2012-06-22

Clergy and Gender in Medieval England: A Bioarchaeological Approach

Alexandra Busot
University of Miami, a.busot1@umiami.edu

UNIVERSITY OF MIAMI

CLERGY AND GENDER IN MEDIEVAL ENGLAND: A BIOARCHAEOLOGICAL APPROACH

By

Alexandra Nicole Busot

A THESIS

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Master of Arts

Coral Gables, Florida

June 2012

UNIVERSITY OF MIAMI

A thesis submitted in partial fulfillment of
the requirements for the degree of
Master of Arts

CLERGY AND GENDER IN MEDIEVAL ENGLAND: A BIOARCHAEOLOGICAL APPROACH

Alexandra Nicole Busot

Approved:

_____ Traci Ardren, Ph.D. Associate Professor of Anthropology	_____ Dean of the Graduate School
_____ Pamela Geller, Ph.D. Assistant Professor of Anthropology	_____ Eugene Clasby, Ph.D. Professor of English

BUSOT, ALEXANDRA NICOLE (M.A., Liberal Studies)
Clergy and Gender in Medieval England: (June 2012)
A Bioarchaeological Approach

Abstract of a thesis at the University of Miami.

Thesis supervised by Professor Traci Ardren.
No. of pages in text. (69)

In the Middle Ages, masculinity could best be defined by the ability of a male to impregnate women, protect dependents and serve as a provider for one's family. With the Gregorian Reform of the eleventh century came a campaign against clerical marriage, which thereby effectively disallowed men of faith to perform the traditional masculine gender roles. The clergy, while biologically male, were seemingly emasculated by their vows of chastity and expected to perform tasks that in many cases were considered to be feminine. For these reasons, some medievalists have proposed that the unique role that these men performed should be considered a 'third gender' as it deviates from the normalized gender roles. In order to confirm or contradict this new interpretation, I will properly contextualize the data by examining textual, archaeological and skeletal evidence. First, I will briefly discuss the documented gender roles of the time period by relying primarily on historical texts. Then, also using primary textual sources, I will examine the lives of the clergy and attempt to assess public opinion concerning these figures. Finally, I will rely on skeletal and contextual data from medieval monastic cemeteries in England to further the assessment. Burial positioning and associated artifacts, as well as pathology are some of the data that inform my inferences.

Although the study of gender and other social identities has been increasingly popular within the last decade, celibate monks have been largely overlooked. Some

scholars believe them to be a 'genderless' population. I respectfully disagree. Many of the young men who would eventually join the Order were raised in traditional homes with traditional gender roles. When many of their friends were getting married, these males were joining the Church. It seems likely that these men underwent identity issues as they were suddenly expected to ignore the traditional gender roles that were ascribed to them from an early age. Thus, I believe that this population is worthy of further examination and by looking at multiple types of data, a more complete picture of this unique group can be formed.

ACKNOWLEDGEMENTS

As I sit here, moments away from ending what feels like an epic journey, I realize that I truly could not have even dreamt of this achievement without the support of my incredible family and friends. I owe a big thank you, perhaps the biggest, of course, to my wonderful parents, who have supported me every step of the way, no matter how crazy my dreams may seem. Writing a thesis is no easy task, and for me, it was especially challenging. There are numerous people who have provided invaluable support during this process and I only hope that I can adequately express my appreciation. First, I owe much gratitude to my dear friends Regina Cosmides and Zach Ernst for being wonderfully supportive and keeping a smile on my face and my mind on the positives. Even during the worst of days, they were there to take my calls and listen patiently while I ranted and raved about the entire process. I really cannot thank them enough. I'd also like to thank Jannette Melo for being perhaps the most understanding employer ever and of course, Adrian Alvarez, Microsoft excel wizard, for streamlining a good amount of my data analysis.

This project would not have been possible without the extraordinary efforts of the Museum of London's Centre for Human Bioarchaeology. I cannot thank them enough for taking the time and effort to share all of their data with researchers across the globe. The hardest and most frustrating part of the whole thesis process was trying to find a skeletal collection to work with, and when I found the CHB's online database, it felt like a true miracle. As far as I'm aware, they are the only institution that makes all of their bioarchaeological data available to the public, which is a truly remarkable. In particular,

Jelena Bekvalac deserves thanks for promptly responding to my panicky emails with insightful remarks.

Last, but most certainly not least, I would like to thank my advisory committee: Dr. Eugene Clasby, Dr. Pamela Geller and Dr. Traci Ardren, for not only putting up with me and my barrage of emails, but encouraging and supporting me along the way. It would be a disservice, however, to not give special thanks to Dr. Ardren. When I first came to the University of Miami, I had big dreams, but I didn't have the confidence in myself to pursue them. I truly could not have gotten to where I am now and accomplished what I have without her unwavering faith in me, and for that, I am forever grateful.

TABLE OF CONTENTS

LIST OF TABLES

Chapter 1
INTRODUCTION

As long as humans have organized themselves into societies, there have been those that deviated from normative social values. By defining these individuals or groups as different and excluding them, suggests the noted sociologist Emile Durkheim, the unity of the remainder of society is strengthened (Lukes 1972:160-3). In essence, in order for a society to define the normative, it must first establish the 'other'. In this way, heterodox individuals perform an essential role within society. It is important to study these individuals and groups as "the extreme and atypical show us what is possible in a society, the limits of its capacities, and what has to happen for certain experiences to be accommodated" (Neal 2008:30).

Traditionally, historians have largely ignored heterodox individuals or groups. However, following the feminist movement of the twentieth century, which demanded a more holistic and balanced reinterpretation of history, much attention has been refocused on the marginalized and oppressed. A central tenet of this paradigm shift was the developing concept of gender. It was not until the mid twentieth century that the idea of 'gender as a social role' was introduced. It is not uncommon, even today, for sex and gender to be erroneously considered interchangeable. An individual's sex is biologically determined by the genital organs that he or she possesses. Gender, on the other hand, is socially constructed and is comprised of the interplay between gender role, gender identity and gender ideology (Conkey and Spector 1998:24). Gender role describes "what people do and what activities and behaviors are deemed appropriate for the gender category" (Conkey and Spector 1998:24-25). Gender identity however, refers to one's self-identification and so it is possible the gender identity does not coincide with gender

role (Conkey and Spector 1998:25). Gender ideology refers to the meaning of *male, female, sex* and *reproduction*, and includes the prescriptions and proscriptions for persons of culturally defined gender categories (Conkey and Spector 1998:25). Gender is an essential aspect of the individual and as such, is an essential aspect of society. "[…] It provides a way to decode meaning and to understand the complex connections among various forms of human interaction" (Scott 1999:44-46).

Although ambivalent expressions of gendered sexuality were acknowledged in medieval medicine and philosophy, they were treated as "exceptions in a world in which the existence of two genders – two sexes – was the natural state" (Salisbury 1996:81-82). In fact, the extensive effort made by the authors of such works to label and describe in terms of a binary language "confirm that the two sexes did mark a profound and significant division of the world" (Cadden 1993:281). These texts assumed that men were not only different from women, but superior to them as well, a belief that was reinforced by religious writings, particularly the Bible (Bullough 1994:31). This assumption created strict roles for each sex (Bullough 1994:33), which can be understood as gender roles. Another assumption is that sex dictated sexuality, as "the norm was male and female sexuality, and this norm was determined by the genital organs with which one was born" (Salisbury 1996:82). These assumptions which underlie medieval society illustrate that "gender was one of the organizing principles of the Middle Ages" (Salisbury 1996:98).

Although both sex and gender have been separated into the male:female binary, recent studies have demonstrated that the one-sex model was prominent until the Enlightenment and that it was not until after the seventeenth century that the body was first conceived of in terms of two distinct sexes (Laqueur 1990). The prominence of the

one-sex model clearly demonstrates that "sex is historically mutable and socially contingent" (Geller 2008:117) and that ways of thinking are not fixed across all of time.

Feminist and queer theory has allowed for the destabilization of the categories of sex and gender to allow the mind to consider other 'unnatural' possibilities that are otherwise not readily apparent to modern Western thought. Although the male:female binary may be prevalent today, historians and archaeologists have successfully demonstrated the existence of multiple genders in the past. In order to identify alternative genders in the historical record, one must first identify the dominant gender roles within the society. Hegemonic masculinity can be understood as that which brings the most prestige to males within a society and can be "based on elements of class, ethnicity, age, profession and sexuality" (Gilchrist 2009:238). Those who "do not possess the attributes of the most powerful masculinity are marginalized and subordinated" (Gilchrist 2009:238). While the past decade has witnessed extensive research on gender and other social identities, it is only recently that these questions have been refocused to consider alternative identities or genders within prominent social groups.

Although monasticism came to England as early as 597 C.E. (Knowles 1963:21), it failed to prosper until 940 C.E. (Knowles 1963:31). However, by the early fourteenth century, there were over a thousand religious houses in England (Lepine 2003:363), with an estimated 13,000 religious individuals devoted to the monastic way of life (Knowles and Hadcock, 1971:488-95). These celibate men played a vital role in medieval society, as monasteries served as shelter for travelers, forts during times of conflict, distribution centers and hospitals, repositories of knowledge and places for spiritual guidance. Truly, "monasticism was at the heart of medieval life and culture" (Heale 2009:1).

In medieval England, hegemonic masculinity was defined by three essential roles: to impregnate women, protect dependents, and serve as provider for one's family (Bullough 1994:34). A man was expected to "be active in the world and the active partner in his sexual relationships" (Salisbury 1996:85). Although biologically male, monks and clergy who practiced celibacy could not conform to these standards. Influenced by feminist thought and queer theory, several respected medievalists have recently come to question the gender of these religious males. Though they present intriguing arguments, these scholars neglect to utilize a variety of data. In particular, the utility of bioarchaeological data, or human skeletal remains recovered from burial contexts, has yet to be explored in relation to the gender of the clergy.

As discussed, the gender of the medieval clergy has recently come into question. While the historians make several compelling arguments, they do so using limited sources and unsound assumptions. A critical analysis of these sources will identify the main issues and demonstrate the necessity of incorporating a variety of data types. In order to properly discuss medieval English monasticism in relation to gender, textual, contextual and skeletal data must be used. To reduce presentist biases, one must properly contextualize the data (Geller 2005:604), meaning that the subject must be viewed within its historical context, and that a variety of data must be utilized. Sources consulted may include associated archaeological materials and remains, as well as ethnohistorical, textual and artistic evidence. The more varied the data consulted, the better the ability to reconstruct cultural meaning and understand biocultural change. Therefore, I will incorporate new data sources, particularly archaeological and bioarchaeological data from

the Cluniac priory and abbey of St. Saviour[1], to reassess the arguments raised by the medievalists.

The overall purpose of this thesis will be to assess the effectiveness of bioarchaeological data in illuminating questions about gender. The primary objective of this study is to demonstrate the relationship between the documentary sources cited by historians and the population from Bermondsey Abbey. The secondary objective is to demonstrate that bioarchaeological research can contribute to understanding and identifying alternative genders in the past. This study will also attempt to demonstrate the issues associated with documentary evidence and the importance of a multidisciplinary and properly contextualized approach.

The Cluniac priory and abbey of St. Saviour, Bermondsey was chosen as the primary skeletal sample for this thesis for a multitude of reasons. First, the site contains a relatively well-preserved sample of articulated burials. The location of internment of these individuals and the fact that they are predominantly male, has led to the interpretation that this burial population constitutes a 'monk's cemetery'. Additionally, the sample size is large enough to yield valid information about the burial population. The full results of the excavations as well as the resulting skeletal analysis are available to the public through a recently published monograph as well as several online databases. It was for these reasons - the presence of a monk's cemetery as well as the accessibility of the data - that this particular site was chosen for further analysis.

The remainder of this thesis will be organized into four methodological and theoretical chapters, plus one concluding chapter. Chapter 2 will provide an overview of

[1] Please note that the Cluniac priory and abbey of St. Saviour will be referred to as Bermondsey Abbey for the duration of this thesis.

the history of monasticism in England. In it, I will also introduce the existing theories on gender and clergy, explaining the claims and the sources consulted. In Chapter 3, I will perform a critical analysis of the traditional approach to historical research, distinguishing its flaws and benefits in relation to the gender debate. I will then discuss the theory behind the utility of archaeological and bioarchaeological data. In Chapters 4 and 5, I will present the skeletal data from the Bermondsey Abbey site. In the first of these chapters, I will give a brief overview of the site and the methods used for analysis, followed by a discussion of burial context. Chapter 5 will deal with the demography of the skeletal sample. I will place particular emphasis on any pathological conditions present in the sample and how these conditions may be representative of gender.

Finally, in Chapter 6, I will conclude by discussing this case study in contextualization and summarizing the contributions to the clerical gender debate gained from the bioarchaeological material.

Chapter 2
THE MEDIEVAL CLIMATE

Monastic customs and beliefs were not constant throughout the medieval period; they varied not only by Order, but also geographically and temporally. Despite the aim of social isolation, monasticism was not entirely free of outside influence, and customs and beliefs were subject to the effects of contemporary social and economic developments. Therefore, in order to discuss gender and identity within a medieval monastic setting, it is necessary to develop a basic understanding of the movement and its evolution within the broader framework of European history.

Given that the arguments to be discussed encompass several periods within medieval history, a lengthier discussion of medieval monastic history will be undertaken to accommodate this greater range. Although numerous monastic orders came into being during the Middle Ages, a detailed discussion of each would be futile and irrelevant for the purposes of this thesis. Therefore, only the contemplative orders, namely the Benedictines, and Cluniacs will be discussed. Particular interest has been placed on the Cluniacs and their tenets, not only because of the influence that their early reforms would have on the Church controversies of the twelfth century, but also for their affiliation with Bermondsey Abbey.

Christian monasticism is thought to have evolved from the manifestation of the ascetical movement in fourth century Egypt (Livingstone 2006). This early form was characterized by the quest for God, or the pursuit of moral and spiritual perfection, through extreme austerity and an eremitical lifestyle (Knowles 1963:683; Alston 1907). By the mid fourth century, this ideal of asceticism and isolation would gradually begin to spread westwards, where it would be adopted and transformed by Saint Benedict of

Nursia, who would compile one of the first monastic legislative codes during the mid-sixth century (Knowles 1963). Unlike the earliest forms of monasticism, which had promoted isolation, the Rule of Saint Benedict, as the code is called, sought to standardize and regulate a "virtuous common life" (Knowles 1963). The Rule offered legislation covering every aspect of monastic life, including ceremonial and disciplinary conditions (Knowles 1963). It is most notable, however, for its central tenet, which insists that a monk take three solemn vows: obedience, chastity, and poverty. Despite its incorporation of a cenobitical, or communal lifestyle, the ultimate goal was still the progression of an individual's soul toward perfection (Knowles 1963). The transmission of the rule westwards occurred by way of Augustine (later Augustine of Canterbury) as he traveled from Rome in the late sixth century on a mission to convert the British Isles. Eventually monastic life based on the Rule would become the norm, and while it is unknown exactly when this rule became prominent within English monasticism, it is certain that it had been adopted at Canterbury, England's first monastic establishment, by the second half of the seventh century (Midmer 1979:4).

Adherents to the Rule of Saint Benedict became known as the Benedictines, and by the ninth century, the Benedictine Order had become the only form of monastic life throughout Western Europe[2] (Alston 1907a). Since monasticism was the only type of religious life available in these areas, and the Rule was the dominant monastic code, it would come to exert immense influence over the Western Church. In fact, the Benedictine Rule and Order were so influential, that the period between 650 and 1150 has been referred to as "the era of the Benedictine centuries" (Knowles 1963:3).

[2] With the exception of Scotland, Wales and Ireland, which adhered to the ways of Celtic monasticism for a few more centuries (Alston 1907a).

In this earliest period in England, monasticism, as well as the kingdom as a whole, was unstable, expanding and contracting at numerous points within a few centuries. Following the devastation of the Viking raids of the eighth century, there was a general disappearance of the monastic lifestyle, which lasted until the tenth century. Elsewhere in Europe, however, monastic reform was underway. Spearheaded by the Benedictine monastery of Cluny in France[3], these reforms were the result of a growing disapproval of the Papacy, whose corruption had become brazen during the first half of the tenth century. The Cluniacs, as this branch of reformers would come to be known, desired a return to full observance of the Benedictine Rule and complete independence from lay control (Knowles 1963:29). In particular, they called for and end to the practice of simony, or the act of paying money in exchange for ecclesiastical office (McNamara 1995:138). Branding the long-standing practice of lay patronage as simony, the Cluniacs urged it be replaced by the electoral system outlined in Chapter 64 of the Rule (Alston 1907b). Furthermore, they held the belief that women were "incapable of sufficient spiritual merit" and fervently disallowed female monastic communities from joining the reform movement (McNamara 1994:7) To organize and administer their growing movement, which would have over three hundred houses by the twelfth century, a hierarchical system was developed (Alston 1907a). The Abbot of Cluny had complete authority over all of the daughter houses, in as much as the superiors of these houses had to be appointed by the Abbot's sanction. To the daily canonical hours, additional devotional exercises were added, and new ways of celebrating God, particularly through elaborative liturgy and visual splendor, were employed. While these reforms did not

[3] Please note that from this point on, when referring to the mother house in France, the term Cluny will be used, occasionally without any obvious signifiers (abbey, monastery, etc.), while Cluniacs will be used exclusively to refer to the general Order which encompasses the international network of houses.

directly extend to the Papacy, they would profoundly impact those who would stand at the forefront of the later Church reforms.

The Norman Conquest of England in 1066 would completely change the spirit of the nation and monasticism within it. Under Norman rule, England's ties with continental Europe were strengthened, and this is evident in the rise of trade in the south and an influx of alien houses, like the aforementioned Cluniacs, into the country. This influx would spark of a regeneration of the English monastic movement in the eleventh century, elevating monasticism to a prominent position within medieval English society. It was at this time that ecclesiastical texts began to appear which divided Christian society into 'Three Orders': those who prayed (*oratores*), those who fought (*bellatores*) and those who worked the land (*laboratores*) (Duby 1980; Vauchez 2009).

During the high Middle Ages, Europe experienced a climate change, with the warmest temperatures occurring between 1000 and 1300 AD (Lamb 1995). Warmer temperatures meant an extended harvest time and this, coupled with advances in farming technology, led to increased agricultural production (Roberts and Cox 2003). The increased production, in turn, had a positive influence on health and fertility rates, sparking a population boom (Roberts and Cox 2003). To meet the demand for food created by the growing population, there was a drive to cultivate and reclaim the forests, moorlands and fens (Platt 1994). The law of primogeniture, however, ensured that only the eldest son would inherit land and alternatives had to be found for the other children. It was at this time, and presumably for these reasons, that the practice of child oblation, or the 'gifting' of a child to a monastery, gained popularity (Kerr 2009:31). Families that did not partake in this practice encouraged their children to venture into the newly developed

boroughs and towns to find work. The urbanization that resulted created such a demand for jobs that the government and Church would be forced to create new professions to accommodate the expanding population (McNamara 1994:4).

It was customary at this time for feudal lords and monarchs to demonstrate their patronage to a particular monastery by endowing them with a parcel of land. Although the Benedictine Rule had prescribed daily manual labor (*opus manum*), this aspect of monastic life was gradually phased out (Clark 2007). Instead, monasteries employed the manorial system, leasing part of the land in exchange for agricultural labor on the retained land. A steward was appointed to oversee the properties and tenants and to collect produce and rent (Knowles 1963:432). During this period of population growth, the demand for produce rose and demesne farming, as this practice is known, flourished. At this time, monasteries were generating as much as three quarters of their total revenue from the proceeds from these land holdings (Heale 2009:11). It was the surpluses from this land that would finance the construction of new monastic houses during the later 'golden age' of monasticism (Platt 1994). Revenues were so great, that about twenty percent of English monasteries enjoyed incomes of greater than £300 a year, a sum comparable to that of the higher aristocracy (Heale 2009:3).

The High Middle Ages also witnessed a battle for authority between the Church and state. The source of strife was an attempt to free the Church from secular intervention. Common law dictated that the monarch held the right to confer ecclesiastical benefices. Effectively this meant that the King had the ultimate authority to select the individuals for high-ranking ecclesiastical positions. Church leaders greatly opposed lay investiture, insisting that this responsibility was the right of the Pope, not a

secular king. The issue became paramount when Pope Gregory VII, who had absorbed Cluniac ideals, passed a series of reforms aimed at eradicating the practices of simony and imposing restrictions on the unchaste clergy. Unlike his predecessors, Gregory VII had the necessary vigor to enforce the reforms and to prove to the world, secular rulers and peoples alike, that spiritual authority solely resides in the Church. These reforms, which would come to be known collectively as the Gregorian reforms, attempted to create cohesion within the Church, by "monasticizing the clergy and clericalizing the monastic movement" (Murray 2004:25).

Although this struggle included and affected all of Western Europe, it did so in varying degrees. England had largely ignored the issue until 1103, when Anselm, the Archbishop of Canterbury, refused to pay homage to the King or to consecrate bishops who had received lay investiture (Livingstone 2006). The conflict was short-lived, however, as a settlement was reached in 1107. Known as the Concordat of London, this agreement stripped the King of his right to invest ecclesiastical office but maintained his privilege to bestow temporalities and to receive homage in return (Livingstone 2006). Since monasteries were dependent upon the income from these temporalities, individuals had to be carefully selected for office so as not to risk angering the King into withdrawing royal patronage. Although, in effect, very little had changed following this agreement, the mere fact that the monarchy had yielded to the will of the Church was enough to reinstill confidence in the authority of the religious institution. Immediately following this period of struggle and reform, came two centuries of intense monastic growth, a period which has come to be known by historians as the "golden age" of monasticism (Knowles 1963). Males were joining the Orders at an unprecedented rate

and the majority were of the military aristocracy (Murray 2004:26). At the height of this expansion, nine new houses were founded every year (Lepine 2003:363).

The later High Middle ages, for reasons previously discussed, had a higher standard of living, and this made many male religious less tolerant of the austere living conditions originally prescribed to monastic communities by the Rule (Kerr 2009:12). There was a particular reluctance among English monastic houses to embrace the more rigorous practices (Heale 2009:23). By the end of the twelfth century, monks had become "great capitalists" and saints were raised to a status within monasticism similar to that of a feudal lord (Knowles 1963:685). Monasticism had thus completed its transformation from being a personal and spiritual enterprise to one focused on the material, social and static (Knowles 1963:684).

In the late thirteenth and early fourteenth centuries, the Benedictines instituted a series of reforms to address this issue, calling for a relaxation of observances. Contemporary secular trends became more influential to monastic thought (Clark 2002:12). These reforms were understood as a "bold attempt at modernization" (Clark 2002:12) in an ever-evolving world and were granted support from the Papacy. The resulting changes to diet, privacy and receipt of wages would allow these monks to lead a life akin to that of the nobility and gentry (Lepine 2003:368). For instance, monks originally inhabited a communal dormitory, as prescribed in Chapter 22 of the Rule (Alston 1907), but a growing demand for privacy resulted in the creation of private cells for monks within the cloister (Kerr 2009:12).[4] These relaxations left monks prone to excess, which incited sharp criticism and hostility from the lay people and prompted the

[4] The effects of the Benedictine reforms are evident in Bermondsey Abbey's architectural changes. At this time, it appears that private quarters (B8) began to be built (Dyson, et al 2011:57).

emergence of new reformed Orders, which urged a return to the ways of early monasticism. Indeed, contemporary satirists and visitation records document a moral decline amongst the clergy, citing faults such as "neglect of the liturgy, drinking, gambling, extravagance, sexual failings and other departures from the Rule" (Lepine 2003:367).

These moral failings seem to have reached all levels of society; by the end of the thirteenth century, England had become "a society where violence, bribery and corruption were normal means of settling the issues which arose between men" (Hilton 1967:55). This decline is likely due to Europe's volatile state after the surging population began to overburden the agricultural economy in the fourteenth century (Platt 1994). This century was also marked by climate instability, with a steady decline in temperatures and a rise in rainfall (Platt 1994). The increased demand for produce of the previous centuries had led to soil exhaustion from overworking of the land and crop yields decreased significantly. What followed, in the years between 1315 and 1322, has been labeled an "agrarian crisis" and it would devastate Europe (Platt 1994).

The deterioration of the climate, soil exhaustion and decreased crop yields resulted an immense food shortage. The Great Famine, which occurred between 1315 and 1317, killed at least 10% of the English population (Kershaw 1973:11). The years 1315, 1316 and 1321 brought harvest failures and subsequently famine, and between 1313 and 1321 there were periods of sheep and cattle murrain (Platt 1994:91). Nearly three decades later, in 1348, the Black Death would ravage Europe. It has been estimated that within this two-year period somewhere between 23% - 45% of the overall population and 40% of monks, nuns and canons were killed (Russell 1948, Goldberg 1996; Heale 2009:6). No

amount of prayer could halt the famine and pestilence that was plaguing the nation and thus the power of religious institutions began to wane. The number of initiates declined at it is likely that those joining the Order at this time were either truly devout or merely seeking a sense of stability within a world of chaos.

Some historians have argued that the world inside the cloister walls, identified as *Gegenkultur*, was distinct and unencumbered by the beliefs and values of the outside world (Clark 2007:3). However, the previous discussion of monastic history has demonstrated that this argument is false and that by the late middle ages, English monasteries "were fully integrated into lay society, with estates to administer and interests to defend" (Lepine 2003:367). Not only was monasticism directly influenced by external social and economic events, but, and as the following discussion will demonstrate, these events also helped shape the relationship between gender identity and monastic identity.

The urbanization that was beginning to occur in the eleventh century, Jo Ann McNamara argues, challenged the established social and economic order that divided men into "those who pray, those who fight, and those who labor" (1994:3). McNamara asserts that these social changes, along with the previously discussed struggle between the religious and secular for leadership of the Christian world, produced a masculine identity crisis, which she terms 'the *herrenfrage*' (1994:3). As celibate men increasingly grasped new positions of power, status became less dependent upon the traditional masculine warrior qualities and this shift threatened secular males. Furthermore, celibacy "depraved its practitioners of the necessary 'other' upon which to construct a gender persona" thereby leading to gender identity confusion (McNamara 1994:8). This

confusion was only amplified by the gradual exclusion of women from the "competitive space" of medieval society, which produced an "ungendered definition of man" (1994:5). New questions about gender arose as celibate men took on greater authority. The result was the "restructuring of the gender system" between 1050 and 1150, so that competing masculinities cooperated and supported each other in order to maintain the basic social structure and exclude women (McNamara 1995).

The insistence on clerical celibacy that accompanied the Gregorian reform created a distinct divide between the clergy and laity, and this divide was defined in terms of sexual activity, or lack thereof (Karras 2005:44). The emphasis on purity both reestablished sex as sinful and polluting, but also placed the clergy on a higher moral plane (Karras 2005:44). Since sexual status was central to the distinction between clergy and laity, Karras argues that chastity was constitutive of how individuals would have identified themselves and their role within society (Karras 2005:45). For this reason, Karras believes that abstinence was an act whereas chastity should be viewed as a sexual identity (2008:54). Since chastity required both sex and gender to be transformed in both sexes, men and women, in the process "were reconciled and became more like one another" (Murray 2008:51). This demonstrates a return to the early beliefs of the Christian Church, as Gregory of Tours (c. 538) identified the chaste as a third gender, and Paul declared that there is neither male nor female within Christ (McNamara 2002:200). These chaste religious males became "extraneous to contemporary gender constructions" as "the insistence on chastity […] meant a denial of sexuality and a rejection of the generative power/reproductive claims of masculinity" (Swanson 1999:167).

The privileging of chastity, Jacqueline Murray argues, was accompanied by the elevation of monasticism as the superior mode of life and this threatened to obscure gender differences (Murray 2004:25-26). To combat this threat, a new form of masculinity was consciously created by the Church. During the twelfth century, many initiates came from aristocratic families and had been raised with the traditional emphasis on the value of military and sexual prowess (2004:26). These men arguably would have had identity confusion, as their new role was in direct opposition to the one they were taught to respect and emulate during childhood. Murray argues that this confusion is evident by the Church's subsequent actions: promoting monasticism as a superior mode of life and the adoption of the terminology of the hegemonic masculinity (2004:37).

The mid-twelfth century saw many changes to Christian ideology; penance and transubstantiation were emphasized and the doctrine of purgatory was officially adopted. These amendments also influenced the way in which the hegemonic masculinity was defined. Suddenly, uncontrollable lust came to be an exclusively male trait. For the chaste, militaristic metaphors were employed to express the challenges of self-control and the inner battle against temptation, thereby anchoring "masculine chastity" and "guaranteeing virility while fortifying self-control" (McNamara 1999:9). Saints now began to appear in narratives in the guise of knights, serving as role models for the initiates. Indeed, Gerald of Wales believed men incapable of controlling their lust to be effeminate (Murray 2004:32). In fact, much of the anti-clerical literature that would later emerge was "voiced in tones similar to those of medieval misogyny" and could be considered as gendered (Swanson 1999:167). Furthermore, the Church consciously adopted the term "Father" as a title of authority. By doing so, they "removed it from the

realm of procreation and gave the clergy the privilege of those who had the right to make decisions for their families and the responsibility to care for them" (Karras 2008:65).

Self-control became the ultimate battle and that by which clerical masculinity was defined. The introduction of these metaphors redefined masculinity in such a way that one could be masculine without having to act masculine (Murray 2004:27). Murray believes that "the transformation of the chaste life into the 'battle for chastity' allowed men to overcome an enemy and deploy the language of military prowess without wielding a weapon or shedding blood" (2004:27). Thus, by militarizing monastic life, the Church had actively redefined masculinity to incorporate religious males. However, even this new clerical masculinity was defined by the same terms, albeit metaphorically, as hegemonic masculinity.

The new ideal of clerical chastity implemented by the Gregorian Reform forced religious males to reject many aspects of the traditional masculine gender role. This was exacerbated when the longstanding practice of child oblation ceased in the thirteenth century (Cullum 1999:179). Patricia Cullum argues that this change in monastic practice produced gender confusion among initiates. Citing modern psychology she demonstrates that gender identity is formed at an early age (1999:179). Therefore, child oblates, who had been raised within the cloister walls, would have never known or identified with a role or gender other than what was presented to them, and thus would have had little or no conflict between their gender identity and monastic identity. After child oblation ceased and particularly after the Black Death, there was a delay in joining the monastic orders (Cullum 1999:179). It is estimated that at this time novices were at least nineteen years old at profession (Knowles 1963). This delay would have allowed men to embrace

and interact with the hegemonic masculinity and therefore, Cullum believes, these men were more prone to "fragile gender identities" upon arrival at the cloister (1994:180). The end of oblation "removed the earlier coherence of monastic masculinity; new inmates now had to reject secular masculinity to achieve their angelic status" (Swanson 1999:163).

Since both the secular clergy and monks were excluded from fighting and fornicating, the two activities by which Cullum defines the masculine ideal, and celibacy and virginity were being equated with femininity during this period, Cullum argues that these males were more likely to assert their masculinity by transgressing the prescribed gender roles (1999:182-186). These men may have broken their vows of celibacy if only because engaging in sex allowed "the sense of boasting to other men and joining with them in a common celebration of the physical subordination of women [which] was necessary to the construction of [the hegemonic] masculinity" (McNamara 1994:8). As proof, Cullum cites the emergence of the lecherous parish priest stereotype within contemporary literature. Furthermore, church records show that "fornication and fighting were two misdemeanors for which clergy were most frequently disciplined" (1994:184). Cullum believes that transgression indicates anxiety about gender identity and the need to assert their masculine gender identity (1999:186). If this is the case, then Cullum has essentially created three separate masculinities: 'traditional' or hegemonic masculinity, the 'masculinity' imposed upon the clergy as documented by Swanson and Murray, and finally a third hybrid masculinity, which was created by the transgressing clergy.

All the historians discussed here seem to agree that the medieval clergy were not 'masculine' in the traditional sense.[5] While it is sure that these situations may have caused much strife for the clergy, these historians offer limited evidence to support their attribution of an alternative gender identity. Furthermore, the majority of these medievalists discuss 'medieval Europe' as a whole, and it is quite apparent that monastic ideals varied not only temporally, but also geographically. On the same note, many of these arguments group monks and parish priests under the same umbrella term 'clergy'. Although these two groups were similar in many respects, especially during the later middle ages, they should be treated as they were at the time – alike but different.

While these arguments arrive at logical conclusions they do so without exhausting the available sources. Most of the sources consulted are theoretical, didactic or moralistic authorities (Neal 2003:252). While these texts are invaluable, and certainly the first sources that should be consulted, it must be noted that they do have limitations. These sources may provide important insight but they fail to document the efforts of these men to conform to the rules and the consequences for not doing so (Neal 2003:252). Furthermore, they provide little if any direct evidence of the conscience formation of an alternative identity among these groups. For this reason, it is necessary to consult a variety of sources, a topic that will be discussed in full in the following chapter.

Although these historians may agree that the clergy was a unique group, they disagree regarding whether these men comprised a subordinate masculinity within a society of multiple masculinities or if they formed a third gender altogether. In fact, many of these historians[6] describe multiple masculinities while simultaneously using the term

[5] Please note that traditional masculinity and hegemonic masculinity are used interchangeably.
[6] Namely Karras, Murray, Swanson and occasionally McNamara.

"third gender" to "distinguish and make sense of various types of people who, by their behavior, activities, or mode of life, appear to have deviated from the common gender roles ascribed to men and women" (Murray 2008:34). It is important to note, however, that these two terms are not interchangeable, and using them simultaneously is frankly incorrect. A third gender is one that is entirely distinct and autonomous from the male and female genders and can entail a "pattern of differences encompassing behavior, temperament, social and economic differences and religious specialization" (Roscoe 1994:370). Multiple masculinities, however, are indicative of gender variance, or more simply put, that gender is on a spectrum and that there is more than one socially acceptable definition of masculinity.

Just because modern scholars presently embrace the concept of a third gender and have recognized it in past societies does not mean that every society could or did accommodate multiple genders. Cultures firmly rooted in the binary conceptualization of sex and gender could not have a third gender, regardless of whether it contained a heterodox group within it. Therefore, the medieval English clergy could not represent both a subordinate masculinity and a third gender. Therefore, a greater understanding of the culture to be examined is necessary before such claims can be made. It is for this very reason why proper contextualization, a concept that will be discussed in the preceding chapter, is essential.

Chapter 3
THE SOURCES

The early middle ages saw the production of few texts and the preservation of even less. The eleventh century, however, coincided with the spread of literacy and written records were being produced and preserved in unprecedented quantities. Therefore the high middle ages were among the first periods with substantial documentary sources. The historical method, that is, the method by which historians have traditionally conducted research, revolves around this type of source. Indeed, the aforementioned arguments rely solely on written sources. While Cullum (1999) draws from modern psychology on gender acquisition, she mostly uses historical records, like account and act books, and literary sources, such as excerpts from the *Canterbury Tales*, or the *Inquisition Postmortem*. Murray (2004) cites one poem, with the rest of her primary sources being autobiographies, spiritual treaties, or confessions. A critical approach to the historical method will highlight its limitations and make the benefits of consulting archaeological material readily apparent.

Oft-cited guidebooks on historical research instruct historians that the most important evidence, and therefore the first to be consulted, is that from documents and oral accounts (McDowell 2002:110-114). If there are substantial written records pertaining to the researcher's topic, then they need not look further. This sentiment is epitomized by the following statement found in a well-known guide to the historical method: "spared the abundance of written evidence, [the historian] may *inter alia* have to assimilate the work of the archeologists" (Elton 2002:61). Furthermore, this method assumes that groups that have little or no documentary evidence are lost to history, an assumption that is largely false. It is clear from these examples that archaeological

materials are considered lesser sources and are to only be consulted as a last resort. The critical issue with the historical method is not its reliance on historical texts, as they are truly invaluable resources, but rather its ignorance of alternative source types. For example, when encountering difficulty during research on church history, Daniel Bornstein suggests turning to alternative sources, which he then clarifies as reading the works of "missionaries, proselytizers, popularizers, and preachers" (2009:9). Historical texts, like all resource types, are susceptible to flaws and biases, and it is only through the combination of a variety of sources that the effect of these issues can be minimized.

For medievalists, and particularly historians of religious life, the majority of surviving documents are administrative records, and even when they are from religious institutions, they fail to tell about the personal and religious concerns of the clergy (Bornstein 2009:8). Often these texts will tell what ought to be done, or what was done by a certain few and then punished and they do not serve as a reliable source for greater patterns of activity (Bornstein 2009:8). Occasionally, what actually did occur is described in chronicles, diaries and letters, but these are prone to multiple problems (Bornstein 2009:11).

As with any source, historical texts are fraught with limitations. First, there is the potential that only extraordinary events were recorded, thus leaving 'normal' life undocumented. Documents composed by marginalized groups may have been intentionally destroyed, leaving little trace that such groups even existed. Additionally, one must consider that the written word is always subject to the author's own biases, which may not be readily apparent. The author may also skew his or her text in favor of

the intended audience. In fact, "historical evidence may conceal as much as it reveals" (McDowell 2002:10). To cope with this dilemma G. R. Elton suggests that:

> The historian cannot therefore proceed on any single line of judgement; his mind must be forever open to the two possibilities that the evidence means what it says and that it does not mean what it says. To achieve as secure a judgement as possible, the historian here requires his most rare and almost most dangerous gift: an all-embracing sympathy which enables him, chameleon-like, to stand with each man in turn to look upon the situation. The gift is dangerous because it may in the end bring him to a total inability to judge or even to make up his mind; it need not do so but it often does. (2002:72)

This issue compounds in relation to contemporary literature. Derek Neal sums it up neatly stating, "the trick is to find a credible means of drawing conclusions, not from the surface representation of a literary source, but from the buried or implicit assumptions or anxieties that have been transformed into the surface narrative or description" (2010:31). It would seem that the historian has an almost impossible job, though it is one that would be aided by consulting other disciplines. For these reasons, it is only logical for a range of sources to be considered.

The people who occupied sites which have little documentary evidence are not lost to history, for they did leave a record, in things rather than in words (Gunn and Faire 2012:48). Archaeologists rely on these 'things', or artifacts, ecofacts and features, in order to discover and understand the past. Artifacts can be defined as objects that were made, used or modified by humans and thus can be seen as material culture, or the material remains of past societies. Artifacts can include lithics, ceramics, textiles, etc. Ecofacts are organic and environmental remains, such as animal, human and plant remains. Features are "non-portable artifacts", such as architectural elements (Renfrew and Bahn 1991:487). Traditionally, historians have assigned a limited and subordinate role to

archaeological evidence. This is not, however, a one-sided issue and archaeologists are equally guilty of this fault. Just as archaeological data has been used by historians only to fill gaps in what can be learned from written texts, so too are written records only used by archaeologists to supplement information that cannot be extracted from archaeological data (Trigger 2006:504). This tendency is not only unfounded, but is detrimental to both disciplines. Rather than archaeological data becoming less important as texts grow more abundant, it becomes more crucial, as a "basis for making more complex and subtle comparisons that utilize both archaeological and historical data to create a more detailed historical understanding" (Trigger 2006:504). The most complete understanding of the past can only occur when all of the data is considered.

Understanding the Importance of Archaeological Data

Artifacts, or material culture, are representative of everyday life and comprise the "tangible yield of human conduct" (Gunn and Faire 2012:48). It is everywhere and there is little once can do without it (Gunn and Faire 2012:48). The importance of these objects to historical analysis is exemplified by the concept of agency. Postprocessual archaeological theory dictates that the individual is active within society, a free social agent that is capable of promoting change (Johnson 1989:189). Since the individual actively creates material culture, the variability of material culture is the result of this agency. This variability is what constructs meaning. Thus, through agency, individuals can affect the meanings of an object. In addition to reflecting cultural reality, material culture can also distort or invert it, depending on the intentions of the agent (Trigger 2006:477). Thus an object could have multiple meanings and multiple types of meanings. First of all, an object can simply be seen as an object, or rather the material result of the

physical processes of production and action (Hodder 2003:242). An object can also be interpreted as a sign; a symbol used to signify another concept (Hodder 2003:242). An object can also have meaning through its operational context. This final view takes into account the first two meanings, but also considers the specific intentions underlying the agent's actions, as well as the agent's unique embodied experience (Hodder 2003:242). This is very similar to the discussion about historical texts; texts are also subject to agency.

Since artifacts have the potential to hold multiple meanings, they can clearly yield information concerning the groups that constructed or used them. The only way for one to understand the multiple meanings of the object is through the analysis of the historical context in which it was created. Thus, through the consideration of agency, meaning and historical context, material culture can be 'read' like a text. If gendered activities form part of the archaeological record then archaeological evidence of these activities can inform and validate historical accounts. Therefore, artifacts can reflect socially constructed identities. If individuals use the artifacts in their gender performance, then the "material 'world of things' is not only an external manifestation of gender but is also at the heart of the construction of identity" (Gunn and Faire 2012:52). Therefore, in a society in which there are several different masculinities, there may be distinctive archaeological signatures that represent each of the respective masculinities (Gilchrist 2009:238).

The Importance of Bioarchaeological Material

Bone is one of the strongest biological materials in existence (White, et al 2011:27) and as a result it is resistant to many kinds of decay. For this reason human

bones and teeth are often the most lasting record of an individual's existence (White et al 2011:2). Analysis of human remains can generate information on diet, disease, war, social status, occupation, culture contact and social organization. Despite the many advantages of studying the human body, it has been argued that as a whole, skeletal remains play a marginal role in archaeology (Larsen 1997:1).

On a very basic level, the analysis of human bone can generate information on age, sex, diet, disease, social status, occupation and social organization. Variation in the skeleton can be caused by multiple factors such as ontogeny, or growth, sex, geography or population and idiosyncrasies among individuals (White, et al 2011:26). Idiosyncratic variation provides the most information about the individual, and may occur due to traumatic injury or prolonged stress on the bone. Traumatic injury is the result of extreme sudden force or stress applied to the bone and is most often represented by fractures of the bone. Prolonged or continued stress of the bone can cause remodeling or deformation of osseous and dental tissues.

The bone of which the skeleton is comprised is a composite material, formed of protein (collagen) and mineral (hydroxyapatite) (White, et al 2011:27). Due to this composition, human bone is subject to certain mechanical properties. According to Wolff's law of bone transformation, "bone is laid down where needed and resorbed where not needed" (White, et al 2011:27); simply put, bone can be modified. This plasticity of the body, or its ability for "dynamic irreversible ontogenetic modifications that are not heritable" (Sofaer 2006:71) is one of bone's key material qualities and is essential to understanding the materiality of the body.

Bone can change in response to several factors, including stress. For instance, dietary deficiencies can elicit distinct changes in bone and teeth. The processes of some diseases also prove to be extremely stressful to the bone. An individual's susceptibility to disease is greatly influenced by environmental factors such as diet, occupation, social status, geography, population density, hygiene, climate and weather, seasonality of weather, migration and isolation. Additionally, modification to the areas of muscle attachment, osteophytosis, and various grooves, facets and other deformations to the bone can occur in bone as the result of the stress of habitual activity (Byers 2008:360). These markers can often be associated with an activity related to the "occupation" of the individual. These various skeletal responses demonstrate that an individual's environment can affect change to the bone.

The materiality of the body can be understood as the material outcome of plasticity at a given point in time. Various environmental and cultural factors can influence the material outcome of plasticity. Thus, "the skeleton may therefore be affected by changes that are produced through a lifetime of interaction with the world, including learnt actions, labor, habits and states" (Sofaer 2006:90). Since culture can directly affect bone, the body can be viewed as a form of material culture. Thus the body is both a signifier of culture and is signified by it; it both participates in and is affected by social customs.

Recalling the notion of performance, social identities, such as gender, must be actively performed by the individual and these performances occur through the body. Then, utilizing the 'body as material culture' approach, these physical manifestations of

gender, or performances, may have been recorded as variation within the bone. If a specific activity is done habitually then there may be evidence of it in the bone.

Contextualization

Artifacts and human remains can play a pivotal role in reconstructing gender in the past. The importance of this type of data hinges upon the notion of performance, that identities are 'acted' or performed by the individual.

Proper contextualization is especially important when assessing the pathology of human remains. While bone can be affected by many different ailments, only a few osseous changes are distinct. For this reason, it is important to properly contextualize the data. A prime example of the proper uses of archaeological or bioarchaeological data to complement the analysis of historical texts is the work done by Sandra Hollimon on the Chumash society. Using ethnographical texts, Hollimon was able to identify a potential gender variance, known as two-spirits (1997:173). Using these texts as a framework, Hollimon constructed two hypotheses for the identification of two-spirit burials within the archaeological record and then set to test them using the archaeological material. By analyzing the burial goods and the sex differences in degenerative joint disease patterns within the investigated site, Hollimon was able to successfully demonstrate gender variance within Chumash society. Through the use of proper contextualization in a way akin to Hollimon's work, the current scholarship on gender in the monastic community can be complemented and/or corrected by the analysis of bioarchaeological data.

Chapter 4
THE SITE IN CONTEXT

The Bermondsey Site: A Brief History

The Cluniac Priory of St. Saviour was founded in 1089 and remained in use until the Dissolution of the Monasteries by Henry VIII in the mid 16th century. Located in the outskirts of London, just south of the infamous Tower, the Priory was the "first monastic house founded near enough to impinge on London after the Norman Conquest" (Brooke and Keir 1975:312). As an alien house within the network of Cluniac monasteries, it was subject to French authority and had little control over its finances, resources or inmates. Despite this allegiance, the Priory played a prominent role within English religious and political life as its size and location made it an ideal location to host assemblies and councils of state (Dyson, et al 2011:128). For these reasons, it became one of the main centers of Cluniac influence in England (Brooke and Keir 1975:313) and the only Cluniac Abbey outside of France.

Like the rest of the country, the priory was subject to alternating periods of financial success and downturn. After being founded upon the land grants of a wealthy citizen and William II, Bermondsey attracted the patronage of various aristocrats (Dyson et al 2011:18). It is estimated that at its fullest extent, the enclosed precinct area was approximately 60 acres (Dyson et al 2011:119). Revenue came from tithes from churches under its ownership (spiritualties) and rents and lease payments from the tenants that occupied its properties (temporalities) (Dyson, et al 2011:148). In keeping with Cluniac and Benedictine ideals, the priory was obligated to offer hospitality to pilgrims and other travelers. Its location near the road from Canterbury is likely to blame for the mass influx of travelers that called upon the Abbey (Graham 1926:167). These guests taxed resources

to such an extent that a delegate was sent to Cluny to plead near-bankruptcy in 1237 (Duckett 1888:ii.194). Between these financial and administrative issues and the intermittent wars with France, the relationship between the chapter general and its dependent became increasingly strained until ties were severed in 1381 and Bermondsey became a denizen house (Graham 1926).

To ease its financial strain Bermondsey Abbey, by the mid-thirteenth century, began to grant corrodies, which were a special form of pension or annuity (Harvey 1993:179). An individual, or corrodian (*corrodarius*) would come to an arrangement with the house which would provide them with accommodation, clothing, food and a fixed pension in exchange for the down payment of a lump sum of money or a land grant (Harvey 1993:179). This was not an uncommon practice among medieval monasteries, but in the case of Bermondsey, these arrangements were oftentimes made by the Crown on behalf of its retiring royal servants. Usually corrodians were granted "a house within their close of Bermondsey to dwell in" (*Cal Patent Rolls,* 1321-1324, 441; *Cal Close Rolls,* 1327-30, 380-1), but from 1313 onwards, corrodians began to be accommodated within the priory itself (*Cal Close Rolls,* 1307-13, 579). Occasionally lay 'converts' (*conversi*) were also among the inhabitants, as were servants. A visitation record from 1262 confirms this arrangement, counting the inhabitants of the priory at 32 monks and one lay-brother (Duckett 1890:13-4). However, by 1275 the records count only 20 monks (Dyson, et al 2011:64).

In its earliest stage at the end of the eleventh century, the site was comprised of only a chapel (B1), timber latrine (B2) and open field (OA3) (Dyson, et al 2011:19). The priory church (B3) and cloister walk (B5), refectory (B6) and range (B7) were added

within the first half of the twelfth century (Dyson, et al 2011:24). The second half of the century saw a major building project. A new reredotor (B9) was built with an integrated drainage system, the chapel (B1) and priory church (B3) underwent renovations and extensions, and a building (B8) on the south end of the site, which has been interpreted as private quarters, was built (Dyson, et al 2011:44). An infirmary hall with its own latrine was also built. The parish church of St. Mary Magdalene was established in 1270 within the Bermondsey precinct and it is thought that its foundation was due to "the priory's wish to accommodate local layfolk other than in the priory church" (Dyson, et al 2011:124). The site experienced further growth in the thirteenth century, extending and adding buildings so that by the Dissolution the site included a "hospice, infirmary, bakehouse, brewhouse, larder, kitchen, monks' cemetery, cloister, belltower, dormitory, prior's/abbot's house, refectory, several tenements within the close, the precinct's north, east and west gates; and adjoining pastures, meadows, orchards and gardens" (Dyson 1999).

Though the site was known and periodically documented throughout the nineteenth century, the first excavation did not occur until 1902, when a surveyor first noted burials on the property (Steele 1997:10). Construction projects in the area led to further observations in 1922 and again in 1955 (Steele 1997:10). Between 1984 and 1988, the first large-scale excavations of the site were undertaken through a joint effort between the Museum of London and English Heritage. These excavations primarily investigated the infirmary block and cloister, the external cemetery, the Lady Chapel, and the reredoter and drain at the southernmost limit of the site (Steele 1997:18). Artifacts recovered from these areas, including parchment prickers, tuning pegs, window glass,

statuette elements and inscription letters, are consistent with that of a monastic community (Steele 1997:74).

The cemetery, located southeast of the main priory church (B3), contained 202 articulated burials. The remains were catalogued and analyzed by the Museum of London and this data was then entered into the Museum's ORACLE 7 database. The resultant human bone report produced by Bill Connell and Bill White in 1998, analyzes the burials deemed of satisfactory preservation to be suitable for analysis, 193 in total. This report, as well as the databases and site plans, are available on the Archaeology Data Service website (http://archaeologydataservice.ac.uk/archives/view/stsaviour_eh_2009/ index.cfm).

In 1999, the Arts and Humanities Research Board awarded Professor Roberta Gilchrist a grant to conduct a detailed study of medieval monastic burial practices. As a result of this academic endeavor, the Bermondsey Abbey skeletal assemblages and context reports were reanalyzed. This reanalysis produced detailed information not featured in the earlier assessment, particularly concerning burial contexts. Gilchrist and research fellow Barney Sloane found records from 199 burials, although due to erosion and misplacement not all retained their original skeletal data. The data from over 5000 of the 8000 medieval graves surveyed, including that from Bermondsey Abbey, was compiled into a digital database that is open to public access (http://archaeologydataservice.ac.uk/archives/view/ cemeteries_ahrb_2005/).

Around this time, the Museum of London came to realize the dire consequences of utilizing multiple recording methods. Many discrepancies were discovered between the original ORACLE 7 database and the Gilchrist and Sloane data. Such discrepancies

can cause major issues with future research, at times lessening the integrity of the data. Thus, it is extremely important for all data analyses to be standardized and coherent.

To combat these major issues, the Museum of London launched the Wellcome Osteological Research Database (WORD) project, which sought to reexamine and recatalog all human remains excavated over the past two decades. This massive undertaking prompted the creation of the Centre for Human Bioarchaeology (CHB) in 2003. Researchers at the CHB worked to develop new specialist recording forms from the pre-existing ORACLE inter-relational database (Powers 2012). These forms, along with newly published standards and guidelines, prompted a redesign of the methodology and procedures used to record human remains (Connell and Rauxloh 2003). The result was the Oracle WORD database, which is accessible to the public on the Centre's website (http://www.museumoflondon.org.uk/Collections-Research/LAARC/Centre-for-Human-Bioarchaeology/Resources/Medievaldatadownloads.htm#MBA-Downloads). It retained the elaborate coding system of the earlier database, and the methods are also available online. A total of 201 individuals from the Abbey were analyzed and entered into this database.

It is fortunate that the Museum of London realized the discrepancies in its recording methodologies early on. Over time it is not uncommon for records and remains to be misplaced, and in some cases even reburied. This is especially true for human remains, as there is increasing pressure for reburial in Britain. Recently, the British Ministry of Justice has reinforced the Burial Act of 1857, which requires the reburial of all new archaeological material. This coincides with the growing efforts of new religious movements to claim human remains from archaeological sites and insist on reburial,

further restricting the study of human remains within the country (Pearson, et al 2011). Although the legislature does allow for scientific inquiry prior to reburial, it nonetheless remains a fact that since archaeology is by nature a destructive science, much, if not all, of this information cannot be recreated.

Despite early intervention, the Bermondsey Abbey data is not free from such issues. There are many discrepancies between the three data sets. After much contemplation, I decided to use a combination of these data sources for this study. Only individuals having undergone all three phases of osteological or archaeological analysis were considered. All data regarding the location of the remains and their time period is from the original MoLAS ORACLE 7 database, as it is consistent with the other data sources in many respects, but offers the highest integrity regarding the phasing of the material. Information concerning burial position, shape, base lining, wall lining and associated artifacts is almost exclusively from the Gilchrist and Sloane data set, unless otherwise noted. Finally, the age, sex and pathological information are taken from the most recent data, the revised Oracle WORD database. This database was chosen not only because of the minute detail of the osteological analysis, but also because it's recording standards are clearly defined. For ease of reference to the previous publications, all relevant codes have been provided in parentheses.

Preservation plays a crucial role in determining the utility of bioarchaeological data. Although bone is one of the strongest biological materials in existence (White 2000:20), it is still susceptible to decay. It is reasonable to conclude that the acidic damp sandy subsoil that is responsible for the complete erosion of all medieval plant material is also to blame for the decreased quality of preservation of the human bone. Additionally,

the Abbey was set in a "marsh landscape which was low-lying and flood-prone" (Dyson, et al 2011:99) and this harsh environment likely had a negative impact on the preservation of organic materials. Despite these issues, 65% (N=121) of the individuals have been classified as having 'good' preservation, which is defined as having a bone surface with no erosion and fine surface detail, when present, is visible to the naked eye (Powers 2012:9). At least half the skeleton is intact in as much as fifty-one percent (95/186) of the assemblage. Overall, the lower long bones (femur, tibia, fibula) are slightly better preserved as roughly 65% (725/1116) were recovered compared to the 60% (671/1116) of the upper extremities (humerus, ulna, radius).

Burial Context

Monastic cemeteries contained distinct zones of interment for members of the religious community, wealthy benefactors, and occasionally a variety of other individuals with ties to the institution (Gilchrist 2005a). At Bermondsey Abbey, human remains were discovered both in the external cemetery (OA6) and in the chancel of the chapel (B1). Chancels, or simply spaces around the altar, are always located on the east end of chapel buildings. The chapel in question contains a total of six burials, ranging from the early twelfth century (M4) to the early thirteenth century (M6). Of these, three have been identified as male while three lacked the necessary skeletal elements and were thereby classified as undeterminable. Similar sites as well as historical texts indicate that it was common for prominent patrons of either sex to be buried within the chapel. It is believed that Catherine of Valois, Henry V's queen, was buried in the Chapel of Bermondsey Abbey in 1437 (PRO PRO B11/11). Queen Matilda's mother, Mary, the Countess of Boulogne, was also thought to have been buried at the priory in 1115 (*Ann Monast,* iii,

432). Since no females have been positively identified within this area (B1), it is evident that the textual sources are not in complete agreement with the skeletal data. The evidence from the historical texts coupled with the presence of individuals of undeterminable sex creates enough reason to doubt that the chapel is an extension of the monk's cemetery, and therefore it will not be included in the rest of the analysis.

The monk's cemetery (OA6) lies directly east of the chapter house (B4), between the chapel (B1) and priory church (B3), with the church being northernmost. This positioning is consistent with numerous other abbey plans that show a cemetery layout in which monks are buried southeast of the main church building (Gilchrist and Sloane 2005:60). There is a greater density of burials on the cemetery's western side, closest to the chapter house, than on the east, suggesting that internments began in the western portion and progressed eastward over time (Steele 1997). Although the cemetery (OA6) contained 198 interred individuals in semi-orderly north-south rows (Dyson, et al 2011:265), only 186 of these individuals met the specifications outlined above and therefore are included in this analysis.

Using a stratigraphic matrix and clues from associated structures and artifacts, archaeologists were able to phase the majority of the burials and date them to between the twelfth and fifteenth centuries. Only two individuals lacked sufficient contextual information and therefore could not be phased. It is essential to establish a date range as it facilitates inter-site comparison. Additionally, since the rates of disease vary by time period, determining the date ranges is important because it allows for the calculation of prevalence rates of various pathologies. The range for this site has been divided into six

phases as follows: 1050 to 1100 (M3), 1100 to 1150 (M4), 1150 to 1200 (M5), 1200 to 1250 (M6), 1250 to 1330 (M7), and 1330 to 1430 (M8) (Dyson, et al 2011:7) (Table 4.1).

Of the periods, M5 (1150 to 1200) and M7 (1250 to 1330) were the most populous, with 57 and 95 individuals, respectively (Table 4.1). M7 is evidently when the cemetery was most utilized and also coincides with the addition of a north-south wall on the east end of the cemetery, thus formalizing its boundaries (Dyson, et al 2011:71). The earliest period, M4 (1100 to 1150) had 21 individuals while M6 (1200 to 1250) had only 8 individuals. The final period, M8 (1330 to 1430), during which the Black Death occurred, surprisingly only contains 13 individuals, and it is evident that by this period the Abbey had already begun to fall into disuse.

For the discussion on burial context, the Gilchrist and Sloane data and figures will be used. Of the 199 burials identified by Gilchrist and Sloane 192 contained human skeletal remains.[7] All burials were laid out in a west-east configuration so that the head lay to the west with the feet to the east. This positioning is customary for medieval Christian burials (Gilchrist and Sloane 2005:152). According to Durandus, the French canonist and writer, "A man ought so to be buried that while his head lies to the west his feet are turned to the east, for thus he prays as it were by his very position and suggests that he is ready to hasten from the west to the east" (quoted from *Rationale Divinorum Officiorum,* vii, 35, in Thurston 1908) (Gilchrist and Sloane 2005:152). Although there was no universal understanding for this posture, medieval explanations include: "that Christ would appear from the east on the Day of Judgment; the cross of Cavalry faced

[7] A note about percentages: when discussing grave cut and lining, the figure is taken out of 199; when discussing burial position or grave goods, the percent is of 192.

west, so those looking at Christ faced east; the west is the region of shadows and darkness and the east is the region of goodness and light" (Daniell 1998:148).

The changes to Christian doctrine that occurred in the mid-twelfth century placed a new emphasis on the commemoration of the dead (Gilchrist and Sloane 2005:27). As a result, monasteries "developed a specialized role of caring for the dead and disseminated uniform practice in medieval burial rites" (Gilchrist and Sloane 2005:19). Furthermore, the new doctrine of purgatory "increased the role of burial practices as a means of reciprocity between the living and the dead" (Gilchrist and Sloane 2005: 216). In medieval English cemeteries, attention was often drawn to the burial place by cists or other forms of lining, such as crushed chalk or mortar, planks of wood or head support stones (Gilchrist 2009:242). At Bermondsey Abbey, two shapes of cist were found: rectangular (or tapering) and anthropomorphic (rectangular with a head niche) (Dyson, et al 2011:133). Eighteen burials were of the rectangular type, while eleven had an anthropomorphic cut. These cuts do not appear to be associated with a particular time period, as each period contains at least one of each cut. The anthropomorphic shape appears to have been specifically symbolic to the monastic community, as Gilchrist and Sloane's survey identified a strong correlation between the cut and the burial of older monastic males (2005:133).

Individuals would have been wrapped in a shroud or habit and either placed directly in the grave or cist, or deposited in a coffin that was then to be placed within the grave. The presence of coffin nails in the fill of 23 of the burials suggests the presence of wooden coffins that have since deteriorated.

The majority of individuals (N=191) were buried in a supine extended position, meaning that the individual was placed flat on his back with arms extended by his sides. This positioning is typical of Christian burials in this time period. While the majority of burials are in this traditional style, there are some individuals that demonstrate unusual burial positions. For instance, two older males from between 1250 and 1330 (M7) were laid out in a prone extended position, or face down. Other prone burials in medieval Britain show evidence of either disability or violent death (Gilchrist and Sloane 2005:153-4), however, these individuals ([2640] and [2669]) do not have any abnormal pathological issues that would support either interpretation. Gilchrist and Sloane also suggest an alternative reason for this unusual positioning, that it is symbolic of penitence and is associated with the reburial of certain individuals after the completion of a chapter house (2005:154). If this is the case, then the positioning is not meant to be construed as punishment for the deceased, as was previously thought, but rather a religious honor. There is no additional data to support this claim however, as there was nothing else unusual about these burials.

Another older male [3501] from the same period is buried in a supine flexed position. This positioning is extremely rare in contemporary English burials and the only similar ones appear to be in a specific locale and have thus been understood to be a regional tradition (Gilchrist and Sloane 2005:155). It is important to note that this unusual positioning may also be the result of the postmortem shifting of bone. Regardless, there is no additional data that would support either conclusion.

Another unusual burial position is that of an adult male [2765] between 26 and 45 years of age, dating from 1100 to 1150 (M4). This individual was buried in a stone cist

southeast of the priory church and is interred so that his arms flex back at the elbow so the hand touches its respective shoulder. This position is particularly notable as it is highly improbable that it was the result of the postmortem settling of bone. Furthermore, there is no evidence of similar burials elsewhere is England.

Finally, three individuals ([2967], [3262], [3268]) buried in the supine extended layout, are positioned in the "attitude of prayer" (Gilchrist and Sloane database, 2005), meaning that the hands are placed in a praying position upon the chest. These individuals are all older males from the period of 1250 to 1330 (M7). This positioning has been demonstrated in other cemeteries across the country and appears to designate a religious official (Gilchrist 2005:156). Religious officials could also be recognized by their elaborate burial clothes. However, virtually no textiles from the site survived and only one individual [2967] was found with burials goods suggesting clothing: iron buckles and a pin as well as organic belt stains (Gilchrist and Sloane database, 2005). Therefore it is unlikely to be able to identify the status of individuals in such a way.

Similar medieval monastic cemeteries show much evidence suggesting that priests and high-ranking church officials were often buried clasping a chalice. The sacrificial chalice was the vessel containing wine that was used during mass. As a grave good, the sacrificial chalice was chosen to "represent the exclusive right of the priest to mediate with the divine, and to signal his sacerdotal agency in transforming the wine into the actual blood of Christ" (Gilchrist 2009:242). However, this trend is not evident in the data from Bermondsey, and there are few grave goods and little evidence for costly or elaborate forms of burial. Only three individuals [2967, 2973, 2865] were found to have been buried with personal items. Only one [2876] had an item that was classified as a

religious grave good. The lack of burial goods is not uncommon within medieval English cemeteries, as "England was nominally Christian and Christians were not expected to be buried with objects" (Daniell 1998:149). It is also possible that the higher status individuals, as indicated by the stone lined graves, were buried with goods made of organic materials that have since decayed. Evidence from other London sites, including Greyfriars cemetery, suggest that burial with a mortuary cross was common (Daniell 1998:164). These crosses were often made of wood, and could be as simple as a pair of crossed twigs, and therefore were unlikely to survive the harsh conditions at Bermondsey (Daniell 1998:164).

The evidence thus presented supports the conclusion that the cemetery (OA6) is indeed a monk's cemetery. Furthermore, the lack of preferential treatment of the graves could be indicative of the wavering economical conditions faced by the monastery in the later periods.

Chapter 5
DEMOGRAPHY AND PATHOLOGY

Demography

Between the three data sets there are a total of 186 individuals within the cemetery that meet the parameters previously discussed. The sex of these individuals was estimated using a combination of well-established methods based on the macroscopic assessment of selected features of the pelvis and skull, including the mandible[8]. Individuals were graded on a five-point scale for each skeletal feature and then an overall estimate of sex was derived from a combination of this data. The scale is a follows: 1: male; 2: probable male; 3: intermediate; 4: probable female; 5: female; 9: element not observable/undetermined sex. Roughly 77 percent of the population had sufficient skeletal elements present to facilitate sexual determination. The Bermondsey Abbey assemblage contained a total of 141 males or probable males, 2 intermediate individuals, and 51 undeterminable individuals (table 5.1). No individuals could be positively identified as female within this collection.

Age at death was determined from pubic symphysis degeneration, auricular surface degeneration, sternal rib morphology and dental attrition data (Powers 2012:14).[9] After assessing these elements, an individual was then assigned to one of the following age groups: 11 to 15 years (3), 16 to 25 years (4), 26 to 45 years (5), greater than or equal to 46 years (6), or unclassified adult (7). Of the 193 adults, 65 exhibited maturation through complete fusion but incomplete preservation prohibited the assignment to a

[8] Sexual determination methods as determined by Brothwell (1981), Bass (1987), Ferembach, et al (1980) and Phenice (1969). For details, please refer to Powers (2012).

[9] Determination of age at death was undertaken based upon criteria from the works of: Brooks and Suchey (1990), Buikstra and Ubelaker (1994), Lovejoy, et al (1985), Iscan, et al (1984;1985), and Brothwell (1981). For details, please refer to Powers (2012).

specific age group, and were therefore categorized as unclassified adults. The largest group of classifiable adults was the 26 to 45 year group, with 77 total individuals. There were 36 individuals over the age of 46 and 15 between the ages of 16 and 25 (table 5.1). In comparison, the life expectancy for male peasants in medieval Britain during the thirteenth to early fourteenth centuries was between 24 and 28 years of age (Dyer 1989:182).

Pathology

Though the osteologists at the Centre for Human Bioarchaeology compiled an exhaustive review of skeletal pathology for the Bermondsey collection, this thesis will only discuss the most relevant pathological conditions. Although it is certain that each individual is not ideally preserved and therefore all the required skeletal elements necessary to diagnose pathology are not present, a crude prevalence rate (CPR)[10] was calculated in order to facilitate comparison with other medieval cemeteries. The recent survey of health and disease in Britain undertaken by Charlotte Roberts and Margaret Cox (2003) will be utilized as it provides an impressive overview of the late medieval period: 63 sites, over 16,327 skeletons. Data from the Augustinian priory of St. Mary Merton and St. Mary Spital will also be incorporated when necessary. Finally, an effort has been made to define pathological conditions according to the same sources as those used by the CBH.

Diffuse Idiopathic Skeletal Hyperostosis (DISH) or Forrestier's disease, is a disease that causes bony abnormalities and excessive bone formation, particularly in the spinal ligaments (Waldron 2009:72). The result is often a fused vertebral column with a

[10] CPR was calculated as the number of individuals with the condition out of the total number of individuals that possessed the necessary skeletal elements for diagnosis, usually these numbers are in parentheses.

characteristic 'candlewax-like' appearance. DISH primary afflicts older males, as roughly two thirds of modern cases are males and it is rarely detected before the age of 40 (Aufderheide and Rodríguez-Martín 1998:97). This condition has also been linked to obesity and late onset diabetes (Julkunen et al 1971), and is often associated with a sedentary lifestyle.

At Bermondsey Abbey eight individuals had clear indicators of DISH; a CPR of 6.0% (8/133). However, this prevalence rate is for all age ranges across the cemetery, and as previously mentioned, DISH is frequently only found in individuals over the age of forty. Thus, when only the older age groups are taken into consideration, the CPR of DISH at Bermondsey becomes 7.5% (8/106). A similar site, the Augustinian Merton Priory, has a CPR of 8.6% (Waldron 1985:1763). It has been estimated that the CPR for a modern population is 2.8% (Waldron 1985:1763), which is considerably lower than these monastic rates. Roberts and Cox found that of the sites surveyed, 3.16% of monastic sites contained affected individuals while only .58% of non-monastic sites did (2003:246). Furthermore, the prevalence rates for the disease vary by monastic order (Gilchrist and Sloane 2005:212). The Benedictines and Cluniacs, who lived a more luxurious and sedentary lifestyle, had the highest rates (Gilchrist and Sloane 2005:212). For these reasons, DISH has become associated with monastic sites in the medieval period.

Originally the monastic diet allowed the consumption of meat only once or twice a week. After the reforms proposed by the Benedictines in the later Middle Ages, this allowance increased substantially and monks were allowed to enjoy red meat on an almost daily basis. Evidence from the site indicates that the quantity of bone from pigs,

sheep[11] and cattle[12] spiked for the period of 1200 to 1250 (Dyson, et al 2011:262). Analysis of this bone indicates that the monastery enjoyed a diet of "consistently good quality" during the periods M6 (1200 to 1250) through M9 (1430 to 1538) (Dyson, et al 2011:136).

Examination of dental pathology can yield additional information about the nutrition of these individuals. Enamel hypoplasias are "deficiencies in enamel thickness or quantity of enamel that are initiated during enamel matrix secretion" (King et al 2005:547). These markers are considered to be "nonspecific indicators of systemic stress suffered during the period of tooth crown formation" (King et al 2005:547). Therefore, individuals that suffered a period of intense nutritional deficiency would exhibit enamel hypoplasias. At Bermondsey Abbey, 79 percent (83/105) of those with at least one tooth present had this condition. By comparison, Roberts and Cox's survey indicates that only 35.38% of the individuals examined exhibited the condition (2003:264). Another indicator of hygiene or health is the presence of periodontitis, which occurs when gingivitis, or inflammation of the gum, is left untreated, causing loss of alveolar bone (Powers 2012 quoting Regezi et al 2000:144). In the Bermondsey assemblage, 75.2 percent (79/105) had periodontitis, while 34.3 percent (36/105) had periapical lesions. Periapical lesions may present in either cysts, granuloma or abscess form, and result from the infection of the dental pulp (Waldron 2009:242). Only 37.53 percent of the individuals analyzed by Roberts and Cox had periodontal disease (2003:261).

Dental caries "is a disease process characterized by the focal demineralization of dental hard tissues by organic acids produced by bacterial fermentation of dietary

[11] Sheep-sized mammal.
[12] Cattle-sized mammal.

carbohydrates, especially sugars" (Larsen 1997:65). They are defined by "the destruction of the enamel, dentine and cement manifesting as a cavity in the crown or root surface" (Powers 2012 quoting Hillson 1996:269). Forty percent (42/105) of the Bermondsey Abbey cemetery population had caries compared to 52.64 percent of the individuals from the sites surveyed by Roberts and Cox.

Calculus is where mineralized plaque can be seen adhering to the tooth surface (Powers 2012 quoting Hillson 1996:255). There is a correlation between a population's dental hygiene and the prevalence of calculus, with the less hygienic populations having higher rates (Waldron 2009:241). At Bermondsey Abbey, 99 percent of the individuals with at least one tooth preserved (104/105) had calculus. This is likely indicative of poor dental hygiene, rather than effects of the Cluniac diet (Waldron 2009:241). In comparison, only 59.18% of the individuals surveyed by Roberts and Cox were affected (2003:262).

Though the Cluniac diet may have been rich in iron, it has been argued that it was deficient in vitamins A and C (Harvey 1993:63). A study of monks at Westminster Abbey suggests that they may have consumed as little as 12.5 percent of their daily vitamin C allowance (Harvey 1993:63). While this may be so, there are no cases of scurvy present in the Bermondsey population. It is clear however, that the diet provided sufficient vitamin D, as there is only one possible instance [3515] within the population of rickets (CPR=.5%). This is supported by the discovery of some 10,000 fish bones, primarily herring, within the fill of a single reredorter on site (Steele 1997:3).

Porosities on the orbital roof of the skull are a condition known as cribra orbitalia. Recent findings have suggested that this condition is likely caused by "anemia-induced

marrow hypertrophy" although "other pathological processes such as those associated with scurvy, rickets, hemangiomas and traumatic injuries can produce subperiosteal hematomas that can lead to orbital roof lesions" (Walker, et al 2009:115). Using a variety of hematological evidence Walker and colleagues found that a vitamin-B_{12}-deficient diet is likely the "key nutritional component in the set of interacting variables responsible for […] many cases of cribra orbitalia" (Walker, et al 2009:119). It has also been suggested that this condition is an adaptive immune response to increased exposure to pathogens (Roberts and Cox 2003:234). Roberts and Cox found that cribra orbitalia had a higher prevalence rate (CPR=25.61%) at hospital sites than at general nonhospital sites (CPR=9.33%), with an average CPR of 10.82% (2003:234). The CPR for the Bermondsey Abbey assemblage falls below this average, as only 14 individuals are affected from the site (CPR=7.5%). Given the condition's association with a vitamin-B_{12}-deficient diet, then the lower rates present at Bermondsey Abbey could be related to the regular consumption of meat within the monastic diet. Furthermore, of the affected individuals with teeth preserved, 76.9% (10/13) had enamel hypoplasias, thereby supporting the interpretation of nutritional deficiency.

Trauma is classified as any accidental or inflicted injury caused to living tissue by an outside force (Byers 2008:270). When sufficient force is applied to the bone, a discontinuity or crack in skeletal tissue will occur (Aufderheide and Rodríguez-Martín 1998:20). Evidence of fracture in bone can be present well after healing has occurred. Fractures may be the result of violence or they may be accidental; at times the location of the fracture can help determine cause. If trauma to the bone occurs perimortem, then it can yield information about cause of death.

The Bermondsey Abbey cemetery (OA6) contains 17 individuals with healed antemortem (before death) fractures (CPR=9.4%). Three individuals possess unhealed fractures, which indicates that they occurred perimortem (around the time of death) or postmortem (after death). In total 18 individuals possess either healed or unhealed fractures. The most affected skeletal elements were the fibulae and ribs, with four individuals having each type. Fractures of the radius, ulna or tibia each occurred in three individuals. Only one individual was afflicted with fractures of the zygomatic, first metacarpal, clavicle or scapula.

Of the fractures to the radius, two occurred at the distal end, leading to classification as a Colles' fracture. This type of fracture can occur when a victim falls forward and attempts to catch themselves, and thus can be accidental in nature (Byers 2008:282). On the other hand, two of the three ulna fractures occurred at the distal segment of the bone, and are consistent with classification as a Parry fracture. This type of fracture can be caused when a person holds up their arms, bent at the elbow and can be indicative of self-defense or violent acts (Byers 2008:282). It should be noted that both fractures may have other causes, for instance, the accidental twisting of the arm may break the ulna in a way consistent with a Parry fracture (Walker 2001:582).

Blunt force trauma "refers to any injury caused by a force that has a wide area of impact on bone" (Byers 2008:283). Implements such as wide instruments with either a flat or round surface and a hard surface, "like the ground in a fall, can be the causative factors in this type of injury" (Byers 2008:283). Following Lovell (1997) any linear cracks to the cranial surface, depressed (pond) fractures, depressed (stellate) fractures and depressed (comminuted) fractures were classified as caused by blunt force (Powers

2012:46). Four individuals had cranial fractures that met these specifications (CPR=2.2%). All individuals were identified as male, but range in age and period. Two of the individuals had depressed fractures of the left frontal bone, while another had a depressed fracture to the left parietal and the other to the right side of the skull. These fractures are well healed and show no indication of secondary infection and therefore are not the cause of death. The individuals with the rectangular grave cuts have a higher instance of blunt force trauma. Of the four cases of blunt force trauma observed for the entire assemblage, three of the individuals have rectangular grave cuts.

Degenerative Joint Disease (DJD) and osteoarthritis are usually considered interchangeable terms, but the CHB distinguishes between the two, stating that "true osteoarthritis is defined by the presence of eburnation" (Powers 2012:47). Eburnation, in turn, is the polished appearance that bone develops from bone on bone contact following cartilage degeneration (Buikstra and Ubelaker 1994:122). The primary factor contributing to osteoarthritis is mechanical stress and physical activity (Larsen 1997:163). A total of 56 individuals from the cemetery have evidence of either degenerative joint disease or osteoarthritis (CPR = 30.1%). The burial population from Merton Priory had a similar prevalence rate of 29.5 percent for the males (WORD database, 2011).

Spondylolsis was present in five individuals (CPR=2.7%). This condition is when the neural arch is separated from the body of a vertebra and is classified as a stress fracture (Waldron 2009:151). This condition develops gradually in response to excessive mechanical loads. The frequency for this site is consistent with that of a sedentary population (Larsen 1997:191).

Further analysis of the preserved vertebrae indicates that 45.4 percent showed indications of osteoarthritis of the vertebrae. Of 133 individuals examined, osteophytosis was present in 76.7 percent (N=102) while 42.9 percent (N=57) had intervertebral disc disease (IVD). Facets were present in 98.5 percent (N=131) and 65.4 percent (N=87) had Schmorl's nodes, which occur when "herniation of the intervertebral disk results in irregular depressions on intervertebral body surfaces" (Larsen 1997:166). In 7.1% the vertebrae had fused. Although it has no clinical significance, it should be noted that 7.5% (10/133) of the assemblage possess a sixth lumbar vertebrae. In comparison, about 3% of the general population has this condition (Waldron 2009:220). Although this condition (extra vertebrae) was only recorded when the complete thoracic and lumbar vertebral column was present and since vertebrae are particularly susceptible to decay, the actual prevalence rate may be higher (Powers 2012:34). Of the affected individuals, 6 also exhibit sacralisation, which occurs when the fifth or sixth lumbar vertebra completely fuses to the sacrum (Powers 2012:34).

Periostitis is the inflammation of the periosteum and it is often the result of infection by common bacteria, systemic disease or minor trauma (Roberts and Cox 2003:235). Since there are so many potential causes, it is referred to as non-specific periostitis. This affliction has been argued to be a reflection of living conditions (Roberts and Cox 2003).

Of the late medieval sites survey by Roberts and Cox, only ten sites had a sample size over one hundred individuals, the smallest number that will provide valid information about the burial population (Waldron 1994:10-27). The site of St. Mary Spital in London had the highest CPR for non-specific periostitis, with a rate of 44.12%.

However, this is not unexpected, as this site includes a medieval hospital, thus accounting for the high rate of infection among the dead. Excluding this outlier, the CPR for all other sites analyzed by Cox and Roberts falls between the range of 2.90% and 23.98%, with the average CPR being 12.07%. The Bermondsey Abbey assemblage however, has a CPR of 34%, with 66 individuals of 194 being affected. This condition clearly seems to have affected this monastic population more so than others of the period. Of the affected individuals at Bermondsey Abbey, 54 exhibit tibial periostitis (CPR=42.9%), which may be the result of repeated minor trauma (Larsen 1997).

Ten individuals (CPR=9.5%) possess excessively worn dentition, which the CHB osteologists suggest may indicate use as a tool (WORD database, 2011). All of these individuals were classified as males and are within the older age brackets. There is nothing in the monastic diet that would have produced such worn dentition in only a small portion of the population.

"Enthesopathic lesions (enthesophytes) are irregularities, rough patches, and bone projections or osteophytes at the insertions of tendons and ligaments" (Larsen 1997:188). These lesions can develop as a result of prolonged and excessive muscular activity (Larsen 1997:188). They may also be the result of chronic or acute trauma (Powers 2012:45). When present on the upper limbs they are especially useful as the location can indicate a specialized movement, in comparison, lower limbs are used for locomotion and therefore markers of specific movements may be obscured.

At Bermondsey, 116 (CPR=62.4%) individuals exhibited enthesopathies of some kind. The muscle attachments most affected were those of the gluteus maximus (31.7%) on the femora and the tendo calcaneus (29.6%), or Achilles' tendon, on the calcaneus.

Lower limb muscle markers are correlated with age, limb size and sex (Weiss 2004:232). Given the assumption that the Bermondsey Abbey cemetery is indeed a monks' cemetery, as the archaeological data suggests, and therefore only contains males, then the differentiation by sex is irrelevant. Therefore, in this population, the observed enthesopathies are related to limb size and age.

Chapter 6
DISCUSSION AND CONCLUSIONS

Now that the textual, archaeological and skeletal data has been summarized and briefly discussed, an overall pattern among the burial population at Bermondsey Abbey may be discerned.

The high rate of non-specific periostitis is particularly unusual as it would seem to suggest excessive exposure to bacteria and inadequate sanitary conditions. Westminster Abbey's "largely unheated buildings provided a harsh environment for those with respiratory and circulatory diseases and sanitation likely encouraged enteric disorders" (Harvey and Oeppen 2001:232-3). However, studies of medieval monastic water management have proven that monasteries were more sanitary than the elite secular residences of the period (Heale 2009:18). The Cluniacs in particular paid close attention to sanitation (Bond 2001:119). Therefore, it seems more likely that the tibial periostitis is consistent with *morbus in tibia,* which is thought to be varicose ulcers (Harvey and Oeppen 2001:233). This condition was often treated over an extended period of time, with treatment sometimes continuing for years (Harvey 1993:109). It has been suggested that it may be caused by a circulatory disorder and can be exacerbated by excessive standing (Harvey 1993:109). Since the afflicted vary in age and length of stay, it is likely that this condition had less to do with age and more to do with the extended periods of standing that accompanied the celebration of the elaborate sung liturgy that was characteristic of the Cluniac Order. It has also been suggested that the condition was exacerbated by a Vitamin C deficiency created by the protein-rich monastic diet (Harvey 1993:109). The strong relationship between *morbus in tibia* and monastic culture supports this interpretation of tibial periostitis.

The skeletal assemblage contains enthesopathy patterns of the lower limbs and an elevated prevalence rate of tibial periostitis, both conditions that can be tied to obesity. Along with DISH, these conditions can be indicative of the monastic profession, however they are not distinct enough to indicate an alternative gender, as all can also be the result of obesity. Although DISH has been linked to monasticism, this is primarily due to the fact that the monastic diet promoted obesity. It is clear that obesity does not constitute a third gender and this can be proven by the fact that obesity related pathology is likely present in the remains of many aristocratic males.

Another anomaly in the pathological results was the prevalence rate for healed fractures. It is important to note that the vast majority of fractures have not only been healed, but healed well, a clear indication of the superior medicine practiced within monastery walls. For a large part of the medieval period, monasteries served as the repositories of knowledge and this is evident by the superior health of its population. Monks often had access not only to the most advanced care, but the most immediate, as hospitals were oftentimes founded within the monastic precinct. This hold true for the Bermondsey site, as a hospital was built in…

As noted before, fractures may be accidental or they may be the result of violent acts. As men of peace who were forbidden to draw blood, an elevated fracture rate is particularly unusual. One explanation could be that the fractures are the result of accidents that occurred while the monks were performing manual labor. However, as previously mentioned, manual labor was no longer required among many of the Orders, especially the Cluniacs, and thus this is unlikely to be a suitable explanation. Furthermore, the historical records from the later middle ages depict monks engaging in

physical altercations. For instance, in 1276, a monk of Bermondsey Abbey was imprisoned for the death of a layperson "following a Sunday wrestling match between the prior's men […] and those of the town" (Dyson, et al 2011:150). While it is unknown who the 'prior's men' exactly may have been[13], it is known for certain that a monk, Arnald, was responsible for throwing the stone that struck the layperson and caused his death. Although it is plausible that the action was only taken in an attempt to dissipate the quarrel, this account nonetheless demonstrates that monks were not passive bystanders. Furthermore, by the casual tone of the record's reference to 'Sunday wrestling matches', it seems that these were frequent fixtures at or around the Abbey grounds. Another record from this same period states "the prior of Bermondsey, with a monk and three other men, broke into a house in Southwark, assaulted the occupant, and carried away his goods" (Myers 1988:74). Furthermore, the skeletal assemblage from Merton Priory contains several cases of skull trauma, all of which have been interpreted as resultant of interpersonal violence (Conheeney 2007:270).

The presence of grafitto from the later fourteenth century of a helm, shield and sword, further demonstrates the infiltration of the militaristic ideal within the cloister (Gaimster 2007). Thus, these men may have had to directly interact with the hegemonic masculinity on a fairly regular basis. Contrary to the stereotype of isolation, it appears that monks, especially those living on the skirts of major cities, like London, had a fair amount of regular interaction with the 'outside world'. In fact, visitation records support this claim, as there are many complaints of monks staying up to drink and leaving the monastic precinct in order to socialize with layfolk (Heale 2009:25).

[13] Although it has been suggested that the 'prior's men' refers to the servants or day laborers that may have been living within the monastic precinct (Dyson, et al 2011:150).

The Abbey's monks were also involved in other acts of defiance. In 1324, the prior and several monks were arrested for giving sanctuary to supporters of a political dissident (Midmer 1979:65). On the other end of this spectrum are the monks and other religious males that committed apostasy. Between 1321 and 1394 there are four recorded individuals from Bermondsey Abbey charged with this 'crime'. In fact, nearly 16.7 percent of all known apostates come from the period between 1348, when the Plague first reached England, and the 1360s (Logan 1996:72). Many of the early English reformers were former monks or friars, "reacting strongly against their former way of life" (Heale 2009:2). While there are no records which explicitly identify reasons for apostasy, it has been suggested that the greatest obstacle for these males was total submission. It was expected that initiates would not only submit to the will of a superior but also to the orders of other monks and to the Rule itself (1996:80). As outlined earlier, a man was expected to "be active in the world and the active partner in his sexual relationships" (Salisbury 1996:85). This active:passive binary had been dominant since antiquity, and these monastic males were expected to either embrace the submissive or passive and all that it connotes or to ignore a centuries-old tradition.

Accounts of deviant behavior, either through violence, sexual misconduct or apostasy increase in frequency among monastic populations during the later middle ages. This period saw war, plague, famine, reform and revolt. During these crises, clerical and monastic masculinity was expected to be flexible, as religious males were called to take up arms, as was the case during the Hundred Years' War. This sudden reversal of the expected gender role may have exacerbated the gender confusion that was presumably occurring in these males.

Although many of the medievalists focused their arguments on the parish priests, this evidence demonstrates that many of the arguments are applicable to monks, especially those of Bermondsey Abbey. These men would have had direct access to the parish church and therefore the parish through the courtyard that joined the priory and parish church (Dyson, et al 2011:124). They were situated on the edge of a major city during a particularly volatile time for the nation and masculinity within it. They were increasingly called upon to interact with lay people through visitors, services and corrodians.

Just because there was potential for strife does not necessarily mean that it actually occurred on a greater scale. While there are certainly several texts in which religious males disclose their identity issues, these are few and far between and it begs to questions whether these men simply did not feel comfortable disclosing such information or whether those with identity issues were the minority. Regardless, of the data discussed, there is little evidence that these men, as a group, identified themselves as an alternative gender. Simply because these men were different or had identity confusion does not automatically mean that they constitute a third gender.

The skeletal evidence has pinpointed several pathologies that could be said to be characteristic of the monastic population, namely obesity and overall health, as demonstrated by well-healed fractures and lack of conditions resulting from vitamin deficiencies. These characteristics however, would not be unexpected in a skeletal population of the military aristocracy. Therefore, it would seem that the bioarchaeological data is more indicative of class rather than gender. Using this

conclusion to support the textual and historical data, it becomes clear that medieval English monks did not constitute a distinct third gender, but rather a distinct masculinity. Not only did they perform roles and activities distinct from hegemonic masculinity, but they were also taught to regard themselves as a distinct group and were treated as such by various parts of society. Their struggles were unique and their gender role and gender identity were one and the same. While they may not have subscribed to the hegemonic masculinity they still self-identified as masculine men. Therefore, clerical masculinity was distinct from hegemonic masculinity.

This argument has demonstrated that bioarchaeological data can be effective in illuminating questions not only about gender, but class. However, the effectiveness of such data is entirely reliant upon the successful merger of documentary and archaeological sources. In this way, the most comprehensive assessment of the past can be achieved. It is certainly a monumental task for a sole researcher to examine and analyze all of the types of data discussed but it is this precise reason why it is necessary for interdisciplinary collaborations to occur.

WORKS CITED

Alston, G. C.
1907a Benedictine Order. *In* The Catholic Encyclopedia. New York: Robert Appleton Company. Retrieved April 5, 2012 from New Advent: http://www.newadvent.org/cathen/02443a.htm

1907b Rule of St. Benedict. *In* The Catholic Encyclopedia. New York: Robert Appleton Company. Retrieved April 6, 2012 from New Advent: http://www.newadvent.org/cathen/02436a.htm

1908 Congregation of Cluny. *In* The Catholic Encyclopedia. New York: Robert Appleton Company. Retrieved April 6, 2012 from New Advent: http://www.newadvent.org/cathen/04073a.htm

Aufderheide, Arthur and Conrado Rodríguez-Martín
1998 The Cambridge Encyclopedia of Human Paleopathology. Cambridge: Cambridge University Press.

Bond, James
2001 Monastic Water Management in Great Britain: A review. *In* Monastic Archaeology: Papers on the Study of Medieval Monasteries. Pp. 88-136.

Bornstein, Daniel E.
2009 Living Christianity. *In* A People's History of Christianity: Medieval Christianity. Daniel Bornstein, ed. Pp. 1 – 25. Minneapolis: Fortress Press.

Brooke, Christopher and Gillian Keir
1975 London 800-1216: The Shaping of a City. Berkeley: University of California Press.

Buikstra, Jane E., and Douglas H. Ubelaker
1994 Standards for Data Collection from Human Skeletal Remains: proceedings of a seminar at the Field Museum of Natural History. Fayetteville: Arkansas Archaeological Survey.

Bullough, Vern L.
1994 On Being a Male in the Middle Ages. *In* Medieval Masculinities: Regarding Men in the Middle Ages. C. Lees, ed. Pp. 31 – 45. Minneapolis: University of Minnesota Press.

Byers, Steven N.
2008 Introduction to Forensic Anthropology. Boston: Pearson.

Cadden, Joan
1993 Meanings of sex difference in the Middle Ages. Cambridge: Cambridge University Press.

Calendars of close rolls, 1892-1975, London.

Calendar of patent rolls preserved in the Public Record Office (65 vols, 1291-1509, 1547-63), 1893-1948, London.

Clark, James
2002 The Religious Orders in Pre-Reformation England. *In* The Religious Orders in Pre-Reformation England. James G. Clark, ed. Pp. 3 – 34. Woodbridge: The Boydell Press.

2007 Introduction. *In* The Culture of Medieval English Monasticism. James G. Clark, ed. Pp. 1 – 18. Woodbridge: The Boydell Press.

Conheeney, Jan
2007 The Human Bone. *In* The Augustinian Priory of St. Mary Merton, Surrey. Pat Miller and David Saxby, eds. Pp. 255 – 277. MoLAS Monograph 34.

Conkey, Margaret and Janet Spector
1998 Archaeology and the Study of Gender. *In* Reader in Gender Archaeology. Kelley Hays-Gilpin and David S. Whitley, eds. Pp. 11 – 45. New York: Routledge.

Connell, Bill, and P. Rauxloh
2003 A Rapid Method for Recording Human Skeletal Data. Unpub: Museum of London Report.

Connell, Bill and Bill White
1998 The Priory of St Saviour, Bermondsey, Southwark: The Human Bone. Museum of London Specialist Services, Environmental Archaeology Section, HUM/REP/02/98.

Cullum, P. H.
1999 Clergy, Masculinity and Transgression in Late Medieval England. *In* Masculinity in Medieval Europe. D. M. Hadley, ed. Pp. 178 – 196. London: Addison Wesley Longman Limited.

Daniell, Christopher
1998 Death and Burial in Medieval England. Florence, Kentucky: Routledge.

Duby, Georges
1980 The Three Orders: Feudal Society Imagined. A. Goldhammer, trans. Chicago: University of Chicago Press.

Duckett, G. F.
1888 Charters and records among the archives of the ancient abbey of Cluny, from 1077 to 1534. 2 vols, Lewes.

1890 Visitations of English Cluniac foundations. London.

Dyer, Christopher
1989 Standards of Living in the Later Middle Ages. Cambridge: Cambridge University Press.

Dyson, Tony, Mark Samuel, Alison Steele, and Susam M. Wright
2011 The Cluniac Priory and Abbey of St. Saviour, Bermondsey, Surrey. London: MoLAS Monograph Series 50.

Elton, G. R.
2002 The Practice of History. Oxford: Blackwell Publishers.

Gaimster, Märit
2007 Medieval Grafitto from Bermondsey Abbey. *London Archaeologist* 11(8).

Geller, Pamela L.
2005 Skeletal Analysis and Theoretical Complications. *World Archaeology* 37(4):597 – 609.

2008 Conceiving Sex: Fomenting a feminist bioarchaeology. *Journal of Social Archaeology* 8(1):113.

Gilchrist, Roberta and Barney Sloane
2005a Requiem: The Medieval Monastic Cemetery in Britain. London: Museum of London Archaeology Service.

2005b Medieval Monastic Cemeteries of Britain (1050-1600): a digital resource and database of excavated samples [data-set]. York: Archaeology Data Service (doi:10.5284/1000273)

2009 Rethinking later medieval masculinity: the male body in death. *In* Mortuary Practices and Social Identities in the Middle Ages. Duncan Sayer and Howard Williams, eds. Pp. 236 – 252. Exeter: University of Exeter Press.

Goldberg, Jeremy
1996 Introduction. *In* The Black Death in England. Mark Ormrod and P.G. Lindley, eds. Pp. 1 - 15. Stamford: Watkins.

Graham, Rose
1926 The priory of La Charité-sur-Louire and the monastery of Bermondsey. *Journal of British Archaeological Association* 3(2): 157 – 191.

Gunn, Simon and Lucy Faire
2012 Research Methods for History. Edinburgh: Edinburgh University Press.

Harvey, Barbara
1993 Living and Dying in England, 1100-1540: The Monastic Experience. Oxford: Claredon Press.

Harvey, Barbara and Jim Oeppen
2001 Patterns of Morbidity in Late Medieval England: A Sample from Westminster Abbey. *Economic History Review* LIV(2):215 – 239.

Heale, Martin
2009 Monasticism in Late Medieval England, c. 1300-1535. Manchester: Manchester University Press.

Hilton, R. H.
1967 A Medieval Society: The West Midlands at the End of the Thirteenth Century. London: Weidenfeld and Nicolson.

Hodder, Ian, and Scott Hutson
2003 Reading the Past: Current Approaches to Interpretation in Archaeology. Cambridge: Cambridge University Press.

Hollimon, Sandra
1997 The Third Gender in Native California: Two-spirit Undertakers among the Chumash and their Neighbors. *In* Women in Prehistory. C. Claassen and R. Joyce, eds. Pp. 173 – 188. Philadelphia: University of Philadelphia Press.

Johnson, Matthew
1989 Conceptions of Agency in Archaeological Interpretation. *Journal of Anthropological Archaeology* 8:189 – 211.

2010 Archaeological Theory: an Introduction. Oxford: Wiley-Blackwell.

Julkunen, H., O.P. Heinonen and K. Pyörälä
1971 Hyperostosis of the Spine in an Adult Population. *Annals of Rheumatic Diseases* 30:606 – 612.

Karras, Ruth Mazo
2005 Sexuality in Medieval Europe. New York: Routledge.

2008 Thomas Aquinas's Chastity Belt: Clerical Masculinity in Medieval Europe. *In* Gender and Christianity in Medieval Europe. Lisa M. Bitel and Felice Lifshitz, eds. Pp. 52 – 67. Philadelphia: University of Pennsylvania Press.

Kerr, Julie
2009 Life in the Medieval Cloister. New York: Continuum.

King, T., L. T. Humphrey, and S. Hillson
2005 Linear Enamel Hypoplasias as Indicators of Systemic Physiological Stress: Evidence From Two Known Age-at-Death and Sex Populations From Postmedieval London. *American Journal of Physical Anthropology* 128:547 – 559.

Knowles, David
1963 The Monastic Order in England. Cambridge: Cambridge University Press

Knowles, David and R. Neville Haddock
1971 Medieval Religious Houses, England and Wales. London: Longman.

Lamb, H. H.
1995 Climate History and the Modern World. London: Routledge.

Laqueur, Thomas
1990 Making Sex: Body and Gender from the Greeks to Freud. Cambridge: Harvard University Press.

Larsen, Clark Spencer
1997 Bioarchaeology: Interpreting Behavior from the Human Skeleton. Cambridge: Cambridge University Press.

Lepine, David
2003 England: Church and Clergy. *In* A Companion to Britain in the Later Middle Ages. S.H. Rigby, ed. Pp. 359 – 380. Malden: Blackwell Publishing.

Livingstone, E. A.
2006 Monasteries. *In* The Concise Oxford Dictionary of the Christian Church. Oxford: Oxford University Press. Retrieved February 12, 2012 from Oxford Reference Online: http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t95.e2505

Logan, F. Donald
1996 Runaway Religious in Medieval England c. 1240-1540. Cambridge: Cambridge University Press.

Lovell, N. C.
1997 Trauma Analysis in Palaeopathology. *Yearbook of Physical Anthropology* 40:139 – 170.

Lukes, Steven
1972 Émile Durkheim: His Life and Work, A Historical and Critical Study. New York: Harper and Row.

McDowell, W. H.
2002 Historical Research: A Guide. London: Longman.

McNamara, Jo Ann
1994 The *Herrenfrage*: The Restructuring of the Gender System, 1050-1150. *In* Medieval Masculinities: Regarding Men in the Middle Ages. C. Lees, ed. Pp. 3 – 29. Minneapolis: University of Minnesota Press.

1999 An Unresolved Syllogism: The Search for a Christian Gender System. *In* Conflicted Identities and Multiple Masculinites. Pp. 1 – 24. New York: Garland Publishing.

2002 Chastity as a Third Gender in the History and Hagiography of Gregory of Tours. *In* The World of Gregory of Tours. Kathleen Mitchell and Ian Wood, eds. Pp. 199 – 209. Boston: Brill.

Midmer, Roy
1979 English Medieval Monasteries (1066-1540): A Summary. Athens: The University of Georgia Press.

Murray, Jacqueline
2004 Masculinizing Religious Life: Sexual Prowess, the Battle for Chastity and Monastic Identity. *In* Holiness and Masculinity in the Middle Ages. P.H. Cullum and K. Lewis, eds. Pp. 24 – 42. Cardiff: University of Wales Press.

2008 One Flesh, Two Sexes, Three Genders? *In* Gender and Christianity in Medieval Europe. Lisa Bitel and Felice Lifshitz, eds. Pp. 34 – 51. Philadelphia: University of Pennsylvania Press.

Myers, A. R.
1988 London in the Age of Chaucer. Norman: University of Oklahoma Press.

Neal, Derek
2003 Meanings of Masculinity in late medieval England: Self, Body and Society. Dissertation. McGill University.

2008 The Masculine Self in Late Medieval England. Chicago: The University of Chicago Press.

Pearson, Mike Parker, Tim Schadla-Hall and Gabe Moshenka
2011 Resolving the Human Remains Crisis in British Archaeology. *Papers from the Institute of Archaeology.* Vol 21. Retrieved June 5, 2012 from PIA: http://www.pia-journal.co.uk/article/view/pia.369/430

Platt, Colin
1994 Medieval England: A Social History and Archaeology from the Conquest to 1600 AD. New York: Routledge.

Powers, N.
2012 Human Osteology Method Statement

Renfrew, Colin and Paul Bahn
1991 Archaeology: Theories, Methods and Practice. London: Thames and Hudson.

Roberts, Charlotte and Margaret Cox
2003 Health and Disease in Britain: From Prehistory to Present Day. Gloucestershire: Sutton Publishing.

Rogers, J. and T. Waldron
2001 DISH and the Monastic Way of Life. *International Journal of Osteoarchaeology* 11:357 – 365.

Roscoe, Will
1994 How to Become a Berdache: Toward a Unified Analysis of Gender Diversity. *In* Third Sex, Third Gender: Beyond Sexual Dimorphism in Culture and History. Gilbert Herdt, ed. Pp. 329 – 372. New York: Zone Books.

Russell, Josiah Cox
1948 British Medieval Population. Albuquerque: University of New Mexico Press.

Salisbury, Joyce E.
1996 Gendered Sexuality. *In* Handbook of Medieval Sexuality. Vern Bullough and James Brundage, eds. Pp. 81 – 102. New York: Garland Publishing Inc.

Scott, Joan Wallach
1999 Gender and the Politics of History. New York: Columbia University Press.

Sofaer, J.
2006 The Body as Material Culture: A Theoretical Osteoarchaeology. Cambridge: Cambridge University Press.

Steele, Alison and Barney Sloane
1997 Monastery of St. Saviour, Bermondsey SE1, London Borough of Southwark, English Heritage Project 29: An Archaeological Assessment of Excavations 1956-95 and Updated Project Design, unpub rep.

Steele, Alison, M. Samuel, T. Dyson (2009) *The Cluniac priory and abbey of St Saviour Bermondsey, Surrey: excavations 1984-95* [data-set]. York: Archaeology Data Service (doi:10.5284/1000002)

Swanson, R. N.
1999 Angels Incarnate: Clergy and Masculinity from Gregorian Reform to Reformation. *In* Masculinity in Medieval Europe. D. M. Hadley, ed. Pp. 160 – 178. London: Addison Wesley Longman Limited.

Trigger, Bruce
2006 A History of Archaeological Thought. New York: Cambridge University Press.

Vauchez, André
2009 Clerical Celibacy and the Laity. *In* A People's History of Christianity: Medieval Christianity. Daniel Bornstein, ed. Pp. 179- 204. Minneapolis: Fortress Press.

Waldron, Tony
1985 DISH at Merton Priory: Evidence for a 'new' occupational disease? *British Medical Journal* 291(6511):1762 – 1763.

1994 Counting the Dead: the Epidemiology of Skeletal Populations. Chichester: Wiley.

2009 Palaeopathology. Cambridge: Cambridge University Press.

Walker, Philip L.
2001 A Bioarchaeological Perspective on the History of Violence. *Annual Review of Anthropology* 30:573-596.

Walker, Philip L., Rhonda R. Bathurst, Rebecca Richman, Thor Gjerdrum and Valerie Andrushko
2009 The Causes of Porotic Hyperostosis and Cribra Orbitalia: A Reappraisal of the Iron-Deficiency-Anemia Hypothesis. *American Journal of Physical Anthropology* 139:109 – 125.

Weiss, Elizabeth
2004 Understanding Muscle Markers: Lower Limbs. *American Journal of Physical Anthropology* 125:232 - 238.

White, Tim, Michael Black and Pieter Folkens
2011 Human Osteology. London: Academic Press.

WORD database, Museum of London. Accessed (12/15/11). http://www.museumoflondon.org.uk/Collections-Research/LAARC/Centre-for-Human-Bioarchaeology/Resources/Medievaldatadownloads.htm

TABLES

Table 4.1 Site dates with corresponding counts

Period Code	Date Range	Number of Individuals
M3	1050-1100	-
M4	1100-1150	21
M5	1150-1200	57
M6	1200-1250	8
M7	1250-1330	95
M8	1330-1430	13

Table 5.1 Site Overview

Period	**M4**	**M5**	**M6**	**M7**	**M8**	**Unphased**	**Total**
Total analyzed	**18**	**53**	**5**	**95**	**13**	**2**	**186**
Male							**125**
11-15 years							
16-25 years	1	5	1	8			15
26-45 years	8	16	3	35	5		67
>46 years	5	9	1	16	2		34
adult		4		3	1		9
Possible Male							**14**
11-15 years							
16-25 years							0
26-45 years	1	3		3			7
>46 years				1	1		2
adult	1	2		2			5
Intermediate							**2**
11-15 years							
16-25 years							
26-45 years							
>46 years							
adult				2			2
Undeterminable							**45**
11-15 years				1			1
16-25 years							
26-45 years				2			2
>46 years							
adult	2	14		22	4		42

Table 5.2 Overall Pathology

	M4	M5	M6	M7	M8	Total	CPR (%)
Enthesopathies	10	32	3	64	9	**118**	**62.4**
Non-specific periostitis	8	17	5	32	4	**66**	**35.5**
Osteoarthritis	5	10	1	19	3	**38**	**20.4**
Degenerative joint disease (DJD)	1	7	-	10	-	**18**	**9.7**
Healed fracture	1	3	2	8	3	**17**	**9.1**
Cribra orbitalia	1	4	1	8	-	**14**	**7.5**
DISH	2	2	-	3	1	**8**	**4.3**
Spondylolysis	-	1	1	3	-	**5**	**2.7**
Blunt force trauma	-	2	1	-	1	**4**	**2.2**
Unhealed fracture	-	1	1	1	-	**3**	**1.6**

Table 5.3 Vertebral Pathology

	Male	Intermediate	Undeterminable	Total	CPR (%)
Osteophytosis	100	-	2	**102**	**76.7**
Intervertebral disc disease (IVD)	57	-	-	**57**	**42.9**
Facets	128	-	3	**131**	**98.5**
Schmorl's nodes	86	-	1	**87**	**65.4**
6^{th} vertebrae	10	-	-	**10**	**7.5**

Table 5.4 Dental Pathology

	Male	Intermediate	Undeterminable	Total	CPR (%)
Enamel hypoplasia	82	-	1	**83**	**79.0**
Periodontitis	79	-	-	**79**	**75.2**
Periapical lesion	36	-	-	**36**	**34.3**
Caries	41	-	1	**42**	**40.0**
Calculus	103	-	1	**104**	**99.0**