2020b)

SK 5187 (Burial 1279a), Bridge's Garage, Tetbury Road (western cemetery) (Gloucestershire)

<b>Context Type</b>	Multiple
<b>Burial Location</b>	Ditch
<b>Age</b>	Adult
<b>Sex</b>	Female
<b>Pathology</b>	None
<b>Trauma (in addition to decapitation)</b>	Cut to cranium and left femur
<b>Trauma Location(s)</b>	Cranium and left femur
<b>Decapitation Types (Crerar; Tucker)</b>	2c; 5c
<b>Decapitation Timing</b>	Post-mortem
<b>Decapitation Facing</b>	Anterior
<b>Body Side</b>	N/A
<b>Body Position</b>	N/A Skull only
<b>Position of skull or cranium</b>	Anatomical Position
<b>Manipulation of the head category</b>	Removed/missing (from post-cranial skeleton)
<b>Representation of the body (whole/incomplete)</b>	Incomplete (74% or less); 10% representation
<b>Fragmentation/disarticulation</b>	Cut marks to right side of frontal; Cut marks to left femur
<b>Post-mortem corpse manipulation</b>	Curatorial cut to left femur
<b>Body Orientation (direction of shoulders first)</b>	Unknown
<b>Coffin</b>	None
<b>Grave Goods</b>	None
<b>Animal Inclusion</b>	None
<b>Number of Variables from Norm Burial Trends</b>	4
<b>Variables Outside the Norm</b>	Burial context; Burial position; Representation of the body; Manipulation of the corpse
<b>Funerary Phases Engaged</b>	Preparation; Modification; Location; Deposition; Commemoration
<b>Comments</b>	Signs of trampling to right side of cranium, stain between the orbitals, reddish/orange stain above right orbit, weathering, rodent gnawing (furrow), staining (reddish/orange), trampling and curatorial cuts/scrapes to the left femur
<b>Interpretation</b>	<i>Poena post mortem</i> or prevent dead from returning (Tucker 2012); Captive/Enslavement/non-recognized community member (Redfern 2020b)

SK 392, Horcott Quarry (Gloucestershire)

<b>Context Type</b>	Single
<b>Burial Location</b>	Cemetery grave
<b>Age</b>	Adult
<b>Sex</b>	Female
<b>Pathology</b>	Dental caries; Calculus; Ante-mortem tooth loss; Osteoarthritis (vertebrae, left hand); Degenerative joint disease (right arm)
<b>Trauma (in addition to decapitation)</b>	None
<b>Trauma Location(s)</b>	Cervical vertebrae, mandible
<b>Decapitation Types (Cramer; Tucker)</b>	1a; 5a
<b>Decapitation Timing</b>	Peri-mortem
<b>Decapitation Facing</b>	Anterior
<b>Body Side</b>	Supine
<b>Body Position</b>	Extended
<b>Position of skull or cranium</b>	At feet
<b>Manipulation of the head category</b>	Moved
<b>Representation of the body (whole/incomplete)</b>	Whole (75%+); 100% representation
<b>Fragmentation/disarticulation</b>	None
<b>Post-mortem corpse manipulation</b>	Cranium in prone position
<b>Body Orientation (direction of shoulders first)</b>	NE-SW
<b>Coffin</b>	None
<b>Grave Goods</b>	32 hobnails by left foot
<b>Animal Inclusion</b>	None
<b>Number of Variables from Norm Burial Trends</b>	6
<b>Variables Outside the Norm</b>	Sex; Burial side; Trauma; Decapitation type; Placement of the head; Manipulation of the corpse;
<b>Funerary Phases Engaged</b>	Selection; Preparation; Modification; Location; Deposition; Commemoration
<b>Comments</b>	Curatorial cuts to cranium, ribs, right radius, left femur and tibia. Grey stain (burn?) on the right humerus, radius and ulna. Evidence of root etching on the majority of the skeletal elements. Rodent gnawing (furrow) on right humerus, radius, ulna, femur and fibula, as well as left femur, tibia, fibula, humerus, radius, and ulna. Signs of sun bleaching on the right clavicle and humerus, as well as left femur, tibia and radius.
<b>Interpretation</b>	Execution (Tucker 2012); Captive/enslavement (Redfern 2020b)

<b>Context Type</b>	Single
<b>Burial Location</b>	Cemetery grave
<b>Age</b>	Adult
<b>Sex</b>	Female
<b>Pathology</b>	Dental caries; Schmorl's Nodes (thoracic and lumbar vertebrae); Degenerative joint disease (vertebrae)
<b>Trauma (in addition to decapitation)</b>	Fracture to left side of pelvis; Cut on left humerus, as well as right radius (2)
<b>Trauma Location(s)</b>	Cervical (4) and thoracic (2) vertebrae; left humerus; right radius
<b>Decapitation Types (Cramer; Tucker)</b>	1a; 5b
<b>Decapitation Timing</b>	Peri-mortem
<b>Decapitation Direction</b>	Posterior
<b>Body Side</b>	Prone
<b>Body Position</b>	Extended
<b>Position of skull or cranium</b>	At knees
<b>Manipulation of the head category</b>	Moved and Replaced
<b>Representation of the body (whole/incomplete)</b>	Whole (75%+); 100% representation
<b>Fragmentation/disarticulation</b>	None
<b>Post-mortem corpse manipulation</b>	None
<b>Body Orientation (direction of shoulders first)</b>	NE-SW
<b>Coffin</b>	Wood
<b>Grave Goods</b>	4 <sup>th</sup> century New Forrest ware jug (1); 4 <sup>th</sup> century coin (3); Iron object (1); CMB (1); Animal bone (2); Iron nails (30) for coffin
<b>Animal Inclusion</b>	None
<b>Number of Variables from Norm Burial Trends</b>	4
<b>Variables Outside the Norm</b>	Burial side; Coffin; Grave goods; Manipulation of the head;
<b>Funerary Phases Engaged</b>	Preparation; Modification; Location; Deposition; Commemoration
<b>Comments</b>	Curatorial cuts present on right humerus, radius, ulna, femur, tibia, as well as left fibula, femur, radius, ulna, humerus, scapula and clavicle. Curatorial breaks present on cranium, right and left ribs, right scapula, radius, ulna and metacarpals, as well as left side of pelvis, femur, ulna, scapula and clavicle. Signs of erosion to the right humerus, radius, as well as left femur and clavicle. Gnaw marks (furrow) on the right humerus. Weathering to the right fibula and tibia, as well as left tibia. Signs of green staining to the right ribs and scapula

<b>Interpretation</b>	Execution (Tucker 2012); Indentured servitude/enslavement/desire for prestige (Redfern 2020b)
-----------------------	---

### 5.7.3. Subadult Burial Examples

SK 4039 (Grave 4038), White Horse Hill, Uffington (Oxfordshire)

<b>Context Type</b>	Isolated
<b>Burial Location</b>	Ditch
<b>Age</b>	Subadult
<b>Sex</b>	Unsexed
<b>Pathology</b>	None
<b>Trauma (in addition to decapitation)</b>	None
<b>Trauma Location(s)</b>	Cranium
<b>Decapitation Types (Crerar; Tucker)</b>	2c; 4b
<b>Decapitation Timing</b>	Post-mortem
<b>Decapitation Facing</b>	Unknown
<b>Body Side</b>	Right
<b>Body Position</b>	N/A Skull only
<b>Position of skull or cranium</b>	Upper right
<b>Manipulation of the head category</b>	Moved
<b>Representation of the body (whole/incomplete)</b>	Incomplete (74% or less); 10% representation
<b>Fragmentation/disarticulation</b>	None
<b>Post-mortem corpse manipulation</b>	None
<b>Body Orientation (direction of shoulders first)</b>	N-S
<b>Coffin</b>	None
<b>Grave Goods</b>	None
<b>Animal Inclusion</b>	None
<b>Number of Variables from Norm Burial Trends</b>	8
<b>Variables Outside the Norm</b>	Age; Burial context; Burial location; Burial position; Body side; Decapitation type; Representation of the body; Manipulation of the corpse
<b>Funerary Phases Engaged</b>	Selection; Preparation; Modification; Location; Deposition; Commemoration
<b>Comments</b>	May be one of the original 3 undisturbed barrow burials – left <i>in situ</i>
<b>Interpretation</b>	Execution, <i>poena post mortem</i> or prevent dead from returning (Tucker 2012); Punishment (Redfern 2020b)

SK 678, The Vineyard South, Abingdon (FGW) (Oxfordshire)

<b>Context Type</b>	Isolated
<b>Burial Location</b>	Cemetery grave
<b>Age</b>	Subadult (12-14 years old)
<b>Sex</b>	Unsexed
<b>Pathology</b>	Schmorl's Nodes (Thoracic vertebrae)
<b>Trauma (in addition to decapitation)</b>	None
<b>Trauma Location(s)</b>	Cranium
<b>Decapitation Types (Cramer; Tucker)</b>	1b; 4a
<b>Decapitation Timing</b>	Indeterminate
<b>Decapitation Facing</b>	Anterior
<b>Body Side</b>	Supine
<b>Body Position</b>	Extended
<b>Position of skull or cranium</b>	Missing
<b>Manipulation of the head category</b>	Missing/removed (from post-cranial skeleton)
<b>Representation of the body (whole/incomplete)</b>	Incomplete (74% or less); 34% representation
<b>Fragmentation/disarticulation</b>	None
<b>Post-mortem corpse manipulation</b>	None
<b>Body Orientation (direction of shoulders first)</b>	W-E
<b>Coffin</b>	None
<b>Grave Goods</b>	None
<b>Animal Inclusion</b>	None
<b>Number of Variables from Norm Burial Trends</b>	3
<b>Variables Outside the Norm</b>	Grave orientation; Decapitation type; Representation of the body
<b>Funerary Phases Engaged</b>	Preparation; Modification; Commemoration
<b>Comments</b>	Signs of weathering to right humerus, right ulna, right scapula, right clavicle, and right ribs, as well as the left clavicle, left scapula, left radius; erosion present on the sternum and sacrum Curatorial cuts and breaks to the right humerus, radius, ulna and some ribs, as well as left scapula and humerus
<b>Interpretation</b>	Cult of the Head, Execution, <i>poena post mortem</i> or prevent dead from returning (Tucker 2012); Enslavement/non-recognized community member (Redfern 2020b)

SK N/A, Grange Farm, Marshfield Road, Tormarton (S. Gloucestershire)

<b>Context Type</b>	Single
<b>Burial Location</b>	Cemetery grave
<b>Age</b>	Subadult
<b>Sex</b>	Unsexed
<b>Pathology</b>	None
<b>Trauma (in addition to decapitation)</b>	None
<b>Trauma Location(s)</b>	Cervical vertebrae
<b>Decapitation Types (Crerar; Tucker)</b>	1a; 4a
<b>Decapitation Timing</b>	Indeterminate
<b>Decapitation Facing</b>	Unknown
<b>Body Side</b>	Right
<b>Body Position</b>	Extended
<b>Position of skull or cranium</b>	Over knees
<b>Manipulation of the head category</b>	Moved
<b>Representation of the body (whole/incomplete)</b>	Whole (75%+); 100% representation
<b>Fragmentation/disarticulation</b>	None
<b>Post-mortem corpse manipulation</b>	None
<b>Body Orientation (direction of shoulders first)</b>	N-S
<b>Coffin</b>	Gypsum/Stone
<b>Grave Goods</b>	Roman pottery sherds (20); Iron Age pottery sherds (3)
<b>Animal Inclusion</b>	None
<b>Number of Variables from Norm Burial Trends</b>	4
<b>Variables Outside the Norm</b>	Age; Burial context; Body side; Coffin
<b>Funerary Phases Engaged</b>	Selection; Preparation; Location; Deposition; Commemoration
<b>Comments</b>	N/A
<b>Interpretation</b>	Cult of the Head, Execution, <i>poena post mortem</i> , prevent dead from returning (Tucker 2012); Desire for prestige/veneration/enslavement (Redfern 2020b)

## 5.8. Interpretations of Decapitation Burials in LRP Gloucestershire and Oxfordshire

To avoid presenting perceived extraordinary individual burial circumstances or selective bias of sensationalized rituals, the examples shared above represent a diverse portion of the atypical burial group, which display the potential of a systematic approach toward analyzing



those burial contexts within the broader temporal and cultural contexts of the region. Upon completion of the multi-scalar analysis and the identification of observable mortuary patterns among the decapitation burials, and between the decapitation and non-decapitation burials, as well as a comparison to decapitation burial trends from other regions, it became possible to draw on the individual life span as a unit of analysis to consider how earlier traditions, beliefs, and behaviors may have influenced or governed later ones observed in the treatment of the dead during the LRP. In order to further situate the nature of the circumstances associated with each individual decapitation burial in the sample and speak more broadly at the same time as to the most common potential motivations for the practice in the Oxfordshire and Gloucestershire region, each osteological profile was assessed and compared with the aforementioned rubrics so that each burial could be associated with a potential motivation independent of the others within and across the burial groups.

The results of this assessment demonstrate that the biological and mortuary evidence for the majority of decapitation burials across the two burial groups (those 62 individuals in the main burial group, and the 60 individuals within the atypical burial group) may be linked to the execution of the individual (judicial or informal), the concept of *poena post mortem* or the idea that it is possible to prevent the dead from rising. Interestingly, the order/prominence of each specific motivation/interpretation associated with the decapitation rite (execution, *poena post mortem*, prevent the dead from rising, Cult of the Head, human sacrifice, warfare/interpersonal violence, and massacre) remained the same with only slight variation in their representation by burial group (Table 5.2).

Table 5.2. The distribution of the representation of potential interpretations for the physical and mortuary treatment observed among the decapitation burials by burial group examined in this thesis.

<b>Potential interpretations for decapitation and associated mortuary treatment</b>		
<b>Interpretation</b>	<b>Main (n=62)</b>	<b>Atypical (n=60)</b>
Execution	34%	33.3%
<i>Poena post mortem</i>	25.3%	26%
Prevent the dead from rising	25.3%	26%
Cult of the Head	10%	10%
Human sacrifice	3.3%	3.3%
Warfare/interpersonal violence	1.3%	0.7%
Massacre	0.7%	0.7%
<b>Total</b>	100%	100%

When the potential interpretations or motivations were assessed to determine the distribution by sex categories, those results show minor variability in the potential interpretation patterns between the groups. For example, in the main burial group, the patterns were similar between the sex categories, although the unsexed category was not associated with warfare, massacre, or human sacrifice, while the male and female categories did and were otherwise quite similar. Within the atypical burial group, the patterns were similar, but the female and unsexed categories were not associated with human sacrifice, while the male category was. However, none of the three categories was associated with warfare or massacre. Within the atypical burial group, the male and female categories exhibited similar patterns, but the unsexed category was not associated with human sacrifice, massacre or warfare, unlike the two other sex categories.

When each sex category was isolated and compared across burial category groups, variability in the representation of the potential interpretations was observed among the female individuals. In the female category, there were somewhat similar patterns, however, the warfare and Cult of the Head interpretations were more common in the main burial group, while the human sacrifice interpretation was more common in the atypical burial group. The warfare, human sacrifice, and massacre interpretations were rare for both burial groups.

When the potential interpretations or motivations were assessed to determine the distribution by age categories, the results show variability in the potential interpretation patterns between the groups. For example, within the main burial group, the patterns were similar between the age categories, although the subadults were absent in the human sacrifice, warfare and massacre categories. In the atypical burial group, the patterns were comparable, although the subadults were not associated with the Cult of the Head, human sacrifice, warfare and massacre interpretations, while the adult category was not associated with the warfare and massacre interpretations. This suggests that the potential interpretations were connected to each burial group, except for the warfare and massacre interpretations in the atypical burial group.

When each age category was isolated and compared across burial category groups, variability in the representation of the potential interpretations was observed, particularly among the subadult burials. Within the adult category, the patterns were very similar to trends across the burial groups, although the adult category in the atypical burial group was rarely associated with the warfare or massacre interpretations. Despite this minor variability, the prevalence of the different interpretations is similar across the adult age category in each burial group. Within the subadult category, the patterns show similar trends across the burial groups, however, the subadults in the atypical burial group were not associated with the Cult of the Head interpretation, unlike the main burial group. Furthermore, the subadult age category was not associated with the human sacrifice, warfare or massacre potential interpretations, which suggests those motivations for the burial treatment and trauma injuries were limited to the adult age category at the sites in this region. Overall, the prevalence of the particular interpretations were similar across the subadult age category in each burial group.

### **5.8.1. Summary**

In summary, a review of the potential interpretations described by previous researchers (particularly Crerar 2012; Tucker 2012, 2014; Wiseman et al. 2021, amongst others), and outlined in Chapter Two indicate that the warfare, human sacrifice, or massacre motivations on their own cannot adequately explain the decapitation burials in this sample. As Wiseman et al. (2021:35) indicates, human sacrifice was “...illegal throughout the Roman Empire from at least the 1<sup>st</sup> century BC (*Lex Cornelia* of 81 BC; Pliny refers to a slightly earlier law of 97 BC (HN 30.3). It is most unlikely that dozens of victims would have been buried only in public cemeteries in Roman administrative centers like York, Winchester and Dorchester (Hunter-Mann 2006 (York); Booth et al. 2010:480-1 (Winchester); Philpott 1991:85 (Dorchester)”. While cases of decapitation increased over time, peaking during the 3<sup>rd</sup> and 4<sup>th</sup> centuries AD, the practice was observed in regions of Britain and the Continent in earlier periods, which limits the viability of the interpretation of decapitation as a punishment or a practice associated with the persecution of Christians or worshippers of other Eastern religions.

The IA Cult of the Head is most likely to apply in those contexts where there is a possible ritual nature of the removal of the head (i.e., through an excessive traumatic injury, or intentional manipulation such as drilling) and its potential subsequent transformation (skull-cup, frontal only, mandible only, etc.). Such contexts may be strong contenders for limited continuity of the pre-Roman IA practice (Tucker 2012:221-2). Wiseman et al. (2021:35) suggests the Cult of the Head often involved the removal of the head from the burial and a corresponding set of deposits with only crania present support this idea. While most of the heads are present in most cases in the decapitation burials in this sample, a few cases contain only the skull and in some, the skull was missing entirely. This suggests that the Cult of the Head interpretation may be relevant as an

explanation for a small percentage of decapitation burials in the study sample despite the temporal gap between the IA and the LRP.

Many of the burials for which the *poena post mortem* or preventing the dead from rising interpretations have been suggested share similar characteristics (lack of coffin or objects, high rates of disease, visible deformity or disability, dismemberment of the body, prone burial, signs of restricting the body with stones placed on the individual or burial in a deeper than normal grave or deposit, and in isolation from the main population), indicating that those practices are themselves linked in some qualitative, conceptual way (Harman et al. 1981:167-8; Philpott 1991; Taylor 2008; Tucker 2012; Wiseman et al. 2021). While there are a few examples of decapitation burials in singular cases of isolated deposits away from other burials, those examples did not consistently match the characteristics associated with either interpretation. However, prone burial was the second most common type of position in the decapitation burial sample, a number of decapitation burials were represented by only the skull/skull and C1-C3 vertebrae, and most of the individuals in the entire burial population exhibited some level of nutritional- or work-related pathological conditions (very few examples of visible deformity or disability were present among the entire burial population), and few examples of potential binding of the corpse or bounding of the wrists were observed.

This suggests that both of these interpretations are most likely to explain individuals buried in the prone position, represented by the skull only (or additional skeletal elements), or with evidence of disarticulation/fragmentation. As noted in previous sections, a tangible and statistically significant relationship has been observed between decapitation and prone position burials throughout Roman Britain (Harman et al. 1981:166; Philpott 1991:71-6; Smith 2018), and as Rohnbogner (2018:330) observed, individuals where both of those variables are present

often exhibit bioarchaeological evidence for pathological conditions linked to periods of early childhood stress and poor oral health conditions. In this way, despite the general prevalence of pathological conditions across the sites examined in this thesis, the *poena post mortem* and dangerous dead interpretations may be applicable to a select number of decapitation burials in the sample.

Given the limited evidence for widespread trauma injuries in the burial population, it is unlikely that the warfare or massacre interpretations explain a significant number of the decapitation burials in the sample. Despite a significant concentration of the injuries (especially cuts and chops) in the decapitation sample compared to the non-decapitation sample, only a small percentage of decapitated individuals exhibited evidence for injuries not related to decapitation. Many of the non-decapitation injuries appear to have been associated with work-related accident, some of which exhibited signs of pre-mortem healing, rather than violent death, so such interpretations would not explain most of the decapitation burial treatment circumstances.

Some decapitated individuals without signs of additional trauma may be due to judicial execution. Wiseman et al. (2021:37) notes the difficulty in determining whether executions were indeed judicial, i.e., administratively controlled and a result of legal processes at work in Roman Britain, as described in Roman historical and legal texts (Harries 2007, 2016). Criminal punishment, especially in military contexts, seems a more likely interpretation (Harman et al. 1981:168; Tucker 2012:228). According to Ulpianus, in the 3<sup>rd</sup> century AD the provincial governors were given the ‘power of the sword’ (*jus gladii* or *potestas gladii*) to punish criminal persons (*ad animadevetendum facinorosos homines*) as needed, a punishment only deliverable through a condemnation of death with the sword in accordance with capital punishment edicts

(Wiseman et al. (2021:38). Additional edicts were issued by Constantine and Theodosius (*Theodosian Codex* 9.6.3, 9.16.4, 9.41.1, 10.10.3). In military contexts, most of the decapitated individuals would have been adult males, typically of young adult to middle adult age, who are more likely to exhibit osteological evidence for ante-mortem or other skeletal stress injuries. The decapitation type most commonly associated with judicial execution is a single chop/blow from the posterior-anterior direction, with evidence for possible bodily restraint, and in some instances with the neck flexed at an angle sufficient to allow for a sharp blade (*decollation* denotes decapitation by sword) to slice through a single (or multiple) bones (typically C1-3, inferior side of the mandible) (Boylston et al. 2000:248). The decapitation burials in this sample with evidence for trauma related specifically to decapitation from the posterior in the form of one or two chopping blows are likely to have been due to such executions, but whether these were judicial or systematically regulated in the region cannot be determined based on the evidence available.

The higher percentage of males in the decapitation burial sample compared to females and unsexed individuals, the proximity to sites of military importance, including rural communities and small towns that supported such military installations economically, such as Gloucester, Cirencester, and Alcester, for example), makes it more likely that the execution interpretation explains decapitation burials in those contexts. Despite a lower percentage of adult females and unsexed/subadults, most of those decapitated individuals in both burial groups also exhibited osteological signs of burial circumstances associated with the execution interpretation. According to Tucker (2012:228), "...it should not necessarily be seen as a problem that there were some adult females and non-adults included amongst this number, as the age of criminal responsibility in Roman law was seven, with boys over fourteen and girls over twelve considered

to be adult for this purpose ([Cipriani 2009:73; Mousourakis 2003:320] cited in Tucker 2012). Interestingly, execution did not disqualify an individual from receiving formal burial, as their families or local community members were reportedly allowed to request the body of the deceased to perform the standard formal funerary rituals (Tucker 2012:228; Wiseman et al. 2021:38). This may explain why some decapitated individuals whose osteobiographic profiles suggest execution included grave goods (even though this was an outlier variable) and were buried according to the same burial rites as the wider burial population (Aspöck 2009:38; Crerar 2012; Taylor 2008; Tucker 2012:229).

While each of the interpretations discussed above might apply to most of the decapitation burials examined in this thesis and in other regions of Roman Britain, a monocausal explanation seems unlikely. Given the osteological and mortuary evidence of the rituals enacted for the majority of decapitated individuals across the burial groups, including the multi-phase funerary structure and to the wide demographic range of the decapitation sample, it seems most likely that the execution, *poena post mortem*, or dangerous dead interpretations explain the majority of the decapitated individuals observed in this thesis. However, it is possible that secondary motivations (i.e., judicial execution followed by prone burial, isolated spatially from other burials, and signs of additional post-mortem disarticulation efforts, criteria also tied to the *poena post mortem* or Cult of the Head interpretations) played a role. If this was the case, then the diverse mortuary rituals linked with the decapitation burials in this sample may very well be part of a suite of flexible traditions reflecting localized beliefs responding to a growing administrative presence enforcing Roman law and harsher punishments for crimes and enforcement of security within the state jurisdiction during the LRP in this region (MacMullen 1986 [cited in Wiseman et al 2021:45]). Given the evidence for a tangible relationship between



the decapitation act and the use of manual force or natural environmental processes to fragment/disarticulate the body as observed in the sample in this study (and in other regions by previous researchers), the funerary structure in this region of western Roman Britain appears to have been deployed/acted upon *ad hoc* in response to the needs of the living in the diverse management of the dead through multiple phases of the death process.

## **5.9. Conclusion**

The questions addressed in the previous sections served as a means of interrogating the central question regarding the role and potential significance of decapitation inhumation burials and disarticulated deposits and determining whether those burial contexts belonged to a sub-class of mortuary treatment used to distinguish communal membership, ostracism, or some other identity in Late Romano-British society. Those questions also served to further test whether observable similarities between the decapitation and non-decapitation burial populations could be identified, and, whether observable patterns of differences between decapitation burials and non-decapitation burials existed in the wider community. The patterns revealed by the analysis indicate that the mortuary treatment of the decapitation burials and non-decapitation burials in the sample were in fact more similar than different. While minor variations were observed in the main burial trends revealed by the analysis of the mortuary rituals associated with the decapitation and non-decapitation burials, they were not statistically significant. The main variations from the main/normative burial patterns were primarily linked with exposure to trauma (especially in addition to the decapitation), manipulation of the body, fragmentation or disarticulation, addition of disarticulated human or animal remains, and the provision of grave goods. With the range of normativity of the mortuary rituals related to those burial contexts established, it became possible to delineate which phases of the funerary structure were engaged

with similarly or differently within and between the sites, and by individual burial in order to later assess them using an osteobiographical-influenced approach.

Since most of the burials, including a slight majority of the decapitation burials (50.8%), shared similar burial treatment patterns, it is suggested here that the decapitation variable correlates primarily with the infliction of trauma to impact the body's integrity, including through the manipulation of burial context and body side position, either at the time of death, shortly thereafter, or in rare cases after significant decomposition had occurred. Those aspects of the mortuary treatment rituals with consistent variation from the primary variables were present more often in the atypical decapitation burials, distinguishing them to varying degrees in the modification, deposition and commemoration phases of the funerary process. This suggests the practice of disarticulation was performed to a minor degree alongside the use of the decapitation rites (which was also observed by Crerar (2012), particularly in the Greater London region), especially among the atypical burial group. Evidence for the use of disarticulation rituals to alter the body after death are particularly observable at IA sites in Britain, and it has been suggested that those contexts represent a shift in the increased importance of the individual, social personae and social hierarchy within those communities and region. The fact that more than one-third of the sites in the sample contained evidence for deposits with disarticulated remains, many of which were skulls, long bones, vertebrae or ribs, as well as evidence for the extraction of specific skeletal elements belonging to the axial section of the bodies of certain individuals, suggests the disarticulation rituals expressed by the aforementioned variables were unlikely meant to single out individuals for social marginalization. Rather, the evidence suggests persistence of earlier LIA fragmentation pre- and post-mortem practices to alter whole bodies of select individuals of all sexes or ages into parts or fragments during the LRP.

The selective removal or inclusion of the cranium and/or long bones in decapitation burials or deposits in sites included in this sample (and observed elsewhere in other sites in the Central Belt or regions beyond) reflects continuity with the LIA in conjunction with a change in the frequency with which remains appear in formal burials compared with other contexts by the LRP. In addition to a shift in the placement and significance of specific disarticulated parts of the body over time, the directionality of decapitation methods remain variable (both anterior as well as posterior), and an increase in the number of chopping blows from singular to multiple is observed. This suggests that in LRP Oxfordshire and Gloucestershire there was limited or strict enforcement of formal regulation of the disposal and treatment of the dead similarly to other areas of Roman Britain.

Mortuary treatment patterns linked to certain characteristics related to decapitation and disarticulation activities suggest some individuals were selected for specific handling based on localized beliefs/situational appropriateness. This finding was revealed by the osteoarchaeological analysis combined with life course data to contextualize the bioarchaeological evidence and the mortuary conditions associated with each decapitation burial across the two burial groups. A select number of osteological profiles from individuals in the atypical burial group highlight the diverse nature of these burial contexts and their interpretations. Decapitation burials should be considered a sub-class of mortuary treatment that was deployed in Roman Britain in structured ways that were sometimes in tandem with other disarticulation activities. A contextualized approach is necessary when analyzing such complex mortuary rituals.

The analyses presented in this chapter also suggest the most likely explanations for the decapitation practices and subsequent mortuary rituals are due to execution, beliefs connected

with the Roman concept of *poena post mortem* or ideas about the dangerous dead. Among the decapitation burials in this sample with osteological evidence for trauma linked only to the decapitation (i.e., no other defensive injuries), mainly performed from the posterior by one or two chopping blows, it is likely that those individuals experienced execution. Given that the criteria most often associated with the *poena post mortem* or the dangerous dead concepts appear among a number of different decapitation burials in this sample (burial in the prone position, presence of the skull only or additional skeletal elements, evidence of disarticulation/fragmentation), it may be possible to argue for this interpretation to explain a select number of those burial contexts. While some decapitation burials can be interpreted as reflecting practices associated with the Cult of the Head (especially given the presence of disarticulation activity in some of the sites in the sample and in other areas of the Central Belt), or an association with human sacrifice, warfare or massacre, the historical texts and settlement evidence in the region, paired with the osteological data, suggest the first three interpretations are the most likely.

Given the increase in decapitation practices during the LRP across Roman Britain, the implications for contextualized studies incorporating systematic multi-scalar analysis, combining bioarchaeological, mortuary, and archaeothanatology, the challenges posed by these complex burial traditions should not be underestimated. Possible avenues for future research will be explored further in the following chapter. In addition, the current study has demonstrated a need for the integration of large-scale datasets and associated assemblage information to aid in the contextualization of variable practices based on the performance of bodily transformation during various phases of the funerary structure. This process was achieved either by force and control,

or through natural post-mortem processes to create a sense of communal belonging for the decapitation burial population in LRP western Roman Britain.

## **Chapter Six: Conclusion**

### **6.1. Introduction**

This thesis set out to test whether LRP (3<sup>rd</sup> – 5<sup>th</sup> centuries AD) communities used decapitation and other forms of body manipulation as an established set of alternate rites associated with the social identity and life course of individuals who engaged in or were victims of the practice in Oxfordshire and Gloucestershire. A secondary goal of this thesis was to test whether the decapitation practice correlated with other aspects of the mortuary rituals documented for the general population, and if the practice was connected with other performative violence in Roman society. The tertiary goal of this thesis was to test whether LRP mortuary practices may have been linked to earlier LIA burial traditions in Britain. The final goal was to determine if decapitation burials represent a deviant social identity in LRP Gloucestershire and Oxfordshire. The null hypothesis posited if decapitation burials documented in cemeteries and settlements in Gloucestershire and Oxfordshire were part of a sub-class of mortuary treatment meant to signal a particular communal membership category on the part of the perpetrators and/or the victims, then the evidence should reveal statistically significant similarities among the decapitation burials within and across sites and significant differences in the mortuary treatment of decapitation burials compared to non-decapitation burials in the wider community. This final chapter presents a discussion of the outcomes of the analysis relevant to those goals as they pertain to our understanding of the complexity of the burial traditions practiced in western Roman Britain followed by a discussion of their implications for future research directions.

### **6.2. Decapitation, Death and Burial in LRP Roman Gloucestershire and Oxfordshire**

This thesis has demonstrated that no unified set of mortuary rites could be identified for the individuals who were subjected to decapitation in LRP sites in Gloucestershire and Oxfordshire. While male individuals, adult individuals, and those with pathological conditions were the most likely to be represented in the decapitation burial population, they were also the most frequently represented groups in the non-decapitation burial population. Indeed, there was no statistically significant difference between those biological variables among the decapitation burials and the non-decapitation burials in the thesis sample. Although decapitation increases in the Central Belt region between the ERP and the LRP in the sites included in this analysis, sex and age percentages in the decapitated group do not change significantly; this is also true for the numerous mortuary variables associated with social identity in Roman Britain more generally. This suggests that decapitation and other forms of body manipulation did not serve as an established set of alternate rites associated with social identity per se. On the contrary, while decapitation practices were common enough to be considered a sub-class of alternate or secondary rites in the burial population, they do not appear to have been inflicted on individuals due to a specific social identity. In addition, the decapitation rite, was at times, the only observable variable difference (as trauma) associated with several of the individuals included in the study sample, while a slightly larger percentage of the decapitation burial population exhibited evidence of additional trauma, suggesting there were no pre- or proscribed forms of additional body manipulation or trauma associated with the decapitated individuals included in this sample.

The range of normative burial practices observed across the sites in the study region revealed that decapitated individuals experienced, at times, normative treatment and other treatments across a spectrum of variation. This included those who were further disarticulated

and had experienced intentional manipulation of the body. The analytical approach applied in this thesis illustrated that nearly half of the decapitation burials were distinguished to varying degrees through atypical mortuary treatment from the other decapitation burials associated with the normative burial trends.

The analysis of the variation observed among the decapitation burials through atypical mortuary treatment revealed a sub-group of 60 individuals distinguished by 2+ degrees (dimensions) of difference, which suggests a fluidity of atypical treatment was selectively and situationally deployed alongside normative mortuary behaviors and funerary spaces in most cases examined in this thesis. This suggests that decapitation and other forms of bodily manipulation were incorporated into the normative repertoire of methods that could be used for inflicting death on select individuals as well as the processing of some bodies in ways that are regionally specific. However, those rites do not appear to have been utilized as an established set of alternative rites solely associated with social identity, nor were they deployed within and between communities in the same ways, temporal phases, frequencies, or site types. The variability in the mortuary treatment patterns and the expression of outlier variables toward select individuals demonstrates decapitation and other forms of body manipulation were most likely deployed to distinguish an individual due to punishment, sacrifice, social identity or a combination of these characteristics. Having been decapitated did not, in all cases/contexts, preclude an individual from receiving funerary and burial rites reflective of communal membership and cultural attitudes during the LRP.

The decapitation variable correlates with the modification, deposition and commemoration phases of the funerary program as a whole, which suggests a desire among the living to reconcile the deceased's identity, status, or circumstances linked with the death, as well



as a concern toward the transformative potential of the body as a potential object in some cases. The decapitation variable does appear to be associated with other forms of trauma linked with both accidental and intentional trauma, primarily through cuts and chop marks, to a statistically significant level among decapitated individuals compared to non-decapitated individuals in the region. When consideration is given to the application of decapitation types by age, it appears that while adults received exposure to all types, subadults were absent in Types 1, 2, 6 and 7, which were characterized by incised cuts or chopping blows to the vertebrae, and potential post-cranial sharp force defensive injuries, linked to the interpretation of warfare, execution, human sacrifice, or the pre-Roman Cult of the Head. There does appear to be evidence for the profiling of two sets of three individuals for specific decapitation rites, which suggests some minor regulation of the techniques used or attitudes/laws linked to actions of the individuals who received those rites at four sites in the region.

Drawing on the osteological, archaeological, and literary evidence for violence in the Roman world (e.g., Fagan 2020; Hope 2003; Redfern and Booney 2014; Redfern 2017; Roth 2020; Salway 1993; Wells 2003), both sanctioned and unsanctioned violence due to external and internal forces was perpetrated at various scales in the study area (see Section 2.8.2 – 2.8.5). As a form of social control, violence in the Roman world took a number of forms: raiding, warfare, ritual, interpersonal, or, officially sanctioned violence in the form of gladiatorial games, judicial punishment (execution, prisoner or criminal torture, post-mortem dismemberment), or, in the destruction of statuary and similar material culture representing an individual(s) in association with the concepts of *damnatio memoriae*, or *poena post mortem*. Additional conceptions of ideal value and virtue are also said to have been associated with the enactment of violence, for example, through military exploits, or monumental triumphal commemoration on public view

during the Empire period. The situating of the individual, their worthiness or virtue, and other important markers of status are expressed in the mortuary practices of the LIA in Britain and seem to be reflected in the social milieu of the ERP as power became consolidated in the form of a single centralized leader at the head of a hierarchical system (Kelly 2016:379; Knapp 2016).

With the founding of the Roman Empire during the first century BC, there was a consolidation of power in a newly realized central body through the creation of more efficient statutes to regulate laws and administer punishment toward the accused, criminals, prisoners, and foreign enemies to establish, maintain or restore stability (Fagan 2020:563; Knapp 2016; Williamson 2016). As the punishment for various offenses became harsher and more strictly codified throughout the provinces by the second century AD (Kelly 2016:368; Knapp 2016; Varner 2012:130; Williamson 2016:340-1), irregularities in the consistent application of forms of punishment are known to have occurred based on citizenship status, economic status, location, type of offense and jurisdiction. In this way, events where violent acts were performed or displayed may have served to affirm the Roman legal system, or at least its reach, to differing degrees within the socio-political sphere of daily life (Harries 2007:33; Joshel 2010; Östenberg 2009:163). The varied nature of the deployment of punishment during the ERP and LRP was tied less to strict legal regulation or observation by magistrates or prosecutors, and more to situationally dependent contexts throughout communities and regions of the Empire (Knapp 2016:367; Taylor 2016:351-7). The differential application of violence or pain, and the acceptance of that activity/social norm, aside from its codification in the legal system, could also be observed in the destruction of specific statuary (unpopular Emperors or military generals, for example) (Fields 2005), ticket sales by powerful sponsors for highly popular gladiators within arenas, the mass execution of prisoners, and even cases where Roman citizens were murdered “in

the manner of slaves” or “manner of public enemies” (Cicero, *Tusc.* 2.41 [cited in Carter 2020:505]; [Cicero, *Verr.* 1.5.13, 2.1.7, 2.1.8, 2.1.9, 2.1.13, 2.3.13, 2.3.6, 2.3.59, 2.4.26, 2.5.72-3] cited in Fagan 2020:568-9; Varner 2012). Given the increase in decapitation in the course of the LRP in Britain, especially in the Central Belt, this act was likely one tool of many drawn upon to establish and maintain the civil and social order by marginalizing certain individuals to varying degrees within specific communities and may partially explain the rise in decapitation burials in the study area at this time.

The parallel events of the cultural expansion of the Empire beyond the Mediterranean into the northern Gallic territories, followed by the invasion into *Britannia* during the first century BC, and a cultural shift away from elite recruiting in the Roman military may have contributed to an increase in the use of decapitation and other forms of corpse mutilation during and after violent events occurred. A change in the perceived virtue of military participation through the status of being a soldier among the elite by the end of the Roman Republic to the desire for philosophical association with the idea of virtue or value through battle (whether performed or displayed directly or indirectly) may shed light on its use in some scenarios to denigrate, punish, achieve or strip virtue, kill, or sanction memory of an individual, or, more broadly, the state (Roth 2020:246). The transition from the use of excarnation and the deposition of crania in isolated deposits to the primary use of cremation and inhumation burials in more centralized and formal cemeteries or plots in the course of the ERP was observed to differing degrees across Roman Britain.

While there was a decline in violent warfare during the first and second centuries AD under the Flavian and Antonine Emperors (Roth 2020), intermittent violence continued in various provinces, as illustrated by the Boudiccan Revolt during the first century AD in

*Britannia* (Redfern 2012, 2020a; Salway 1993). The advance of the Roman military into various regions of Britain during the ERP led to the creation and maintenance of military bases, centers, walls, roadways, and similar structures to reinforce their physical, political and economic presence in the province over time. Within the Thames Valley and the Cotswold region, settlements such as *Corinium Dobunnorum* (Cirencester) and Gloucester developed alongside the Iron Age settlement and utilized the territory and landscape, which contributed to internal relationships between IA tribal groups and the Roman administration and state. Indeed, evidence for the continuity of IA mortuary traditions is observed at sites such as Hod Hill, *Camulodunum*, Ham Hill, Maiden Castle, Cotswold Water Park, amongst others, and at Cirencester during the ERP. Despite those social and cultural relationships and burgeoning networks, both local and foreign individuals were subject to violence at various points throughout the ERP, with some osteological evidence attesting to the continued use of LIA mortuary traditions as well as similar traditions utilized by the Romans elsewhere in the Empire (i.e., disposal and/or display of crania or other skeletal elements as trophy parts, usually recovered in ditches, pits, waterscapes, or beneath settlement walls).

One of the final goals of this thesis was to test whether the decapitation and disarticulation evidence from sites in Oxfordshire and Gloucestershire could be linked to a continuity of burial traditions observed among the LIA communities in the region or other LIA mortuary burial trends in other regions of Britain. One-third of the LRP sites in the study sample contained deposits primarily of skulls, long bones, vertebrae or ribs, while in other deposits those elements were removed. This suggests some persistence of LIA mortuary traditions in the form of fragmentation pre- and post-mortem whose purpose was to disrupt the bodily integrity of select individuals (without bias toward a specific sex or age category) in some LRP communities

in the study region. While those examples may, in some cases, represent instances of social marginalization, fragmentation or other forms of manipulation of select skeletal elements may have been used to single out certain individuals in connection with veneration, luck, or fertility, as has been suggested by Armit (2012, 2018) and Shapland and Armit (2012), or enchainment/belonging/membership (Crerar 2012, 2016; Pearce et al. 2000, 2013, 2016).

Temporal and regional variations in disfiguring, dismembering, and intentionally destroying the images, statuary, and physical bodies of specific, select individuals in other regions of Britain and the Roman world appears to mirror this treatment of the dead and could reflect selective or rare association with the concept of *damnatio memoriae* (Aldhouse Green 2018:4; Armit 2011, 2012, 2018; Armit and Ginn 2007; Armit and Schulting 2007; Brun 2018; Buck et al. 2019; Carr and Knüsel 1997; Craig et al. 2005; Crowder et al. 2020; Harding 2016; King 2010, 2014; Montgomery et al. 2011; Östenberg 2009; Pearce 1998; Philpott 1991; Redfern 2020a:334; Tucker 2012, 2014, 2016; Western and Hurst 2014; Whimster 1981).

The emphasis on the selection of specific body parts for disarticulation, modification (in some cases), breakage, curation, and re-deposition during the timeframe of this study signals continuity in conceptual values related to membership, status and memory more broadly within LIA and Romano-British society. The ability of the living to differentially modify select bodies or skeletal remains, particularly crania, at locations intended for public sensory perception and expression implies the application of pain or forceful physical actions was intended to transform the individual's ability to be recognized or perceived after death. The excessive application of decapitation in some individuals compared to others suggests that the intention was not to use decapitation and subsequent bodily manipulation as a means to kill the individual, but to completely remove the head or other skeletal elements at death or shortly thereafter with the

death as a secondary result of the performance. While the examples of such extreme manipulation are few among the decapitation burials examined in this thesis, those cases along with other burials exhibiting mortuary treatment similar to LIA burial practices suggests the intentional intertwining of localized mortuary traditions. By utilizing culturally specific disarticulation methods (perhaps through specialists) alongside potentially regulated forms of peri- and post-mortem violence, those activities were intended to disrupt the integrity of the deceased's physical attributes and appearance in the deposition and commemoration phases of the funerary process.

The increase in decapitation burials during the LRP in Britain was not due to widespread violence or warfare and certainly should not be considered the primary interpretation for the practice in the Thames Valley and Cotswold regions. Rather, the burial contexts examined in this thesis appear to be associated with an increase in the judicial presence in the province, as well as the deployment of localized responses to the deceased individual's perceived status or circumstances/condemnation. In those contexts where the individual's status or persona was deemed distinguishable, it appears there was reliance on the use of human and natural forces in stages of the funerary process in specific locations/spaces to create, dispose, transform and reconstitute the deceased and their relationship to the living in surrounding localities. In this way, decapitation and other forms of bodily manipulation were not in opposition to one another as those practices appear to have belonged to a sub-class of mortuary behavior linked to earlier burial traditions, and served as a tool in a broader mortuary package that was primarily concerned with reinforcing fluid communal norms linked to a sense of recognizable belonging, membership, and the integration of the body (as parts or whole) into the landscape. Those physical actions and performances of violence served to control the living and the dead and were

linked to the broad and effective role of the administrative governing presence in the daily lives of those living in LRP communities in western Britain.

### **6.3. Directions for Future Research**

This thesis has demonstrated that it is possible to explore the nature of diverse mortuary practices in the past using specific forms of archaeological evidence, in this case decapitation burials, to systematically delineate changes in the deployment and potential meaning of such practices as part of a broader cultural and temporal contextual analysis. This analytical approach enabled a deconstruction of Romano-British decapitation burial practices, which have been traditionally linked to concepts of social deviancy and ostracism, low social status, fear of the dead and other similar negative connotations. Future efforts to investigate the social role of decapitation rites and disarticulation practices in communities in Roman Britain and elsewhere in the Empire would benefit from the multi-scalar contextual approach presented here. It is essential first to determine the mortuary program for that time and place before identifying variations on the normative mortuary practices. As this and other studies have shown, bioarchaeological and mortuary treatment data can reveal the diverse methods and forms used to differentiate between individuals in death while still maintaining inter-relatedness within and between sites. In order to flesh out such burial contexts, the addition of taphonomic data (including from non-decapitation burials from the same sites) can reveal complex post-depositional or post-mortem processes that may have otherwise remained an unknown element of an enacted phase of the funerary structure.

Future research should focus on the significance and potential meaning of disarticulation and fragmentation in non-funerary contexts by incorporating more detailed analysis of the spatial distribution of disarticulated human and animal remains within and across sites by region. Special attention paid to the butchery methods used, the types of animal present, selection of

specific skeletal elements, and use of structured vs. informal deposition of remains in such contexts would allow for a greater understanding of the specialized uses of both human and animals in various site types during the Romano-British period. Moreover, such a study normalize such mortuary treatment as the intentional modification and use of human remains as material objects, their potential association with functional items (a ceramic vessel in place of the head, for example), as well as their intentional breakage or damage, which may be linked to contemporary examples ritually killing objects through their intentional disfigurement or breaking. Such a study would not only contribute to a greater understanding of the flexibility of the funerary program including the selective use of the landscape, but also the ways complex narratives were expressed in what have been previously invisible or disparate atypical mortuary practices subsumed beneath the umbrella of the more normative and commonly studied forms of burial, cremation and inhumation, in Roman Britain.

Large-scale online searchable databases could be constructed and made accessible, particularly as technological and methodological advancements in the areas of archaeothanatology, 3D visualizations through photogrammetry, and biogeochemical analyses continue to emerge. Large-scale datasets (see Milella et al. 2015; Philpott 1991; Smith et al. 2016; Tucker 2012, for example) not only allow for the comparison of regional cultural patterns but could also allow for selective small-scale comparisons of finer level data in locations where mortuary studies of atypical practices have yet to be completed or comprehensively studied. Greater access to bioarchaeological, mortuary, taphonomic and biogeochemical data within accessible databases would allow for both broad diachronic focused (i.e., the life course), as well as more narrow synchronic analysis at the individual level where approaches such as osteobiography or life course are conducive to highlighting the significance of diverse mortuary



practices and conditions in the past. Taphonomic and biogeochemical data in the analysis of mortuary practices likewise may reveal aspects of the post-mortem agency of human skeletal remains and associated provisions, however, increased awareness of the need for improved recording and care of the evidence recovered from burial contexts, fills and pits within sites is needed.

#### **6.4. Conclusion**

The analysis presented here suggests mortuary practices in the LRP in western Britain served to situate circumstantial responses to diverse forms of death, including by decapitation, which was deployed for a myriad of reasons irrespective of age, gender, or social status. While the analysis presented here revealed increased levels of trauma among the decapitated individuals compared to the general burial population, particularly among adults, the decapitation rite does not appear to be associated with specific social personae or have been used as a way to mark certain individuals out for ostracism. Instead, decapitation was inflicted on a small percentage of individuals within the burial population that increased in use during the LRP but was one variable in a suite of variables that may have distinguished an individual from others within their community. Among the decapitation burial population examined in this thesis, two identifiable burial groups were observed based on the variability in their mortuary treatment along the spectrum of normativity. Analysis of the mortuary treatment patterns associated with the entire burial population revealed the specific phases of the funerary structure where most of the individuals received similar treatment, as well as the phases where differences toward select individuals were negotiated and expressed by the living.

The analysis of the bioarchaeological and mortuary evidence associated with the burial population made it possible to contextualize the significance of the LRP decapitation burials

identified within and outside settlements across the Thames Valley and the Cotswolds region. The inclusion of taphonomic data further highlighted the fact that select individuals' remains were not accorded standard treatment after death, and in some cases, may represent a persistence of regional or even site-specific LIA mortuary traditions with respect to post-mortem engagement with the body into the LRP.

The application of an approach influenced by osteobiographical studies across the decapitation burial population displays the need to contextualize the use of mortuary treatment variables associated with specific individual burials, as those variables may not have had the same meaning even among individuals who were victims of the same rite. The decapitation rite along with other forms of bodily manipulation was associated with the socio-political structure of Roman society, and its use in judicial and less formal contexts was documented in communities in Roman Britain, further necessitating the use of biocultural and archaeothantological approaches to any study of violence and the complex significance of performative uses of the body. Decapitation practices and disarticulation activities were associated with a sub-class of mortuary treatment, and the most likely interpretations for its use in the sites examined in this thesis were due to judicial execution, *poena post-mortem*, and in fewer cases the Cult of the Head. Those practices were most likely utilized as a tool to primarily express communal membership, and secondarily marginalization in few cases, based upon acceptable adherence to localized community specific beliefs.

More broadly, the use of force to enact transformation among the deceased by the living appears to have been acceptable in many social and political circumstances in Roman society, and was observable in mortuary and funerary contexts discussed in this thesis. Natural forces such as post-mortem decomposition and exposure to weathering were also drawn upon to aid in

the transformation of the deceased in various environmental conditions in the study region. Those living in communities throughout the study region relied upon both manual trauma and natural processes to achieve the desired outcome in determining and negotiating their relationships with the deceased. These relationships were negotiated through explicit as well as tacit networks of regulated levels of violence to ensure the maintenance of social identity, social status and memorialization of the deceased. In a way, the decapitation rite itself may have been conceived as the first step on the transitional journey of the victim from the world of the living to the Otherworld rather than having negative connotations. Adherence to the use of violence and the power expressed by the living in the deployment of the mortuary program (performative acts of grieving, dressing the dead, burial, commemoration acts, etc.) suggests that concern with the social order did not preclude engagement with cosmological or spiritual belief systems in communities across western Late Roman Britain.

## References Cited

### *Primary Sources*

Ambrose, *Expos. Psalm*; 118.10.25

Ammianus Marcellinus XXVII.3.7

Cicero, *Tusc.* 2.41

Cicero, *Verrines* 1.5.13, 2.1.7, 2.1.8, 2.1.9, 2.1.13, 2.3.13, 2.3.6, 2.3.59, 2.4.26, 2.5.72-3

Dio Cass. 62.1–12.

Pliny *Natural History* XXVIII.7, 50.

Suetonius, *Tiberius*; 75.1.

Tacitus, *Annals*; 1.61.

Tacitus, *Agricola*; 1.16.31.

Tacitus, *Agricola* 13.

*Theodosian Codex* 9.6.3, 9.16.4, 9.41.1, 10.10.3

Zosimus 6.10.2.

### *Secondary Sources*

Abdi, H., and Valentin, D.

2007 Multiple Correspondence Analysis. In *Encyclopedia of Measurement and Statistics*, edited by N. Salkind; pp. 1-13. Sage Publishing, Thousand Oaks.

Agarwal, S.

2012 The Past of Sex, Gender, and Health: Bioarchaeology of the Aging Skeleton. *American Anthropologist* 114(2):322-335.

2016 Bone Morphologies and Histories: Life Course Approaches in Bioarchaeology. *American Journal of Physical Anthropology* 159:130-149.

Agarwal, S., and Glencross, B. (eds.)

- 2011 Building a Social Bioarchaeology. In *Social Bioarchaeology*, edited by S. Agarwal and B. Glencross; pp. 1-11. Blackwell Publishing, Malden.
- Agarwal, S., and Glencross, B. (eds.)  
2011 *Social Bioarchaeology*. Wiley-Blackwell, Chichester.
- Aijmer, G.  
2000 Introduction: the Idiom of Violence in Imagery and Discourse. In *Meanings of Violence: a Cross Cultural Perspective*, edited by G. Aijmer and J. Abbink; pp. 1-21. London, Berg.
- Akerman, J.  
1860 Second Report of Researches in a Cemetery of the Anglo-Saxon Period at Brighthampton, Oxon. *Archaeologia* 38:84-97.
- Aldhouse Green, M.  
1998 Humans as Ritual Victims in the Later Prehistory of Western Europe. *Oxford Journal of Archaeology* 17(2):169-189.  
  
2001 *Dying for the Gods: Human Sacrifice in Iron Age and Roman Europe*. Tempus Publishing, Stroud.  
  
2004 Chaining and Shaming: Images of Defeat, from Llyn Cerring Bach to Samitzegefusa. *Oxford Journal of Archaeology* 23(3):319-340.  
  
2005 Ritual Bondage, Violence, Slavery and Sacrifice in Later European Prehistory. In *Warfare, Violence and Slavery in Prehistory*, Proceedings of a Prehistoric Society Conference at Sheffield University, 2001, edited by M. Parker Pearson and I. Thorpe; pp. 155-163. BAR International Series 1374, Archaeopress, Oxford.  
  
2006 Semiologies of Subjugation: the Ritualization of War-prisoners in Later European Antiquity. In *Warfare and Society from an Archaeological and Social Anthropological Perspective*, edited by H. Vandkilde; pp. 281-304. Aarhus University Press, Aarhus.  
  
2018 Formal Religion. In *The Oxford Handbook of the European Iron Age*, edited by C. Haselgrove, K. Rebay-Salisbury and P. Wells; pp. 1-28. Oxford University Press, Online Publication: DOI: 10.1093/oxfordhb/9780199696826.013.1
- Alexander, M., Dodwell, N., and Evans, C.  
2004 A Roman Cemetery in Jesus Lane, Cambridge. *Proceedings of the Cambridge Antiquarian Society* 93:67-94.
- Allason-Jones, L.  
1989 *Women in Roman Britain*. British Museum Press, London.  
  
1999 *Women of Roman Britain*. Publisher, London.

- 2001 Material Culture and Identity. In *Britons and Romans: Advancing an Archaeological Agenda*, edited by S. James and M. Millett; pp. 19-25. Council for British Archaeology, Cambridge.
- 2004 The Family in Roman Britain. In *A Companion to Roman Britain*, edited by M. Todd; pp. 273-287. Blackwell Publishing, Ltd., Oxford.
- 2005 *Women in Roman Britain*. Council for British Archaeology, York.
- 2016 Roman Military Culture. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 464-480. Oxford University Press, Oxford.
- Allen, D.  
1958 Belgic Coins as Illustrations of Life in the Late Pre-Roman Iron Age of Britain. *Proceedings of the Prehistoric Society* 24(3):43-63.
- Allen, M.  
2014 Hunter-gatherer Conflict: The Last Bastion of the Pacified Past? In *Violence and Warfare Among Hunter-gatherers*, edited by M. Allen and T. Jones; pp. 15–25. East Coast Press, Walnut Creek.
- Allen, M., and Palmer-Brown, C.  
2001 *Archaeological Evaluation Report: Phase 5: The Bridles, St. Barnabas Road, Barnet le Wold, North Lincolnshire*, unpublished report, Pre-Construct Archaeology, Lincoln.
- Allen, T.  
2000 The Iron Age Background. In *Roman Oxfordshire*, edited by M. Henig and P. Booth; pp. 1-33. Sutton Publishing Limited, Stroud.
- Allen, T., Darvill, T. Green, S., and Jones, M.  
1993 *Excavations at Roughground Farm, Lechlade, Gloucestershire: a prehistoric and Roman Landscape*. The Oxford Archaeological Unit, The Oxford University Committee for Archaeology, Oxford.
- Allison, P.  
2013 *People and Spaces in Roman Military Bases*. Cambridge University Press, Cambridge.
- 2018 Roman Household Organization. In *The Oxford Handbook of the Archaeology of Childhood*, edited by S. Crawford, D. Hadley, and G. Shepherd; pp. 165-178. Oxford University Press, Oxford.
- Anderson, T.  
1994 Medieval Example of Cleft Lip and Palate from St. Gregory's Priory, Canterbury. *Cleft Palate-Craniofacial Journal* 31:466-472.

- 2001 Two Decapitations from Roman Towcester. *International Journal of Osteoarchaeology* 11(6):400-405.
- Anderson, T., Wakely, J., and Carter, A.  
1992 Medieval Examples of Metastatic Carcinoma: a Dry Bone, Radiological, and SEM Study. *American Journal of Physical Anthropology* 89:309-323.
- Appadurai, A.  
1986 Introduction: Commodities and the Politics of Value. In *The Social Life of Things: Commodities in Cultural Perspective*, edited by A. Appadurai; pp. 3-63. Cambridge University Press, Cambridge.
- Armstrong, G., and Van Gerven, D.  
2003 A Century of Skeletal Biology and Paleopathology: Contrasts, Contradictions, and Conflicts. *American Anthropologist* 105(1):51-62.
- Armit, I.  
2006 Inside Kurtz's Compound: Headhunting and the Human Body in Prehistoric Europe. In *Skull Collection, Modification and Decoration*, edited by M. Bonogofsky; pp. 1-14. BAR International Series 1539. Archaeopress, Oxford.
- 2010 Porticos, Pillars and Severed Heads: the Display and Curation of Human Remains in the Southern French Iron Age. In *Bodies Parts and Bodies Whole*, edited by K. Rebay-Salisbury, and M. Stig Sørensen; pp. 88-99. Oxbow Books, Oxford.
- 2011 Violence and Society in the Deep Human Past. *British Journal of Criminology* 51(3):499-517.
- 2012 *Headhunting and the Body in Iron Age Europe*. Cambridge University Press, Cambridge.
- 2017 The Visible Dead: Ethnographic Perspectives on the Curation, Display and Circulation of Human Remains in Iron Age Britain. In *Engaging with the Dead: Exploring Changing Human Beliefs about Death, Mortality and the Human Body*, edited by J. Bradbury and C. Scarre; pp. 163-173. Oxbow Books, Oxford.
- 2018 Ritual Sites, Offerings, and Sacrifice. In *The Oxford Handbook of the European Iron Age*, edited by C. Haselgrove, K. Rebay-Salisbury, and P. Wells; pp. 1-28. Oxford University Press, Oxford. Oxford Handbooks Online DOI: 10.1093/oxfordhb/9780199696826.013.3
- Armit, I., and Ginn, V.  
2007 Beyond the Grave: Human Remains from Domestic Contexts in Iron Age Atlantic Scotland. *Proceedings of the Prehistoric Society* 73:113-134.

- Armit, I., Knüsel, C., Robb, J., and Schulting, R.  
2006 Warfare and Violence in Prehistoric Europe: An Introduction. *Journal of Conflict Archaeology* 2(1):1–11.
- Armit, I., and Schulting, R.  
2007 An Iron Age Decapitation from the Sculptor's Cave, Covesea, Northeast Scotland. *Past* 55:1-2.
- Armit, I., Schulting, R., Knüsel, C., and Shepherd, I.  
2011 Death, Decapitation and Display? The Bronze and Iron Age Human Remains from the Sculptor's Cave, Cove Sea, North-East Scotland. *Proceedings of the Prehistoric Society* 77:251-278.
- Armour, N., and Morley, I.  
2009 *Knobbs Farm, Somersham: Phase 5B Investigations*. Cambridge Archaeological Unit Unpublished Draft Report, Cambridge.
- Arnold, B.  
1998 Slavery in Late Prehistoric Europe: Recovering the Evidence for Social Structure in Iron Age Society. In *Tribe and Polity in Late Prehistoric Europe: Demography, Production and Exchange in the Evolution of Complex Social Systems*, edited by M. Geselowitz and D. Blair Gibson; pp. 179-192. Plenum Publishing Corp., New York.
- 2001 The Limits of Agency in the Analysis of Elite Iron Age Celtic Burials. *Journal of Social Archaeology* 1(2):210-224.
- 2002 “Sein and Werden”: Gender as a Process in Mortuary Ritual. In *Pursuit of Gender: Worldwide Archaeological Approaches*, edited by S. Milledge Nelson and M. Rosen-Ayalon; pp. 239-256. AltaMira Press, New York.
- 2006 Gender and Archaeological Mortuary Analysis. In *Handbook of Gender in Archaeology*, edited by S. Milledge Nelson; pp. 137-170. AltaMira Press, Lanham.
- 2014 Life after Life: Bioarchaeology and Post-mortem Agency. *Cambridge Archaeological Journal* 24(3):523–529.
- Arnold, B., and Wicker, N. (eds.)  
2001 *Gender and the Archaeology of Death*. AltaMira Press, Walnut Creek.
- Arriaza B.  
1995 *Beyond Death. The Chinchorro Mummies of Ancient Chile*. Smithsonian Institution Press, Washington, D.C.
- Aspöck, E.  
2002 [2005] Graböffnungen im Frühmittelalter und das Fallbeispiel der langobardenzeitlichen Gräber von Brunn am Gebirge, Flur Wolfholz, Niederösterreich. *Archaeologia Austriaca* 87:225–264.



- 2008 What Actually is a *Deviant* Burial? Comparing German-language and Anglophone Research on *Deviant Burials*. In *Deviant Burial in the Archaeological Record*, edited by E. Murphy; pp. 17-34. Oxbow Books, Oxford.
- 2009 *The Relativity of Normality: an Archaeological and Anthropological Study of Deviant Burials and Different Treatment at Death*. Unpublished Ph.D. Dissertation, Department of Archaeology, University of Reading, Reading.
- 2018 A High-resolution Approach to the Formation Processes of a Reopened Early Bronze Age Inhumation Grave in Austria: Taphonomy of Human Remains. *Quaternary International* 474 B:131–145. <https://doi.org/10.1016/j.quaint.2018.02.028>.
- Aspöck, E. and Fera, M.  
 2015 3D-GIS für die taphonomische Auswertung eines wiedergeöffneten Körpergrabes. *AGIT – Journal für Angewandte Geoinformatik* 1:2–9.
- Aspöck, E., Klevnäs, A., and Müller-Scheeßel, N. (eds.)  
 2020 Introduction. In *Grave Disturbances: The Archaeology of Post-Depositional Interactions with the Dead*, edited by E. Aspöck, A. Klevnäs, and N. Müller-Scheeßel; pp. 1-26. Oxbow Books, Oxford.
- Atkinson, M., and Preston, S.  
 1998 The Late Iron Age and Roman Settlement at Elms Farm, Heybridge, Essex, Excavations 1993-5: An Interim Report. *Britannia* 29:85-110.
- Aufderheide, A., and Rodriguez-Martin, C.  
 1998 *Human Paleopathology*. Cambridge University Press, Cambridge.
- BABAO  
 2019 *BABAO Code of Ethics*, pp. 2-13. London.
- Baddeley, A., and Müller, J.  
 2000 Non- and Semi-Parametric Estimation of Interaction in Inhomogeneous Point Patterns. *Statistica Neerlandica* 54(3):329-350.
- Baddeley, A., and Turner, R.  
 2005 Spatstat: An R Package for Analyzing Spatial Point Patterns. *Journal of Statistical Software* 12(6).
- Baez-Molgado, S., Hart, K., Najarro, E., Sholts, S., and Gilbert, W.  
 2013 Cranium and Mandible Imaging Protocol: A Guide for Publication-Quality Digital Photography of the Skull (FOROST Skull Photography Protocol). *FOROST Occasional Publications* 2:1-14.
- Baker, B., and Agarwal, S.

- 2017 Stronger Together: Advancing a Global Bioarchaeology. *Bioarchaeology International* 1(1–2):1–18. DOI: 10.5744/bi.2017.1005.
- Baker, B., Dupras, T., and Tocheris, M.  
2005 *The Osteology of Infants and Children*. Texas A&M University Press, Texas.
- Balter, M.  
2005 'Deviant' Burials Reveal Death on the Fringe in Ancient Societies. *Science* 310: 613.
- Barnard, A., and Spencer, J. (eds.)  
1996 *Social and Cultural Anthropology*. Routledge, London.
- Barnes E.  
1994 *Developmental Defects of the Axial Skeleton in Paleopathology*. University Press of Colorado, Niwot, CO.
- Barrett, J.  
1990 The Monumentality of Death: the Character of Early Bronze Age Mortuary Mounds in Southern Britain. *World Archaeology* 22:179-189.  
  
2001 Agency, the Duality of the Structure, and the Problem of the Archaeological Record. In *Archaeological Theory Today*, edited by I. Hodder; pp. 141-164. Polity Press, Cambridge.
- Bartel, B.  
1982 A Historical Review of Ethnological and Archaeological Analyses of Mortuary Practice. *Journal of Anthropological Archaeology* 1(1):32-58.
- Barth, F. (ed.)  
1969 *Ethnic Groups and Boundaries*. Little Brown, Boston.
- Bastian, A.  
1860 *Der Mensch in der Geschichte*. Otto Wigand, Leipzig.
- Bateman, T.  
1861 *Ten Year's Diggings in Celtic and Saxon Grave Hills, in the Counties of Derby, Stafford and York from 1848 to 1858*. George Allen and Sons, London.
- Baudrillard, J.  
1994 *Simulacra and Simulation*. Translated by Sheila Faria Glaser. University of Michigan Press, Ann Arbor, MI.
- Baxter, J. (ed.)  
2005 *Children in Action: Perspectives on the Archaeology of Childhood*. University of California Press, Berkeley, CA.

- Bayliss, A.  
2009 Rolling Out Revolution: Using Radiocarbon Dating in Archaeology. *Radiocarbon* 51:123-47.
- Beck, L.  
1995 *Regional Approaches to Mortuary Analysis*. Plenum Press, New York.
- Becker, T.  
1963 On Science, Political Science, and Law. *American Behavioral Scientist* 7(4):11-15.
- Beckmann, M.  
2011 *The Column of Marcus Aurelius: the Genesis and Meaning of a Roman Imperial Monument*. University of North Carolina Press, Chapel Hill, NC.
- Behrensmeyer, A.  
1978 Taphonomic and Ecological Information from Bone Weathering. *Paleobiology* 4:150-162.
- Behrensmeyer, A., and Hill, A. (eds.)  
1980 *Fossils in the Making. Vertebrate Taphonomy and Paleoecology*. The University of Chicago Press, Chicago.
- Beisaw, A.  
2013 *Identifying and Interpreting Animal Bones: a Manual*. Texas A&M University Press, College Station.
- Bell, C.  
1992 *Ritual Theory, Ritual Practice*. Oxford University Press, New York.  
1997 *Ritual: Perspectives and Dimensions*. Oxford University Press, Oxford.
- Bello, S., and Andrews, P.  
2006 The Intrinsic Pattern of Preservation of Human Skeletons and its Influence on the Interpretation of Funerary Behaviors. In *Social Archaeology of Funerary Remains*, edited by R. Gowland and C. Knüsel; pp. 1-13. Oxbow Books, Oxford.
- Bello, S., Thomann, A., Signoli, M., Dutour, O. and Andrews, P.  
2006 Age and Sex Bias in the Reconstruction of Past Population Studies. *American Journal of Physical Anthropology* 129:24-38.
- Bentley, G.  
1987 Ethnicity and Practice. *Comparative Studies in Society and History* 29(1):24-55.
- Betsinger, T., and Scott, A.

- 2014 Governing from the Grave: Vampire Burials and Social Order in Post-medieval Poland. *Cambridge Archaeological Journal* 24(3):467-476.
- Bevan, B.  
 1997 Bounding the Landscape: Place and Identity during the Yorkshire Wolds Iron Age. In *Reconstructing Iron Age Societies: New Approaches to the British Iron Age*, edited by A. Gwilt, and C. Haselgrove; pp. 181-191. Oxbow Books, Oxford.  
 1999 The Landscape Context of the Iron-Age Square-Barrow Burials, East Yorkshire. In *The Loved Body's Corruption*, edited by J. Downes and T. Pollard; pp. 69-93. Cruithne Press, Glasgow.
- Bewley, R.  
 1994 *English Heritage Book of Prehistoric Settlements*. B. T. Batsford/English Heritage, London.
- Biddulph, E.  
 2005 Roman Pottery. In *Prehistoric and Roman Activity and a Civil War Ditch: Excavations at the Chemistry Research Laboratory, 2-4 South Parks Road, Oxford*, edited by P. Bradley, B. Charles, A. Hardy, and D. Poore. *Oxoniensia* 70:141-202.
- Biehl, J.  
 2010 Deleuze and the Anthropology of Becoming. *Current Anthropology* 51(3):317-351.
- Biehl, P.  
 2007 Enclosing Places: A Contextual Approach to Cult and Religion in Neolithic Central Europe. In *Cult in Context: Reconsidering Ritual in Archaeology*, edited by C. Malone and D. Barrowclough; pp. 173-182. Oxbow Books, Oxford.  
 2010 Representing the Human Body: Figurines of the Neolithic and Chalcolithic of Southeast Europe. In *Zeiten—Kulturen—Systeme. Gedenkschrift für Jan Lichardus*, edited by V. Becker, M. Thomas, and A. Wolf-Schuler; pp. 103-110. Schriften des Zentrums für Archäologie und Kulturgeschichte des Schwarzmeerraumes Bd. 17. Beier und Beran, Langenweißbach.  
 2012 Introduction. In *The Archaeology of Violence: Interdisciplinary Approaches, Vol. 2*. IEMA Proceedings, edited by S. Ralph; pp. 182-184. State University of New York Press, Albany.
- Binford, L.  
 1971 Mortuary Practices: Their Study and Their Potential. In *Approaches to the Social Dimensions of Mortuary Practices*, edited by J. Brown; pp. 6-29. SAA Memoirs No. 25. Society of American Archaeology, Washington, DC.  
 1972 *An Archaeological Perspective*. Academic Press, New York.

- 1981 *Bones: Ancient Men and Modern Myths*. Academic Press, New York.
- Bintliff, J.  
 1984 Iron Age Europe. In the Context of Social Evolution from the Bronze Age through to Historic Times. In *European Social Evolution: Archaeological Perspectives*, edited by J. Bintliff; pp. 157-225. University of Bradford, Bradford.
- Blagg, T. F. C., and Millett, M. (eds.)  
 2002 *The Early Roman Empire in the West*. Oxbow Books, Oxford.
- Bloch, M., and Parry, J.  
 1982 Introduction: Death and the Regeneration of Life. In *Death and the Regeneration of Life*, edited by M. Bloch and J. Parry; pp. 1-44. Cambridge University Press, Cambridge.
- Blok, A.  
 2000 The Enigma of Senseless Violence. In *Meanings of Violence: a Cross-cultural Perspective*, edited by G. Aijmer and J. Abbink; pp. 23-37. Berg, Oxford.
- Boas, F.  
 1940 *Race, Language, and Culture*. Macmillan, New York.
- Bonnichsen, R., and Sorg, M.  
 1989 *Bone Modification*. Center for the Study of the First Americans, Orono, ME.
- Bonogofsky, M.  
 2011 *The Bioarchaeology of the Human Head: Decapitation, Deformation, and Decoration*. University Press of Florida, Gainesville.
- Booth, P., Evans, J., and Hiller, J.  
 2001 *Excavations in the Extramural Settlement of Roman Alchester, Oxfordshire, 1991*. Oxford Archaeology Monograph 1. Oxford Archaeology, Oxford.
- Booth, P., Simmonds, A., Boyle, A., Clough, S., Cool, H.E.M., and Poore, D.  
 2010 *The Late Roman Cemetery at Lankhills, Winchester: Excavations 2000-2005*. Oxford Archaeology Monograph No. 10, Oxford.
- Booth, P., and Stansbie, D.  
 2007 *A Roman Rural Landscape at Kempsford Quarry, Gloucestershire*. Oxford Archaeology Occasional Paper 15. Oxford Archaeology, Oxford.
- Booth, T., and Madgwick, R.  
 2016 New Evidence for Diverse Secondary Burial Practices in Iron Age Britain: A histological Case Study. *Journal of Archaeological Science* 67:14-24.

- Boulestin B., and Duday H.  
2006 Ethnology and Archaeology of Death: From the Illusion of References to the Use of a Terminology. *Archaeologia Polona* 44:149-169.
- Bourdieu, P.  
1980 *Le Sens Pratique*. Paris, Éditions de Minuit.  
  
1993 [1977] *Outline of a Theory of Practice*. Cambridge University Press, Cambridge.
- Boyle, A.  
2001 Human Skeletal Assemblage. In *Excavations in the Extramural Settlement of Roman Alchester, Oxfordshire, 1991*, edited by P. Booth, J. Evans and J. Hiller; pp. 385-94. Oxford Archaeology Monograph 1. Oxford Archaeology, Oxford.  
  
2011 Human Bone, Appendix D1. In *Gill Mill, Ducklington and South Leigh, Oxfordshire: Post Excavation Assessment and Project Design*, edited by P. Booth and A. Simmonds; pp. 189-199. Oxford Archaeology, Oxford.
- Boylston, A.  
2000 Evidence for Weapon-related Trauma in British Archaeological Samples. In *Human Osteology in Archaeology and Forensic Science*, edited by M. Cox and S. Mays; pp. 357-380. Cambridge University Press, Cambridge.  
  
2010 Recording of Weapon Trauma. In *Guidelines to the Standards for Recording Human Remains*, edited by M. Brickley and J. McKinley; pp. 40-42. Institute of Field Archaeologists Paper No. 7, Reading.
- Boylston, A., Knüsel, C., and Roberts, C.  
2000 Investigation of a Romano-British Rural Ritual in Bedford, England. *Journal of Archaeological Science* 27:241-254.
- Bradley, I.  
1995 *The Power of Sacrifice*. Darton, Longman and Todd, London.
- Bradley, P., Charles, B., Hardy, A., and Poore, D.  
2005 Prehistoric and Roman Activity and a Civil War Ditch: Excavations at the Chemistry Research Laboratory, 2-4 South Parks Road, Oxford. *Oxoniensia* 70:141-202.
- Branigan, K.  
1992 *Romano-British Cavemen*. Oxbow Monographs, Oxford.
- Breeze, D.  
1982 *The Northern Frontiers of Roman Britain*. Batsford, London.  
  
2006 *Handbook to the Roman Wall*. Society of Antiquaries, Newcastle.

- Brickley, M., and McKinley, J. (eds.)  
2004 *Guidelines to the Standards for Recording Human Remains*. British Association for Biological Anthropology and Osteoarchaeology and Institute for Field Archaeology. Southampton, Reading.
- Brødholt, I.  
2012 *Socialization of Infants and Children in Roman Britain: An Analysis of Burial Customs with Special Focus on the Lankhills Cemetery*. Unpublished Masters Thesis, University of Oslo, Oslo.
- Brødholt, J., and Holck, P.  
2012 Skeletal Trauma in the Burials from the Royal Church of St. Mary in Medieval Oslo. *International Journal of Osteoarchaeology* 22(2):201-218.
- Brooke, J.  
1892 Discovery of a Roman Skeleton on Manton Downs. *Wiltshire Archaeological Magazine* 26:412.
- Broughton, J., and Miller, S.  
2016 *Zooarchaeology and Field Ecology: A Photographic Atlas Account*. University of Utah Press, Salt Lake City.
- Brown, J. (ed.)  
1971 *Approaches to the Social Dimensions of Mortuary Practices*. SAA Memoirs No. 25. Society of American Archaeology, Washington, DC.
- Brumfiel, E.  
1996 Figurines and the Aztec State: Testing the Effectiveness of Ideological Domination. In *Gender and Archaeology*, edited by R. Wright; pp. 144-166. University of Pennsylvania Press, Philadelphia.  
  
2000 On the Archaeology of Choice: Agency Studies as a Research Stratagem. *Agency in Archaeology*, edited by M-A. Dobres, and J. Robb; pp. 249-255. Routledge, London.  
  
2006 Cloth, Gender, Continuity, and Change: Fabricating Unity in Anthropology. *American Anthropologist* 108:862-877.
- Brun, P.  
2018 Funerary Practices. In *The Oxford Handbook of the European Iron Age*, edited by C. Haselgrove, K. Rebay-Salisbury, and P. Wells; online edn, Oxford University Press, Oxford. Oxford Handbooks Online DOI: 10.1093/oxfordhb/9780199696826.013.3
- Buck, T., Greene, El, Meyer, A., Barlow, V., and Graham, E.  
2019 The Body in the Ditch: Alternative Funerary Practices on the Northern Frontier of the Roman Empire? *Britannia* 50:203-224.

- Buhr, A., and Cooke, A.  
1959 Fracture Patterns. *Lancet* 1:531 – 536.
- Buikstra, J.  
1976 *Hopewell in the Lower Illinois Valley: A Regional Approach to the Study of Human Biological Variability and Prehistoric Behavior*. NUAP Scientific Papers No. 2. Northwestern University Archaeology Program, Evanston.  
  
1977 Biocultural Dimensions of Archeological Study: a Regional Perspective. In *Biocultural Adaptation in Prehistoric America*, edited by J. Buikstra and R. Blakely; pp. 67-84. University of Georgia Press, Athens.  
  
2006 A Historical Introduction. In *Bioarchaeology: the Contextual Analysis of Human Remains*, edited by J. Buikstra and L. Beck; pp. 7-25. Routledge, New York.
- Buikstra, J., and Beck, L. (eds.)  
2006 *Bioarchaeology: The Contextual Analysis of Human Remains*. Routledge, London.
- Buikstra, J., and Charles, D.  
1999 Centering the Ancestors: Cemeteries, Mounds, and Sacred Landscapes of the Ancient North American Midcontinent. In *Archaeologies of Landscape: Contemporary Perspectives*, edited by W. Ashmore and A. Knapp; pp. 201-228. Blackwell, Oxford.
- Buikstra, J., and Scott, R.  
2009 Key Concepts in Identity Studies. In *Bioarchaeology and Identity in the Americas*, edited by K. Knudson and C. Stojanowski; pp. 22-55. University of Florida Press, Gainesville.
- Buikstra, J., and Swegle, M.  
1989 Bone Modification Due to Burning: Experimental Evidence. In *Bone Modification*, edited by R. Bonnicksen and H. Sorg; pp. 247-258. Center for the Study of the First Americans, Institute of Quaternary Studies, University of Maine, Orono, ME.
- Buikstra, J., and Ubelaker, D. (eds.)  
1994 *Standards for Data Collection from Human Skeletal Remains*. Arkansas Archaeological Survey, Fayetteville.
- Burnham, B.  
1988 A Survey of Building Types in Romano-British 'Small Towns'. *JBAA* 141:35-59.
- Burnham, B., Hunter, F., Fitzpatrick, A., Hassall, M., and Tomlin, R.  
2002 Roman Britain in 2001. *Britannia* 33:275-371.
- Bush, H., and Stirland, A.



- 1991 Romano-British Decapitation Burials: A Comparison of Osteological Evidence and Burial Ritual from Two Cemeteries. *Anthropologie* 29:205-10.
- Butler, J. (ed.)  
2006 *Reclaiming the Marsh – Archaeological Excavations at Moor House, City of London*. Pre-Construct Archaeology Monograph 6, London.
- Calkin, J.  
1947 Two Romano-British Burials at Kimmeridge. *Proceedings of the Dorset Natural History and Archaeological Society* 69:33-41.
- Cameron, A., and Roberts, C.  
1984 *Gambier-Parry Lodge, Gloucester*. Human Skeletal Report. University of Bradford, Bradford.
- Cannon, A.  
1989 The Historical Dimension in Mortuary Expressions of Status and Sentiment. *Current Anthropology* 30:437-458.  
  
2005 Gender, Agency, and Mortuary Fashion. In *Interacting with the Dead: Perspectives on Mortuary Archaeology for the New Millennium*, edited by G. Rakita, J. Buikstra, L. Beck, and S. Williams; pp. 41-65. University of Florida Press, Gainesville.
- Cannon, M.  
2013 NISP, Bone Fragmentation, and the Measurement of Taxonomic Abundance. *Journal of Archaeological Method and Theory* 20:397-419.
- Cantarella, E.  
2016 Women and Patriarchy in Roman Law. In *The Oxford Handbook of Roman Law and Society*, edited by P. Du Plessis, C. Ando, and K. Tuori; pp. 419-431. Oxford University Press, Oxford.
- Cardew, G.  
1865 On the Discovery of Human Skeletons and Ancient Remains at Helmingham, Suffolk. *Journal of the British Archaeological Association* 21:267-273.
- Carman, J., and Harding, A. (eds.)  
2013 *Ancient Warfare*. Sutton, Stroud.
- Carneiro, R.  
1973 The Four Faces of Evolution. In *The Handbook of Social and Cultural Anthropology*, edited by J. Honigmann; pp. 89-100. Rand McNally, New York.
- Carr, G. and Knüsel, C.  
1997 The Ritual Framework of Excarination by Exposure as the Mortuary Practice of the Early and Middle Iron Ages of Central Southern Britain. In *Reconstructing Iron Age*

- Societies: New Approaches to the British Iron Age*, edited by A. Gwilt and C. Haselgrove; pp. 167-73. Oxbow Monograph 71. Oxford.
- Carreras, C., and De Soto, P.  
 2013 The Roman Transport Network: A Precedent for the Integration of European Mobility. *Historical Methods* 46(3):117-133.
- Carroll, M.  
 2006 *Spirits of the Dead: Roman Funerary Commemoration in Western Europe*. Oxford University Press, Oxford.
- 2011 Infant Death and Burial in Roman Italy. *Journal of Roman Archaeology* 24:99-120.
- 2013 Ethnicity and Gender in Roman Funerary Commemoration: Case Studies from the Empire's Frontiers. In *The Oxford Handbook of the Archaeology of Death and Burial*, edited by L. Nilsson Stutz and S. Tarlow; pp. 559-579. Oxford University Press, Oxford.
- 2018 Archaeological and Epigraphic Evidence for Infancy in the Roman World. In *The Oxford Handbook of the Archaeology of Childhood*, edited by S. Crawford, D. Hadley, and G. Shepherd; pp. 148-164. Oxford University Press, Oxford.
- 2019 Funerary Commemoration of Infants. In *Infancy and Earliest Childhood in the Roman World: 'a fragment of time'*, edited by M. Carroll; pp. 208-237. Oxford University Press, Oxford.
- Carroll, M., and Graham, E. (eds.)  
 2014 *Infant Health and Death in Roman Italy and Beyond*. Journal of Roman Archaeology Supplementary Series 96. Journal of Roman Archaeology, Portsmouth, RI.
- Carter, M.  
 2012 "Persuade the People": Violence and Roman Spectacle Entertainment in the Greek World. In *The Archaeology of Violence: Interdisciplinary Approaches, IEMA Proceedings, Volume 2*, edited by S. Ralph; pp. 158-168. State University of New York Press, Albany.
- 2020 Combat Sports in Ancient Greece and Rome. In *The Cambridge World History of Violence, Volume 1: The Prehistoric and Ancient Worlds*, edited by G. Fagan, L. Fibiger, M. Hudson, and M. Trundle; pp. 493-511. Cambridge University Press, Cambridge.
- Casa Hatton, R.  
 1999 *The Cemeteries in Roman Britain: Evidence for Management and Related Social Implication with Particular Reference to the Late Roman Period*. Unpublished Ph.D. Dissertation, University of Sheffield.
- Casa Hatton, R., and Wall, W.

- 2006 A Late Roman Cemetery at Durobrivae, Chesterton. *Proceedings of the Cambridge Antiquarian Society* 95:5-24.
- Cattaneo, C., and Cappella, A.  
2017 Distinguishing between Peri- and Post-mortem Trauma on Bone. In *Taphonomy of Human Remains: Forensic Analysis of the Dead and the Depositional Environment*, edited by E. Schotsmans; pp. 352-368. Wiley and Sons, Oxford.
- Cave, C., and Oxenham, M.  
2016 Identification of the Archaeological “Invisible Elderly”: An Approach Illustrated with an Anglo-Saxon example. *International Journal of Osteoarchaeology* 26(1):163–175. DOI: 10.1002/oa.2408.
- Chacon, R., and Dye, D. (ed.)  
2007 *The Taking and Displaying of Human Body Parts as Trophies by Amerindians*. Springer, New York.
- Chambers, R.  
1976 A Romano-British Settlement at Curbridge. *Oxoniensia* 41:38-55.
- Chambers, R., and Boyle, A.  
2007 The Romano-British Cemetery. In *Excavations at Radley Barrow Hills, Radley, Oxfordshire Volume 2: The Romano-British Cemetery and Anglo-Saxon Settlement*, edited by R. Chambers and E. McAdam; pp. 13-84. Oxford Archaeology, Oxford.
- Chambers, R., and Harman, M.  
1986 Romano-British Burials from Wroxton, Oxon 1980. *Oxoniensia* 51:37-44.
- Chapman, J.  
2000 *Fragmentation in Archaeology: People, Places and Broken Objects in the Prehistory of Southeastern Europe*. Routledge, London.  
  
2010 ‘Deviant’ Burials in the Neolithic and Chalcolithic of Central and Southeastern Europe. In *Body Parts and Bodies Whole*, edited by K. Rebay-Salisbury, M.L. Stig Sørensen, and J. Hughes; pp. 30-45. Oxbow Books, Oxford.
- Chapman, R.  
2013 Death, Burial, and Social Representation. In *The Oxford Handbook of The Archaeology of Death and Burial*, edited by S. Tarlow and L. Nilsson Stutz; pp. 47-57. Oxford University Press, Oxford.
- Chapman, J., and Gaydarska, B.  
2006 *Parts and Wholes: Fragmentation in Prehistoric Context*. Oxbow Books, Oxford.
- Chapman, R., Kinnes, I., and Randsborg, K. (eds.)  
1981 *The Archaeology of Death*. Cambridge University Press, Cambridge.

- Charles, D., and Buikstra, J.  
2002 Siting, Sighting and Citing the Dead. *Archeological Papers of the American Anthropological Association* 11(1):13-25.
- Childe, V.  
1929 *The Danube in Prehistory*. Clarendon, Oxford.  
  
1940 *Prehistoric Communities of the British Isles*. Cambridge University Press, Cambridge.  
  
1945 Directional Changes in Funerary Practices during 50,000 Years. *Man* 45:13-19.  
  
1956 *Piecing Together the Past*. Routledge and Kegan Paul, London.
- Champion, T.  
2016 Britain before the Romans. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 150-178. Oxford University Press, Oxford.
- Chenery, C., Müldner, G., Evans, J., Eckardt, H., and Lewis, M.  
2010 Strontium and Stable Isotope Evidence for Diet and Mobility in Roman Gloucester, UK. *Journal of Archaeological Science* 37:150-63.
- Cheung, C., Schroeder, H., Hedges, R.E.M.  
2012 Diet, Social Differentiation and Cultural Change in Roman Britain: New Isotopic Evidence from Gloucestershire. *Archaeological and Anthropological Science* 4:61-73.
- Christensen, A., Passalacqua, N., and Bartelink, E.  
2019 *Forensic Anthropology: Current Methods and Practice* (2<sup>nd</sup> Ed.). Elsevier Academic Press, London.
- Cipriani, D.  
2009 *Children's Rights and the Minimum Age of Criminal Responsibility: A Global Perspective*. Farnham, Ashgate.
- Clark, C.  
1996 Excavations at Cold Harbour Farm, Crowmarsh. *South Midlands Archaeology* 26:71-76.
- Clarke, G.  
1975 Popular Movements and Late Roman Cemeteries. *World Archaeology* 7(1):46-56.
- Clarke, G. (ed.)  
1979 *Pre-Roman and Roman Winchester. Part II. Roman Cemetery at Lankhills*. Clarendon Press, Oxford.
- Clough, S.

- 2009 Human Remains. In *Horcott Quarry (Churchberry Manor), Fairford, Gloucestershire*, edited by D. Mullin, G. Laws, and A. Smith; pp. 42-48. Post-excavation Assessment and Project Design, Oxford Archaeology, Oxford.
- Cohen, A.  
1994 *Self Consciousness: An Alternative Anthropology of Identity*. Routledge, London.
- Cohen, M., and Bennett, S.  
1993 Skeletal Evidence for Sex Roles and Gender Hierarchies in Prehistory. In *Sex and Gender Hierarchies*, edited by B. Miller; pp. 273-296. Cambridge University Press, Cambridge.
- Coleman, K.  
1990 Fatal Charades: Roman Executions Staged as Mythological Enactments. *Journal of Roman Studies* 80:44-73.
- Collis, J.  
1977 *The Iron Age in Britain: a Review*. University of Sheffield 1977, Sheffield.  
  
1985 Review of Danebury: An Iron Age Hillfort in Hampshire. *Proceedings of the Prehistoric Society* 51:348-349.
- Conkey, M.  
1990 Experimenting with Style in Archaeology: Some Historical and Theoretical Issues. In *The Uses of Style in Archaeology*, edited by M. Conkey and C. Hastorf; pp. 5-17. Cambridge University Press, Cambridge.  
  
1991 Does It Make a Difference? Feminist Thinking and Archaeologies of Gender. In *The Archaeology of Gender: Proceedings of the Twenty-Second Annual Conference of the Archaeological Association of the University of Calgary*, edited by D. Walde and N. Willows; pp. 24-33. University of Calgary Anthropological Association, Calgary.
- Conkey, M., and Spector, J.  
1984 Archaeology and the Study of Gender. In *Advances in Archaeological Method and Theory*, Vol. 7, edited by M. Schiffer; pp. 1-38. Academic Press, San Diego.
- Conkey, M., and Tringham, R.  
1996 Cultivating Thinking, Challenging Authority: Some Experiments in Feminist Pedagogy in Archaeology. In *Gender and Archaeology*, edited by R. Wright; pp. 224-250. University of Pennsylvania Press, Philadelphia.
- Cool, H.E.M.  
2004 *The Roman Cemetery at Brougham, Cumbria: Excavations 1966-67*. Society for the Promotion of Roman Studies, London.  
  
2007 *Eating and Drinking in Roman Britain* Cambridge University Press, Cambridge.

- 2011 Funerary Contexts. In *Artefacts in Roman Britain: their Purpose and Use*, edited by L. Allason-Jones; pp. 293-312. Cambridge University Press, Cambridge.
- 2016 Clothing and Identity. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 406-424. Oxford University Press, Oxford.
- Cool, H., and Baxter, M.  
1999 Peeling the Onion: An Approach to Comparing Vessel Glass Assemblages. *Journal of Roman Archaeology* 12:72-100.
- Copeland, T.  
2011 *Roman Gloucestershire*. The History Press, Stroud.
- Cornell, T.  
1995 *The Beginnings of Rome: Italy and Rome from the Bronze Age to the Punic Wars, c. 100-264 BC*. Routledge, New York.
- Cornwall, I.  
1954 The Human Remains. In *Excavations at Sutton Walls, Herefordshire 1948-51*, edited by K. Kenyon. *Archaeological Journal* 110:1-87.
- Cotswold Archaeology  
2016 *Gloscat Redevelopment Project Media Studies Site, Brunswick Road Gloucester: Archaeological excavation*. CA Project Report: 15620.
- 2017 *Land at Post Farm Thornbury, South Gloucestershire: Archaeological Investigation*. CA Project Report: 9270\_1.
- Cox, M., and Mays, S. (eds.)  
2000 *Human Osteology in Archaeology and Forensic Science*. GMM, London.
- Craig, C., Knüsel, C., and Carr, G.  
2005 Fragmentation, Mutilation and Dismemberment: an Interpretation of Human Remains on Iron Age Sites. In *Warfare, Violence and Slavery in Prehistory: Proceedings of a Prehistoric Society Conference at Sheffield University*, edited by M. Parker Pearson, and I. Thorpe; pp. 165-180, BAR International Series 1374, Oxford.
- Crandall, J., and Martin, D. (eds.)  
2014 *The Bioarchaeology of Postmortem Agency: Integrating Archaeological Theory with Human Skeletal Remains*. Special issues of *Cambridge Archaeological Journal* 24, Cambridge.
- Creighton, J.  
2006 *Britannia*. Routledge, London.

- Crerar, B.  
 2012 *Contextualising Deviancy: a Regional Approach to Decapitated Inhumation in Late Roman Britain*. Unpublished Ph.D. Dissertation, University of Cambridge, Cambridge.
- 2016 Deviancy in Late Romano-British Burial. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 381-405. Oxford University Press, Oxford.
- Croom, A.  
 2004 Personal Ornament. In *A Companion to Roman Britain*, edited by M. Todd; pp. 288-298. Blackwell Publishing, Ltd, Oxford.
- Crossland, Z., and Joyce, R.  
 2015 Anthropological Perspectives on Disturbing Bodies: An Introduction. In *Disturbing Bodies. Perspectives on Forensic Anthropology*, edited by Z. Crossland and R. Joyce; pp. 3-28. School for Advanced Research Press, Santa Fe, NM.
- Crow, J.  
 2004 The Northern Frontier of Britain from Trajan to Antoninus Pius: Roman Builders and Native Britons. In *A Companion to Roman Britain*, edited by M. Todd; pp. 114-135. Blackwell Publishing, Ltd., Oxford.
- Crowder, K., Montgomery, J., Filipek, K., and Evans, J.  
 2020 Romans, Barbarians and *Foederati*: New Biomolecular Data and a Possible Region of Origin for “Headless Romans” and Other Burials from Britain. *Journal of Archaeological Science: Reports* 30:1-8.
- Cunliffe, B.  
 1991 *Iron Age Communities in Britain: An Account of England, Scotland and Wales from the Seventh Century BC until the Roman Conquest* (3rd Ed). Routledge, London.
- 1995 *English Heritage Book of Iron Age Britain*. B.T. Batsford/English Heritage, London.
- 1997 Armorica and Britain: The Ceramic Evidence. In *Armorica and Britain*, edited by B. Cunliffe and P. de Jersey; pp. 2-71. Oxbow Books, Oxford.
- 2001 *Facing the Ocean: The Atlantic and its Peoples, 8000 BC-AD 1500*. Oxford University Press, Oxford.
- 2004 Britain and the Continent: Networks of Interaction. In *A Companion to Roman Britain*, edited by M. Todd; pp. 1-11. Blackwell Publishing, Ltd, Oxford.
- 2005 *Iron Age Communities in Britain: an Account of England, Scotland, and Wales from the Seventh Century BC until the Roman Conquest* (4th ed.). Routledge, London.

- Cunliffe, B., and Miles, D. (eds.)  
 1984 *Aspects of the Iron Age in Central Southern Britain*. Oxford University Committee for Archaeology Monograph 2, Oxford.
- Curry, A.  
 2016 Off with Their Heads. *Archaeology Magazine*. Retrieved from <https://www.archaeology.org/issues/221-1607/trenches/4547-trenches-england-roman-graveyard>
- Dark, K.  
 2000 *Britain and the End of the Roman Empire*. Tempus Pub Ltd, Stroud.
- Darvill, T.  
 1987 *Prehistoric Britain*. Yale University Press, New Haven.
- Davies, S., and Grieve, D.  
 1986 The Poundbury Pipe-line: Archaeological Observations and Excavations. *Proceedings of the Dorset Natural History and Archaeological Society* 108:81-88.
- Davis, J., and Thurnam, J.  
 1865 *Crania Britannica, Delineations and Descriptions of the Skulls of the Aboriginal and Early Inhabitants of the British Islands: with Notices of their Other Remains*. Volume II. Taylor and Francis, London.
- De Boeck, F.  
 1995 Bodies of Remembrance: Knowledge, Experience and the Growing of Memory in Llundu Ritual Performance'. In *Rites et Ritualisation*, edited by G. Thinès and L. De Heusch; pp. 113-38. Paris, Librairie Philosophique J. Vrin.
- de la Bédoyère, G.  
 1989 *The Finds of Roman Britain*. B. T. Batsford, London.  
 2003 *Defying Rome: The Rebels of Roman Britain*. Tempus, Stroud.
- Deetz, J., and Dethlefsen, E.  
 1971 Some Social Aspects of New England Colonial Mortuary Art. In *Approaches to the Social Dimension of Mortuary Practices*, edited by J. Brown; pp. 30-8. Memoirs of the Society for American Archaeology, Washington D.C.
- Díaz-Andreu, M., and Lucy, S.  
 2005 Introduction. In *The Archaeology of Identity: Approaches to Gender, Age, Status, Ethnicity and Religion* (1<sup>st</sup> Ed.), edited by M. Díaz-Andreu, S. Lucy, S. Babić, and D. Edwards; pp. 1-13. Routledge, London.
- Dillon, S., and Welch, K. (eds.)



- 2006 *Representations of War in Ancient Rome*. Cambridge University Press, Cambridge.
- Dirkmaat, D. (ed.)  
2012 *A Companion to Forensic Anthropology*. Wiley-Blackwell, Chichester.
- Dixon, S.  
2002 *Childhood, Class and Kin in the Roman World*. Routledge, London.
- 2016 Family. In *The Oxford Handbook of Roman Law and Society*, edited by P. Du Plessis, C. Ando, and K. Tuori; pp. 461-472. Oxford University Press, Oxford.
- Dobres, M.-A.  
2000 *Technology and Social Agency: Outlining a Practice Framework of Archaeology*. Blackwell, London.
- Dobres, M.-A., and Robb, J. (eds.)  
2000 *Agency in Archaeology*. Routledge, London.
- Dolfini, A., Crellin, R., Horn, C., and Uckelmann, M.  
2018 Interdisciplinary Approaches to Prehistoric Warfare and Violence: Past, Present, and Future. In *Prehistoric Warfare and Violence, Quantitative and Qualitative Approaches (Quantitative Methods in the Humanities and Social Sciences)*, edited by A. Dolfini, R. Crellin, C. Horn, and M. Uckelmann; pp. 1-18. Springer International Publishing AG.
- Domett, K., and Tayles, N.  
2006 Adult Fracture Patterns in Prehistoric Thailand: A Biocultural Interpretation. *International Journal of Osteoarchaeology* 16:185 – 199.
- Domínguez-Solera, S., and Domínguez-Rodrigo, M.  
2009 A Taphonomic Study of Bone Modification and of Tooth-mark Patterns on Long Limb Bone Portions by Suids. *International Journal of Osteoarchaeology* 19(3):345-363.
- Dövenor, F.  
2000 *Die Gesichtskrüge der römischen Nordwestprovinzen*, British Archaeological Reports International Series 870, Oxford.
- Duday, H.  
2009 *The Archaeology of the Dead: Lectures in Archaeoethanatology*. Oxbow Books, Oxford.
- Duday, H., Courtaud P., Crubezy, E., Sellier, P., Tillier, A.  
1990 L'anthropologie de Terrain: Reconnaissance et Interpretation des Gestes Funéraires. *Bulletin et Memoires de la Societe d'Anthropologie de Paris*, ns, tome 2, 3-4:29-50.

- Duke, P.  
1998 Ethnicity: Past and Present. *Cambridge Archaeological Journal* 8(1):119-121.
- Duncan, W., and Stojanowski, C.  
2017 Theoretical Facets of Biohistorical Research. In *Studies in Forensic Biohistory: Anthropological Perspectives (Cambridge Suites in Biological and Evolutionary Anthropology)*, edited by C. Stojanowski and W. Duncan; pp. 315-327. Cambridge University Press, Cambridge. DOI:10.1017/9781139683531.014
- Dungworth, D.  
2016 Metals and Metalworking. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 532-554. Oxford University Press, Oxford.
- Durkheim, E.  
1965 [1915] *The Elementary Forms of the Religious Life*. Translated by Swain, J. The Free Press, New York.
- Dwyer, P., and Damousi, J.  
2020 General Introduction: Violence in World History. In *The Cambridge World History of Violence, Vol. 1: The Prehistoric and Ancient Worlds*, edited by G. Fagan, L. Fibiger, M. Hudon, and M. Trundle; pp. 1-18. Cambridge University Press, Cambridge.
- Eckardt, H.  
2010 A Long Way from Home: Diaspora Communities in Roman Britain. In *Roman Diasporas: Archaeological Approaches to Mobility and Diversity in the Roman Empire*, edited by H. Eckardt; *Journal of Roman Archaeology Supplementary Series* 78: 99-130.
- Eckardt, H., Müldner, G., and Lewis, M.  
2014 People on the Move in Roman Britain. *World Archaeology* 46(4):534-50.
- Eckardt, H., Müldner, G., and Speed, G.  
2015 The Late Roman Field Army in Northern Britain? Mobility, Material Culture and Multi-Isotope Analysis at Scorton (N. Yorks). *Britannia* 46:191-223.
- Effros, B.  
2000 Skeletal Sex and Gender in Merovingian Mortuary Archaeology. *Antiquity* 74:632-639.  
  
2006 Grave Goods and the Ritual Expression of Identity. In *From Roman Provinces to Medieval Kingdoms*, edited by T. Noble; pp. 189-232. Routledge, London.
- Ember, C., and Ember, M.  
1994 War, Socialization, and Interpersonal Violence: A Cross-Cultural Study. *Journal of Conflict Resolution* 38(4):620-646.

- 1997 Violence in the Ethnographic Record: Results of Cross-cultural Research on War and Aggression. In *Troubled Times. Violence and Warfare in the Past*, edited by D. Martin and D. Frayer; pp. 1-20. Gordon and Breach, Amsterdam.
- Erdkamp, P.  
2007 *A Companion to the Roman Army*. Blackwell, Malden.
- Erikson, K.  
1975 On the Sociology of Deviance. In *The Collective Definition of Deviance*, edited by F. Davis and R. Stivers; pp. 11-21. The Free Press, New York.
- Errickson, D., Thompson, T., and Rankin, B.  
2014 The Application of 3D Visualization of Osteological Trauma for the Courtroom: A Critical Review. *Journal of Forensic Radiology and Imaging* 2(3):132.137.
- Esmonde Cleary, S.  
1987 *Extra-mural Areas of Romano-British Towns*. BAR British Series No. 169. British Archaeological Reports, Oxford.  
  
1990 *The Ending of Roman Britain*. Barnes and Noble Books, Savage.  
  
1992 Town and Country in Roman Britain. In *Death in Towns: Urban Responses to the Dying and the Dead 100-1600*, edited by S. Bassett; pp. 28-42. Leicester University Press, Leicester.  
  
1999 Roman Britain: Civil and Rural Society. In *The Archaeology of Britain: An Introduction from the Upper Palaeolithic to the Industrial Revolution*, edited by J. Hunter and I. Ralston; pp. 157-175. Routledge, London.  
  
2000 Putting the Dead in their Place: Burial Location in Roman Britain. In *Burial, Society and Context in the Roman World*, edited by J. Pearce, M. Millett, and M. Struck; pp. 127-142. Oxbow Books, Oxford.  
  
2004 Britain in the Fourth Century. In *A Companion to Roman Britain*, edited by M. Todd; pp. 409-427. Blackwell Publishing, Ltd.  
  
2016 Britain at the End of Empire. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 134-178. Oxford University Press, Oxford.
- Evans, J.  
2001 Material Approaches to the Identification of Different Romano-British Site Types. In *Britons and Romans: Advancing an Archaeological Agenda*, edited by S. James and M. Millett; pp. 26-35. CBA Research Report 125. CBA, York.  
  
2016 Forms of Knowledge: Changing Technologies. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 510-531. Oxford University Press, Oxford.

- Evans, J., Stoodley, N., and Chenery, C.  
2006 A Strontium and Oxygen Isotope Assessment of a Possible Fourth Century Immigrant Population in a Hampshire Cemetery, Southern England. *Journal of Archaeological Science* 33:265-72.
- Evatt, A.  
2016 Reconstructing Mesolithic Burials: an Examination of Bone Modifications through Ritual and Taphonomy. Conference Presentation. Accessed 12/15/2019. Retrieved from [https://www.academia.edu/16608128/Reconstructing\\_Mesolithic\\_Burials\\_an\\_examination\\_of\\_bone\\_modification\\_through\\_ritual\\_and\\_taphonomy](https://www.academia.edu/16608128/Reconstructing_Mesolithic_Burials_an_examination_of_bone_modification_through_ritual_and_taphonomy)
- Fagan, G.  
2016 Urban Violence: Street, Forum, Bath, Circus, and Theater. In *The Topography of Violence in the Greco-Roman World*, edited by W. Riess and G. Fagan; pp. 231-247. University of Michigan Press, Ann Arbor.  
  
2020 Roman Violence: Attitudes and Practice. In *The Cambridge World History of Violence, Vol. 1: The Prehistoric and Ancient Worlds*, edited by G. Fagan, L. Fibiger, M. Hudon, and M. Trundle; pp. 550-571. Cambridge University Press, Cambridge.
- Fahlander, F.  
2018 Nuances of What? Burials as Relational Configurations. *Norwegian Archaeological Review* 51(1-2):1-4.  
  
2021 The Faceless Men. Partial Bodies and Body Parts in Scandinavian Bronze Age Rock Art. In *Ontologies of Rock Art: Images, Relational Approaches and Indigenous Knowledge*, edited by O. Moro Abadía and M. Porr; pp. 302-318. Routledge, New York.
- Fahlander, F., and Oestigaard, T.  
2008 The Materiality of Death: Bodies, Burials, Beliefs. In *The Materiality of Death. Bodies, Burials, Beliefs*, edited by F. Fahlander and T. Oestigaard; pp. 1-16. BAR International Series 1768. Oxford.
- Farwell, D., and Molleson, T.  
1993 *Excavations at Poundbury 1966-1980 Volume II: The Cemeteries*. Dorset Natural History and Archaeology Society Monograph 11: Dorchester.
- Ferguson, R.  
1997 Violence and War in Prehistory. In *Troubled Times. Violence and Warfare in the Past*, edited by D. Martin and D. Frayer; pp. 321-356. Gordon and Breach, Amsterdam.
- Fernández-Götz, M.  
2013 Revisiting Iron Age Ethnicity. *European Journal of Archaeology* 16(1):116-136. DOI: 10.1179/1461957112Y.00000000024

- Ferris, I.  
2009 *Hate and War: the Column of Marcus Aurelius*. The History Press, Stroud.
- Fields, N.  
2005 Headhunters of the Roman Army. In *Roman Bodies: Antiquity to the Eighteenth Century*, edited by A. Hopkins and M. Wyke; pp. 55-66. The British School in Rome, London.
- Firth, R.  
1967 *Tikopia Ritual and Belief*. Allen and Unwin, London.
- Fitzpatrick, A.  
1997 *Archaeological Excavations on the Route of the A27 Westhampnett Bypass, West Sussex, 1992, 2: the Cemeteries*. Salisbury: Trust for Wessex Archaeology, Wessex Archaeology Report 12.
- Fleming, A.  
1972 Vision and Design: Approaches to Ceremonial Monument Typology. *Man* 7:57-73.  
  
1973 Tombs for the Living. *Man* 8:177-193.
- Fleming-Farrell, D., Michailidis, K., Karantanas, A., Roberts, N., Kranioti, E.  
2013 Virtual Assessment of Perimortem and Postmortem Blunt Force Trauma. *Forensic Science International* 229:e161-162.e166.
- Foucault, M.  
1978 *The History of Sexuality, Volume 1: An Introduction*. Pantheon Books, New York.  
  
1980 Truth and Power (Interview with Alessandro Fontana and Pasquale Pasquino, tr. C. Gordon). In *Power/Knowledge. Selected Interviews and Other Writings 1972-1977*, edited by C. Gordon; pp. 109-133. Harvester Wheatsheaf, New York.  
  
1988 *Technologies of the Self. A Seminar with Michel Foucault*. University of Massachusetts Press, Amherst.
- Fowler, C.  
2002 Body Parts: Personhood and Materiality in the Earlier Manx Neolithic. In *Thinking Through the Body: Archaeologies of Corporeality*, edited by Y. Hamilakis, M. Pluciennik, and S. Tarlow; pp. 47-69. Kluwer Academic/Plenum Publishers, New York.  
  
2011 Personhood and the Body. In *The Oxford Handbook of the Archaeology of Ritual and Religion*, edited by T. Insoll; pp. 133-150. Oxford University Press, Oxford.

- 2013 Identities in Transformation: Identities, Funerary Rites, and the Mortuary Process. In *The Oxford Handbook of the Archaeology of Death and Burial*, edited by L. Nilsson Stutz and S. Tarlow; pp. 511-526. Oxford University Press, Oxford.
- Fox, C., and Lethbridge, T.  
1926 The La Tène and Romano-British Cemetery at Guilden Morden, Cambridgeshire. *Proceedings of the Cambridge Antiquarian Society* 27:49-71.
- Frank, T.  
1914 *Roman Imperialism*. Macmillan, New York.
- Freyer, D., and Martin, D. (eds.)  
1997 *Troubled Times: Osteological and Archaeological Evidence of Violence*. Gordon and Breach, New York.
- Frazer, J.  
1886 On Certain Burial Customs as they Illustrate the Primitive Theory of the Soul. *Journal of the Royal Anthropological Institute* 15:64-104.
- Frere, S.  
1987 *Britannia: A History of Roman Britain* (3rd ed.). Routledge and Kegan Paul, London.
- Fried, M.  
1967 *The Evolution of Political Society*. Random House, New York.
- Fry, D.  
2006 *The Human Potential for Peace: An Anthropological Challenge to Assumptions about War and Violence*. Oxford University Press, Oxford.  
  
2013 *War, Peace, and Human Nature: The Convergence of Evolutionary and Cultural Views*. Oxford University Press, Oxford.
- Fulford, M.  
2001 'Links with the Past: Pervasive 'Ritual' Behaviour in Roman Britain. *Britannia* 32:199-218.  
  
2004 Economic Structures. In *A Companion to Roman Britain*, edited by M. Todd; pp. 309-326. Blackwell Publishing, Ltd., Oxford.
- Fulford, M., and Timby, J.  
2000 *Late Iron Age and Roman Silchester. Excavations on the Site of the Forum-Basilica 1977, 1980-86*. Britannia Monograph Series 15, London.
- Fustel de Coulanges, N.  
1901 *The Ancient City*. Lothrop, Lee, and Shepard, Boston.

- Gale, J.  
2003 *Prehistoric Dorset*. Tempus, Stroud.
- Gamauf, R.  
2016 Slavery: Social Position and Legal Capacity. In *The Oxford Handbook of Roman Law and Society*, edited by P. Du Plessis, C. Ando, and K. Tuori; pp. 386-401. Oxford University Press, Oxford.
- Gardner, A.  
2016 Changing Materialities. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 481-509. Oxford University Press, Oxford.
- Gardener, J.  
1986 *Women in Roman Law and Society*. Routledge, London.
- Garnsey, P.  
1970 *Social Status and Legal Privilege in Roman Law and Life*. Oxford University Press, Oxford.
- Geller, P.  
2009 Bodyscapes, Biology, and Heteronormativity. *American Anthropologist* 111(4):504 -516.  
  
2016 This is not a Manifesto: Archaeology and Feminism. In *Meta-Philosophical Reflection on Feminist Philosophies of Science*, edited by M. Amoretti, and N. Vassallo; pp. 151-170. Boston Studies in the Philosophy and History of Science, Volume 317. Springer, New York.
- Gero, J., and Conkey, M. (eds.)  
1991 *Engendering Archaeology: Women and Prehistory*. Basil Blackwell, Oxford.
- Gerrard, J.  
2016 Economy and Power in Late Roman Britain. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 850-868. Oxford University Press, Oxford.
- Giddens, A.  
1976 *New Rules of Sociological Method*. Hutchinson, London.  
  
1979 *Central Problems in Social Theory*. Macmillan, London.  
  
1984 *The Constitution of Society. Outline of a Theory of Structuration*. Polity Press, London.
- Gilbert, W., and Richards, G.

- 2000 Digital Imaging of Bone and Tooth Modifications. *Anatomical Record (New Anatomist)* 261:237-246.
- Gilchrist, R.  
 1999 *Gender and Archaeology: Contesting the Past*. Routledge, London.
- 2004 Archaeology and the Life Course: a Time and a Place for Gender. In *A Companion to Social Archaeology*, edited by L. Meskell and R. Preucel; pp. 142-160. Blackwell Publishing, Malden.
- Gilchrist, R. (ed.)  
 2000 Human Lifecycles. *World Archaeology* 31(3):325–328.
- Gilchrist, R., and Mytum, H.  
 1986 Experimental Archaeology and Burnt Animal Bone from Archaeological Sites. *Circaea* (formerly the AEA journal) 4(1):29-38.
- Giles, M.  
 2008 Seeing Red: the Aesthetics of Martial Objects in the British and Irish Iron Age. In *Rethinking Celtic Art*, edited by D. Garrow, C. Gosden, and J. Hill; pp. 59-77. Oxbow Books, Oxford.
- 2012 *A Forged Glamour: Landscape, Identity and Material Culture in the Iron Age*. Windgather, Oxford.
- 2016 Reconstructing Death: the Chariot Burials of Iron Age East Yorkshire. In *Archaeologists and the Dead: Mortuary Archaeology in Contemporary Society*, edited by H. Williams and M. Giles; pp. 409-432. Oxford University Press, Oxford.
- Glencross, B.  
 2011 Skeletal Injury across the Life Course: Towards Understanding Social Agency. *Social Bioarchaeology*, edited by S. Agarwal and B. Glencross; pp. 390-409. Wiley-Blackwell, Oxford.
- Gluckman, M.  
 1962 Les Rites de Passage. In *Essays on the Ritual of Social Relations*, edited by M. Gluckman; pp. 1-52. Univ. of Manchester Press, Manchester.
- Goldstein, L.  
 1980 *Mississippian Mortuary Practices: A Case Study of Two Cemeteries in the Lower Illinois Valley*. NUAP Scientific Papers No. 4. Northwestern University Archaeological Program, Evanston.
- 1995 Landscapes and Mortuary Practices: A Case for Regional Perspectives. In *Regional Approaches to Mortuary Analysis*, edited by L. Beck; pp. 101-121. Springer, Boston.



- 2002 Afterword Visible Death: Mortuary Site and Mortuary Landscape in Diachronic Perspective. *Archaeological Papers of the American Anthropological Association* 11(1):201-5.
- 2006 Mortuary Analysis and Bioarchaeology. In *Bioarchaeology: The Contextual Analysis of Human Remains*, edited by J. Buikstra and L. Beck; pp. 375-87. Routledge, New York.
- Goldsworthy, A., and Haynes, I. (eds.)  
 1999 *The Roman Army as a Community*. *Journal of Roman Archaeology* Supplementary Series No. 34. Portsmouth.
- Goodenough, W.  
 1965 Rethinking "Status" and "Role": Toward a General Model of the Cultural Organization of Social Relationships. In *The Relevance of Models for Social Anthropology*, edited by M. Barton; pp. 1-24. Association of Social Anthropologists. Monograph I, London.
- Gosden, C.  
 2004 *Archaeology and Colonialism: Cultural Contact from 5000 BC to the Present*. Cambridge University Press, Cambridge.
- 2006 Race and Racism in Archaeology: Introduction. *World Archaeology* 38:1-7.
- Gowland, R.  
 2000 Playing Dead: Implications of Mortuary Evidence for the Social Construction of Childhood in Roman Britain. In *TRAC 2000: Proceedings of the Tenth Annual Theoretical Roman Archaeology Conference*, edited by G. Davies, A. Gardner, and K. Lockyear; pp. 152-168. Oxbow Books, Oxford.
- 2002 The Social Identity of Health in Late Roman Britain. In *Theoretical Roman Archaeology Journal 2003, Proceedings of the Thirteenth Annual Theoretical Roman Archaeology Conference, Leicester 2003*, edited by B. Croxford, H. Eckardt, J. Meade, and J. Weekes; pp. 135-146. Oxbow Books, Oxford.
- 2006 Ageing the Past: Examining Age Identity from Funerary Evidence. In *Social Archaeology of Funerary Remains*, edited by R. Gowland and C. Knüsel; pp. 143-154. Oxbow Books, Oxford.
- 2007 Age, Ageism and Osteological Bias: the Evidence from late Roman Britain. *Journal of Roman archaeology*. Supplementary Series 65:153-169.
- 2015 Entangled Lives: Implications of the Developmental Origins of Health and Disease Hypothesis for Bioarchaeology and the Life Course. *American Journal of Physical Anthropology* 158:530-540.

- 2017 Embodied Identities in Roman Britain: A Bioarchaeological Approach. *Britannia* 48:177-194.
- 2018 Infants and Mothers: Linked Lives and Embodied Life Courses. In *The Oxford Handbook of the Archaeology of Childhood*, edited by S. Crawford, D. Hadley, and G. Shepherd; pp. 104-122. Oxford University Press, Oxford.
- Gowland, R., and Chamberlain, A.  
2002 A Bayesian Approach to Ageing Perinatal Skeletal Material from Archaeological Sites: Implications for the Evidence for Infanticide in Roman Britain. *Journal of Archaeological Science* 29:677-685.
- Gowland, R., and Knüsel, C. (eds.)  
2006 *Social Archaeology of Funerary Remains*. Oxbow Books, Oxford.
- Graham, E-J.  
2013 Disparate Lives or Disparate Deaths? Post-mortem Treatment of the Body and the Articulation of Difference. In *Disabilities in Roman Antiquity: Disparate Bodies a Capite ad Calcem*, edited by C. Laes, C. Goodey, and M. Rose; pp. 249-274. Brill, Leiden.
- Graham, J., and Haidt, J.  
2010 Beyond Beliefs: Religions Bind Individuals into Moral Communities. *Personality and Social Psychology Review* 14(1):140-150.
- Grant, A.  
2004 Domestic Animals and Their Uses. In *A Companion to Roman Britain*, edited by M. Todd; pp. 371-392. Blackwell, Oxford.
- Greenwell, W.  
1877 *British Barrows: A Record of the Examination of Sepulchral Mounds in Various Parts of England*. Clarendon Press, Oxford.
- Gregoricka, L., Betsinger, T., Scott, A., and Polcyn, M.  
2014 Apotropaic Practices and the Undead: A Biogeochemical Assessment of Deviant Burials in Post-Medieval Poland. *PLOS One*: e113564.  
doi:10.1371/journal.pone.0113564
- Gregoricka, L., Scott, A., Betsinger, T., and Polcyn, M.  
2017 Deviant Burials and Social Identity in a Post-Medieval Polish Cemetery: An Analysis of Stable Oxygen and Carbon Isotopes from the “Vampires” of Drawsko. *American Journal of Physical Anthropology* 163(4):741-758.
- Grünewald, T.  
2004 *Bandits in the Roman Empire*. Routledge, London.

- Guilaine, J., and Zammit, J.  
2001 *Le Sentier de la Guerre: Visages de la Violence Préhistorique*. Edition de Seuil, Paris.
- Guise Sheridan, S., and Gregoricka, L. (eds.)  
2020 *Purposeful Pain: the Bioarchaeology of Intentional Suffering*. Springer, Cham.
- Habenstein, R., and Lamers, W.  
1962 *The History of American Funeral Directing*, revised version. Bulfin Printers, Milwaukee.
- Hackett, C.  
1976 Diagnostic Criteria of Syphilis, Yaws and Treponarid (treponaematoses) and of Some Other Diseases in Dry Bones. In *Sitzungsberichte der Heidelberger Akademie der Wissenschaften Mathematisch-naturwissenschaftliche Klasse, Abhandlung 4*. Springer-Verlag, Berlin.
- Hadman, J.  
1978 Aisled Buildings in Roman Britain. In *Studies in the Romano-British Villa*, edited by M. Todd; pp. 187-195. Leicester University Press, Leicester.
- Haglund, W.  
1997a Dogs and Coyotes: Postmortem Involvement with Human Remains. In *Forensic Taphonomy: the Postmortem Fate of Human Remains*, edited by W. Haglund and M. Sorg; pp. 367-381. CRC Press, Boca Raton.  
  
1997b Rodents and Human Remains. In *Forensic Taphonomy: the Postmortem Fate of Human Remains*, edited by W. Haglund and M. Sorg; pp. 405-414. CRC Press, Boca Raton, FL.
- Haglund, W., Reay, D., and Swindler, D.  
1989 Canid Scavenging/Disarticulation Sequence of Human Remains in the Pacific Northwest. *Journal of Forensic Sciences* 34(3):587-606.
- Haglund, W., and Sorg, M.  
1997 *Forensic Taphonomy: the Postmortem Fate of Human Remains*. CRC Press, Boca Raton, FL.  
  
2002 *Advances in Forensic Taphonomy Method, Theory, and Archaeological Perspectives*. CRC Press, Boca Raton, FL.
- Hamilakis, Y.  
1999 Food Technologies/Technologies of the Body: the Social Context of Wine and Oil Production and Consumption in Bronze Age Crete. *World Archaeology* 31(1):38-54.

- 2002 Introduction. In *Thinking Through the Body: Archaeologies of Corporeality*, edited by Y. Hamilakis, M. Pluciennik, and S. Tarlow; pp. 99-103. Kluwer Academic/Plenum Publishers, New York.
- Hamilakis, Y., Pluciennik, M., and Tarlow, S. (eds.)  
2002 *Thinking through the Body: Archaeologies of Corporeality*. Kluwer Academic/Plenum Publishers, New York.
- Hamilton, L.  
2005 *Cut Marks as Evidence of Pre-Columbian Human Sacrifice and Postmortem Bone Modification on the North Coast of Peru*. Unpublished Ph.D. Dissertation, Tulane University, New Orleans.
- Hamlin, C.  
2007 *The Material Expression of Social Change: the Mortuary Correlates of Gender and Age in Late Pre-Roman Iron Age and Roman Dorset*. Volume I. Unpublished Ph.D. Dissertation, University of Wisconsin-Milwaukee. Milwaukee.
- Hanson, W.  
1999 Roman Britain: The Military Dimension. In *The Archaeology of Britain: An Introduction from the Upper Palaeolithic to the Industrial Revolution*, edited by J. Hunter and I. Ralston; pp. 135-156. Routledge, London.
- 2004 Scotland and the Northern Frontier: Second to Fourth Centuries AD. In *A Companion to Roman Britain*, edited by M. Todd; pp. 136-161. Blackwell Publishing, Ltd, Oxford.
- Harding, D.  
2016 *Death and Burial in Iron Age Britain*. Oxford University Press, Oxford.
- Harlow, M., and Laurence, R.  
2002 *Growing Up and Growing Old in Ancient Rome: A Lifecourse Approach*. Routledge, London.
- 2007 Introduction. In *Age and Ageing in the Roman Empire*, edited by M. Harlow and R. Laurence; pp. 9-24. JRA Supplementary Series Number 65, Portsmouth.
- Harman, M.  
1986 The Human Remains. In *Romano-British Burials from Wroxton, Oxon 1980*, edited by Chambers, R. (ed.). *Oxoniensia* 51:43-44.
- 2007 Human Bone. In *Excavations at Radley Barrow Hills, Radley, Oxfordshire Volume 2: The Romano-British Cemetery and Anglo-Saxon Settlement*, edited by R. Chambers and E. McAdam; pp. 38-43. Oxford Archaeology, Oxford.
- Harman, M., Molleson, T., and Price, J.

- 1981 Burials, Bodies and Beheadings in Romano-British and Anglo-Saxon Cemeteries. *Bulletin of the British Museum of Natural History (Geology)* 35(3):145-88.
- Harries, J.  
 2007 *Law and Crime in the Roman World*. Cambridge University Press, Cambridge.
- 2016 Legal Education and Training of Lawyers. In *The Oxford Handbook of Roman Law and Society*, edited by P. Du Plessis, C. Ando, and K. Tuori; pp. 151-163. Oxford University Press, Oxford.
- Harris, W.  
 1979 *War and Imperialism in Republican Rome, 327-70 BC*. Oxford University Press, Oxford.
- Harris, O., and Robb, J.  
 2013 The Body in History: a Concluding Essay. In *The Body in History: Europe from the Paleolithic to the Future*, edited by J. Robb and O. Harris; pp. 213-234. Cambridge University Press, Cambridge.
- Harrod, R., Lienard, P., and Martin, D.  
 2012 Deciphering Violence in Past Societies: Ethnography and the Interpretation of Archaeological Populations. In *The Bioarchaeology of Violence*, edited by D. Martin, R. Harrod, and V. Perez; pp. 63-82. University of Florida Press, Gainesville, FL.
- Hartland, E.  
 1911 Death and Disposal of the Dead (Introductory). In *Encyclopedia of Religion and Ethics [1908-1927]*, edited by J. Hastings; pp. 411-444. T. and T. Clark, New York/Scribner's, Edinburgh.
- Haselgrove, C.  
 1986 An Iron Age Community and its Hillfort: the Excavations at Danebury, Hampshire, 1969-1979: A Review. *Archaeological Journal* 143:363-369.
- 1995 Potin Coinage in Iron Age Britain, Archaeology and Chronology. *Gallia* 52:117-127.
- 1997 Iron Age Brooch Deposition and Chronology. In *Reconstructing Iron Age Societies*, edited by A. Gwilt and C. Haselgrove; pp. 51-72. Oxbow Monographs 71, Oxford.
- 1999 The Iron Age. In *The Archaeology of Britain: An Introduction from the Upper Palaeolithic to the Industrial Revolution*, edited by J. Hunter and I. Ralston; pp. 113-134. Routledge, London.
- 2004 Society and Polity in Late Roman Britain. In *A Companion to Roman Britain*, edited by T. Malcom; pp. 12-29. Blackwell Publishing, Oxford.

- 2006 Early Potin Coinage in Britain: an Update. In *Celtic Coinage: New Discoveries, New Discussions*, edited by P. de Jersey; pp. 17-28. British Archaeological Reports, International Series 1532. Archaeopress, Oxford.
- Haselgrove, C., and Moore, T. (eds.)  
2007 *The Later Iron Age in Britain and Beyond*. Oxbow Books, Oxford.
- Hawkes, C.  
1968 New Thoughts on the Belgae. *Antiquity* 42(165):6-16.
- Hayden, C., Early, R., Biddulph, E., Booth, P., Dodd, A., Smith, A., Laws, G., and Welsh, K.  
2017 *Horcott Quarry, Fairford and Arkell's Land, Kempsford: Prehistoric, Roman and Anglo-Saxon Settlement and Burial in the Upper Thames Valley in Gloucestershire*. Thames Valley Landscapes Monograph No. 40. Oxford Archaeology, Oxford.
- Hayden, C., Simmonds, A., Lawrence, S., Woodley, K., and Masefield, R.  
2019 *Great Western Park, Didcot, Oxfordshire: Phase I Excavations, 2010-2012*. Thames Valley Landscapes Monograph Series, Oxford Archaeology, Oxford.
- Haynes, I.  
2016 Identity and the Military Community in Roman Britain. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 448-463. Oxford University Press, Oxford.
- Hays-Gilpin, K., and Whitley, D. (eds.)  
1998 *Reader in Gender Archaeology*. Routledge, London.
- Heinz, W., and Krüger, H.  
2001 Life Course: Innovations and Challenges for Social Research. *Current Sociology* 49(2):29-45. DOI: 10.1177/0011392101049002004.
- Hencken, T.  
1939 The Excavation of the Iron Age Camp on Bredon Hill, Gloucestershire 1935-7. *Archaeological Journal* 95(1):1-111.
- Henig, M.  
1984 *Religion in Roman Britain*. BT Batsford, London.
- Henig, M., and Booth, P.  
2000 *Roman Oxfordshire*. Sutton Publishing, Stroud.
- Hersey, G.  
2009 *Falling in Love with Statues: Artificial Humans from Pygmalion to the Present*. University of Chicago Press, Chicago.

Hertz, R.

1960 [1907] A Contribution to the Study of the Collective Representation of Death. In *Death and the Right Hand*, translated by R. and C. Needham; pp. 29-86. Free Press, Glencoe.

Hill, J.

1989 Re-thinking the Iron Age. *Scottish Archaeological Review* 6:16-24.

1995 The Pre-Roman Iron Age in Britain and Ireland (c. 800-A.D. 100): An Overview. *Journal of World Prehistory* 9:47-98.

1997 The End of One Kind of Body and the Beginning of another Kind of Body? Toilet Instruments and 'Romanization' in Southern England during the First Century AD. In *Reconstructing Iron Age Societies: New Approaches to the British Iron Age*, edited by A. Gwilt and C. Haslegrove; pp. 97-107. Oxbow Monograph 71, Oxford.

2006 Are We Any Closer to Understanding How Iron Age Societies Worked (or did not work)? In *Celtes et Gaulois, l'Archaeologie Face a l'Histoire 4: Les Mutations de la Fin de l'Age du Fer*, edited by C. Haselgrove; pp. 169-179. Glux-en-Glenne, Bibracte.

Hill, J., Evans, C. and Alexander, M.

1999 The Hinxton Rings – A Late Iron Age Cemetery at Hinxton, Cambridgeshire, with a Reconsideration of Northern Aylesford-Swarling Distributions. *Proceedings of the Prehistoric Society* 65:243-73.

Hinds, K.

1990 Boundaries Surrounding Iron Age and Romano-British Settlements. *Scottish Archaeological Review* 7:96-103.

Hingley, R.

1991 Past, Present and Future – The Study of the Roman Period in Britain. *Scottish Archaeological Review* 8:90-101.

2000 *Roman Officers and English Gentlemen*. London, Routledge.

2004 Rural Settlement in Northern Britain. In *A Companion to Roman Britain*, edited by M. Todd; pp. 327-348. Blackwell Publishing, Ltd., Oxford.

2006 The Deposition of Iron Objects in Britain during the Later Prehistoric and Roman Periods: Contextual Analysis and the Significance of Iron. *Britannia* 37:213-257.

2017 The Romans in Britain: Colonization of an Imperial Frontier. In *Frontiers of Colonialism*, edited by C. Beaulieu; pp. 89-109. University of Florida Press, Florida.

Hirst, S.

1985 *An Anglo-Saxon Inhumation Cemetery at Sewerby, East Yorkshire*. CBA, York.

- 1993 Death and the Archaeologist. In *Search of Cult: Archaeological Investigations in Honor of Philip Rahtz*, edited by M. Carver; pp. 41-43. The Boydell Press, Woodbridge.
- Hobbes, T.  
1996 [1651] *Leviathan* (R. Tuck, ed.). Cambridge University Press, Cambridge.
- Hobbs, R., and Jackson, R.  
2010 *Roman Britain: Life at the Edge of Empire*. The British Museum Press, London.
- Hodder, I.  
1980 Social Structure and Cemeteries: A Critical Appraisal. In *Anglo-Saxon Cemeteries 1979: The Fourth Anglo-Saxon Symposium at Oxford*, edited by P. Rahtz, T. Dickinson, and L. Watts; pp. 161-169. BAR British Series No. 82. British Archaeological Reports, Oxford.  
  
1986 *Reading the Past: Current Approaches to Interpretation in Archaeology*. Cambridge University Press, Cambridge.  
  
1991 Gender Representation and Social Reality. In *The Archaeology of Gender: Proceedings of the Twenty-Second Annual Conference of the Archaeological Association of the University of Calgary*, edited by D. Walde and N. Willows; pp. 11-16. University of Calgary Anthropological Association, Calgary.
- Hodder, I. (ed.)  
1982a *Symbolic and Structural Archaeology*. Cambridge University Press, Cambridge.  
  
1982b *Symbols in Action: Ethnoarchaeological Studies of Material Culture*. Cambridge University Press, Cambridge.
- Hodgson, J.  
2013 'Deviant' Burials in Archaeology. *Anthropology Publications* 58.
- Hodson, F.  
1964 Cultural Groupings within the Pre-Roman British Iron Age. *Proceedings of the Prehistoric Society* 30:99-110.
- Holbrook, N., Wright, J., McSloy, E., and Geber, J.  
2016 *The Western Cemetery of Roman Cirencester: Excavations at the former Bridges Garage, Tetbury Road, Cirencester, 2011-2015*. Cirencester Excavations Vol. VII, Cotswold Archaeology, Cirencester.
- Holst, M.  
2004 *Osteological Analysis, Ashchurch Railway Bridge, Ashchurch, Gloucestershire*. York Osteoarchaeology Report 1304.
- Hope, V.



- 1997 Constructing Roman Identity: Funerary Monuments and Social Structure in the Roman World. *Mortality* 2:103-121.
- 2001 *Constructing Identity: the Roman Funerary Monuments of Aquí/eia, Mainz and Nîmes*. British Archaeological Report, International Series 960, Oxford.
- 2003 Remembering Rome: Memory, Funerary Monuments and the Roman Soldier. In *Archaeologies of Remembrance: Death and Memory in Past Societies*, edited by H. Williams; pp. 113-140. Kluwer Academic/Plenum Publishers, New York.
- 2007 *Death in Ancient Rome: A Sourcebook*. Routledge, New York.
- 2009 *Roman Death: The Dying and the Dead in Ancient Rome*. Continuum, London.
- 2014 Inscriptions and Identity. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 285-302. Oxford University Press, Oxford.
- 2016 Funerary Practices. In *A Companion to Roman Italy*, edited by A. Cooley; pp. 155-180. John Wiley & Sons, Ltd., Chichester.
- Hoppa, R., and Vaupel, J.  
2002 *Paleodemography: Age Distributions from Skeletal Samples*. Cambridge University Press, Cambridge.
- Horn, C., and Kristiansen, K.  
2018 Introducing Bronze Age Warfare. In *Warfare in Bronze Age Society*, edited by C. Horn and K. Kristiansen; pp. 1–17. Cambridge University Press, Cambridge.
- Hosek, L., and Robb, J.  
2019 Osteobiography: A Platform for Bioarchaeological Research. *Bioarchaeology International* 3(1):1-15.
- Hubert, J. (ed.)  
2000 *Madness, Disability and Social Exclusion: the Archaeology and Anthropology of 'Difference'*. Routledge, London.
- Humphrey, C., and Laidlaw, J.  
1994 *The Archetypal Actions of Ritual: A Theory of Ritual Illustrated by the Jain Rite of Worship*. Clarendon Press, Oxford.
- Hunt, S.  
2005 *The Life Course. A Sociological Introduction*. Palgrave Macmillan, Basingstoke.
- Hunter, F.  
2016 Beyond Hadrian's Wall. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 179-202. Oxford University Press, Oxford.

- Hunter, J., and Ralston, I. (eds.)  
1999 *The Archaeology of Britain*. Routledge, New York.
- Hunter-Mann, K.  
2006 *Romans Lose their Heads: an Unusual Cemetery at The Mount, York*. Archaeology of York Web Series No. 6. York Archaeological Trust, York.
- Hurst, H.  
2016 The Textual and Archaeological Evidence. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 95-116. Oxford University Press, Oxford.
- Huskinson, J.  
2007 Constructing Childhood on Roman Funerary Memorials. *The American School of Classical Studies at Athens, Hesperia Supplements* 41:323-338.  
  
2018 Roman Sarcophagi and Children. In *The Archaeology of Childhood*, edited by S. Crawford, D. Hadley, and G. Shepherd; pp. 557-572. Oxford University Press, Oxford.
- Hutton Estabrook, V., and Frayer, D.  
2014 Trauma in the Krapina Neanderthals: Violence in the Middle Paleolithic? *The Routledge Handbook of the Bioarchaeology of Human Conflict*, edited by C. Knüsel and M. Smith; pp. 67-89. Routledge, London.
- Ikels, C., and Beall, C.  
2001 Age, Aging, and Anthropology. In *Handbook of Aging and the Social Sciences* (5<sup>th</sup> Ed.), edited by R. Binstock and L. George; pp. 125-139. Academic Press, London.
- Ingold, T.  
2000 *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. Routledge, London.  
  
2011 *Being Alive: Essays on Movement, Knowledge and Description*. Routledge, London.
- Ireland, S.  
1986 *Roman Britain: a Sourcebook*. Croom Helm, London.
- Isserlin, R.  
1997 Thinking the Unthinkable: Human Sacrifice in Roman Britain. In *TRAC 96: Proceedings of the 6th Annual Theoretical Roman Archaeology Conference Sheffield 1996*, edited by K. Meadows, C. Lemke, and J. Heron; pp. 91-100. Oxbow, Oxford.
- James, S.

- 1999 The Community of the Soldiers: a Major Identity and Centre of Power in the Roman Empire. In *Proceedings of the Eighth Theoretical Roman Archaeology Conference, Leicester, 1998*, edited by C. Forcey and R. Witcher; pp. 14–25. Oxbow Books, Oxford.
- 2001 Soldiers and Civilians: Identity and Interaction in Roman Britain. In *Britons and Romans: Advancing an Archaeological Agenda*, edited by S. James and M. Millett; pp. 77-89. CBA Research Report 125, Council for British Archaeology. Walmgate, York.
- 2007 A Bloodless Past: the Pacification of Early Iron Age Britain. In *The Earlier Iron Age in Britain and the Near Continent*, edited by C. Haselgrove and R. Pope; pp. 160-173. Oxbow Books, Oxford.
- 2018 Warriors, War, and Weapons; or Arms, the Armed, and Armed Violence. In *The Oxford Handbook of the European Iron Age*, edited by C. Haselgrove, K. Rebay-Salisbury, and P. Wells. Online edn, Oxford Academic, 7 March 2018.  
DOI:10.1093/oxfordhb/9780199696826.013.26
- James, S., and Rigby, V.  
1997 *Britain and the Celtic Iron Age*. British Museum Press, London.
- Jay, M., and Richards, M.  
2007 British Iron Age Diet: Stable and Other Evidence. *Proceedings of the Prehistoric Society* 73:169-190.
- Jenkins, R.  
2008 *Social Identity* (3rd Ed). Routledge, New York.
- Jennings, E.  
2017 *Analysis of Trauma Patterns and Post-traumatic Time Interval in a Late Romano-British and Spanish Context*. McMaster University, Ontario.
- Johnson, E.  
1985 Current Developments in Bone Technology. *Advances in Archaeological Method and Theory* 8:157-235.
- Jones, A.  
2003 *Settlement, Burial and Industry in Roman Godmanchester: Excavations in the Extramural Area, The Parks 1998, London Road 1997-8 and Other Investigations*. BAR British Series 346. Archaeopress, Oxford.
- Jones, G.  
1984 *Past Imperfect: the Story of Rescue Archaeology*. Heinemann, London.
- Jones, M.

- 2004 Cities and Urban Life. *A Companion to Roman Britain*, edited by M. Todd; pp. 162-192. Blackwell Publishing, Ltd., Oxford.
- Jones, R.F.J.  
 1991 The Urbanisation of Roman Britain. In *Britain in the Roman Period: Recent Trends*, edited by J. Collis; pp. 53-65. Sheffield.
- Jones, S.  
 1997 *The Archaeology of Ethnicity: Constructing Identities in the Past and Present*. Routledge, London.  
 2007 Discourses of Identity in the Interpretation of the Past. In *The Archaeology of Identities: a Reader*, edited by T. Insoll; pp. 44-58. Routledge, New York.
- Jones, S., and Graves-Brown, P.  
 1996 Introduction: Archaeology and Cultural Identity in Europe. In *Cultural Identity and Archaeology: the Construction of European Communities*, edited by P. Graves-Brown, S. Jones, and C. Gamble; pp. 1-24. Routledge, New York.
- Jordan, A.  
 2009 *A Preliminary Study of Iron Age Glass in Ireland, with Particular Emphasis on the Glass Beads*. Unpublished Masters Thesis, University of Wisconsin-Milwaukee, Milwaukee.
- Joshel, S.  
 2010 *Slavery in the Roman World*. Cambridge University Press, Cambridge.
- Joy, J.  
 2009 Reinvigorating Object Biography: Reproducing the Drama of Object Lives. *World Archaeology* 41(4):540-556.
- Joyce, R.  
 1998 Performing the Body in Prehispanic Central America. *Res* 33:147-65.  
 2000 A Precolumbian Gaze: Male Sexuality among the Ancient Maya. In *Archaeologies of Sexuality*, edited by R. Schmidt and B. Voss; pp. 263-283. Routledge, London.  
 2005 Archaeology of the Body. *Annual Review of Anthropology* 34:139-158.
- Judd, M.  
 2004 Trauma in the City of Kerma: Ancient Versus Modern Injury Patterns. *International Journal of Osteoarchaeology* 14:34 – 51.
- Kamp, K.

- 2001 Where Have All the Children Gone? The Archaeology of Childhood. *Journal of Archaeological Method and Theory* 8(1):1-29.
- Karr, L., and Outram, A.  
2012 Tracking Changes in Bone Fracture Morphology over Time: Environment, Taphonomy, and the Archaeological Record. *Journal of Archaeological Science* 39:555-559.
- Keegan, S.  
2002 *Inhumation Rites in Late Roman Britain: the Treatment of the Engendered Body*. BAR British Series 333. Archaeopress, Oxford.
- Keeley, L.  
1996 *War before Civilization*. Oxford University Press, Oxford.
- Kelly, B.  
2016 Representation, Resistance and Rebellion. In *The Oxford Handbook of Roman Law and Society*, edited by P. Du Plessis, C. Ando, and K. Tuori; pp. 374-385. Oxford University Press, Oxford.
- Kelly, R.  
2000 *Warless Societies and the Origin of War*. University of Michigan Press, Ann Arbor.
- Kessler-Harris, A.  
2009 Why Biography? *The American Historical Review* 114(3):625–630. DOI: 10.1086/ahr.114.3.625.
- King, A.  
1984 Animal Bones and the Dietary Identity of Military and Civilian Groups in Roman Britain, Germany and Gaul. In *Military and Civilian in Roman Britain*, edited by T. Blagg and A. King; pp. 187-217. BAR British Series 136. BAR, Oxford.
- 1999 Animals in the Roman Army: The Evidence of Animal Bones. In *The Roman Army as a Community: Including Papers of a Conference Held at Birkbeck College, University of London, on 11-12 January 1997*, edited by A. Goldsworthy and I. Haynes; pp. 139-150. *Journal of Roman Archaeology Supplementary Series*, No. 34.
- 2004 Rural Settlement in Southern Britain: A Regional Survey. In *A Companion to Roman Britain*, edited by M. Todd; pp. 349-370. Blackwell Publishing, Ltd., Oxford.
- King, S.  
2010 *What Makes War?: Assessing Iron Age Warfare through Mortuary Behavior and Osteological Patterns of Violence*. Unpublished Ph.D. Dissertation, University of Bradford, Bradford.

- 2014 Socialized Violence: Contextualizing Violence through Mortuary Behavior in Iron Age Britain. In *The Routledge Handbook of the Bioarchaeology of Human Conflict*, edited by C. Knüsel and M. Smith; pp. 185-200. Routledge, London.
- Klaus, H.  
2012 The Bioarchaeology of Structural Violence: a Theoretical Model and a Case Study. In *The Bioarchaeology of Violence*, edited by D. Martin, R. Harrod, and V. Perez; pp. 29-62. University of Florida Press, Gainesville.
- Klaus, H., Centurion, J., and Curo, M.  
2010 Bioarchaeology of Human Sacrifice: Violence, Identity and the Evolution of Ritual Killing at Cerro Cerrillos, Peru. *Antiquity* 84(326):1102-1122.
- Kleiner, F.  
2010 *A History of Roman Art*. Wadsworth Cengage Learning, Boston.
- Klevnäs, A.  
2013 *Whodunnit? Grave Robbery in Anglo-Saxon England and the Merovingian Kingdoms*. Archaeopress, Oxford.
- Knapp, R.  
2016 Legally Marginalized Groups – the Empire. In *The Oxford Handbook of Roman Law and Society*, edited by P. Du Plessis, C. Ando, and K. Tuori; pp. 362-373. Oxford University Press, Oxford.
- Knapp, A., and Meskell, L.  
1999 Bodies of Evidence on Prehistoric Cyprus. *Cambridge Archaeological Journal* 7:275-301.
- Knapton, S.  
2019, January 9. Newly Discovered Burial Ground Shows Superstitious Romans Decapitated their Dead. The Telegraph. Retrieved from <https://www.telegraph.co.uk/science/2019/01/08/newly-discovered-burial-ground-shows-superstitious-romans-decapitated/>
- Knudson, K., and Stojanowski, C.  
2009 *Bioarchaeology and Identity in the Americas*. University of Florida Press, Gainesville, FL.
- Knüsel, C.  
2005 The Physical Evidence of Warfare – Subtle Stigmata? In *Warfare, Violence and Slavery*, edited by M. Parker Pearson and I. Thorpe; pp. 49-65. Archaeopress, Oxford.
- Knüsel, C., Janaway, R., and King, S.  
1996 Death, Decay and Ritual Reconstruction: Archaeological Evidence of Cadaveric Spasm. *Oxford Journal of Archaeology* 15:121-128.

- Knüsel, C., and Outram, A.  
 2004 Fragmentation: the Zonation Method Applied to Fragmented Human Remains from Archaeological and Forensic Contexts. *Environmental Archaeology: the Journal of Human Palaeoecology* 9(1):85-97.
- 2006 Fragmentation of the Body: Comestibles, Compost, or Customary Rite? In *Social Archaeology of Funerary Remains*, edited by R. Gowland and C. Knüsel; pp. 253-278. Oxbow Books, Oxford.
- Knüsel, C., and Robb, J.  
 2016 Funerary Taphonomy: an Overview of Goals and Methods. *Journal of Archaeological Sciences: Reports*. <http://dx.doi.org/10.1016/j.jasrep.2016.05.031>
- Knüsel, C., and Schotsmans, E.  
 2022 Introduction: Archaeothanatology, Funerary Archaeology and Bioarchaeology: Perspectives on the Long View of Death and the Dead. In *The Routledge Handbook of Archaeothanatology: Bioarchaeology of Mortuary Behaviour*, edited by C. Knüsel, and E. Schotsmans; pp. 1-20. Routledge, London.
- Knüsel, C., and Smith, M.  
 2014 Introduction: the Bioarchaeology of Conflict. In *The Routledge Handbook of the Bioarchaeology of Human Conflict*, edited by C. Knüsel and M. Smith; pp. 1-24. Routledge, New York.
- Knüsel, C., and Smith, M. (eds.)  
 2014 *The Routledge Handbook of the Bioarchaeology of Human Conflict*. Routledge, New York.
- Konigsberg, L., and Buikstra, J.  
 1995 Regional Approaches to the Investigation of Past Human Biocultural Structure. In *Regional Approaches to Mortuary Analysis. Interdisciplinary Contributions to Archaeology*, edited by L. Beck; pp. 191-220. Springer, Boston.
- Kopytoff, I.  
 1986 The Cultural Biography of Things: Commoditization as Process. In *The Social Life of Things: Commodities in Cultural Perspective*, edited by A. Appadurai; pp. 64-91. Cambridge University Press, Cambridge.
- Kossinna, G.  
 1920 [1911] *Die Herkunft der Germanen; zur Methode der Siedlungsarchäologie*. C. Kabitzsch, Leipzig.
- Krieger, N., and Davey Smith, G.  
 2004 Bodies Count and Body Counts: Social Epistemology and Embodying Inequality. *Epidemiological Reviews* 26(1):92-103.
- Kristiansen, K.

- 1987 From Stone to Bronze: The Evolution of Social Complexity in Northern Europe 2300–1200 BC. In *Specialization, Exchange, and Complex Societies*, edited by E. Brumfield and T. Earle; pp. 30–51. Cambridge University Press, Cambridge.
- 1999 The Emergence of Warrior Aristocracies in Later European Prehistory and their Long-term History. In *Ancient Warfare*, edited by J. Carman and A. Harding; pp. 175–189. Sutton Publishing, Stroud.
- Kristiansen, K., and Larsson, T.  
2005 *The Rise of Bronze Age Society: Travels, Transmissions and Transformations*. Cambridge University Press, Cambridge.
- Kroeber, A.  
1927 Disposal of the Dead. *American Anthropologist* 29:308-315.
- Kümmel, C.  
2007 [2009] *Ur- und frühgeschichtlicher Grabraub: Archäologische Interpretation und kulturanthropologische Erklärung*. Münster, Waxmann.
- Kunst, G.  
2010 Use-wear or Butchery Marks: a Borderline Case. Bone Objects from Roman Carnuntum, Lower Austria. In *Ancient and Modern Bone Artefacts from America to Russia*, edited by A. Legrand-Pineau, D. Campana, and I. Sidéra; pp. 263-270. International Council for Archaeozoology Conference (Hrsg.). Cultural, Technological and Functional Signature. 6th International Conference Worked Bone Research Group - ICAZ. Paris, 26-31 August 2007, BAR International Series 2136, Oxford.
- Kus, S.  
1992 Toward an Archaeology of Body and Soul. In *Representations in Archaeology*, edited by J. Gardin, and C. Peebles; pp. 168-77. Indiana Univ. Press, Bloomington.
- 2013 Death and the Cultural Entanglements of the Experienced, the Learned, the Expressed, the Contested, and the Imagined. In *The Oxford Handbook of The Archaeology of Death and Burial*, edited by S. Tarlow and L. Nilsson Stutz; pp. 59-78. Oxford University Press, Oxford.
- Kyle, D.  
1998 *Spectacles of Death in Ancient Rome*. Routledge, London.
- 2001 *Spectacles of Death in Ancient Rome (Approaching the Ancient World)*. Routledge, London.
- 2015 *Sport and Spectacle in the Ancient World* (2<sup>nd</sup> Ed). Wiley, Hoboken.
- Laes, C.



- 2006 Children in Fables, Children and Fables in Hellenistic and Roman Antiquity. *Latomus* 65:898-914.
- 2011 *Children in the Roman Empire: Outsiders Within*. Cambridge University Press, Cambridge.
- Lally, M.  
2008 Bodies of Difference in Iron Age Southern England. In *Changing Perspectives on the First Millennium BC: Proceedings of the Iron Age Research Student Seminar 2006*, edited by O. Davis, N. Sharples, and K. Waddington; 119-138. Oxbow Books, Oxford.
- Lamb, A.  
2016 The Rise of the Individual in Late Iron Age Southern Britain and Beyond. *Chronika* 6:26-40.
- Lambek, M.  
2018 After Death: Event, Narrative, Feeling. In *A Companion to the Anthropology of Death*, edited by A. Robben; pp. 87-101. Wiley-Blackwell, Boston.
- Larsen, C.  
1997 *Bioarchaeology: Interpreting Behavior from the Human Skeleton*. University of Cambridge Press, Cambridge.  
  
2006 The Changing Face of Bioarchaeology: an Interdisciplinary Science. In *Bioarchaeology: the Contextual Analysis of Human Remains*, edited by J. Buikstra and L. Beck; pp. 375-415. Academic Press, London.
- Lata, H., and Alia, L.  
2007 Aging: Physiological Aspects. *JK Science, Journal of Medical Education and Research* 9:111-115.
- Leach, S., Eckardt, H., Chenery, C., Müldner, G., and Lewis, M.  
2010 A Lady of York: Migration, Ethnicity and Identity in Roman Britain. *Antiquity* 84:131-45.
- Leach, S., Lewis, M., Chenery, C., Müldner, G., and Eckhardt, H.  
2009 Migration and Diversity in Roman Britain: a Multidisciplinary Approach to the Identification of Immigrants in Roman York, England. *American Journal of Physical Anthropology* 140:546-61.
- Leary, J., and Butler, J.  
2012 *Roman Archaeology in the Upper Reaches of the Walbrook Valley*. Excavations at 6-8 Tokenhouse Yard, London EC2. Pre-Construct Archaeology, London.
- Leeds, E., and Harden, D.  
1936 *The Anglo-Saxon Cemetery at Abingdon, Berkshire*. Ashmolean Museum, Oxford.

- Leggett, S., and Damman, L. (eds.)  
 2018 Introduction. In *The Others: Deviants, Outcasts and Outsiders in Archaeology. Archaeological Review from Cambridge* 33(2):3-10.
- Lenski, N.  
 2011 Captivity and Romano-Barbarian Interchange. In *Romans, Barbarians, and the Transformation of the Roman World: Cultural Interaction and the Creation of Identity in Late Antiquity*, edited by R. Mathisen; pp. 185-198. Ashgate, Burlington.
- Lepper, F., and Frere, S.  
 1988 *Trajan's Column: a New Edition of the Cichorius Plates*. Gloucester and Wolfboro, Alan Sutton.
- Lethbridge, T.  
 1936 Further Excavations in the Early Iron Age and Romano-British Cemetery at Guilden Morden. *Proceedings of the Cambridge Antiquarian Society* 36:109-120.
- Lewis, M.  
 2000 Non-adult Palaeopathology: Current Status and Future Potential. In *Human Osteology in Archaeology and Forensic Science*, edited by M. Cox and S. Mays; pp. 39-57. Greenwich Medical Media Ltd, London.  
 2007 *The Bioarchaeology of Children: Perspectives from Biological and Forensic Anthropology*. Cambridge University Press, Cambridge. DOI: 10.1017/cbo9780511542473.  
 2018 Disease and Trauma in the Children from Roman Britain. In *The Oxford Handbook of the Archaeology of Childhood*, edited by S. Crawford, D. Hadley, and G. Shepherd; pp. 467-482. Oxford University Press, Oxford.
- Livingstone-Smith, D.  
 2007 *The Most Dangerous Animal: Human Nature and the Origins of War*. St. Martin's Griffin, New York.
- Lock, M.  
 1993 Cultivating the Body: Anthropology and Epistemologies of Bodily Practice and Knowledge. *Annual Review of Anthropology* 22:133-155.
- Loe, L.  
 2009 Perimortem Trauma. In *Handbook of Forensic Anthropology and Archaeology*, edited by S. Blau and D. Ubelaker; pp. 263-283. Left Coast Press, Walnut Creek.
- Lovell, N.  
 1997 Trauma Analysis in Paleopathology. *American Journal of Physical Anthropology* 104:139-170.

- 2000 Paleopathological Description and Diagnosis. In *Biological Anthropology of the Human Skeleton* (1st Ed.), edited by M. Katzenberg and S. Saunders; pp. 217–248. Wiley-Liss, New York.
- Lubbock, J.  
 1882 *The Origin of Civilization and the Primitive Condition of Man*. Longman, Green, London.  
 1900 *Prehistoric Times*. William and Norgate, London.
- Lucy, S.  
 2000 *The Anglo-Saxon Way of Death*. Sutton, Stroud.  
 2005 The Archaeology of Age. In *The Archaeology of Identity: Approaches to Gender, Age, Status, Ethnicity and Religion* (1st Ed.), edited by M. Díaz-Andreu, S. Lucy, S. Babić, and D. Edwards; pp. 43-67. Routledge, London.
- Lusnia, S.  
 2020 Representations of War and Violence in Ancient Rome. In *The Cambridge World History of Violence, Vol. 1: the Prehistoric and Ancient Worlds*, edited by G. Fagan, L. Fibiger, M. Hudson, and M. Trundle; pp. 654-683. Cambridge University Press, Cambridge.
- Lyman, R.  
 1994a Butchering, Bone Fracturing, and Bone Tools. In *Vertebrate Taphonomy*, edited by R. Lyman; pp. 294-353. Cambridge University Press, Cambridge.  
 1994b Other Biostratigraphic Factors. *Vertebrate Taphonomy*, edited by R. Lyman; pp. 354-403. Cambridge University Press, Cambridge.  
 1994c *Vertebrate Taphonomy*. Cambridge University Press, Cambridge.
- Lyman, R., and Fox, G.  
 1989 A Critical Evaluation of Bone Weathering as an Indication of Bone Assemblage Formation. *Journal of Archaeological Science* 16(3):293-317.
- Lynch, P.  
 2007 *Roman Britain: Its People*. Unpublished Ph.D. Dissertation, University of Western Australia.
- MacDonald, J.  
 1979 Religion. In *The Roman Cemetery at Lankhills*, edited by G. Clarke; pp. 404-433. Clarendon Press, Oxford.
- MacGregor, G.

- 1994 Post-Processual Archaeology: The Hidden Agenda of the Secret Agent. In *Archaeological Theory: Progress or Posture?*, edited by I. Mackenzie; pp. 79-91. Aldershot, Avebury.
- MacMullen, R.  
1986 Judicial Savagery in the Roman Empire. *Chiron* 16:147-166.
- Madgwick, R.  
2008 Patterns in the Modification of Animal and Human Bones in Iron Age Wessex: Revisiting the Excarnation Debate. In *Changing Perspectives on the First Millennium BC*, edited by O. Davis, N. Sharples, and K. Waddington; pp. 99-118. Oxbow Books, Oxford.
- Malinowski, B.  
1925/1944 Magic, Science and Religion. In *Science, Religion, and Reality*, edited by Needham, J. (ed.); pp. 21-84. Macmillan, New York.
- Maltby, M.  
1994 The Meat Supply in Roman Dorchester and Winchester. In *Urban-Rural Connexions: Perspectives from Environmental Archaeology*, edited by A. Hall and H. Kenward; pp. 85-102. Oxbow Books, Oxford.  
  
2007 Chop and Change: Specialist Cattle Carcass Processing in Roman Britain. In *TRAC 2006: Proceedings of the 16<sup>th</sup> Annual Theoretical Roman Archaeology Conference*, edited by B. Croxford, N. Ray, and R. Roth; pp. 59-76. Oxbow Books, Oxford.
- Mann, R., and Berryman, H.  
2012 A Method for Defleshing Human Remains Using Household Bleach. *Journal of Forensic Science* 57(2):440-442.
- Manning, W.  
1972 Ironwork Hoards in Iron Age and Roman Britain. *Britannia* 3:224-250.  
  
2004 The Conquest of Wales. In *A Companion to Roman Britain*, edited by M. Todd; pp. 60-74. Blackwell Publishing, Ltd., Oxford.
- Mansell-Playdell, T.  
1893 Anniversary Address of the President. *Proceedings of the Dorset Natural History and Antiquarian Field Club* 14:1-28.
- Maples, W.  
1986 Trauma Analysis by the Forensic Anthropologist. In *Forensic Osteology: Advances in the Identification of Human Remains*, edited by J. Relchs; pp. 218-228. Charles Thomas, Springfield.

- Martin, D., Akins, N., Goodman, A., Toll, W., and Swedlund, A.  
2001 *Harmony and Discord: Bioarchaeology of the La Plata Valley*. Museum of New Mexico Press, Santa Fe, NM.
- Martin, D., and Harrod, R.  
2015 Bioarchaeological Contributions to the Study of Violence. *Yearbook of Physical Anthropology* 156:116-145.
- Martin, D., Harrod, R., and Pérez, V. (eds.)  
2012 *The Bioarchaeology of Violence*. University of Florida Press, Gainesville.
- Martin, D., Harrod, R., and Pérez, V.  
2013 *Bioarchaeology: An Integrated Approach to Working with Human Remains*. Springer, New York.
- Mathisen, R., and Shanzer, D.  
2011 Introduction. In *Romans, Barbarians, and the Transformation of the Roman World: Cultural Interaction and the Creation of Identity in Late Antiquity*, edited by R. Mathisen and D. Shanzer; pp. 1-11. Ashgate, Burlington.
- Mattingly, D.  
2004 Being Roman: Expressing Identity in a Provincial Setting. *Journal of Roman Archaeology* 17(1):5-25.  
  
2006 *An Imperial Possession: Britain in the Roman Empire 54 BC- AD 409*. Allen Lane, London.  
  
2011 *Imperialism, Power, and Identity: Experiencing the Roman Empire*. Princeton University Press, Princeton.
- Mauss, M.  
1924 Essai sur le don. *L'annee Sociologique* 1:30-186.
- Maxwell, G.  
2004 The Roman Penetration of the North in the Late First Century AD. In *A Companion to Roman Britain*, edited by M. Todd; pp. 75-90. Blackwell Publishing, Ltd, Oxford.
- Mayne Coreia, P.  
1997 Fire Modification of Bone: A Review of the Literature. In *Forensic Taphonomy: the Postmortem Fate of Human Remains*, edited by W. Haglund and M. Sorg; pp. 275-293. CRC Press, Boca Raton.
- Mays, S.  
1993 Infanticide in Roman Britain. *Antiquity* 67:883-888.

- 1998 *The Archaeology of Human Bones*. Routledge, London.
- 2000 The Archaeology and History of Infanticide, and Its Occurrence in Earlier British Populations. In *Children and Material Culture*, edited by J. Sofaer Derevenski; pp. 180-190. Routledge, London.
- 2010 After the Bone Report: the Long-term Fate of Skeletal Collections. *British Association for Biological Anthropology and Osteoarchaeology and Institute of Field Archaeologists, IFA papers 7*: 46-7. Southampton, Reading.
- Mays, S., and Steele, J.  
 1996 A Mutilated Human Skull from Roman St Albans, Hertfordshire, England. *Antiquity* 70:155-161.
- McClelland, J., and Cerezo-Román, J.  
 2016 Personhood and Re-embodiment in Osteological Practice. In *Archaeologists and the Dead: Mortuary Archaeology in Contemporary Society*, edited by H. Williams and M. Giles; pp. 39-67. Oxford Academic, Oxford.
- McDonald, J.  
 1979 Religion. In *Pre-Roman and Roman Winchester Part II: The Roman Cemetery at Lankhills*. Winchester Studies 3, edited by G. Clarke; pp. 404-433. Clarendon Press, Oxford.
- McGovern, C.  
 2019 *A Woman's World: a Bioarchaeological Approach to the Romano-British Female Life Course*. Unpublished Ph.D. Dissertation, University of Reading, Reading.
- McKinley, J.  
 1993 A Decapitation from the Romano-British Cemetery at Baldock, Hertfordshire. *International Journal of Osteoarchaeology* 3(1):41-44.
- 2000 Phoenix Rising: Aspects of Cremation in Roman Britain. In *Burial, Society and Context in the Roman World*, edited by J. Pearce, M. Millett, and M. Struck; pp. 38-44. Oxbow Books, Oxford.
- McKinley, J. and Egging Dinwiddy, K.  
 2009 "Deviant" Burials from a Late Romano-British Cemetery at Little Keep, Dorchester. *Proceedings of the Dorset Natural History and Archaeological Society* 130:43-61.
- McWhirr, A., Viner, L., and Wells, C.  
 1982 *Romano-British Cemeteries at Cirencester*, Cirencester Excavation Committee, Cirencester.
- Meadows, H.

- 1994 You Are What You Eat: Diet, Identity, and Romanisation. In *TRAC 94: Proceedings of the Fourth Annual Theoretical Roman Archaeology Conference*, edited by S. Cottam, D. Dungworth, S. Scott, and J. Taylor; pp. 133-140. University of Durham, Department of Archaeology.
- Meijer, F.  
2010 *Chariot Racing in the Roman Empire*. Johns Hopkins University Press, Baltimore.
- Mensforth, R., Lovejoy, C., Lallo, J., and Armelagos, G.  
1978 The Role of Constitutional Factors, Diet, and Infectious Disease in the Etiology of Porotic Hyperostosis and Periosteal Reactions in Prehistoric Infants and Children. *Medical Anthropology* 2:1-59.
- Merrifield, R.  
1987 *The Archaeology of Ritual and Magic*. Batsford, London.  
  
1995 Roman Metalwork from the Walbrook—Rubbish, Ritual or Redundancy? *Transactions of the London and Middlesex Archaeological Society* 46:27–44.
- Meskel, L.  
1996 The Somatisation of Archaeology: Institutions, Discourses, Corporeality. *Norwegian Archaeological Review* 29(1):1-16.  
  
2004 *Private Life in New Kingdom Egypt*. Princeton University Press, Princeton.
- Meskel, L., and Joyce, R.  
2003 *Embodied Lives: Figuring Ancient Maya and Egyptian Experience*. Routledge, London.
- Meskel, L., and Preucell, R. (eds.)  
2008 *A Companion to Social Archaeology*. Blackwell, Oxford.
- Metcalf, P., and Huntington, R.  
1991 *Celebrations of Death: the Anthropology of Mortuary Ritual*. Cambridge University Press, Cambridge.
- Milella, M., Mariotti, V., Belcastro, M. G., Knüsel, C.  
2015 Patterns of Irregular Burials in Western Europe (1<sup>st</sup>-5<sup>th</sup> century AD). *PLoS One* 10(6): e0130616. doi:10.1371/journal.pone.0130616
- Milisauskas, S. (ed.)  
2011 *European Prehistory: A Survey (Interdisciplinary Contributions to Archaeology)*, (2<sup>nd</sup> Ed). Springer, New York.
- Millett, M.  
1990 *The Romanization of Britain: An Essay in Archaeological Interpretation*. Cambridge University Press, Cambridge.

- 1995 Strategies for Roman Small Towns. In *Roman Small Towns in Eastern England and Beyond*, edited by A.E. Brown; pp. 29-37. Oxbow Monograph 52, Oxford.
- 2005 *Roman Britain*. Batsford, London.
- Millett, M., and Gowland, R.  
 2015 Infant and Child Burial Rites in Roman Britain: A Study from East Yorkshire. *Britannia* 46:171-189.
- Millett, M., Revell, L., and Moore, A. (eds.)  
 2016 *The Oxford Handbook of Roman Britain*. Oxford University Press, Oxford.
- Mizoguchi, K.  
 1993 Time in the Reproduction of Mortuary Practices. *World Archaeology* 25(2):223-235.
- Moen, P.  
 2001 The Gendered Life Course. In *Handbook of Aging and the Social Sciences* (5<sup>th</sup> Ed.), edited by R. Binstock and L. George; pp. 179-196. Academic Press, London.
- Moilanen, U.  
 2018 Facing the Earth for Eternity? Prone Burials in Early Medieval and Medieval Finland (c. AD 900 – 1300). In *The Others - Deviants, Outcasts and Outsiders in Archaeology*, edited by L. Damman and S. Leggett. *Archaeological Review from Cambridge* 33(2):19-36.
- Molleson, T.  
 1992 Mortality Patterns in the Romano-British Cemetery at Poundbury Camp, Dorchester. In *Death in Towns. Urban Responses to the Dying and the Dead, 100–1600*, edited by S. Bassett; pp. 43-55. Leicester University Press, London.
- 1999 Archaeological Evidence for Attitudes to Disability in the Past. In *Disability and Archaeology*, edited by N. Finlay. *Archaeological Review from Cambridge* 15(2):69–77.
- Mommsen, T.  
 1862-6 *History of Rome*. Trans. W.P. Dickson. London.
- Montgomery, J., Evans, J., and Chenery, C.  
 2008 *Report on the Isotope Analysis of Four Late Roman Individuals from the Eagle Hotel, Winchester*. Unpublished report, Winchester Archaeology Unit, Winchester.
- Montgomery, J., Knüsel, C. and Tucker, K.  
 2011 Identifying the Origins of Decapitated Male Skeletons from 3 Driffeld Terrace, York, through Isotope Analysis: Reflections on the Cosmopolitan Nature of Roman York in the Time of Caracalla. In *The Bioarchaeology of the Human Head: Decapitation*,



*Deformation, and Decoration*, edited by M. Bonogofsky; pp. 141-178. University Press of Florida, Gainesville.

Moore, A.

2009a Heart and Home: the Burial of Infants within Romano-British Domestic Contexts. *Childhood in the Past* 2(1):33-54.

2009b *Young and Old in Roman Britain: Aspects of Age Identity and Life Course Transitions in Regional Burial Practice*. Unpublished Ph.D. Dissertation, University of Southampton, Southampton.

2010 Age and Identity in Funerary Contexts: the Elderly in Southern Roman Britain. In *TRAC 2009 Proceedings of the Nineteenth Annual Theoretical Roman Archaeology Conference*, edited by A. Moore, G. Taylor, E. Harris, P. Girdwood, P., and L. Shipley; pp. 105-119. Oxbow Books, Oxford.

2016 The Life Course. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 321-340. Oxford University Press, Oxford.

Moore, J., and Scott, E. (eds.)

1997 *Invisible People and Processes: Writing Gender and Childhood into European Archaeology*. Leicester University Press, London.

Moore, T.

2011 Detribalizing the Later Prehistoric Past: Concepts of Tribes in Iron Age and Roman Studies. *Journal of Social Archaeology* 11(3):334-60.

2016 Britain, Gaul, and Germany: Cultural Interactions. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 262-284. Oxford University Press, Oxford.

Morris, I.

1987 *Burial and Ancient Society: the Rise of the Greek City-state*. Cambridge University Press, Cambridge.

1992 *Death Ritual and Social Structure in Classical Antiquity*. Cambridge University Press, Cambridge.

Mortimer, J.

1905 *Forty Years of Researches in British and Saxon Burial Mounds of East Yorkshire*. A. Brown and Sons, London.

Mousourakis, G.

2003 *The Historical and Institutional Context of Roman Law*. Aldershot, Ashgate.

Möldner, G., Chenery, C., and Eckardt, H.

- 2011 The 'Headless Romans': Multi-isotope Investigations of an Unusual Burial Ground from Roman Britain. *Journal of Archaeological Science* 38:280-290.
- Murphy, E.  
 2000 Developmental Defects and Disability: the Evidence from the Iron Age Seminomadic Peoples of Aymyrlyg, South Siberia. In *Madness, Disability and Social Exclusion: the Archaeology and Anthropology of 'Difference'*, edited by J. Hubert; pp. 60-80. Routledge, London.
- 2008 Introduction. In *Deviant Burial in the Archaeological Record*, edited by E. Murphy; pp. xii. Oxbow Books, Oxford.
- 2018 Commentary: 'The Others' – Deviants, Outcasts and Outsiders in Archaeology. *Archaeological Review from Cambridge* 33(2):111-118.
- Murphy, E. (ed.)  
 2008 *Deviant Burial in the Archaeological Record*. Oxbow, Oxford.
- Murphy, M., Giather, C., Goycochea, E., Verano, J., and Cock, G.  
 2010 Violence and Weapon-related Trauma at Puruchuco-Huaquerones, Peru. *American Journal of Physical Anthropology* 142:636-49.
- Murray, M., and Schoeninger, M.  
 1988 Diet, Status, and Complex Social Structure in Iron Age Central Europe: some Contributions of Bone Chemistry. In *Tribe and Polity in Late Pre-Historic Europe: Demography, Production and Exchange in the Evolution of Complex Social Systems*, edited by D.B. Gibson, and M. Geselowitz; pp. 155-176. Plenum, New York.
- Myerhoff, B.  
 1984 Rites and Signs of Ripening: The Inter-twining of Ritual, Time, and Growing Older. In *Age and Anthropological Theory*, edited by D. Kertzer and J. Keith; pp. 305-330. Cornell University Press, Ithica.
- Mytum, H.  
 2004 *Mortuary Monuments and Burial Grounds of the Historic Period*. Kluwer Academic/Plenum, New York.
- 2010 Ways of Writing in Post-medieval and Historical Archaeology: Introducing Biography. *Post-Medieval Archaeology* 44(2):237–254. DOI: 10.1179/174581310x12810074246546.
- Nenadic, O., and Greenacre, M.  
 2007 Correspondence Analysis in R, with Two- and Three-dimensional Graphics: The ca Package. *Journal of Statistical Software* 20(3):1-13.
- Nesbitt, C.

- 2016 Multiculturalism on Hadrian's Wall. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 224-244. Oxford University Press, Oxford.
- Niblett, R.  
 2004 The Native Elite and their Funerary Practices from the First Century BC to Nero. In *A Companion to Roman Britain*, edited by M. Todd; pp. 30-41. Blackwell Publishing, Ltd., Oxford.
- Nilsson Stutz, L.  
 2003 *Embodied Rituals and Ritualized Bodies: Tracing Ritual Practices in Late Mesolithic Burials*. Wallin and Dahlholm Boktryckeri AB, Lund.
- 2008 Capturing Mortuary Ritual: an Attempt to Harmonize Archaeological Method and Theory. In *Religion, Archaeology, and the Material World*, edited by L. Fogelin; pp. 159-178. Center for Archaeological Investigations, Occasional Paper No. 36. Board of Trustees, Southern Illinois University.
- 2010 The Way We Bury our Dead. Reflections on Mortuary Ritual, Community and Identity at the Time of the Mesolithic-Neolithic Transition. *Documenta Praehistorica* 37:33-42.
- 2013 Contested Burials: the Dead as Witnesses, Victims, and Tools. In *The Oxford Handbook of the Archaeology of Death and Burial*, edited by L. Nilsson Stutz and S. Tarlow; pp. 801-816. Oxford University Press, Oxford.
- 2015 A Proper Burial. Some Thoughts on Changes in Mortuary Ritual, and How Archaeology can Begin to Understand them. In *Death and Changing Rituals: Function and Meaning in Ancient Funerary Practices*, edited by J. Rasmus Brandt, M. Prusac, and H. Roland; pp. 1-16. Studies in Funerary Archaeology Vol. 7. Oxbow Books, Oxford.
- 2018 A Future for Archaeology: In Defense of an Intellectually Engaged, Collaborative and Confident Archaeology. *Norwegian Archaeological Review* 51(1-2):48-56.
- Nippel, W.  
 1995 *Public Order in Ancient Rome*. Cambridge University Press, Cambridge.
- Northern Archaeological Associates  
 2002 *Cemetery Excavations at Village Farm, Spofforth, North Yorkshire: Archaeological Post-Excavation Assessment*. NAA 02/133, Durham.
- Novak, S.  
 2000 Battle-Related Trauma. In *Blood Red Roses: The Archaeology of a Mass Grave from the Battle of Towton AD 1461*, edited by V. Fiorato, A. Boylston, and C. Knüsel; pp. 90-102. Oxbow Books, Oxford.

- Noy, D.  
2000 Building a Roman Funeral Pyre. *Antichthon* 34:30-45.
- O'Brien, E.  
1999 *Post-Roman Britain to Anglo-Saxon England: Burial Practices Reviewed*. BAR British Series 289, Oxford.  
  
2014 Decayed, Consumed, Dried, Cut Up, Drowned or Burnt? An Overview of Burial Practices in Iron Age Britain. *Archaeologia Mosellana* 9:25-52.
- O'Connor, T.  
2000 *The Archaeology of Animal Bones*. Sutton Publishing, Thrupp.
- Olsen, S., and Shipman, P.  
1988 Surface Modification on Bone: Trampling Versus Butchery. *Journal of Archaeological Science* 15:535-553.
- Orschiedt, J., and Haidle, M.  
2012 Violence against the Living, Violence against the Dead on the Human Remains from Herxheim, Germany. Evidence of a Crisis and Mass Cannibalism? In *Sticks, Stones and Broken Bones: Neolithic Violence in a European Perspective*, edited by R. Schulting and L. Fibiger; pp. 121-138. Oxford University Press, Oxford.
- Ortner, D.  
2003 *Identification of Pathological Conditions in Human Skeletal Remains* (2<sup>nd</sup> Ed.). Academic Press, Amsterdam.
- Ortner, D., and Putschar, W.  
1981 *Identification of Pathological Conditions in Human Skeletal Remains*. Smithsonian Institution Press, Washington.
- O'Shea, J.  
1984 *Mortuary Variability: an Archaeological Investigation*. Academic Press, Orlando.
- Östenberg, I.  
2009 *Staging the World: Spoils, Captives, and Representations in the Roman Triumphal Procession*. Oxford Studies in Ancient Culture and Representation. Oxford University Press, Oxford.
- Osterholtz, A.  
2012 The Social Role of Hobbling and Torture: Violence in the Prehistoric Southwest. *International Journal of Paleopathology* 2(2-3):148-155.
- Osterholtz, A., and Martin, D.

- 2017 The Poetics of Annihilation: on the Presence of Woman and Children at Massacre Sites in the Ancient Southwest. In *Bioarchaeology of Women and Children in Times of War*, edited by D. Martin and C. Tegtmeier; pp. 111-128. Springer, New York.
- O'Sullivan, D., and Unwin, D.  
2010 *Geographic Information Analysis*. John Wiley & Sons, Inc., Hoboken.
- Ottenberg, S.  
1988 Oedipus, Gender and Social Solidarity: A Case Study of Male Childhood and Initiation. *Ethos* 16(3):326–352. <https://doi.org/10.1525/eth.1988.16.3.02a00060>
- Outram, A., Knüsel, C., Knight, S., and Harding, A.  
2005 Understanding Complex Fragmented Assemblages of Human and Animal Remains: a Fully Integrated Approach. *Journal of Archaeological Science* 32:1699-1710.
- Pader, E.-J.  
1980 Material Symbolism and Social Relations in Mortuary Studies. In *Anglo-Saxon Cemeteries 1979: the Fourth Anglo-Saxon Symposium at Oxford*, edited by P. Rahtz, T. Dickinson, and L. Watts; pp. 143-160. BAR British Series 82, Oxford.  
  
1982 *Symbolism, Social Relations and the Interpretation of Mortuary Remains*. BAR International Series 130, Oxford.
- Papadopoulos, J.  
2000 Skeletons in Wells: Towards an Archaeology of Social Exclusion in the Ancient Greek World. In *Madness, Disability and Social Exclusion: the Archaeology and Anthropology of 'Difference'*, edited by J. Hubert; pp. 96-118. Routledge, London.
- Pardoe, C.  
1988 The Cemetery as Symbol: the Distribution of Prehistoric Aboriginal Burial Grounds in Southeastern Australia. *Archaeology in Oceania* 23(3):1-16.
- Parker Pearson, M.  
1982 Mortuary Practices, Society and Ideology: and Ethnoarchaeological Study. In *Symbolism and Structural Archaeology*, edited by I. Hodder; pp. 99-113. Cambridge University Press, Cambridge.  
  
1984 Economic and Ideological Change: Cyclic Growth in the Pre-state Societies of Jutland. In *Ideology, Power and Prehistory*, edited by D. Miller and C. Tilley; pp. 69-92. Cambridge University Press, Cambridge.  
  
1999a *The Archaeology of Death and Burial*. Sutton, Stroud.  
  
1999b Food, Sex and Death: Cosmologies in the British Iron Age with Particular Reference to East Yorkshire. *Cambridge Archaeological Journal* 9(1):43-69.

- Parkin, D.  
1992 Ritual as Spatial Direction and Bodily Division. In *Understanding Rituals*, edited by D. De Coppet; pp. 11-25. Routledge, London.
- Pearce, J.  
1997 Death and Time: the Structure of Late Iron Age Mortuary Ritual. In *Reconstructing Iron Age Societies: New Approaches to the British Iron Age*, edited by A. Gwilt and C. Haselgrove; pp. 174-80. Oxbow Books, Oxford.
- 1998 From Death to Deposition; the Sequence of Ritual in Cremation Burials of the Roman Period. *TRAC 97: Proceedings of the Seventh Annual Theoretical Roman Archaeology Conference, 1997*, edited by C. Forcey, J. Hawthorne, and R. Witcher; pp. 99-111. Oxbow Books, Oxford.
- 1999 *Case Studies in a Contextual Archaeology of Burial Practice in Roman Britain*. Unpublished Ph.D. Dissertation, University of Durham, Durham.
- 2000 Burial, Society and Context in the Provincial Roman World. In *Burial, Society and Context in the Roman World*, edited by J. Pearce, M. Millett, and M. Struck; pp. 1-12. Short Run Press, Exeter.
- 2001 Infants, Cemeteries and Communities in the Roman Provinces. *TRAC 2000: Proceedings of the Tenth Annual Theoretical Roman Archaeology Conference, London 2000*, edited by G. Davies, A. Gardner, and K. Lockyear; pp. 125-142. Oxbow Books, Oxford.
- 2002 Ritual and Interpretation in Provincial Roman Cemeteries. *Britannia* 33:373-378.
- 2008 Burial Evidence from Roman Britain: the Un-numbered Dead. In *Pour une Archéologie du Rite. Nouvelles Perspectives de l'Archéologie Funéraire pour l'époque Romaine Impériale*, edited by J. Scheid; pp. 29-42. Rome.
- 2010 Burial, Identity and Migration in the Roman World. In *Roman Diasporas: Archaeological Approaches to Mobility and Diversity in the Roman Empire*, edited by H. Eckardt; pp. 79-98. Journal of Roman Archaeology Supplementary Series.
- 2013 Beyond the Grave: Excavating the Dead in the Late Roman Provinces. In *Field Methods and Post-Excavation Techniques in Late Antique Archaeology*, edited by L. Lavan and M. Mulryan; pp. 441-82. Late Antique Archaeology 9, Leiden.
- 2016 Status and Burial. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 341-62. Oxford University Press, Oxford.
- 2017 Introduction: Death as a Process in Roman Funerary Archaeology. In *Death as a Process*, edited by J. Pearce and J. Weekes; pp. 1-26. Oxbow Books, Oxford.

- Pearce, J., Millett, M. and Struck, M. (eds.)  
2000 *Burial, Society and Context in the Roman World*. Short Run Press, Exeter.
- Pearce, J., and Weekes, J. (eds.)  
2017 *Death as a Process*. Oxbow Books, Oxford.
- Peebles, C. and Kus, S.  
1977 Some Archaeological Correlates of Ranked Societies. *American Antiquity* 42(3):421-448.
- Perez, V.  
2012 The Politicization of the Dead: Violence as Performance, Politics as Usual. In *The Bioarchaeology of Violence*, edited by D. Martin, R. Harrod, and V. Perez; pp. 13-28. University of Florida Press, Gainesville.  
  
2016 The Poetics of Violence in Bioarchaeology: Integrating Social Theory with Trauma Analysis. In *New Directions in Biocultural Anthropology*, edited by M. Zuckerman, and D. Martin; pp. 453-469. Wiley Blackwell, Hoboken.
- Perry, E., and Joyce, R.  
2005 Past Performance: the Archaeology of Gender as Influenced by the Work of Judith Butler. In *Butler Matters: Judith Butler's Impact on Feminism and Queer Studies*, edited by M. Breen and W. Blumenfeld; pp. 113-126. Ashgate Publishing, New York.
- Petts, D.  
2003 *Christianity in Roman Britain*. Tempus, Stroud.
- Philpott, R.  
1991 *Burial Practices in Roman Britain*. British Archaeological Reports, British Series 219, Oxford.
- Pitt-Rivers, A.  
1887 *Excavations in Cranbourne Chase, near Rushmore, Volume I: Excavations in a Romano-British Village on Woodcutts Common, and Romano-British Antiquities in Rushmore Park*. Privately Printed.  
  
1892 *Excavations in Bokerly and Wansdyke, Dorset and Wiltshire 1888-91*. Privately Printed.  
  
1898 *Excavations in Cranbourne Chase Volume IV*. Privately Printed.
- Pitts, M.  
2005 Pots and Pits: Drinking and Deposition in Late Iron Age South-East Britain. *Oxford Journal of Archaeology* 24(2):143-161.  
  
2008 Globalizing the Local in Roman Britain: an Anthropological Approach to Social Change. *Journal of Anthropological Archaeology* 27(4):493-506.

- 2010 Re-thinking the Southern British Oppida: Networks, Kingdoms and Material Culture. *European Journal of Archaeology* 13(1):32-63.
- 2016 Rural Transformation in the Urbanized Landscape. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 720-740. Oxford University Press, Oxford.
- Pobiner, B.  
1997 *Hominin-carnivore Interactions: Evidence from Modern Carnivore Bone Modification and Early Pleistocene Archaeofaunas (Koobi Fora, Kenya; Olduvai Gorge, Tanzania)*. Unpublished Ph.D. Dissertation, Rutgers.
- Pokines, J.  
2015 Taphonomic Alterations by the Rodent Species Woodland Vole (*Microtus pinetorum*) upon Human Skeletal Remains. *Forensic Science International* 257:e16-e19.
- Pokines, J., and Symes, S. (eds.)  
2014 *Manual of Forensic Taphonomy*. CRC Press, Boca Raton.
- Potter, D.  
2010 Entertainers in the Roman Empire. In *Life, Death, and Entertainment in the Roman Empire* (2<sup>nd</sup> Ed.), edited by D. Potter and D. Mattingly; pp. 280-350. University of Michigan Press, Ann Arbor.
- Potter, T., and Johns, C.  
1992 *Roman Britain*. The British Museum Press, London.
- Powell, L.  
2014 *Childhood Health and Diet in Roman London: the Palaeodemographic, Palaeopathological and Isotopic Evidence*. Unpublished Ph.D. Dissertation, Durham University, Durham.
- Price, E.  
2000 *Frocester: A Romano-British Settlement, its Antecedents and Successors*. Gloucester and District Arch Res Group, Stonehouse.
- Price, T., Burton, J., and Bentley, R.  
2002 The Characterization of Biologically Available Strontium Isotope Ratios for the Study of Prehistoric Migration. *Archaeometry* 44(1):117-135.
- Prowse, T., Schwarcz, H., Garnse, P., Knyf, M., Macchiarelli, R., and Bondioli, L.  
2007 Isotopic Evidence for Age Related Immigration to Imperial Rome. *American Journal of Physical Anthropology* 132(4):510-519.
- Prus, R., and Grills, S.



- 2003 *The Deviant Mystique: Involvement, Realities and Regulation*. Praeger, Westport.
- Puttock, S.  
2002 *Ritual Significance of Personal Ornament in Roman Britain*. BAR British Series 327.
- Quinnell, H.  
1991 The Villa and Temple at Cosgrove, Northamptonshire. *Northamptonshire Archaeology* 23:4-66.
- R Development Core Team  
2014 R: A Language and Environment for Statistical Computing. 2.14.1
- Radcliffe-Brown, A.  
1922 *The Andaman Islanders: A Study in Social Anthropology*. Cambridge University Press, Cambridge.
- Ralph, S.  
2013 Introduction: an Interdisciplinary Approach to the Study of Violence. In *The Archaeology of Violence: Interdisciplinary Approaches, IEMA Proceedings, Vol. 2*, edited by S. Ralph; pp. 1-13. State University of New York Press, Albany.
- Rappaport, R.  
1999 *Ritual and Religion in the Making of Humanity*. Cambridge University Press, Cambridge.
- Rathje, W.  
1970 Sociopolitical Implications of Lowland Maya Burials: Methodology and Tentative Hypothesis. *World Archaeology* 1:359-374.
- Rautman, D. (ed.)  
2000 *Reading the Body: Representations and Remains in the Archaeological Record*. University of Pennsylvania Press, Philadelphia.
- Rawson, B.  
2003 *Children and Childhood in Roman Italy*. Oxford University Press, Oxford.
- Redfern, R.  
2005 *A Gendered Analysis of Health from the Iron Age to the End of the Romano-British Period in Dorset, England (mid-late 8th Century B.C. to the End of the 4th Century A.D.)*. Unpublished Ph.D. Dissertation, University of Birmingham, Birmingham.  
  
2007 A Bioarchaeological Analysis of Violence in Iron Age Females: a Perspective from Dorset, England (Fourth century BC to the First Century AD). In *Changing Perspectives on the First Millennium B.C.*, edited by O. Davis, N. Sharples, and K. Waddington; pp. 139-160. Oxbow Books, Oxford.

2008a New Evidence for Iron Age Secondary Burial Practice and Bone Modification from Gussage All Saints and Maiden Castle, Dorset, England. *Oxford Journal of Archaeology* 27(3):281-301.

2008b A Bioarchaeological Investigation of Cultural Change in Dorset, England (Mid-to-Late Fourth Century B.C. to the End of the Fourth Century A.D.). *Society for the Promotion of Roman Studies* 39:161-192.

2009 Does Cranial Trauma Provide Evidence for Projectile Weaponry in Late Iron Age Dorset. *Oxford Journal of Archaeology* 28:399-424.

2011 A Re-appraisal of the Evidence for Violence in the Late Iron Age Human Remains from Maiden Castle Hillfort, Dorset, England. *Proceedings of the Prehistoric Society* 77:111-138.

2012 Violence as an Aspect of the Durotriges Female Life Course. In *The Archaeology of Violence: Interdisciplinary Approaches, IEEMA Proceedings, Vol. 2*, edited by S. Ralph; pp. 63-97. State University of New York Press, Albany.

2014 A Bioarchaeological Study of Violence in the Roman World. In *The Routledge Handbook of the Bioarchaeology of Human Conflict*, edited by C. Knüsel and M. Smith; pp. 203-212. Routledge, New York.

2017 *Injury and Trauma in Bioarchaeology: Interpreting Violence in Past Lives*. Cambridge University Press, Cambridge.

2018 Thinking of the Children: Archaeological Evidence for Childhood. *Antiquity* 92(365):1392-1393.

2020a Gendered Violence in Iron Age and Roman Britain. In *The Cambridge World History of Violence, Volume 1, The Prehistoric and Ancient World*, edited by G. Fagan, L. Fibiger, M. Hudson, and M. Trundle; pp. 320-341. Cambridge University Press, Cambridge.

2020b Iron Age 'Predatory Landscapes': a Bioarchaeological and Funerary Exploration of Captivity and Enslavement in Britain. *Cambridge Archaeological Journal* 30(4):531-554.

Redfern, R., and Booney, H.

2014 Headhunting and Amphitheatre Combat in Roman London, England: New Evidence from the Walbrook Valley. *Journal of Archaeological Science* 43:214-226.

Redfern, R., and DeWitte, S.

2011 A New Approach to the Study of Romanization in Britain: a Regional Perspective of Cultural Change in Late Iron Age and Roman Dorset using the Siler and Gompertz–

- Makeham Models of Mortality. *American Journal of Physical Anthropology* 144(2):269–285.
- Redfern, R., DeWitte, S., Pearce, J., Hamlin, C. and Egging Dinwiddy, K.  
2015 Urban-rural Differences in Roman Dorset, England: a Bioarchaeological Perspective on Roman Settlements. *American Journal of Physical Anthropology* 157:107-120.
- Redfern, R., Grocke, D., Millard, A., Ridgeway, V., Johnson, L., and Hefner, J.  
2016 Going South of the River: A Multidisciplinary Analysis of Ancestry, Mobility and Diet in a Population from Roman Southward, London. *Journal of Archaeological Science* 74:11-22.
- Redfern, R., Judd, M., and Dewitte, S.  
2017 Multiple Injury and Health in Past Societies: an Analysis of Concepts and Approaches, and Insights from a Multi-period Study. *International Journal of Osteoarchaeology* 27(3):418-429.
- Redfern, R., Millard, A., and Hamlin, C.  
2012 A Regional Investigation of Subadult Dietary Patterns and Health in Late Iron Age and Roman Dorset, England. *Journal of Archaeological Science* 39:1249-1259.
- Redfern, R., and Roberts, C.  
2005 Health in Romano-British Urban Communities: Reflections from the Cemeteries. In *Fertile Ground: Papers in Honor of Susan Limbrey*, edited by D. Smith, B. Brickley, and W. Smith; pp. 115-129. Oxbow Books, Oxford.
- 2019 Trauma. In *Ortner's Identification of Pathological Conditions in Human Skeletal Remains* (3<sup>rd</sup> Ed.), edited by J. Buikstra; pp. 211-284. Elsevier Academic Press, Tempe.
- Reece, R.  
1977 *Burial in the Roman World*. CBA Research Report 22, London.
- 1988 *My Roman Britain*. Cotswold Studies Volume 3. Oxbow Books, Oxford.
- 1991 *Roman Coins from 140 Sites in Britain*. Cotswold Studies Volume 4, Cirencester.
- 1995 Site-finds in Roman Britain. *Britannia* 26:179-206.
- 2000 Burial in Roman Britain. In *Frocester: A Romano-British Settlement, its Antecedents and Successors*, edited by E. Price; pp. 205-216. Gloucester and District Arch Res Group, Stonehouse.
- Reid, D., and Dean, M.  
2000 The Timing of Linear Hypoplasias on Human Anterior Teeth. *American Journal of Physical Anthropology* 113:135-139.

- Renfrew, C.  
1973 *Before Civilization*. Knopf, New York.
- 1994 Towards a Cognitive Archaeology. In *The Ancient Mind: Elements of Cognitive Archaeology*, edited by C. Renfrew and E. Zubrow; pp. 3-12. Cambridge University Press, Cambridge.
- Reusch, K.  
2018 Defining the Other: Castration, Social Difference, and Archaeology. In *The Others: Deviants, Outcasts and Outsiders in Archaeology*. *Archaeological Review from Cambridge* 33(2):95-110.
- Revell, L.  
2005 The Roman Lifecourse: A View from the Inscriptions. *European Journal of Archaeology* 8(1):43-63.
- 2016 Urban Monumentality in Roman Britain. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 767-790. Oxford University Press, Oxford.
- Reynolds, A.  
2002 Burials, Boundaries and Charters in Anglo-Saxon England: A Reassessment. In *Burial in Early Medieval England and Wales*, edited by S. Lucy and A. Reynolds; pp. 171-194. Meaney Publishing, Leeds.
- 2009 *Anglo-Saxon Deviant Burial Customs*. Oxford University Press, Oxford.
- Reynolds, N.  
1988 The Rape of the Anglo-Saxon Women. *Antiquity* 62:715–718.
- RHOI Photography Protocol  
2008 Revealing Hominid Origins Initiative (RHOI). Retrieved Dec 9, 2012.  
[http://rhoi.berkeley.edu/RHOI\\_photo/RHOI\\_Photography\\_Protocol.html](http://rhoi.berkeley.edu/RHOI_photo/RHOI_Photography_Protocol.html)
- Richards, P., Burant, E., Drew, B., Epstein, E., Jones, C., Richards, N., and Zych, T.  
2016 *Nine for Mortal Men Doomed to Die: The Archaeology and Osteology of the 2013 Milwaukee County Poor Farm Cemetery Project (Froedtert Tract – 47 MI 0527)*. Archaeological Research Laboratory Report of Investigations No. 381. Vols. I-III.
- Riches, D. (ed.)  
1986 *Anthropology of Violence*. Basil Blackwell Ltd., Oxford.
- Rizzoli, R., Bianchi, M., Garabedian, L., McKay, H., and Mereno, L.  
2010 Maximizing Bone Mineral Mass Gain during Growth for the Prevention of Fractures in the Adolescents and the Elderly. *Bone* 46:294-305.

Robb, J.

1997 Violence and Gender in Early Italy. In *Troubled Times: Osteological and Archaeological Evidence of Violence*, edited by D. Frayer and D. Martin; pp. 108-141. Gordon and Breach, New York.

2002 Time and Biography: Osteobiography of the Italian Neolithic Lifespan. In *Thinking Through the Body: Archaeologies of Corporeality*, edited by Y. Hamilakis, M. Pluciennik, and S. Tarlow; pp. 153-171. Kluwer Academic/Plenum Publishers, New York.

2008 Meaningless Violence and the Lived Body: the Huron – Jesuit Collision of World Orders. In *Past Bodies: Body-Centered Research in Archaeology*, edited by J. Robb and D. Boric; pp. 89-99. Oxbow Books, Oxford.

2009 Towards a Critical Ötziography: Inventing Prehistoric Bodies. In *Social Bodies*, edited by H. Lambert and M. McDonald; pp. 100-128. Berghan Books, Oxford.

2013 History in the Body: the Scale of Belief. In *Big Histories, Human Lives: Tackling Problems of Scale in Archaeology*, edited by J. Robb and T. Pauketat; pp. 77-99. School for Advanced Research Press, Houston.

Robb, J., and Harris, O.

2013 *The Body in History: Europe from the Paleolithic to the Future*. Cambridge University Press, Cambridge.

Robb, J., Inskip, S., Cessford, C., Dittmar, J., Kivisild, T., Mitchell, P., Mulder, B., O'Connell, T., Price, M., Rose, A., Scheib, C.

2019 Osteobiography: The History of the Body as Real Bottom-Line History. *Bioarchaeology International* 3(1):16-31. DOI: 10.5744/bi.2019.1006.

Roberts, C.

2000a Trauma in Biocultural Perspective: Past, Present and Future Work in Britain. In *Human Osteology in Archaeology and Forensic Science*, edited by M. Cox and S. Mays; pp. 337-356. GMM, London.

2000b Did They Take Sugar? The Use of Skeletal Evidence in the Study of Disability in Past Populations. In *Madness, Disability and Social Exclusion: the Archaeology and Anthropology of 'Difference'*, edited by J. Hubert; pp. 46-59. Routledge, London.

2006 A View from Afar: Bioarchaeology in Britain. In *Bioarchaeology: the Contextual Analysis of Human Remains*, edited by J. Buikstra and L. Beck; 417-439. Academic Press, London.

2013 The Bioarchaeology of Health and Well-being: its Contribution to Understanding the Past. In *The Oxford Handbook of the Archaeology of Death and Burial*, edited by L. Nilsson Stutz and S. Tarlow; pp. 79-98. Oxford University Press, Oxford.

- Roberts, C., and Connell, B.  
2010 Guidance on Recording Palaeopathology. In *Guidelines to the Standards for Recording Human Remains*, edited by M. Brickley and J. McKinley; pp. 34-39. Institute of Field Archaeologists Paper No. 7, Reading.
- Roberts, C., and Cox, M.  
2003 *Health and Disease in Britain: from Prehistory to the Present Day*. Sutton Publishing, Phoenix Mill.  
  
2004 The Human Population: Health and Disease. In *A Companion to Roman Britain*, edited by M. Todd; pp. 242-272. Blackwell Publishing, Ltd., Oxford.
- Roberts, C., Anwen Caffell, A., Filipek-Ogden, K., Gowland, R., and Jakob, T.  
2016 Til Poison Phosphorous Brought them Death: A Potentially Occupationally-Related Disease in a Post-medieval Skeleton from North-east England. *International Journal of Paleopathology* 13:39–48. DOI:10.1016/j.ijpp.2015.12.001.
- Robertson Smith, W.  
1889 *Lectures on the Religion of the Semites*. A. and C. Black, Edinburgh.
- Rodwell, W.  
1976 *Coinage, Oppida, and the Rise of Belgic Power in South-Eastern Britain*. BAR Series 11:181-366.
- Rogers, A.  
2016 The Development of Towns. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 741-766. Oxford University Press, Oxford.  
  
2018 Indigenous Communities under Rome. In *The Oxford Handbook of the European Iron Age*, edited by C. Haselgrove, K. Rebay-Salisbury, and P. Wells. Online edn, Oxford Academic, 7 Mar. 2018). DOI: 10.1093/oxfordhb/9780199696826.013.37
- Rogers, J., and Waldron, T.  
1989 Infections in Paleopathology: the Basis of Classification into the Most Probable Cause. *Journal of Archaeological Science* 16:611-625.
- Rohnbogner, A.  
2018 The Rural Population. In *Life and Death in the Countryside of Roman Britain: New Visions of the Countryside of Roman Britain (Vol. 3)*, edited by A. Smith, M. Allen, T. Brindle, M. Fulford, L. Lodwick, and A. Rohnbogner; pp. 281-345. Britannia Monograph Series 31. Society for the Promotion of Roman Studies, London.
- Rolleston, G.  
1869 On the Various Forms of the So-Called "Celtic" Cranium. *Journal of Anatomy and Physiology* 3:252-255.

- Rosten, J.  
2007 *Personal Adornment and the Expression of Identity in Roman Britain: a Study of the Material Culture of Appearance*. Unpublished Ph.D. Dissertation, University of Leicester, Leicester.
- Roth, J.  
2020 Violence and the Roman Way of Warfare. In *The Cambridge World History of Violence, Volume 1. The Prehistoric and Ancient Worlds*, edited by G. Fagan, L. Fibiger, M. Hudson, and M. Trundle; pp. 238-256. Cambridge University Press, Cambridge.
- Rousseau, J.-J.  
1984 [1755] *A Discourse on Inequality* (M. Cranston, Trans.). Penguin Books, London.
- Roxan, M.  
1981 The Distribution of Roman Military Diplomas. *Epigraphic Studies* 12:265–86.  
  
1989 Women on the Frontiers. In *Roman Frontier Studies 1989: Proceedings of the XV International Congress on Roman Frontier Studies*, edited by V. Maxfield and M. Dobson; pp. 462-467. Exeter.
- Royce, D.  
1882 “Finds” on, or near to, the Excursion of the Society at Stow-on-the-Wold. *Transactions of the Bristol and Gloucestershire Archaeological Society* 7:69-80.
- Runnings, A., Gustapson, C., and Bentley, D.  
1989 Use-wear on Bone Tools: a Technique for Study under the Scanning Electron Microscope. In *Bone Modification*, edited by R. Bonnichsen and M. Sorg; pp. 259-266. Center for the Study of the First Americans, Institute of Quaternary Studies, University of Maine, Orono, ME.
- Sahlins, M., and Service, E. (eds.)  
1960 *Evolution and Culture*. University of Michigan Press, Ann Arbor, MI.
- Saller, R.  
1987 Men’s Age at Marriage and its Consequences in the Roman Family. *Classical Philology* 82(1):21-34.
- Saller, R., and Shaw, B.  
1984 Tombstones and Roman Family Relations in the Principate: Civilians, Soldiers and Slaves. *Journal of Roman Studies* 74:124-156.
- Salway, P.  
1981 *Roman Britain*. Oxford University Press, Oxford.

- 1993 *The Oxford Illustrated History of Roman Britain*. Oxford University Press, Oxford.
- Sauer, N.  
 1998 The Timing of Injuries and Manner of Death: Distinguishing among Antemortem, Perimortem and Postmortem Trauma. In *Forensic Osteology: Advances in the Identification of Human Remains* (2<sup>nd</sup> Ed.), edited by K. Reichs; pp. 321-332. Charles C. Thomas Publisher, Springfield.
- Saul, F.  
 1972 The Human Skeletal Remains of Altar de Sacrificios: An Osteobiographic Analysis. *Papers of the Peabody Museum* 63(2):3–123.
- Saxe, A.  
 1970 *Social Dimensions of Mortuary Practices*. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Michigan, Ann Arbor.
- Scarpitti, F.  
 1975 *Deviance: Action, Reaction, Interaction*. Addison-Wesley Publishing Company, London.
- Schaefer, M., Black, S., and Scheuer, L.  
 2009 *Juvenile Osteology: a Laboratory and Field Manual*. Elsevier Academic Press, Amsterdam.
- Scheper-Hughes, N., and Bourgojs, P. (eds.)  
 2004 *Violence in War and Peace: an Anthology*. Wiley-Blackwell, Oxford.
- Scheper-Hughes, N., and Lock, M.  
 1987 The Mindful Body: A Prolegomenon to Future Work in Medical Anthropology. *Medical Anthropology Quarterly* 1(1):6-41.
- Scheuer, L., and Black, S.  
 2000 *Developmental Juvenile Osteology*. Elsevier Academic Press, Amsterdam.
- Schiffer, M.  
 1987 *Formation Processes of the Archaeological Record*. University of New Mexico Press, Albuquerque.
- Schotsmans, E., Geroges-Zimmermann, P., Ueland, M., Dent, B.  
 2022 From Flesh to Bone: Building Bridges between Taphonomy, Archaeoethanatology and Forensic Science for a Better Understanding of Mortuary Practices. In *The Routledge Handbook of Archaeoethanatology: Bioarchaeology of Mortuary Behaviour*, edited by C. Knüsel, and E. Schotsmans; pp. 501-541. Routledge, London.
- Schotsmans, E., Marquez-Grant, N., and Forbes, S. (eds.)



- 2017 Introduction. In *Taphonomy of Human Remains: Forensic Analysis of the Dead and Depositional Environment*, edited by E. Schotsmans and N. Marquez-Grant; pp. 1-8. Wiley, Oxford.
- Schroder, L, and Schmidt, B.  
2001 Introduction: Violent Imaginaries and Violent Practices. In *Anthropology of Violence and Conflict*, edited by B. Schmidt and I. Schroder; pp. 1-24. Routledge, London.
- Schulting, R.  
2013 War without Warriors? The Nature of Interpersonal Conflict before the Emergence of Formalised Warrior Elites. In *The Archaeology of Violence: Interdisciplinary Approaches*, edited by S. Ralph; pp. 19–36. SUNY Press, Albany.
- Schulting, R., and Bradley, R.  
2014 ‘Of Human Remains and Weapons in the Neighbourhood of London: New AMS 14C Dates on Thames “River Skulls” Exhibiting Injuries’. *Archaeological Journal* 170: 31–77.
- Schulting, R., and Fibiger, L.  
2012 *Sticks, Stones, and Broken Bones: Neolithic Violence in a European Perspective*. Oxford University Press, Oxford.
- Scott, E.  
1993 Introduction: TRAC (Theoretical Roman Archaeology Conference) 1991. *Theoretical Roman Archaeology: First Conference Proceedings (TRAC 1)*, edited by E. Scott; pp. 1-4. Worldwide Archaeology Series 4. Aldershot, Avebury.
- 1997 Introduction: On the Incompleteness of Archaeological Narratives. In *Invisible People and Processes: Writing Gender and Childhood into European Archaeology*, edited by J. Moore and E. Scott; pp. 1-12. Leicester University Press, London.
- 1999 *The Archaeology of Infancy and Infant Death*. BAR International Series 819 Archaeopress, London.
- 2001a Unpicking a Myth: the Infanticide of Female and Disabled Infants in Antiquity. In *Theoretical Roman Archaeology Conference Proceedings 2000*, edited by G. Davies, A. Gardner, and K. Lockyear; pp 143-151. Oxbow Press, Oxbow.
- 2001b Killing the Female? Archaeological Narratives of Infanticide. In *Gender and the Archaeology of Death*, edited by B. Arnold and N. Wicker; pp. 1-21. AltaMira Press, Walnut Creek.
- Scullard, H.  
1979 *Roman Britain: Outpost of the Empire*. Thames and Hudson, London.

- Sedgewick, J.  
2008 *Scientific Imaging with Photoshop: Methods, Measurement, and Output*. New Riders Press, Berkeley.
- Service, E.  
1962 *Primitive Social Organization: an Evolutionary Perspective*. Random House, New York.
- Shanks, M., and Hodder, I.  
1998 Processual, Post Processual and Interpretive Archaeologies. In *Reader in Archaeological Theory: Post-Processual and Cognitive Approaches*, edited by D. Whitley; pp. 69-95. Routledge, London.
- Shanks, M. and Tilley, C.  
1982 Ideology, Symbolic Power and Ritual Communication: a Reinterpretation of Neolithic Mortuary Practices. In *Symbolic and Structural Archaeology*, edited by I. Hodder; pp. 129-154. Cambridge University Press, Cambridge.  
  
1987 *Re-constructing Archaeology: Theory and Practice*. Cambridge University Press, Cambridge.
- Shapland, F., and Armit, I.  
2012 The Useful Dead: Bodies as Objects in Iron Age and Norse Atlantic Scotland. *European Journal of Archaeology* 15(1):98-116.
- Sharples, N.  
2010 *Social Relations in Later Prehistory: Wessex in the First Millennium BC*. Oxford University Press, Oxford.
- Shaw, B.  
1987 The Age of Roman Girls at Marriage: some Reconsiderations. *The Journal of Roman Studies* 77:30-46.
- Shay, T.  
1985 Differential Treatment of Deviancy at Death as Revealed in Anthropological and Archaeological Material. *Journal of Anthropological Archaeology* 4:221-241.
- Shennan, S.  
1978 Archaeological 'Cultures': an Empirical Investigation. In *The Spatial Organisation of Culture*, edited by I. Hodder; pp. 113-139. Duckworth, London.  
  
1997 *Quantifying Archaeology*. Edinburgh University Press, Edinburgh.
- Shennan, S. (ed.)  
1989 *Archaeological Approaches to Cultural Identity*. Unwin Hyman, London.
- Shepherd, G.

- 2013 Ancient Identities: Age, Gender, and Ethnicity in Ancient Greek Burials. In *The Oxford Handbook of The Archaeology of Death and Burial*, edited by L. Nilsson Stutz, and S. Tarlow; pp. 543-559. Oxford University Press, Oxford.
- Sherratt, M., and Moore, A.  
2016 Gender in Roman Britain. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 363-380. Oxford University Press, Oxford.
- Shilling, C.  
1993 *The Body and Social Theory*. SAGE Publications, London.
- Shipman, P., Bosler, W., and Davis, K.  
1981 Butchering of Giant Geladas at an Acheulian Site. *Current Anthropology* 22:257-268.
- Shipman, P., and Rose, J.  
1983 Early Hominid Hunting, Butchering, and Carcass Processing Behaviors: Approaches to the Fossil Record. *Journal of Anthropological Archaeology* 2:57-98.
- Simmonds, A., Marquez-Grant, N., and Loe, L.  
2008 *Life and Death in a Roman City: Excavation of a Roman Cemetery with a Mass Grave at 120-122 London Road, Gloucester*. Oxford Archaeology Monograph No. 6, Oxford.
- Smith, A.  
2016 The Central Belt. In *New Visions of the Countryside of Roman Britain: Volume 1. The Rural Settlement of Roman Britain*, edited by A. Smith, M. Allen, T. Brindle, and M. Fulford; pp. 141-207. Britannia Monograph Series No. 29. Society for the Promotion of Roman Studies, London.
- 2017 Romano-British Rural Burial Practices in South-east England. In *Engaging with the Dead: Exploring Changing Human Beliefs about Death, Mortality and the Human Body*, edited by J. Bradbury and C. Scarre; pp. 40-50. Oxbow Books, Oxford.
- 2018 Death in the Countryside: Rural Burial Practices. In *Life and Death in the Countryside of Roman Britain. In New Visions of the Countryside of Roman Britain: Volume 3*, edited by A. Smith, M. Allen, T. Brindle, and M. Fulford; pp. 205-280. Britannia Monograph Series No. 29. Society for the Promotion of Roman Studies, London.
- Smith, A., Allen, M., Brindle, T., and Fulford, M. (eds.)  
2016 *The Rural Settlement of Roman Britain, New Visions of the Countryside of Roman Britain, Vol. 1*. Britannia Monograph Series No. 29. Society for the Promotion of Roman Studies, London.
- Smith, A., Allen, M., Brindle, T., Fulford, M., Lodwick, L., and Rohnbogner, A. (eds.)

- 2018 *New Visions of the Countryside of Roman Britain (Vol. 3), Life and Death in the Countryside of Roman Britain* (Britannia Monograph Series No. 31). Society for the Promotion of Roman Studies, London.
- Smith, A., and Fulford, M.  
2016 Conclusions: the Rural Settlement of Roman Britain. In *The Rural Settlement of Roman Britain, New Visions of the Countryside of Roman Britain, Vol. 1*, edited by A. Smith, M. Allen, T. Brindle, and M. Fulford; pp. 385-420. Britannia Monograph Series 29, London.
- Smith, A., Powell, K., and Booth, P. (eds.)  
2010 *Evolution of a Farming Community in the Upper Thames Valley: Excavation of a Prehistoric, Roman and Post-Roman Landscape at Cotswold Community, Gloucestershire and Wiltshire Volume 2: The Finds and Environmental Reports*, Oxford Archaeology, Oxford.
- Smith, M., Brickley, M., and Leach, S.  
2007 Experimental Evidence for Lithic Projectile Injuries: Improving Identification of an Under-recognized Phenomenon. *Journal of Archaeological Sciences* 34(4):540-53.
- Sofaer, J.  
2006 *The Body as Material Culture: A Theoretical Osteoarchaeology*. Cambridge University Press, Cambridge.  
2011 Towards a Social Bioarchaeology of Age. In *Social Bioarchaeology*, edited by S. Agarwal and B. Glencross; pp. 285–311. Blackwell, Oxford. DOI: 10.1002/9781444390537.ch10.
- Sofaer Derevenski, J.  
1994 Where Are the Children? Assessing Children in the Past. *Archaeological Review from Cambridge* 13:7-20.  
1997 Engendering Children, Engendering Archaeology. In *Invisible People and Processes: Writing Gender and Childhood into European Archaeology*, edited by J. Moore and E. Scott; pp. 192-202. Leicester University Press, London.  
2000 Material Culture Shock: Confronting Expectations in the Material Culture of Children. In *Children and Material Culture*, edited by J. Sofaer Derevenski; pp. 3-16. Routledge, London.
- Sofaer, J., and Stig Sørensen, M.  
2013 Death and Gender. In *The Oxford Handbook of the Archaeology of Death and Burial*, edited by S. Tarlow and L. Nilsson Stutz; pp. 527-541. Oxford University Press, Oxford.
- Somerset Fry, P.  
1984 *Roman Britain*. David and Charles, London.

- Southern, P.  
 2004 The Army of Late Roman Britain. In *A Companion to Roman Britain*, edited by M. Todd; pp. 393-408. Blackwell Publishing, Ltd., Oxford.
- Spencer, H.  
 1876 *The First Principles of Sociology*. Appleton, New York.
- Spector, J., and Whelan, M.  
 1989 Incorporating Gender into Archaeology Courses. In *Gender and Anthropology: Critical Review for Research and Teaching*, edited by S. Morgen; pp. 65-94. American Anthropological Association, Washington, DC.
- Sprague, R.  
 2005 *Burial Terminology: A Guide for Researchers*. AltaMira Press, Lanham.
- Stead, I.  
 1975 The La Tène Cemetery at Scarborough, East Riding. *Transactions of the East Riding Archaeological Society* 2:1-11.  
 1979 *The Arras Culture*. York Philosophical Society, York.  
 1991 *Iron Age Cemeteries in East Yorkshire: Excavations at Burton Fleming, Rudston, Garton-on-the-Wolds, and Kirkburn*. English Heritage Archaeology Reports, Archaeological Report No. 22. British Museum Press, London.
- Stead, I., and Rigby, V.  
 1989 *Verulamium: The King Harry Lane Site*. English Heritage Archaeological Report 12, London.
- Steadman D.  
 2003 *Hard Evidence: Case Studies in Forensic Anthropology*. Prentice Hall, Upper Saddle River.
- Stewart, P.  
 1999 The Destruction of Statues in Late Antiquity. In *Constructing Identity in Late Antiquity*, edited by R. Miles; pp. 159–189. Routledge, London.  
 2003 *Statues in Roman Society: Representation and Response*. Oxford University Press, Oxford.
- Stewart, P., and Strathern, A.  
 2002 *Violence. Theory and Ethnography*. Continuum, London.
- Stig Sørensen, M.  
 2000 *Gender Archaeology*. Polity Press, Cambridge.

Stirland, A.

1998 The Human Skeletal Material. In *Excavations to the South of Chignall Roman Villa, Essex 1977-81*, edited by C. Clarke; pp. 119-122. East Anglian Archaeology 83. Essex County Council, Chelmsford.

1999 *Human Bones in Archaeology*. Shire Archaeology, London.

Stojanowski, C., and Buikstra, J.

2005 Research Trends in Human Osteology: A Content Analysis of Papers Published in the American Journal of Physical Anthropology. *American Journal of Physical Anthropology* 128:98 – 109.

Stodder, A., and Palkovich, A.

2012 Osteobiography and Bioarchaeology. In *The Bioarchaeology of Individuals*, edited by A. Stodder and A. Palkovich; pp. 1-8. University Press of Florida, Gainesville.

Stone, E.

2013 The Identification of Perishable Technologies through Usewear on Osseous Tools: Wear Patterns on Historic and Contemporary Tools as a Standard for Identifying Raw Materials Worked in the Late Upper Paleolithic. In *From these Bones: Raw Materials and the Study of Worked Osseous Objects*, edited by A. Choyke and S. O'Connor; pp. 28-35. Oxbow Books, Oxford.

Swift, E.

2000 *Regionality in Dress Accessories in the Late Roman West*. Monographies Instrumentum 11, Montagnac.

2010 Identifying Migrant Communities: a Contextual Analysis of Grave Assemblages from Continental Late Roman Cemeteries. *Britannia* 41:237-282.

Symes, S.

1992 *Morphology of Saw Marks in Human Bone: Identification of Class Characteristics*. Unpublished Ph.D. Dissertation, University of Tennessee, Knoxville.

Symes, S., L'Abbe, E., Chapman, E., Wolff, I., and Dirkmaat, D.

2012 Interpreting Traumatic Injury to Bone in Medicolegal Investigations. In *A Companion to Forensic Anthropology*, edited by D. Dirkmaat; pp. 340-389. Wiley-Blackwell, Chichester.

Symes, S., L'abbe, E., Stull, K., Lacroix, M., and Pokines, J.

2014 Taphonomy and the Timing of Bone Fractures in Trauma Analysis. In *Manual of Forensic Taphonomy*, edited by J. Pokines and S. Symes; pp. 341-365. CRC Press, Boca Raton.

Symes, S., Williams, J., Murray, E.

- 2002 Taphonomical Context of Sharp-force Trauma in Suspected Cases of Human Mutilation and Dismemberment. In *Advances in Forensic Taphonomy: Method, Theory, and Archaeological Perspectives*, edited by W. Haglund and M. Sorg; pp. 403-434. CRC Press, Boca Raton.
- Tainter, J.  
 1975 Social Inference and Mortuary Practices: An Experiment in Numerical Classification. *World Archaeology* 7:1-15.  
 1978 Mortuary Practices and the Study of Prehistoric Social Systems. In *Advances in Archaeological Method and Theory* 1, edited by M. Schiffer; pp. 105-146. Academic Press, New York.
- Tarlow, S.  
 1999 *Bereavement and Commemoration: An Archaeology of Mortality*. Blackwell, Oxford.  
 2000 Emotion in Archaeology. *Current Anthropology* 41(5):713-14.
- Tarlow, S., and Nilsson Stutz, L.  
 2013 Beautiful Things and Bones of Desire: Emerging Issues in the Archaeology of Death and Burial. In *The Oxford Handbook of the Archaeology of Death and Burial*, edited by S. Tarlow and L. Nilsson Stutz; pp. 1-16. Oxford University Press, Oxford.
- Taylor, A.  
 2003 Burials with the Romans. *British Archaeology*, pp. 16-19.  
 2008 Aspects of Deviant Burial in Roman Britain. In *Deviant Burial in the Archaeological Record*, edited by E. Murphy; pp. 91-114. Oxbow Books, Oxford.  
 2010 The Deviant Dead: Roman Britain's Unusual Burials. *Current Archaeology* 244:20-7.
- Taylor, T.  
 2016 Social Status, Legal Status and Legal Privilege. In *The Oxford Handbook of Roman Law and Society*, edited by P. Du Plessis, C. Ando, and K. Tuori; pp. 349-361. Oxford University Press, Oxford.
- Thomas, J.  
 1996 *Time, Culture and Identity: An Interpretative Archaeology*. Routledge, London.  
 2000 Death, Identity and the Body in Neolithic Britain. *The Journal of the Royal Anthropological Institute* 6(4):653-668.
- Thorpe, N.

- 2003 Anthropology, Archaeology, and the Origin of Warfare. *World Archaeology* 35(1):145–165.
- Thurston, T.  
2018 Regions, Groups, and Identity: an Intellectual History. In *The Oxford Handbook of the European Iron Age*, edited by C. Haselgrove, K. Rebay-Salisbury, and P. Wells; pp. 1-26. Oxford Handbooks Online, Oxford University Press, Oxford.
- Timberlake, S., Dodwell, N., and Armour, N.  
2007 *The Roman Cemetery, The Babraham Institute, Cambridgeshire: An Archaeological Excavation*. Cambridge Archaeological Unit Report 75.
- Timby, J., Brown, R., Hardy, A., Leech, S., Poole, C., and Webley, L.  
2007 *Settlement on the Bedfordshire Claylands: Archaeology along the A421 Great Barford Bypass*. Oxford Archaeological Unit/Bedfordshire Archaeological Council, Oxford.
- Todd, M.  
1999 *Roman Britain* (3<sup>rd</sup> Ed.). Blackwell Publishing, Oxford.  
2004 *A Companion to Roman Britain*. Blackwell Publishing, Ltd., Oxford.
- Torres - Rouff, C., and Costa Junqueira, M.  
2006 Interpersonal Violence in Prehistoric San Pedro de Atacama, Chile: Behavioral Implications of Environmental Stress. *American Journal of Physical Anthropology* 130:60 – 70.
- Toynbee, J.  
1971 *Death and Burial in the Roman World*. The Johns Hopkins University Press, Baltimore.
- Trigger, B.  
2006 *A History of Archaeological Thought* (2<sup>nd</sup> Ed.). Cambridge University Press, Cambridge.
- Trotter, M.  
1970 Estimation of Stature from Intact Long Bones. In *Personal Identification in Mass Disasters*, edited by T. Stewart; pp. 71-83. Smithsonian Institution Press, Washington DC.
- Trussel, H., and Vrhel, M.  
2008 *Fundamentals of Digital Imaging*. Cambridge University Press, New York.
- Tsaliki, A.  
2008 Unusual Burials and Necrophobia: an Insight into the Burial Archaeology of Fear. In *Deviant Burial in the Archaeological Record*, edited by E. Murphy; pp. 1-16. Oxbow Books, Oxford.



- Tucker, F., and Armit, I.  
2010 Living with Death in the Iron Age. *British Archaeology* 113:42-7.
- Tucker, K.  
2012 “*Whence this Severance of the Head?*”: *The Osteology and Archaeology of Human Decapitation in Britain*. Unpublished Ph.D. Dissertation, University of Winchester, Winchester.  
  
2014 The Osteology of Decapitation Burials from Roman Britain: a Post-Mortem Burial Rite? In *The Routledge Handbook of the Bioarchaeology of Human Conflict*, edited by C. Knüsel and M. Smith; pp. 213-36. Routledge, New York.  
  
2016 *An Archaeology of Human Decapitation Burials*. Pen and Sword Archaeology, Barnsley.
- Tucker, K., and Melisch, C.  
2018 The Hand of Medieval Justice: an Archaeological Example of a Leibzeichen from Petrikirche, Berlin. In *The Others: Deviants, Outcasts and Outsiders in Archaeology. Archaeological Review from Cambridge* 33(2):11-19.
- Tung, T.  
2020 Performing Identity and Revealing Structures of Violence through Purposeful Pain. In *Purposeful Pain: The Bioarchaeology of Intentional Suffering*, edited by S. Guise Sheridan and L. Gregoricka; pp. 253-264. Springer, Cham.
- Turner, B.  
1984 *The Body and Society: Explorations in Social Theory*. SAGE Publications, London.
- Turner, V.  
1967 *The Forest of Symbols: Aspects of Ndembu Ritual*. Cornell University Press, Ithaca.  
  
1969 *The Ritual Process: Structure and Anti-Structure*. Aldine de Gruyter, Hawthorn.  
  
1974 *Dramas, Fields and Metaphors: Symbolic Action in Human Society*. Cornell University Press, Ithaca.
- Turpin, J., and Kurtz, L.  
1997 Introduction: Violence – the Micro/macro Link. In *The Web of Violence. From Interpersonal to Global*, edited by J. Turpin and L. Kurtz; pp. 1-29. University of Illinois Press, Chicago.
- Tylor, E. B.  
1866 The Religion of Savages. *Fortnightly Review* 6:71-86.

- 1871 *Primitive Culture*. John Murray, London.
- 1878 *Researches into the Early History of Mankind and the Development of Civilization*. Henry Holt, New York.
- Tyrrell, A.  
2000 Skeletal Non-Metric Traits and the Assessment of Inter- and Intra-Population Diversity: Past Problems and Future Potential. In *Human Osteology in Archaeology and Forensic Science*, edited by M. Cox and S. Mays; pp. 289-306. Greenwich Medical Media, London.
- Ubelaker, D.  
1978 *Human Skeletal Remains: Excavation, Analysis, Interpretation*. Aldine Publishing, Chicago.  
  
1997 Taphonomic Applications in Forensic Anthropology. In *Forensic Taphonomy: the Postmortem Fate of Human Remains*, edited by W. Haglund and M. Sorg; pp. 77-87. CRC Press, Boca Raton, FL.
- Ubelaker, D., and Adams, B.  
1995 Differentiation of Perimortem and Postmortem Trauma using Taphonomic Indicators. *Journal of Forensic Science* 40:509-512.
- Ubelaker, D., and Montaperto, K.  
2014 Trauma Interpretation in the Context of Biological Anthropology. In *The Routledge Handbook of the Bioarchaeology of Human Conflict*, edited by C. Knüsel and M. Smith; pp. 25-38. Routledge, London.
- Ucko, P.  
1969 Ethnography and Archaeological Interpretation of Funerary Remains. *World Archaeology* 1:262-280.
- van der Veen, M.  
2008 Food as Embodied Material Culture: Diversity and Change in Plant Food Consumption in Roman Britain. *Journal of Roman Archaeology* 21:83-110.  
  
2016 Arable Farming, Horticulture, and Food: Expansion, Innovation and Diversity. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 807-833. Oxford University Press, Oxford.
- van Dommelen, P.  
1998 *On Colonial Grounds: a Comparative Study of Colonialism and Rural Settlement in First Millennium BC West Central Sardinia*. Series: Archaeology Studies Leiden University, 2. University of Leiden, Leiden.
- Van Gennep, A.

- 1960 [1908] *The Rites of Passage*. Translated by M. B. Vizedom and G. L. Caffee. University of Chicago Press, Chicago.
- van Haperen, M.  
 2010 Rest in Pieces: an Interpretive Model of Early Medieval ‘Grave Robbery’. *Medieval and Modern Matters, Archaeology and Material Culture in the Low Countries* 1:1–36.
- Vandkilde, H.  
 2013 Warfare in Northern European Bronze Age Societies: Twentieth-century Presentations and Recent Archaeological Research Inquiries. In *The Archaeology of Violence: Interdisciplinary Approaches*, edited by S. Ralph; pp. 37–62. State University of New York Press, New York.
- Varner, E.  
 2001 Punishment after Death: Mutilation of Images and Corpse Abuse in Ancient Rome. *Mortality* 6(1):45–64.  
  
 2005 Execution in Effigy: Severed Heads and Decapitated Statues in Imperial Rome. In *Roman Bodies: Antiquity to the Eighteenth Century*, edited by A. Hopkins and M. Wyke; pp. 67–84. The British School in Rome, London.  
  
 2012 Violent Discourses: Visual Cannibalism and the Portraits of Rome’s “Bad” Emperors. In *The Archaeology of Violence: Interdisciplinary Approaches, IEMA Proceedings, Volume 2*, edited by S. Ralph; pp. 121–142. State University of New York, Albany, NY.
- Velasco, M.  
 2014 Building on the Ancestors: Mortuary Structures and Extended Agency in the Late Prehispanic Colca Valley, Peru. *Cambridge Archaeological Journal* 24(3):453–465.
- Verano, J.  
 2000 Paleopathological Analysis of Sacrificial Victims at the Pyramid of the Moon, Moche River Valley, Northern Peru. *Chungara, Revista de Antropología Chilena* 32(1):61–70.  
  
 2001 The Physical Evidence of Human Sacrifice in Ancient Peru. In *Ritual Sacrifice in Ancient Peru*, edited by E. Benson and A. Cook; pp. 165–184. University of Texas Press, New York.  
  
 2005 Human Sacrifice and Postmortem Modification at the Pyramid of the Moon, Moche Valley, Peru. In *Interacting with the Dead: Perspectives on Mortuary Archaeology for the New Millennium*, edited by G. Rakita, J. Buikstra, L. Beck, and S. Williams; pp. 277–289. University Press of Florida, Gainesville.

- 2008 Trophy Head-taking and Human Sacrifice in Andean South America. In *Handbook of South American Archaeology*, edited by H. Silverman and W. Isbell (eds.); pp. 1047-1060. Springer, New York.
- 2016 Differential Diagnosis: Trepanation. *International Journal of Paleopathology* 14:1-9. DOI: 10.1016/j.ijpp.2016.04.001
- Verano, J., Uceda, S., Chapdelanie, C., Tello, R., Paredes, M., and Pimentel, V.  
1999 Modified Human Skulls from the Urban Sector of the Pyramids of Moche, Northern Peru. *Latin American Antiquity* 10(1):59-70.
- Villa, P., Castel, J-C., Beauval, C., Bourdillat, V., and Goldberg, P.  
2004 Human and Carnivore Sites in the European Middle and Upper Paleolithic: Similarities and Differences in Bone Modification and Fragmentation. *Revue de Paléobiologie, Genève* 23(2):705-730.
- Vuolanto, V.  
2016 Child and Parent in Roman Law. In *The Oxford Handbook of Roman Law and Society*, edited by P. Du Plessis, C. Ando, and K. Tuori; pp. 487-497. Oxford University Press, Oxford.
- Wacher, J.  
1979 *Roman Britain*. J.M. Dent and Sons, Ltd., London.  
  
1995 *The Towns of Roman Britain* (2nd Ed.). Batsford, London.
- Wait, G.  
1985 *Ritual and Religion in Iron Age Britain* (BAR British Series 149). British Archaeological Reports, Oxford.  
  
1995 Burial and the Otherworld. In *The Celtic World*, edited by M. Green; pp. 489-509. Routledge, London.
- Wallace, L.  
2014 *The Origin of Roman London*. Cambridge University Press, Cambridge.  
  
2016 The Early Roman Horizon. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 117-133. Oxford University Press, Oxford.
- Walker, P.  
2001 A Bioarchaeological Perspective on the History of Violence. *Annual Review of Anthropology* 30:573-596.
- Watts, D.  
1991 *Christians and Pagans in Roman Britain*. Routledge, London

- 1998 *Religion in Late Roman Britain: Forces of Change*. Routledge, London.
- Webster, J.  
 1999 Here be Dragons! The Continuing Influence of Roman Attitudes to Northern Britain. In *Northern Exposure: Interpretative Devolution and the Iron Age in Britain*, edited by B. Bevan; pp. 1-20. School of Archaeological Studies, University of Leicester, Leicester.
- Weekes, J.  
 2008 Classification and Analysis of Archaeological Contexts for the Reconstruction of Early Romano-British Cremation Funerals. *Britannia* 39:145-160.
- 2016 Cemeteries and Funerary Practice. In *The Oxford Handbook of Roman Britain*, edited by M. Millett, L. Revell, and A. Moore; pp. 425-447. Oxford University Press, Oxford.
- 2017 Funerary Archaeology at St. Dunstan's Terrace, Canterbury. In *Death as a Process*, edited by J. Pearce and J. Weekes; pp. 83-122. Oxbow Books, Oxford.
- Wells, P.  
 1998 Identity and Material Culture in the Later Prehistory of Central Europe. *Journal of Archaeological Research* 6(3):239-298.
- 2003 *The Battle that Stopped Rome: Emperor, Augustus, Arminius, and the Slaughter of the Legions in the Teutoburg Forest*. W.W. Norton and Company, New York.
- 2020 Weapons, Ritual and Warfare: Violence in Iron Age Europe. In *The Cambridge World History of Violence, Volume 1. The Prehistoric and Ancient Worlds*, edited by G. Fagan, L. Fibiger, M. Hudson, and M. Trundle; pp. 142-159. Cambridge University Press, Cambridge.
- Western, G., and Hurst, J.  
 2014 "Soft Heads": Evidence for Sexualized Warfare during the Late Iron Age from Kemerton Camp, Bredon Hill. In *The Routledge Handbook of the Bioarchaeology of Human Conflict*, edited by C. Knüsel and M. Smith; pp. 161-184. Routledge, London.
- Wheeler, R.  
 1943 *Maiden Castle, Dorset*. Society of Antiquaries, Oxford.
- 1954 *The Stanwick Fortifications, North Riding of Yorkshire*. Society of Antiquaries, Oxford.
- Whimster, R.  
 1981 *Burial Practices in Iron Age Britain: A Discussion and Gazetteer of the Evidence c. 700 B.C.-A D 43*. British Archaeological Reports, British Series 90, Oxford.

- White, T., Black, M., and Folkens, P.  
2011 *Human Osteology*. Elsevier Academic Press, Amsterdam.
- White, T., and Folkens, P.  
2005 *The Human Bone Manual*. Elsevier Academic Press, Amsterdam.
- Whitehead, N.  
2004 On the Poetics of Violence. In *Violence*, edited by N. Whitehead; pp. 55-77. School of American Research Press, Santa Fe.  
  
2005 War and Violence as Cultural Expression. *Anthropology News* 46:23-26.
- Whittle, A., Bayliss, A., and Healy, F.  
2008 The Timing and Tempo of Change: Examples from the Fourth Millennium cal. BC in Southern England. *Cambridge Archaeological Journal* 18(1):65-70.  
  
2010 Event and Short-term Process: Times for the Early Neolithic of Southern Britain. In *Eventual Archaeologies: New Approaches to Social Transformation in the Archaeological Record*, edited by D. Bolender; pp. 68-87. The Institute for European and Mediterranean Archaeology Distinguished Monograph Series Vol. 1, State University of New York Press, Albany.
- Wickham, C.  
2005 *Framing the Early Middle Ages: Europe and the Mediterranean 400-800*. Oxford University Press, Oxford.
- Wilkinson, J., and Barker, P.  
1997 Human Skull Fragments. In *The Baths Basilica Wroxeter: Excavations 1966-90*, edited by P. Barker, R. White, K. Pretty, H. Bird, and M. Corbishley; pp. 368-370. English Heritage, London.
- Williams, H.  
2004 Death Warmed Up: the Agency of Bodies and Bones in early Anglo-Saxon Cremation Rites. *Journal of Material Culture* 9(3):263-91.  
  
2013 Death, Memory, and Material Culture: Catalytic Commemoration and the Cremated Dead. In *The Oxford Handbook of The Archaeology of Death and Burial*, edited by L. Nilsson Stutz and S. Tarlow; pp. 195-208. Oxford University Press, Oxford.
- Williams, M.  
2003 Tales from the Dead: Remembering the Bog Bodies in the Iron Age of North-Western Europe. In *Archaeologies of Remembrance: Death and Memory in Past Societies*, edited by H. Williams; pp. 89-112. Kluwer Academic/Plenum Publishers, New York.
- Williamson, C.

- 2016 Crimes against the State. In *The Oxford Handbook of Roman Law and Society*, edited by P. Du Plessis, C. Ando, and K. Tuori; pp. 333-348. Oxford University Press, Oxford.
- Wilmott, T., and Rahtz, S.  
 1985 An Iron Age and Roman Settlement outside Kenchester (Magnis), Herefordshire: Excavations 1977-9. *Transactions of the Woolhope Naturalists Field Club* 45:36-185.
- Wilson, C.  
 1981 Burials within Settlements in Southern Britain during the Pre-Roman Iron Age. *Institute of Archaeology Bulletin* 18:127-169.
- Wiseman, R., Neil, B., Mazzilli, F.  
 2021 Extreme Justice: Decapitations and Prone Burials in Three Late Roman Cemeteries at Knobb's Farm, Cambridgeshire. *Britannia* 52:119-173.  
 doi:10.1017/S0068113X21000064
- Witkin, A.  
 2005 Human Bones. Prehistoric and Roman Activity and a Civil War Ditch: Excavations at the Chemistry Research Laboratory, 2-4 South Parks Road, Oxford, edited by P. Bradley, B. Charles, A. Hardy, and D. Poore. *Oxoniensia* 70:141-202.
- 2007 Human Skeletal Remains. In *A Roman Rural Landscape at Kempsford Quarry, Gloucestershire*, edited by P. Booth and D. Stansbie; pp. 34-7. Oxford Archaeology Occasional Paper 15. Oxford Archaeology, Oxford.
- Wood, I.  
 2004 The Final Phase. In *A Companion to Roman Britain*, edited by M. Todd; pp. 428-442. Blackwell Publishing, Ltd, Oxford.
- Worsaae, J.  
 1843 *Danmarks Oldtid Oplyst ved Oldsager og Gravhoie*. Selskabet for Trykkefrihedens rette Brug, Copenhagen.
- 1849 *The Primeval Antiquities of Denmark*. Translated by W. J. Thomas. John Henry Parker, London.
- Wrangham, R., and Peterson, D.  
 1996 *Demonic Males: Apes and the Origins of Human Violence*. Houghton Mifflin, Boston.
- Wright, L., and Yoder, C.  
 2003 Recent Progress in Bioarchaeology: Approaches to the Osteological Paradox. *Journal of Archaeological Research* 11(1):44 – 70.
- Wylie, A.

- 1985 The Reaction against Analogy. In *Advances in Archaeological Method and Theory* 8, edited by M. Schiffer; pp. 63-111. Academic Press, New York.
- 1991a Feminist Critiques and Archaeological Challenges. In *The Archaeology of Gender: Proceedings of the Twenty-Second Annual Conference of the Archaeological Association of the University of Calgary*, edited by D. Walde and N. Willows; pp. 17-23. University of Calgary Anthropological Association, Calgary.
- 1991b Gender Theory and the Archaeological Record: Why Is There No Archaeology of Gender? In *Engendering Archaeology: Women and Prehistory*, edited by J. Gero and M. Conkey; pp. 31-54. Basil Blackwell, Oxford.
- 1992a The Interplay of Evidential Constraints and Political Interests: Recent Archaeological Research on Gender. *American Antiquity* 57:15-35.
- 1992b Feminist Theories of Social Power: Some Implications for a Processual Archaeology. *Norwegian Archaeology Review* 25(1):51-67.
- Young, C.  
1972 Excavations at the Churchill Hospital 1971: Interim Report. *Oxoniensia* 37:10-31.
- Zanker, P., and Ewald, C.  
2012 *Living with Myths*. Oxford University Press, Oxford.
- Zintl, S.  
2012 [2019] *Frühmittelalterliche Grabräuber? Wiedergeöffnete Gräber der Merowingerzeit*. Regensburg, Stadtarchiv Regensburg.
- Zuckerman, M., Kamnikar, K., and Mathena, S.  
2014 Recovering the 'Body Politic': a Relational Ethics of Meaning for Bioarchaeology. *Cambridge Archaeological Journal* 24(3):513-522.



## Appendix A: Data Variables

### **Mortuary Variables:**

#### **Burial Context**

- Type – burial context
  - Cemetery – a bounded space containing inhumation or cremation burials in mounds, graves, ossuaries, and/or mausolea (Pardoe 1988:1 cited in Sprague 2005:163).
  - Isolated -
    - Pit – a shallow, wide, typically circular, oval, or rectangular shaped depression excavated in the ground (Sprague 2005:155-7).
    - Shaft – a deep, narrow, typically rectangular excavation in the ground (Sprague 2005:153).
    - Ditch – a linear, narrow, typically shallow feature excavated in the ground.

**Inhumation** – disposing of a body(ies) beneath the ground in a flat grave, or above ground in any type of structure or barrow (Sprague 2005:62).

- Single - individuals buried singly (i.e., placed in the grave alone)
- Multiple - graves containing the remains of two or more individuals (Hamlin 2007).
- Isolated burial - Inhumation intentionally placed where no other burial context is located within close proximity.

**Coffin** – a rectangular or hexagonal shaped box intended to hold the remains of deceased humans (Habenstein and Lamers 1962 cited in Sprague 2005:131).

- Yes
  - Lead
  - Wood
  - Gypsum/Stone
- None
- Unknown

**Body Position** - position of the skeletal remains in the grave (Sprague 2005). The location of each skeletal element within the grave, if known, was recorded in one of four quadrant categories (see below), anatomical position, or indeterminate. If the skeletal remains were mixed or disturbed, those details were noted and relative quadrant position was noted and catalogued as such. Arm and leg positions were recorded with extended or flexed categories defined in Buikstra and Ubelaker [1994]; Sprague [2005]; Ubelaker [1978]. If supernumerary remains were included in the burial, those remains' quantity and skeletal ID number (if known) were recorded as associated with the primary burial.

- Head
  - Location
    - Anatomical Position
    - Upper Right quadrant
    - Upper Left quadrant
    - Lower Right quadrant
    - Lower Left quadrant
    - Indeterminate
    - Missing
  - Supernumerary
    - No
    - Yes
      - Total number
      - Location
        - Upper Right quadrant
        - Upper Left quadrant
        - Lower Left quadrant
        - Lower Right quadrant
      - Head Association
        - Skeletal ID number
        - Unknown
- Arms
  - Right
    - Location
      - Anatomical Position
      - Upper Right quadrant
      - Upper Left quadrant
      - Lower Right quadrant
      - Lower Left quadrant
      - Indeterminate
      - Missing
  - Right Arm Extension
    - Extended
    - Flexed
    - Unknown
  - Right Arm Supernumerary
    - No
    - Yes
      - Number of additional right arms
        - Right Arm Association
          - Skeletal ID number
          - Unknown

- Left
  - Location
    - Anatomical Position
    - Upper Right quadrant
    - Upper Left quadrant
    - Lower Right quadrant
    - Lower Left quadrant
    - Indeterminate
    - Missing
  - Left Arm Extension
    - Extended
    - Flexed
    - Unknown
  - Left Arm Supernumerary
    - No
    - Yes
    - Number of additional left arms
      - Left Arm Association
        - Skeletal ID number
        - Unknown
- Legs
  - Right
    - Location
      - Anatomical Position
      - Upper Right quadrant
      - Upper Left quadrant
      - Lower Right quadrant
      - Lower Left quadrant
      - Indeterminate
      - Missing
    - Right Leg Extension
      - Extended
      - Flexed
      - Unknown
    - Right Leg Supernumerary
      - No
      - Yes
      - Number of additional right legs
        - Right Leg Association
          - Skeletal ID number
          - Unknown
  - Left

- Location
  - Anatomical Position
  - Upper Right quadrant
  - Upper Left quadrant
  - Lower Right quadrant
  - Lower Left quadrant
  - Indeterminate
  - Missing
- Left Leg Extension
  - Extended
  - Flexed
  - Unknown
- Left Leg Supernumerary
  - No
  - Yes
  - Number of additional left legs
    - Left Leg Association
      - Skeletal ID number
      - Unknown
- Feet
  - Right
    - Location
      - Anatomical Position
      - Upper Right quadrant
      - Upper Left quadrant
      - Lower Right quadrant
      - Lower Left quadrant
      - Indeterminate
      - Missing
    - Right Foot Supernumerary
      - No
      - Yes
      - Number of additional right feet
        - Right Foot Association
          - Skeletal ID number
          - Unknown
  - Left
    - Location
      - Anatomical Position
      - Upper Right quadrant
      - Upper Left quadrant
      - Lower Right quadrant
      - Lower Left quadrant

- Indeterminate
- Missing
- Left Foot Supernumerary
  - No
  - Yes
  - Number of additional left feet
    - Left Foot Association
      - Skeletal ID number
      - Unknown
- **Hands**
- Right
  - Location
    - Anatomical Position
    - Upper Right quadrant
    - Upper Left quadrant
    - Lower Right quadrant
    - Lower Left quadrant
    - Indeterminate
    - Missing
  - Right Hand Supernumerary
    - No
    - Yes
    - Number of additional right hands
      - Right Hand Association
        - Skeletal ID number
        - Unknown
- Left
  - Location
    - Anatomical Position
    - Upper Right quadrant
    - Upper Left quadrant
    - Lower Right quadrant
    - Lower Left quadrant
    - Indeterminate
    - Missing
  - Left Hand Supernumerary
    - No
    - Yes
    - Number of additional left hands
      - Left Hand Association
        - Skeletal ID number
        - Unknown

- **Ribs**
  - Location
    - Anatomical Position
    - Upper Right quadrant
    - Upper Left quadrant
    - Lower Right quadrant
    - Lower Left quadrant
    - Indeterminate
    - Missing
  - Ribs Supernumerary
    - No
    - Yes
    - Number of additional ribs
      - Rib Association
        - Skeletal ID number
        - Unknown
- **Pelvis**
  - Location
    - Anatomical Position
    - Upper Right quadrant
    - Upper Left quadrant
    - Lower Right quadrant
    - Lower Left quadrant
    - Indeterminate
    - Missing
  - Pelvis Supernumerary
    - No
    - Yes
    - Number of additional pelvis
      - Pelvis Association
        - Skeletal ID number
        - Unknown
- **Vertebrae**
  - Location
    - Anatomical Position
    - Upper Right quadrant
    - Upper Left quadrant
    - Lower Right quadrant
    - Lower Left quadrant
    - Indeterminate
    - Missing
  - Vertebrae Supernumerary
    - No

- Yes
- Number of additional vertebrae
  - Vertebrae Association
    - Skeletal ID number
    - Unknown

**Body Side** – The anatomical side of the body on which the deceased was placed within the grave. Burials were categorized as on their anatomical right side, on their anatomical left side, supine, semi-prone, or prone (Hamlin 2007:111).

- Right
- Left
- Supine
- Semi-prone
- Prone

**Body Orientation** - The reference to the direction of the head from the body. Orientation may be given in terms of degrees, in terms of cardinal points (N, W, E, S) and various subdivisions (NW). When using two cardinal directions (NE-SW), always denote which direction the head lies as the first cardinal direction in the formula (Sprague 2005:113-14).

- N-S
- NE-SW
- E-W
- SE-NW
- S-N
- SW-NE
- W-E
- NW-SE
- Unknown
- Head Only
  - Head facing
    - Straight
    - Prone

**Grave Orientation** (associated with head end) - The compass categories list first the direction in which the head of the individual lay in the original excavation (Hamlin 2007; Sprague 2005:110).

- N-S

- NE-SW
- E-W
- SE-NW
- S-N
- SW-NE
- W-E
- NW-SE
- Unknown

**Grave Good** – Defined as artifacts, floral or faunal remains recovered within or on a grave and intentionally deposited with the deceased's remains. This does not include the grave structure itself, if present (Clarke 1975; Hartland 1911 cited in Sprague 2005:118-9).

- Yes
  - Class - The class of grave goods interred with the deceased (Hamlin 2007).
    - Container
    - Currency
    - Personal ornament
    - Textile
    - Personal hygiene
    - Tool
    - Pot sherd
    - Faunal
    - Other
  - Type - The type of grave good or goods interred with the deceased (Hamlin 2007).
    - Tile
    - Bracelet
    - Anklet
    - Pottery
    - Comb
    - Stone
    - Bucket
    - Spade
    - Peg
    - Bowl
    - Shoe
    - Animal
  - Material - The material or materials of which grave goods were composed. The term multiple material item was used to designate items composed of two or more of these material categories (Hamlin 2007).
    - Animal teeth



- Animal horn
- Ceramic
- Stone
- Wood
- Leather
- Metal
  - Bronze
  - Iron
  - Lead
  - Gold
  - Silver
- Position in burial - position of the grave good remains in the grave (Sprague 2005). The location of each grave good, if known, was recorded in one of four quadrant categories (see below), and if unknown, was listed as indeterminate. If the burial was mixed or disturbed, those details were noted and relative quadrant position was noted and catalogued as such.
  - Location
    - Upper Right quadrant
    - Upper Left quadrant
    - Lower Right quadrant
    - Lower Left quadrant
    - Indeterminate
  - Grave Good Horizontal Positioning - The horizontal position of cultural materials placed within the grave. There were four horizontal categories: above the body of the deceased, on the body of the deceased, and below the body of the deceased.
    - Above the body
    - On the body
    - In place of the body
    - Below the body
- No

**Animal Inclusion** - The species of animal intentionally included in the grave of the deceased (Hamlin 2007:117; Sprague 2005:161-2). Species included in the sample dog, sheep, horse, chicken, and fish).

- Yes
  - Species
    - Dog
      - Complete
      - Incomplete
    - Sheep
      - Complete
      - Incomplete

- Horse
    - Complete
    - Incomplete
  - Chicken
    - Complete
    - Incomplete
  - Fish
    - Complete
    - Incomplete
- Position in burial - position of the faunal remains in the grave (Sprague 2005). The location of each animal inclusion, if known, was recorded in one of four quadrant categories (see below), and if unknown, was listed as indeterminate. If the burial was mixed or disturbed, those details were noted and relative quadrant position was noted and catalogued as such.
  - Location
    - Upper Right quadrant
    - Upper Left quadrant
    - Lower Right quadrant
    - Lower Left quadrant
    - Indeterminate
  - Animal Inclusion Horizontal Positioning - The horizontal position of cultural materials placed within the grave. There were four horizontal categories: above the body of the deceased, on the body of the deceased, and below the body of the deceased.
    - Above the body
    - On the body
    - In place of the body
    - Below the body
- No

## **Skeletal Variables**

### **Sex**

Osteological sex determination based on crania, dentition, pelvis, tibia and humerus measurements of the deceased. Distinct from gender designations based on grave good assemblages and other mortuary features (Buikstra and Ubelaker 1994; White and Folkens 2005). Individuals designated in osteological reports as probable male or probable female were coded as such, and individuals aged 17 years or younger (sub-adults) were coded as Unidentifiable.

- Male
- Female
- Probable Male
- Probable Female
- Unidentifiable

### **Age**

Osteological determination of age was based on recorded evidence for some or all of the following: dentition (eruption rates), crania (suture closure), long bone length, epiphyseal closure, pelvis (pubic symphyseal surface, pubic symphysis, and auricular surface), and sternal rib end (Buikstra and Ubelaker 1994; Scheuer and Black 2000; White and Folkens 2005). Human remains were categorized as adults, sub-adults and indeterminate to avoid creating statistically unanalyzable categories.

- Adult - Adult designates individuals aged 20 years and older, including: young adult, middle adult, and old adult.
- Sub-adult - Sub-adult designates individuals aged 19 years and younger, including: fetus, infant, child, adolescent/juvenile.
- Indeterminate

### **Pathology**

Osteological determinations of observable changes in skeletal remains resulting from an imbalance in bone resorption, formation, or growth-related disorders (Mensforth et al. 1978 cited in White and Folkens 2005:309-10; Ortner 2003; Ortner and Putschar 1981; Roberts and Connell 2010). Determinations of the majority of pathological conditions were determined mainly based on published reports with reliable osteological applications. Cases where pathological conditions were determined by the researcher will be noted. If a pathological condition is present, the location (head, vertebrae, pelvis, arms, hands, legs, feet, ribs, scapula, or sternum) of the

condition will be measured (cm) (length, width, shape) and recorded with illustration forms and photographs.

- Yes
  - Type – The classification of the specific category of pathology as outlined by Larsen (1997); Ortner (2003); White and Folkens (2005); White et al. (2011).
  - Enamel hypoplasia – characterized by disturbances to the enamel development in the form of transverse lines, pits, and grooves on the surface of tooth crowns (White and Folkens 2005:329).
    - Present
    - Absent
    - Unknown
  - Trauma Abrasion – characterized by a fracture to the tooth in varying degrees of severity, typically associated with a blow to the face by an object, biting on a hard material, and consuming gritty foods can be the cause a fracture to the dental enamel (Ortner 2003:602).
    - Present
    - Absent
    - Unknown
  - Treponematosi s – characterized by skeletal lesions of infectious origin that vary in location on the body. This condition is represented by four disease syndromes: venereal syphilis, nonvenereal (endemic) syphilis, yaws, and pinta – the latter two syndromes are not noted in the sample for this thesis. Nonvenereal syphilis is characterized by inflammation of the periosteum, and may include gummatous granulomas in the cranial flat bones and tibiae, giving the tibiae a saber-shin appearance. Destructive lesions of the face, particularly the nasal region, may develop. Venereal syphilis is characterized by similar bone lesions as nonvenereal syphilis, including cranial vault lesions and periosteal inflammation of lower limb long bones (this condition may also present in the elbow, hip, and knee joints, and in adult teeth among children and juveniles) (Larsen 1997:93-5).
    - Present
    - Absent
    - Unknown
  - Spina Bifida – characterized as a failure in the development of the neural canal may be associated with the incomplete development of the elements of the neural arch of one or more vertebrae (Ortner 2003:463; White and Folkens 2005).
    - Present
    - Absent
    - Unknown
  - Tuberculosis – characterized as erosive bone tissue, commonly expressed in vertebral lesions of the lower back (thoracic and lumbar vertebrae), and may present on the pleural surfaces of the ribs (Ortner 2003; Ortner and Putschar 1981 cited in Larsen 1997:100).
    - Present
    - Absent

- Unknown
- Leprosy – characterized by an infection of bacilli by inhalation or direct contact into an open wound, resulting in atrophy of the nasal and maxillary regions, alveolar resorption, infection to toes, fingers, and anterior tooth loss to the infected individual over time (Larsen 1997:104-5; White and Folkens 2005:318).
  - Present
  - Absent
  - Unknown
- Osteoarthritis – characterized by inflammation of a joint often caused by the result of trauma, and particular destruction of articular cartilage in a joint and formation of adjacent bone over time. This condition may be noted by the presence of bony lipping and spur formation (osteophytes), around the edges of the joint (degenerative joint disease), particularly noted in the spine, the hip, and the knees (White and Folkens 2005:325).
  - Present
  - Absent
  - Unknown
- Neoplasm – characterized as “...disordered growth of bone or cartilage in bone (within the skeletal tissue) or metastasized to bone” (Ortner 2003:53; Richards et al. 2016:48). These may present as dramatic periostitis, exuberant growths of bone, and a raylike condition with associated low grade periostitis (Ortner 2003:53-4).
- Schmorl’s Nodes – characterized as “...when pitting on the superior and anterior vertebral centra were observed” (Richards et al. 2016:47).
  - Present
  - Absent
  - Unknown
- Degenerative Joint Disease – characterized as “...the destruction of the articular cartilage in a joint and formation of adjacent bone, in the form of bony lipping and spur formation (osteophytes) around the edges of the joint”. The disease occurs mostly in load-bearing joints, particularly in the spine, the hip, and the knees (White et al. 2011:441).
  - Present
  - Absent
  - Unknown
- Rickets – defined as “...a systematic disease of early childhood that extensively affects the skeleton but has no direct mortality. Precursors of vitamin D contained in food are transformed through the influence of the ultraviolet fraction of sunlight. The main causative factor of rickets remains the inadequate intake of vitamin D and its precursors, but other genetic problems in mineral absorption and retention can produce similar changes in the human skeleton” (Ortner 2003:393).
  - Present
  - Absent
  - Unknown
- No

## Trauma

Trauma can be defined as any bodily injury or wound, and it may affect bone, soft tissue, or both (Roberts 2000a). Osteological determination of the presence of the types of trauma, including decapitation, were mainly completed by previous archaeological reports with reliable osteological applications (Ortner 2003; Roberts and Connell 2010; Redfern and Roberts 2019; Tucker 2012). Standardized bioarchaeological and osteological methods were followed in those cases, and the researcher used recording forms and close-up photographs to record the evidence for later analysis where the skeletal remains were accessible. If evidence for trauma was present, the location (element) and side were noted of the condition will be measured (cm) (length, width, shape) and recorded with illustration forms and photographs.

- **Trauma Classification**

- Blunt – characterized by the presence of a dent, crack or splinter of bone resulting in a simple linear fracture, concentric or radiating fracture. This type of injury is typically associated with the impact of a blunt object or by the impact of the body against a blunt surface (Redfern and Roberts 2019; Tucker 2016:183-6). These injuries may be the result of one or multiple events. Assessment of the skeletal remains for this type of trauma should include an examination of the location of the fracture(s), fracture patterning, the impression at the impact site (if possible), and the sequence of impacts (Redfern and Roberts 2019).
  - Yes
  - Timing (ante-, peri-, post-mortem): ante-mortem can be defined as an injury occurring prior to the time of death (usually with evidence of healing); peri-mortem can be defined as an injury occurring at or around the time of death; and, post-mortem can be defined as an injury occurring after death. Distinguishing between peri- and post-mortem fractures in bone include the staining/color of the fracture, the location of the injury, the morphology of the fracture pattern(s), the angle and margin of the fracture, and taphonomic indicators (curatorial processes, for example) (Fleming-Farrell et al. 2013; Redfern and Roberts 2019).
  - No
- Sharp – characterized as a narrowly focused, damaged, slow-loaded, compressive force with a sharp object that produces damage to hard tissue in the form of an incision (broad or narrow) (Dirkmaat 2012:362; Symes et al. 2002; Tucker 2016:183-6). Any tool with an edge bevel can produce incised wounds to bone, although the most common tools are knives and saws. Instruments lacking an edge bevel can shape, chisel, shave, scratch, and crush but are not able to incise, cut, or saw (Dirkmaat 2012:362; Redfern and Roberts 2019). Knives create a v-shaped kerf floor when viewed in cross-section, regardless of whether there are teeth manufactured into the blade or not (Symes 1992).
  - Yes
  - Timing (ante-, peri-, post-mortem)
  - No

- Projectile – characterized by the presence of depressed fractures or the inner table of the bone to be pushed inward, and may present in cases where there is evidence for healed lesions (the injury, therefore, would be minimally ante-mortem given the sequence of time needed for bone regeneration processes) (Boylston 2000; Redfern and Roberts 2019).
- Yes
- Timing (ante-, peri-, post-mortem)
- No

Trauma Types	Sharp	Blunt
Impacting Action (Load)	1) Stabbing 2) Cutting 3) Sawing	1) Impact with a blunt object (no straight line or incised wounds) 2) Automobile accidents 3) Fall from heights
Load Velocity Expected Fracture Types	Slow (km/h) 1) Impact (with at least one incised, or straight line cut, edge) 2) Radiating 3) Concentric (in) 4) Tension/compression (butterfly fracture)	Slow (km/h) 1) Impact 2) Radiating 3) Concentric (in) 4) Tension/Compression (butterfly fracture)
Signature Observations	1) Straight line incisions 2) Simply blunt force trauma with a sharp object	1) Delamination of bone 2) Plastic deformation (fractures as a bone in layers) 3) Bevel (internal)
(Symes et al. (2014:351-2))		

- **Fracture** – may be defined as the result of any traumatic event that led to a complete or partial break in the continuity of bone (Roberts 2000a). Types of fractures were determined in the majority of cases through previously completed osteological analysis. In cases where the researcher completed the analysis were noted, and the following data were gathered following the approach outlined by Johnson (1985), Shipman et al. (1981), Lyman (1994c), and Redfern and Roberts (2019): the presence of general characteristics for different fracture types, their location, direction/front, resulting surface, and shape to provide additional context.
- No
- Yes
  - Skeletal element
    - Location
    - Number of fractures
    - Length
    - Width
    - Depth

- Shape - defined as the outline configuration of exposed compact bone that records the propagation path taken by the fracture front in plan view (Johnson 1985:172).
- Type
  - Butterfly – Bone fractures as a result of tension, compression, and bending forces. Bone is stronger in compression than tension. Bone breaks into two pieces with one triangular fragment and two segmental fragments (Symes et al. 2014:348).
  - Comminuted – bone fractures into two or more pieces (Symes et al. 2014:348).
  - Compression – characterized by a point of impact on the bone causing it to be crushed, usually associated with direct percussion (Beisaw 2013:104).
  - Irregular perpendicular or greenstick – characterized by minimal deformation of the bone, caused by a fresh break to the bone after the limit of deformation has been reached.
  - Oblique (transverse) – Bone fractures at approximately a 45 degree angle, consequence of bending and compression (Symes et al. 2014:348).
  - Smooth perpendicular – characterized by the clean edge of the break across the bone, typically caused by a fine, sharp object slicing through the bone with enough pressure to avoid splinters or further shattering of the bone.
  - Spiral – characterized by excessive twisting of the bone, usually for marrow extraction, and the diagonal break across the shaft of a bone (Beisaw 2013:104; Symes et al. 2014:348).
  - Stepped or columnar – characterized by the stepped diagonal breakage of a bone, caused when a dry bone shatters under pressure (Beisaw 2013:104).
- Fracture direction – defined as the leading edge of force and its direction (can be determined from features on the fracture surface) (Johnson 1985:172).
  - Anterior – Posterior
  - Posterior – Anterior
  - Proximal – Distal
  - Distal – Proximal
  - Unknown
- **Injury Timing** – the classification of the chronological occurrence of any given trauma activity or event to the individual.
  - Ante-mortem: characterized by the presence of bone remodeling (inflammation at the fracture site followed by formation of a hematoma) at the site of injury (Tucker 2016:184; Ubelaker and Montaperto 2014:28). If an injury has completely healed (a process that can take months in adults but less time among sub-adults), the bone may not show many signs of the fracture site.
  - Peri-mortem: characterized by bone changes that lack evidence of remodeling and lack any features diagnostic of post-mortem factors. Bone alterations suggested to be uniquely peri-mortem are those displaying characteristic bending effects, green stick



fractures, sharp margins, fracture angles and known peri-mortem patterns such as butterfly fractures (Tucker 2016:182; Ubelaker and Montaperto 2014:30-1). Peri-mortem fractures may be distinguished from post-mortem fractures by their smooth unstepped fracture surface and obliquely angled edges, and peri-mortem sharp force injuries were identified by their linearity, well defined clean edges and flat, smooth, polished cut surfaces (Tucker 2014:217).

- Post-mortem: this term “...refers to bone lesions occurring after “green” or elastic properties have gone and can often be related to taphonomic factors, such as carnivore activity, surface erosions, sun bleaching, weathering, etc., but also to accidental events produced by human activity, transportation and fortuitous trauma”. Those traumas can be characterized by several small fragments, brittle flaking or shattering, and surface cracking (Maples 1986 cited in Schotsmans et al. 2017:355; Tucker 2016:182).

Fractured Features	Fresh Bone	Dry Bone Characteristics
Outline	Radial pattern circling diaphysis	Perpendicular/horizontal fracture surfaces
Color Surface	Homogeneous color with external bone	Heterogenous color with external bone
Surface	Smooth	Rough
Fracture angle	Obtuse and acute angles	Right angles
Other	Loading point present	Loading point absent
Other	Fracture front never cross cut epiphyseal ends	Fracture front can crosscut epiphyseal ends
(Cattaneo and Cappella cited in Schotsmans et al. 2017:357)		

- Indeterminate
- **Decapitation** - A decapitation burial is defined as a burial in which the head has been removed from its anatomical position and replaced elsewhere in the grave, is missing entirely from the burial, or is in correct anatomical position yet shows evidence for decapitation trauma. The presence of cut-marks on the cervical vertebrae, cranial base, mandible or shoulder girdle may all be markers of decapitation and are categorized into the following types based on Tucker (2012:5).  
Osteological determination of the presence of decapitation is based on reports with reliable osteological applications. The types of decapitation listed below are based on the osteological analysis of 94 individuals by Tucker (2012) and adapted to follow the known Roman period types developed by Crerar (2012). In cases where the type of decapitation was not recorded, for instance in the case of an isolated cranial deposit, those cases will only be considered for qualitative analysis. Crerar’s (2012) adapted typology schema is useful for determining whether a decapitation occurred peri- or post-mortem due to natural or human interference, while Tucker’s (2012, 2016) schema is useful in

relating the type of trauma, classification, fracture type, timing, with a potential motivations for the practice on a case-by-case basis. These typology schemas allow researchers to distinguish between types of fragmentation and trauma to the body, as well as the opportunity to interrogate the range of forms this practice could take and its fluid meaning within and between communities during the LRP.

- Yes
  - Type 1: Peri-mortem removal of the head, recognized either through the presence of cut marks on the cervical vertebrae or the articulation of cervical vertebrae and/or the mandible with the cranium.
    - Type 1a: The articulated head has been buried along with the post-cranial skeleton.
    - Type 1b: The articulated head has been removed and only the post-cranial skeleton is discovered.
    - Type 1c: The articulated head is buried without the post-cranial skeleton.
  - Type 2 – Post-decompositional removal of some or all of the cranial bones, recognized through the disarticulation of the mandible and cervical vertebrae from the cranium and a lack of cut marks.
    - Type 2a: All skeletal elements are present in the grave, though the cranium has been moved leaving the mandible and cervical vertebrae in their correct anatomical position.
    - Type 2b: The cranium has been removed entirely from the grave, leaving the postcranial skeleton and articulated mandible.
    - Type 2c: The disarticulated cranium or mandible are discovered without elements of the infracranial skeleton.
- Tucker's (2012) decapitation types schema has been provided below for reference in comparison to Crerar's (2012) adapted version above.
  - Type 1 – characterized by incised cutting to the cervical vertebrae.
    - 1a – Typically presents with multiple incised cuts to the bodies, arches and facets of the cervical vertebrae. Position of the head in the grave: isolated, or displaced. Associated with post-mortem activity with possible interpretations: Cult of the Head, *poena post-mortem*, preventing the dead from returning.
    - Type 1b – Typically presents with multiple incised cuts to the bodies, arches and facets of the cervical vertebrae. Other peri-mortem trauma associated includes: cranial sharp force trauma, peri-mortem vertebral fractures. Position of the head in the grave: isolated. Associated with post-mortem activity with possible interpretations: Cult of the Head, warfare.
  - Type 2 – characterized by incised cutting to the anterior of the cervical vertebrae
    - Type 2a – Typically presents with incised cuts to the anterior of the cervical vertebrae associated with additional incised cuts to the cervical column. Position of the head in the grave: displaced. Associated with ante-mortem activity and interpreted as possible human sacrifice activity.

- Type 2b – Typically presents as incised cuts to the anterior of the cervical vertebrae associated with additional incised cuts and/or chopping blows to the cervical column. Other peri-mortem trauma: possible blunt force cranial injury. Position of the head in the grave: displaced. Associated with ante-mortem activity (likely in cases where the neck was flexed, more certain in cases with incapacitating injuries or body restraint) and interpreted as possible human sacrifice or execution.
- Type 2c – Typically presents as incised cuts to the anterior of the cervical vertebrae associated with additional chopping blows. Other peri-mortem trauma includes sharp force cranial injuries and incapacitating injuries. Position of the head in the grave: displaced. Associated with ante-mortem activity (similar to Type 2b contexts) and interpreted as human sacrifice, execution.
- Type 3 – characterized by chopping blows to the cervical vertebrae.
  - Type 3a – Typically presents as multiple chopping blows to cervical vertebrae with no additional chops or cuts. Position of the head in the grave: displaced, correct anatomical position, absent, or isolated. Associated with ante-mortem activity (where the neck was flexed, dental trauma visible, or evidence of restraint of the body), and interpreted as possible execution, *poena post-mortem*, prevention of the dead from returning.
  - Type 3b – Typically presents as chopping blow to cervical vertebrae with associated additional chopping blows or incised cuts. Position of the head in the grave: isolated, or absent. Associated with ante-mortem activity (where the neck is flexed, or in cases with evidence for restraint of the body), and interpreted as possible Cult of the Head, execution, *poena post-mortem*, prevention of the dead from returning.
- Type 4 – characterized by a single chopping blow to the cervical vertebrae.
  - Type 4a – Typically presents as single chopping blow to cervical vertebrae delivered from the anterior. Position of head in the grave: displaced, correct anatomical position, or absent. Associated with possible ante-mortem activity in cases where the body was restrained, and interpreted possible Cult of the Head, execution, *poena post-mortem*, prevention of the dead from returning.
  - Type 4b – Typically presents as single chopping blow to cervical vertebrae delivered from the posterior. Position of the head in the grave: isolated, displaced, correct anatomical position, or absent. Associated with ante-mortem activity (where the neck was flexed, cases with evidence of restraint of the body, dental trauma, or head retained in anatomical position in the grave), and interpreted as possible execution, *poena post-mortem*, prevention of the dead from returning.
  - Type 4c – Typically presents as single chopping blow to the cervical vertebrae delivered from a lateral direction. Position of the head in the grave: correct anatomical position, displaced, or absent. Associated with ante-mortem activity (where the neck was flexed, or evidence was present for restraint of the body), and interpreted as possible execution.

- Type 5 – characterized by chopping blows associated with non-decapitation related trauma.
    - Type 5a – Typically presents as chopping blows to the cervical vertebrae sometimes associated with additional chops or cuts. Position of the head in the grave: displaced, or correct anatomical position. Associated with ante-mortem activity and interpreted as possible execution.
    - Type 5b – Typically presents as chopping blows to the cervical vertebrae sometimes associated with additional chops or cuts. Position of the head in the grave: displaced, or in correct anatomical position. Associated with ante-mortem activity, and interpreted as possible execution.
    - Type 5c – unknown. Other peri-mortem trauma: chops and cuts to remove lower limbs at the knee. Position of the head in the grave: displaced. Associated with either ante- or post-mortem activity, and interpreted as possible *poena post-mortem*, or prevention of the dead from returning.
  - Type 6 – characterized by extensive trauma with incidental chopping blows to cervical vertebrae.
    - Type 6a – Typically presents as chopping blows to the cervical vertebrae (incidental). Other peri-mortem trauma: extensive cranial and post-cranial sharp-force injuries. Position of the head in the grave: absent, correct anatomical position. Associated with ante-mortem activity, and interpreted as warfare activity.
  - Unknown
- 
- **Cut** – characterized by a narrow, fine, flat, clean edged v-shaped line (Boylston 2000:361). A cut should be longer than it is wide (linearity) and should taper to a point at its maximum depth, revealing a v-shape or u-shape (Beisaw 2013:105; Lyman 1994a:297; Tucker 2016:184). Caused by a sharp, often irregular edge of a tool on the surface of the bone (White and Folkens 2005:60) where the bone comes under compression and exceeds the elastic limit of the bone (Boylston 2000:361). The angle of the cuts was recorded with attention to the direction, which could usually be determined by ... “the presence of small amounts of crushing of the cortical and trabecular bone on the margin facing the direction of the blow, and/or peeling of the bone surface on the far margin of the cut if the bone was bisected, or lifting of the bone on the far margin if the cut nicked into the bone” (Boylston 2000:361; Knüsel 2005:55; Tucker 2016:184).
    - No
    - Yes
      - Skeletal element
        - Number of cuts
        - Length
        - Width
        - Depth
        - Shape

- Direction
  - Facing
  - Distance
- **Scrape** – characterized by a shallow, parallel striation or series of lines made over a wider surface area than a cut or chop. Caused by the edge of a tool scraped across the surface of the bone (O'Connor 2000:46; White and Folkens 2005:60-1).
    - No
    - Yes
      - Skeletal element
        - Number of scrapes
        - Length
        - Width
        - Depth
        - Shape
        - Direction
        - Facing
        - Distance
- **Chop** – characterized by narrow, v-shaped line or indent to the bone caused by a forceful and abrupt contact between a sharp tool edge and bone. This type of trauma is directly related to the excessive force of the load on the bone, creating a shape described above distinct from those produced by slicing activities like a cut mark (Dirkmaat 2012:365; O'Connor 2000:46; Tucker 2016:184-5; White and Folkens 2005:60).
    - No
    - Yes
      - Skeletal element
        - Number of scrapes
        - Length
        - Width
        - Depth
        - Shape
        - Direction
        - Facing
        - Distance
- **Puncture** (made with tools) – characterized by circular, oval, or broad linear perforation to the bone from the tip or point of a sharp instrument. Caused by the bone collapsing under the pressure of a tool or weapon used by humans, usually associated with indirect percussion (Beisaw 2013:104; Dirkmaat 2012:364; Tucker 2016:184).
    - No
    - Yes

- Skeletal element
    - Number of scrapes
    - Length
    - Width
    - Depth
    - Shape
    - Direction
    - Facing
    - Distance
- **Saw mark** – characterized by “...more rectangular in cross-section than knife cuts, and they penetrate more deeply into the bone. Lines that are neither equally spaced nor parallel are likely those of a handsaw, such as a hacksaw” (Beisaw 2013:106; Dirkmaat 2012).
  - No
  - Yes
    - Skeletal element
      - Number of scrapes
      - Length
      - Width
      - Depth
      - Shape
      - Direction
      - Facing
      - Distance
  - Superimposition – the appearance of one or more cuts, scrapes, chops, or other kind of mark layered or obscuring another mark.
    - No
    - Yes
      - Skeletal element
      - Number of marks
      - Location
      - Length
      - Width
      - Depth

## Taphonomy

Taphonomy can be defined as “...the study of postmortem process which affect 1) the preservation, observations, or recovery of dead organisms, 2) the reconstruction of their biology

or ecology, or 3) the reconstruction of the circumstances of their death” (Broughton and Miller 2016; Haglund and Sorg 1997:13). Standardized bioarchaeological and forensic analysis methods were applied to identify, evaluate, and record (forms, illustrations, photographs) taphonomic processes for later analysis where the skeletal remains were accessible (following guidelines in various studies, including Buikstra and Ubelaker 1994, among others). If evidence for taphonomic changes was present, then the type, location (element), side, and direction were recorded before scaled (cm) photographs were taken (standard lens and macro lens). In the Microsoft Access database, taphonomic evidence may be divided into four broad categories: 1) post-mortem human modification or fragmentation; 2) animal; 3) environmental; and, 4) curatorial practices.

#### Animal modification:

This category can be defined as “...modification of the remains results from carnivore, rodent, vulture and other scavenger interaction that may leave diagnostic marks on the bones” (Haglund 1997a, 1997b).

- No
- Yes
  - Carnivore – marks appear as rounder, pointed pits, scoring, or puncture shape on the bone. Carnivore gnawing usually appears on the articular ends of a bone (O’Connor 2000; White and Folkens 2005:55).
    - No
    - Yes
      - Puncture – characterized by perforations in thin portions of bones such as the scapula or in cancellous ends of long bones. Caused by the bone collapsing under a tooth when it is bit by a carnivore (Haglund 1997a:374).
- No
- Yes
  - Skeletal element
  - Number of punctures
  - Length
  - Width
  - Depth
  - Shape
  - Facing
  - Distance
  - Pit – characterized by circular punctures/indentations on the bone surface (presenting as a circle within a circle) made by the pointed teeth while an animal is gnawing on or carrying a bone (Beisaw 2013:112). Caused when there is insufficient strength to penetrate the surface of the bone (Haglund 1997a:374).
- No
- Yes

- Skeletal element
- Number of pits
- Length
- Width
- Depth
- Shape
- Facing
- Distance
- Scoring – characterized by linear, often parallel scratches along the contour of the bone. Caused by the animal’s teeth slipping and dragging over compact bone (Haglund 1997a:374).
  - No
  - Yes
    - Skeletal element
    - Location on bone
    - Number of scores
    - Length
    - Width
    - Depth
    - Shape
    - Facing
    - Distance
- Furrows – characterized by long channel scratches along the bone surface that taper to a point. Caused often by a cheek tooth scraping along the bone surface and can appear in isolation or as a series of scratches that intersect at various angles (Beisaw 2013:112).
  - No
  - Yes
    - Skeletal element
    - Location on bone
    - Number of furrows
    - Length
    - Width
    - Depth
    - Shape
    - Facing
    - Distance
- Rodent – marks appear as square, chisel-shaped on the bone. Rodent gnawing usually appears on the edges of the bone. The chisel edge of the rodent incisor is used to shave away the surface bone, producing a fan-shaped pattern of regular, shallow,



- parallel or subparallel, flat-bottomed grooves that are usually concentrated on the projecting surfaces of bones (White and Folkens 2005:57).
- No
  - Yes
    - Furrow – characterized by shallow, paired rectangular scratches of the bone surface that occur at thin areas of the edges of bone (Beisaw 2013:112).
      - Skeletal element
        - Location on bone
        - Number of furrows
        - Length
        - Width
        - Depth
        - Shape
        - Distance
        - Facing
  - Superimposition –
    - No
    - Yes
      - Skeletal element
      - Number of marks
      - Location
      - Length
      - Width
      - Depth
  - Trampling – characterized by randomly orientated scratches and concentrated in areas of parallel striae across prominent parts of the bone. Caused by animal bone rubbing against grit when stepped on by animal or human feet (Beisaw 2013:109; White and Folkens 2005:57).
    - No
    - Yes
      - Skeletal element
        - Location
        - Number of scratches
        - Length
        - Depth
        - Shape
        - Distance
        - Facing

### Environmental modification:

- Weathered bone – splintering - defined as “...bone that has been exposed to varying environmental conditions, such as changes in heat and moisture” (Beisaw 2013:111; Ubelaker 1997:79-80).
  - No
  - Yes
    - Skeletal element
    - Length
    - Width
    - Distance
    - Facing
    - Stage – if evidence for weathering is present, only stages 4-6 should be possible in the skeletal remains included in this sample.

Stages	Description
0	No cracking or flaking. Bone is greasy. Skin and/or muscle ligaments may be attached.
1	Some cracking on bone surface. Skin or other tissue may or may not be present.
2	Cracking and flaking of bone surface. Only remnants of ligaments and cartilage may be present.
3	Surface has fibrous texture. Layers of bone may be gone.
4	No tissue present.
5	Surface is coarse. Splinters fall from bone when moved.
6	Bone is fragile and may fall apart without being moved.
Adapted from Beisaw (2013:111)	

- Root etching – defined as “...plant roots excrete humic acid; when they come into contact with bone, they can etch the cortical surfaces, producing a series of shallow grooves with U-shaped cross sections in a pattern that has been described as “dendritic,” “wavy,” “sinuous,” and “spaghetti-like” (Broughton and Miller 2016:176). Etching can also hasten bone-surface degradation and otherwise obscure or obliterate the evidence for other forms of damage such as cut marks.
  - No
  - Yes
    - Skeletal element
      - Width
      - Length
      - Facing
      - Distance
- Sun bleaching – distinguished by non-uniform lightening of the surface of skeletal bones caused by sun exposure after remains have been disturbed in the ground (Haglund and Sorg 1997:81).
  - No
  - Yes
    - Skeletal element

- Length
  - Width
  - Facing
  - Distance
- Burned bone – defined as “...bone that has been exposed to fire and can be categorized in two categories: 1) charred bone, which appears black or blue, and, 2) calcined bone, which appears grey or white” (Biesaw 2013a:109).
    - No
    - Yes
      - Skeletal element
        - Length
        - Width
        - Color Description
        - Facing
        - Distance

Temperature (Celsius)	Color Description
200	Very pale brown
300	Brown to dark reddish brown
350	Dark brown to black
420	Blue grey
500	Light grey
600	Pinkish grey
700	White
Adapted from Gilchrist and Mytum (1986)	

#### Curatorial modification:

- Cleaning – distinguished when soil has been removed from skeletal remains, ideally with a soft bristle brush and little exposure to water during the bone preparation process (White et al. 2011:333).
  - No
  - Yes
  - Skeletal element
- Bone breakage/excavation damage – distinguished by thin scratches, striations, or sharp force fractures or complete breaks on the bone typically caused by sharp-edged metal tools (trowels, shovels, pick axes) or bone(s) falling to the floor. These marks may be confused with other similar types of damage that resemble cut marks and carnivore scoring. These marks may usually be distinguished by their lighter color relative to the surrounding bone. Recent or modern scratches by trowels or other tools remove the

stained surface of bone by leaving a fresh exposure of the bone (Broughton and Miller 2016:178-9).

- No
  - Yes
  - Skeletal element
  - Facing
  - Distance
- Destructive analysis sampling – distinguished by clean cut sections of bone, often in a rectangular or circular shape on long bones, made with a saw or drill type tool.
  - No
  - Yes
  - Skeletal element
  - Facing
  - Distance
- Bleaching – distinguished by a near uniform white color on the surface of the bone and a lack of surface adhering tissues. Chemical bleaching agents (bleach, hydrogen peroxide, and commercial chemicals) may disintegrate the bone surface if the bone is overexposed (Mann and Berryman 2012:441).
  - No
  - Yes
  - Skeletal element
  - Facing
  - Distance
- Glue adhesive/tape – distinguished by yellow, clear, or brown/orange adhesive (or white tape) applied near or on breaks located on bone which may bubble slightly or peel overtime (White et al. 2011:336-7).
  - No
  - Yes
  - Skeletal element
  - Facing
  - Distance

## Appendix B: Forms

The purpose of the following appendix is to provide the illustration charts and forms used record the curation and excavation archival descriptions, photograph numbers, skeletal inventory, preservation, and evidence for pathology, taphonomic changes, and trauma. The forms have been adapted from illustration and analysis forms in Buikstra and Ubelaker (1994) *Standards for Data Collection from Human Skeletal Remains*, Roberts and Connell (2010) *Guidelines to the Standards for Recording Human Remains*, and Richards et al. (2016) manual *UWM-CRM Human Skeletal Analysis Standard Operating Procedure for Adult, Juvenile, and Commingled Remains*.

### Curation and excavation form

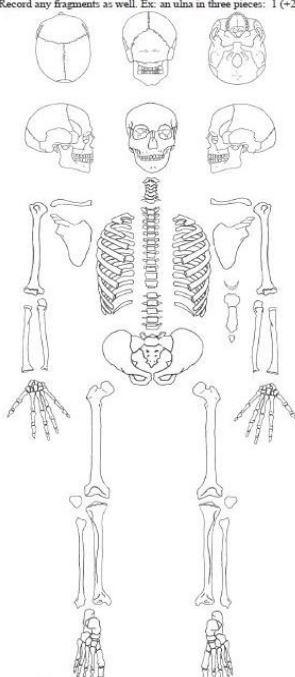
[illegible]

## Skeletal Inventory: Adult

Human Skeletal Inventory Record - Adult				Lot #: _____	
Institution: _____		Access #: _____		Site Name: _____	
Box #: _____		Date Started: _____		Date Completed: _____	

Record the quantity of bone present in the lot and shade in the elements on the outline. If any portion of an element is present, indicate the appropriate number in the quantity field; insert dash if absent. Record any fragments as well. Ex: an ulna in three pieces: 1 (+2)

ELEMENT	EXPCTD #	RIGHT	LEFT
Cranium	1		
Mandible	1		
Auditory Ossicles	6 (3 each side)		
Hyoid	1 (in 3 parts)		
Oss. Cartilage			



ELEMENT	EXPCTD #	RIGHT	LEFT
Clavicle	2		
Scapula	2		
Sternum	1 (in 3 parts)		
Cervical Vert	7		
Thoracic Vert	12		
Lumbar Vert	5		
Sacrum	1		
Coccyx	1		

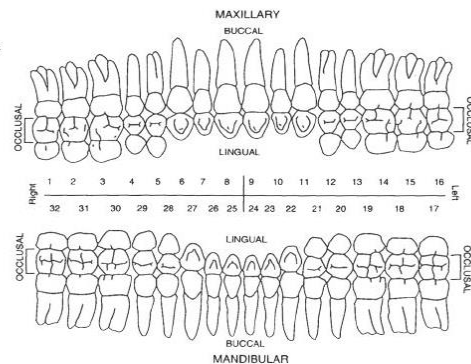
ELEMENT	EXPCTD #	RIGHT	LEFT
Humerus	2		
Ulna	2		
Radius	2		
Carpals	16		
Metacarpals	10		
Phalanges	28		
Sesamoids	4		

ELEMENT	EXPCTD #	RIGHT	LEFT
Femur	2		
Patella	2		
Tibia	2		
Fibula	2		
Tarsals	14		
Metatarsals	10		
Phalanges	28		
Sesamoids	4		

RIGHT                      LEFT

### Dentition

o No Dentition



DENTAL	MAX	MAND	UNKNOWN
Present			
Loose			
Fragment			

Condition of the remains:  
☐ Good    ☐ Fair    ☐ Poor  
 Level of fragmentation:  
☐ Light    ☐ Moderate    ☐ Heavy

Notes:

---

---

---

---

---

---

---

---

---

---

Miscellaneous Fragments: bone that is too fragmented to be confidently assigned to any particular element.

# of misc. fragments: \_\_\_\_\_

\_\_\_\_ No extra elements present in burial  
or

\_\_\_\_ Extra elements present in burial

\_\_\_\_ Elements assigned to new lot

\_\_\_\_ New Lot #: \_\_\_\_\_

\_\_\_\_ Elements remain with this lot

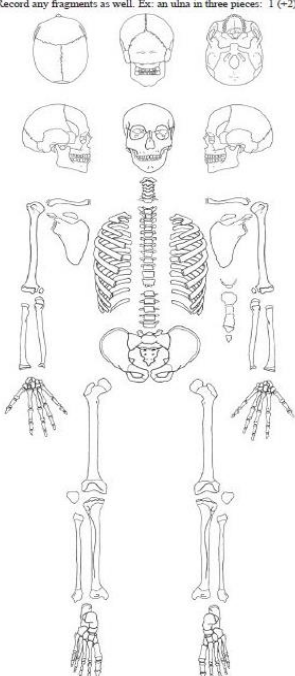
\_\_\_\_ Labeled: \_\_\_\_\_

## Skeletal Inventory: Adolescent

Human Skeletal Inventory Record - Adolescent				Lot #: _____	
Institution: _____		Access #: _____		Site Name: _____	
Box #: _____		Date Started: _____		Date Completed: _____	

Record the quantity of bone present in the lot and shade in the elements on the outline. If any portion of an element is present, indicate the appropriate number in the quantity field; insert dash if absent. Record any fragments as well. Ex: an ulna in three pieces: 1 (+2)

ELEMENT	EXPCTD #	LEFT	RIGHT
Cranium	1		
Mandible	1		
Auditory Ossicles	6 (3 each side)		
Hyoid	1 (in 3 parts)		
Oss. Cartilage			



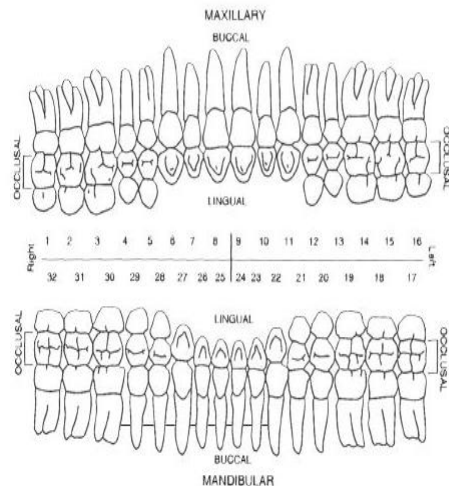
ELEMENT	EXPCTD #	LEFT	RIGHT
Clavicle	2		
Scapula	2		
Sternum	1 (in 3 parts)		
Cervical Vert	7		
Thoracic Vert	12		
Lumbar Vert	5		
Sacrum	1		
Coccyx	1		

ELEMENT	EXPCTD #	LEFT	RIGHT
Humerus	2		
Ulna	2		
Radius	2		
Carpals	16		
Metacarpals	10		
Phalanges	28		
Sesamoids	4		

ELEMENT	EXPCTD #	LEFT	RIGHT
Femur	2		
Patella	2		
Tibia	2		
Fibula	2		
Tarsals	14		
Metatarsals	10		
Phalanges	28		
Sesamoids	4		

### Dentition Inventory

o No Dentition



#### Illustration Key:

- Articulated
- o Loose
- Fragmented
- X Missing

Miscellaneous Fragments: bone that is too fragmented to be confidently assigned to any particular element.

# of misc. fragments: \_\_\_\_\_

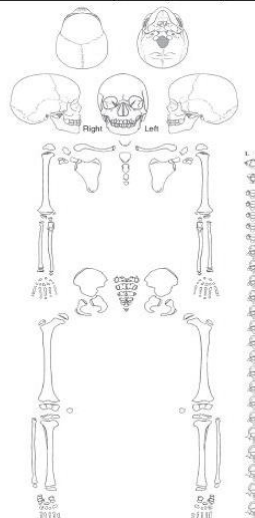
\_\_\_\_ No extra elements present in burial

or

\_\_\_\_ Extra elements present in burial

## Skeletal Inventory: Late Child

Human Skeletal Inventory Record - Late Child				Lot #:			
Institution:	Access. #:	Site Name:	Assoc. HR Lots:				
Box #:	Date Started:	Date Completed:					
ELEMENT	RIGHT	LEFT	UNK	ELEMENT	RIGHT	LEFT	UNK
Complete Occipital				Femur			
Lateral				Patella			
Basilar				Tibia			
Squamous Occ				Fibula			
Complete Temporal				Carpals			
Petrous				Metacarpals			
Squamous Temp				Hand Phalanges			
Complete Sphenoid				Tarsals			
Body				Metatarsals			
Greater Wings				Foot Phalanges			
Frontal				Mixed hand/foot			
Parietal							
Maxilla							
Nasal							
Ethmoid							
Vomer							
Palatine							
Zygomatic							
Mandible							
Misc. Flat Cranial							
C1 Vertebra							
C2 Vertebra							
C3-L5 Bodies							
C3-L5 Neural Arches							
C3-L5 Complete							
Hyoid body, alae							
Clavicle							
Scapula							
Sternum							
Ribs							
Ilium							
Ischium							
Pubis							
Sacrum, Lateral Elements							
Sacrum, Neural Arches							
Sacrum, Centra							
Humerus							
Radius							
Ulna							



### Dentition Inventory (Permanent dentition encircles deciduous)

o No Dentition

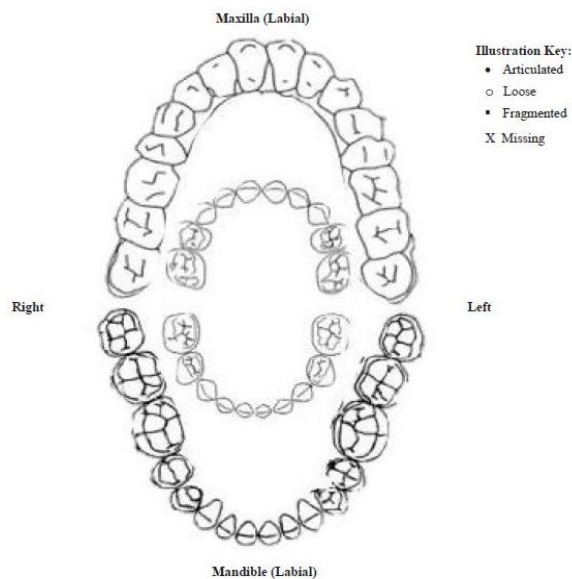
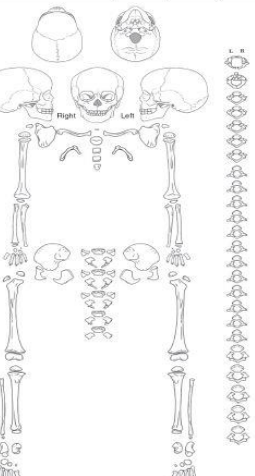


Illustration Key:  
 • Articulated  
 o Loose  
 • Fragmented  
 X Missing

Miscellaneous Fragments: bone that is too fragmented to be confidently assigned to any particular element (larger than 6mm) \_\_\_\_\_ No extra elements present in burial  
 or  
 # of misc. fragments: \_\_\_\_\_ Extra elements present in burial

## Skeletal Inventory: Early Child

Human Skeletal Inventory Record - Early Child				Lot #:			
Institution:	Access. #:	Site Name:	Assoc. HR Lots:				
Box #:	Date Started:	Date Completed:					
ELEMENT	RIGHT	LEFT	UNK	ELEMENT	RIGHT	LEFT	UNK
Complete Occipital				Femur			
Lateral				Patella			
Basilar				Tibia			
Squamous Occ				Fibula			
Complete Temporal				Carpals			
Petrous				Metacarpals			
Squamous Temp				Hand Phalanges			
Complete Sphenoid				Tarsals			
Body				Metatarsals			
Greater Wings				Foot Phalanges			
Frontal				Mixed hand/foot			
Parietal							
Maxilla							
Nasal							
Ethmoid							
Vomer							
Palatine							
Zygomatic							
Mandible							
Misc. Flat Cranial							
C1 Vertebra							
C2 Vertebra							
C3-L5 Bodies							
C3-L5 Neural Arches							
C3-L5 Complete							
Hyoid body, alae							
Clavicle							
Scapula							
Sternum							
Ribs							
Ilium							
Ischium							
Pubis							
Sacrum, Lateral Elements							
Sacrum, Neural Arches							
Sacrum, Centra							
Humerus							
Radius							
Ulna							



### Dentition Inventory

o No Dentition

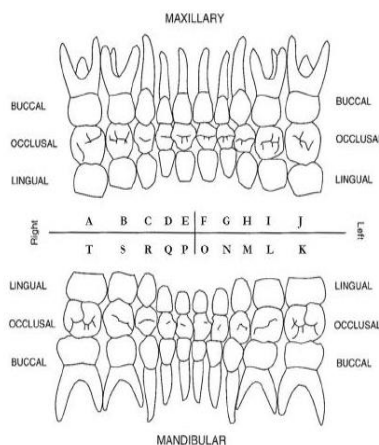


Illustration Key:  
 • Articulated  
 o Loose  
 • Fragmented  
 X Missing

Miscellaneous Fragments: bone that is too fragmented to be confidently assigned to any particular element (larger than 6mm) \_\_\_\_\_ No extra elements present in burial  
 or  
 # of misc. fragments: \_\_\_\_\_ Extra elements present in burial



## Skeletal Inventory: Infant

Human Skeletal Inventory Record - Infant				Lot #:
Institution:		Access. #:	Site Name:	Assoc. HR Lots:
Box #:		Date Started:	Date Completed:	
ELEMENT	RIGHT	LEFT	UNK	
Complete Occipital				
Lateral				
Basilar				
Squamous Occ				
Complete Temporal				
Petrous				
Squamous Temp				
Complete Sphenoid				
Body				
Greater Wings				
Frontal				
Parietal				
Maxilla				
Nasal				
Ethmoid				
Vomer				
Palatine				
Zygomatic				
Mandible				
Misc. Flat Cranial				
C1 Vertebra				
C2 Vertebra				
C3-L5 Bodies				
C3-L5 Neural Arches				
C3-L5 Complete				
Hyoid body, alae				
Clavicle				
Scapula				
Sternum				
Ribs				
Ilium				
Ischium				
Pubis				
Sacrum, Lateral Elements				
Sacrum, Neural Arches				
Sacrum, Centra				
Humerus				
Radius				
Ulna				

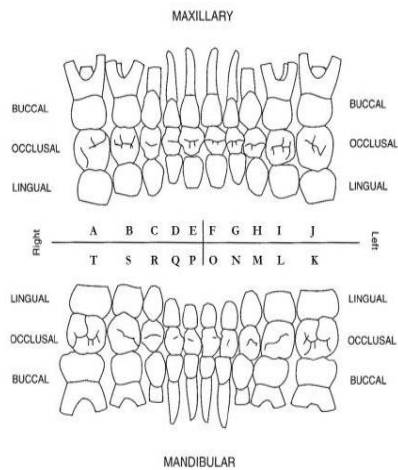
  

ELEMENT	RIGHT	LEFT	UNK
Femur			
Patella			
Tibia			
Fibula			
Carpals			
Metacarpals			
Hand Phalanges			
Tarsals			
Metatarsals			
Foot Phalanges			
Mixed hand/foot			

### Dentition Inventory

- No Dentition



#### Illustration Key:

- Articulated Tooth
- Loose Tooth
- Fragmented
- X Missing Tooth

**Miscellaneous Fragments:** bone that is too fragmented to be confidently assigned to any particular element (larger than 6mm)

# of misc. fragments: \_\_\_\_\_

\_\_\_\_\_ No extra elements present in burial

or

\_\_\_\_\_ Extra elements present in burial

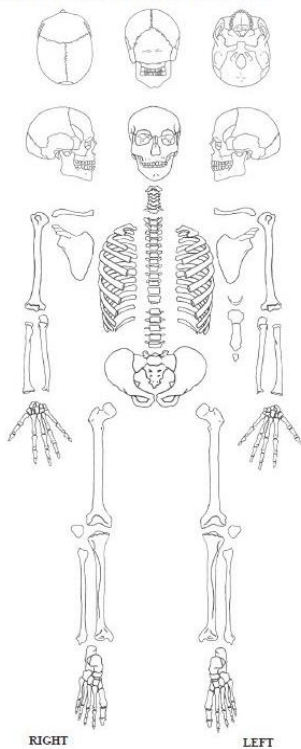


Pathology Recording Form: Adult

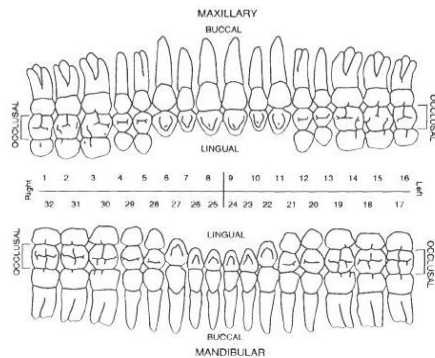
Skeletal Pathology Form - Adult			Lot #:
Institution:	Access #:	Site Name:	Assoc. HR Lots:
Box #:	Date Started:	Date Completed:	

Record presence/absence of visible conditions and use key number to indicate location on the skeletal outline.

Pathology	P	A	K
Degen. joint disease			1
Osteoarthritis			2
Spina bifida			3
Tuberculosis			4
Cribrra orbitalia			5
Leprosy			6
Neoplasm			7
Schmorl's Nodes			8
Rickets			9
Enamel Hyperplasia			10
Trauma Abrasion			11
Unknown			12
Other			13



Dentition  
o No Dentition



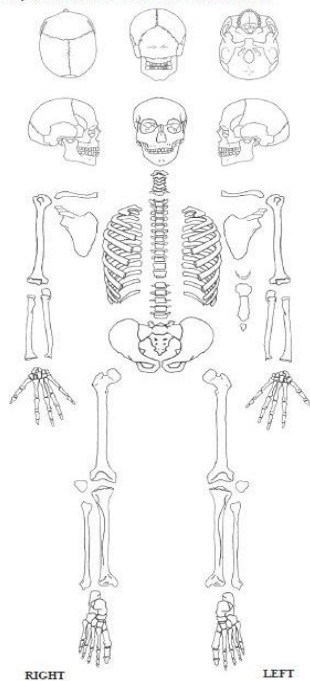
Notes:


Pathology Recording Form: Adolescent

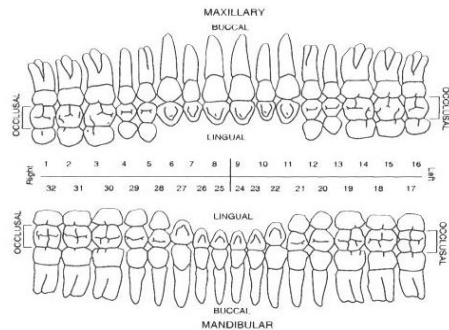
Skeletal Pathology Form - Adolescent			Lot #:
Institution:	Accession #:	Site Name:	Assoc. HR Lots:
Box #:	Date Started:	Date Completed:	

Record presence/absence of visible conditions and use key number to indicate location on the skeletal outline.

Pathology	P	A	K
Degen. joint disease			1
Osteoarthritis			2
Spina bifida			3
Tuberculosis			4
Cribrra orbitalia			5
Leprosy			6
Neoplasm			7
Schmorl's nodes			8
Rickets			9
Enamel Hyperplasia			10
Trauma Abrasion			11
Unknown			12
Other			13



Dentition  
o No Dentition



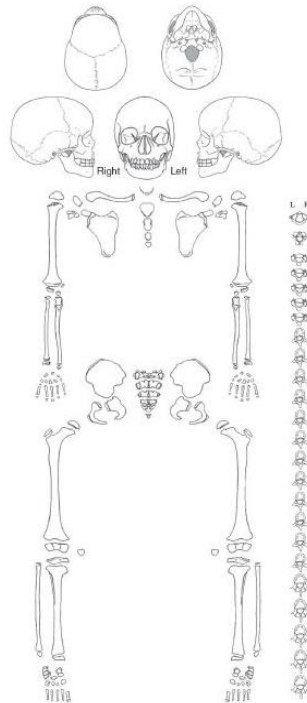
Notes:


# Pathology Recording Form: Child

<b>Skeletal Pathology Form - Child</b>			Lot #: _____
Institution: _____	Access. #: _____	Site Name: _____	Assoc. HR Lots: _____
Box #: _____	Date Started: _____	Date Completed: _____	_____

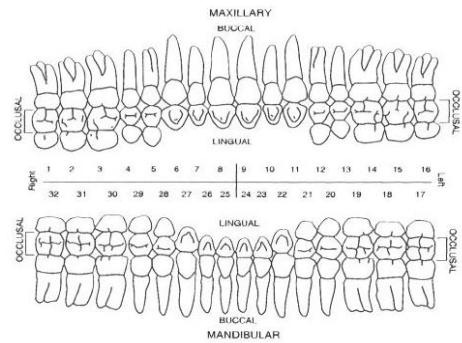
Record presence/absence of visible conditions and use key number to indicate location on the skeletal outline

Pathology	P	A	K
Degen. joint disease			1
Osteoarthritis			2
Spina bifida			3
Tuberculosis			4
Cribra orbitalia			5
Leprosy			6
Neoplasm			7
Schmores nodes			8
Rickets			9
Enamel Hyperplasia			10
Trauma Abrasion			11
Unknown			12
Other			13



### Dentition

- No Dentition



Notes:

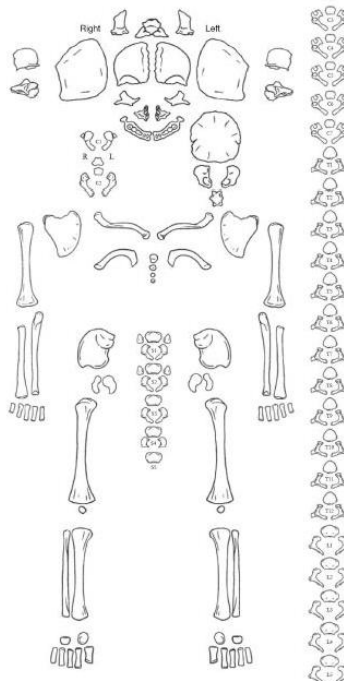
[illegible]

## Pathology Recording Form: Infant

<b>Skeletal Pathology Form - Infant</b>			Lot #: _____
Institution: _____	Access #: _____	Site Name: _____	Assoc. HR Lots: _____
Box #: _____	Date Started: _____	Date Completed: _____	

Record presence/absence of visible conditions and use key number to indicate location on the skeletal outline.

Pathology	P	A	K
Degen. joint disease			1
Osteoarthritis			2
Spina bifida			3
Tuberculosis			4
Cribra orbitalia			5
Leprosy			6
Neoplasm			7
Schmores nodes			8
Rickets			9
Enamel Hyperplasia			10
Trauma Abrasion			11
Unknown			12
Other			13



## Dentition

- No Dentition

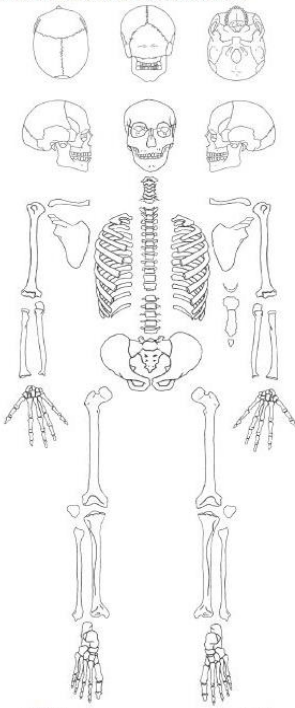


**Notes:**

[illegible]

Taphonomy Recording Form: Adult

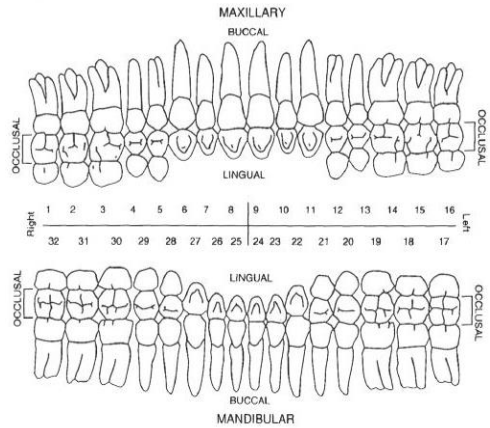
Human Skeletal Taphonomy Form - Adult				Lot #:
Institution:	Accession #:	Site Name:		Assoc. HR Lots:
Box #:	Date Started:	Date Completed:		
Record presence/absence of visible conditions and use key number to indicate location on the skeletal outline.				
CONDITION	P	A	KEY #	
<b>Adherent:</b>				
Mold			49	
Matrix			50	
Roots			51	
Glue adhesive			52	
Unknown			53	
Other			54	
<b>Chemical and Natural</b>				
Gnaw marks - Carniv.			55	
Gnaw marks - Rodent			56	
Trampling			57	
Water damage			58	
Weathering/Splinter			59	
Root etching			60	
Sun bleaching			61	
Burned bone			62	
Stain/Erosion			63	
Unknown			64	
Other			65	
<b>Curatorial</b>				
Cleaning			66	
Bone breakage			67	
Destructive analysis sampling			68	
Bleaching			69	
Unknown			70	
Other			71	



RIGHT LEFT

Dentition

☐ No Dentition



Notes:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

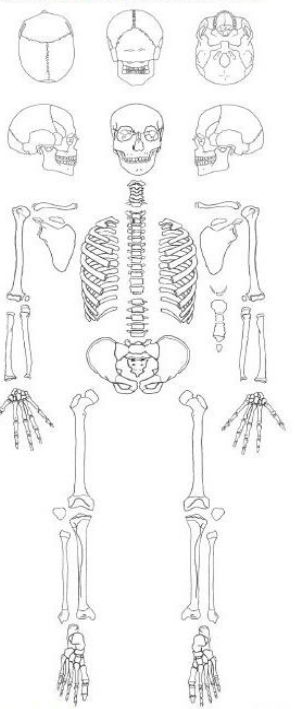
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Taphonomy Recording Form: Adolescent

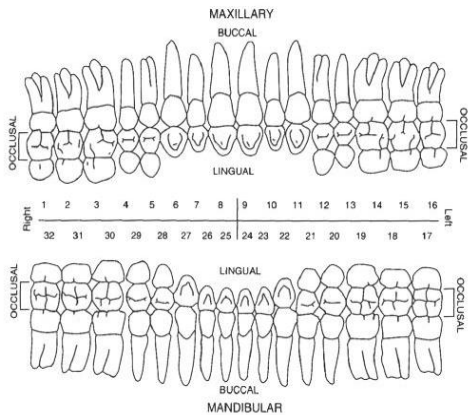
Human Skeletal Taphonomy Form - Adolescent				Lot No:
Institution:	Access #:	Project Name:		Assoc. HR Lots:
Box #:	Date Started:	Date Completed:		
Record presence/absence of visible conditions and use key number to indicate location on the skeletal outline.				
CONDITION	P	A	KEY #	
<b>Adherent:</b>				
Mold			49	
Matrix			50	
Roots			51	
Glue adhesive			52	
Unknown			53	
Other			54	
<b>Chemical and Natural</b>				
Gnaw marks - Carniv.			55	
Gnaw marks - Rodent			56	
Trampling			57	
Water damage			58	
Weathering/Splinter			59	
Root etching			60	
Sun bleaching			61	
Burned bone			62	
Stain/Erosion			63	
Unknown			64	
Other			65	
<b>Curatorial</b>				
Cleaning			66	
Bone breakage			67	
Destructive analysis sampling			68	
Bleaching			69	
Unknown			70	
Other			71	



RIGHT LEFT

Dentition

☐ No Dentition



Notes:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

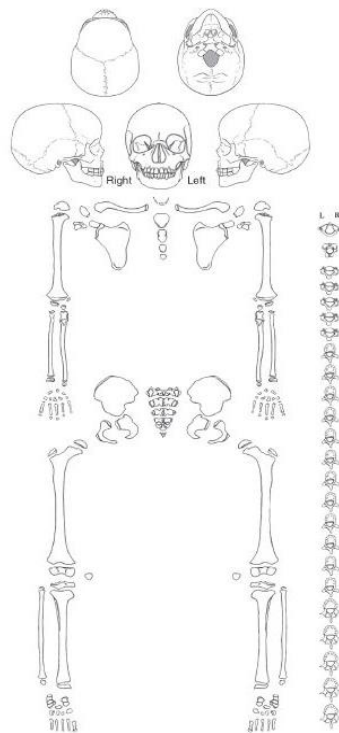


## Taphonomy Recording Form: Late Child

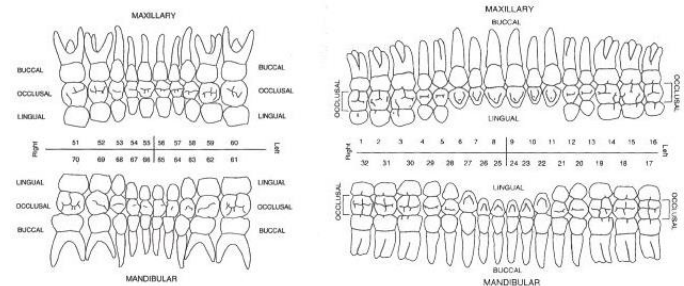
Human Skeletal Taphonomy Form - Late Child				Lot No:
Institution:	Access #:	Project Name:	Assoc. HR Lots:	
Box #:	Date Started:	Date Completed:		

Record presence/absence of visible conditions and use key number to indicate location on the skeletal outline.

CONDITION	P	A	KEY#
<b>Adherents</b>			
Mold			49
Matrix			50
Roots			51
Glue adhesive			52
Unknown			53
Other			54
<b>Chemical and Natural</b>			
Gnaw marks - Carniv.			55
Gnaw marks - Rodent			56
Trampling			57
Water damage			58
Weathering/Splinter			59
Root etching			60
Sun bleaching			61
Burned bone			62
Stain/Erosion			63
Unknown			64
Other			65
<b>Curatorial</b>			
Cleaning			66
Bone breakage			67
Destructive analysis sampling			68
Bleaching			69
Unknown			70
Other			71



**Dentition**  
o No Dentition



Notes:

---

---

---

---

---

---

---

---

---

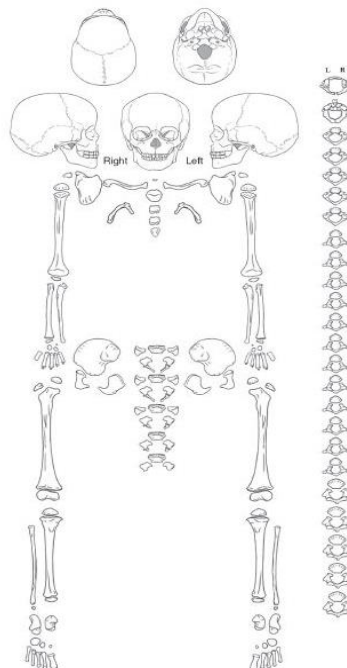
---

## Taphonomy Recording Form: Early Child

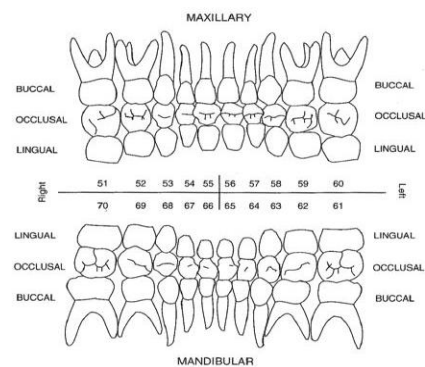
Human Skeletal Taphonomy Form - Early Child				Lot No:
Institution:	Access #:	Site Name:	Assoc. HR Lots:	
Box #:	Date Started:	Date Completed:		

Record presence/absence of visible conditions and use key number to indicate location on the skeletal outline.

CONDITION	P	A	KEY#
<b>Adherents</b>			
Mold			49
Matrix			50
Roots			51
Glue adhesive			52
Unknown			53
Other			54
<b>Chemical and Natural</b>			
Gnaw marks - Carniv.			55
Gnaw marks - Rodent			56
Trampling			57
Water damage			58
Weathering/Splinter			59
Root etching			60
Sun bleaching			61
Burned bone			62
Stain/Erosion			63
Unknown			64
Other			65
<b>Curatorial</b>			
Cleaning			66
Bone breakage			67
Destructive analysis sampling			68
Bleaching			69
Unknown			70
Other			71



**Dentition**  
o No Dentition



Notes:

---

---

---

---

---

---

---

---

---

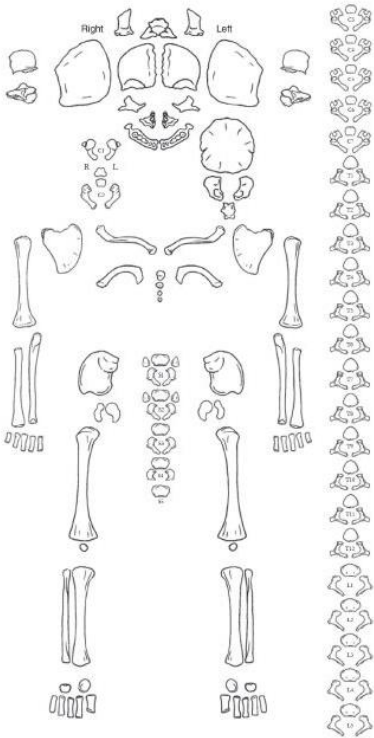
---

Taphonomy Recording Form: Infant

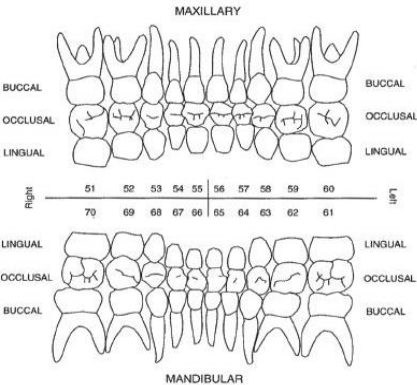
Human Skeletal Taphonomy Form - Infant			Lot #:
Institution:	Access #:	Site Name:	Assoc. HR Lots:
Box #:	Date Started:	Date Completed:	

Record presence/absence of visible conditions and use key number to indicate location on the skeletal outline.

CONDITION	P	A	KEY#
Adherent:			
Mold			49
Matrix			50
Roots			51
Glue adhesive			52
Unknown			53
Other			54
Chemical and Natural			
Gnaw marks - Carniv.			55
Gnaw marks - Rodent			56
Trampling			57
Water damage			58
Weathering/Splinter			59
Root etching			60
Sun bleaching			61
Burned bone			62
Stain/Erosion			63
Unknown			64
Other			65
Curatorial			
Cleaning			66
Bone breakage			67
Destructive analysis sampling			68
Bleaching			69
Unknown			70
Other			71



Dentition  
o No Dentition



Notes:

---

---

---

---

---

---

---

---

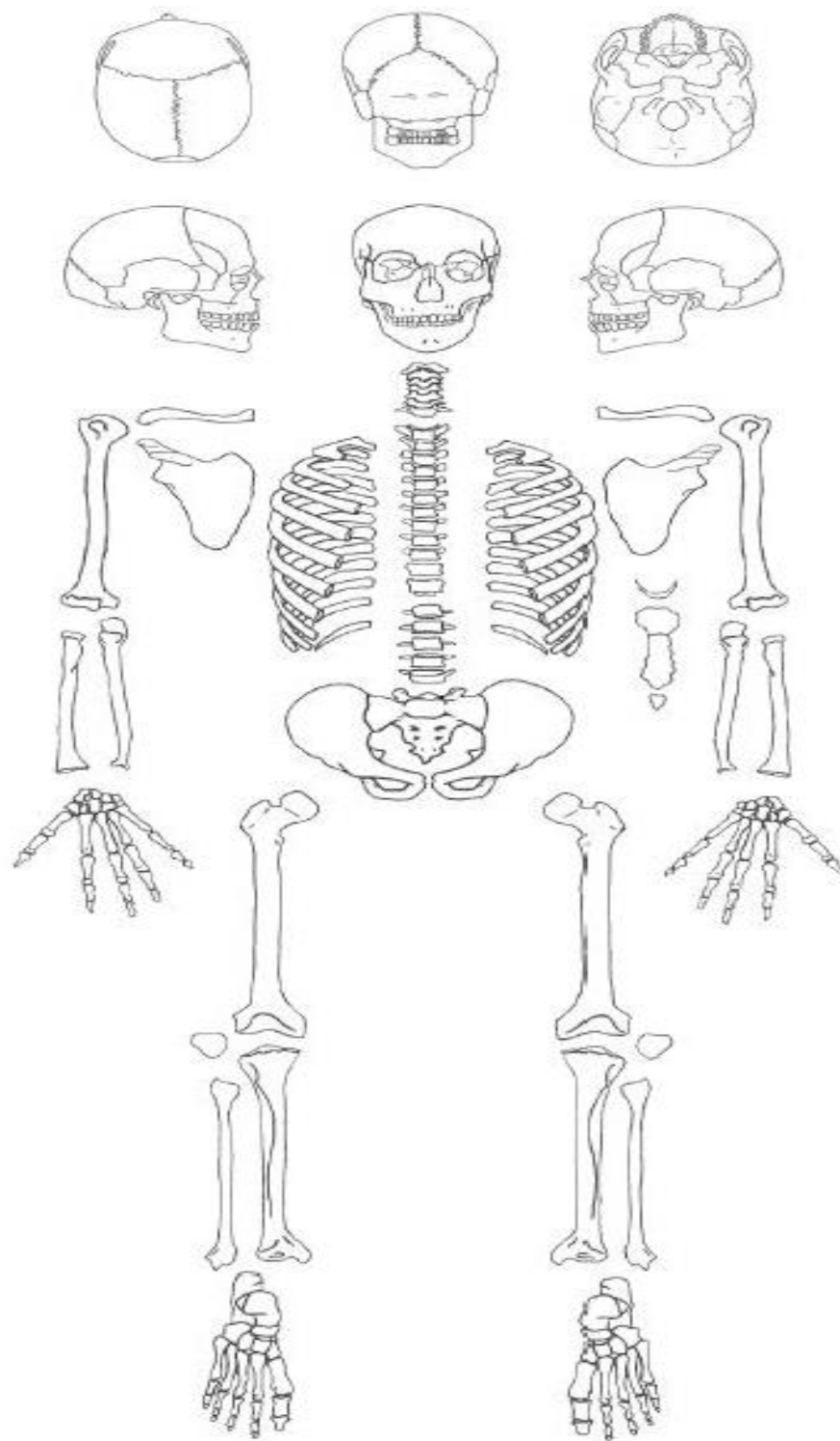
---

---

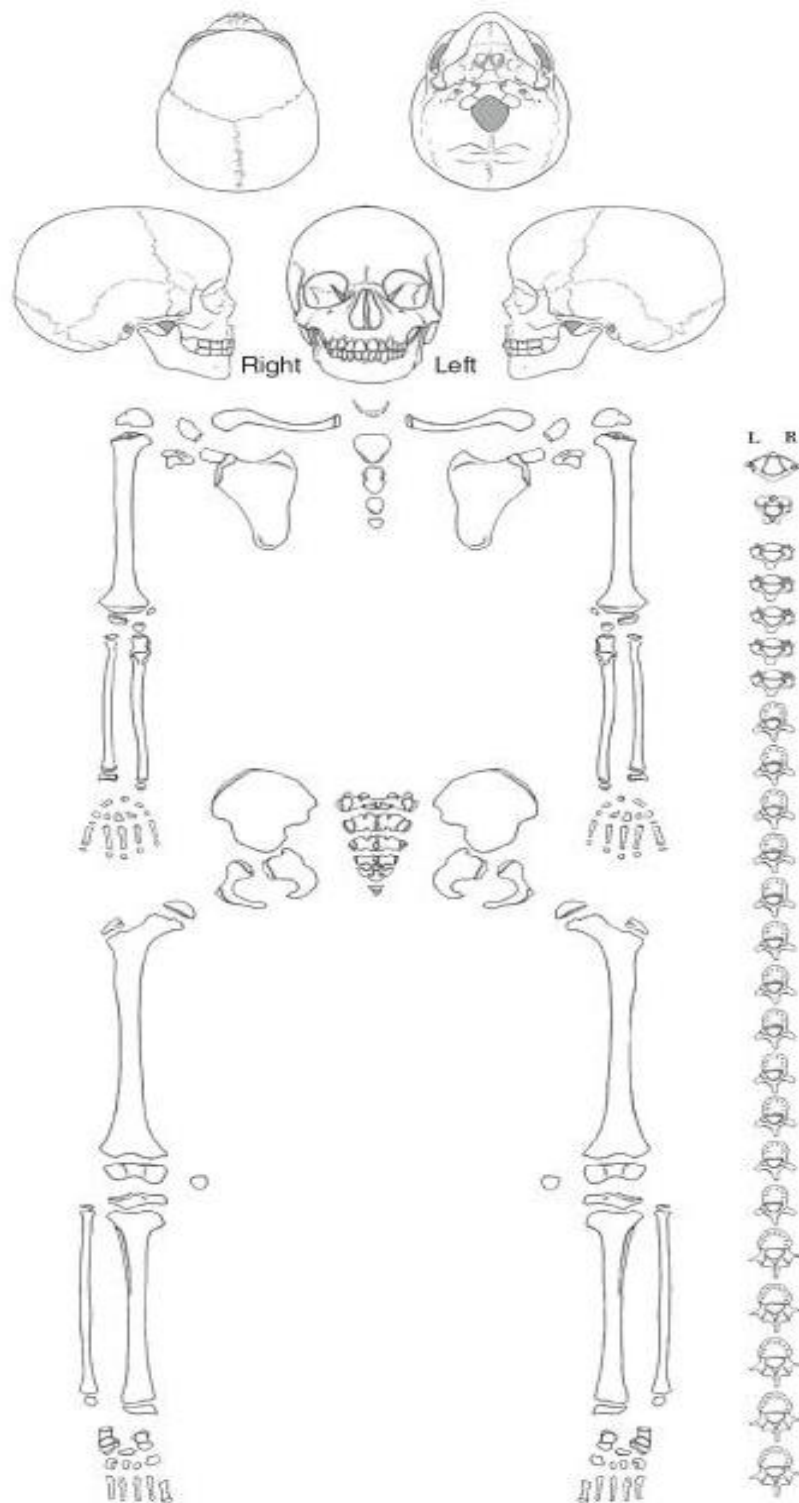
<b>Human Skeletal Trauma Form</b>			Lot #: _____
Institution: _____	Accession #: _____	Site Name: _____	Assoc. HR Lots: _____
Box #s: _____	Date Started: _____	Date Completed: _____	_____

[illegible]

Adult or Adolescent

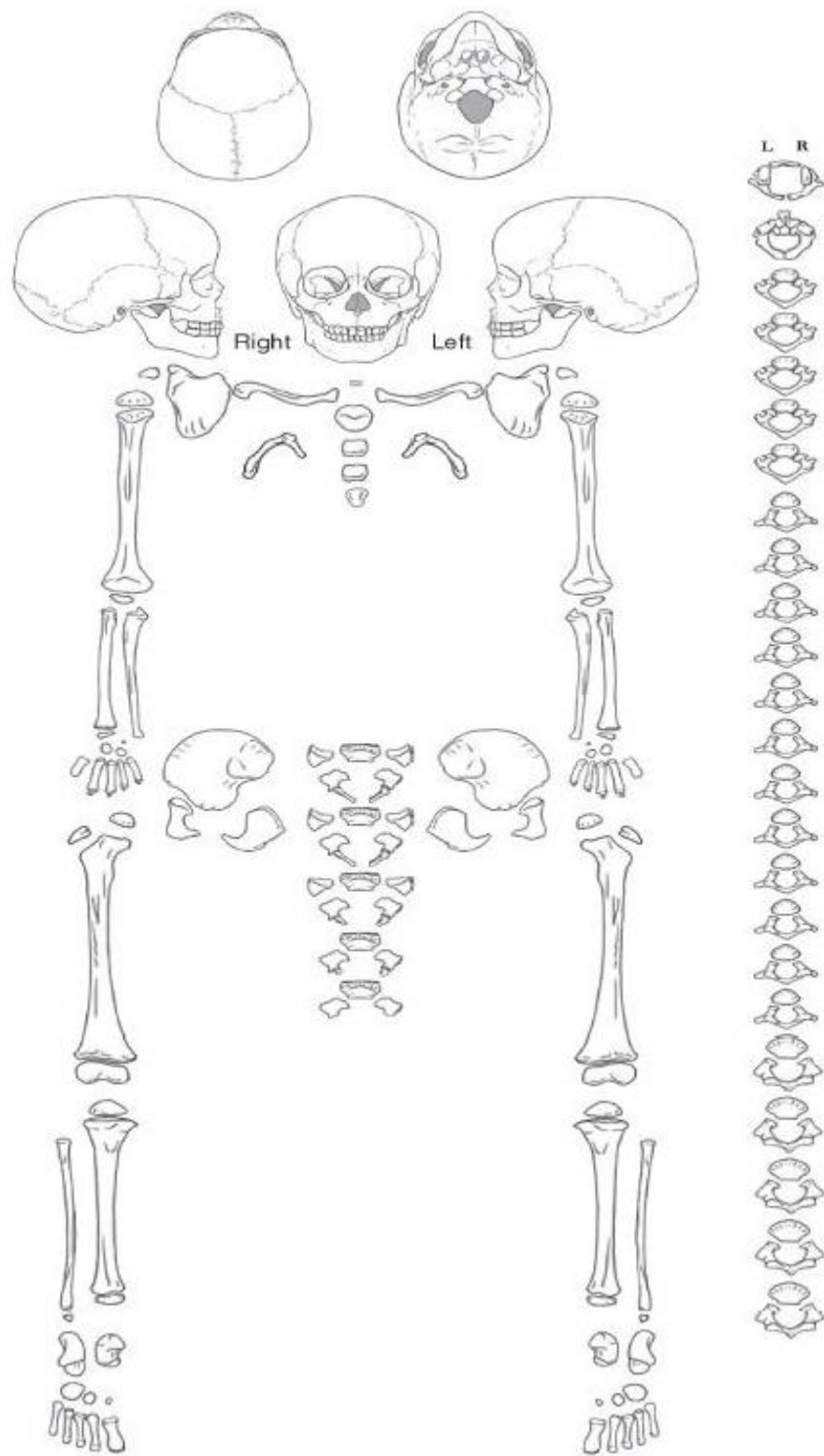


Late Child

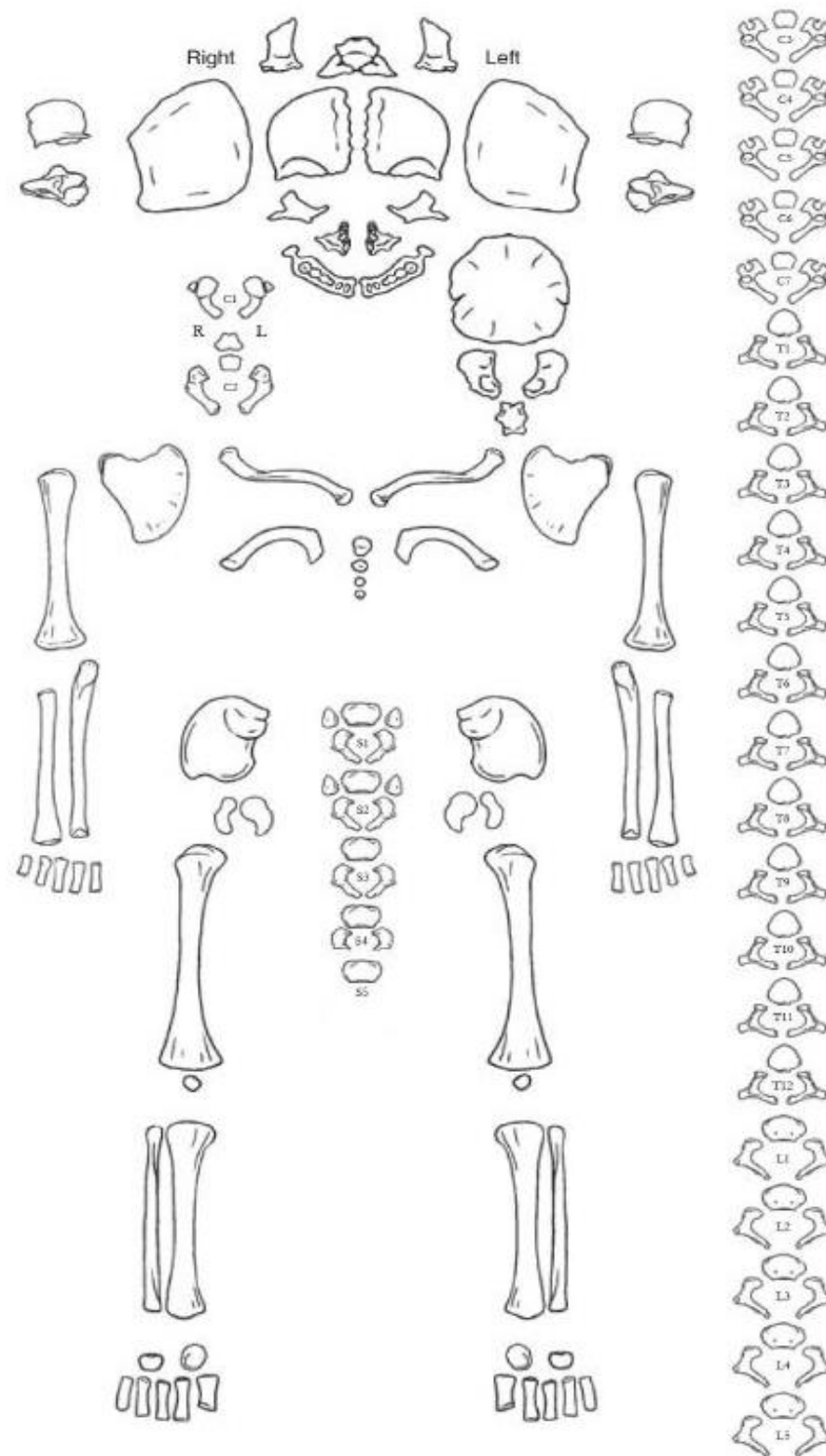




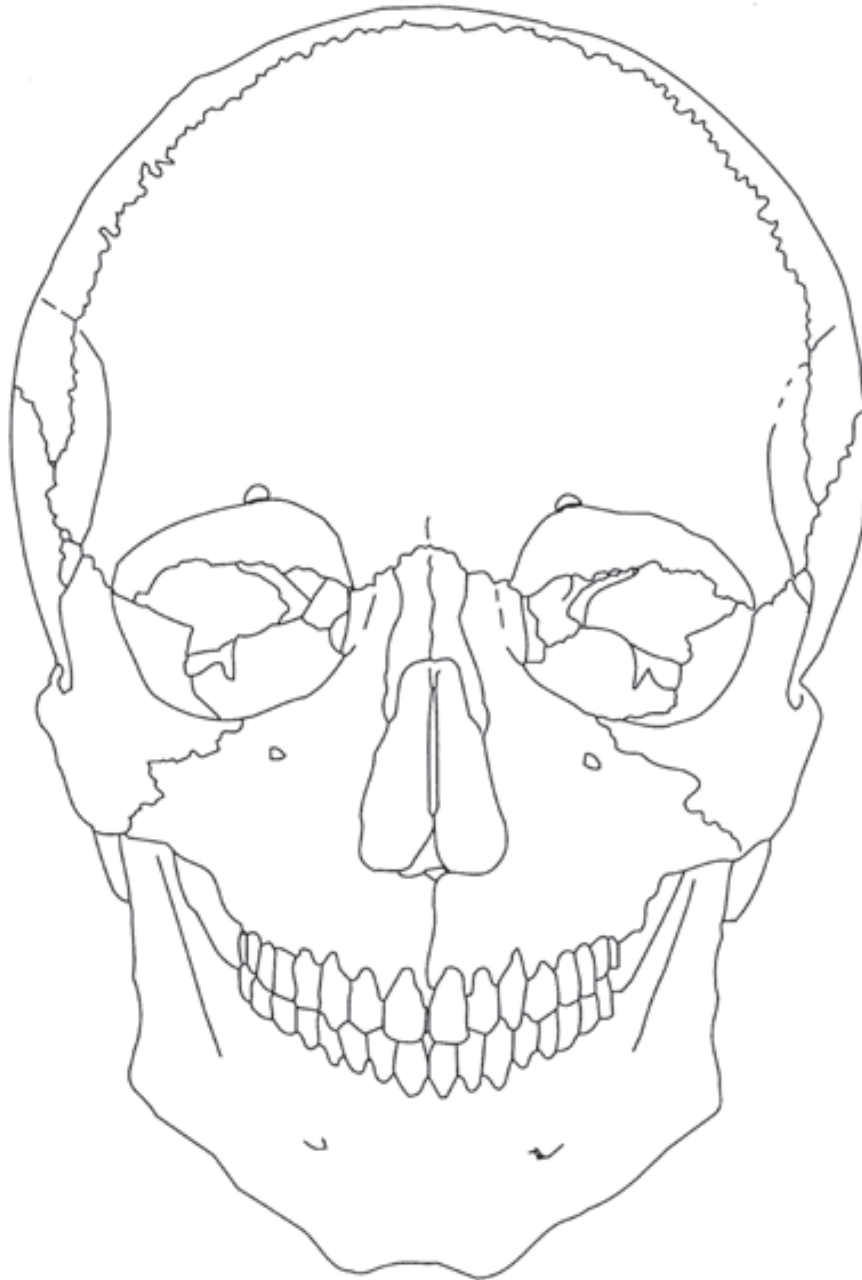
# Early Child



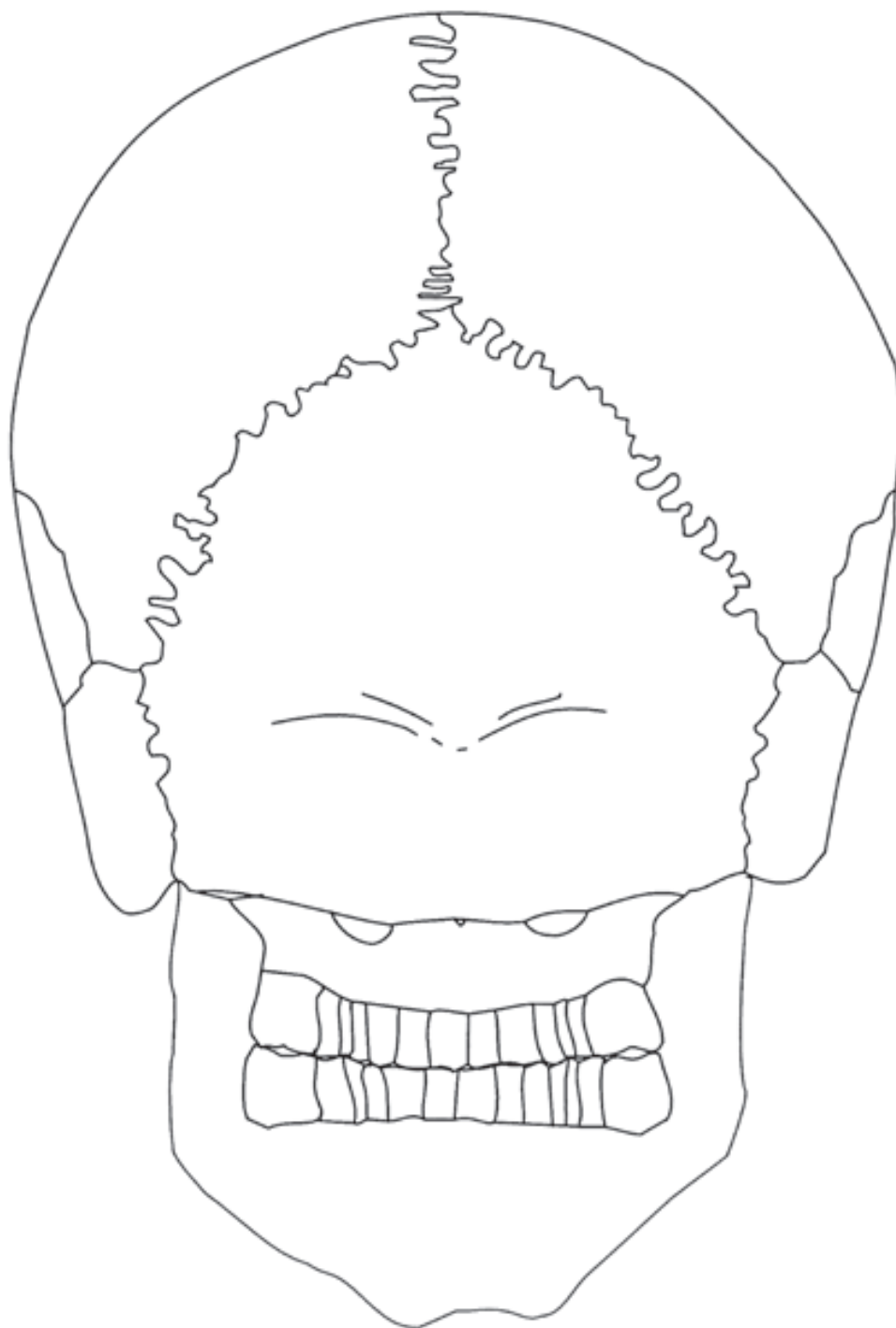
# Infant



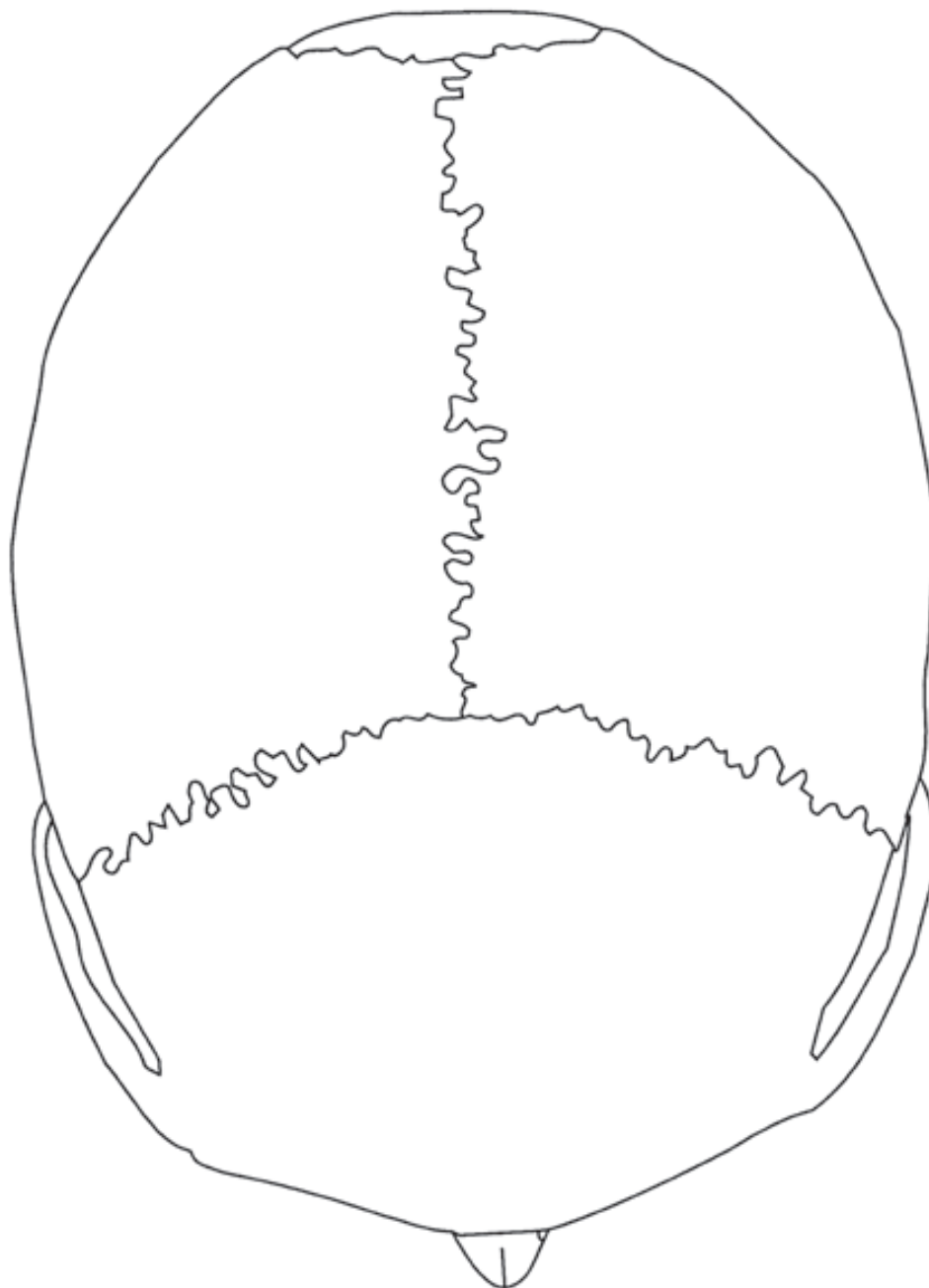
**Adult Cranium Trauma Recording Form – Anterior View (Buikstra and Ubelaker 1994)**



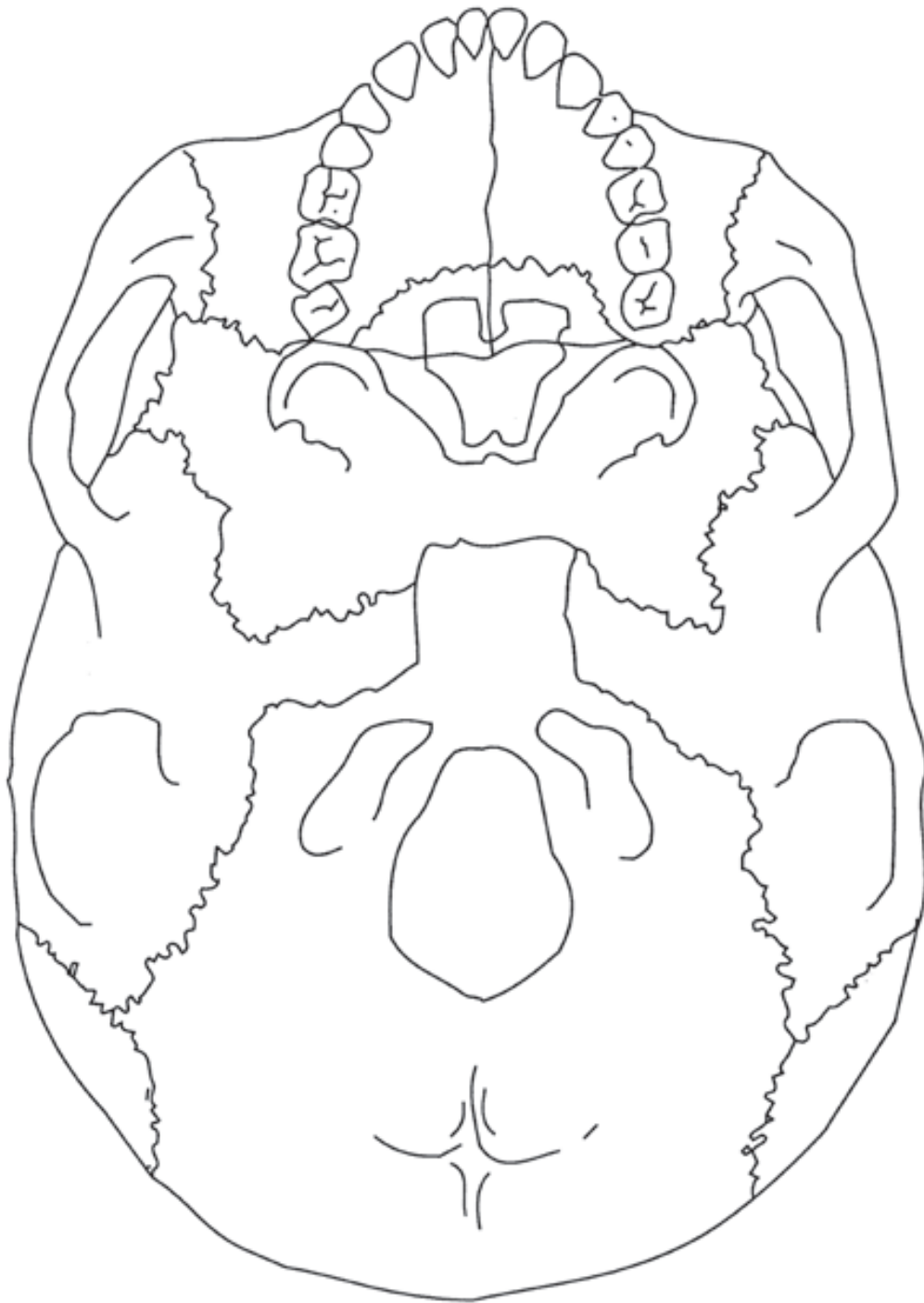
**Adult Cranium Trauma Recording Form – Posterior View (Buikstra and Ubelaker 1994)**



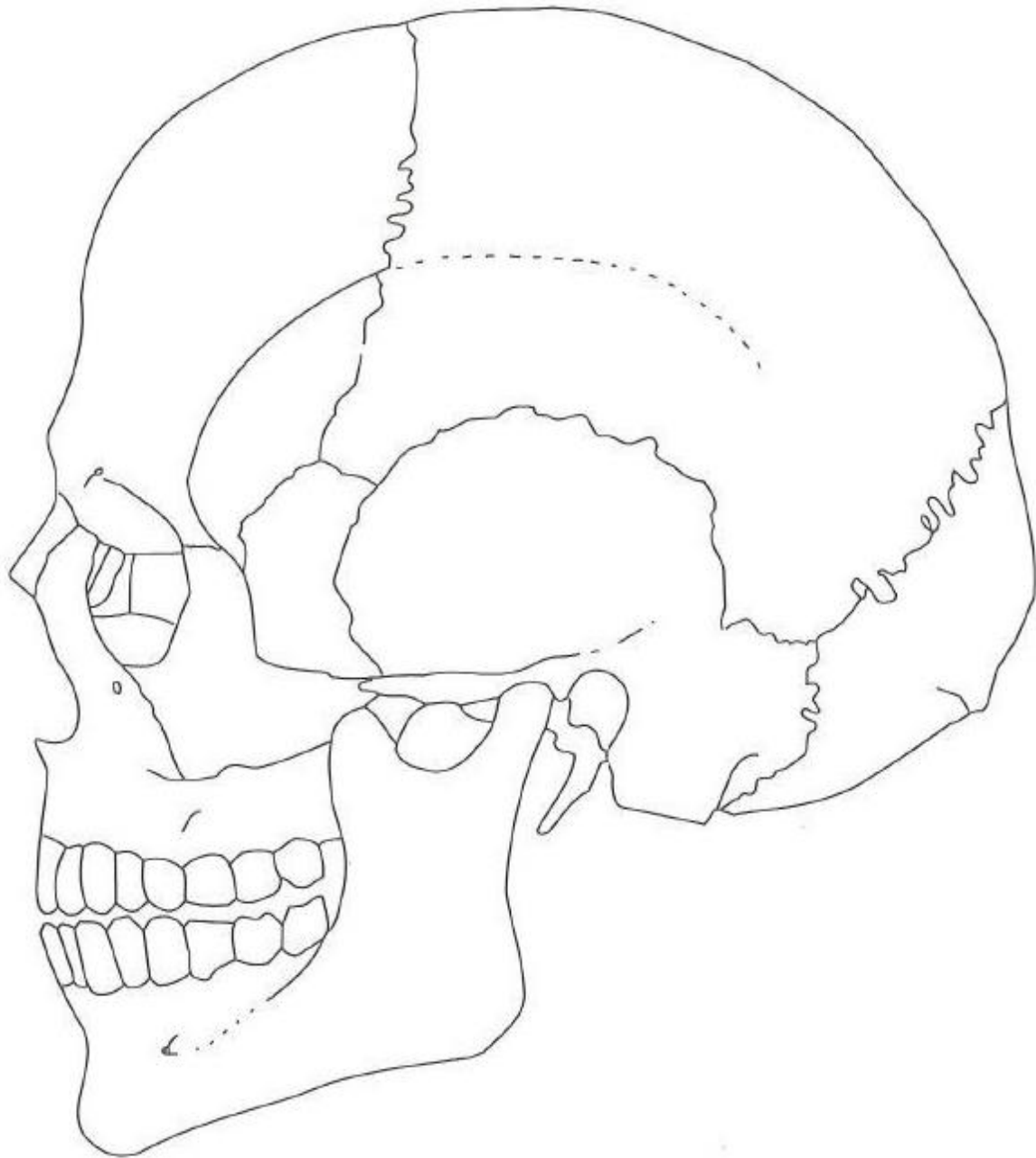
**Adult Cranium Trauma Recording Form – Superior View (Buikstra and Ubelaker 1994)**



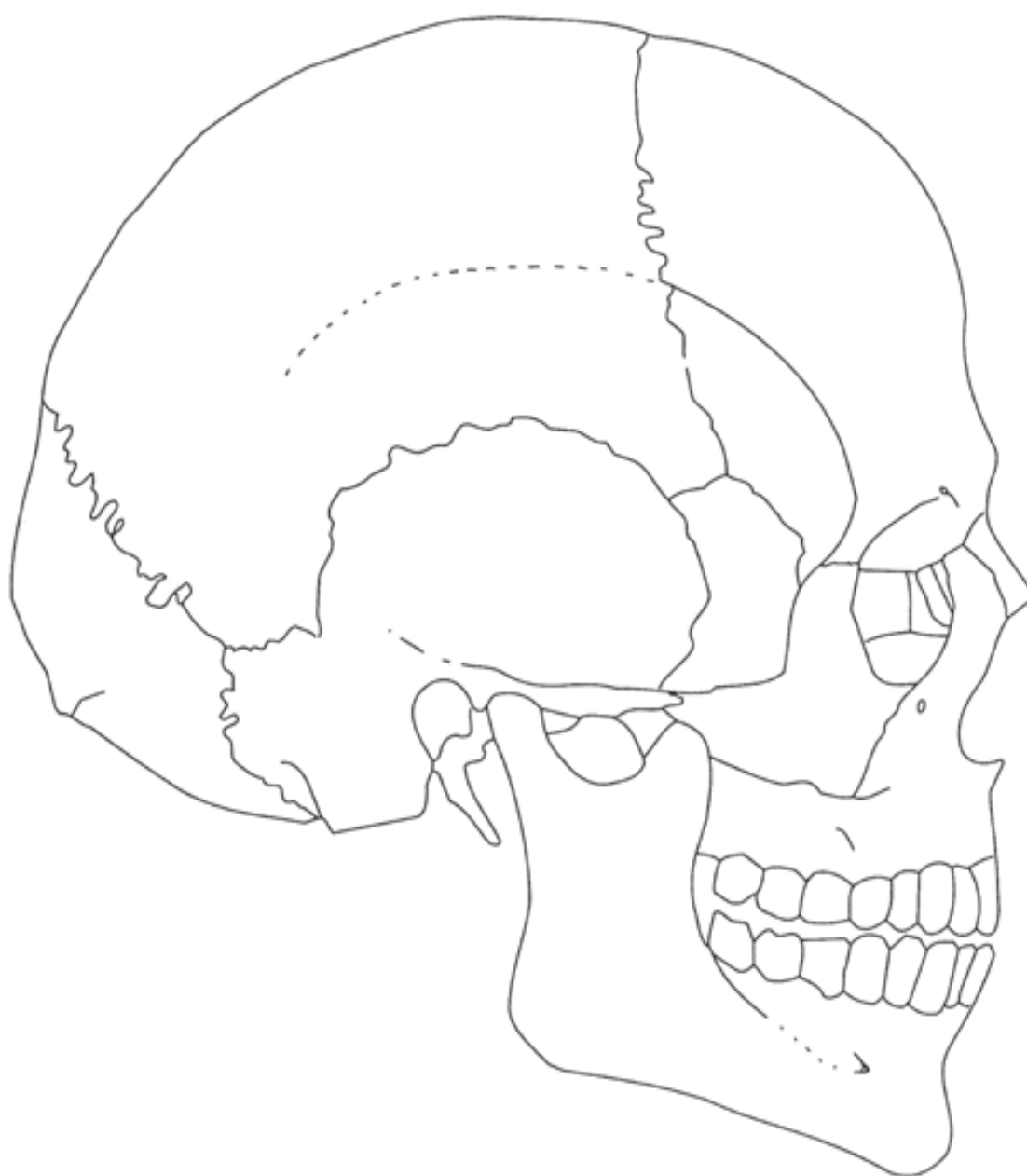
**Adult Cranium Trauma Recording Form – Basilar View (Buikstra and Ubelaker 1994)**



**Adult Cranium Trauma Recording Form – Left Lateral View (Buikstra and Ubelaker  
1994)**



**Adult Cranium Trauma Recording Form – Right Lateral View (Buikstra and Ubelaker  
1994)**





## Appendix C: Decapitation Burial Groups

### Main Burial Group (n=62)

Decapitation burials in the main burial group			
Site	SK ID	Sex	Age
St. Mary de Lode Church, Gloucester	SK B16	Unsexed	Adult
120-122 London Road, Gloucester	SK 1232	Female	Adult
Parliament Street, Gloucester	Burial 5	Unsexed	Subadult
Ashville Trading Estate, Abingdon	Burial 3	Male	Adult
Gill Mill, Ducklington	SK 25	Male	Adult
Roughground Farm, Lechlade	SK 806	Female	Adult
Ashchurch Railway Bridge, Ashchurch	SK 084/723	Male	Adult
Kineton Hill, Temple Guiting	SK 2	Unsexed	Indeterminate
Kineton Hill, Temple Guiting	SK 3	Unsexed	Adult
College of Arts, Gloucester (Barton Street, Glouc.)	SK B18	Female	Adult
College of Arts, Gloucester (Barton Street, Glouc.)	SK 6123	Male	Adult
Claydon Pike	SK 2776	Male	Adult
Barrow Hills I, Radley	Grave 4B	Male	Adult
Barrow Hills I, Radley	Grave 6	Unsexed	Subadult
Stanton Harcourt	SK 25	Female	Adult
Stanton Harcourt	SK 67	Male	Adult
Curbridge	SK 19	Unsexed	Adult
Curbridge	SK 23	Male	Adult
Alchester	SK 5610	Unsexed	Adult
Alchester	SK 5463	Female	Adult
Cold Harbor Farm, Crowmarsh	Burial F	Male	Adult
Cold Harbor Farm, Crowmarsh	Burial L	Female	Adult
Barrow Hills II, Radley	SK 1097	Female	Adult
124-130 London Road, Gloucester	SK 687	Unsexed	Subadult
124-130 London Road, Gloucester	SK 4058	Unsexed	Subadult
124-130 London Road, Gloucester	SK 1023	Female	Adult
124-130 London Road, Gloucester	Burial 92	Male	Adult
Bridge's Garage, Tetbury Road	SK 807	Female	Adult
Bridge's Garage, Tetbury Road	SK 880	Unsexed	Subadult
Bridge's Garage, Tetbury Road	SK 5212	Male	Adult
Horcott Quarry	SK 24	Male	Adult
Horcott Quarry	SK 122	Male	Adult
Horcott Quarry	SK 305	Female	Adult
Horcott Quarry	SK 384	Male	Adult

Horcott Quarry	SK 512	Male	Adult
Gambier Parry Lodge, Kingsholm	SK 507	Male	Adult
Gambier Parry Lodge, Kingsholm	SK 530	Male	Adult
Gambier Parry Lodge, Kingsholm	SK 563	Female	Adult
Gambier Parry Lodge, Kingsholm	SK 579	Female	Adult
Bath Gate, Cirencester	Burial R	Female	Adult
Bath Gate, Cirencester	SK 144	Male	Adult
Bath Gate, Cirencester	SK 150	Male	Adult
Bath Gate, Cirencester	SK 193	Male	Adult
Bath Gate, Cirencester	SK 304	Male	Adult
Bath Gate, Cirencester	SK 305	Male	Adult
Cassington	SK 597	Female	Adult
Cassington	SK 2	Female	Adult
Cassington	SK 4	Male	Adult
Cassington	SK 7	Male	Adult
Cassington	SK 22	Female	Adult
Cassington	SK 28	Female	Adult
Cassington	SK 32	Male	Adult
Cassington	SK 40	Female	Adult
Cassington	SK 44	Male	Adult
Cassington	SK 46	Unsexed	Subadult
Cassington	SK 47	Unsexed	Indeterminate
Cassington	SK 66	Male	Adult
White Horse Hill, Uffington	Grave 4	Male	Adult
White Horse Hill, Uffington	Grave 9	Male	Adult
White Horse Hill, Uffington	Grave 16	Female	Adult
White Horse Hill, Uffington	SK 10/4047	Male	Adult
White Horse Hill, Uffington	SK 4048	Unsexed	Adult

### Atypical Burial Group (n=60)

Decapitation burials in the atypical burial group			
Site	SK ID	Sex	Age
Kingweston Villa	SK N/A	Male	Adult
Cotswold Community Water Park	SK 10635	Male	Adult
Kempsford Quarry	SK 4917	Male	Adult
Great Meadow, Bradley Stoke	SK 1	Unsexed	Adult
Syreford Mill, Wycomb	SM 11	Male	Adult
Yarnton, Cassington	SK 2016	Female	Adult
Vineyard Site, Abingdon	SK 6418	Male	Adult
No. 16 Winchester Road, Oxford	SK N/A1	Unsexed	Indeterminate
Bloxham	Grave E11.8.376	Male	Adult
Frocester Court	Grave 13	Female	Adult
Ashchurch Railway Bridge, Ashchurch	SK 705	Unsexed	Subadult
College of Arts, Gloucester (Barton Street, Glouc.)	SK B32	Unsexed	Indeterminate
College of Arts, Gloucester (Barton Street, Glouc.)	SK 6550	Male	Adult
Claydon Pike	SK 2744	Unsexed	Adult
Stanton Harcourt	SK 51	Male	Adult
Curbridge	SK 30	Male	Adult
Alchester	SK 5597	Female	Adult
Barrow Hills II, Radley	SK 1009	Male	Adult
Bridge's Garage, Tetbury Road	SK 5077	Female	Adult
Bath Gate, Cirencester	SK 123	Male	Adult
Bath Gate, Cirencester	SK 152	Male	Adult
Bath Gate, Cirencester	SK 194	Male	Adult
Bath Gate, Cirencester	SK 215	Male	Adult
Bath Gate, Cirencester	SK 216	Male	Adult
Bath Gate, Cirencester	SK 11	Male	Adult
Cassington	SK (602)	Male	Adult
Cassington	SK 6	Male	Adult
Cassington	SK 12	Female	Adult
Cassington	SK 35	Female	Adult
Wessex Water, Cowhill	SK 2500	Male	Adult
Grange Farm, Marshfield Road, Tormarton	SK N/A	Unsexed	Subadult
Sea Mills, Bristol	SK D6	Unsexed	Subadult
Churchill Hospital, Headington	SK N/A	Male	Adult
Gill Mill, South Leigh	SK 4400	Female	Adult
The Vineyard South, Abingdon (FGW)	SK 678	Unsexed	Subadult
Wroxton St. Mary - Barn Lodge	SK F1	Female	Adult
Brightwell-cum-Sotwell (South Moreton)	SK 11182	Female	Adult
2-4 NCL, South Parks Road, Oxford	SK 3696	Male	Adult

Roughground Farm, Lechlade	SK 894	Female	Adult
Frocester Court	Grave 14	Male	Adult
College of Arts, Gloucester (Barton Street, Glouc.)	SK B21	Male	Adult
Cold Harbor Farm, Crowmarsh	Burial C	Unsexed	Subadult
Barrow Hills II, Radley	SK 1018	Male	Adult
Barrow Hills II, Radley	SK 1026	Female	Adult
124-130 London Road, Gloucester	SK 4063	Male	Adult
Bridge's Garage, Tetbury Road	SK 5187	Female	Adult
Bridge's Garage, Tetbury Road	SK 5188	Male	Adult
Bridge's Garage, Tetbury Road	SK 5189	Male	Adult
Horcott Quarry	SK 256	Female	Adult
Horcott Quarry	SK 306	Female	Adult
Horcott Quarry	SK 392	Female	Adult
Gambier Parry Lodge, Kingsholm	SK 546	Female	Adult
Gambier Parry Lodge, Kingsholm	SK F70	Unsexed	Indeterminate
Gambier Parry Lodge, Kingsholm	SK F95	Unsexed	Indeterminate
Gambier Parry Lodge, Kingsholm	SK F132	Unsexed	Indeterminate
Bath Gate, Cirencester	SK 81	Male	Adult
White Horse Hill, Uffington	SK 4036	Unsexed	Subadult
White Horse Hill, Uffington	SK 4039	Unsexed	Subadult
Post Farm, Thornbury	SK 3293	Male	Adult
Great Western Park, Didcot	SK 5411	Female	Adult