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Colonialism in Perspective: A Comparative Bioarchaeological Study of Quality of Life Before and During Roman Conquest

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Comments

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Meredith Amato

Introduction

Ask most people what they know of ancient Rome, and more often than not, they will talk of the grandeur of the Coliseum, the massive expanse of roads and aqueducts, and the beauty of what has been left behind. Christians may speak of their brutality against Jesus Christ and others who spoke out against the empire. Perhaps, though, the main opinion may be one espoused in the Monty Python movie *Life of Brian,* where a group of men in Jerusalem begin to list off the things that supposedly made life better than before. Roads, aqueducts, peace, education, sanitation, are given as examples of how the Roman conquest has improved the quality of life for these same men who wished to revolt against it (Jones 1979). Is this, then, the lasting impact of the Roman empire? This paper analyzes bioarchaeological data from sites in Gaul, Egypt, Britain, and the Italian peninsula to understand the true nature of colonialism for those who were never able to tell their stories. The scars left on human bones reveal evidence of disease, malnutrition, and violence that echo through the forgotten cemeteries of the average population. From the outer frontiers of the empire to the city of Rome itself, the non-elites tell stories very different from each other, with experiences differing between individuals and local populations.

The story of Rome is not a concise, linear journey. Geography, status, and other factors change the way an individual and society live. While data from Gaul are limited, scars on the bones of three individuals found at the bottom of wells paint a picture of suffering and violence. Two sites in Egypt, with burials from the same time period, show significantly different trends and rates of illnesses due to connections to the Roman government. Data from Britain reveals the importance of context and location, with variations in rates of conditions and illnesses across the provinces. Finally, the evidence from those living in close proximity to the city of Rome itself

shows that some of the worst treatment was suffered by citizens of the empire who were forced to build up and finance the colonial system. While some benefitted from the arrival of Rome, scars left on the bones of others tell a darker tale. Compared with first-hand written accounts of those who lived through modern colonialism, a picture begins to form of brutal treatment and poor living conditions. This paper, through bioarchaeological data, will show that colonialism was experienced very differently for people across the Roman Empire and that, for some, the experience was full of suffering.

Literature Review

Colonialism seems to be a simple concept at first glance. One of the most accepted modern definitions of colonialism comes from Jurgen Osterhammel, who states that it is the relationship of domination between an indigenous or imported majority and a minority of foreign invaders in which the majority and resources are used by the invaders from a distant metropolis without cultural compromise (Osterhammel 1997, 16-17). In this context, colonialism in its most basic form can be seen simply as the removal of a group's sovereignty and the forced implanting of a foreign power and authority. This simplified version allows for an easier comparison between different time periods, especially two that are millennia apart.

The relationship between archaeology - and even anthropology in general - and colonialism is complex and at times chaotic. Archaeologists have had to be aware of the colonial past of their discipline, in which scholars have aided colonizing powers in creating an inferior view of colonized groups, while working in decolonized countries. It may seem that the field has progressed as a whole and there is one post-modern approach to studying colonialism. However, archaeologists are in many ways torn, and multiple approaches to the study of this system pervade the discipline in the 21st century. There are two main themes upon which archaeologists

focus: 1) a debate regarding the importance of material culture and indigenous identity, and 2) the role of agency in colonial encounters. While these themes seem to be rather distinct, I intend for my paper to bridge the gaps between them and bring out the importance of them all. I intend to do this, however, with an approach that is not commonly seen. Bioarchaeology has been largely ignored as a tool for understanding colonialism on a wide, anthropological scale. The goal of this paper is to attempt to answer one of the larger anthropological questions using bioarchaeological techniques and prove its usefulness in the discipline along with the other approaches.

With the emergence of post processual archaeology, there has been a major shift to understanding more than just the artifacts. Focus has been placed on the individuals and their experiences, beliefs, and thoughts. Alejandro Haber critiques the Western views of indigenous societies and the way they look at relationships between both individuals and groups. He claims that these non-indigenous theories are inherently bound up with colonialism and that they misinterpret the societies in more ways than one. Bioarchaeologist Kristina Killgrove has also argued this, claiming that Rome should no longer be thought of as the center of the empire, and that the imperial enterprise was the result of a large variety of people. The idea of Roman versus non-Roman cannot be viewed in pure geographical terms, separating the peninsula from the provinces. This approach has come out of the colonialist perspective and attempts to understand how the provinces were "civilized" by Rome. Instead, what it meant to be Roman and identify as such is much more complicated and should focus on all areas of the empire and the ways Roman identity converged with and affected indigenous identity. Indigenous views must be brought in and understood in order to complete a proper analysis, especially when those identities are so connected to those of the colonizers (Haber 2007, 282-283; Killgrove 2017, 247-248).

Archaeologists who recognize their biases are beginning to question the reliability of material culture. The specific function of an artifact in a given context should not be assumed based on its original use. Instead, the ways indigenous populations interacted with and viewed these artifacts should be understood as well (Sanchez 2012, 24-25). However, many archaeologists still use caution when employing indigenous identity. Barbara Voss points out that the usefulness of ethnogenesis, which is defined as "a dynamic model of identity formation that encompasses both change and continuity" (Voss 2015, 656), cannot be agreed upon by archaeologists, as she gives numerous examples of arguments made by different researchers in different contexts. Many argue that it puts ethnicity before other types of change, including political, economic, and religious, while others say that it has the ability to decolonize the culture history approach (660-663).

What, then, is the role of material culture in an archaeology of colonialism? Chris Godsen is one of the strongest supporters of archaeology's role in studying the system, stating that "colonialism is a particular grip that material culture gets on the bodies and minds of people, moving them across space attaching them to new values" and that "power emanates from the artefacts and practices connected to that center, rather than from the metropolis and its economic or military superiority" (2004, 3). Material culture is at the heart of colonial power, and it should be the center of archaeological study. Postcolonial theory puts the focus on discourse and texts and does not allow archaeologists to truly and fully contribute (Godsen 2004, 7; Van Dommelen 2011, 4). However, it is harder in the 21st century to find archaeologists who agree with Godsen's claims. The importance of indigenous identity comes in its ability to contextualize the artifacts uncovered. This is explained best by Audrey Horning, who sees artifacts as practically useless without an understanding of that identity. However, the way these objects were used and

viewed by their owners cannot be understood from the objects themselves. An analysis of the artifacts is only possible after understanding those who were most affected by colonialism (Horning 2015, 237-244; Dietler 2010, 53). The fight for material culture's central role will likely not die in archaeology, but it is evident that indigenous identity has become far more important as scholars realize that theirs is not the only worldview out there.

Archaeologists have struggled with the role of agency within a colonial system, and the amount of power that should be given to the colonizers. The two main sides of the debate argue that either not enough agency is given to the colonized, or that if too much is given, it will take away the negative impact of the system on its victims and paint colonialism in too positive a light. The concept has been an essential aspect of anthropology in general for decades, and many archaeologists push for a greater understanding of the role the colonized truly played in society. Gilda Hernandez Sanchez even criticizes the widely accepted definition of the term "colonialism" created by Jurgen Osterhammel, saying that it provides a strict, straightforward view of the system that does not account for a large amount of agency on the part of the colonized people. She looks at the association between the colonizer and domination, arguing that native populations have actively participated in the creation of their societies. This model of acculturation portrays the colonized as passive and distinctly separate from the colonizers, which was constantly promoted by the latter (Sanchez 2012, 20-21). Godsen takes this idea a step further, stating "I see colonialism as often being a source of creativity and experiment, and while certainly not being without pain, colonial encounters cause the dissolution of values on all sides, creating new ways of doing things in a material and social sense…A stress on creativity takes us away from notions such as fatal impact, domination and resistance or core and periphery, emphasizing that colonial cultures were created by all who participated in them, so that all had

agency and social effect" (2004, 24-25). Giving agency and influence to those who seemingly had none is a way to give them a voice and the ability to tell their story in a less-biased manner.

While this approach is a powerful, positive push in post-colonial theory, criticism has risen to push back against a possible danger. This danger can be seen in Godsen's quotes: that too positive a view takes focus away from the darker aspects of colonialism, which Horning argues are the facets without which the system cannot exist. Those facets: violence, death, and the "operation of unequal power relations" cannot be left out of the discussion and are often ignored by European theorists idealizing classical empires (Horning 2015, 235). Ignoring the oppression and suffering that is inherent to the system only gives more power to the colonizing mission and perspective. Taking societies out of the context of painful colonization in many ways only gives more power to the colonizers themselves and pushes seemingly long-dead agendas. There are even calls for more focus on the colonizers. To Voss, archaeologists need to step away from an analysis of the subaltern and go in the direction of cultural anthropologists, who have already begun to study those who hold power in different societies. Colonial powers have used the concept of ethnogenesis for their own gain, legitimizing and maintaining inequality (Voss 2015, 664). Agency is a powerful concept in the study of colonialism, but it is apparent that, moving forward, archaeologists must use it wisely.

The archaeology of colonialism, while incredibly diverse, has had one major aspect that is almost universal. Material culture is at the heart of the field. In more recent years, it has been fueled by indigenous identity and post-processual ideals, but it still runs on man-made artifacts. Only one of the authors mentioned above, Kristina Killgrove, is a bioarchaeologist. However, bioarchaeology has already made impacts and can reveal important information. Killgrove has completed research on life for people in the Roman Empire, both within and outside of the

context of colonialism. Through a comparative analysis, I will create a broad understanding of how colonialism impacted people living within the confines of the Roman Empire. Historical and archaeological context will allow this study to avoid making generalizations about local experiences and highlight the role these individuals played in society. The raw data, however, will not ignore the negative impacts of the system. This paper will illustrate the usefulness of human skeletal remains in an analysis of colonialism and provide a different way to approach the study. This discussion has shown the importance of multiple approaches and interpretations for the study of colonialism, and bioarchaeology is one of those approaches that can help widen the view of the system and expand knowledge and understanding. The first-hand nature of the data provides information that could not be gathered from material culture alone.

Historical Background

In order to understand the data and the complex interactions that took place over centuries, a brief discussion of context is required. The history of Rome is almost a history of conquest and expansion. The Roman Republic rose around 500 BC and grew to control land from the English Channel to the Syrian Desert (Pobjoy 2010). From 338 BC into the last century BC, Rome managed to gain control of the entire Italian peninsula, Carthage, Spain, Gaul, and the Near East. Troops and payment by citizens were required to keep the wars going. What is interesting, though, is that compared to other states at the time, Rome was extremely generous when it came to citizenship, most gaining such status through support of or loyalty to the empire (102-105). With the rise of the Roman Empire in 31 BC after the Battle of Actium, Augustus gained sole power (Hekster 2010). Taxes and manpower were the most important commodities Rome could gain through its colonies, but despite this, it seems that colonial expansion was no

longer the main goal of the Roman elite, and over the centuries the Roman Empire began to fall apart before finally coming to an end in AD 476 (108-110).

Methods

This paper employs the analysis of human skeletal remains. There are numerous markers on human remains that can tell a detailed story of an individual's life, including their biological sex, age at death, and any diseases from which they suffered during life. Others, such as fractures and distinct marks on the cranium and long bones, can indicate malnutrition and poor quality of life in childhood and into adulthood. These methods are laid out by bioarchaeologists Clark Spencer Larsen (1997) and Simon Mays (2010). Mays explains the process of sexing and ageing an individual, in which the pelvis and skull are the most important features. For sexing, the broader, wider female pelvis is the most reliable way to distinguish between the narrower male pelvis. However, because the pelvis is extremely fragile and likely to be damaged in archaeological contexts, the skull, which is larger and more robust in males, can also be used (Mays 2010, 40-43). Larsen goes into detail about skeletal growth and the factors that can slow or even halt the process, including poor nutrition and high levels of stress (Larsen 1997, 8). These sources together will act as a major reference for all of the bioarchaeological terminology that will come up in the data.

The data used in this paper comes from outside sources and excavations that were completed by other bioarchaeologists and will be analyzed in the context of history and other archaeological and anthropological work. This paper looks to analyze these different data sets and compare them in order to understand the effect of colonialism and to use bioarchaeology to answer large-scale anthropological questions concerning the nature of colonialism. It must be noted, however, that there are deep-seated issues regarding the use of human remains. Modern

bioarchaeology does not wish to continue the longstanding tradition of early physical anthropologists using skeletal anatomy to support racist ideologies. All respect is given to the individuals whose remains have been studied and used in this project.

Gaul

Of the Roman provinces, Gaul is likely the one about which the elites knew the most. Obviously, however, these accounts should not be taken at face value, and recognized for their inherent flaws and inaccuracies. Peter Wells (2001) points out that, during the Iron Age, Gallic and other people of Europe were extremely dynamic with populations, size of settlements, and social complexity continuously increasing (33-34). By 600 BC, burial evidence shows that social hierarchies became more complex and the wealthiest individuals were buried with lavish grave goods. Also, by this time, these communities were in contact with Mediterranean societies, with the Gallic people having access to Greek and Etruscan pottery. The people of temperate Europe already knew about life and customs in the Mediterranean long before the Romans arrived (38-41).

By the time of Caesar's conquest, Gaul was extremely complex, and many regions were increasingly urbanized. Archaeological evidence shows the existence of large, fortified settlements known as *oppida* by the middle of the second century BC. These settlements indicate increased organizational complexity and settlement hierarchy. However, there are some sites that show only sparse settlement, possibly used only for refuge during invasions (49-52). Roman sources claim that Gallic society was stratified into two groups of people, with the non-elite completely separated from the druids and knights. However, it is believed that this type of hierarchy only existed in reaction to Rome's arrival. With a new foreign threat, a greater level of social structure would have been needed to defend the communities. Other practices that the

Romans saw as "barbaric", including human sacrifice, can be explained as a response to increased stress created by the new threat. There is also evidence that most people in temperate Europe lived not in the *oppida,* but in small villages and farmsteads (57-60).

By the end of Caesar's campaigns and the Gallic Wars in 51 BC, Gaul had been ravaged. Tens of thousands had died in battle on both sides, and disease and starvation had taken the lives of countless others. Caesar's army destroyed crops and commerce had all but ceased. Evidence also shows that *oppida* had also declined during the wars, in part probably due to the economic breakdown that resulted from the violence (78). It is obvious that with the arrival of Rome, life began to change dramatically for the people of Gaul, and not for the better.

Two sites were used for this analysis of Gaul, one in the ancient city of Lattara in southern France and the other in modern Champagne. In Lattara, three individuals, who were found at the bottom of wells, show signs of multiple pathological conditions, including osteoarthritis and infection, as well as countless healed injuries to the skull and body. Life for them would have been painful and difficult. Meanwhile, in Champagne, the size of the samples makes comparisons difficult, although the data paints an overall picture of longer life for the Roman population with a decrease in dental health. While these data sets are small, they still provide important evidence for life in Gaul, especially the three individuals in Lattara. Their pain is evident in their bones and still tells a story.

Sylvie Duchesne and Jacque Treil (2005) discuss four individuals in Lattara that were found in two wells at the site, with a man and a newborn baby in one and two men in the other. The first wells are dated to about AD 75 to 100.[1] The newborn is estimated to be less than ten

[1] For many of the sites discussed in this paper, specific dates could not be obtained. Due to a lack of grave marking and other factors, ranges can only be given for these sites.

months old, although the remains are poorly preserved, and no pathologies could be detected. The adult, however, aged about forty to fifty years, did show signs of pathological conditions. There are a number of healed pathologies on the teeth, including multiple cysts that affected the hard palate of the mouth. There are also a number of fractures and other healed injuries. Part of the nose is missing and there is hardening of the cartilage. There are fractures to the left arm, wrist, and hand, which shows evidence of an impact onto the the fist or a fall onto an open hand. Finally, there is a fracture to the lower left leg. A fracture to the upper left leg occurred at the time of death and there are signs of severe osteoarthritis in the left elbow and wrist as well as in the knees (335-338).

In the second well, the first individual is a male aged about thirty to forty years. There is evidence of malnutrition and tooth loss, with a cavity present as well. This individual also presents signs of healed injuries, including fractures to the head that are possibly the result of falls or blows. There are also fractures to the chest, including a fracture to a right rib and signs of osteoarthritis. Finally, the fourth individual, a male aged about fifty to sixty years of age, shows the loss of multiple upper molars and cavities on the first upper premolars. This individual also shows a number of fractures and other pathologies. There is a fracture to the nose and hardening of the cartilage caused by an impact. There are multiple fractures to the ribcage, with two right and four left showing injuries. The pelvis and foot are also affected. There is also a dislocation of the right knee and evidence of a fall or blow to the left leg. The leg also presents with a fracture from the time of death. These injuries are most likely the result of separate incidents rather than one single accident. There are also signs of osteoarthritis in the shoulder, left elbow and arm, and the left leg. A severe case is seen in the vertebrae as well as the right knee. The vertebrae were most likely affected due to old age, though the damage to the knee is likely the result of trauma.

Infection is also seen in the lower limbs. It is estimated that this infection was the result of the dislocation of the knee. The left lower leg was also affected. These different cases of infection are likely due to different pathologies. Although there are only three individuals to analyze in the sample, it is obvious that life for them was extremely difficult, with numerous injuries and pathological conditions (341-343).

Other studies have revealed that many changes occurred in Gaul from the Iron Age to the Roman period. Individuals from Iron Age and Roman burials in modern Champagne, France have been analyzed by Sheelagh Stead (2006). Both burials and cremations have been identified in this sample, however, it is much more difficult to obtain data from the cremated remains, so focus will instead be placed on the burials. Unfortunately, several Iron Age burials had been disturbed. Overall, there were twelve males and eight females as well as 23 adults whose ages could be determined in the sample. Few pathologies have been observed in the sample, including three fractures. All were found on individuals aged between twenty-five to thirty-five years of age. One unsexed individual had a healed fracture on the left lower leg. One male had a bowed right leg that was 20 mm shorter than the left, and a final male had a healed fracture across the left lower arm. Osteoarthritis could not be properly observed due to poor preservation of the vertebrae. Of the two individuals with all vertebrae intact, one showed evidence of a severe case of the condition. Three other individuals showed slight cases. Surviving dentition is relatively healthy, with only two individuals showing severe cases. One male showed three cavities and three abscesses, while one female showed six and four respectively (117-125).

The Roman burials are much more prevalent, with 55 individuals identified consisting of 36 adults and 19 juveniles. Seventeen males and 14 females could be sexed. Four individuals showed well-healed fractures, including one male with one to the right arm, a male with injuries

to the ribs, a female with a left arm fracture, and a final female with a left hand fracture. Post-traumatic osteoarthritis is found on the left leg of one male and the right shoulder of another. This second male also showed fusing in the left wrist. Infection was observed in the right lower leg of one female, and another male showed evidence of gout in the right hand. Twelve other cases of osteoarthritis were observed in six females, five males, and one unsexed individual. Dental health decreased rapidly for individuals after the age of twenty-five (125-129). Comparison between the Iron Age and Roman populations is difficult because of the small sample size, but overall there is no major difference in stature between the two for males and a 10 cm increase in the females. Iron Age individuals show better dental health, but the Roman population have a longer life span. Over 40% of individuals live beyond thirty-five, while only 17% of the Iron Age individuals live that long (131).

Egypt

Perhaps the most influential and important of all the Roman colonies was the once-mighty Egypt. With the abundance of life-sustaining grain crops and a wealth of knowledge housed in the Ptolemaic capital of Alexandria, Egypt became vital for the survival of Rome as she attempted to stretch her boundaries towards the edges of the known world. And yet, this power led to fear and discrimination against the Egyptian people, as the elites recognized the danger of an uprising (Capponi 2011, 42). The Egyptians faced racism and prejudice, especially in comparison to the Greek residents. Increased taxes, barring from citizenship and enlistment in the Roman army, and low social status were all facets of everyday life for a native Egyptian under Roman rule. This less-than-flattering opinion is seen in the writings of some of Rome's most legendary chroniclers; Tacitus falsely accuses Egypt of being "ignorant as they are of laws and unacquainted with civil magistrates" and Livy even goes so far as to claim that the

Macedonian residents had “degenerated” into Egyptians (Tacitus and Livy in Capponi 2011, 42). These words reflect the bias that exists in nearly all written documents from this time. The following data set shows that life in Roman Egypt was very different for certain populations. The people of the city of Kellis show general improvements in quality of life, with little evidence of illness or conditions that did not occur normally due to the environment. However, the city was closely connected with the Roman government. The people buried in the Wall of the Crow Cemetery near Giza, however, show a general decrease in quality of life from the Saite to the Roman period, with an increase in rates of conditions that indicate stress, including osteoarthritis. This makes sense when it is mentioned that these individuals, unlike the population at Kellis, had no affiliation with the Roman government.

In the south-western Egyptian desert, approximately 550 kilometers from the modern capital of Cairo sits the Dakhleh Oasis and the ancient city of Kellis, which dates back to the Romano-Christian period. Archaeological evidence points to the earliest occupation being approximately AD 50, and two cemeteries (K1 and K2) house the long-gone inhabitants. This study focuses on the K2 cemetery. With the extremely arid environment and low soil acidity working alongside embalming techniques, the individuals from the Kellis cemeteries have extremely high preservation (Dupras et al. 2016, 286-288). Over 700 individuals were analyzed from the K2 cemetery, 64% of which are juvenile (Dupras et al. 2016, 289-90). Although it is not surprising, there is a large amount of evidence pointing to high fetal mortality and that pregnancy and childbirth were extremely dangerous. While infancy was a dangerous time, if an individual survived this period then they were likely to live through adulthood. Those who died during childhood more than likely perished from acute illnesses such as polio, whooping cough, and tetanus; however, these diseases do not directly affect the skeleton and therefore do not leave

pathological lesions or other markers. One child, aged between three and five years, presented lesions and skeletal destruction that indicate cancer (Dupras et al. 2016, 292-293).

While there are relatively few signs of illnesses or injuries that directly led to death in the population, there is substantial evidence of other conditions that would have been the result of lower quality of life. These include iron deficiency, periods of malnutrition and metabolic stress, and inflammation caused by infection or trauma.[2] While all of these conditions are present in the juvenile sample at Kellis 2, the prevalence is lower than the pre-Roman population, which indicates an overall improvement in health (Dupras et al. 2016, 293). There is a large amount of information that can be gathered from the adult population of Kellis as well. Adults make up approximately 36% of the total population, at 261 individuals. Of those, 105 were male and 153 were female, with three individuals of undetermined sex. There is a large number of females of childbearing age in the cemetery, leading to the hypothesis that many of them died during childbirth. The average height of the adult population was 160 cm for males and 156 for females. Stressors in the bones also point to an agrarian lifestyle and similar types of physical activity. There is a significant prevalence of osteoarthritis in the knee joints for both males and females at K2, and males show a high prevalence of the condition in the hips as well. This is evidence of repetitive motions associated with farm and textile work, including squatting and kneeling. There is also evidence of osteoarthritis in the cervical vertebrae in the females and the lumbar vertebrae in the males. It has been hypothesized that these changes occurred due to repetitive actions such as carrying objects on the head and the use of farming implements in the sexes respectively (Dupras et al. 2016, 295-297).

[2] The conditions observed are cribra orbitalia, porotic hyperostosis, enamel hypoplasia, and periostitis. For more information on these conditions, see Larsen (1997).

Severe wear and dental pathologies have been found in nearly the entire population, including abscesses and cavities. These conditions are believed to be the result of long-term ingestion of grit and sand mixed within food. It is hypothesized that many individuals died from systemic infection due to abscesses. When compared to the juvenile population in the cemetery, the adults present with a much higher prevalence of metabolic diseases and iron deficiency (Dupras et al. 2016, 297-298). The rate of these diseases in the adult population is 35% in males and 30% in females, showing that there is no major difference between the sexes. Patterns in trauma can also be seen in the population based on age and sex. Trauma is seen more frequently in males than females under the age of sixty, though over sixty the rate increases significantly in females. This can be linked to increased chances of osteoporosis in older women. Intentional trauma, however, is only found in male individuals, which is probably linked to interpersonal violence and not any kind of organized conflict or war. Infectious disease has also been found in the adult population, specifically tuberculosis and leprosy. Three individuals showed pathological changes congruent with tuberculosis and eight showed signs of leprosy. Interestingly, all of the eight were young males in their twenties. However, it is important to point out that many of these pathologies are fairly normal or found in relatively low percentages (Dupras et al. 2016, 300).

Another site in Egypt can provide context to determine the impact of the empire on the Egyptian people. The Wall of the Crow cemetery in Giza contains burials from two distinct periods in late Egyptian history: one from the end of the 25th Dynasty through the Saite Period (about 730-525 BC) and one from the early to mid-Roman period (first to second century AD). Jessica Kaiser (2018) explains that while the individuals buried in this cemetery were non-elite, they were not poor or destitute. Burials were formal, even those of children, and there is

evidence of grave goods and basic mummification. It can be assumed that the cemetery served populations in the general area of Giza (4-8). Both periods were ones of instability in Egypt, as political fragmentation rocked the country during the Saite Period and Augustus's arrival in Memphis foreshadowed difficult times in the future. His refusal to worship a deity destroyed the cover of benevolent ruler, and the Romans became suspicious of their new subjects (14-17).

The Saite population is made up of 165 individuals, with 75 being adult and 90 subadult. Only 81 of the individuals could be sexed, and males outnumber females in every age category except those over fifty. The Roman population is considerably smaller, containing only 63 individuals. Of these, 40 are adults and 23 are subadults. In both populations, the largest number of individuals fell in the young adult group, between eighteen and thirty-five years of age. There are more mature and older adult individuals in the Roman population. Males also outnumber females in the Roman population, though more extremely than in the Saite Period (155-158).

Evidence of iron deficiency and periods of nutritional stress can be seen in the Saite and Roman individuals, with rates increasing over time. Roman individuals show a higher prevalence of nutritional stress in females when assessed by individual, with 25% of all males and 66.7% of all females showing evidence compared to 28% of males and 22.2% of females in the Saite population. When it comes to juveniles, a determination can only be made tentatively, given the fact that only four females were sexed and only one male. Three out of the four females showed evidence for the condition and the lone male did not (195-196). Iron deficiency was more prevalent in both populations, with the rate of the condition increasing from the Saite to the Roman Period as well, with 26.8% of all individuals in the Saite Period and 32.5% in the Roman Period exhibiting the condition. (176-178). The prevalence rate for osteoarthritis also increased from the Saite to the Roman Period, rising from 23.1% to 54.2%. Both samples also show an

increase with age (204). The rate of osteoarthritic changes in the vertebrae increased from 59.7% of Saite individuals to 70.6% in the Romans (219). These changes indicate that there may have been an increase in hard labor activity with the Roman conquest, leading to breakdown of the joint surfaces. Finally, evidence of infections can also be seen in the two populations. No major differences can be seen between the two periods, although infections were more common in Roman than Saite children and no Roman adolescents were affected. Overall, the most severe cases were found in the Saite Period, and Roman cases were more commonly associated with fractures rather than other causes (222).

Evidence of trauma can also tell a good amount about life and workload, and there is a large amount from both periods. The least amount of trauma was found in the cranium. It was extremely low in both samples, but slightly higher in the Saite. Three males and one female showed evidence of healed trauma, including puncture, depressed, and complete fractures. Injuries that occurred at the time of death include a penetrating and a depressed fracture (183-187). Because most of the cranial fractures are puncture wounds, it can be assumed that there was at least some level of interpersonal violence in the Saite Period (189). Only one individual in the Roman sample showed evidence of cranial trauma, which was a small depressed fracture that was completely healed (207). The Saite Period saw a low prevalence of all types of fractures with only 1.2% of all bones showing evidence of trauma. They were all well-healed, with most of them being on the wrist and lower arm. These types of injuries are most commonly associated with falls. It can also be assumed that the Saite population had access to medical treatment, as all fractures appear to be well set (189). The prevalence of fractures in the Roman Period is almost identical, with 1.7% of all bones showing signs of trauma. No fractures were observed in the juvenile population. Two individuals from this period presented with multiple injuries, which

include healed fractures on the left wrist and lower arm. These types of fractures are commonly associated with direct blows to the arm. The other individual had healed fractures to the left elbow. It is assumed that these were sustained either through a fall onto an outstretched hand or by a direct blow to the elbow. This individual would have had very limited use of the left arm (207-208). While certain conditions seem to have lessened from the Saite to the Roman Period, a general worsening of health can be observed in the population surrounding the Wall of the Crow cemetery.

Britain

The outskirts of the empire tell a great deal about the power and reach of Rome, and possibly the most foreign territory of them all was Britain. Timothy Potter and Catherine Johns (1992) point out that the Romans knew very little about the island and written sources were scant, which led to an abundance of gossip amongst the elite. Even by AD 200, one hundred fifty years after it became a Roman province, Gaius Iulius Solinus wrote that Britain was close to islands that were inhabited by "inhuman and savage" individuals. It is not surprising, however, that very few Romans knew of the territory, as only the military made the trek that seemed more trouble than it was worth, even though there was extensive trade between Britain and Rome. Strabo explained that the trouble came from the Phoenicians, who controlled the trade route and kept it a closely guarded secret (12-13). While the lives and cultures of the native inhabitants of Britain eluded Roman society, it is vital for an understanding of the change that occurred after the conquest.

The archaeological evidence from pre-conquest Britain seems to reveal that perhaps the Roman writers were not completely mistaken about the lifestyle of the Britons. There is evidence to suggest that hillforts and defensive structures were used by at least the twelfth century BC;

however, most of these sites are dated to after 100 BC, closer to the Roman conquest of AD 150. What is more interesting is the evidence for highly urbanized societies during this time, which includes wooden houses, storage pits, and an ordered system of streets, all uncovered at Maiden Castle from 1934-1937. Danebury housed agriculture, textile work, limited metallurgy, and evidence for trade, including the acquisition of commodities such as salt and items made of shale and other coveted materials (17-18). Classical writers tell of a highly stratified society led by an aristocracy that gave loans and favors to lesser classes in exchange for allegiance. This type of social and political mechanism was also a part of Roman society, and therefore the Roman writers could have overstressed its importance in Britain. It is important to also point out that these writers should not be completely trusted due to their inherent bias. The only forms of backup to this claim are later stories from Irish legend. There is no contemporary evidence, and therefore historians are forced to rely on the Romans. Because of this, caution and hesitation are necessary when assessing the reliability of these sources (19).

Life in Britain after Caesar's conquest changed dramatically. The two sites that have been used for this study, Gloucester and Dorset, show differences that again can be attributed to local experience. Evidence from Gloucester cannot be taken on its own, and comparisons with other areas provides the context needed for proper analysis. Some conditions, like cavities and infections, are much higher than in other populations, showing that context and location need to be taken into account. Meanwhile, shorter lifespans and decreased heights were observed in the Roman population in Dorset, along with a deterioration in dental health. The Roman population also shows evidence for higher rates of infections, which are possibly due to the increased contact with the rest of the world. While the distinction between these two sites is not as easily

identifiable as the one between the Egyptian sites, it is clear that the two sites are very different and experienced Roman colonialism differently.

Gloucester contains a cemetery on London Road that houses both individual burials and a mass grave. Most burials date to after the second century AD, as cremation had been the prominent form of burial in the Roman world before that. There are, however, examples of burials that date to earlier in the territory's history. The cemetery was dated to have been in use between the first and fourth centuries, with 64 burials (Simmonds, Marquez-Grant, and Loe 2008, 6-9). Of those 64, 51 were adults and 9 were subadults, with 3 individuals who could not be aged more specifically than that they were older than ten years. The average age at death for the adults was between eighteen and thirty-five, though seven had survived past forty-five. For the subadults, death was most common in adolescence. Average height was estimated to be 160 cm for females and 169 cm for males (32-33). The overall health of these individuals compared to other sites in Roman Britain is complex to say the least. The London Road cemetery contains one of the highest rates of cavities in the population of burials, 11.3%. The cavities were more prevalent in males than females, though there were ten affected teeth that belonged to individuals who could not be sexed. In all, 66.7% of all teeth in the assemblage showed evidence. Analyzing overall dental health, however, was difficult, as most jaws were extremely fragmented. Among the subadults, there were no examples of cavities on the deciduous teeth and only one on the permanent (43-45).

The discrete skeletons also show evidence of other pathologies, including three individuals, an eighteen to twenty-five-year-old male, an adolescent of undetermined sex, and a twenty-five to thirty-five-year-old female, who all had changes on the surface of the skull that were due to inflammation. Inflammation affecting the cranial vault can be caused by many

different conditions, including scurvy, trauma, meningitis, anemia, and tuberculosis. Infection was common, which affected 25 adults and three subadults. It seems to have affected more females than males and ravaged the lower limbs more frequently. The authors point out that compared to other populations in Roman Britain, the London Road cemetery has a higher prevalence than others (51). Evidence of iron deficiency can be seen in the population as well, with eleven adults (21.6%) and two subadults (22.2%) presenting with the condition. The youngest individual was estimated to be approximately two to five years old, while the oldest was over forty-five (53).

There is no evidence in the population to suggest violence as a cause of death. Of the fractures observed, all of them were healed. Nine individuals presented fractures, or 14.1% of the entire population. Seven of the 24 males and two unsexed adults were those that presented a wide range of injuries. This pattern is common for other populations, with fractures being less frequent among females. The more infrequent fractures were those of the ribs, with only two individuals showing evidence. One of these individuals had a fracture on a right rib which is likely the result of interpersonal violence. However, there is a lack of injuries to the lower arms, which is unusual (54-55). In general, lower arm fractures are fairly uncommon for Roman Britain, with only about 1-3% of individuals presenting with those injuries. These types of fractures would have been the result of defense or falls on to outstretched hands (56). Only two individuals had more than one fracture. One had fractures to his left rib, left hand, and right lower leg. A left-hand fracture was also recorded in another individual (56).

One of the more common conditions present in the population was osteoarthritis. Seventeen individuals, or 32.1% of all adults, which includes ten males (41.7%) and four females (36.4%) presented changes to the bone structure, including new bone growth around or on a joint

surface. Osteoarthritis is usually only found in older adults, but two individuals between eighteen and twenty-five years old had the condition affecting the joints between their vertebrae and their ribs. Because of the age, it is likely that activity and trauma are the reason for the condition. The most commonly affected joints, though, were those of the cervical vertebrae (57). Out of the entire population, three individuals had generalized osteoarthritis, in which multiple joints had been affected. All three, two males over forty-five and a male aged twenty-five to thirty-five, presented with the disease in both hips. One individual also showed evidence in the chest, and another had involvement in the right elbow, left knee, and their cervical and lumbar vertebrae (58).

Evidence of herniated disks can also be found in the population (58-59). Of the four individuals with this condition, one male was between eighteen and twenty-five years of age, a female and a male were twenty-five to thirty-five, and the final male could not be aged more specifically than adult. Three of the individuals had the condition on the thoracic vertebrae, while the final was affected on the lumbar. Degenerative disease, activity, and trauma have all been linked to the condition. Four individuals also showed evidence of increased porosity on the surface of the vertebrae, which is caused by degeneration of the intervertebral disks and is mostly seen in older individuals. However, of the four individuals with this condition, only one could be aged to be over forty-five, a male. The other three were an adult female, a male between eighteen and twenty-five, and a twenty-five to thirty-five-year-old of undetermined sex. All cases were found on the cervical spine. Due to the young age of the individuals, trauma is the most likely cause (58-59).

While the London Road Cemetery does not include individuals from the Iron Age, another site in Roman Britain can provide a better picture for comparison. Rebecca Redfern

(2008) gives a look at life in what is the modern county of Dorset from the fourth century BC to the fourth century AD. An interesting observation is that the majority of individuals living in the Roman era did not live to older adulthood, which for this specific study was estimated to be over fifty years old. Male mortality was also much higher in Roman Britain than during the Iron Age. Both sexes saw an increase in cavities from the Iron Age to Roman occupation with females having the largest spike, jumping from 6.3% to 43.7%. Tooth loss, however, decreased in the Romano-British period for both males and females (172-173). Evidence for nutritional stress in the teeth was low in both periods, but the females had both the highest and lowest prevalence rates, with 11.8% in the Iron Age and 23.7% after Roman occupation. (175). Other studies have shown that on a larger level, across Roman Britain, the rate of these conditions all increased with the Roman conquest, so Dorset is somewhat of an anomaly (183).

Stature also changed, with the gap between the tallest and shortest females widening, from 166 and 137 cm in the Iron Age to 170 and 134 cm in the Romano-British period. Males also had a general decrease in the height of the shortest individuals over time (175). Both periods present demographic profiles that conform to the historical and contemporary data that points to greater male mortality. Increased risk of death is seen in young adult males due to their engagement in risky and more “masculine” behaviors between the ages of eighteen and twenty-four. This is the only age group for the Iron Age population in which male mortality was relatively high. This changed in the Romano-British period, in which all age groups saw greater male mortality. Female risk was only high in young adulthood in both populations, which can be attributed to pregnancy. This rate of life expectancy is common for the rest of ancient Rome, where peak mortality occurs between fifteen and thirty-five years of age. This is common in societies with high fertility and mortality rates, in which 70% of those who reach five years old

will not make it to forty-five (179-180). This is interesting, because Redfern also points out that the Romano-British period is also characterized by a decrease in rates of growth and an increase in disease and poor nutrition. (180-181).

Other changes that occurred during the transition into the Roman Empire include an increase in the number of individuals showing evidence of tuberculosis. This increase suggests more widespread infection, which could have been the result of an expanding agricultural economy and other new manufacturing techniques that were introduced by the Romans. Redfern points out that the risk of transmission increased for societies undergoing colonization, as the new forced migration and movement of people, including troops, allowed for more contact and pulled them out of safe isolation (182-183). Overall, a general trend can be seen with these two case studies: that many aspects that indicate quality of life were affected by Roman colonization. Redfern reveals that other bioarchaeological studies have created a larger picture that shows general decrease in health across Britain.

Italy

A lot of emphasis has been placed on territories on the fringes of the empire. What did life look like for people who would be considered true Roman citizens, living close to the capital city on the Italian peninsula? This comparison is perhaps the most striking, as there are expectations that Roman citizens would have much better lives than those on the frontier. However, the data gathered from the Roman cemeteries around the city of Urbino is surprising and disturbing, with very high levels of most conditions, including osteoarthritis and nutritional stress. Short and stressful lives are common, and evidence of trauma indicates that interpersonal violence is the main source of most injuries. When this is compared to data from pre-Roman, Samnite burials, it reveals the true damage. The Samnite sample shows an overall increase in

quality of life from the Neolithic to the Iron Age, with increased heights and lower bone robusticity. High levels of interpersonal violence are seen but can be explained through a history of warfare with the Celts and the Romans. Roman citizens were not immune to the effects of colonialism.

Bioarchaeological evidence for life in Iron Age Italy is relatively scant, although studies have been able to add to the image of life for the people that lived before Rome. Vitale Sparacello (2013) examines the Samnite people of Central Italy, analyzing the burials of 844 individuals that were analyzed over 11 necropoli living from about 800 to 1 BC. By 354 BC, when the Samnites created their first truce with Rome, they were the largest political unit on the peninsula (1-2). Little is known about the Samnites before their conflicts with Rome. However, data reveals that elite status was already present by 800 BC. There was also a major influence of Greek culture during this first period, although to an extent (21-24). By the time they came into contact with Rome, they had expanded south after the fall of the Etruscans in 474 BC and had fought against invading Celts around 400 BC. 343 BC saw the start of the Samnite Wars after the Greek city-state of Cupa asked Rome to free them from Samnite rule. When war finally ended in 290 BC, the Samnites still retained autonomy. After they sided against Rome in a number of conflicts, including the Second Punic War and the Rebellion of Spartacus, the Romans realized that total control of the peninsula was impossible without taking the Samnites out of the picture. By 27 BC, after colonization, deportation, and ethnic cleansing, the Samnites were fully integrated into the Roman Empire (25-28).

Unfortunately, there is little evidence collected regarding conditions such as iron deficiency and infections. However, Sparacello does provide data comparing stature and frequency of injuries between Neolithic and Iron Age Italians. Iron Age men are shown to have

grown approximately 5 cm, from 162 in the Neolithic Age to 167 in the Iron Age. An increase between 3 and 4.5 cm is also seen in females. This is possibly due to an increase in nutritional and health conditions (158-162). Within this study, the data collected regarding bone robusticity can be used to determine work activity and the amount of strenuous labor that was common for the Samnite people. There is little change from the Neolithic to the Iron Age, showing that this evidence indicates no increase in stressful activities from the Neolithic to the Iron Age, possibly due to the technological advancements with agricultural intensification (240). Of course, robusticity alone should not be used to judge work activity; however, in the absence of other data it is a helpful tool.

The frequency of cranial injury is relatively low for all individuals. A total of 21 males (9.36%) and five females (4.67%) suffered from injuries, while only three males (.56%) and 1 female (.34%) exhibited pathological lesions of all kinds. Of all injuries, 14 occurred at the time of death, and the remaining 13 were all completely healed. All of the healed fractures were the result of blunt force trauma, while a majority of the others were due to sharp force trauma (224-225). This evidence points to interpersonal violence as the main cause of cranial trauma in the population. However, Sparacello notes that this increase in violence may be connected to colonial contact and conflict between the natives and the invaders. With the Samnites' history of warfare with both the Romans and the Celts, this frequency is not entirely surprising (263). While the evidence for life in Iron Age Italy is relatively scant, it still provides a window into life before the domination of Rome. This is especially upsetting when one looks at the damage that was done after Rome's rise.

Urbino is located in the Marche region of Italy, about forty-five kilometers from the coastal city of Pesaro. Within the necropoli of San Donato and Bivo CH, 71 burials were

uncovered, dating to the first, second, and third centuries AD. It is assumed that these individuals were what would today be considered part of the “middle class”, members of neither the elite nor the enslaved class (Paine, Vargiu, Signoretti, and Coppa 2009, 193-194). The average life expectancy for all burials is just under twenty-five years of age, which is surprisingly low for the Imperial Roman period. The authors point out that this life expectancy is lower than that in modern hunter-gatherer societies, and even that seen in the Neolithic Period (195).

The frequency of a large number of conditions is relatively high for the Urbino burials. One of the most common conditions present in these individuals is osteoarthritis, with 47% of men and 58% of women presenting with the condition. Other conditions that show signs of trauma or strenuous labor are nodes on the vertebrae, which affect 38% of men and 42% of females, and degenerative joint disease, which is seen to affect 68% of males and 55% of females. One of the most surprising observations is the high level of trauma for the entire adult population, at 20.4%. Females show traumatic lesions at a rate of 20%, including stab wounds, a blunt force injury to the cranium, and another blunt force injury to the vertebral column. About 21% of males showed injury, including stab wounds, a dislocated shoulder, healed rib fractures, and a healed blunt force injury to the cranium. Most of these injuries suggest high levels of interpersonal violence within the population (197).

Poor health is common in this population, with iron deficiency affecting 37% of females and 48% of males (197). When compared with other sites in Italy, the level of the condition falls somewhere in the middle. Rates are much higher than at the site of Lucas Feroniae, where females are affected at a rate of 24.2% and males at 12.9%. However, the population from Vallerano was more affected, with a total population rate of 65%. Rates at the site of Ravenna and Rimini were high, where 45% of individuals presented with the condition. However, some

have attributed these rates to lead exposure (203-204). Evidence for infection was found most commonly on the long bones of the leg, with women being affected at a rate of 20% and men at 41% (198). The rate can be possibly connected to exposure. It has been argued that Imperial Romans were exposed to toxic levels, roughly ten times the levels of their predecessors, through the use of make-up and the use of vessels used for drinking, eating, and cooking. This link, however, cannot be completely proven (201).

The most shocking statistic, however, comes from the rate of nutritional stress, seen through a specific condition called enamel hypoplasia. The rate for the entire population is a staggering 100%, meaning that every single man, woman, and child suffered from malnutrition during childhood. Despite the fact that evidence for infection and iron deficiency were uncommon for juveniles, the extremely high rate of enamel hypoplasia indicates that childhood was a difficult period for the people of Urbino (198). Other research has shown that this level of hypoplasia is not uncommon in Imperial Rome, with another site in Molise, Italy showing similar rates of the condition. Patterns have been observed showing increased rates over time in Italy due to the dietary change to carbohydrate-rich foods (204). Overall, the data shows that males in the population presented with more lesions than females, suggesting that they were subjected to more physiological stress (199).

Overall, there is little skeletal evidence for ill health in the sub-adult sample. This reveals that most illnesses affecting children would have been acute and not chronic, killing the individuals quickly before it could affect the bones. With 38% of children in the sample being between the ages of one and a half and five years of age, it is expected that dietary deficiencies and poor hygiene and living conditions caused acute infections (205). Overall, it appears that the people of Urbino acted as work horses for the empire, supporting the city and its military

campaigns. The economic burden of paying heavy taxes can be seen in the biological stressors in their bones. Being a Roman citizen took a much greater toll than some may believe (206).

Analysis

The study of colonialism is not a single-field endeavor. The use of different approaches and forms of evidence can provide an extraordinary depth of understanding that could never be possible with only one analysis. Bioarchaeology has the ability to obtain first-hand accounts of colonialism in contexts within which it would normally be thought impossible. Bones retain details about an individual's life, from the first months in the womb to the last breath. The environment that surrounds a person makes up their world, from their food to their everyday activities and lifestyle to the illnesses that plague them for days, weeks, or even years (Larsen 2000, 3). However, in the study of Rome, bioarchaeology has been mostly ignored, especially within the Italian peninsula and the populations that lived in and around the city of Rome itself. The work by Kristina Killgrove reveals the importance of bioarchaeological data in completing a picture of life in the Roman world and making the distinction between the two images of Rome: the opulent center of an empire and a filth-ridden urban jungle (Killgrove 2017, 248-250). She has shown that Imperial Romans most commonly suffered from porotic hyperostosis and enamel hypoplasia, indicating that childhood in the heart of the empire was wrought with illness and malnutrition. However, recent attempts to use this data to create a picture of systemic health have been completed not by bioarchaeologists or anthropologists at all, but by Roman historians. Killgrove stresses the need for bioarchaeologists in the 21st century to fill a hole in research and use the data to aid in the work to understand the Roman world (251-253).

The data that has been presented in this paper comes from a very wide range of areas within the Roman Empire, with their own set of contexts. Unfortunately, it is difficult to properly

analyze the data from Gaul due to the relative scarcity of evidence. What can be said is that it is obvious that some prospered and others suffered with Roman conquest. The three adults found in Lattara were ravaged by injury and disease, while evidence from modern Champagne reveals that life may have improved. However, the poor preservation and condition of the Iron Age burials does not allow for a complete analysis, and a conclusion cannot be completely made regarding change in quality of life for the population in Champagne. The Egyptian province was changed dramatically with the conquest of Augustus. The changes seen in the individuals buried in the Wall of the Crow cemetery are indicative of a decrease in overall quality of life, with a rise in the frequency of almost all observable conditions, including infections, osteoarthritis, and enamel hypoplasia. The people who made up the communities served by this cemetery were not privileged or connected to the government in any way, in contrast to those who lived and died around the Dakhleh Oasis. Their connection to the empire as an administrative center allows for a better understanding of the data collected. The overall increase in health seen in these individuals cannot be taken from the context of the community's role in the Roman government. This one seemingly small difference completely changes how one views the data and provides an explanation for the disparities in it.

The two separate cases from Britain are not as easily distinguished. Taken by itself, the data from the London Road cemetery in Gloucester cannot say a great deal. Relying on dental data is difficult due to the poor preservation, although the levels of osteoarthritis and other conditions should not be ignored. The individuals from Dorset, however, show a clear decrease in quality of life from the Iron Age to the Roman Period, with a substantial decrease in dental health and a rise in the frequency of infections and mortality rates. With the increased movement of troops and people, the fringes of the empire were exposed to disease on a large scale. This

type of suffering was not exclusive to the provinces, however. The low rates of cranial lesions and the general decrease in robusticity within the Samnite population of Central Italy reveals that life before Rome did not include a great deal of stress. The fact that almost all injuries were the result of interpersonal violence fits within the context of the Samnites' history of warfare with both the Romans and the Celts. When these individuals are compared to those living in the Urbino cemetery, it is obvious that something is different. The Urbino population show incredibly high rates of conditions such as enamel hypoplasia and osteoarthritis. Other studies have shown that Urbino is not an outlier but stands practically in the middle compared to rates of these conditions at other sites in Italy. Possible lead poisoning and the stress of supporting the growing empire reveal the daily suffering endured by those who lived so close to the capital.

What these case studies clearly reveal is that colonialism is not an equal process across all involved. Everyone experiences colonialism differently, whether it is based on geography, social class, or relation to the ruling elite. Colonialism is a complex system that benefits some and punishes others. Perhaps this type of system cannot be defined, as no one person involved can speak for any other. Unfortunately, colonialism does not abide by this ideal, as the power to control the narrative is in many ways at the heart of the system. Edward Said (1993) explains that narratives are a way for colonized groups to maintain their own identity and existence, and that those narratives can decide the battle over ownership and the rights to land. It is even possible that nations themselves are narratives, and the power to block narratives from forming is crucial to colonialism and imperialism. Part of separating oneself from those narratives is to paint them as inferior and build oneself up through culture. That culture becomes an identity and, in many ways, the only acceptable narrative (xii-xiii).

The narratives of the colonized, however, do not disappear. They are simply ignored. While written texts from those who lived under Roman rule are all but non-existent, there are those who rose out of the ashes of modern European empires to finally have their stories told. Albert Memmi and Aimé Césaire, both raised in French colonies, give their version of the truth and the suffering colonialism caused them. To Césaire (2001), colonialism is a system that affects and brutalizes everyone, claiming that "the colonizer, who in order to ease his conscience gets into the habit of seeing the other man as *an animal,* accustoms himself to treating him like an animal, and tends objectively to transform *himself* into an animal" (41). Men like him have been forced to accept an inferiority complex and live in a fear-driven society where cruelty, brutality, and sadism reign. Human beings are turned into things (42-43). There is an inherent deficiency to Memmi (1991), who brings attention to the starvation and illness that invade people's lives, and "those skeletonlike and naked bodies passing between the chairs of the cafes like living dead, sticky as flies, the flies of our remorse (117). The individual disappears, replaced by an insistence by the colonizer that the colonized are all the same, almost one being. The tardiness of one servant leads to an exclamation that "they" cannot be trusted. Humanity and identity are ripped away, dooming these men, women, and children to be nothing, the things described by Césaire (85).

Although the words of Césaire and Memmi were written millennia after the fall of Rome, their messages are universal. The depravity of ancient Rome continued into the 19th and 20th centuries, as the very nature of colonialism is exploitative. Timothy Parsons (2010) explains that empires "can never be – and never were – humane, liberal, or tolerant. Would-be Caesars throughout history sought glory, land, and, most important, plunder" (4). Individualism disappeared as nationalism grew, alienating those trying to cling to their own history. These

individuals, the ones who have been ignored by both colonial narratives and history, in reality had the power to bring the entire system to the ground. Without the help of local allies, empires could not live and, as shown, few accept imperial rule voluntarily (7-8). The power of narratives as explained by Said can be seen clearly now. The hatred colonized people had for their governing rulers was enough to make the empire fall, and the elite silenced any voices that held disdain for their rule. This is the reason Rome and modern powers collapsed in the end. The hatred subjects had for their colonizers is why empires will always fall (4).

Conclusion

Human remains have been often ignored in studies of colonialism in favor of written accounts or material culture. This paper has shown the importance of bioarchaeology for the understanding of colonial experiences, with data revealing information about stress, nutrition, and overall health for populations and how it all changed with the arrival of Rome. The men, women, and children who lived under the empire had their voices snuffed out long ago, and their versions of history have been forgotten in favor of stories from elites like Caesar and Strabo. Their bones, however, can still reveal secrets about strenuous workdays, diseases spreading throughout the provinces, and violence. Life in the empire cannot be boiled down to a single story or experience. The bioarchaeological evidence from these populations reveals that status, geography, and connection to the government all dictated life for people from the gates of the city to the furthest territories. The evidence has shown that a large number of people who were forced to live under foreign rule saw a dramatic decrease in quality of life once Rome entered the picture, while others experienced longer lives with better nutrition and health. It is important to not be caught up in one side or the other. Focusing on only the bad or the good takes away from the full story of Rome, and only continues the tradition of biased history. Colonialism is a

complex system that has never been equal. Some benefit while others suffer and must hold up the weight of the empire, and it is not always the conquered subjects who feel the pressure. Data has shown that the population in Kellis, Egypt saw an increase in quality of life while Roman citizens in Urbino, Italy lived through childhood malnutrition and infections while also enduring stressful physical labor to support the empire. Expectations and stereotypes are uprooted, and the story has to be retold.

It is easy to understand why some archaeologists like Chris Godsen have focused on the positive aspects of colonialism, attempting to give agency and power back to the colonized. The data, however, has shown that in many cases the positives cannot outweigh the negatives. The scars on the bones of the men, women, and children from the cemeteries in Giza, Dorset, and Urbino and the wells in Lattara, can and should not be brushed off in an attempt to give them power through creativity. As Audrey Horning and Alejandro Haber argue, doing so only harms them further and helps perpetuate colonial mindsets. Colonialism is more than just controlling another, smaller group of people. It is systematic oppression and the abuse of power and authority. It is inherently unequal, placing some below others and forcing them to depend on a foreign government just to survive. The bioarchaeological evidence left behind from the ancient world is not isolated. European powers emulated the practices of Rome, so it is hard to imagine what damage was done to the men, women, and children who lived under their rule. The scars left on the remains of ancient Rome's citizens and subjects are a window into a world that for so long has been hidden. Rome's expansion was in many places violent, cruel, and an unequal system that severely degraded the quality of life of its average citizens and conquered people. Bioarchaeology has given voices back to those who were unable to tell their stories, and has proven that colonialism, especially Roman colonialism, cannot be given a single label. That is

the importance of giving those voices back. Every story is different, and every story deserves to be told.

References Cited

Capponi, Livia. 2011. Roman Egypt. 1st ed. London: Bristol Classical Press.

Césaire, Aimé. 2000. *Discourse on Colonialism.* Monthly Review Press: New York.

Dietler, Michael. 2010. *Archaeologies of Colonialism: Consumption, Entanglement, and Violence in Ancient Mediterranean France*. University of California Press

Duchesne, Sylvie and Jacque Treil. 2005. "Analyse de trois squelettes humains et de restes de nouveau-nes" in *Lattara 18 : Onze puits gallo-romains de Lattara (Ier s. av. n. e. – Ile. s. de n. e.), fouilles programmees 1986-2000,* edited by G. Piques and R Buxo, 335-345. Lattes.

Dupras, Tosha L., Lana J. Williams, Sandra M. Wheeler, and Peter G. Sheldrick. 2016. "Life and Death in the Desert: A Bioarchaeological Study of Human Remains from the Dakhleh Oasis, Egypt." In *Mummies, Magic and Medicine in Ancient Egypt: Multidisciplinary Essays for Rosalie David*, edited by Price Campbell, Forshaw Roger, Chamberlain Andrew, Nicholson Paul T., Morkot Robert, and Tyldesley Joyce, 286-304. Manchester: Manchester University Press.

Godsen, Chris. 2004. *Archaeology and Colonialism: Cultural Contact from 5000 BC To the Present.* Cambridge: Cambridge University Press.

Haber, A. F. 2007. "Reframing Social Equality within an Intercultural Archaeology". *World Archaeology* 39(2): 281-297.

Hekster, Olivier. 2010. "The Roman Empire." In *The Edinburgh Companion to Ancient Greece and Rome*, edited by Bispham Edward, Harrison Thomas, and Sparkes Brian A., 108-13. Edinburgh: Edinburgh University Press.

Horning, A. 2015. “Comparative Colonialism: Scales of Analysis and Contemporary Resonances”. In *Rethinking Colonialism: Comparative Archaeological Approaches*, edited by C.N. Cipolla and K.H. Hayes, 234-246. University Press of Florida, Gainsville.

Jones, Terry, dir. 1979. *Monty Python's Life of Brian*. DVD. HandMade Films: United Kingdom.

Kaiser, Jessica. E. 2018. Raising the Dead: The Bioarchaeology of the Saite and Roman Period Wall of the Crow Cemetery in Giza. Berkeley: University of California.

Killgrove, Kristina. 2017. "Imperialism and Physiological Stress in Rome (1st-3rd c AD). In *Colonized Bodies Worlds Transformed Toward a Global Bioarchaeology of Contact and Colonialism.* Edited by H. Klaus and M. Murphy. University Press of Florida.

Larsen, Clark Spencer. 1999. *Bioarchaeology: Interpreting behavior from the human skeleton*. Cambridge: Cambridge University Press.

Larsen, Clark Spencer. 2000. *Skeletons in Our Closet*: *Revealing Our Past Through Bioarchaeology.* Princeton: Princeton University Press.

Mays, Simon. 2010. *The Archaeology of Human Bones*. 2nd ed. London: Routledge.

Memmi, Albert. 1991. *The Colonizer and the Colonized*. Expanded ed. Boston: Beacon Press.

Osterhammel, Jurgen. 1997. *Colonialism: A Theoretical Overview.* Princeton: Marcus Weiner Publishers.

Paine, R.R., Vargiu, R., Signoretti, C., and Coppa, A. 2009. “A Health Assessment for Imperial Roman Burials Recovered from the Necropolis of San Donato and Bivio CH, Urbino, Italy.” *Journal of Anthropological Sciences* 87: 193–210.

Parsons, Timothy. 2010. *The Rule of Empires Those Who Built Them, Those Who Endured Them, and Why They Always Fall*. Oxford: Oxford University Press.

Pobjoy, Mark. 2010. "The Roman Republic." In *The Edinburgh Companion to Ancient Greece and Rome*, edited by Bispham Edward, Harrison Thomas, and Sparkes Brian A., 102-07. Edinburgh: Edinburgh University Press.

Potter, Timothy W., and Johns, Catherine. 1992. *Roman Britain.* Berkeley: University of California Press.

Redfern, Rebecca. 2008. "A Bioarchaeological Investigation of Cultural Change in Dorset, England (Mid-to-Late Fourth Century B.C. to the End of the Fourth Century A.D.)." *Britannia* 39: 161-92

Said, Edward W. 1993. *Culture and Imperialism.* New York: Vintage Books.

Sánchez, Gilda Hernández. 2012. "Archaeology of Colonialism." In *Ceramics and the Spanish Conquest: Response and Continuity of Indigenous Pottery Technology in Central Mexico*, 19-27. Leiden; Boston: Brill.

Simmonds, Andrew, Márquez-Grant, Nicholas, and Loe, Louise. 2008. *Life and Death in a Roman City: Excavation of a Roman Cemetery with a Mass Grave at 120-122 London Road, Gloucester*. Oxford: Oxford Archaeological Unit.

Sparacello, Vitale. 2013. "The Bioarchaeology of Changes in Social Stratification, Warfare, and Habitual Activities among Iron Age Samnites of Central Italy." University of New Mexico.

Stead, Sheelagh. 2006. "Human and animal bones". In *Iron Age and Roman Burials in Champagne.* Edited by Stead, I., J.-L. Flouest, and Valery Rigby. Oxford: Oxbow Books.

Van Dommelen, Peter. 2011. "Postcolonial Archaeologies between Discourse and Practice." *World Archaeology* 43 (1): 1-6.

Voss, Barbara L. 2015. "What's New? Rethinking Ethnogenesis In the Archaeology of Colonialism." *American Antiquity* 80 (4): 655-70.

Wells, Peter. 2001. *The Barbarians Speak: How the Conquered Peoples Shaped Roman Europe*. Princeton University Press.

I affirm that I have upheld the highest principles of honesty and integrity in my academic work and have not witnessed a violation of the Honor Code.

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