CEMETERIES AS CLASSROOMS: MAKING ARCHAEOLOGY EDUCATION RELEVANT, ACCESSIBLE, AND SUSTAINABLE

by

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THESIS CERTIFICATION

Rachel Louise Hines defended this thesis on 05 March 2020. The members of the thesis committee were:

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The University of West Florida Graduate School verifies the names of the committee members and certifies that the thesis has been approved in accordance with University requirements.

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ABSTRACT

CEMETERIES AS CLASSROOMS: MAKING ARCHAEOLOGY EDUCATION RELEVANT, ACCESSIBLE, AND SUSTAINABLE

Rachel Louise Hines

Despite promoting K-12 education initiatives for decades, public archaeologists struggle to reach precollegiate audiences due to archaeology's absence in curriculum standards, a lack of qualified archaeology educators, and barriers within the school system. To investigate replicable and accessible methods of archaeology education and to better understand teacher needs and motivations, I created lesson plans which engage high school students in recording and researching historic cemeteries. Hands-on efforts are often excavation-based and limited by access to professional archaeologists; however, cemetery recording is nondestructive and offers students a chance to participate in project-based learning. Four educators from Santa Rosa County taught the materials to nine classes in Fall 2019 while I evaluated the lessons through surveys, guided observations, and summative interviews. The materials were revised based on results to ensure they are useful and useable. Every participant indicated the lessons are user-friendly, relevant, and meaningful. Administrative support, passionate teachers, and carefully crafted lessons contributed to programmatic success, indicating collaborative efforts from archaeological and educational professionals can produce hands-on archaeology programming that is mutually rewarding.

CHAPTER I

INTRODUCTION

A recent survey conducted by the Society for American Archaeology found 87% of Americans believe precollegiate schools should teach archaeology (Society for American Archaeology 2018). Since archaeologists began to emphasize the idea of a "public archaeology" in the late 1960s and early 1970s, they have also attempted to incorporate archaeology into educational curricula (Hawkins 1991; Rogge 1991; Kehoe 2012; Malloy 2014; Ellick 2016). However, despite the popular appeal of the discipline, archaeologists struggle to reach students and teachers through formal education initiatives (Smardz and Smith 2000; Jeppson 2010). Florida Public Archaeology Network (FPAN) serves the Florida public by assisting local governments, assisting the Florida Division of Historical Resources, and performing educational outreach (Lees et al. 2015). Though initial outreach efforts were typically reactive instead of proactive, such as attending festivals or giving public lectures, FPAN quickly shifted gears to create resources that reach large audiences (Lees et al. 2015:104-105).

FPAN offers a number of trainings and workshops to put preservation tools in the hands of the general public, causing an engagement ripple effect throughout a community instead of solely relying on direct interactions with FPAN staff. Lees et al. (2015:110) emphasize the efficiency of their approach: "Workshops and training programmes, once developed, can be offered repeatedly and in many areas, providing information to large numbers of people." For example, the Heritage Awareness Diving Seminar teaches scuba-diving instructors to treat submerged heritage sites with sensitivity, ensuring preservation ideals are then spread to students in their courses. Adapting a similar approach for kindergarten through high school (i.e., K-12) educational programming would allow FPAN staff (and archaeologists in general) to reach much

larger numbers of students by engaging their teachers. However, while curriculum materials are available online through FPAN's website, it is unclear whether these lessons are utilized, and when FPAN offers teacher training workshops, there often is little to no attendance (Laura Clark 2018, pers. comm; Nicole Grinnan 2018, pers. comm.) Because of this, K-12 educational programming offered by FPAN Northwest Region is largely limited to classroom visits or field trips to the Destination Archaeology Resource Center at the FPAN Coordinating Center in downtown Pensacola.

For my thesis research, I created and evaluated cemetery-based educational materials for local high school social studies classes to better understand teacher needs and motivations and to investigate replicable and accessible methods of archaeology education. My research was guided by four main questions: First, how can hands-on heritage-focused lessons be adapted for audiences without an accessible and available archaeological site? Second, how can educational lesson plans promote archaeological principles to meet curriculum standards? Third, how can archaeology educators create products that are relevant, adaptable, and user-friendly? Finally, how can students engage with local history in productive and meaningful ways? I believe historic cemeteries provide an accessible venue where students (and their teachers) can learn about archaeological principles and local history, make connections to mandated curriculum standards, and contribute to their communities.

Many professional archaeologists view public engagement as a way to mitigate artifact collecting at sites, inspire support for cultural resources, and enrich archaeological interpretations (Jameson 1997; Little 2002; Altschul et al. 2018; Klein et al. 2018). However, beyond simply producing another way to foster connections between archaeology and the public, this thesis research emphasizes sustainable and replicable archaeology educational programming. Hands-on

archaeology educational materials often rely on the presence of a professional archaeologist; this not only results in programming tied to specific locations, but also prohibits access for many schools, severely limiting archaeologists' ability to engage with wide audiences, both physically and geographically. Cemeteries are common and accessible local resources and provide a setting where students can engage with the material past in a tangible way, even when the class lacks access to an archaeology educator and/or an active archaeological site.

This thesis also seeks to understand why archaeology lesson plans are underutilized by precollegiate teachers and to correct some of these issues to promote relevant, sustainable K-12 archaeology education programming. Archaeology education research often measures the success of lesson plans by evaluating student gains; this project instead evaluates how teachers use lesson plans and questions why they would or would not adopt the program permanently to assess long-term sustainability. This approach allowed me to improve lesson plans based on teacher feedback, diagnose common issues related to accessibility, and identify possible points of entry for other archaeologists looking to collaborate with educators.

In addition to creating new, replicable ways of teaching archaeology in the classroom, this project aims to assist with local cemetery preservation. Florida's abundant historic cemeteries face threats from vandalism, neglect, and development and are in need of preservation and recordation (Miller 2015; Stringfield 2015). Though this project does not involve students in cemetery maintenance, which would require higher levels of expertise and supervision, it does call attention to the value of local cemeteries and hopefully inspires further community engagement. Finally, at a fundamental level, this thesis attempts to connect high school students with local history in a relatable and tangible way. It is no secret many students find history class to be "boring" (Davis 2000; Rosenzweig and Thelen 2013:41). This program

offers educators a readymade, adaptable way to teach local history through tangible places, allowing their students to make personal connections to broad historical events and gain an appreciation for archaeology, heritage, and preservation.

In order to conduct my thesis research, I obtained permission from the University of West Florida (UWF) Institutional Review Board (IRB). The IRB's letter of approval for both the project and for one project amendment are attached as Appendix A. The project is laid out over the course of the following seven chapters. Chapter II examines the study area, Santa Rosa County, both explaining why this school district was chosen for the project and comparing the population to the entire state of Florida, as the materials are intended for use in Florida public schools. Chapter III examines the archaeological potential of cemeteries and addresses cemeteries as a forum for community engagement. This discussion situates the thesis within the context of anthropological archaeological research on cemeteries and provides examples of similar cemetery-based public outreach programs. Chapter IV provides a background on archaeology education methodology and theory and examines the benefits and barriers associated with this subfield. This chapter not only frames this research project within current research on archaeology education, but also serves as guidance for the creation of a successful public outreach program.

Chapter V lays out the methods employed in this thesis project, including those used to create the lesson plans, to evaluate them, and to recruit participants. This chapter enables future replication of this study, if desired, but also includes reflections on lessons learned during the process. Chapter VI presents the results of the project through case studies and through an examination of quantitative observational data and responses from teacher surveys. Chapter VII, the discussion, builds on these results by contextualizing them with qualitative data gathered

through observations and teacher interviews. The discussion evaluates the project's success in meeting the desired outcomes for each research question and presents changes made to the lessons to create the final product. Finally, Chapter VIII offers conclusions about the research project and makes recommendations for future research on archaeology education and engagement, both broadly and related to the cemetery recording project.

CHAPTER II

STUDY AREA

The cemetery lesson plans developed and tested for this thesis are intended for use throughout the entire state of Florida; however, they were field tested in Santa Rosa County in Northwest Florida, both to limit the research to a manageable bounded area and to provide a context for standardized results (Figure 1). Santa Rosa County was chosen as a study area for its myriad connections to FPAN and UWF, notably FPAN's decade-long partnership with Santa Rosa County School District (SRCSD) through the Scott Site project. This endeavor resulted in connections with both district administrative staff and with individual teachers. Additionally, UWF had an established presence in Santa Rosa County through Arcadia Mill Archaeological Site, operated by the UWF Historic Trust, and through the UWF Anthropology Department's archaeological research on the Blackwater River, which runs through the county.

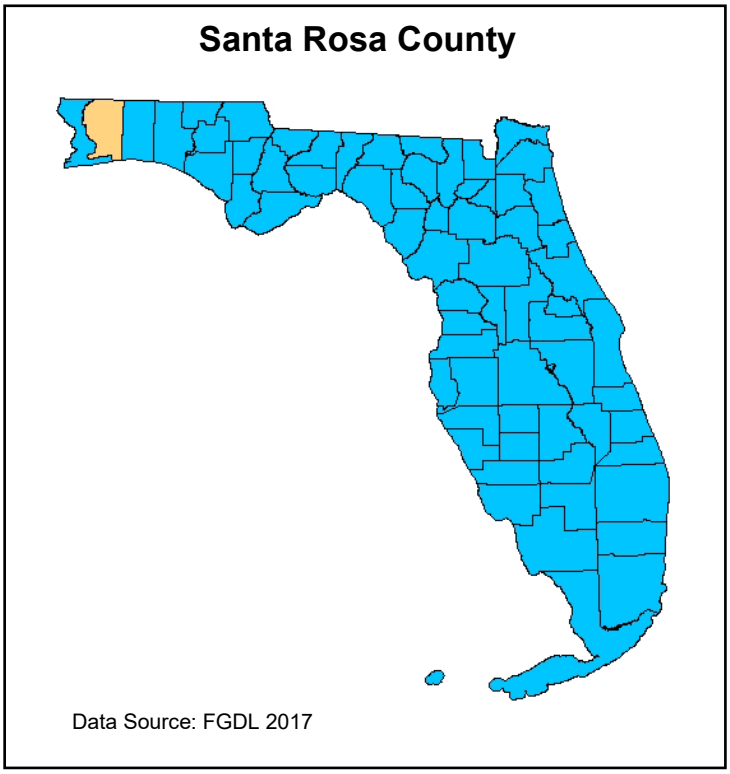

FIGURE 1. The location of Santa Rosa County (in orange) in Florida. (Map created by author, 2019.)

In this chapter, I discuss the Scott Site, both as an educational case study and as a precursor to this research project specifically, to situate this thesis within FPAN Northwest Region's K-12 educational outreach programs. I also assess Santa Rosa County as a study area by comparing SRCSD to Florida schools as a whole.

The Scott Site Project

The Scott Site project is a decade-long partnership between FPAN's Northwest Region and SRCSD's Milton High School (MHS), which offers a year-long elective in anthropology and Florida history. FPAN staff and UWF graduate students teach archaeological field methods to MHS students taking these courses once a week throughout the school year. Excavations occur at the Scott Site, a 19th-century brick kiln on the Blackwater River, located approximately 1.7 miles from MHS. Connections between FPAN, MHS, SRCSD, and the property owner of the Scott Site, as well as the site's proximity to the high school and its location on private land, enable this unique partnership, allowing high school students to participate in a real archaeological excavation (Hendrix 2017; Dietrich 2018). The program follows a Project Based Learning (PBL) format; students first learn about archaeological concepts in the classroom, then participate in the research process by applying archaeological methods in the field, and finally share their research through a final product.

During the 2015-2016 school year, FPAN Graduate Assistant Emily Dietrich (2018) evaluated the Scott Site program and found participating students were not only engaged with the project, but also retained information about archaeology, local history, and resource stewardship, demonstrating the benefits of hands-on participatory education. However, the unique circumstances of the course prevent the program from easily being offered at other schools, as most classes lack access to an archaeology educator and an active site within close proximity to

the school. These limitations provided an impetus for this research; adapting this program structure for use at an accessible historical site, like cemeteries, will extend the opportunity to broader audiences.

Santa Rosa County

Santa Rosa County is home to six traditional public high schools, as well as one charter, two nontraditional, and five private schools (University of Florida GeoPlan Center 2017). Because this thesis aims to produce educational materials for Florida public schools to maximize its reach, I recruited teachers from the six public schools to participate in the project. This process is described at length in Chapter V, Methodology. Four teachers from three high schools taught the lessons, including Jay High School, Milton High School, and Central High School (Figure 2). This section examines the population of the school district, as well as that of the three participating schools individually, to provide an understanding of how application of the lessons might vary in other contexts.

In matters of education, Santa Rosa County is fairly similar to the rest of the state: 22.2% of the population is under age 18, which is comparable to Florida's 20.0%; 90.2% of residents age 25 and older have a high school education and 26.9% have a bachelor's degree, compared to Florida's 87.2% and 27.9%, respectively (US Census Bureau 2018). However, the county differs from the broader Florida population both economically and culturally. Additionally, Santa Rosa County is divided into three distinct regions, both geographically and culturally: Navarre and Gulf Breeze High Schools are located along the coast; Jay and Central High Schools are in rural areas in the north part of the county, primarily surrounded by agricultural fields; and Milton and Pace High Schools are between them in a more suburban setting on the outskirts of Pensacola. Because of this, each high school should be considered individually as well.

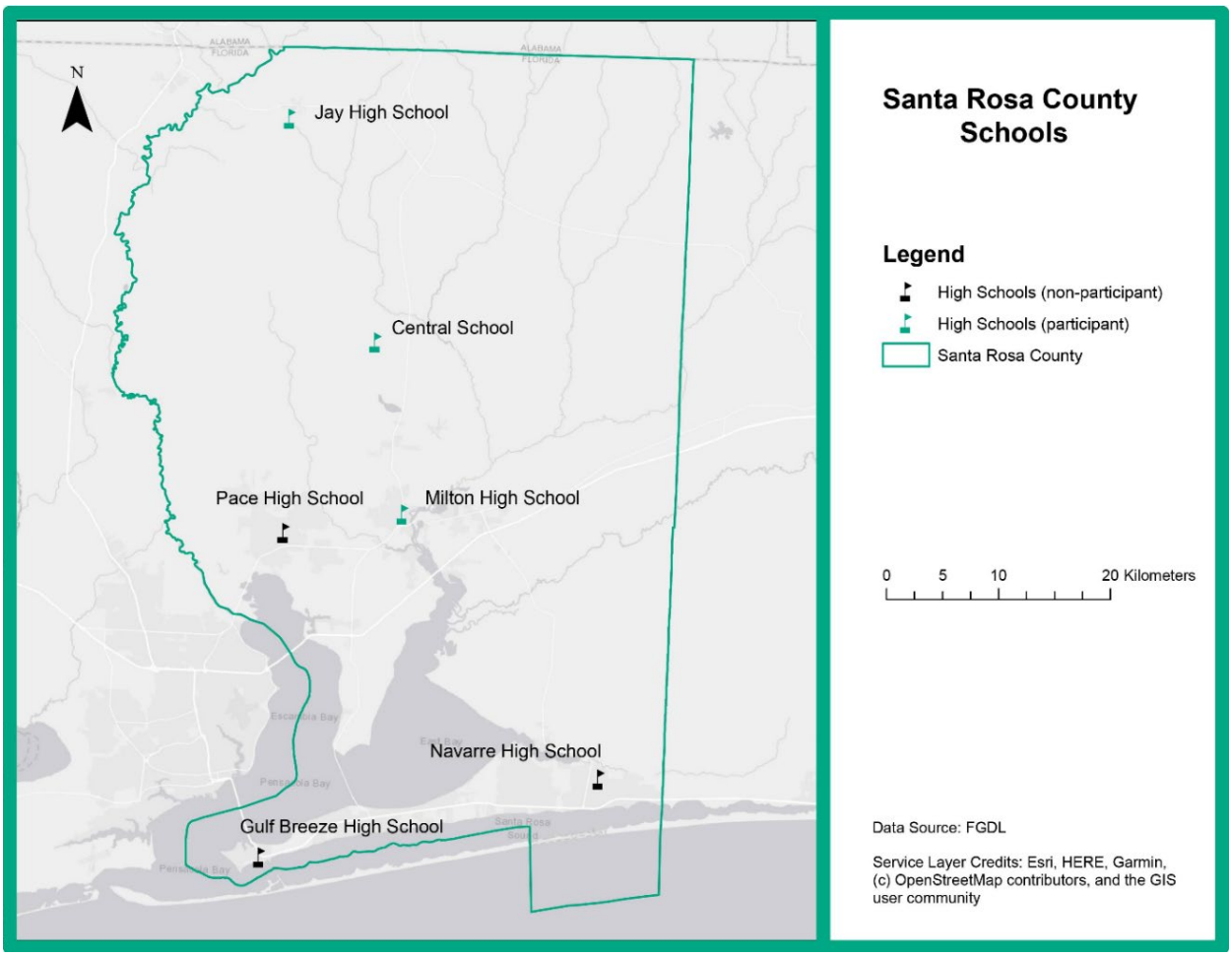

FIGURE 2. The six traditional public high schools in Santa Rosa County. (Map created by author, 2019.)

Santa Rosa County is less diverse and more affluent than Florida as a whole, though this varies throughout the county. The median income in Santa Rosa County is $60,652, which is much higher than the median income of the entire state at $48,900 (US Census Bureau 2018). Though residents of Santa Rosa County have a higher socioeconomic status than do residents of the state of Florida as a whole, Jay High School is the only participating school that reflects this; at Jay, only 37% of students are classified as economically disadvantaged, compared to 42% of students overall in the county (Figure 3; FLDOE 2019). Milton and Central High Schools, on the other hand, mirror the rest of Florida; 55.1% of students in Florida are classified as economically

disadvantaged, compared to 53.2% and 55.2% at Milton and Central, respectively (Figure 3; FLDOE 2019).

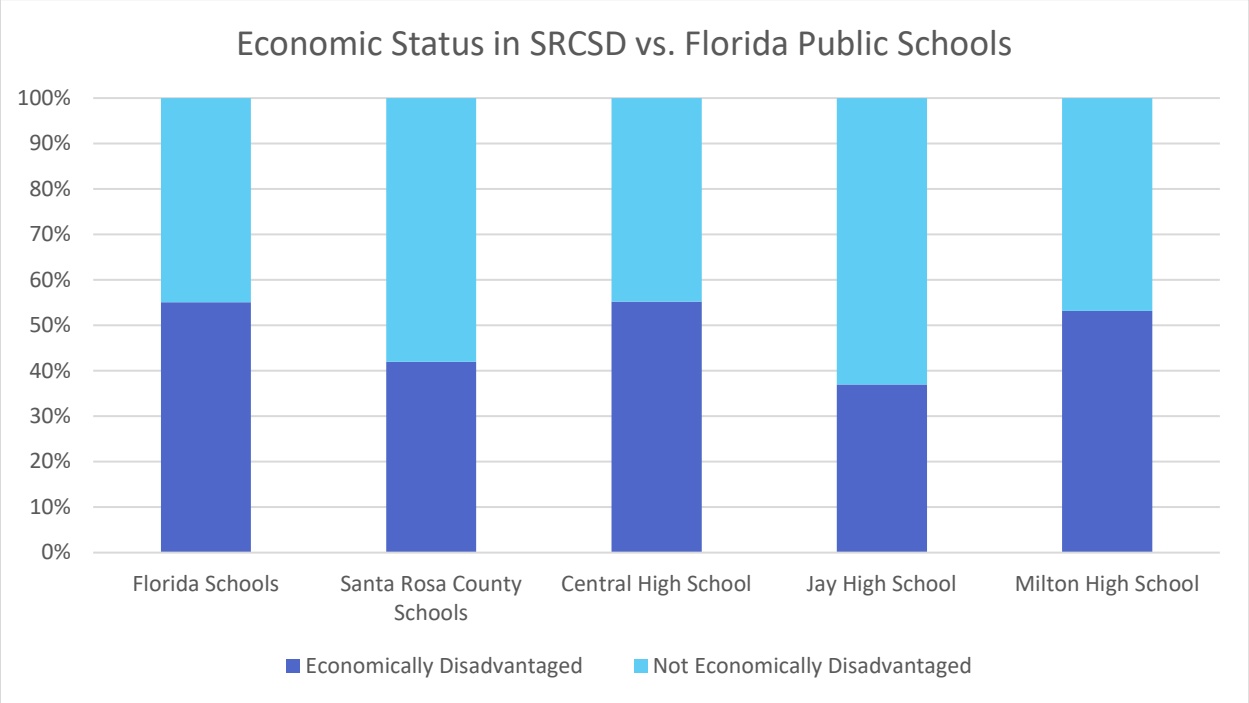

FIGURE 3. Comparison of student economic status at all Florida schools, Santa Rosa County schools, and the three participating schools. (Data courtesy of FLDOE 2019.)

Santa Rosa County also differs significantly from the rest of the state in terms of race, with a Caucasian population of 87.1% compared to Florida's 77.4%, and lacks the strong Hispanic presence found in other parts of the state (US Census Bureau 2018). In both Santa Rosa County and throughout the state, the school age population is much more diverse than the overall population (Figure 4). However, the participating schools are strikingly less diverse than the rest of the state. In particular, Jay High School is completely comprised of Caucasian students and Central High School is only slightly more diverse (Figure 4). This is further reflected in the percentage of students who are English Language Learners. Though over 10% of Florida students are categorized as English Language Learners, less than 1% of students at each school in Santa Rosa County are listed as such (FLDOE 2019). Adapting the lessons to address

socioeconomic differences between counties is beyond the scope of this thesis; however, the project's results should be considered with some degree of caution and future research recommendations to address these differences are made in the Conclusion, Chapter VIII.

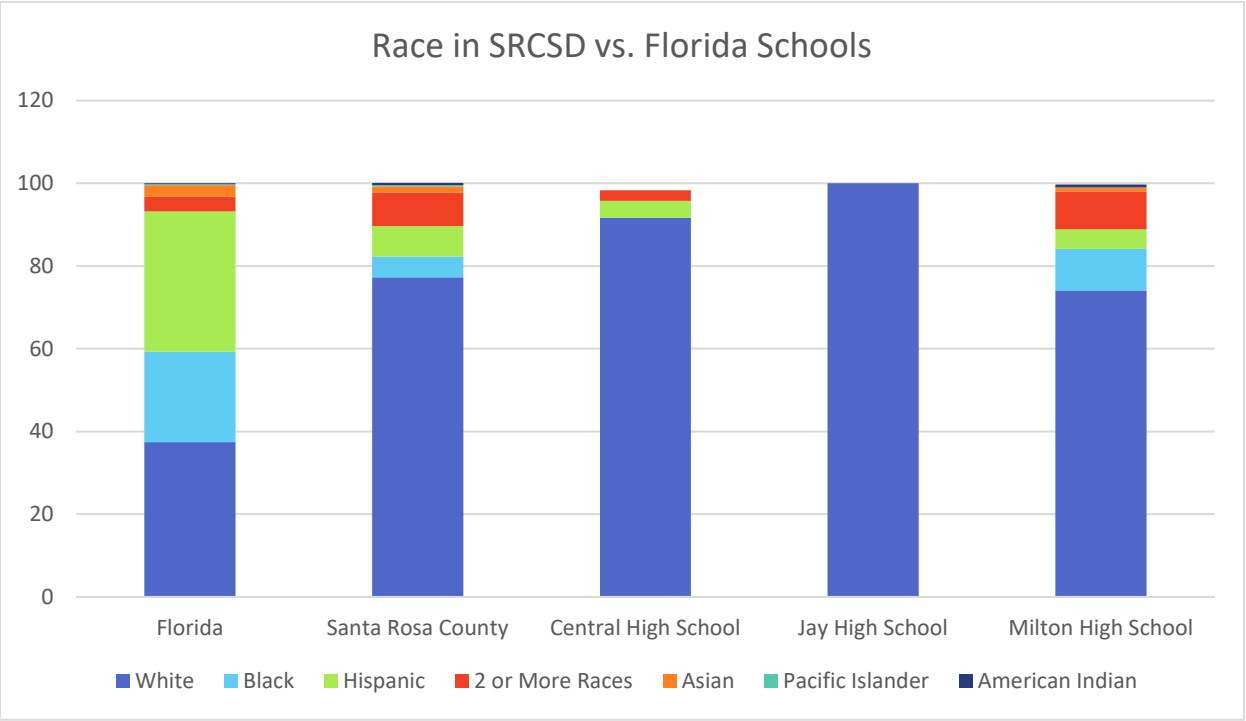

FIGURE 4. Comparison of student race at all Florida schools, Santa Rosa County schools, and the three participating schools. (Data courtesy of FLDOE 2019.)

Despite this, Santa Rosa County is fairly typical in terms of access to cemeteries; schools tend to be in close proximity to one or more historic cemeteries, likely due to the large number of cemeteries in the state of Florida. The average distance between the 14 high schools (both public and private) in Santa Rosa County and the 23 recorded historic cemeteries in Santa Rosa County is just 2.5 miles, compared to 1.64 miles in the entire state of Florida, though the distance is likely even lower due to the number of unrecorded cemeteries in Florida (Miller 2015; University of Florida GeoPlan Center 2015, 2017; Bureau of Archaeological Research 2018). Each participating teacher easily found a cemetery located within a few miles of their school. MHS visited the Milton Keyser Cemetery, an African American cemetery operated by a private

cemetery board located 1.2 miles from the school; Jay High School visited the Jay Cemetery, which is a public, city-owned property located 1.5 miles from the school; and Central High School visited the Allen Cemetery, a private family cemetery located 3.9 miles from the school. The diversity of property types, though unintentional, allowed for a look at how these lessons can be taught in different cemetery contexts.

These cemeteries provided a venue for students to interact with their local history in a tangible way. The lessons, both those taught in the cemetery and in the classroom, were grounded in a thorough understanding of cemetery studies to ensure engagement was productive and meaningful. In the next chapter, I present a summary of archaeological research on historic cemeteries, which informed the content of the cemetery lesson plans. I also include a background on cemeteries and public outreach in archaeology, as these historic spaces have long provided a context for student learning and civic engagement.

CHAPTER III

CEMETERY PRESERVATION AND RECORDATION

Cemeteries, though primarily spaces for mourning and commemoration, serve as tourist destinations, parks, outdoor museums, primary sources, and archaeological sites. Like all material culture and historical documents, cemeteries require contextualization, contain data gaps, and privilege certain perspectives. They also provide information about sociocultural and economic trends, collective and individual identity, and burial practices, which are often the most conservative aspects of a culture (Thompson 1989:5). Cemeteries are both above and belowground archaeological sites; however, the latter is beyond the scope of this research. Though the study of burials is vitally important in understanding past and present cultures, it is fraught with ethical and legal challenges and yields very different, though complementary, data than does the study of grave markers and other aboveground cemetery features (Baugher and Veit 2014:18). This chapter explores the archaeological significance of historical burial markers in the United States by examining the evolution of cemetery-related archaeological studies, the transformation of cemeteries in America over the past three centuries, and the information potential of this distinctive material culture dataset.

Cemetery studies are highly interdisciplinary; archaeologists join a myriad of practitioners who study cemeteries, including historians, folklorists, art historians, geographers, genealogists, and historic preservationists, each of whom contributes a unique perspective (Baugher and Veit 2014:2-7). Anthropological archaeologists are well suited for the study of cemeteries, as these places are grounded in material culture, the domain of the archaeologist, and offer evidence of cultural behaviors, both related to mortuary beliefs and to the broader context within which the community is situated, the domain of the anthropologist. Cemeteries are

referred to as replicas, microcosms, mirrors, and miniaturizations of communities, as they represent both individual and collective societal, cultural, and religious values (Francaviglia 1971; Nakagawa 1987; Pritsolas and Acheson 2017). Geographer Richard V. Francaviglia (1971:501) argues cemetery organization reflects American settlement patterns, as their development parallels the spatial and architectural evolution of the "American scene." The similarity between burial grounds and communities can be seen in town cemeteries which are often laid in grid patterns, mimicking the ideal town landscape.

However, cemeteries go beyond merely replicating living communities, expressing cultural values and ideology in a pure form. As Nakagawa (1987:6) points out, "The cemetery is not the result of man's biological necessity, but of living men's beliefs." Because of this, cemeteries are ideally suited to anthropological archaeological methods, as they provide a material culture dataset that, by design, reflects cultural values. In this way, cemeteries both reflect American settlement patterns and represent an ideal, as they are easier to control and organize than the actual community (Francaviglia 1971:509). Control over representation ranges from the information presented on a headstone (sometimes by the person it represents, but often by others) to the actual layout of the cemetery; this is influenced through mechanisms like exclusion or segregation based on social, religious, economic, or racial divisions.

Early archaeological studies of grave markers corresponded with the social history movement of the 1960s and 1970s, which sought to explore the lives of ordinary people. Cemeteries often yield information about average people who are underrepresented in historical documents, as markers are sometimes the only material remnant that can be directly linked to a deceased individual. This provides a (somewhat) democratized record, though representation is complicated by differential preservation and socioeconomic inequalities. James Deetz and Edwin

Dethlefsen's 1966 paper about colonial cemeteries in Massachusetts is the first study to examine cemeteries using archaeological methods. They argue gravestones provide a body of artifacts that allow for the testing, refining, and improvement of archaeological methods and theory under highly controlled circumstances (Dethlefsen and Deetz 1966:502). This emphasis stems from their dissatisfaction with interpretive methods like seriation and typology that were tested and employed in situations that were not well controlled (Dethlefsen and Deetz 1966:502). They believe cemeteries provide a remedy for these issues, stating:

> Gravestones are probably unique in permitting the anthropologist to investigate changes in style, religion, population, personal and societal values, and social organization under absolute chronological control with a full historical record against which to project results for accuracy (Dethlefsen and Deetz 1966:503).

In this way, cemeteries act as a laboratory to test inferential archaeological methods. Dethlefsen and Deetz define methods for examining change through an examination of the distribution of local styles on sliding spatial and temporal scales, providing insight into kinship analysis, demographic, style, and religious change. Despite the potential demonstrated by this seminal study, cemeteries remained largely on the periphery of archaeological and anthropological studies until the 1990s, when interest began to increase (Veit et al. 2009:3). The concurrent rise of post-processualism in archaeology prompted a shift from testing methods and seriation studies to an emphasis on aspects of identity and the relationships between identity and hierarchy, political inequality, and ideological systems through the incorporation of approaches like chaos theory and Marxism (Baugher and Veit 2014:10). Archaeological cemetery studies continue to

increase; at the most recent Society for Historical Archaeology meeting, four sessions focused on cemetery studies, monuments, and mortuary archaeology, indicating enduring interest in this subfield (Society for Historical Archaeology 2020).

History of Cemeteries and Burial Practices

Cemeteries and burial practices can provide information about entire populations, as they are products of attitudes toward death and mourning and are informed by sociocultural contexts (Pritsolas and Acheson 2017:52). In the United States, prior to the 18th century, burials typically occurred in family plots, religious-affiliated church yards, potter's fields, or communal cemeteries (Sloane 1991:13-14; Baugher and Veit 2014:12). However, after the colonial period, the organization and style of cemeteries transitioned from religious and family plots to private, nonsectarian cemeteries (Mytum 2004:159; Baugher and Veit 2014:125). This move was largely spurred by the overcrowding of traditional burial grounds due to urban growth and epidemics like yellow fever (Baugher and Veit 2014:127-129). Often linked to disease and seen as unsanitary places, cemeteries were moved away from town centers; known as the rural cemetery movement, this shift provided a picturesque place to visit deceased loved ones (Sloane 1991:2; Baugher and Veit 2014:127-129).

During the late 19th century, lawn park cemeteries became popular; these minimalist landscapes contained dispersed trees and a limited number of monuments, providing a park-like setting for visitors and a place for successful families to display their wealth through mausoleums and large statues (Baugher and Veit 2014:144-145). By the 1900s, increased industrialization and urbanization, accompanied by improvements in medicine, which led to a drop in the death rate and an increase in the average life span, meant death now usually occurred in hospitals and was hidden from public sight (Sloane 1991:2; Baugher and Veit 2014:149). This

led to a departure from dramatic mourning rituals in favor of private, peaceful modes of remembrance; serene memorial parks replaced dramatic Victorian cemeteries, and they were no longer regarded as popular tourist spots (Baugher and Veit 2014:125-149). This shift was compounded by cataclysmic events, like the World Wars and the Great Depression; the number of deaths and the economic decline contributed to the minimalist style of commemoration at memorial parks (Armstrong 2012:28-29; Baugher and Veit 2014:125-126). Private, minimalist burial practices continued into the present; cremation became popular during the 20th century, enabling memorialization and mourning to take place completely in private (Baugher and Veit 2014:156-157). Cemeteries from each period of time are dispersed throughout the modern landscape, providing abundant opportunities to study past populations through burial markers and monuments.

Data Potential and Methods of Study

Cemeteries are comprised of several elements, including markers and monuments, grave goods and offerings, and the landscape itself. Burial markers are primary sources and can be read in multiple ways. Inscriptions, symbols, and the overall construction of the marker, including material type, shape, and other features, provide insight into its production. At a most basic level, inscriptions relay biographical information. For example, in her study of grave markers in Duval County, Lucy Edwards (1956:116) notes Florida state vital statistic records were incomplete prior to January 1917, making cemeteries an invaluable historical resource when assessing demographic changes. Anthropological studies go beyond merely collecting biographical information, comparing stones to obtain a nuanced understanding of kinship and familial networks and values (Dethlefsen and Deetz 1966). Inscriptions often provide names and relationships of family members, including those who are buried at the site and those who

erected the memorial, and the language often illustrates roles and values associated with each family member. Additionally, the size of a family may be represented by the scale of a monument or the number of graves present in a given plot.

Through both text and symbols, markers can also provide insight into notions of personal identity, such as ethnic, racial, socioeconomic, and religious affiliations. These categories are fluid and intertwined and therefore are important to consider together instead of separately, especially as certain aspects of identity play more dominant roles in different communities (Veit et al. 2009:5-8). Additionally, individuals tend to express multiple group identities, which allows comparison of values both within and between cultural groups (Nakagawa 1987:xii). Ideas about an individual's identity are also expressed by visitors who leave grave goods or offerings as a form of memorialization (Dethlefsen 1981:159; Hughes Wright and Hughes 1996:18-22).

Cemeteries are often linked to places of worship, particularly during the colonial era. However, whether in a religious or secular setting, markers often contain symbols which point to religious beliefs. Analyses of religious cemeteries must be couched within historical context to allow a nuanced understanding of subtle differences within a group or order instead of simply lumping ethnic or religious groups into catchall categories (Baugher and Veit 2014:199). In contexts like Spanish missions, Mormon sites, or Shaker societies, religion and other aspects of identity are inseparable (Veit et al. 2009:1). While it can be tempting to attribute differences between contexts solely to religion, patterns are often influenced by broader cultural trends as well and must include an analysis of internal and external factors, such as regional trade networks and ethnicity (Veit et al. 2009:2-8).

Additionally, religious, ethnic, and racial affiliations cannot be separated from socioeconomic status (Baugher and Veit 2014:162). Wealth and status are often reflected

through the materials of the marker (particularly if it is imported) and the amount of energy expended on a monument, which results in a higher quality or more attractive marker (Francaviglia 1971:506). Hierarchy between classes is also sometimes depicted in the location and design of memorials. For example, an elite family may have an isolated burial in a cemetery or even a mausoleum located on their own property. However, as with any facets of personal or collective identity, socioeconomic trends are not simple analyses and are complicated by changing trends in memorial production (Liebens 2003). This is exemplified in Pritsolas and Acheson's 2017 study of St. John's Cemetery in Maryville, Illinois, which found a decrease in headstone size over time that corresponded with economic decline, particularly during the Great Depression; however, this was also concurrent with large losses due to World War I and an influenza outbreak, pointing to the widespread demand for gravestones and increasing use of mass-produced markers (Pritsolas and Acheson 2017:52-74). Further, analyses about the socioeconomic trends associated with a cemetery's collective population are impacted by preservation; stone markers, available to members of higher socioeconomic classes, tend to last longer than those made of impermanent materials, like wood or shell, that are portable or biodegradable (Stokes 1991).

The collective analysis of biographical information and markers of identity, as well as the organization of the markers themselves, provides insight into a population and illuminates local, regional, and national trends. For example, the placement of bodies within a cemetery, or even the location of the cemetery itself, such as within a religious building or structural ruin, indicates social and religious ideology regarding who qualified for certain burial practices (Mytum 2004:132). The spatial analysis of markers within multidenominational cemeteries, in particular, can point to relationships between different religious or social groups, including absence and

exclusion. A number of unmarked graves in the Jewish section of the Melbourne General Cemetery in Australia challenges assumptions about the historical Jewish community, which promoted group unity over hierarchy (Lever 2009). Researchers conclude the differences between historical notions of Jewish community and unmarked graves likely point to the varying effects of the assimilation process based on class and position (Lever 2009:482).

Archaeological studies inherently link the past to the present, as the practice is grounded in the changing landscape. Cemetery studies are no exception to this, reflecting modern policies and values in addition to historical ones through their maintenance or neglect. Cemeteries call attention to histories deemed worthy of remembering and preserving in modern society, as many cemeteries that are no longer in use become overgrown and forgotten (Miller 2015:281). Sometimes cemeteries are the last remaining structure from an abandoned town or residence. For example, Edwards (1956:119) discusses the Houston Cemetery on Big Talbot Island in Duval County, Florida, which serves as one of the only reminders of former residents of the area.

Abandonment disproportionately affects African American cemeteries for several reasons. There is a lack of information about graveyards for enslaved Africans and African Americans, which are typically unmarked and are often absent from maps and property deeds, making them difficult to locate (Rainville 2009:196). Postbellum African American cemeteries can be difficult to discern as well, as markers were often made of biodegradable materials, like shell or wood, or might have taken the form of offerings, such as pottery, bottles, faunal remains, and pebbles, among other items (Chicora Foundation 1996:5-7; King 2010). This is compounded by enduring social inequities; Ryan Seidemann and Christine Halling (2019:669) recently described cemetery erasure as landscape structural violence, which occurs as “a reinforcement of preexisting social prejudices in death where the governments or the social majority, intentionally

or passively, destroy, remove, or obscure a cemetery without consultation with the descendant community."

Protecting and preserving cemeteries of marginalized groups not only promotes heritage that is otherwise obscured, but also serves as a reminder of enduring socioeconomic, racial, and ethnic hierarchies (Rainville 2009). Archaeologist Lynn Rainville (2009:197) points to this, stating, "burial grounds of underrepresented groups may be the most valuable because theirs is a largely forgotten or silent history." Though her comment refers specifically to African Americans, cemeteries can offer voices to other underrepresented groups as well, such as women or members of the working class, who often lack a strong presence in documentary records but can be observed through cemetery studies. Cemeteries are not only invaluable data sources, but also places to confront historical injustices and their impacts on the present.

Cemeteries are truly microcosms of societies and provide abundant research endeavors for archaeologists and anthropologists. Burial markers and cemetery landscapes both provide insight into cultural values, socioeconomic trends, and personal identity, though extracting these variables from intricate webs of relationships is almost impossible. Cemeteries are historically situated and are relevant in the present through their continued use and maintenance. They are places of celebration and memorialization, both for individuals and communities, and can be intensely personal. Because of this, cemeteries can also serve as places for discussion and reflection about the past and its continued role in the present.

Cemetery Preservation and Community Engagement

Florida is home to thousands of historic cemeteries which not only serve as places of burial, but also as community spaces, parks, historical landmarks, and tourist destinations. Many of these cemeteries face threats such as vandalism, development, neglect, and abandonment, and

many are not properly recorded. Sarah Miller (2015:281-282), Director of FPAN's Northeast Region, points out a significant data gap exists between cemeteries listed on the website "Find a Grave" and those recorded on the Florida Master Site File (FMSF). She notes only 1,342 cemeteries (abandoned or otherwise) are recorded on the FMSF, but likely at least 6,700 to 8,000 abandoned cemeteries are in Florida, though this is a cautious estimate (Miller 2015:281).[1] Miller (2015:281) further states, "protection cannot be afforded without identification," alluding to community members who can play significant roles in their preservation simply by recording them.

Margo Stringfield (2015) addresses this need in UWF's Pensacola Area Cemetery Team Manual. She envisions two possible futures for neglected historic cemeteries, stating: "In the first instance, the cemeteries will continue to be eyesores that pose a threat to public safety. In the second instance, cemetery resources can become inviting community assets that contribute to a "sense of place"" (Stringfield 2015:1). One of the best ways to foster community support for historic cemeteries is by engaging local residents in their preservation. Miller (2015) frames cemeteries as "participatory museums," which requires practitioners to "give voice and be responsive to the needs and interests of local community members; to provide a place for community engagement and dialogue, and to help participants develop skills that will support their own individual and community goals" (Simon 2010:187). By enabling communities to engage with their local history through cemetery preservation, Miller (2015:278) states, "The power to preserve is realized by the cemetery stewards, and the results are creative and varying." Through community engagement and citizen science, cemeteries can become participatory museums.

[1] Number of cemeteries recorded at the time of Miller's 2015 publication; at this writing 1,739 cemeteries are listed on the Florida Master Site File.

Florida has a decades-long tradition of statewide cemetery preservation and several local organizations have successfully harnessed a community-based approach to cemetery preservation. For example, the University of West Florida's Pensacola Area Cemetery Team promotes the preservation and maintenance of historic cemeteries in the Pensacola area, both by involving local stewardship groups and volunteers and by drawing on professional expertise both within and outside of heritage-related disciplines (Stringfield 2015:1-2).[2] In 2015, FPAN created a similar program called the Cemetery Resource Protection Training (CRPT), a one-day workshop that educates and empowers community members to preserve and protect their local cemeteries (Miller 2015).[3] CRPT was designed specifically with nonprofessional audiences in mind, putting responsibility on the local community to ensure the continued preservation of cemeteries without a constant professional presence. This thesis attempts to build on these ongoing community preservation efforts by engaging high school teachers and students.

Using historic cemeteries as a forum for educational purposes is not a new endeavor; there are several examples of cemetery-based educational programs, both at the precollegiate and college levels. Many of these projects are grounded in community service learning; this approach aims to engage students with local issues, enabling them to contribute to the broader community in addition to learning new skills and content. The tangible outcomes of these projects allow students to see the impact of their work, fostering a sense of civic engagement and empowering them through a sense of purpose and responsibility (Nassaney and Levine 2009). Cemeteries are logical settings for community service learning and provide useful contexts for students to contribute to local needs and issues (Burg 2008; Baram 2009; Broome and Preston-Grimes 2009;

[2] Pensacola Area Cemetery Team's manual outlining their methods is available online on the FPAN website: fpan.us/projects/PACT%20Manual.pdf
[3] More information on FPAN's CRPT training is available online: https://fpan.us/workshops/CRPT.php

McDavid 2011). By recording historic cemeteries, students not only fulfill a community need, but also engage with history in a hands-on format.

There are two recent examples of cemetery-based community service learning in Florida; though both were taught at the college level, they demonstrate successful, local applications of this approach. Freund et al. (2019) discuss a collaborative course taught at Indian River State College in partnership with FPAN, where students surveyed Pine Grove Cemetery in Ft. Pierce, while Baram (2009) writes about a survey project he conducted at the Rosemary Cemetery in Sarasota with students from New College of Florida. Both Baram (2009:113) and Freund et al. (2019:2) describe how a community service learning approach not only engages students with historical content and connects them with their local community, but also provides them with the opportunity to develop important life skills, such as cooperative work and problem-based learning, that translate to other careers.

The ability of cemeteries to convey both individual and collective notions of identity makes them an intriguing subject for students and a flexible dataset for teachers. Cemeteries, which can be connected to history and social studies curricula in a variety of ways, allow students to collect and interpret data about local history and to learn about archaeological concepts. The cemetery lessons I created were informed by the information presented in this chapter. In the next chapter, I provide background about archaeology education methods and theory to better illuminate the benefits and barriers to precollegiate archaeology education and to examine how teaching these concepts are beneficial, not only for current or budding archaeologists, but also for students and teachers.

CHAPTER IV

ARCHAEOLOGY AND PUBLIC EDUCATION

Archaeology education, a subfield of public outreach in archaeology, encompasses both archaeological and educational methods and theories. Because of this, the creation of a successful archaeology education program necessitates an examination of current theory and practice in both disciplines, as well as a discussion of the intersection of the two. The history of public archaeology, and even the history of archaeology education, has been chronicled on numerous occasions, including several recent articles in a special issue of the Society for American Archaeology's *Advances in Archaeological Practice* entitled "Designing and Assessing Public Education Programs in Archaeology" (Ellick 2016; King 2016). To avoid rewriting these works while still providing a contextual overview for the cemetery education program, this chapter briefly summarizes trends in public outreach and education and then examines educational programs critically using several case studies to discuss benefits, barriers, and approaches to archaeology education. I then build on this contextual information with a discussion of archaeological and educational theories and identify entry points for archaeologists looking to interact with the public. The insights gleaned from this chapter inform the components of and theory behind the cemetery education program.

History of Public Archaeology and Education

"Public archaeology" emerged as an official concept in 1972 through the work of Charles R. McGimsey III. Though his initial use of the term refers more to nonacademic archaeological work done in the service of the public, it includes an outreach component as well (Merriman 2004:3).[4] McGimsey (1972:6-7) recognized the importance of harnessing public support, stating:

[4] McGimsey's 1972 text largely discusses legislative efforts at the state and federal levels.

> Without public involvement there has not been and there cannot be effective public support of archaeology, and without public support there cannot be legislative founding and funding of adequate programs to recover and protect a state's or the nation's archaeological heritage.

Though McGimsey's impetus for public engagement is wrapped up in the importance of preservation-based legislation, he calls attention to the necessity of public outreach in obtaining professional goals.

His remark foreshadows what I refer to as the "second wave" of public archaeology, when the term increasingly became associated with public engagement and educational efforts in the 1980s and 1990s (Merriman 2004:3-4). This type of public outreach largely serves as a tool to combat looting and vandalism of archaeological sites and emerged in conjunction with legislation like the Archaeological Resources Protection Act of 1979 and the Native American Graves Protection and Repatriation Act of 1991 (Jameson 2004:21; King 2016:416). These outreach programs acknowledge archaeology's relevance beyond the confines of the discipline and attempt to harness public enthusiasm for the past to protect cultural resources. Many early outreach initiatives were run by federal agencies, such as the Bureau of Land Management's Heritage Education Program, the United States Forest Service Passport in Time projects, and several programs sponsored by the National Park Service (NPS), most of which are still in existence today. Other programs were local and regional efforts from all corners of the discipline, including museum exhibits and outreach programs, university endeavors, and initiatives from private Cultural Resource Management firms (Jameson 2004:51-52).

Over the past few decades, public archaeology transitioned once again, now taking a more inclusive, collaborative form (Little and Shackel 2014:23). This shift was fostered in part by the Native American Graves Protection and Repatriation Act, which created a new relationship dynamic between archaeologists and indigenous communities. This law requires archaeologists to recognize how research impacts descendant communities and encourages the incorporation of non-Western perspectives into interpretations of the past (Little and Shackel 2014:74). A collaborative practice is now recognized not just as a component or possible output of an archaeological research project, but as an actual methodological model (Colwell-Chanthaphonh and Ferguson 2008:1). Colwell-Chanthaphonh and Ferguson (2008:1) point out collaborative projects rest on a continuum from merely sharing information with public audiences (the "second wave" of public archaeology) to including stakeholders, both indigenous and otherwise, in the research process itself.

Though their continuum includes diverse approaches, Colwell-Chanthaphonh and Ferguson (2008) state there is no one correct model of engagement and each individual situation calls for appropriate levels of participation. Not all projects need to be intensively collaborative, but it is important to consider a variety of options when planning a project. While many outreach programs remain on the communication end of the spectrum, archaeologists now pursue diverse strategies throughout the collaborative spectrum, both due to a growing recognition of the impacts of research and an increased awareness of how outside perspectives can lead to better archaeological practices and interpretations (Wylie 2015).

Outreach efforts have included formal education components since the inception of public archaeology. The earliest programs were federally sponsored, though these quickly ended in the 1970s (Rogge 1991:129). Despite continued interest, widespread replacement programs

were never created and educational efforts continue to be conducted locally or by state (Rogge 1991:129; Ellick 2016:426-429; King 2016:416). In 1990, the Society for American Archaeology created the Public Education Committee, legitimizing public education as a major goal for professional archaeologists (Ellick 2016:429). However, the scattered geographical and institutional efforts, as well as a lack of consensus about educational goals and theory, caused a lack of organization within the subfield of archaeology education (King 2016). The current state of archaeology education in the United States differs from that in other countries where learning archaeology is often mandatory (King 2016:415-417). For example, in Italy, 11-14-year-olds are expected to recognize archaeological artifacts as a viable line of evidence when evaluating historical interpretations, and in China, 12-15-year-olds learn about the entire course of history beginning with the earliest humans (Corbishley 2011:115). In the United States, archaeology and anthropology are largely excluded from educational curricula, facilitated, in part, by the divide between prehistory (prior to European contact) and history (after European arrival) (King 2016:416). Because, of this, archaeologists struggle to find a relevant place to share our research in precollegiate schools.

In the past decade, archaeology has increasingly aligned with heritage education, resulting in an interdisciplinary effort that incorporates not only archaeology and history, but also curators, conservators, architects, and community members in the preservation and presentation of the past (King 2016:217). Additionally, efforts have been made within academia to incorporate heritage through the exploration of intangible concepts, such as memory or tradition (King 2016:417). This seems a promising way to teach a relevant, holistic archaeology and couples well with increased attention toward true collaboration, which welcomes interdisciplinary perspectives. Additionally, this effort coincides with a shift in social studies and

history education pedagogy toward teaching historical skills instead of emphasizing historical facts (Lesh 2011; Reisman 2012). Historical inquiry is the focus of the National Council for the Social Studies College, Career, and Civic Life Framework, also known as the C3 Framework, which guides social studies education in the United States (National Council for the Social Studies 2017). Artifacts can be interrogated in the same way documents or images are, and archaeological sites can be subject to interpretation similar to a body of textual evidence. An increasing emphasis on historical evidence and primary sources could be beneficial for archaeologists looking to promote the discipline as yet another line of evidence in understanding the past and may provide an avenue to teaching archaeological concepts in schools.

Common Approaches to Archaeology Education

Approaches to archaeology education vary across a spectrum with hands-on, excavation- or artifact-based lessons taught by professional archaeologists on site at one end to lesson plans developed for teacher use in the classroom on the other. Early educational programs include Archaeological Research Incorporated (today the Center for American Archaeology), established in the 1950s in Kempsville, Illinois, and Crow Canyon Archaeological Center, formed in Cortez, Colorado, in the late 1960s. Both organizations are excavation-based programs directed by professional archaeologists and remain leaders in archaeological outreach today (Ellick 2016:426). Public archaeological excavations are a common method of engagement, and when done correctly, can result in mutually beneficial and rewarding experiences for both students and archaeologists, as these two programs demonstrate. However, a number of barriers make these types of experiences fairly inaccessible. Most notably, archaeological excavations require access to both an archaeologist and an active archaeological site, which are often scarce and may require costly field trips, restricting audiences to those able to visit the site. Additionally,

distance and cost limit the number of times students can visit and participate in the research process, resulting in a lack of deep engagement with the site.

The dependence of excavation-centered programs on a site, organization, and/or individual makes these projects unsustainable for K-12 schools; programs are typically abandoned when personnel changes, funding disappears, or institutional priorities shift. Organizations like Crow Canyon and Center for American Archaeology avoid this issue by grounding their missions in public outreach and providing standalone programs instead of operating within a larger program. However, even these types of programs have their limits; FPAN's Scott Site collaboration with Milton High School needs to shift focus after a decade of excavations as the site's data potential becomes exhausted.

The Nome Archaeology Camp, partially sponsored by NPS in Alaska, presents a unique solution to this issue by maintaining a hands-on, collaborative focus through means other than excavation. Students learn about archaeological survey and the recordation of aboveground cultural features and engage with different sources of historical information through conversations with elders (Richie 2019). This experience gives students the ability to recognize cultural resources they might encounter in their local communities and helps them to draw connections between past and present lifeways. The program is uniquely developed to accommodate cultural, social, and geographical conditions in Alaska, underscoring how, while archaeologists might attempt to reach broad audiences, a local approach allows programs to be relevant, meaningful, and useful for communities.

On the other side of the spectrum are programs such as the Bureau of Land Management's Project Archaeology and the NPS program Teaching with Historic Places, both of which are lesson modules designed for teachers to use in their classroom (Moe 2019; White

2019). Though archaeologists (or other heritage professionals) write the lessons, the format allows teachers to use the lessons as they see fit, ensuring they are relevant to their students and to their state curriculum standards. While this approach puts instruction in the hands of qualified teachers, it is not without its issues; for example, teachers who lack an understanding of archaeology tend to struggle with moving beyond seeing archaeological assemblages as "a bunch of stuff" (King 2016:417; Moe 2019:217). To combat this, archaeologists need to draw explicit links between artifacts, their meanings, and science or history. Additionally, when given control of the planning process, some teachers will "cherry pick" lessons that appeal to them, which can lead to informational gaps and consequently hamper a meaningful experience (Moe 2019:218). Finally, these lessons contain significant content; a large amount of contextual historical information can be daunting or overwhelming for teachers, especially those who lack archaeological training.

Benefits of Archaeology Education

Despite the issues associated with common archaeology education approaches, several successful programs demonstrate the myriad benefits of teaching archaeological concepts in the classroom. Katherine Erdman (2019:3) lists two primary reasons for archaeologists to open dialogs with the general public: "archaeology is a valuable tool for understanding the world and learning about other disciplines, and we need allies." Her statement calls attention to the dual advantages of archaeology education programs; the first point highlights the benefits for non-archaeologists, while the latter emphasizes the needs of the discipline itself. Many archaeologists use outreach to garner broad interest in archaeology and to instill ideals of site stewardship and historic preservation in the general public in the hope of gaining support for our work, especially as funding increasingly comes from public sources (Klein et al. 2018; Erdman 2019).

For precollegiate teachers and their students, several additional benefits of archaeology education make archaeology an appealing medium for teaching social concepts and historical content. Archaeology draws on the excitement of discovery and is fundamentally engaging. It provides a hands-on approach to social studies and sciences that allows students to tangibly engage with the past. This concreteness can help tactile or processual learners connect with more abstract concepts and can foster enthusiasm for deeper research (Johnson 2000:89). For example, 4th-grade teacher Miriam Sicherman (2015) inadvertently began an archaeological "excavation" of her classroom's coat closet when her students discovered items trapped beneath the floor in their century-old school in Manhattan, New York. Though their project began as a free-time activity, it quickly grew into an organized effort to unearth historical objects and research the classes who used their room in the past. The student-directed project allowed the 4th graders to pursue research questions of interest to them.

The artifacts Sicherman's students found fostered ties to their mandated curriculum, such as exploring the lives of early immigrants in New York City. This demonstrates archaeology's ability to not only make these concepts concrete and tangible, but also to tie broad concepts to local, personal history (Sicherman 2015). By contextualizing historic events in a familiar setting (and sometimes even linking them to familial ties), archaeology has the capacity to make history relatable and relevant (White 2019; Yezzi-Woodley et al. 2019). Additionally, archaeology adds to the long span of human history by telling stories that primarily are available through archaeological evidence (Brunswig 2000; Corbishley 2011).

Beyond historical content, archaeology possesses the capacity to teach lifelong skills. Archaeology can help meet the needs of teachers who are expected to not only teach educational content, but also to instill civic values and prepare students for careers and adult life as detailed

in the C3 Framework (National Council for the Social Studies 2017). A recent master's thesis about archaeology education by Rhianna Bennett (2018) includes results from her survey of 154 Georgia teachers. When asked what they would like their students to learn from archaeological lessons, responses included work ethic, perseverance and follow-through, interpersonal and communication skills, primary and secondary source analysis, civic participation, problem solving and critical thinking, appreciation for history (and learning in general), and acceptance and tolerance (Bennett 2018:137-142). A collaborative effort between the Jefferson Patterson Park and Museum and the Calvert County Public Schools in Maryland returned similar results; Calvert County teachers requested a program that taught practical, hands-on skills and emphasized collaboration, critical thinking, and communication (Popetz 2015:301).

Archaeology education programs are almost always geared toward research and analysis; whether through excavation, artifact analysis, or other methods, these types of hands-on, student-directed programs teach work ethic and self-reliance. Kevin Bartoy (2012:555) cites the development of critical thinking skills and cultural sensitivity as two of the primary benefits to studying archaeology. These skills often are missing from mandated social studies curriculum materials, which tend to emphasize content and facts, and represent an opportunity for archaeologists to insert research practices and analytical methods into formal education. Teaching students about archaeology not only allows students to learn about the distant past, but also provides them with the ability to evaluate multiple forms of historical evidence and to integrate different disciplines. Kory Bennett (2005:38) suggests anthropology has the potential to teach students not only to accept differences, but also to recognize similarities between other cultures and their own. He states, "Anthropology teaches students to recognize and challenge

their own ethnocentrism," which promotes acceptance and fosters a well-informed perception of the world (Bennett 2005:8).

Finally, archaeological outreach promotes diverse perspectives on systemic issues, past and present, and instills ideals of civic engagement. Paul Shackel describes the relevance of our work in broader society: "archaeologists and their work could make a difference in the present by addressing and acting on many of the "isms" that exist today in our society, including racism, sexism, and ageism" (Little and Shackel 2014:18). Barbara Little builds on this statement: "A socially useful heritage can stimulate and empower both local community members and visitors to make historically informed judgments about heritage and the ways we use it in the present" (Little and Shackel 2014:21). By giving students these tools at a young age, they can bring socially engaged perspectives to their local communities. Civic engagement empowers individuals to act as agents of positive social change in their communities, whether locally, nationally, or globally (Little and Shackel 2014:47).

Barriers to Archaeology Education

Despite archaeology's potential to instill these qualities in precollegiate students, a number of barriers prevent the widespread use of archaeology-based curriculum in the classroom, many of which stem from the structure of the United States educational system. Professional archaeologists create ample curriculum materials but often are unable to bridge this chasm, causing their products to go unused (Smardz and Smith 2000; Jeppson 2010). Increasing accountability and standardized testing in public schools put pressure on teachers to focus on the mandated curriculum, leaving little room for subjects often excluded from textbooks, like archaeology (White 2019:23-25). Bennett's (2018:160-164) survey reveals many participating teachers do not address archaeology in the classroom because it is not listed in the state

curriculum standards. Not only does archaeology appear irrelevant, but also teachers lack educational resources and extensive knowledge about the discipline, making it a daunting topic to teach. Though Bennett's (2018:149) survey found 36% of surveyed teachers had taken a course, researched, or participated in a workshop about anthropology or archaeology, her data is likely skewed because educators with an interest in archaeology would be more likely to respond to the survey, suggesting the number of social studies teachers with archaeological experience or knowledge is even lower. If archaeologists struggle to reach teachers who understand and care about archaeology, reaching those who do not will be even more difficult.

In an attempt to engage with teachers, FPAN, in conjunction with Project Archaeology, offers training workshops, which is a common approach for archaeology outreach organizations. Evaluation by Laura Clark (2018:9) found these workshops did not reach the target audience, as most attendees were informal educators, such as museum staff or library personnel. Programmatic success increased when abbreviated half-day trainings were offered at schools with the support of the educational administration; however, teachers who attended these trainings still felt they did not have time to incorporate the lessons into their courses (Clark 2018:9). Clark (2018, pers. comm.) recommends reaching teachers through school media specialists, principals, or other administrative staff, instead of targeting them individually, to maximize impact.

Many archaeology educators found teacher and administrative buy-in imperative to a successful educational program, though this can be difficult to procure and does not guarantee the use of archaeology-based lesson plans (Popetz 2015; Clark 2018). This is exacerbated by a lack of centralized distribution of archaeology educational materials. Because archaeology education is locally and institutionally practiced, few efforts have been made to organize

materials or centralize approaches. Recently, The Heritage Education Network, a national organization, was established to fulfill this need, though it will likely take time to reach educational professionals, who often find teaching materials through textbooks or school district and state websites, illustrating the importance of a systematic approach to archaeology education (King 2016).

Additionally, a number of issues stem from within the discipline of archaeology itself. While public outreach is often promoted, or even mandated, within the field of archaeology, few guidelines exist for how to create successful programming. Public education remains scattered and unsystematic, lacking a common vision or goal for programming (King 2016:416). Archaeologists are rarely trained in public outreach and encounters with the public tend to be sporadic, leaving little opportunity to develop outreach skills (Bennett 2018:190). Because of this, outreach efforts typically involve archaeologists deciding what is important to learn instead of educators determining what skills archaeology has to offer students (Cole 2015; Ellick 2016). This results in curricular products that fulfill archaeologists' needs but neglect the needs of teachers and students. Often, these programs are created but not formally assessed (Moe 2016:442). Beverly Chiarulli (2016:551) compares this phenomenon to 1930s-era movies that were thrown together quickly and haphazardly by "find[ing] a barn and put[ting] on a show." Though these expedient outreach efforts are sometimes successful, they typically run into problems; most problematically, some audiences gleaned a different meaning than the one the archaeologist hoped to convey (Chiarulli 2016:551).

While other subfields of archaeology benefit from ample training opportunities and well-developed theoretical perspectives, archaeology education, and outreach in general, lack professional recognition and developed frameworks (King 2016:420). This stands in contrast to

environmental education, a comparable discipline which has continuously published a dedicated journal since 1971 (Moe 2016:442). To create accessible and useful archaeology educational materials, Jeanne Moe (2019:218) of Project Archaeology argues we need to become educators instead of archaeologists. Her statement alludes to how the integration of both educational and archaeological theories could remedy archaeology education's lack of development.

Intersections of Archaeological and Educational Theory

Though archaeologists increasingly work with the public, there is little consensus about how to "do" engagement, or even how it should be categorized. Various programs that fall under the broad umbrella of archaeology education incorporate diverse ages, groups of people, settings, degrees of formality, and program lengths, making the context too broad to accurately compare case studies. While many educational principles hold true in both formal and informal settings, this thesis specifically addresses archaeology education in formal precollegiate classroom settings through lessons that articulate with mandatory curriculum standards. Matsuda (2016:41) defines four distinct types of public archaeology: educational; public relations; pluralist, which emphasizes engagement with stakeholders; and critical, which engages with politics of the past. Despite the common current running between these strains, their goals do vary, indicating archaeology education should be differentiated from other forms of outreach.

Cole (2015:119) suggests such an approach rests where archaeological engagement meets compulsory education, stating the educational context provides parameters that differentiates it from other forms of public engagement. She differentiates archaeology education from general public archaeology by stating it draws upon both archaeological *and* educational theories and methods, though there is little disciplinary agreement about how these two fields can interact with one another to create a unified approach (Cole 2015:116). Archaeology educators Karolyn

Smardz and Shelley Smith (2000:26) lament, “no scholarly source of information exists about theoretical underpinnings, experiences, experiments, or outcomes of practicing the integration of archaeology and education.” The body of literature has grown somewhat since then; however, archaeology educators still lack standardized direction and guidance two decades later.

Cognitive and Moral Development Theories

Grounding programs in principles of educational theory creates a strong foundation for archaeological outreach and remedies many current issues in archaeology education. Smardz and Smith (2000:29) remind us while educational theory was developed over centuries, archaeology as a discipline is less than 200 years old, suggesting we can learn a lot from other professions. This approach requires an examination of both cognitive and moral development theories. Cognitive development theory runs on a spectrum from constructivism at one end to transmission-absorption models at the other end (Lindauer 2007). The transmission-absorption model suggests knowledge is acquired through “transmissions,” typically enforced through didactic approaches. Practitioners of this theory emphasize facts, often employing narrative style methods (Johnson 2000; Cole 2015). Constructivist approaches, on the other hand, operate on the idea that knowledge is constructed by the learner and promote ideas like learning through discovery and challenging constructions with new information. In these settings, children do not passively receive knowledge, but actively mediate ideas through their interactions with the physical environment (Johnson 2000; Cole 2015). Both archaeology and history can be taught at multiple points along this spectrum, depending on the approach of the educator; however, because archaeology is not specifically mentioned in state curriculum standards, it is a more flexible topic and may allow teachers to deviate from the content-based approaches often promoted in history textbooks.

Recent trends in constructivism include the incorporation of social learning theory. Archaeologists apply this theory to understand past behavior, but it is important when teaching archaeology in the present as well. Social constructivism asserts learning is inherently social and knowledge is constructed collectively; in these models, educators are "scaffold builders," carefully structuring tasks and providing support to allow students to move toward independent, self-sufficient work (Johnson 2000; Cole 2015). One component of social constructivism is a zone of proximal development, which comprises the space between what someone can do independently and what they can do with guidance. Best learning outcomes occur when educators aim their goals just beyond what a child can accomplish alone, providing the support they need to learn new skills or ideas (Johnson 2000). Archaeology educators typically do not have deep knowledge of their audience, putting them at a disadvantage. To remedy this deficit, educators should learn as much as they can about any previous work the class has done related to archaeology and must begin with examples that are familiar to the audience. Additionally, archaeology educators should develop lessons that quickly assess their audience's knowledge of the subject and come prepared with programming suited to several levels of knowledge to remain adaptable (Johnson 2000).

The zone of proximal development goes hand in hand with the information processing approach, which suggests learners have a limited amount of working memory, hampering their ability to process new information. This is important for archaeology educators to remember, ensuring there is sufficient time for students to learn basic concepts before requesting more in-depth thinking. Johnson (2000:77) illustrates this issue with the example of a kindergartner who may struggle to contrast paleontology and archaeology while learning to pronounce these unfamiliar words for the first time. Archaeologists typically have limited time with their

audience, so when possible, multiple, sustained visits to a classroom enable educators to address complex, abstract topics and move beyond basics, especially with young students or those unfamiliar with the subject. Furthermore, abstract thought can only occur in subjects with which the student is most familiar with (Johnson 2000:89). If students lack knowledge about archaeology, they will need hands-on, concrete experiences before they are able to process more complex ideas.

Additionally, an understanding of moral development is crucial if we hope to inspire ideals of heritage stewardship and preservation in students. Johnson (2000:78) notes moral development lags behind cognitive development; while older students may have the ability to process abstract ideas, morally, they will often still think in concrete or egocentric terms. Ideas about societal good do not develop until late adolescence or early adulthood, with personal ethics developing much later (if at all). Advances in moral reasoning are likely when "young people are faced with problems that challenge their current belief systems and encourage them to think about moral issues in more complex ways" (Johnson 2000:81). If we hope to engage moral reasoning, archaeologists need to work from the familiar to the unfamiliar by first relating subjects to students' lives. Then we can build off these personal connections to encourage observations about the broader world.

Yezzi-Woodley et al. (2019:55) underscore the importance of meeting students where they are, stating, "By making an effort to understand the diversity of a community and what it means for individuals in a community, we can target our efforts toward helping students unpack issues that are locally and globally meaningful to them." Cole (2015:130) notes while archaeological programming often includes opportunities for reflection, it often lacks examination about how students' experiences might change their future actions or thoughts. She

suggests we encourage pupils to ask questions of current society, including their own behaviors. Archaeologists can build bridges to these discussions by employing empathy and fostering connections between past material culture and present lived behaviors. White (2019:29-31) agrees with this, citing the use of narratives as a key entry point for archaeology educators, both those that provide multiple historical perspectives and those that engage personal stories with historical events.

In addition to considering moral and cognitive development, archaeology educators must set learning objectives when planning programs. Bartoy (2012:555) suggests many archaeology education issues stem from failure to do so and encourages archaeology educators to question what they want to teach and why they specifically want to use archaeology to teach it. In the past, archaeologists used educational programming to benefit the discipline's needs and not those of the public. Franklin and Moe (2012:568) cite a "deficit model" in archaeological education, where archaeologists use educational programming as a way to correct the general public's ideas about archaeology. This creates a dynamic where archaeologists are the producers of knowledge and members of the public are simply consumers, denying non-archaeologists the ability to participate in the production of knowledge (Bartoy 2012). While it is important to address certain misunderstandings about archaeology, educational programming should not attempt to fix the public, but rather should provide an entry point for the public to engage with cultural resources in a meaningful way. Additionally, archaeologists should avoid creating materials that serve only archaeologists' needs; while inspiring stewardship and preservation to deter looting and destruction of archaeological sites is important, we need to consider goals outside of our own self-interest as well to ensure we are serving the communities we aim to engage (Jeppson 2010; White 2019).

Bridging Archaeological and Educational Theory

Several ideological frameworks influence how archaeology educators present the discipline to their students, though archaeologists often do not examine their own theoretical underpinnings and are unconsciously influenced by various theories and methods (Cole 2015:131). Cole (2015) cites both processual and post-processual theory as relevant to archaeology education. Processual archaeology takes a positivist approach and emphasizes the study of broad human processes using the scientific method, which has had a lasting influence on archaeological research methods. The use of processual theory is most evident in outreach methods that emphasize how archaeologists obtain data, such as excavation or artifact analysis, but is also found in didactic approaches, like lectures or site tours.

Despite the abundance of processual methods, sharing archaeological data with the public is inherently a post-processual concept. Post-processual thought emerged from critiques of processual archaeology, calling for interpretive frameworks that incorporate ideology and social contexts and prompting self-reflection and critique within the discipline. Post-processual theory is highly compatible with constructivist learning approaches, as both emphasize the incorporation of diverse perspectives and the co-creation of knowledge (Copeland 2009). Cole (2015:128) cites empathy and agency as two useful post-processual characteristics that can be employed to make the past concrete and relatable, often through a storytelling approach. Archaeological outreach projects are often grounded in local history, enhancing the use of empathy.

Several theoretical strains comprise post-processual thought; however, I would specifically highlight the importance of critical theory, which promotes examining marginalized perspectives, democratizing archaeological knowledge, and asking research questions relevant to

the public (Leone et al. 1987; Wylie 2002). Smardz and Smith (2000:30) list several tenets for archaeology educators, which I argue are important for any archaeologist to consider, especially as our research is increasingly public-oriented and publicly funded. These include knowing the audience, being aware of biases, understanding responsibilities associated with teaching about heritage, choosing messages carefully, and committing to an evaluation of results. Many of these principles align with those of critical theory, particularly the emphasis on awareness of bias and questioning interpretations. Critical theory is especially important in constructivist learning settings; the co-creation of knowledge allows students to challenge archaeological interpretations and to contribute to research instead of merely accepting presented results as fact. Cooperative dialogue, a social constructivist technique, emphasizes group knowledge production. Cole (2015:126) notes many programs employ approaches like group discussion and active questioning, which foster reciprocal engagement.

For her dissertation, archaeologist Trudie Cole (2013) analyzed several archaeology educational programs offered by five different organizations to understand what theoretical perspectives were promoted. Despite these post-processual and self-critical goals and the logical articulation of post-processual and constructivist learning theory, Cole (2015) found many of the students were not grasping these ideal outcomes, as most of the programs were strongly linked to processual archaeology. Most programs focused on archaeological skills, like excavation and recordation, or data, such as artifacts or records, and emphasized the scientific method. She suggests this could be due to the modern practice of archaeology resting largely on the professional workforce. Professional archaeology traditionally comprises “doing” archaeology, while academic archaeologists focus more on interpretation and theoretical perspectives (Cole 2015:127). Additionally, she references the prevalence of archaeologists as expert authority

figures, which runs counter to ideas about constructivist theories of knowledge production. She also notes content-based approaches, like tours or lectures, tend to reinforce the positivist stance of processual method, as processes and content will remain unquestioned (Cole 2015:131). Cole's study also points to the importance of evaluating public programming, a call several archaeology educators echo (McNutt 2000; Bartoy 2012; King 2016).

Though Cole's study examines a representative of archaeology education programs, her observations are indicative of a larger trend I have noticed from personal experience working with the public. There is an imbalance between processual and post-processual influenced programs and a discrepancy between stated archaeology education goals and actual outcomes. Moving forward, we need to find creative ways to meet post-processual goals as well. I suggest at least some of these issues stem from overemphasis on excavation and our failure to remember Bartoy's caveat: we should be teaching through, not about, archaeology. While excavation and artifact analysis provide tangible, engaging educational opportunities, developing alternatives to explicitly archaeological methods, or at least ensuring students have meaningful dialogues about these activities, is crucial.

NPS archaeologist John H. Jameson, Jr. (1997:15), a leader in the archaeology education movement, advocated for the incorporation of post-processual principles into the practice of public outreach over two decades ago:

> Archaeologists should strive to empower the public to be more in control of its own learning by giving it the intellectual tools that archaeologists and historians use to interpret sites. With these tools, people can participate in the creation of historical

> knowledge and in the definition of the historical context of both themselves and their culture.

Jameson alludes not only to the importance of democratizing archaeological knowledge, but also to archaeology's relevance in the present and to the potential of cultural heritage to serve as an empowering resource for communities. In recent years, outreach programs have started to trend toward this type of collaboration and co-creation, aligning with current archaeological theory and practice. One example is a collaborative effort between archaeologist Kimberley Popetz (2015) of the Jefferson Patterson Park and Museum and the Calvert County Public Schools in Maryland, the latter of which requested a project that allowed students to develop valuable life skills, including collaboration, critical thinking, and communication. Popetz (2015:301) distinguishes co-creative work from other forms of collaboration, stating there is inherent equality between archaeologists and community partners. School faculty, museum staff, and the students themselves worked together to create an artifact analysis project that spanned the school year. Popetz argues while students were not able to learn everything about archaeology or local history, they each became experts on a narrow subject and, through this, learned new skills and contributed their own findings to the broader research project.

NPS archaeologist Teresa Moyer (2015) describes a different approach to co-creative work through the Urban Archaeology Corps in Washington, DC. This program provides young people ages 15-25 with the opportunity to learn archaeological skills and participate in research projects. While archaeologists teach technical skills, Urban Archaeology Corps members bring their own skill set, creating digital media projects to share their experiences. Participants are able to hone their digital media skills by creating short movies to share with the public, fostering a

sense of ownership and stewardship of local archaeological resources (Moyer 2015:297). These types of projects give non-archaeologists the ability to participate in the production of knowledge and to have a voice in shaping how history is conveyed.

Drawing on my experiences in public archaeology, both at the Scott Site and elsewhere, and from my research into archaeology and education, I set several goals for the cemetery education program. I aimed to create a hands-on, co-creative experience while simultaneously making these lessons replicable, sustainable, and widely usable without relying on the presence of a trained archaeologist. I believe shifting the focus from excavation to cemetery recordation will alleviate some of these problems. Teachers not only have the ability to teach the curriculum without the presence of trained personnel, but also avoid the necessities of finding a suitable archaeological site, dealing with the curation of excavated artifacts, keeping close supervision on students to ensure they do not destroy an irreplaceable site, and learning additional content. Working in cemeteries takes the focus off excavation, emphasizing the significance of in situ cultural resources and conveying the importance of leaving artifacts and features in place. Historic cemeteries are abundant in Florida, enabling teachers to utilize local resources and providing options for schools that cannot organize or fund busing to distant archaeological sites or museums.

While I wanted to harness the methods of constructivist and experiential learning theory commonly employed by archaeology education programs like FPAN's at the Scott Site, I also emphasized the production of knowledge. When fieldwork is followed by a lengthier contextual component and a data-processing phase, students can make sense of the material culture at an archaeological site and develop valuable critical thinking skills instead of merely following instructions and deferring to an archaeologist's expert opinion. Additionally, I planned for a

program that aligns with state curriculum standards for a mandatory course so teachers can use the lesson plans with all of their students instead of a small, interested subset. Finally, by creating lesson plans instead of teaching the lessons myself, I put the teaching back in the hands of the instructors, who not only have deep knowledge of educational theory and the educational system, but also know their students' capabilities and can therefore draw meaningful connections between the content and the students' lives. In the next chapter, I outline the methodology used to apply these goals and lessons to create and evaluate the cemetery recording program.

CHAPTER V

METHODOLOGY

This thesis research is highly methodological, drawing on research techniques from archaeology, education, and evaluation. In this chapter, I lay out the methods used to create the original cemetery lesson plans, which were largely informed by the research on cemetery studies and archaeology education presented in Chapters III and IV, respectively. I then discuss several evaluative tools I created to assess the success of the lesson plans, as well as the research on best practices in programmatic evaluation and qualitative research methods used to inform them. I also define the desired outcomes for the project and explain how these tools were used to measure success. The chapter concludes with a discussion of collaboration with the Santa Rosa County school district, including forming relationships with administrative officials, recruiting teachers to participate in the project, and implementing the program during the Fall 2019 semester. This summary not only enables future replication of this study, but also provides an opportunity to share lessons learned along the way.

Lesson Planning Methodology

I used a number of sources to create the cemetery lesson plans, including archaeological and educational literature, existing models of cemetery and archaeology engagement, conversations with educational professionals, an undergraduate educational methods course, and personal experience. In particular, my time working on an excavation with volunteers as an intern at Crow Canyon Archaeological Center in Summer 2015 and my experiences teaching high school students in the Scott Site program from 2017 to 2019 guided my vision for an educational program. Prior to beginning this project, I assisted with a number of excavation-related public outreach projects that left me questioning whether visiting members of the public

actually took away meaningful insights about archaeological research. At times, it felt as though we were overemphasizing digging for "cool stuff," confirming misconceptions of archaeologists as professional treasure hunters instead of as anthropologists and scientists. Chiarulli (2016) calls attention to this issue, pointing out that because archaeologists often develop programs they find interesting, instead of considering the goals or needs of their audiences, participants often leave with an unintended message.

I also found many public outreach programs emphasize technical aspects of archaeological methods, as if attempting to train future archaeologists instead of inspiring stewards of cultural resources and allies in preservation. While hands-on activities allow students to make tangible connections to local history, we must teach through archaeology, not merely show how to do it (Bartoy 2012). I believe shifting the focus away from excavation allows educational programs to move beyond an emphasis on material culture, which both demonstrates archaeologists do more than dig and ensures programs convey appropriate and relevant messages to public audiences. I also wanted to connect data-collection processes to analysis and interpretation, illustrating how archaeologists derive meaning from historical artifacts and moving away from a focus on the discovery of objects.

Toward these ends, I grounded the lesson plans in a number of principles: avoiding an overemphasis on historical content; maintaining a hands-on focus while prioritizing accessibility and replicability; and circumventing common issues associated with public excavations that hamper long-term sustainability, such as needing a qualified supervisor, curating collected artifacts, and obtaining permission from land owner(s) at a site near the school. Though I mainly included the latter goal to promote replicability at schools without access to a professional

archaeologist, it also ensured the concepts were relevant for broad audiences, as the teacher must understand the lesson objectives and philosophy with minimal guidance.

Additionally, my products were informed by the research on educational and archaeological theory presented in Chapter IV. Archaeologists often lack an understanding of educational theory and tend to prioritize our own needs over those of teachers and students (Cole 2015; Chiarulli 2016). When teachers serve as the primary interface for archaeology education, they can meet their students where they are, gauging background knowledge of a subject and adapting the lessons to suit their needs and interests (Johnson 2000; Smardz and Smith 2000:26). Though creating readymade lesson plans for teachers who have little familiarity with archaeology can be difficult, I believe working in cemeteries mitigates this issue, as teachers (and students) already have a frame of reference for these historic places. An emphasis on cemeteries also eliminates the need for lengthy texts about historical context, as these places are grounded in local and personal history, of which teachers likely have a general awareness. Allowing students and teachers to create the content themselves through research and recordation also minimizes the need for contextual information.

Another insight gleaned from my theoretical research is the disciplinary imbalance between archaeological programs which utilize processual methods and those that employ post-processual techniques; while both types of programming generally attempt to achieve post-processual goals, archaeology educators rarely employ the latter methods (Cole 2015). Processual-influenced programs, including those that focus on the scientific method and those that utilize content-based, didactic approaches, are common and reinforce positivist ideas about knowledge production. I decided to maintain an emphasis on the scientific method and data collection because I wanted to give students the opportunity to create new historical knowledge

and to gather, process, and disseminate research. Though this approach stresses processual methodology and promotes Western ideas about knowledge production, it also ensures students participate in this process from start to finish, providing them with an understanding of the interpretive nature of the past.

With this general set of guidelines in mind, I set out to create lesson plans that would be relevant in Florida. The partnership between MHS and FPAN at the Scott Site initially served as a potential model for the program and provided me with an understanding of the Florida educational system. Conversations with Santa Rosa County teachers and administrative staff identified barriers to the Scott Site format, providing an idea of where the projects should differ. For example, MHS educators affiliated with the Scott Site project identified busing to and from the site as one of the biggest barriers to this program model (Steven Ramirez 2018, pers. comm.) Replacing archaeological sites with historical cemeteries, which are frequently in close proximity to schools, may eliminate the need for busing, as some classes might simply walk to a nearby cemetery. I also provided the option to replace the weekly site visits with a one-time, day-long field trip format, allowing classes with limited access to buses or with time constraints to participate in the project. Finally, while the cemetery unit includes a fieldwork component, there is an increased emphasis on data analysis, with several lessons guiding students to determine meaning from the data they collected. Despite these differences, both programs target high school classes, utilize a hands-on approach, and have roots in Project Based Learning (PBL).

PBL is a long-term, project-oriented approach to teaching; through PBL, students carry out an entire research project from start to finish, including developing research questions, gathering data, analyzing results, and sharing their work in a meaningful way (Newell 2003; Krauss and Boss 2013). A key benefit to this approach is students maintain some control over the

design and presentation of the project, which fosters a sense of ownership and independence and encourages interest and passion for their educational experiences. Research shows the use of PBL improves student retention and completion rates (Freund et al. 2019:2). PBL also provides students with valuable life skills, including collaboration, problem solving, and communication proficiencies (Larmer and Mergendoller 2010). PBL projects can be difficult to implement due to mandated content and the labor intensiveness of creating a PBL unit, so Lesh (2011) recommends starting small with one project a year and then slowly building a repertoire over time. The proposed cemetery recording project not only provides teachers with a PBL-format unit, but also introduces the method to instructors who might not otherwise use this approach, making it more accessible and digestible.

I learned about PBL and constructivist teaching methods during the Fall 2018 semester when I audited the UWF undergraduate course Social Studies Education (SSE) 4324: Teaching Social Studies in Middle and Secondary School, taught by Dr. Karen Evans. I built on insights gleaned from this course and from the research about cemetery studies presented in Chapter III to create the format of the cemetery education program. Figure 5 outlines the lesson structure and components. PBL consists of three basic phases: a hook or introduction, investigation, and presentation (Krauss and Boss 2013). Following this format, I created an opening lecture which introduces students to archaeology and cemetery preservation. The presentation, in Microsoft PowerPoint, is partially adapted from the FPAN (2019b) public lecture offering entitled "Tombstone Tales" and incorporates aspects of FPAN's (2019a) CRPT training. The lecture explores the preservation and significance of historic cemeteries, lays out the project, and includes a hook, an activity where students draw their final resting place. Through the drawings, students share perceptions of cemeteries and develop personal connections to the subject.

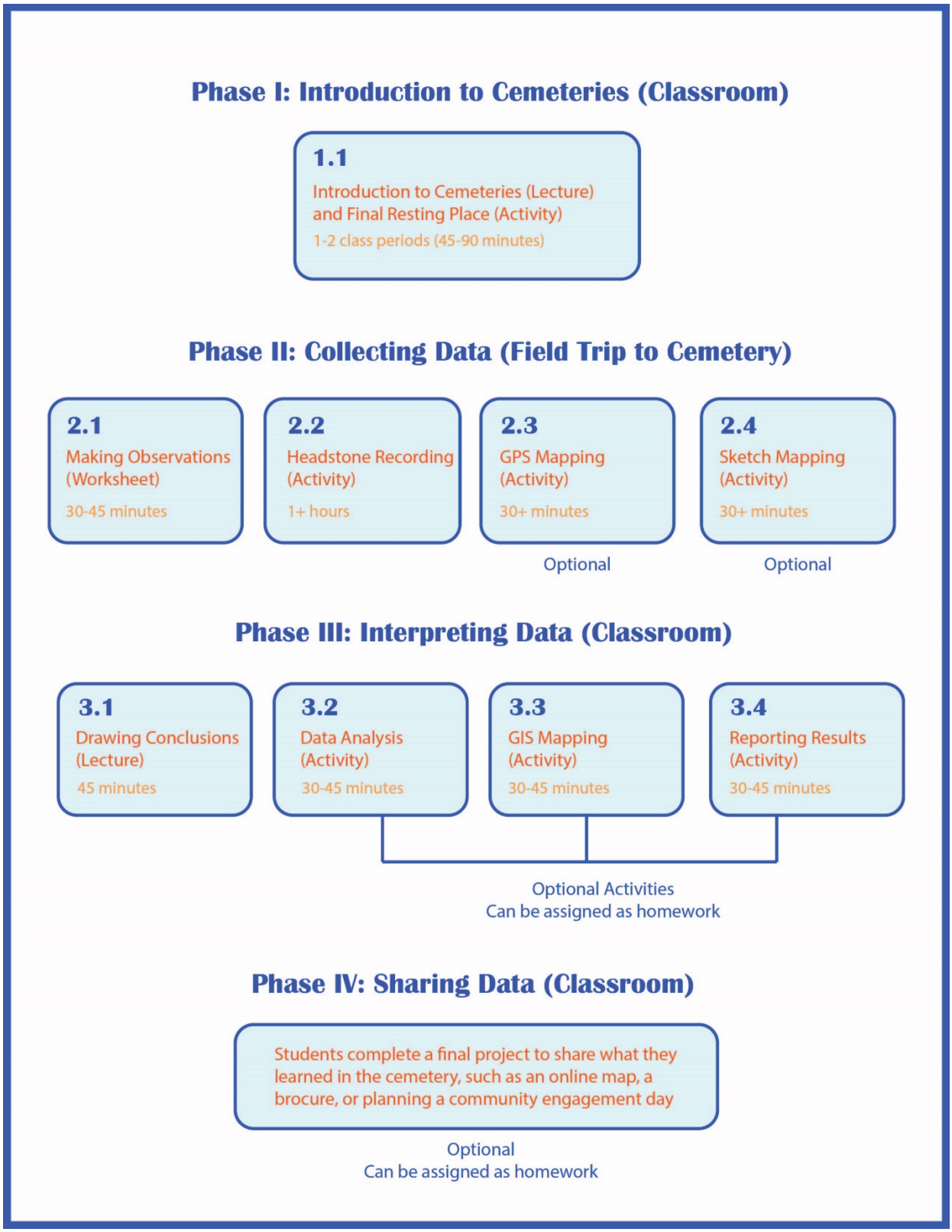

FIGURE 5. Summary of cemetery lessons and structure of unit. (Created by author, 2019.)

The investigation phase builds on the information presented in the introductory lecture and occurs at a local cemetery during a day-long field trip. The day consists of four separate activities, which can also be taught across several class periods. This format provides flexibility for teachers looking to incorporate the lessons into their classes on a regular basis, as the MHS anthropology class does at the Scott Site. Additionally, several lessons can either be omitted or performed multiple times, ensuring their adaptability for diverse schedules. The field trip, or the investigation phase, consists of Lesson 2.1, the Making Observations worksheet, where students explore and familiarize themselves with the cemetery; Lesson 2.2, a headstone recording activity, where students record individual markers on a standardized form; Lesson 2.3, a GPS mapping activity, which employs students' cell phones to collect coordinates of individual headstones and features; and Lesson 2.4, a sketch-mapping activity where students draw the layout of the cemetery.

To maximize flexibility, there are opportunities to combine Lessons 2.2, 2.3, and 2.4, or to omit certain lessons if necessary. I created and designed the materials for Lessons 2.1, 2.3, and 2.4 as part of this research; however, Lesson 2.2, the Headstone Recording activity, draws on several preexisting resources. During this lesson, students record individual markers on Headstone Recording Forms created by FPAN (2019a) for the statewide CRPT program, ensuring some level of consistency when recording Florida's cemeteries. To assist students with this task and to minimize the amount of information teachers have to present to their students, I created a guide explaining common symbols and marker types which was based on information from FPAN's (2019a) CRPT resources and from the Chicora Foundation's (1996) cemetery recording guide.

Over the course of the next four lessons, students analyze the data they collected at the cemetery through various techniques. First, the instructor gives the second lecture, Lesson 3.1 Drawing Conclusions, which I also adapted from the "Tombstone Tales" lecture and from CRPT resources (FPAN 2019a, 2019b). Students can complete the following three optional activities either in class or as homework, depending on time constraints and the instructor's preferences. Lesson 3.2, Data Analysis, involves entering data into Microsoft Excel, performing simple statistical analyses, and creating charts and graphs to visualize data. Lesson 3.3, GIS Mapping, tasks students with plotting the GPS coordinates they collected in the cemetery during Lessons 2.2 and 2.3 in ArcGIS Online.[5] These two activities include step-by-step instructions for either the teacher or the student to use depending on whether the materials are taught as individual or class projects.

Lesson 3.4, Reporting Results, enlists students in completing an abstracted version of the FMSF cemetery form. I created this form to avoid confusion with the official version, which can be overwhelming to the untrained eye (Appendix B). If an instructor uses this lesson, they can submit the completed form to their local FPAN office so staff can report the cemetery to the Florida Division of Historical Resources to ensure it is officially recorded. At the end of the structured lessons, I provide several options for final projects, giving students an opportunity to share their data and interpretations. I left these suggestions open-ended to allow projects to grow organically from the data collection and analysis phases and to be tailored to time constraints, available resources, and teacher preferences.

I examined several educational programs as models for my lesson plans as well, many of which are cemetery-based (Deloria [2000s]; Wilgenkamp 2005; Suchan 2008; Roseboro and

[5] ArcGIS Online is a free web mapping program available at www.arcgis.com.

Ousley-Exum 2010; Broome and Rainville [2011]). These materials range from short, one-time cemetery visits to project-based plans and emphasize themes such as artwork, genealogy, and preservation. While most of these lessons are not applicable to my project due to their focus and/or approach, my end product does somewhat resemble the History Channel's "Teaching From the Grave" program, as both programs employ the scientific method and follow a project-based format (Wilgenkamp 2005). However, my lessons utilize modern technology, provide in-depth guidance for teachers, and specifically highlight archaeology and historic preservation as themes.

During the Fall 2018-Spring 2019 school year, I taught the MHS anthropology class once a week and tested lesson ideas with these 17 students, who ranged from freshmen to seniors. This allowed me to determine appropriate time frames and learning levels, observe what students find interesting or informative, and discover which ideas were unengaging or simply not feasible. The anthropology class visited the Milton Keyser Cemetery, located just 1.2 miles from the high school, once a week for approximately 30 minutes. I attempted to use the lessons to assist with some of the Milton Keyser Cemetery Board's goals with guidance from board member Barbara Glover. While the implementation of the lessons was successful in engaging students with archaeological concepts and local history, it was less so at assisting with these goals due to the confines of the lesson plan structure. For example, while we were able to pair GPS Mapping with laying flags on graves for Veteran's Day, we did not complete the cemetery board's goal of identifying post-1980s graves in the cemetery (Figure 6). Despite this, Glover remained supportive and enthusiastic about student presence in the cemetery.

FIGURE 6. Milton High School students lay flags near veteran grave markers. (Photo by author, 2018.)

In order to make my lessons relevant for Florida teachers and students, I aligned the project with state curriculum standards. Since then, the state has started to revise educational standards, though it appears the emphasis is on Math and English/Language Arts (FLDOE 2020).[6] In SSE 4324, Evans repeatedly underscored the importance of first examining a standard and then creating a lesson to address it. I broke this tenet, instead creating the lessons first and then determining which standards were appropriate. This backwards process may be somewhat of a necessity when dealing with archaeology-based lesson plans because the Florida standards

[6] Despite this rewrite, Santa Rosa County Social Studies Coordinator Clark Youngblood assured me it would take several years for these changes to affect his schools because the district recently purchased new World History textbooks and would not be able to buy another set for some time.

do not specifically address archaeology or anthropology. Additionally, because the state standards are undergoing revision, tying these plans too closely to the former standards could have rendered them obsolete in the next few years. A loose adherence to the standards may ensure the program's adaptability in the future.

The cemetery lesson plans articulate with several elective courses, including Geography, Florida History, and Anthropology, and with mandatory Social Studies classes. In Florida, sophomores take World History, juniors take U.S. History, and seniors take Economics and Government (FLDOE [2014]). Though U.S. History might be the most appropriate choice, it is tied closely to standardized testing. These teachers already have a crowded schedule with little time for external lessons, rendering this class a poor candidate for incorporating an extra program. Santa Rosa County Social Studies Coordinator Clark Youngblood (2019, pers. comm.) recommended, at least for the pilot phase of the cemetery project, aligning it with World History standards, a course that is still mandatory but does not have any associated standardized testing.

Ramirez (2018, pers. comm.) mentioned most teachers follow the textbook when planning both mandatory and elective courses. Because every school in Florida uses *World History and Geography* (Spielvogel 2018), I used this text to identify points of entry for the cemetery lessons. Depending on the cemetery and the creativity of the instructor, I believe these lessons could fit almost anywhere in the curriculum plan; however, I did identify a few places where they fit best. Chapter 1: Ancient Civilizations and Chapter 14: Peoples of North American and Mesoamerica both emphasize archaeological skills. By drawing parallels between recent and ancient archaeological sites, students learn how archaeologists use the same skillset to investigate any time period, including the recent past, and can develop these observation, recording, and interpretation skills themselves.

Chapters 27-29 discuss World War I, the Great Depression, and World War II, respectively. If a class visits a cemetery while studying these chapters, they can tie their research questions to these world events to better understand daily life and attitudes during these time periods. For example, a class might investigate the materials and decorations on grave markers before, during, and after the Great Depression to understand if the economic crisis impacted burial practices. Similarly, a class might compare markers from WWI and WWII to understand which military branches were represented during each war or which war caused more fatalities in their local community. Finally, several chapters discuss religious practices, including Chapter 5, which addresses Hinduism and Buddhism; Chapters 8, 12, and 16, which mention Christianity; and Chapter 9, which includes Islam. Religious symbology is common on grave markers and can easily relate to these chapters as well.

The program also aligns with several curriculum standards and benchmarks, though often dependent on which chapter the teacher links to the lessons. World History Standard 1: "Utilize historical inquiry skills and analytical processes" is a flexible standard addressed in every chapter of the textbook and is a central tenet of the cemetery recording projects (FLDOE 2017; Spielvogel 2018). Many Social Studies courses have a similar standard, suggesting the program could be applied in other courses if desired; for example, Standard 1 for American History is: "Use research and inquiry skills to analyze American history using primary and secondary sources" (FLDOE 2017).

While the textbook includes relevant standards and learning outcomes for each chapter, I set a number of primary learning objectives for the project as a whole. These include:

1. Students will learn archaeology is the study of human culture through material remains, through both excavation and other processes.

2. Students will employ the scientific method to study the past, understanding the same process is used whether examining artifacts from 50 years ago or 1000 years ago.
3. Students will explore how archaeology provides stories of daily life and average people, as well as perspectives that have been forgotten or obscured.
4. Students will use headstones as primary sources, employing several types of analyses to examine the symbols and inscriptions.
5. Students will understand how archaeology and preservation are beneficial for communities and will take pride in their local historical resources.

These concepts are introduced in the first lecture and are reinforced throughout the rest of the lessons. In SSE 4324, Evans introduced Webb's "Depth of Knowledge," which asserts there are four tiers of cognitive expectations embedded in learning standards. These tiers are ranked by complexity. The first is recall and reproduction, the second is skills and concepts, the third is short-term strategic thinking, and the final tier is extended thinking (Mississippi Department Of Education 2009). My learning outcomes engage with several of these tiers, promoting cognitive growth. The first outcome involves recall and reproduction, requiring students to recall factual knowledge; outcomes 2, 3, and 4 employ skills and concepts, asking students to perform new tasks and to explore the how or why of historic populations and events; and the final outcome involves a behavioral change, ideally promoting both short-term and extended strategic thinking.

The layout and format of the lesson derives from a sample lesson plan called "Population Growth Rates" from the book *Social Studies and Exceptional Learners*, which Evans used as an example in SSE 4324 (Minarik and Lintner 2016:138-144). I used the example as a starting point to ensure I wrote the lesson plans in an easy to use, accessible format. These products are simple and include the lesson name, an estimated time frame, a brief description of the activity, a list of

required materials, relevant state standards, and a list of instructions. The results of the project, as well as teacher feedback, contributed to the final design and content of the lesson plans, which are attached to this thesis as Appendix C.

Evaluation Methodology

After drafting the cemetery lesson plans, I created a series of evaluative tools to gauge the success of the program and to identify areas for improvement. The evaluation tools discussed in this section include surveys, interview questions, and an observation rubric, all of which are attached as Appendix D. When beginning a project, an important first step is to define research questions, set expected outcomes based on the questions, and choose appropriate data collection methods (Tracy 2013:13-17). Evaluative outcomes are tied to the research questions by defining what a successful program looks like and then creating measures for assessment based on this ideal. Table 1 lists the four research questions outlined in Chapter I and the associated desired outcome.

To determine the extent to which the lessons meet these outcomes, I collected data through both qualitative and quantitative research methods. While quantitative methods establish patterns and identify generalizations, qualitative methods consider particularistic or individual cases to understand the depth of certain phenomena (Diamond 1999:22-23). Qualitative and quantitative methods can be employed individually; however, they work best in tandem, as quantitative data can point to certain trends and patterns, while qualitative data can help interpret why these patterns exist and examine deviations from trends (Diamond 1999). Quantitative evaluation methods typically involve experiments, tests, observations, or surveys, whereas qualitative methods employ interviews, behavioral or participant observation, and document analysis (Diamond 1999:23; Tracy 2013:25). I chose a mixed-methods analysis, employing

close-ended surveys and systematic observations to collect quantitative data and conducting interviews to collect qualitative information. This approach increases the validity of a study, as one method can offset the weaknesses of the other (Thomin et al. 2018).

TABLE 1
RESEARCH QUESTIONS AND DESIRED OUTCOMES

	Research Question (RQ)	**Successful Outcome**
RQ1	How can hands-on heritage-focused lessons be adapted for audiences without an accessible and available archaeological site?	Students are able to do hands-on, participatory research at a local cemetery without guidance from a professional archaeologist. Teachers are able to supervise the students with minimal to no logistical or safety issues.
RQ2	How can educational lesson plans promote archaeological principles to meet curriculum standards?	Participating instructors teach the lessons in class, find the materials relevant to their course, communicate archaeological principles accurately, and make connections to broader course content.
RQ3	How can archaeology educators create products that are relevant, adaptable, and user-friendly?	Participating instructors are able to accurately convey information without help from a professional archaeologist and to answer student questions. Students are able to perform work with minimal to no confusion about the task or content.
RQ4	How can students engage with local history in productive and meaningful ways?	Students are engaged with the project, demonstrated by their participation, enthusiasm, and questions. Students express a sense of civic engagement and responsibility.

To gather quantitative data about each instructor's initial responses to individual lessons, I created a brief survey. After each lesson, participants rated the five following statements on a 3-point scale ranging from disagree (one) to agree (three):

1. Lesson is well-organized and user-friendly,
2. Lesson meets designated outcomes,
3. Lesson is engaging for students,
4. Lesson is relevant within the broader course curriculum,
5. I would use this lesson again

The surveys were anonymous and provide an easy point of comparison for each teacher's opinions on the lessons. The survey responses primarily address Research Question (RQ) 2 and RQ3, measuring teacher satisfaction with each lesson.

To contextualize the survey results, I made observations about the implementation of each lesson. Participant observation is one of the most common forms of evaluation, and "generate[s] understanding and knowledge by watching, interacting, asking questions, collecting documents, making recordings, and reflecting" (Tracy 2013:65). Most observation rubrics used in educational settings are geared toward measuring knowledge gained and retained by students as the result of a program or approach. Because I am interested in observing the usability of my lesson plan and not necessarily the educational impact, I used examples of peer observation to guide my research instead of rubrics that evaluate individual lessons. These rubrics emphasize teaching style and lesson structure and are more appropriate to my project. The examples I utilized in my research measure planning and preparedness, instruction methods (including professionalism and delivery style), lesson structure and pacing, learning environment, and student engagement or participation (Center for Teaching and Learning 2013; Pamplin College of Arts, Humanities, and Social Sciences 2018; Tennessee Department Of Education 2018).

I created a rubric to guide my observations through both qualitative and quantitative observation methods, which both employed a standardized checklist to provide a consistent measurement system and contained space for narrative and detailed observations. The checklist mostly assessed logistics, such as set-up, necessary materials, lesson time frame, and safety concerns. It also captured the teacher's ability to teach the content through measures such as "information was factually correct" and "teacher was able to answer student questions based on materials."

The classroom setting and the implementation of the lesson itself were also recorded on the form. This allowed me to employ thick description, which involves recording detailed contextual descriptions of each lesson's implementation to capture the nuance of the particular circumstances and then retroactively drawing conclusions from these observations (Tracy 2013:4). These observations afforded insight into RQ1, by providing information about logistics, and RQ3, by capturing the accuracy and completeness of each lesson's implementation. I primarily used observation to gauge RQ4, as I could assess student engagement without directly asking the students about their experiences, ensuring I complied with IRB requirements.

I conducted interviews with each teacher to collect additional qualitative data once they finished participating in the project. These interviews enabled me to understand the "why" behind the participants' answers and actions and provided insight into areas for improvement. Tracy (2013:138) considers five to eight interviews pedagogically valuable; however, due to time constraints and unforeseen circumstances, I was only able to conduct four. The small number of participants allowed for unstructured interviews, which typically stem from a list of flexible questions or an interview guide and assume a conversation-like quality rather than a strict series of questions and answers, providing nuanced information about individual experiences (Tracy 2013:138). Structured interviews, on the other hand, are more valuable for large research projects attempting to collect generalizable data.

Tracy (2013:147-148) recommends beginning an interview by asking a series of nonthreatening questions, such as tour questions, which inquire about descriptive knowledge of an event or activity, or motivation-based questions, such as asking about feelings, actions, or behaviors. To start the interview, I asked a number of these types of questions, including:

1. Why did you decide to participate in this project?

2. Have you incorporated archaeology in your classroom in the past?
3. What changes did you make to the program?

These questions refamiliarized the participants with the project by asking them to recall their experiences and drew on personal motivations and actions, ensuring there was not a right or wrong answer and therefore creating a comfortable atmosphere.

After a few introductory questions, the interview can move into directive questions, such as close-ended or typology questions (Tracy 2013:148). I asked several questions that addressed potential improvements to the lessons, including:

4. How would you change the format or content of the lessons?
5. Is there anything you would do differently if you taught this unit again?
6. Are there any activities or elements that you feel are irrelevant to the overall learning objectives?
7. Are there any activities or elements you would like to see added to the program?
8. Did you feel adequately prepared to teach the lesson based on the materials you were given?
9. Is there any additional training or resources you would like to have before taking on a program like this?

These questions primarily provide insight into RQ3 by gauging teachers' experiences using the lessons, addressing any changes they made or would like to make to the lessons, and discussing their comfort level with the material. I then asked a few questions to capture each participant's lesson planning and teaching habits:

10. Do you see this as being similar or different to other lesson planning models you use? (Ask for examples.)

11. [When using other models] do you modify lesson plans? If so, how and why?

These questions also identify points of entry for archaeology educators and asses the user-friendliness of the cemetery lessons to support RQ3. Next, I asked questions to gauge the success of the programs in teaching necessary standards and engaging students:

12. Does this program enhance the mandated standards?
13. Would you use this program (or an altered form of it) in your classroom? (either in this course or in a different course)

Question 12 directly addresses RQ2 and both 12 and 13 touch on the overall success of the project in meeting all four research questions. Finally, interviews should conclude with catchall and rote questions, such as demographics (Tracy 2013:147-148). By asking if there was anything else my participants would like to share, I gave them a chance to point out any unexpected outcomes from the project. Because the interviews were unstructured, I was able to deviate from these questions based on how each teacher taught lessons and to ask appropriate follow-up questions. I typically conducted interviews in the teachers' classrooms, as it is important to hold the interview in accessible, quiet, and comfortable place where participants feel safe (Tracy 2013:160). Each interview was audio-recorded and transcribed.

While designing a research plan that operates within the confines of the target population to ensure its feasibility is important, recruitment of participants cannot begin until the IRB approves a researcher's proposal. Because of this, I wrote the research questions and evaluation materials as broad and all-encompassing as possible so I could tailor them to the population after the IRB approved the project (Tracy 2013:89). The IRB application has several requirements; in addition to submitting a research proposal and evaluative measures, a researcher must also include recruitment materials, informed consent forms which ensure the voluntary nature of the

research project, and plans for data management and protections for the privacy of participants. After developing both the lessons and the evaluation tools, I submitted my IRB application on 28 March 2019, and received approval one week later, on 4 April, allowing me to recruit teachers to participate in the project (Appendix A).

Participant Recruitment and Project Implementation

To take advantage of the foundation laid between MHS and FPAN, I decided to test my lesson plans in Santa Rosa County. Faculty and district administrators were aware and supportive of the Scott Site program, providing me with an entry point for this research endeavor. I met with Youngblood in February 2019 to explore options for collaboration and he was immediately supportive of and excited about the cemetery lesson plans. In addition to providing funding for busing and substitute teachers, which allowed teachers to participate in the project, Youngblood also offered to handle initial teacher recruitment. He also met with district administrators to ensure their support, acting as an intermediary to help me gain access to the school district and serving as the gatekeeper to help me obtain permission for my project from the UWF IRB.

In March 2019, Youngblood met with his superiors, Bill Emerson, the Superintendent of Curriculum, Instruction, and Assessment, and Jason Weeks, the Director of High Schools for the county. They approved of the proposed project and showed great enthusiasm and optimism for its success. Emerson provided a letter of support for my IRB application and Weeks worked with the principals at the district's high school, each of whom provided the name of a teacher or two to participate in a teacher recruitment workshop. The school district offered these teachers in-service credits for attending the workshop, ensuring it was beneficial for them, whether or not they decided to participate in the project.

At Youngblood's suggestion, I held a recruitment workshop on 28 April 2019 for interested teachers. This afforded teachers adequate time over the summer to integrate the lessons into their curriculum plans. Participating teachers were all 10th grade World History instructors from Santa Rosa County high schools, including Milton, Pace, Gulf Breeze, Jay, and Central. Navarre was the only high school in the county that opted out of the project. Each school sent one teacher with the exception of Central High School, which sent two. These six teachers attended a half-day workshop where they learned about archaeology education, cemetery recording, the proposed lesson plans, and the requirements for participating in my thesis research (Figures 7-8). Additionally, we visited the Milton Keyser Cemetery where I demonstrated some of the lessons. After the half-day workshop, the teachers decided whether they wanted to participate in the project or not, and teachers who chose to opt in signed an informed consent form (Appendix E) which included their consent to a recorded audio interview.

Participating teachers were given physical and digital copies of the lessons to examine over the summer with the expectation they would teach the lessons sometime during the fall semester. While all six teachers initially agreed to participate in the study, upon returning from summer break, the two teachers from Gulf Breeze High School and Pace High School moved to different content areas and could no longer participate. This left four teachers from three schools: Milton, Jay, and Central High Schools. The teachers had complete freedom over the teaching process and could alter or omit lessons as they saw fit. I coordinated with these four teachers to find time to teach the lessons during September-November 2019 (Table 2).

FIGURE 7. Teachers draw their Final Resting Places. (Photo by author, 2019.)

FIGURE 8. Teacher workshop participants record a grave marker in the Milton Keyser Cemetery. (Photo by author, 2019.)

TABLE 2
PARTICIPATING HIGH SCHOOL CLASSES

Dates	**School**	**Class**	**Grade(s)**
9/9-9/13	Milton High School	Anthropology	9-12
9/9-9/13	Milton High School	Government	12
9/30-10/4	Central High School	World History	10
10/7-10/11	Central High School	World History	10
10/15-10/18	Central High School	World History	10
10/15-10/18	Central High School	World History	10
11/14-11/15	Jay High School	World History	9-10

Between September and November 2019, these four teachers taught the cemetery lessons while I observed one or more of their lessons using the rubric I created. They completed the 5-question survey after each lesson and participated in follow-up interviews from November-December 2019. In Chapter VI, I present the results of the project, providing summaries of each case study and qualitative data collected from the surveys and from the observation rubrics. I compiled the data from the surveys and from the observation rubrics in Excel spreadsheets so I could compare each case study. I also transcribed the interviews, which were audio-recorded, and the observation data, which was handwritten. I then deleted the interview audio recordings in accordance with IRB policy. The survey responses, observation data, and interview transcripts are not linked to any of the participants so future researchers can use them, if desired. I revised the lesson plans based on these results, resulting in the final product (Appendix F).

CHAPTER VI

RESULTS

This chapter summarizes the results of the pilot cemetery education project. A total of four teachers from three different Santa Rosa County high schools participated in the project. Participants taught the lessons to 9 classes with 169 total students ranging from freshman to seniors (Table 3). First, I provide a short overview of each teacher's experience, compiled primarily from my observations. To comply with IRB requirements, identifying information has been removed from each case study, ensuring each teacher's confidentiality. Next, I present the quantitative data collected for this study, including results from teacher surveys and statistics gathered from the observation rubric checklists. The quantitative data points to the general success of the project in meeting desired outcomes; however, these results are contextualized with qualitative data and analyzed in greater depth in the following chapter, Chapter VII, Discussion.

Teacher 1

Teacher 1 taught the cemetery lessons to two World History classes over the course of a four-day week. The class spent three days in the classroom followed by a day-long field trip to their teacher's family cemetery. On the first day, Teacher 1 presented the Introduction to Cemeteries lecture. Though the content was largely unmodified, the teacher added the notes for the lecture to the slides and marked critical words in a different color (Figure 9). Students followed along by filling in blanks with these words on a worksheet. At the end of the lecture, students had a few minutes to begin the Final Resting Place activity, which was then assigned as homework.

TABLE 3
PARTICIPATING TEACHERS AND CLASSES

Teacher	**Class**	**# of Students**	**Lessons Used**
Teacher 1	World History	15	Intro to Cemeteries Headstone Recording GPS Mapping
Teacher 1	World History	14	Intro to Cemeteries Headstone Recording GPS Mapping
Teacher 2	World History	18	Intro to Cemeteries Making Observations Headstone Recording GPS Mapping
Teacher 2	World History	24	Intro to Cemeteries Making Observations Headstone Recording GPS Mapping
Teacher 3	Anthropology	14	Intro to Cemeteries Making Observations Headstone Recording GPS Mapping
Teacher 3	Government	21	Intro to Cemeteries Making Observations Headstone Recording GPS Mapping
Teacher 4	World History	22	Intro to Cemeteries Making Observations Headstone Recording GPS Mapping
Teacher 4	World History	24	Intro to Cemeteries Making Observations Headstone Recording GPS Mapping
Teacher 4	World History	17	Intro to Cemeteries Making Observations Headstone Recording GPS Mapping

Note: Number of students in each lesson varied each day. The number in the table reflects the maximum number of students in a class.

FIGURE 9. Alterations to a slide from the Introduction to Cemeteries PowerPoint. (Image by author, 2019.)

In one of the two classes, the students were given time at the end of the class to look up cemeteries they knew about in town on the Santa Rosa County Property Appraiser's website to see if they were on public or private land, as this came up during the lecture. Unfortunately, the website was difficult to navigate and the internet connection was slow, so the students were unable to find the cemeteries on the parcel map. I was unable to observe Teacher 1 on the second and third days of the week but did receive an update from them. On the second day, students finished the Final Resting Place activity and discussed the types of information they can learn from cemeteries. On Day 3, Teacher 1 was absent from school due to unforeseen circumstances; however, they had planned for the students to practice recording the headstones. Because of this, the students in these classes were unfamiliar with the recording form going into the field trip on Day 4. They visited a small, family cemetery in the morning and completed the headstone recording lesson. Instead of doing GPS Mapping as an individual activity, it was folded into the headstone recording form. The class spent about an hour and a half at the cemetery and then

visited a large, public cemetery for comparison. They were supervised by Teacher 1, who was their usual instructor, and by Teacher 2, who works at the same school. None of the follow-up lessons were used in class.

Teacher 2

Teacher 2 taught the lessons to two different World History classes which each participated in a week-long module. Each class spent three days in the classroom preparing for the field trip, one full day on a field trip at a cemetery, and one class period in the classroom following up on the cemetery visit. On the first day, Teacher 2 presented the Introduction to Cemeteries lecture. Though the content was largely unmodified, Teacher 2 added the notes for the lecture to the slides and marked critical words in a different color. Students followed along by filling in blanks with these words on a worksheet. At the end of the lecture, students had a few minutes to begin the Final Resting Place activity, which was then assigned as homework.

On the second day, the students had a few minutes to finish the Final Resting Place activity and then the teacher provided examples of the information we can learn from cemeteries. During the second half of the class period, the students recorded four cemetery markers shown in photos that the teacher posted around the room (Figure 10). They worked in groups of four to five students and used the headstone recording form from Lesson 2.2 as practice for their visit to the cemetery. I was unable to observe the class on the third day, but Teacher 2 told me they used elements from Lesson 3.1, the Drawing Conclusions PowerPoint, to talk more about cemetery symbology.

FIGURE 10. World History students practice recording markers in the classroom. (Photo by author, 2019.)

On Day 4, they visited a small, family cemetery in the morning and completed the headstone recording lesson. Instead of doing GPS mapping as an individual activity, it was folded into the headstone recording form. Each class spent about an hour and a half at the cemetery and then visited a large, public cemetery for comparison. They were supervised by Teacher 2, who was their usual instructor, and by Teacher 1, who works at the same school. On the final day, Teacher 2 used the Making Observations worksheet in the classroom as a follow-up lesson. The students answered the questions as well as they could, though some answers were difficult to remember with a day between the visit and the classroom activity. Teacher 2 used the

responses from the worksheet to lead the class in a discussion of their experiences. None of the provided follow-up lessons were used.

Teacher 3

Teacher 3 taught the lessons to two different classes over the course of a five-day week: an elective Anthropology class which had students ranging from 9th to 12th grades, and a mandatory 12th grade Government class. Despite the different course subjects, both classes followed the same format, spending four days preparing for the cemetery visit in the classroom and attending the same field trip on the fifth day. On the first day, Teacher 3 presented the Introduction to Cemeteries lecture; though the content was largely unmodified from the provided format, the instructor added the information from the provided notes to the PowerPoint slides so the students could follow along. Teacher 3 also asked students to read the PowerPoint aloud to ensure they were engaged and added photos of the cemetery the students later visited to the slides. On Day 2, the instructor gave the students the entire class period to work on the Final Resting Place activity and provided them with markers and colored pencils (Figure 11). Every student presented their drawing to the class and the final products were displayed on the classroom walls (Figure 12).

I was unable to observe Teacher 3's classes on Days 3 and 4, but they relayed that the students practiced recording cemetery markers in the classroom using photos and the headstone recording form. He also mentioned these days were fairly chaotic and the practice session was not as focused as he would have liked. On Day 5, the students from both classes went on a field trip to a medium-sized, African American cemetery near the school. They were supervised by both their teacher and a paraprofessional who assists with Teacher 3's classes.

FIGURE 11. Government students draw their final resting places. (Photo by author, 2019.)

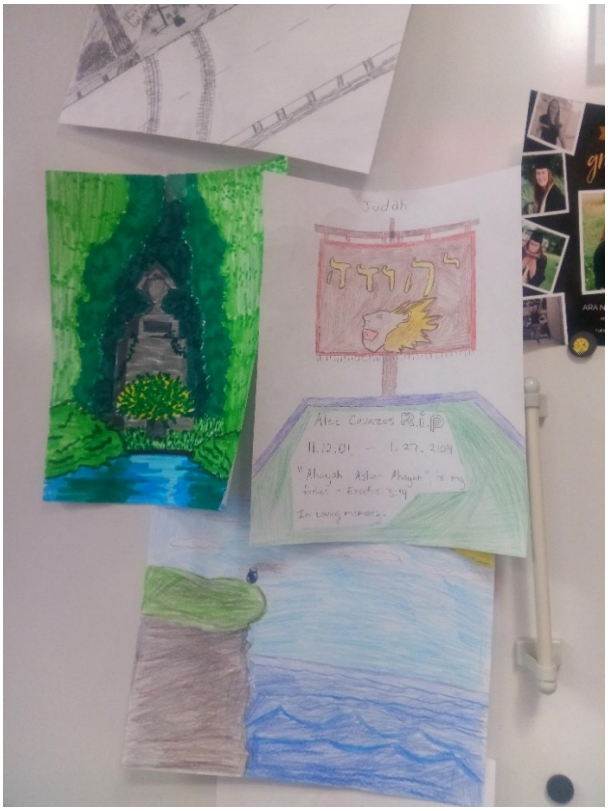

FIGURE 12. Student drawings of their final resting places. (Photo by author, 2019.)

The teacher started with the Making Observations worksheet and then showed students as a group how to record a marker using one as an example. The students then recorded markers in pairs and small groups for the rest of the morning. They took a break for lunch and then returned to the cemetery in the afternoon. Students shared some of their favorite or most interesting markers with the group and then resumed recording the markers for the rest of the day. Though the students were productive in the morning, many did not continue recording markers after lunch. It was hot and humid and the students were exhausted by the afternoon. None of the follow-up lessons were used, though in his interview, Teacher 3 mentioned he plans to teach them at a future date.

Teacher 4

Teacher 4 taught the lessons to three World History classes over the course of two days. This case study was a little unusual, as Teacher 4, who initially agreed to participate in the project and typically taught the World History course, was switched to teach different subjects during the 2019-2020 school year. He taught the lessons to the World History classes instead of their usual teacher, who did not attend the teacher training in Spring 2019 and had not taught World History in the past. However, since they both work at a small rural school, Teacher 4 was familiar with most of the students, especially through their role as a coach and middle school teacher and still had a rapport with the other teacher's students.

Teacher 4 began with the Introduction to Cemeteries lecture, which they did not alter from the provided format. Toward the end of the class period, the instructor gave the students a few minutes to complete the Final Resting Place activity. Most of the students did not want to share their drawings with the class. Students from all three classes were invited to attend the field trip to the city cemetery. They were divided into two groups because the three classes would be

too large to take at the same time. Students whose last names start with the letters A-L were to go on the field trip the following day, while those whose last names start with N-Z would go at a later date, though this took place after the research project ended and therefore is not included in the analysis.

On the field trip, the students were supervised both by Teacher 4, who led the activities, and by their usual teacher, who acted more in a chaperone's capacity. Teacher 4 began with the Making Observations worksheet and gave the students about 20 minutes to wander around and explore the cemetery. Teacher 4 then briefly showed them how to fill out the headstone recording forms and then they spent the rest of the morning recording markers in pairs or small groups (Figure 13).

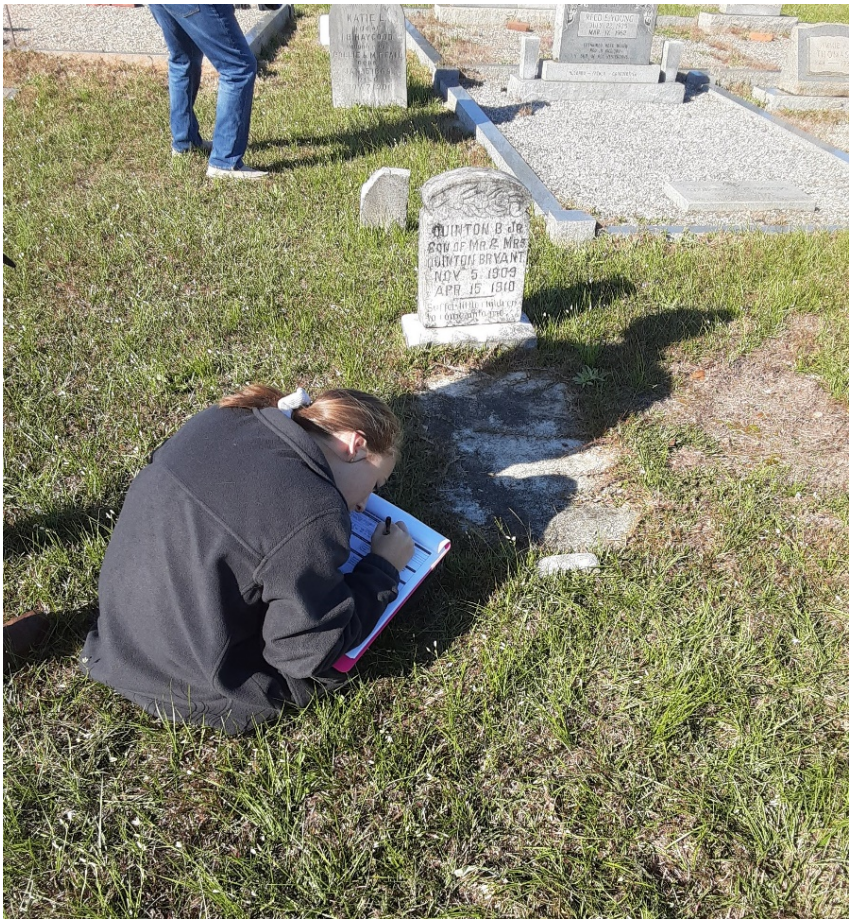

FIGURE 13. One of Teacher 4's students fills out a headstone recording form for a marker. (Photo by author, 2019.)

At the end of the morning, the students visited Teacher 4's family cemetery, which is located across the street from the city cemetery. The students then returned to school in time for lunch. None of the follow-up lessons were used.

Survey Responses

After teaching each lesson for the first time, participants completed a five-question survey (Appendix D). For each lesson, teachers were asked to rate five statements on a scale from one to three, with three being agree and one being disagree. Each teacher only took one survey for each lesson, regardless of how many classes they taught the lessons to, with the exception of Teacher 3, who taught the lessons in two different subjects and filled out a survey for each subject. Additionally, they did not fill out a survey for a lesson if I was not there to observe it. This resulted in five survey responses for the Headstone Recording activity and the Introduction to Cemeteries lecture and four survey responses for the Making Observations worksheet. All teachers (100%) responded "agree" to four of the five statements for all three lessons, including: Question (Q)1: Lesson is well-organized and user-friendly; Q2: Lesson meets designated outcomes; Q3: Lesson is engaging for students; and Q5: I would use this lesson again. This feedback implies the lessons are generally meeting project goals of providing an engaging, relevant, and user-friendly experience, though I identified significant room for improvement through observations and interviews, which I explore in greater depth later in Chapter VII, Discussion.

The only statement to receive mixed responses was Q4: Lesson is relevant within the broader course curriculum (Figure 14). It is worth mentioning that the "somewhat agree" response for the Introduction to Cemeteries lecture was for the Government class, while the "somewhat agree" response for the Making Observations worksheet was for a World History

class. This response was expected, given that archaeology and anthropology are not mentioned in the World History standards and are even further removed from the content taught in the Government class; however, even a response of "somewhat agree" points to the relevance of the lessons in these courses. The responses also indicate the success of the Headstone Recording activity, which the teachers found relevant and engaging. Suggestions for increasing the relevance of the project for other courses, like Government, are addressed as future research recommendations in Chapter 8, Conclusion.

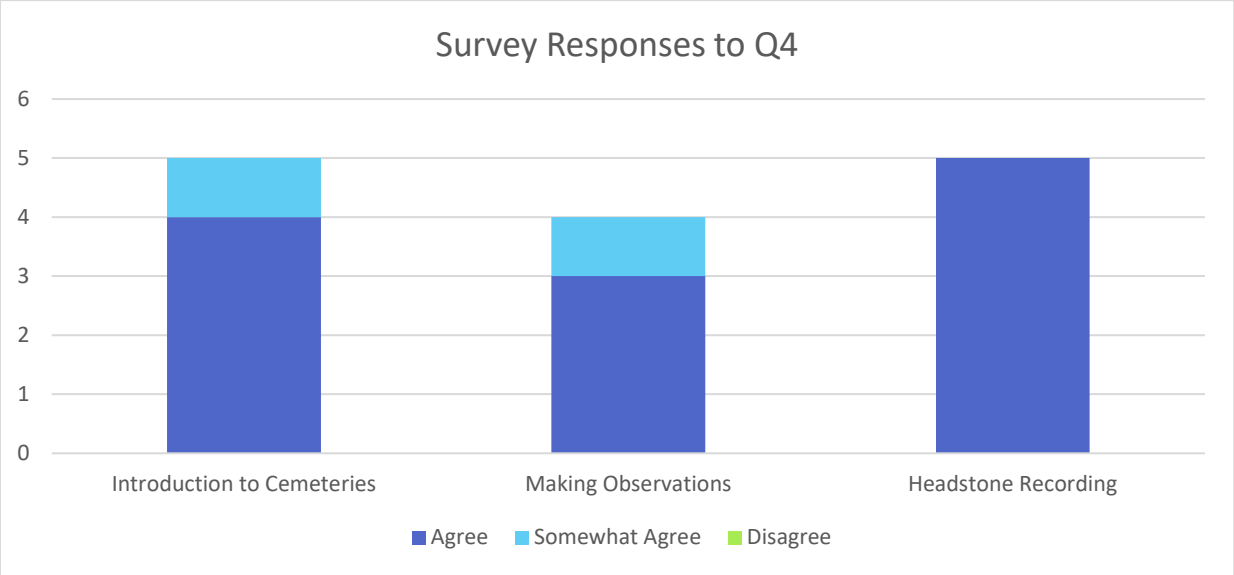

FIGURE 14. Survey responses to Q4: Lesson is relevant within the broader course curriculum. (Created by author, 2019.)

Observations

For each lesson, I created an observational checklist to gauge the success of its implementation (Appendix D). When possible, I watched each teacher present the lesson, filled out the appropriate checklist, and made detailed narrative observations. This process was completed for each class I observed, even if I had already observed the same teacher presenting the lesson to another class, to capture differences between each iteration. Most of the teachers deviated from the lesson structure, so even though I created checklists for each lesson, I only

used them to observe the Introduction to Cemeteries lecture and the field trip, which included Lessons 2.1-2.4. The alterations from the provided format were captured in my qualitative observations. This resulted in nine completed checklists for the Introduction to Cemeteries lecture and five checklists for the field trip lessons, as several classes were combined during the field trip portion.

The checklists revealed participating teachers were successful in implementing the Introduction to Cemeteries lecture (Figure 15). One hundred percent of teachers performed the activity in class (Objective (O) 1), set up the PowerPoint and activity with minimal effort (O2), loaded the PowerPoint without issues (O3), used the entire presentation (O4), presented accurate information (O5), used the Final Resting Place activity (O7), and possessed the necessary materials for the Final Resting Place activity.

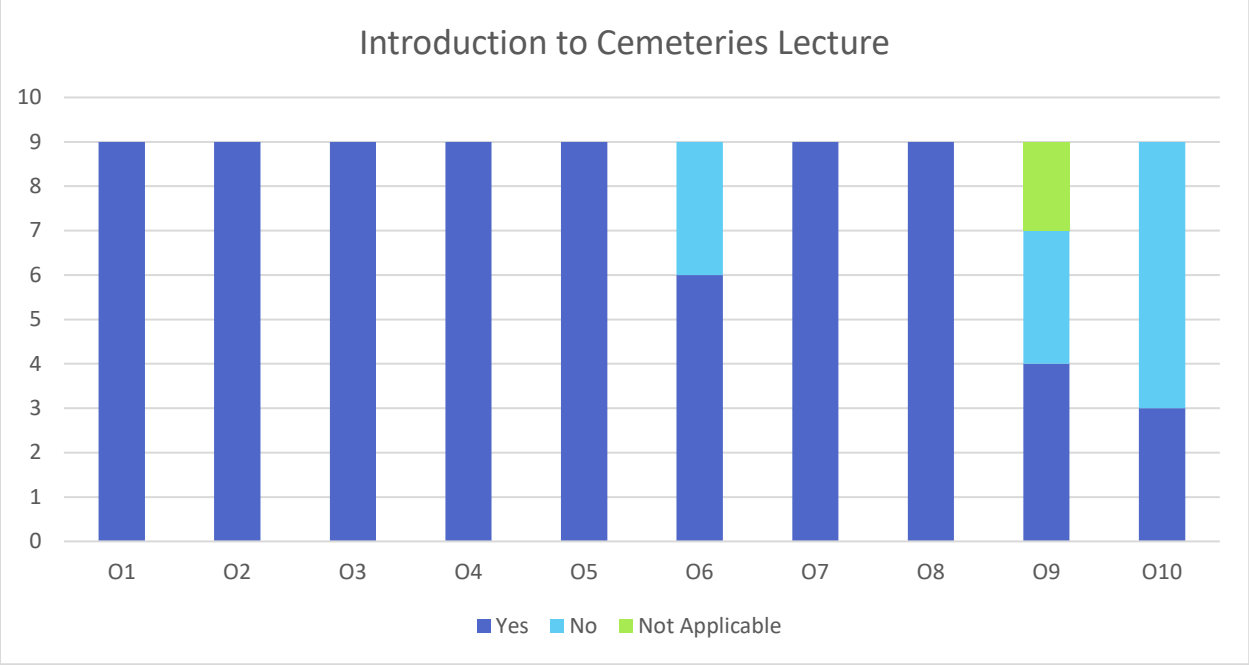

FIGURE 15. Observation checklist results for the Introduction to Cemeteries lecture. (Created by author, 2019.)

Only three objectives were not met: able to answer questions based on materials provided (O6); drew connections between student drawings and PowerPoint slide (O9); and lesson was

appropriate for one class period (O10). In three instances, participants were unable to answer questions based on the materials provided; one teacher deferred to me in two different classes when students asked about the FMSF, suggesting more information on this topic might be useful. In a different class, a teacher did not know if archaeologists studied dinosaurs or not, which indicates a more specific definition of archaeology must be included in the lesson materials. Though a complete understanding of the FMSF is not necessary to a successful project, it is imperative that students (and teachers) possess an accurate definition of archaeology.

Additionally, in three instances, teachers did not make connections between student drawings of their final resting places and the Introduction to Cemeteries lecture (O9).[7] These teachers did not require their students to share their drawings with the class, and therefore did not have sufficient material to draw on. Though it is not a critical outcome to the project's success, it may be useful to stress this component because it does make the project more relatable for the students. Finally, only one teacher who taught the lesson to three classes finished the Introduction to Cemeteries PowerPoint and the Final Resting Place activity in one class period (O10). The other three participants intentionally extended this lesson across several class periods, indicating it is beneficial to spend more time preparing for the cemetery visit and familiarizing students with cemetery markers and symbols.

The implementation of the field trip lessons was slightly more variable (Figure 16). These objectives can be broken down into Logistics (O1-O7), Making Observations worksheet (O8-O13), GPS Mapping (O14-O18), and Headstone Recording activity (O19-O24), which are depicted in Figures 16-19. All teachers met nine of the stated objectives, including: O1: Class

[7] There are two instances of "Not Applicable" in this category because I was unable to observe the second day of the Introduction to Cemeteries lecture for this teacher's classes, when these connections would have been made. It is unclear if this objective was met.

arrived at the cemetery in a timely fashion; O2: Bus was able to unload or park near the cemetery; O5: Teacher was able to adequately supervise their students; O6: No injuries occurred; O7: No damages were done to the cemetery; O14: GPS Mapping activity was performed; O15: Appropriate materials for GPS mapping were provided; O19: Headstone recording activity was performed; O20: Appropriate materials for headstone recording activity were provided; O22: Teacher was able to answer questions about the Headstone Recording activity based on materials provided; and O23: Teacher was able to provide minimal assistance to students during the Headstone Recording activity. This pointed to the success of the logistics of the program and to the widespread use of the Headstone Recording and GPS Mapping activities.

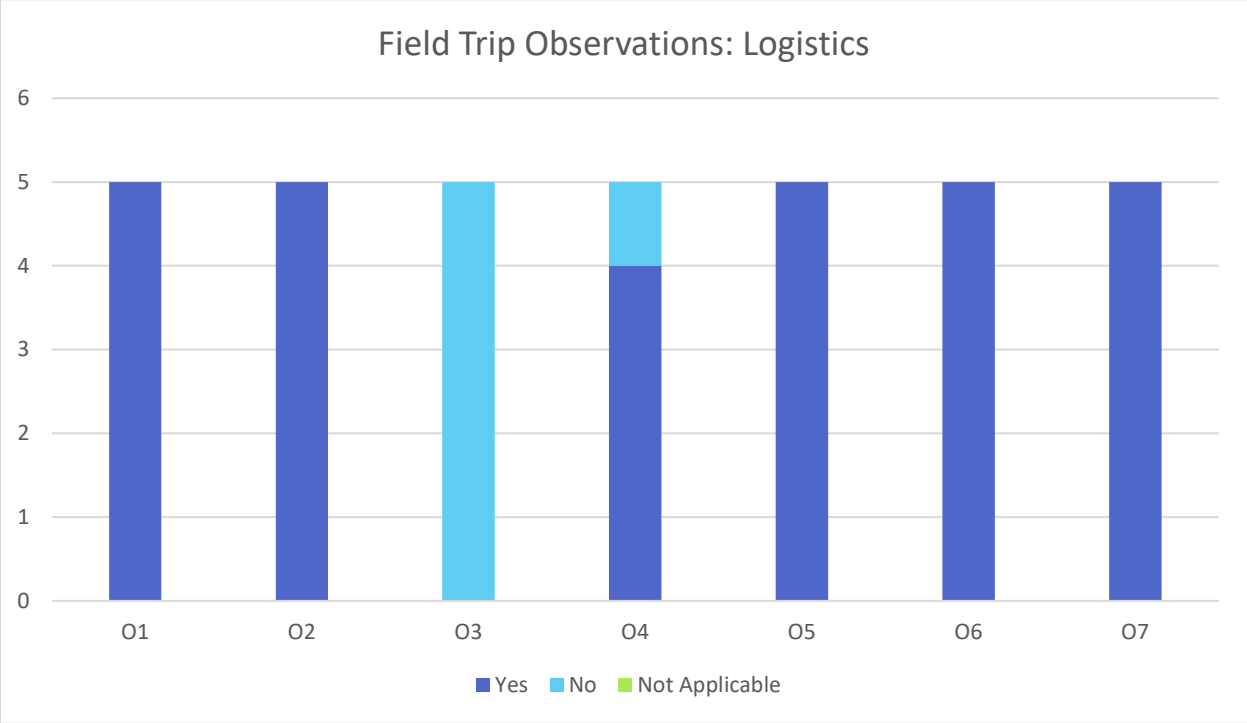

FIGURE 16. Observation checklist results from the field trip regarding logistics. (Created by author, 2019.)

However, several other objectives were not met. Most notably, 100% of the participating classes did not have access to bathrooms on their field trips (O3). Though I imagined this would be an issue, each class stayed at the cemetery for two hours or less before either returning to

school or visiting a facility with a bathroom. The only other logistical challenge pertained to O4: Little to no lag between activities, as one teacher was observed as having some downtime between activities.

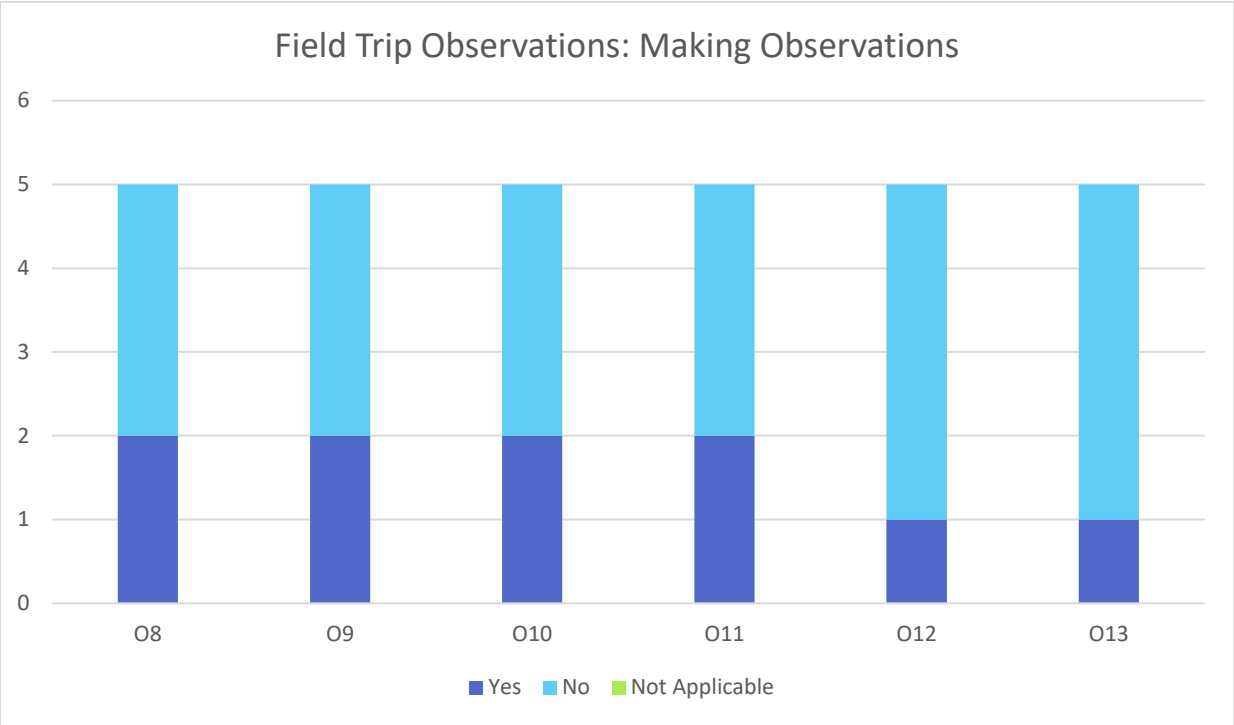

FIGURE 17. Observation checklist results from the Making Observations worksheet. (Created by author, 2019.)

Only two teachers used the Making Observations worksheet on the field trip, reflected in the results for O8-O13, which address this worksheet. Both teachers successfully met O8: Making Observations activity was performed; O9: Appropriate materials for Making Observations were provided; O10: Teacher was able to explain activity based on materials provided; and O11: Teacher was able to answer questions based on materials provided. However, only one of these two teachers was able to facilitate dialogue based on the student observations (O12) and one used the lesson in the allotted amount of time (O13).

The GPS Mapping activity also produced mixed results. Though each teacher used this lesson, they all folded it into the Headstone Recording activity instead of making it a stand-alone

activity. Because of this, O18: Lesson was appropriate for time allotted, was marked "Not Applicable" for all field trips. While most teachers successfully implemented GPS Mapping, two teachers were unable to adequately explain how students should use their phones to collect GPS points based on the provided materials (O16) and one teacher was unable to answer questions about this activity (O17). The lessons already include thorough instructions for collecting GPS points with phones, which indicates more time should be spent showing teachers how to do this during teacher training so they are comfortable applying this technology.

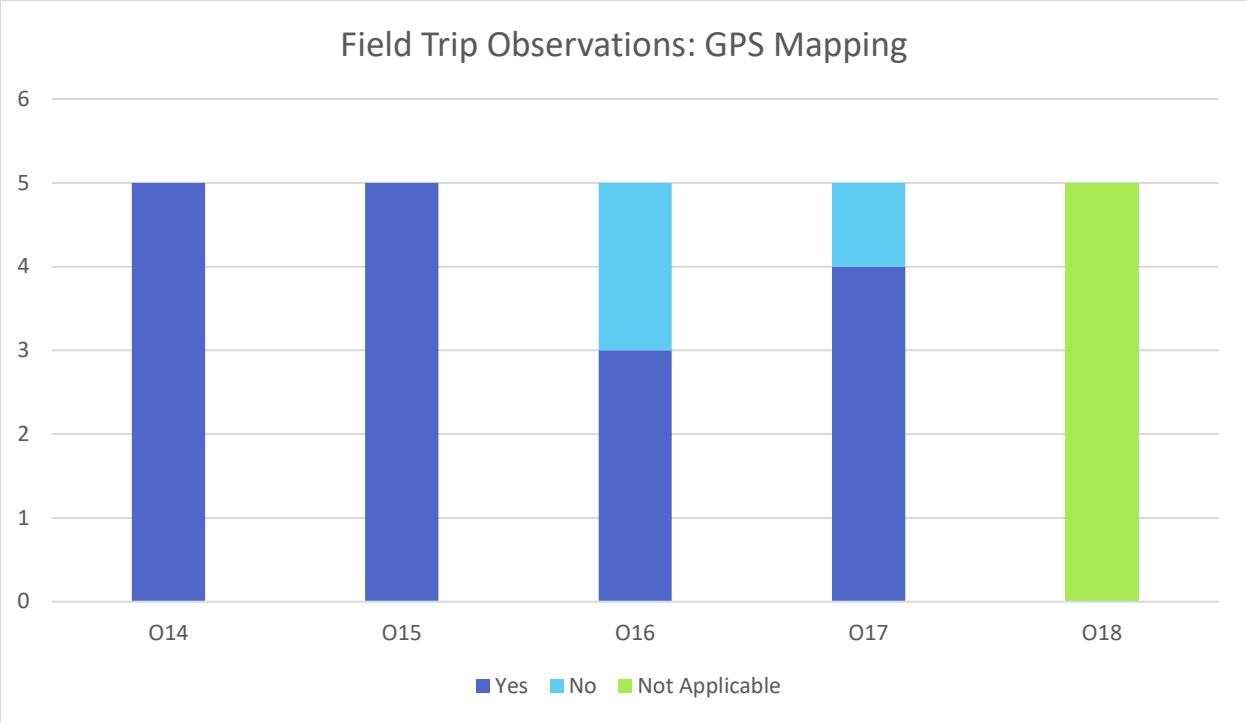

FIGURE 18. Observation checklist results from GPS Mapping. (Created by author, 2019.)

Finally, while most teachers successfully taught the Headstone Recording activity, one was unable to adequately explain the activity based on the materials provided (O21) and in one instance, the lesson was not appropriate for the amount of time allotted (O24). In the former instance, this teacher had not practiced using the form in class with the students, exemplifying how this exercise can be useful for both students and teachers. In the latter scenario, the students

spent almost four hours in the cemetery, indicating need for a short time frame with a limited number of activities.

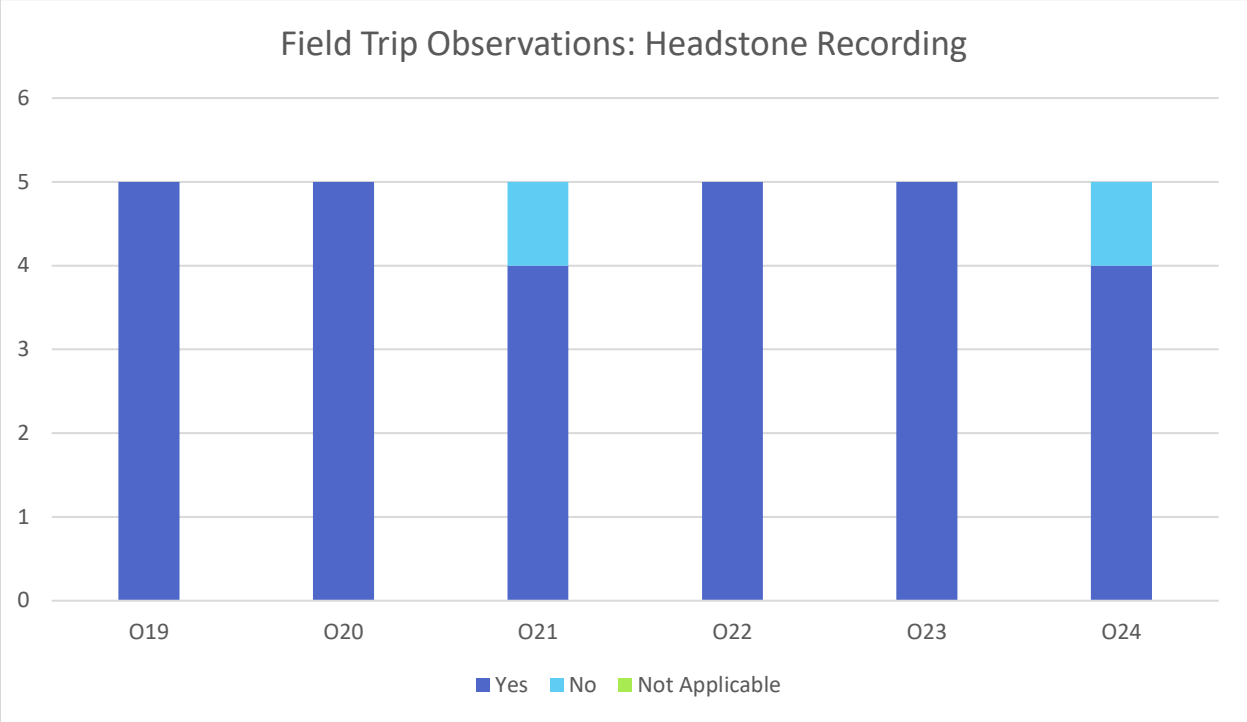

FIGURE 19. Observation checklist results from Headstone Recording. (Created by author, 2019.)

Both the observations and surveys indicate the project's overall success in meeting stated outcomes, providing a user-friendly experience for teachers, and engaging students. However, the narrative observations and one-on-one interviews indicate ample room for improvement and growth. The next chapter addresses the extent to which the initial research questions were met by synthesizing both quantitative and qualitative data. Additionally, I use the results to inform necessary changes to the original lessons, resulting in a quality final product guided by research outcomes.

CHAPTER VII

DISCUSSION

Quantitative data from teacher surveys and observations suggest the project succeeded in providing a relevant, engaging, and adaptable experience for students and teachers; however, there is still significant room for improvement, warranting a nuanced discussion of the research outcomes. In this chapter, I contextualize the quantitative data presented in the previous chapter, Chapter VI, with narrative observations and the responses from my interviews with participating teachers. I apply both the quantitative and qualitative results to the four research questions presented in the introduction to determine the extent to which each research question was met based on the desired outcomes listed in Chapter V, Methodology. I then draw on this information to make changes to the original lessons to create the final product (Appendix F). Finally, I conclude by discussing the long-term sustainability of the project and make recommendations to ensure the cemetery education program's continued use and growth.

Research Question 1: How can hands-on heritage-focused lessons be adapted for audiences without an accessible and available archaeological site?

This question assesses the most fundamental goal of the project: to determine whether it is feasible to do this type of work, given logistical constraints. In Chapter V, I defined the successful outcomes for this research question as: "Students are able to do hands-on, participatory research at a local cemetery without guidance from a professional archaeologist. Teachers are able to supervise the students with minimal to no logistical or safety issues." The project was successful in meeting these goals. All participants taught two or more of the lessons to multiple classes, both in the classroom and in the cemetery, and did not require my assistance during the field trip. Additionally, observations indicated participants did not face safety issues;

teachers adequately supervised students and the cemeteries were not damaged. Each teacher either worked in pairs or had a paraprofessional accompany them on the field trip, which likely assisted with supervision, though they never had to scold or punish any of their students.

Students from every class conducted themselves in a respectful manner and the only issues with behavior pertained to being distracted or disengaged, not acting disrespectfully. Though student engagement is discussed in greater depth in regard to RQ4, there are a few logistical factors, such as weather, time limits, and group sizes, that greatly impact student experiences and can be avoided with careful planning. For example, students struggled to stay focused in September, when the weather was hot and humid. Participating classes were much more attentive when weather was milder in October and November. This issue was compounded by the amount of time spent in the cemetery; students who participated in the project in September spent an entire day in the cemetery and were antsy and fatigued by the afternoon, while the other classes were only in the cemetery for an hour or two and remained engaged and on-task for the entire visit.

Additionally, student focus was impacted by group size, which several teachers addressed in their interviews. Some teachers brought more than 20 students on the field trip, which they felt was too many. This was especially an issue for Teacher 3, who brought students from two different courses. When the students split into groups, they were fairly on-task, but when they were gathered as an entire group, they lacked focus. The instructor was also unable to have many small group conversations with the students, which allowed them to process more complex ideas about the markers. This issue could be remedied by taking one class on the field trip at a time. The teacher also could have split the students into two groups, as there was a paraprofessional on the trip who may have been able to lead the lessons. While I provide suggestions for group size

in the final lesson guide, this is something that will vary by class and is largely up to each individual teacher to determine.

We did encounter a few accessibility issues in a class that included a student who uses a wheelchair. The school was unable to provide a wheelchair-accessible bus on the day of the field trip, so the student's mother had to drive him to the cemetery for the field trip. Despite transportation issues, the cemetery was grassy, making it navigable for the student, especially when another student pushed the wheelchair. However, some areas of the cemetery with copious kerbing presented limitations. This is also briefly addressed in the final lesson guide to ensure educators plan to accommodate these challenges, if necessary.

Busing, wheelchair-accessible or otherwise, remains one of the most important logistical considerations. While I anticipated this to be an impediment to project participation, the school district supported the project and provided activity buses; however, transportation would likely be a major barrier for other schools. Two participating teachers had their Commercial Driver's License and each drove the bus for every class from their school. The remaining school had a different teacher drop the students off in the morning and return to pick them up just before lunch. Though this worked well, it is easy to imagine an emergency situation where this could become problematic, especially if the cemetery is in a remote location. Our unimpeded access to busing points to the importance of administrative support for a project like this.

Some schools that lack access to busing may be able to simply walk to a nearby cemetery, as 13% of Florida high schools are less than a half mile from a cemetery (University of Florida GeoPlan Center 2015, 2017; Bureau of Archaeological Research 2018). However, for those that are unable to visit a site, teachers can create a mock cemetery with photos of grave markers similar to Teacher 2's approach. While this provides students with the experience of

recordation and analysis, it limits their ability to participate in community service learning, which was a major source of student engagement and sense of purpose. If FPAN wants to continue promoting this project, staff and school district personnel may have to consider grant writing or other solutions to ensure schools have the financial support needed to visit cemeteries.

The minimal logistical issues, as well as the convenience of cemeteries as settings, indicate when this financial and administrative support is present, the project is replicable and sustainable. While archaeological excavations have a finite amount of data, this is not an issue with cemeteries, both due to their abundance and due to the nondestructive nature of cemetery recording. Teachers 1 and 2 used the same small site for their four combined classes, causing later visits to replicate earlier work. Though both teachers expressed some concern about "finishing" the entire cemetery, this did not seem to bother students, and one teacher suggested redundant recording might actually be beneficial to ensure the data the students collect is accurate.

All four teachers discussed additional cemeteries their students could visit in the future, not only indicating interest in using the lessons again, but also suggesting room for growth. For example, Teacher 1 and Teacher 2 plan to do a second cemetery project during the Spring 2020 semester and to tie it to a genealogy unit, where students conduct research on their family members and on the deceased individuals at the cemetery. Teacher 2 also suggested creating a token, possibly with the school district's logo or with a link to the FPAN website, which could both mark graves that have been recorded and be left as an offering. Students suggested future directions for the project as well; for example, a student from Teacher 2's class asked if their class could create a time capsule, which could be another way to connect the cemetery program with discussions of how history is preserved and disseminated.

Research Question 2: How can educational lesson plans promote archaeological principles to meet curriculum standards?

This question assesses the program's relevance for teachers and students; because archaeology is not usually mentioned specifically in educational standards, archaeology educators must find creative ways to integrate this content into mandatory curricula to ensure it is beneficial for the intended audience. Further, archaeological content must be accurate, especially when an archaeologist is not present to supervise the program. In Chapter V, I defined the successful outcome for this question as: "Participating instructors teach the lessons in class, find the materials relevant to their course, communicate archaeological principles accurately, and make connections to broader course content." Survey responses indicate teachers felt the lessons meet designated outcomes and, for the most part, are relevant within broader course curricula. Additionally, observations show participants successfully presented accurate information and most were able to answer student questions. In general, archaeological messages and principles were accurate, even though only one teacher had a background in archaeology. However, in one of Teacher 4's classes, I had to interrupt to explain the difference between archaeology and paleontology. This indicates I should not only define archaeology in the introductory PowerPoint, but also provide a list of common misconceptions about archaeology to ensure the lessons clear these up, not contribute to them. Teacher 3 also expressed concern that students might not draw the connection between archaeology and historic cemeteries, because the discipline is often associated with excavation, underscoring the need for an expanded definition of archaeology (Hines 2019c:1).

During the interview process, most participants commented on the most appropriate class for the lessons; while they agreed the content could be relevant in several different courses, most

felt World History was the best fit. Teacher 4 works at a small, rural school where they taught several different grades throughout a 20-year-long career. Teacher 4 drew from their varied experience, stating:

> I think that- that 9th and 10th grade age group in there is probably your best bet with these kids because sometimes your 11th and 12th graders are just doing it because they want to get out and go do something that day and don't wanna be in the classroom. And your 7th and 8th graders are a little bit too young to keep them engaged for that full time (Hines 2019d:3).

Teacher 3, who agreed with this statement, brought students from a 12th-grade Government class and from an elective Anthropology class, which is comprised of students from several different grades. They noted the students in the Anthropology elective were much more engaged with the project than were the seniors (Hines 2019c:2). This is likely due to the elective nature of the Anthropology course, but may also stem from the grade levels as well, as Teacher 4 alluded in their comment.

In addition to the favorable engagement level of the freshmen and sophomores, Teacher 1 pointed out World History is a mandatory class and therefore has a broader reach than elective courses: "I wouldn't want it taken out of World History. 'Cause not everybody is gonna take Anthropology. And everyone must take World History. Your "not-so-good" supposed students really got into this" (Hines 2019a:8). They continued, describing a student who typically "hates" school, but really enjoyed the project, pointing to the program's ability to reach students who may not enjoy didactic, content-based learning experiences. Teacher 4 cites a similar experience:

"they already perk up a little bit when you tell them you're gonna go off campus to do something like this, but then as we talked about it in class…kids that normally don't say a whole lot, they kinda chimed up and wanted to be a part of it." (Hines 2019d:1). Their comments not only speak to the importance of putting the project in a mandatory course, but also indicate it can be a useful way to capture the attention of less-engaged students.

Participants also mentioned the World History course has flexible content, lending itself to extraneous programs like this. For example, Teacher 1 states: "I think, your project should be put in all the schools, truthfully, 10th grade, cause it's a good year, it's World History, you can tie it into anything, and man, that teaches lots of social things that you just can't get in a book" (Hines 2019a:8). Teacher 3 pointed out the flexibility of the World History content as well. When asked about the project's alignment with curriculum standards, they responded: "If you look at the standards, you can definitely find the way that they are connected…we are not putting the horse before the cart typically. We're not saying 'Oh we have to teach this standard, let's find it' … This is adhering to several of the standards of which we are working" (Hines 2019c:8). This comment also indicates it is less important to align perfectly with mandated standards than it is to create an engaging program that can be easily adapted to suit teachers' needs.

Several participants presented relevant connections to the mandatory World History content, including Teacher 1, who felt the content could easily be linked to immigration and settlement patterns:

> You could tie it into whatever chapter you're on…but I would tie in the way our country was formed and the immigrants that came over, and how that- and then I would tie in burial customs from other countries… because I think, they would be different with

> whatever you're region you're in, whether you're Northeast, the Midwest, or Southeast, or whatever, because different populations came to those areas for different reasons (Hines 2019a:4-5).

Teacher 1 then suggested tying the Potato Famine in Ireland to studying historic cemetery markers of Irish immigrants. Though Teacher 1's comments referred to possible future directions for the project, Teacher 2 actually employed a similar approach when teaching the lessons. They emphasized burial customs, art, and symbology of ancient cultures, such as Greece and Egypt, which the class discussed earlier in the semester. When introducing unfamiliar topics, like archaeology, it is important to connect them to something for which students already have a frame of reference (Johnson 2000). By linking the material to these concepts, Teacher 2 was able to build on their preexisting knowledge, effectively meeting the students where they were. They referenced several modern burial customs as well, such as Hispanic Day of the Dead and Native American customs, to couch this information within the modern cultural landscape. Teacher 1 connected the cemetery materials to topics their class had previously covered as well, though they used local history as a bridge instead of ancient history. Earlier in the semester, Teacher 1 taught their students about the origins of their town and school using historical photos and newspapers as lines of evidence. Teacher 1 told their students they would visit the gravesite of the town founder who they had previously discussed in class; this connection excited the students and built on earlier class content.

Finally, several teachers stated they already discuss archaeology in their classes and this program helps make that connection stronger and more relevant. For example, Teacher 2 mentioned this project helps students understand how historical knowledge is produced:

> With students we define archaeology and anthropology, and we talk about studying of cultures, and we talk about studying artifacts, and those kind of things, but we've never been able to put it into practice. So that was a huge benefit… I've taught everything from 6th grade to 11th grade, and, you know, the question I get all the time, is, you know, "Coach [teacher's name], how do we know all this stuff is true?" (Hines 2019b:1).

Teacher 2 went on to list archaeology, as well as several other types of historical evidence, as methods for learning about the past. This project shows students how history is comprised of interpretations, a concept echoed throughout the mandated standards for Florida history classes. This concept articulates with World History Standard 1, "Use research and inquiry skills to analyze American history using primary and secondary sources," and with similar standards for other social studies courses, giving students the chance to participate in the production of historical knowledge (FLDOE 2017).

Research Question 3: How can archaeology educators create products that are relevant, adaptable, and user friendly?

This question assesses teacher experiences with the lessons to understand what makes a successful program and to identify necessary changes to the original materials. In Chapter V, I defined the successful outcome for this research question as: "Participating instructors are able to accurately convey information without help from a professional archaeologist and to answer student questions. Students are able to perform work with minimal to no confusion about the task or content." The results indicate the project was fairly successful in meeting this outcome, in part, due to alterations made to the materials by participating teachers. According to the surveys,

100% of participants felt the lessons were engaging for students and were well-organized and user friendly. Most tellingly, 100% of participants stated they would use each lesson again.

During the interviews, most teachers indicated the lessons were easy to use. Teacher 3 put it bluntly: "the PowerPoints were great, you had it all set up. You made it idiot-proof for the teachers" (Hines 2019c:9). Teacher 4 underscored the importance of this by stating how it was a little daunting to take students off campus, as when they are in the classroom, they only have each group for one period and can improve a lesson throughout the day if the first attempt does not go well. However, the large amount of preparation and information made Teacher 4 feel comfortable: "So from showing us [another teacher's] class out in the field and doing all that kind of stuff it really put our minds at ease about what was going on" (Hines 2019d:2).

Despite this assertion, several teachers did make changes to the provided content, many of which were incorporated into the final product (Appendix F). I discuss these adaptations in greater depth later in the chapter; however, here I touch on teacher feedback from the interviews as it pertains to RQ3. Teacher 2, who altered the provided materials the most, felt there was more information than necessary and spent time paring down and rearranging the two PowerPoint lectures to suit their needs. Teacher 2 and two other teachers incorporated more information onto the PowerPoint slides and provided additional opportunities for student engagement, both through visual content and through increased student interactions. For example, Teachers 1 and 2 gave the students notes with blanks to fill in during the lecture. Similarly, Teacher 3 asked students to read aloud from the PowerPoint.

Teacher 3 explained these modifications increased student engagement and drew on different learning styles: "I'm also an ESE teacher and I have kids that learn in different ways, and some of the ways that kids learn is visually" (Hines 2019c:2). The final lessons reflect these

changes, in regard to both the style and the content of the PowerPoints. There was also variation in how the Final Resting Place activity was taught; Teacher 3 took a whole day for the activity, while the other three teachers only gave students a few minutes to work on the drawing. Teacher 2 expressed they wished they did something similar to Teacher 3, mentioning if they did the project again, they would probably start with this activity to hook the students before beginning the Introduction to Cemeteries lecture (Hines 2019c:2-3).

Another major change most teachers made was taking time to practice recording markers in the classroom so students were familiar with the forms and process before visiting the cemetery. Teachers 1 and 2 observed classes that practiced and compared them with those that did not. Both felt practicing made a significant difference in the efficiency of the cemetery visit, as they spent more time explaining the form on site to the latter group. Teacher 2 stated, in future, they might even create a mock cemetery for the practice session: "one of the things that I might do if I was to do it again, was to blow the pictures up and put them on like cutouts, you know, or find like a headstone, and like then go somewhere out of the classroom" (Hines 2019b:2). This not only provides a chance for students to practice before the cemetery visit, but also creates an opportunity for classes that are unable to visit a cemetery to have a similar experience.

I initially intended for the project to consist of a short preparation period before the field trip followed by a longer data processing phase afterward; however, when teachers increased the length of the preparation phase with a practice session, it came at the expense of the follow-up lessons, which none of the participants taught. This shift in focus indicates it may be more important to emphasize preparations, as educators wanted to ensure their students produced quality, accurate work and needed a longer training phase to accomplish this goal. Teacher 1

wished they included the follow-up lessons but did not feel they had sufficient time (Hines 2019a:3). Teacher 2 echoes this statement: "I think that's the part that can be left out without disrupting everything else" (Hines 2019b:3). Though Teacher 3 agreed with them, they also pointed out there was enough time to incorporate the lessons they did use: "I am not, in any way shape or fashion, hurting…due to this. It has not set me back in any way" (Hines 2019c:4). Most of the original follow-up lessons are still provided in the final product, though there are also a few simpler activities for teachers with these time constraints, as I believe it is important for students to unpack their experience when they return from the trip.

Many teachers enjoyed the flexibility of the lessons, expressing the program is appropriate for many grade levels and learning styles. When asked if there were any irrelevant components to the project, Teacher 1 responded:

> No, and here's why. I think you can go as deep as you want to with it and not as deep. Like you can choose the length. And you know, what I thought was interesting, we didn't really choose the level. We- we showed them, and when we put them out there, each class just dug into it. And they dug into it in different ways (Hines 2019a:2).

Teacher 1 elaborated some students were more interested in recording on forms, while some enjoyed other aspects of the project, pointing to the various learning styles and intensity levels the activities engage: "It's kind of like one of those rare things that you can use in an honors class that's mixed with regular kids, because you can push them as far as you want, the honors, and then the rest can still get what they need" (Hines 2019a:3). Teacher 2 echoed this sentiment,

stating: “when you look at all the different avenues of learning styles, you can hit all those in that three-day process” (Hines 2019b:3).

Research Question 4: How can students engage with local history in productive and meaningful ways?

This question assesses student experiences with the lessons to determine whether the project prompts meaningful, engaged interactions with the past, as I intended. In Chapter V, I defined the successful outcome for this question as: “Students are engaged with the project, demonstrated by their participation, enthusiasm, and questions. Students express a sense of civic engagement and responsibility.” Participating teachers indicated this objective was accomplished, both through surveys, as 100% of teachers responded students were engaged with the lessons, and through the numerous examples they provided in their interviews. In fact, this may be the objective that was most successfully achieved. Teachers 1, 2, and 4 all stated their students asked them when they could return to the cemetery to do the project again. Teacher 2 references the genuine enthusiasm of their students: “I have a lot of kids that have talked- ‘When are we gonna do that again? When are we gonna do that again?’ And it’s not- you can tell when they just want to get out of class. But it’s not about just getting out of class” (Hines 2019b:3). Teacher 2 later expressed their surprise at the students’ positive response to the program, stating: “they’ve really enjoyed the project. They embraced it a lot more than I thought they would, on different levels too” (Hines 2019b:7).

Teacher 4 shared a similar experience: “I didn’t see really a kid that didn’t engage in some form or fashion during the day. There wasn’t anybody that was out there that I thought ‘well they’re just getting out of class’” (Hines 2019d:1). When asked if they would use the lessons again, Teacher 3 responded: “I enjoy it, the kids enjoyed it…it made them engaged, it

made them care about history, you know. So without a doubt I would do it again" (Hines 2019c:9). Student engagement was not only manifested in participant reactions to the project, but also in my observations of the students themselves. In every class, one or more students asked about future opportunities to help preserve historic cemeteries; in particular, many wanted to participate in clean-ups after seeing images of neglected and vandalized cemeteries. A student from Teacher 2's class mentioned they drove past cemeteries all the time and never thought about them before, but now they found them interesting. At Teacher 2's suggestion, the final product includes a list of resources for students who want to get involved with preserving their local cemeteries.

One of the biggest factors in promoting student engagement was the project's hands-on, participatory nature. Teacher 1 pointed to this appeal: "you get to feel like you're an archaeologist for a little while… everybody, even my kids that hate school, loved that day. They talk about it. And that's going to be something that, when they graduate, they're going to remember" (Hines 2019a:5-6). When I interviewed Teacher 1, they had recently taken 11th-grade U.S. History classes on a field trip to the Historic Pensacola Village with Teacher 2. Both educators compared this visit to the cemetery project in their interviews, and while they both expressed their satisfaction with the Historic Pensacola field trip, they also mentioned the cemetery project enabled the students to contribute to something meaningful:

> When we took those- took the 11th graders to the Historic [Pensacola] Village, it was awesome, but we didn't do anything. We listened, then we walked around…but this, it's actually doing something that will go down and you know, it's gonna benefit future generations, hopefully (Hines 2019b:6).

Teacher 1 elaborated on this, stating: “And that, to me, was the big difference in this and a field trip. These kids felt like they were connected and they were participating in something important, which I thought was amazing” (Hines 2019a:1).

The hands-on, participatory format also promotes critical thinking skills, which teachers encouraged by helping their students interrogate their observations. For example, during one field trip, students noticed a marker without birth or death dates. Teacher 1 pointed out the inscription, which reads: “Our aged and faithful servant” (Figure 20).

FIGURE 20. Bettie Allen’s inscription reads: “Our aged and faithful servant.” (Photo courtesy of author, 2019.)

The instructor asked the students a series of questions which led them to understand the marker represented the grave of an enslaved (or previously enslaved) woman. This revelation prompted

speculation about a different marker located outside the cemetery fence, which the family had believed was the grave of an enslaved person. The differences between the markers' inscriptions and positions on the landscape inspired the students to investigate the individual to figure out how he was related to the family.

Students also exhibited critical thinking skills and a familiarity with cemeteries in the classroom, both before and after the field trip. When Teacher 1 asked their students why it was important to study historic cemeteries, they provided a number of thoughtful responses, including learning more about life spans, conducting genealogical research, understanding past human behavior, researching individuals through symbols, and studying socioeconomic status. Additionally, many students took the initiative to go beyond their teacher's expectations of them, indicating their interest in the subject. For example, several of Teacher 1 and Teacher 2's students researched symbols and burial customs on their phones and a group of Teacher 4's students downloaded the "Find A Grave" phone app so they could update information and GPS coordinates of individual headstones. The latter group also expressed their plans to take a road trip to visit historic cemeteries and to create YouTube videos about their experiences because they found the project so interesting.

Students also connected with the cemetery project through empathy and personal bonds, which is one of the primary ways White (2019) recommends engaging students with archaeological concepts. Teacher 1 employed empathy by asking students to choose one person in the cemetery they would like to talk to and to explain why. Teacher 1 described how this engaged the students' curiosity through imagining stories about deceased individuals, such as a 15-year-old girl who was the same age as many of the students or a set of twins, one of which died in infancy and one who survived to old age. Teacher 3 helped students consider the lives of

the people represented by the cemetery markers, asking them to imagine life during major historical events, like Jim Crow or the Great Depression. This discussion was especially pertinent for their class, which visited an African American cemetery. By contextualizing these events, Teacher 3 introduced students to perspectives that are not always abundant in history textbooks. Because the students already have a frame of reference for cemeteries, the project can act as a jumping off point to various aspects of history. For example, when Teacher 2's students joked about a future where people put Instagram handles on cemetery markers, the instructor guided the conversation into a thoughtful discussion of archives and the preservation of historical evidence, asking them to imagine the hypothetical Instagram of a veteran who served in World War II.

Many students found a personal connection in the cemeteries they visited or called their families to find out where their own ancestors were buried. Teacher 1 elaborates on this, stating:

> [The project] gets them interested in their own history. So I think- that was a surprise to me, I didn't know how that would work…every trip we went on- remember, we would have at least one student call home… "Was so and so buried out here?" You remember that? And so that's things they, and I figure it also starts conversations with your own family members to talk about this (Hines 2019a:4).

Teacher 4 showed their students the grave sites of several local figures, including some individuals who were associated with their high school. Teacher 4 agrees with Teacher 1's statement: "I think a lot of them, when they got out there didn't really realize who some of the people were that were out there [i.e., buried in the cemetery]. That there were people that were

connected to the school, and the past" (Hines 2019d:1). These personal connections made the historical context relevant, personal, and exciting for students.

Finally, one of the major contributors to student engagement (and teacher satisfaction) was a sense of civic engagement and responsibility. Teacher 4 discussed how this project helped students think beyond the classroom: "it was something different other than them just reading something in a book... I thought this really engaged them at a level of them just getting into the community" (Hines 2019d:1). Teacher 4 also teaches Civics, which is a 7th-grade class in Florida. Teacher 4 mentioned it is sometimes difficult to explain civic engagement in a classroom setting, and this project provided a tangible example to share with younger students.

Students in each class expressed a sense of responsibility toward cemeteries and were visibly shocked and outraged about their vandalism and neglect. When Teacher 1 explained the responsibility to care for cemeteries is based on their ownership type, such as public or private, several students mentioned cemeteries in poor condition they noticed near their houses. At the end of class, Teacher 1 gave them time to explore the Santa Rosa County Property Appraiser website to try to determine who was responsible for caring for them. These moments both engaged student curiosity and introduced them to useful tools.

This sense of importance was probably best manifested in Teacher 1 and 2's classes, which visited Teacher 1's family cemetery. Teacher 1 describes the most recent cemetery board meeting after their class field trip:

> We had more people, and some of them were my cousins that were in these classes that went… So to me, when you get these kids invested- it's the best way to get them invested

> in their community… and if they become invested in that, in that part of their community, that's just going to make them better citizens (Hines 2019a:7).

Comments like this, in addition to the observed student behavior at the cemetery, indicate many of these students experienced a long-term behavioral change as a result of their participation in the cemetery project. While this thesis does not aim to measure the project's success in meeting the designated learning outcomes, it is worth mentioning student behavioral changes meet Webb's 4th tier of engagement and effectively accomplish the 5th learning outcome for the cemetery lessons defined in Chapter V: "Students will understand how archaeology and preservation are beneficial for communities and will take pride in their local historical resources" ((Mississippi Department Of Education 2009).

Changes to Lessons

While both the qualitative and quantitative data point to the overall success of the original lessons, they also reveal a number of potential improvements. To create the best possible products, I incorporated teacher feedback into the original lessons, resulting in a final set of materials which will be made available through the FPAN website (Appendix F). Alterations primarily fall into three categories, including teacher preparation materials, PowerPoint content, and new activities. I restructured the teacher materials for ease of use and created an outline of all the lessons to help teachers quickly conceptualize the amount of time they would need to teach the project (Figure 21). In the initial format, instructions for all lessons were grouped together and the actual materials were packaged individually (Appendix C). Because the teachers did not use all the lessons, the materials would be much easier to interpret and use if the instructions are packaged individually with the corresponding lesson materials.

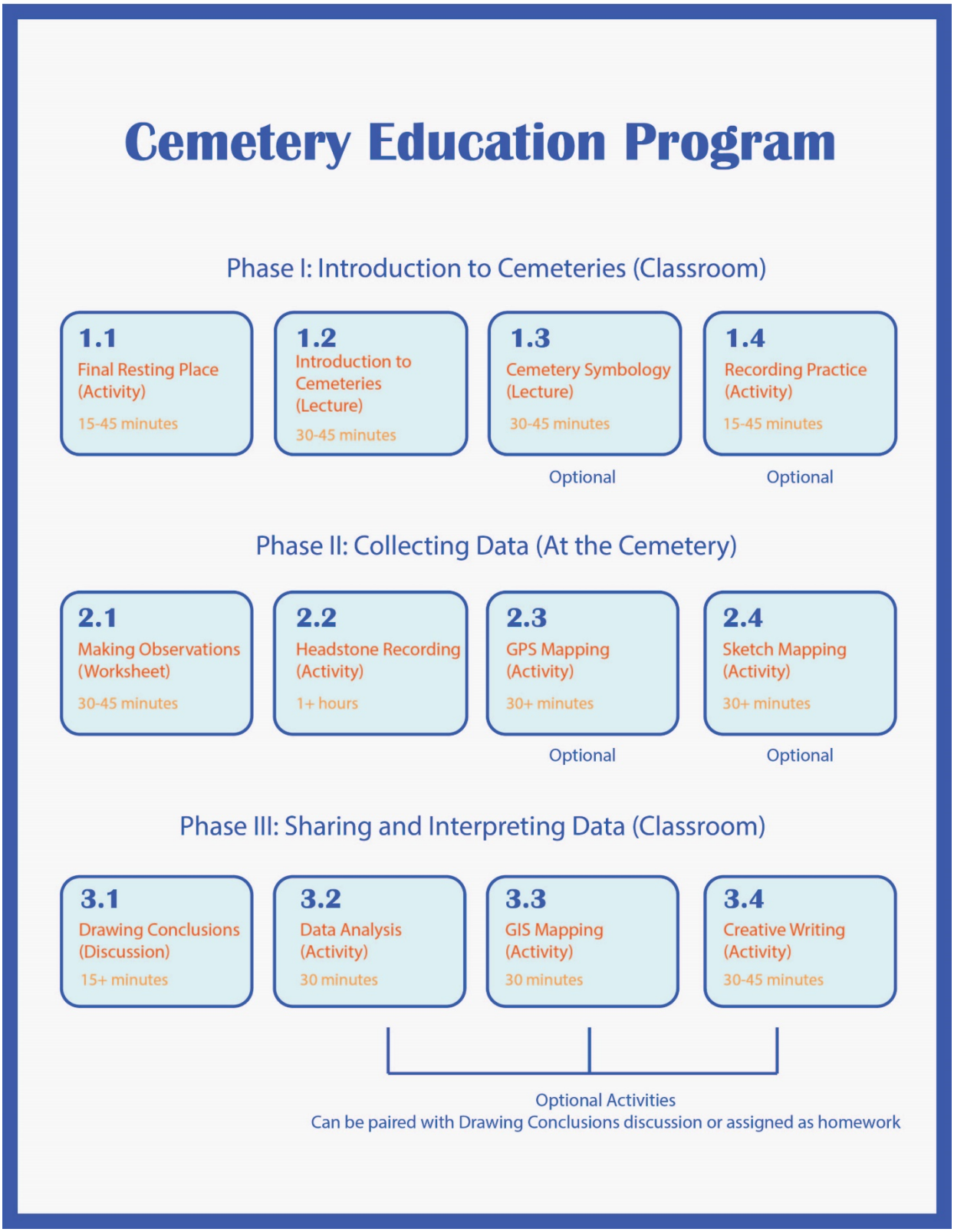

FIGURE 21. Final cemetery lesson plan structure. (Created by author, 2019.)

Additionally, the Analyzing Data and Sharing Data phases are combined in the final product, as there was clearly more interest in a longer preparation phase rather than a lengthy post-processing phase. Finally, several teachers mentioned they would like guidance for organizing recordation logistics, so information is provided about how to accomplish this efficiently, along with other teacher resources in a "Teacher Welcome Packet." I made a number of modifications to the PowerPoints as well, including adding more information and simplifying the color scheme, as three of the four participants made these changes. I also included opportunities for student participation based on techniques the educators used to engage their classes. For example, when the idea of a historic cemetery as an "outdoor museum" was introduced, both Teacher 2 and Teacher 4 asked their students if anyone had been to a museum and allowed them to share their experiences with the rest of the class. Similarly, when headstones were referred to as primary sources, both Teacher 1 and Teacher 4 asked their students what primary sources were and how they differ from secondary sources. These changes ensure students remain engaged during the lecture portion of the lessons, which is less hands-on than the rest of the program.

The biggest change I made to the lessons was adding an in-class practice session for the Headstone Recording activity. Many teachers mentioned this experience gave their students a much better idea of what information belonged on the forms. Teacher 4's class was the only group who did not see the form prior to their field trip; at first, they struggled with filling out the forms and left several fields blank, most notably the inscription field. Though they did need more guidance than other classes, most students still produced thorough, accurate work. Participating teachers were more concerned about the accuracy of the recording and the students' ability to

complete the forms independently than they were about creating a final product based on the data, indicating there should be more attention paid to preparations before the field trip.

Despite this, I retained the data analysis activities, as they can still be used by teachers with more flexibility. I also created follow-up activities that are shorter, could be assigned as homework, and are in formats that teachers commonly use. For example, students could write a short essay where they imagine the life of one person buried at the cemetery based on the symbols and information on their markers, the time period they lived in, and the age they were when they died. I also created a list of opportunities for students to volunteer locally, both with archaeology and with cemeteries, and further resources about both archaeology and historic cemeteries for those who are interested.

Finally, to make the project appealing and memorable, I rebranded the program as G.R.A.V.E., or Gravestone Research And Volunteer-based Education. I also added a number of design elements to the lesson instructions, such as a set of symbols which provide guidance for teachers looking to make modifications. Symbols include a backpack, to represent potential homework assignments; a thought cloud, signifying opportunities to ask questions of students; a plus sign, denoting an optional activity; and a magnifying glass, which provides opportunities for deeper engagement on a potential subject.

Project Sustainability

The title of this thesis is "Cemeteries as Classrooms: Making Archaeology Education Relevant, Accessible, and Sustainable." While I believe this project accomplished the goals of providing relevant and accessible archaeology education, the sustainability of such a program remains questionable. I intended to create lessons any teacher could download from the FPAN website and use with minimal guidance. I also hoped participating teachers from the pilot would

be able to continue the project without my support, instead collaborating with local cemeteries to accomplish mutually beneficial goals. Though participating teachers were fairly self-sufficient after attending the teacher training, most indicated they would prefer continued support in the future. In particular, teachers indicated they enjoyed having a representative from UWF and FPAN around, which they felt added legitimacy to the program and exposed students to new career paths. Youngblood (2019, pers. comm.) expressed a similar sentiment, as he worries the project's momentum might dissipate when I leave UWF and FPAN and wants to ensure there is staff to train additional educators to teach the lessons.

Teacher 3 gave a few possible alternatives to my presence during our interview (Hines 2019c). They mentioned the impetus for the project might come from the cemetery's board or just from the students pursuing their own goals, but suggested they preferred having an outcome that was related to an external organization like UWF. I initially intended for the forms and associated data to go to the cemetery board or property owner, but decided to provide a few additional options for data storage and sharing of results to ensure teachers feel the project is still relevant and useful. Although beyond the scope of this thesis, I intend to create a training manual for FPAN staff so they can assist teachers using the lessons or even offer training workshops to recruit additional teachers, if desired.

The lessons will be made available on the FPAN website; however, it is unlikely many teachers will find them there. Youngblood (2019, pers. comm.) recommends posting the lessons on the county's internal planning system, which would make them available to Santa Rosa County teachers and staff. In their interviews, Teachers 1 and 4 both brought up the website "Teachers Pay Teachers" and Teacher 4 mentioned they use Pinterest to find lessons. I will likely make the lessons available on some of these sites as well in an attempt to expand the project's

reach. However, interviews revealed teacher motivations for participation were mostly related to personal connections, whether with me or their superiors, indicating it may be difficult to reach additional teachers going forward.

If FPAN continues to promote this project or similar educational programs, staff members will likely need to build relationships with school administrators and individual teachers to achieve success. This somewhat undermines the project's goal to provide students who lack access to an archaeology educator with a hands-on, educational experience; however, hopefully FPAN staff can do so by building relationships with administrators and teachers through training programs and not by doing the classroom instruction themselves, enabling them to reach larger audiences. It is imperative that someone can advocate for the program and serve as a point person for participating teachers. While the success of the program's pilot run is apparent, it seems that the project would need continued support to promote growth. The next and final chapter builds on the information presented above to offer concluding thoughts and lessons learned that may be applicable archaeology education programs beyond the subject of this thesis. I also provide a few recommendations for future research in hopes this project inspires future exploration of sustainable and accessible archaeology educational programming.

CHAPTER VIII

CONCLUSION

The overwhelmingly positive feedback from participating teachers points to the success of the project and indicates there is definitely interest in hands-on participatory archaeology education. Through this process, I demonstrated how historic cemeteries provide an accessible site for archaeology education and how this project eliminates the myriad issues associated with excavation-based lessons. Cemeteries are abundant and often located near schools, and because recordation is non-destructive, students can participate in their preservation and research without the supervision of a professional archaeologist. Additionally, students have a frame of reference for historic cemeteries, which, when coupled with connections to local history, enables them to learn mandated curricula through the research process. This makes broader history relevant by linking it to local events and figures. Students not only learn about cemetery preservation and archaeological concepts, but also how history is constructed from diverse sources and perspectives. By participating in the scientific process, students learn a new skill set, allowing for the acquisition of broader knowledge beyond simply learning about the history of a single cemetery, archaeological site, or historical event.

This project also demonstrates a way to create relevant, user-friendly lesson plans that are adaptable to a variety of contexts. Because teachers and students are creating historical content, there is no need for lengthy, overwhelming background information, and the lessons are not site-specific, enabling their use in any cemetery. By incorporating feedback from participants, I improved the lessons to create a product that is both useful and usable. Finally, this research provides a platform for students to engage with local history in productive and meaningful ways. Because students have a frame of reference for historic cemeteries, they serve as useful entry

points to discuss how information is collected, processed, and disseminated. Cemeteries also spark conversation about the history of marginalized groups and expose students to perspectives they might not otherwise consider. For example, one class confronted the role of an enslaved woman buried in a family's private cemetery. In all cemeteries, students found gravesites of family members and other local historical actors, making history personal and relatable.

These outcomes were accomplished by creating archaeology educational programming that draws on both archaeological and educational theory. Though this project does advance the aims of archaeologists by promoting stewardship of cultural resources, it does so with the needs of educators and students at the forefront, ensuring the project fits within time constraints, fulfills curricular needs, and is in a format that teachers are able to use. By collaborating with educators and school personnel, setting relevant educational outcomes, and creating materials that articulate with the moral and cognitive development of the target audience, high school students, I was able to create a program that educators can and want to use. This program also draws on current archaeological theory and practice by effectively harnessing a collaborative, co-creative approach to education. Through recording and interpreting cemetery markers, teachers and students not only learn about archaeology and preservation, but actually participate in the creation of new historical information guided by their own perspectives and local knowledge.

The cemetery project exemplifies the effectiveness of a PBL approach. Though the program, students learned new information and tools in the classroom and then applied their new skillset in the cemetery to contribute to a broader group effort. Though this process was highly effective in engaging students, many participating teachers emphasized the training aspect prior to the cemetery visit and neglected the data processing stage, which somewhat undermined the project-based component of the program. This underscores the importance of finding creative

ways to complete follow-up work under time constraints and emphasizing the relevance of the data processing phase to ensure teachers offer students a chance to process their experiences, even if only through a homework assignment. Despite this, the students still produced a dataset during field trips to historic cemeteries and demonstrated critical thinking skills throughout the process.

This project also revealed a number of lessons that are relevant beyond the scope of this thesis to the general study of archaeology education. First, project success is largely owed to administrative buy-in and school district funding. When attempting to create a sustainable education program, I believe it is important to identify a partner from within the school district. The district Social Studies Coordinator proved to be an important ally because he had relationships with individual teachers and with county-level staff. He was also able to procure funding for busing and substitute teachers, ensuring teachers were able to take their classes to local historic cemeteries. This is one of the biggest barriers to project participation; while teachers can provide the experience of recordation and analysis in the classroom using images of gravestones, this greatly limits students' ability to participate in community service learning, which promoted a sense of purpose and increased engagement. Many other counties likely lack the financial support offered by Santa Rosa County and may require grant-writing or other solutions to ensure students are able to visit cemeteries.

Teachers appreciated having the flexibility to adapt the lessons for use in their classroom; by providing several optional activities and a variety of project timelines, this product can fit into almost any schedule. This flexibility extends to its relevance within the course curriculum. Teacher feedback indicated it is more important to create engaging programming with loose connections to curriculum standards than to tie the project closely to mandated content. Many

participating educators preferred the topic was addressed in a mandated course with broad content and no standardized testing, like World History. A loose adherence to the standards may also ensure a program's adaptability in the future, especially when standards are revised, as is currently the case in Florida.

Finally, and not surprisingly, when students feel their work contributes to something beyond the classroom, they are more motivated to participate. Teachers who participated in the project did an excellent job of showing students how their work in the cemeteries mattered and joined in their genuine excitement to learn new insights about their community's past. It is imperative this project remains connected to a broader research effort, whether through FPAN or in partnership with local cemeteries or organizations, and that data is curated in a relevant repository.

This thesis could provide a jumping off point for a number of future research opportunities. First, I recommend investigating how this project could be adapted for diverse audiences. As I indicated in Chapter II, Santa Rosa County differs from the broader Florida population both ethnically and economically. In other parts of the state, there is a much larger English Language Learner population who may have difficulty participating in this project in its current format. Future researchers might develop a less text-heavy approach or might consider translating the lesson materials into Spanish, especially the components used by students. Students in Santa Rosa County possessed familial and local connections to the historic cemeteries they studied. English Language Learners, including immigrants and first-generation Americans, lack these deep connections to local cemeteries. Because of this, teachers may have to work harder to foster empathetic connections, which often relied on a shared past with the people buried in the cemeteries.

Because this thesis focused on evaluating teacher use, another research opportunity involves assessing what students learn from the program. It might be especially useful to evaluate classes who complete a few of the lessons compared to those who participate in a longer program, especially if the latter contains a longer data-processing phase. Finally, I would also recommend growing this project to include recent policy developments for African American burial grounds, both in Florida and nationally. Incorporating this aspect might increase the project's relevance in other classes, like Government, and exposes new outlets for student civic engagement. This discussion would be especially fruitful through Seidemann and Halling's (2019) lens of cemetery erasure as landscape structural violence, which I briefly touched on in Chapter 3.

It is my hope that this thesis not only results in sustainable and accessible programming through the cemetery education project, but also provides impetus for future research in archaeology education. Engaging programming is possible through a consideration of both relevant archaeology and educational theories and when the needs of teachers and students are prioritized. While dedicated professionals, enthusiastic teachers, and administrative support and funding are necessary ingredients for a long-term, hands-on archaeology education project, this program clearly results in mutually beneficial outcomes for teachers, students, and archaeologists.

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APPENDICES

Appendix A

IRB Approval and Amendment

University of West Florida

Research and Sponsored Programs
11000 University Parkway, Bldg. 11
Pensacola, FL 32514-5750

Ms. Rachel Hines

April 04, 2019

Dear Ms. Hines:

The Institutional Review Board (IRB) for Human Research Participants Protection has completed its review of your proposal number IRB 2019-180 titled, "Santa Rosa County Cemetery Education Study," as it relates to the protection of human participants used in research, and granted approval for you to proceed with your study on 04-04-2019. As a research investigator, please be aware of the following:

* You will immediately report to the IRB any injuries or other unanticipated problems involving risks to human participants.
* You acknowledge and accept your responsibility for protecting the rights and welfare of human research participants and for complying with all parts of 45 CFR Part 46, the UWF IRB Policy and Procedures, and the decisions of the IRB. You may view these documents on the Research and Sponsored Programs web page at http://research.uwf.edu. You acknowledge completion of the IRB ethical training requirements for researchers as attested in the IRB application.
* You will ensure that legally effective informed consent is obtained and documented. If written consent is required, the consent form must be signed by the participant or the participant's legally authorized representative. A copy is to be given to the person signing the form and a copy kept for your file.
* You will promptly report any proposed changes in previously approved human participant research activities to Research and Sponsored Programs. The proposed changes will not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the participants.
* **You are responsible for reporting progress of approved research to Research and Sponsored Programs at the end of the project period 04-04-2020. If the data phase of your project continues beyond the approved end date, you must receive an extension approval from the IRB.**
* If using electronic communication for your study, you will first obtain approval from the authority listed on the following web page: https://uwf.edu/offices/institutional-communications/resources/broadcast-distribution-standards/.

Good luck in your research endeavors. If you have any questions or need assistance, please contact Research and Sponsored Programs at 850-857-6203 or irb@uwf.edu.

Sincerely,

Dr. Matthew Schwartz, Interim Assistant Vice President
Research Administration

Dr. Carla Thompson, Chair, IRB for
Human Research Participant Protection

Phone 850.474.2824 Fax 850.474.2802
Web research.uwf.edu

UNIVERSITY of WEST FLORIDA

Research Administration and Engagement
11000 University Parkway
Building 11, Office 110
Pensacola, FL 32514

MEMORANDUM

December 06, 2019

TO: **Ms. Rachel Hines**
Anthropology

FROM: Dr. Matthew Schwartz, Assistant Vice President Research Administration

Dr. Carla Thompson, Chair, IRB for Human Research Participant Protection

SUBJECT: IRB Modification Approval

Thank you for keeping us apprised of the progress made on your project titled "IRB 2019-180, Santa Rosa County Cemetery Education Study." The IRB has approved your request to modify your project based on the recently submitted application.

The IRB has approved your request based on the recently submitted modification with the following conditions: .

Continued good luck in your research!

office 850.474.2824
fax 850.474.2082
uwf.edu/rae

Appendix B

Florida Master Site File Form and Abstracted Form

Page 1

☐Original
☐Update

HISTORICAL CEMETERY FORM

FLORIDA MASTER SITE FILE

Version 4.0 1/07

Site #8 _____
Field Date _____
Form Date _____
Recorder # _____

Consult the *Guide to Historical Cemetery Form* for detailed instructions.

Cemetery Name _____ Multiple Listing (DHR only) _____
Project Name _____ Survey # (DHR only) _____
Ownership: private-profit private-nonprofit private-individual private-nonspecific city county state federal Native American foreign unknown ☐ ☐

LOCATION & MAPPING

USGS 7.5 Map Name _____ USGS Date _____ Plat or Other Map _____
City/Town (within 3 miles) _____ In City Limits? ☐yes ☐no ☐unknown County _____
Township _____ Range _____ Section _____ ¼ section ☐NW ☐SW ☐SE ☐NE Irregular Sect. Name _____
Township _____ Range _____ Section _____ ¼ section ☐NW ☐SW ☐SE ☐NE
Landgrant _____ Tax Parcel # _____
UTM Coordinates: Zone ☐16 ☐17 Easting ☐☐☐☐☐☐ Northing ☐☐☐☐☐☐☐
Other Coordinates: X: _____ Y: _____ Coordinate System & Datum _____
Address / Vicinity / Route to _____

Public Tract Containing Cemetery (e.g. park name) _____

HISTORY

Reset Check Boxes

Year Cemetery Established _____ ☐approximately ☐year listed or earlier ☐year listed or later
Ownership History (especially original owners) _____

Year Burials Ceased, if applicable _____ Reason(s) Burials Ceased _____

Range of Death Dates: Earliest Year _____ Most Recent Year _____
Acreage Expansions/Dates _____
List People Important in Local, State, or National History Buried in Cemetery _____

Describe Previous Repair, Cleaning or Restoration Efforts _____

DESCRIPTION

Reset Check Boxes

Type (check all that apply) ☐community ☐company town ☐epidemic ☐family ☐fraternal order
☐memorial park ☐military(not national) ☐municipal ☐national ☐potter's field
☐prison ☐religious ☐Rural Movement ☐other(describe): _____
Ethnic Group(s) Interred (check all that apply) ☐White non-Hispanic ☐Hispanic ☐Asian ☐Caribbean ☐African American
☐American Indian-tribe: _____ ☐other(describe): _____
Current Status: ☐still used for burials ☐no longer used for burials, but maintained ☐abandoned
Condition: ☐well maintained ☐some areas maintained ☐poorly maintained ☐not maintained, but easily identifiable
☐not maintained, hard to identify ☐not identifiable but known to exist (explain): _____
Total # of Graves: _____ Does Total # Include Unmarked Graves?: ☐yes ☐no
Describe Evidence of Unmarked Graves (include count) _____
Total Cemetery Size (give length by width or area, specify ft, m, ac, ha, etc.) _____
Describe Cemetery Boundary (e.g. "cast iron fence", stone or brick wall, hedge, etc.) _____

Historical Vegetation (trees, shrubs, flowers) _____
Public Access: ☐unlimited ☐restricted: how? _____
Threats (check all that apply) ☐abandonment ☐agriculture ☐mining/timbering ☐public development ☐private development
☐desecration/vandalism ☐other (explain): _____
Associated Historical Properties/Archaeological Remains (non-cemetery) _____

☐Check if *Historical Structure Form* completed ☐Check if *Archaeological Site Form* completed

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init. _____ KEEPER – Determined eligible: ☐yes ☐no Clear Check Boxes Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

HR6E048R0107 Florida Master Site File / Division of Historical Resources / R. A. Gray Building / 500 South Bronough Street, Tallahassee, FL 32399-0250
Phone **(850) 245-6440** / Fax **(850)245-6439** / E-mail **SiteFile@dos.state.fl.us**

HISTORICAL CEMETERY FORM

Site #8 _____

GRAVE MARKER DESCRIPTIONS

Grave Groupings (check all that apply) ☐family ☐fraternal order ☐military ☐religious ☐ethnic heritage ☐other (describe):_____

Groupings Indicated By (check all that apply) ☐curbing ☐fence ☐hedge ☐wall ☐other (describe): _____

Describe Orientation of Graves (East/West, North/South, etc.)_____

Describe/List Methods of Marking Graves Used (i.e., headstones, mounds, depressions, objects or plants, etc.)_____

Marker Materials (check all that apply) ☐marble ☐concrete/cement ☐fieldstone ☐granite ☐wrought iron
☐cast iron ☐white bronze/zinc ☐sandstone ☐slate ☐wood
☐other (describe):_____

Describe Grave Articles Found in Cemetery _____

Describe Marker Damage and Conditions (i.e., sunken, tilted, chipped, weathered but standing, broken in fragments, vandalized, etc.) _____

Characterize Condition of Inscriptions (legible, illegible, none, etc.)_____

Distinctive Grave Markers, Monuments, and/or Architectural Features _____

Signatures of Stone Carvers (specify name, town if available)_____

RESEARCH METHODS (check all that apply)

☐FMSF record search (sites/surveys)	☐library research	☐building permits	☐Sanborn maps
☐FL State Archives/photo collection	☐city directory	☐occupant/owner interview	☐plat maps
☐property appraiser / tax records	☐newspaper files	☐neighbor interview	☐Public Lands Survey (DEP)
☐cultural resource survey	☐historic photos	☐interior inspection	☐HABS/HAER record search

☐other methods (describe) _____

Bibliographic References (if unpublished give FMSF manuscript # or location where document available) _____

OPINION OF RESOURCE SIGNIFICANCE

Reset Significance Values

Appears to meet the criteria for National Register listing individually? ☐yes ☐no ☐insufficient information
Appears to meet the criteria for National Register listing as part of a district? ☐yes ☐no ☐insufficient information
Explanation of Evaluation (**required**, whether significant or not)_____

Areas of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", etc.)

1._____ 3._____ 5._____
2._____ 4._____ 6._____

DOCUMENTATION

Reset DocumentationValues

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type _____ Maintaining organization _____
Document description _____ File or accession #'s _____

2) Document type _____ Maintaining organization _____
Document description _____ File or accession #'s _____

INFORMANT & RECORDER INFORMATION

Local Informant (name and contactinformation) _____

Recorder Information: Name _____ Affiliation_____
Address / Phone / E-mail _____

Required Attachments

☐ **PHOTOCOPY OF USGS 7.5' MAP WITH BOUNDARIES MARKED IN RED**

⧖ **PHOTOS, ARCHIVAL B&W PRINTS OR DIGITAL IMAGE FILES**

Helpful photos may include the main gate or entrance, representative general views, unusual monuments or markers, and damage or neglect. If submitting an image file, it must be included on disk or CD AND in hard copy format (plain paper is acceptable). Digital image must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

Historic Cemetery Form

Cemetery Name: _____

Date Recorded: _____

Cemetery Address: _____

Cemetery Coordinates: X: _____ Y:_____

History

Year Cemetery was established: _____

Cemetery Owner: _____

□ Private- Profit □ Private-Nonprofit □ Private- individual □ Private-Other

□ City □ County □ State □ Federal

□ Unknown □ Other (Describe): _____

Local, state, or national people of importance (Describe)**:**

Description

Ethnic Group: □ White non-Hispanic □ Hispanic □ Asian

□ Caribbean □ African American □ American Indian- tribe: _____

□ Unknown □ Other (Describe): _____

Status: □ In Use □ No longer used for burials, but maintained □ Abandoned

Condition: □ Well-maintained □ Partly maintained □ Poorly maintained

□ Not maintained, but identifiable □ not maintained, hard to identify

Total # of Graves: **Does total include Unmarked Graves:** □ Yes □ No

Boundary: (e.g. Cast Iron fence, hedge, etc.) _____

_____

Vegetation: (trees, shrubs, flowers) _____

_____

Public access: □ Unlimited □ Restricted: how? _____

Threats: □ Abandonment □ Agriculture □ Mining/Timbering

□ Public Development □ Private Development □ Desecration/Vandalism

□ Other (Describe): _____

Grave Marker Descriptions

Grave groupings (check all that apply)**:** □ Family □ Fraternal Order □ Military

□ Religious □ Ethnic Heritage □ Other (Describe): _____

Groupings indicated by (check all that apply)**:** □ Curbing □ Fence

□ Hedge □ Wall □ Other (Describe): _____

Orientation of graves (East/West, North/South): _____

Methods of marking graves (i.e. headstones, mounds, depressions, objects, etc.) _____

_____

Marker materials (check all that apply)**:** □ Marble □ Concrete/Cement □ Fieldstone □ Wrought Iron
□Granite □ Cast Iron □ White Bronze/zinc □ Sandstone □ Slate □ Wood

□ Other (Describe): _____

Describe grave goods: _____

_____

Describe marker damage and conditions (i.e. sunken, tilted, chipped, weathered, broken, etc.): _____

_____

_____

Are descriptions legible? □ Yes □ No

Distinctive grave markers, monuments, architectural features: _____

_____

_____

Names of stone carvers (if known): _____

_____

Recorder Information

Name(s): _____

School: _____

Contact info (address, phone, or email): _____

_____

Appendix C

Draft Lesson Plans

Cemetery Education Project Outline
April 2019

Rachel Hines, University of West Florida Historical Archaeology MA Student
rlh66@students.uwf.edu
(612) 986-4021

Background

The Cemetery Education Project utilizes a hands-on, project-based learning approach to teach archaeological concepts. These lessons are designed to connect high school World History classes with local historic cemeteries, drawing connections between large historical events and local history and making the past relatable and tangible. Archaeology is inherently intriguing and has the potential to spark curiosity in the past; however, despite popular interest in the discipline, archaeologists continue to find difficulty in reaching audiences through formal education initiatives. Using cemeteries as sites for investigation eliminates some of the barriers associated with excavation, making these experiences available to broad audiences. There are many reasons to incorporate archaeology into your classroom, including:

- Making history tangible and engaging
- Tying broad concepts to local, personal history
- Teaching critical thinking skills
- Imparting cultural sensitivity
- Inspiring preservation and stewardship
- Providing a platform for civic engagement

Archaeology has the potential to motivate and engage students, often leading to increased classroom participation. Through these lesson plans, your students will learn the scientific method by performing each step of the process, first collecting data, then analyzing it, and finally sharing their results with their local community. These lessons will be altered based on your feedback and experiences, with the goal of eventually making them available to high school teachers throughout the state of Florida. I look forward to collaborating with you on this project.

Navigating this Document

This document provides guidance for teaching the Cemetery Education Project lesson plans which are designed for use both in your classroom and in your local historic cemetery. The first two pages provide introductory information and suggestions for situating the lessons within the broader World History course curriculum and the lesson plan outline begins on page 3. All lecture notes, worksheets, and other educational materials are attached at the end of the document and their page numbers are referenced in the lesson plan outline. All materials are available in their original format on your jump drive, allowing you to make any necessary changes to the documents before teaching the lessons in your classroom.

Articulation with the Florida World History Textbook

There are several places where this series of lessons could fit within the World History curriculum. I have listed a few suggestions, but depending on the cemetery and your creativity, I believe these lessons could fit almost anywhere.

- Chapter 14: Peoples of North American and Mesoamerica emphasizes archaeological skills. By drawing parallels between recent and ancient archaeological sites, students can learn how archaeologists use the same skills to investigate any time period, even the recent past, and can learn these skills firsthand.
- Chapters 27-29 discuss World War I, the Great Depression, and World War II, respectively. When students visit cemeteries, they can tie their research questions to these events to better understand daily life and attitudes during these time periods. For example, a class might investigate the materials and decorations on grave markers before, during, and after the Great Depression to understand if burial practices were impacted by the economic crisis. Similarly, a class might compare markers from WWI and WWII to understand which military branches were represented during each war or which war had more fatalities in their local community.
- Several chapters discuss different religious practices, including Chapter 5: Hindu and Buddhism, Chapters 8, 12, and 16: Christianity, and Chapter 9: Islam. Religious symbology is common on grave markers and could be tied to these chapters as well.

Choosing Research Questions

A good archaeological research project is always guided by research questions. These can employ deductive reasoning, in which researchers propose a hypothesis, target specific data sources that will either support or disprove the hypothesis, and then assess their questions based on the collected data. These research questions will likely be tied to the World History entry points listed above. For example, if your students are studying the Great Depression, they might collect information about markers from the time leading up to the Great Depression, the event itself, and the time after to answer the question: What impacts did the Great Depression have on marker styles, material types, and symbology? Research questions could be designated ahead of time or could be proposed during the cemetery visit during Lesson 2.1, “Making Observations.”

However, archaeologists often employ inductive reasoning, which consists of making observations, then identifying patterns, and finally offering a hypothesis for why the observed pattern exists. This is an equally valid way to go about recording your cemetery and would consist of collecting data throughout the entire cemetery (or in a large cemetery, maybe a certain section of the site) and then analyzing the collected data to determine any existing patterns. Archaeologists typically use deductive and inductive reasoning together to refine their hypotheses and explore datasets.

Cemetery Education Project Lesson Plans

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Worksheets and Resources ..... **Error! Bookmark not defined.**

Relevant World History Standards and Benchmarks

Standard 1: Utilize historical inquiry skills and analytical processes.

SS.912.W.1.3 Interpret and evaluate primary and secondary sources.

SS.912.W.1.4 Explain how historians use historical inquiry and other sciences to understand the past.

General Learning Outcomes

1. Students will learn archaeology is the study of human culture through material remains, both through excavation and through other processes
2. Students will explore how archaeology can provide stories of daily life and average people, as well as perspectives that have been forgotten or obscured
3. Students will employ the scientific method to study the past, understanding the same process is used whether examining artifacts from 50 years ago or 1000 years ago
4. Students will use headstones as primary sources, employing several types of analyses to examine them in different ways
5. Students will understand how archaeology and preservation are beneficial for communities and take pride in their local historical resources

Phase I: Introduction to Cemeteries Lecture

Time Frame: 1 class period (45-90 minutes)

The first day of the cemetery project will take place in the classroom. Students will be introduced to archaeology and to cemetery preservation through a PowerPoint lecture and a drawing activity. Through the lecture, students will learn how and why it is important to preserve cemeteries and gain an understanding of the information archaeologists collect from burial grounds.

Required Materials

- Introduction to Cemeteries PowerPoint (provided p.14-15)
    - Lecture notes (provided p. 16-18)
- Pens/Pencils or Markers
- Scratch Paper

Lesson procedures

1. A sample PowerPoint lecture and notes are provided, but you are free to rearrange this lecture as you see fit. Sometime during the class period, students will do the Final Resting Place Activity (described below). This can be done at the beginning of the class as an ice-breaker activity or later in the class before the final slide, depending on time and preference.
2. Final Resting Place Activity: On a piece of paper, students will draw an image of their ideal "final resting place." Minimal instruction for this activity is preferable so students aren't influenced by preconceived ideas about what a final resting place should look like. They are free to draw traditional headstones or to think outside the box.
3. After students draw their final resting place, they can share what they drew with other students or the entire class, depending on time.
4. If students share with the class, elements from their drawings can be compared to the elements listed in the final slide of the Introduction to Cemeteries lecture to make connections with student perceptions of cemeteries and to illustrate the types of information cemeteries contain through personal links.

Phase II: Collecting Data

The second phase of the project, data collection, will take place at the cemetery. This can take the form of a one-day field trip or can be implemented over multiple visits. The introductory activity, "Making Observations," is designed to make students feel comfortable in the cemetery and should only be taught once; however, the other three lessons can be taught multiple times, if desired, which would allow your class to collect as much data as you need to answer your research questions.

Lesson 2.2, "Headstone Recording," Lesson 2.3, "GPS Mapping," and Lesson 2.4, "Sketch Mapping," can be used in any order and can be combined if desired. Suggestions for combining these lessons are included in each lesson description.

2.1: Making Observations

Time Frame: 30-45 minutes

Students will answer a set of questions designed to familiarize themselves with the cemetery and to reveal the types of data offered by cemeteries and grave markers. In groups, pairs, or on their own, students will explore the cemetery and make observations guided by the questions in the provided worksheet.

Required Materials

- "Making Observations" Worksheet (provided p. 19)
- Pen or pencil
- Writing surface

Lesson Procedures

1. Prior to beginning the lesson, you should provide a brief orientation to the cemetery. If you have any background knowledge of the cemetery to share or if a cemetery official is present and would like to speak with the class, this would be an appropriate time to do so.
2. Remind students of your expectations for their behavior in a cemetery, which was covered in the introductory lecture, including:
    - Acting in a calm and respectful manner
    - Avoiding broken or leaning headstones
    - Leaving items like pottery, shells, or glass in place
3. Break students into groups or partners (if desired) and provide them with the Making Observations worksheet. Allow them to explore the cemetery for about 20 minutes while they respond to the questions on the sheet.
4. Call the students back and discuss their observations as a group. This could be done as a class or students could compare their results in small groups. Below are a few sample discussion questions. If desired, you could use these discussions to choose a research question to guide data collection.

- What was the oldest marker in the cemetery? (Use this as an opportunity to remind students the death date is the date the marker was made and to differentiate between birth and death dates)
- What were some of the different symbols or social or religious affiliations?
- What materials were used to make the markers? Are they available locally?
- Are the markers hand-carved or machine carved? (Hand-carved markers might point to a earlier date or a less affluent community)
- Based on all the collected observations, can we make any initial guesses about the population that is buried in the cemetery? (i.e. what time period does it date to, what social class, race, ethnicity, or religion were these people affiliated with, etc.)

2.2: Recording Headstones

Time Frame: 20+ minutes

Students will use the Headstone Recording Form to record individual grave markers and monuments. An informational packet explaining marker types and common symbols is provided to assist with recordation. This activity can be modified to incorporate elements from Lesson 2.3, GPS Mapping, if desired. If combining the two lessons, students should write GPS coordinates directly on the Headstone Recording Form instead of using the GPS Log.

Required Materials

- Headstone Recording Forms (provided p. 20)
    - Example Headstone Recording Form (provided p. 21)
- Informational Packet (provided p. 22-27)
- Pencils
- Writing Surface
- Rulers/tape measures (optional)

Lesson Procedures

1. Briefly explain that this activity begins the "data collection" phase. If your class has specific research questions, this would be a time to discuss the strategies they will use to answer those questions.
2. As a class, walk through the entire Headstone Recording Form together using one marker as an example. Use the Example Headstone Recording Form as a guide for best practices in cemetery recording. The provided informational packet will help answer questions about gravestone design and symbols. Leave fields blank as necessary and when you are unsure how to respond.
3. Break students into partners or small groups to record the headstones. Provide each with a Headstone Recoding Form and an informational packet. Be sure they write *clearly and legibly*, as they will later compile this data into an excel spreadsheet for data analysis.

a. Students can also use their phones to photograph each marker as they record them. Photographs preserve details for future researchers and can be uploaded to the website Find a Grave if your cemetery is not already listed and photographed (as part of Lesson 4, "Sharing Data").

4. Students can complete as many or as few Headstone Recording Forms as necessary, based on your cemetery size, time constraints, and/or class research questions. If the cemetery is large, you may want to restrict students to a specific area of the property or to a specific type of marker (i.e. military markers or markers from a certain time period). You may also want to assign them specific markers to ensure they are not duplicating work.
5. If time allows, you can round them up as a group and revisit the "Making Observations" worksheet they completed earlier. Have any of the students' responses changed? If so, how and why?

2.3: GPS Mapping

Time Frame: 20+ minutes

Students will use their phones to collect GPS coordinates of headstones which will later be used during the data interpretation lesson. This can be done as a separate project, such as recording GPS points of each military headstone, or can be integrated into Lesson 2.2, Headstone Recording, by writing GPS coordinates directly on each recording form. This lesson could also be combined with Lesson 2.4, Sketch Mapping, by recording GPS coordinates directly onto the sketch map.

Required Materials

- GPS Log (provided p. 28-29)
- Pencils
- Writing Surface
- Phone with a GPS App (Apple Maps, GoogleMaps, etc.)

Lesson Procedures

1. Divide students into pairs or small groups and provide each group with a GPS Log. Ensure that each group has at least one person with a phone that has a mapping app, such as Apple Maps, GoogleMaps, or Bing Maps.
2. Explain how to identify the GPS coordinates for your current location with a phone.
    a. In GoogleMaps, students should press down and hold the blue dot marking their current location and the latitude and longitude will appear in the search bar.
    b. In Apple Maps, students should press down on the dot marking their current location and then swipe up on the informational panel at the bottom of the screen. The latitude and longitude will be displayed on the screen.
    c. When collecting GPS points with a phone, it is very important to zoom in on your location as much as possible to get the most accurate point you can.

    d. The coordinates for the points will be incredibly similar because the markers are close together, so be sure the students write down *all* of the digits instead of rounding up.
3. Have students record the GPS points and other pertinent information on the log, recording pertinent information based on a research question. For example, have the class collect the points of every military grave and record the war served in and the military branch of each individual. Later, the students can create a map that shows the distribution of these graves across the cemetery. (This is described in Lesson 3.3)

2.4: Sketch Mapping

Time Frame: 30+ minutes

Students will use graph paper and compasses to sketch the layout of the cemetery. They will learn basic mapping concepts, such as scale, legend, and orientation.

Required Materials

- Graph Paper (provided p. 30)
    - Example Sketch Map for reference (provided p. 31)
- Pencils
- Writing Surface
- Phone with a GPS App (Apple Maps, GoogleMaps, etc.)
- Rulers or tape measures (optional)

Lesson Procedures

1. Students can work in pairs for this activity; however, it is probably best done individually. Give each student (or pair, if desired) a graph paper worksheet. Explain how to set up a map to ensure future researchers will be able to interpret it. An example map is provided showing each of the following elements:
    - Draw an arrow next to "North Arrow" at the top of the page. Students can use the mapping apps on their phones to determine which way is north, as most GPS apps display a north arrow. Students can either walk around a bit to see which direction is north or they can use the surrounding landscape (roads, buildings, etc.)
    - Create a scale bar next to "Scale" at the top of the page. Each "box" on the graph paper will represent some amount of space, depending on how large of an area will be mapped. Generally, archaeologists use the metric system when mapping measurements, so an appropriate scale might be 2 boxes = 1 meter. If you have a tape measure or ruler, students can measure out distances accurately; however, in general, one large step is equivalent to a meter, so students can pace out these distances as well.
    - Create a legend at the bottom of the page using different symbols to depict features on the landscape. For example, you might use a square for grave markers

or a triangle for trees and bushes. This makes it easier for future researchers to orient themselves using these maps.

2. Assign each student to an area and have them map the markers and surrounding landscape. They will measure or pace off the distances between markers and other features, representing each feature with the symbols they drew in their legends.
3. If desired, this activity can be combined with 2.3 GPS Mapping. To do so, students should record each marker's GPS coordinates when they draw them. They can then use these coordinates to create an online map (Explained in Lesson 3.3). When you're back in the classroom, you can even have them compare the paper map and the GPS map to see which is more accurate.

Phase III: Interpreting Data

The third phase of the project will occur in the classroom. Students will learn about data reporting and interpretation through a lecture and will then have the opportunity to apply what they learn using the data they collected at the cemetery. This phase is flexible and you can choose for students to analyze the data using one or more tools, such as Microsoft Excel and ArcGIS Online, a mapping program. Alternatively, students can choose the format that they are most interested in learning to use. Lessons 3.2, 3.3, and 3.4 could be done in-class or as homework assignments and could last for several class periods, depending on how many types of analyses are employed.

3.1: Drawing Conclusions Lecture

Time Frame: 1 class period (30-45 minutes)

Students will learn about the importance of reporting and sharing collected data (both for archaeologists and broadly), will analyze one or more of the markers they recorded on the field trip, and will be introduced to a few common types of data analyses. You are provided with a PowerPoint and notes but are free to rearrange this lecture as desired.

Required Materials

- PowerPoint Lecture (provided p. 32-34)
    - Lecture Notes (provided p. 35-36)
- "Drawing Conclusions" worksheet (provided p. 37)

Lesson Procedures

1. A PowerPoint lecture and notes are provided, but you are free to rearrange this lecture as you see fit. The lecture details how archaeologists "read" headstones and analyze collected data.
2. If desired, each student can choose a marker they recorded on the field trip and fill out the "Drawing Conclusions" worksheet during this lecture. This worksheet follows the lecture slides, asking students to examine the marker they chose in the same way as the marker is in the PowerPoint.
3. Students can share their responses in small groups or with the class to compare different markers and to potentially identify similarities or trends.
4. The end of the lecture addresses the activities for Lessons 3.2 and 3.3. If you plan to complete these lessons with students, you can introduce the activities during this portion, or you can go over these slides individually before teaching Lessons 3.2 and 3.3.

3.2: Data Analysis in Microsoft Excel

Time Frame: 1 class period or more (30+ minutes)

Students will enter the data they collected at the cemetery into a Microsoft Excel spreadsheet and perform simple statistical analyses. You may want to have each student enter a few forms into Excel and then combine them all into one spreadsheet, depending on how many markers were recorded. This data can be used to create charts and graphs that illustrate the population represented at the cemetery. This lesson can either be performed as a class or individually. An instruction sheet has been provided for students to complete the lesson independently; otherwise, you can walk them through these instructions while they follow along on a laptop.

Required Materials

- Microsoft Excel Instructions (provided p. 38-40)
- Laptops with Microsoft Excel
- Dataset collected at a cemetery

Lesson Procedures

1. Remind students this activity is part of the data analysis phase of the project.
2. Either walk the students through this activity as a class using the attached instructions or hand out the instructions so students can work independently or in small groups.
3. Once students have finished creating their charts and graphs, have each student or group share one or more of the charts they created with the class.
4. Discuss how these graphs compare with what you already knew about the cemetery.
    - Were there any surprises?
    - Did you identify any trends or patterns?
    - What does this data set say about the population buried at this cemetery?

3.3: GIS Mapping

Time Frame: 1 class period (40+ minutes)

Students will use ArcGIS Online, a free mapping software, to create maps of the GPS points they collected in the cemetery. The maps can then be published and shared on the ArcGIS website. As with the previous lesson, this lesson can either be performed as a class or individually. Similarly, you may want to have each student type up the points they collected and then combine all the data into a master spreadsheet.

An instruction sheet has been provided for students to perform the lesson independently; otherwise, you can walk them through these instructions while they follow along on a laptop. You can either create a class account or they can each create their own account.

Required Materials

- GIS Mapping Instructions (provided p. 41-43)
- Laptops with Internet Connection
- Data collected in cemetery and typed into an excel spreadsheet

Lesson Procedures

1. Remind students this activity is part of the data analysis phase of the project.
2. Either walk the students through this activity as a class using the attached instructions or hand out the instructions so students can work independently or in small groups.
3. Once students have finished creating their maps, have each student or group share them with the class.
    - Do they notice any patterns?
    - How do the maps compare to one another?
    - What does this data say about the population buried at the cemetery?

3.4: Reporting Results

Time Frame: 1 class period (45 minutes)

Check with cemetery officials or your local FPAN office to determine whether or not your cemetery is listed on the Florida Master Site File, a state preservation tool. If the cemetery is not listed on the Florida Master Site File (FMSF), the class can report it to the Florida Division of Historical Resources by filling out portions of the FMSF form and passing it on to their local FPAN office, who will submit the form on the class's behalf. Contact information for your local FPAN office can be found on our website here: https://www.flpublicarchaeology.org/

Required Materials

- Laptops with Internet Connection
- Reporting Form (provided p. 44-45)

Lesson Procedures

1. As a class, fill out the Florida Master Site File form for your cemetery. The data you collected will be very important, but you may also need to consult other sources, such as Find a Grave or GoogleMaps, to fill in some of the fields.
2. Send the completed form to the Public Archaeology Coordinator at your local FPAN office to ensure your cemetery is listed on the Florida Master Site File.

Phase IV: Sharing Data

Time Frame: 1 class period or more (45-90+ minutes)

Depending on time, resources, and preferences, there are several options for students to share the data they collected. These projects could be done in class or as homework assignments and could be performed individually, in groups, or as an entire class. I left this open-ended so the projects could grow organically from class research; however, I am interested in working with you to develop materials to provide more guidance, if desired.

Required Materials

- Laptops with Internet Connection
- Dataset collected in Cemetery

Potential options:

- Write a brochure or walking tour for your cemetery
    - This activity may require additional historical research, either online or at local archives or libraries
- Add your cemetery to The Clio or UCF Riches Database
    - The Clio (https://www.theclio.com/web/) is a map-based website and app that provides information about local historical points of interest.
    - University of Central Florida's RICHES Database makes historical data collections available online. Use the release form to donate your data to this database, making it available for researchers (https://riches.cah.ucf.edu/?page_id=950) You will want to ensure this is okay with the cemetery officials.
- Upload your marker photos and transcriptions to Find a Grave
    - Find a Grave (https://www.findagrave.com/) makes images and transcriptions of cemetery markers available digitally. If your cemetery is not listed on Find a Grave, students can add data to this website.
- Create a Story Map in ArcGIS Online
    - Several Story Map templates are available on ArcGIS Online (https://www.arcgis.com/home/index.html) Students can build on the products they created in Lesson 3.3 to make an interactive web tour of the cemetery.
- Plan a community engagement day at the cemetery
    - Working with cemetery officials, students could plan an open house or even a volunteer day for community members to learn more about the history of the cemetery and to accomplish any goals, such as cleaning markers or removing trash.

Lesson 1.1: Introduction to Cemeteries

PowerPoint Notes

Slide 2: Are cemeteries considered archaeological sites? Yes, historic cemeteries are archaeological sites. Archaeologists aren't necessarily the first people that come to mind when thinking about cemeteries, but they do study cemeteries, both above ground and below.

> Archaeologists study human culture through material remains- anything left behind by human beings. Excavation (digging) is commonly associated with archaeology, but archaeologists use other tools to study past behavior as well. Even items on the surface of the ground, like headstones in cemeteries, are studied by archaeologists.

Slide 3: Archaeologists view historic cemeteries as "outdoor museums," full of information about people from the past, and gravestones as primary sources that can be examined like historical documents.

> Cemeteries are often thought of as "spooky" places, but in the past they were seen as park-like places to visit loved ones. In addition to providing information about a historical population and serving as "final resting places," cemeteries can be very beautiful and even serve as tourist destinations (like St. Michael's Cemetery in Pensacola shown in this picture, which is actually a state park.)

Slide 4: *This slide can be customized based on how you will teach the cemetery lessons and is a chance to explain the project*. The cemetery lessons follow the scientific method:

1. Learning skills (training)
2. Recording headstones (collecting data)
3. Putting all the data we've collected together to analyze our results
4. Sharing our data with the community through a final product (choices)

We won't be doing any excavation while we're in the cemetery. We will be focusing on studying what's above ground, like grave markers, to understand the history of our local community.

Slide 5: It is incredibly important to be respectful in a cemetery. This is where people honor their loved ones. In addition to acting in a mature and respectful manner, there are a few other tips to keep in mind. Do not:

- Make any grave rubbings- this used to be a common practice, but can damage the stone and make it harder to read over time
- Clean the graves with bleach- this is also a well-intentioned practice that is harmful to the markers. This project doesn't include any maintenance or cleaning, but if we were cleaning the stones, we would use special products designed to protect markers.
- Remove pieces of glass or pottery- sometimes people will leave offerings for their loved ones at grave markers. These materials often look like trash, but were intentionally left and can provide insight into burial practices

- Touch unstable headstones- markers can be incredibly heavy and are dangerous when they are loose or unstable. It is best to leave them alone so nobody gets hurt.

Slide 6: Why is it important to study cemeteries? Many would argue we have a moral and ethical responsibility to protect and preserve burial grounds. Additionally, cemeteries contain abundant information about past populations, both above ground, through grave markers and monuments, and below ground, through skeletal remains. They are historical places with stories to tell. Finally, many cemeteries face a number of threats and run the risk of being forgotten or developed.

A major threat to historic cemeteries is vandalism. This is a picture of the Milton Historic Cemetery. In Fall 2017, 30+ graves were knocked over there. By maintaining cemeteries and showing people why they are important, historic places, you can help prevent vandalism. Additionally, in the unfortunate instances when headstones are totally destroyed or stolen, you will have recorded valuable information about what they said so that history is not lost.

Slide 7: Neglect is another major threat to historic cemeteries. Many of Florida's cemeteries are abandoned or neglected. When residents move away, churches close, or people begin burying their loved ones in newer cemeteries, older cemeteries are sometimes forgotten and can become overgrown

> This picture shows Mt Zion cemetery in Pensacola, which the University of West Florida has begun to clean-up and maintain.
>
> Your work can help record these cemeteries and draw attention to their importance.

Slide 8: There are a number of federal, state, and local laws protecting cemeteries on public lands; however, on private land, cemetery maintenance is the responsibility of the land owner. Sometimes, land owners don't have the ability to maintain the grounds, and at times they don't even know they are responsible for its upkeep. Florida law allows local governments to care for cemeteries that have been abandoned for over six months.

The Florida Master Site File is a list of all historic properties in the state of Florida, including historic buildings, archaeological sites, and historic cemeteries. This list is consulted during development projects to determine whether any historic properties would be impacted by construction projects. However, many known sites are not listed on the file, including a large number of Florida's historic cemeteries. Recording projects like ours are important to ensure all historic cemeteries are listed on this site form.

If students ask: Though the Florida Master Site File doesn't offer legal protection for listed sites, it does ensure that impacts to the properties are considered and mitigated during publicly funded development projects.

Slide 9: *Have students draw their "final resting place." Encourage creativity and try not to let your ideas about cemeteries influence their drawings. Have students share their drawings, either in pairs or with the class if time permits.*

Slide 10: What can cemeteries tell us? Cemeteries can provide information about individuals through their headstones, but collectively, they can tell us a lot about the local population as well.

Historical sources often address big events and sometimes leave out information about what day to day life was like or what the interests and beliefs of a population were.

Many perspectives are typically left out of the primary historical narrative, like those of women or minority groups. Headstones can fill in the gaps in the documentary record to provide information about non-dominant perspectives.

These are some of the types of information we can learn from headstones:

- decorative and symbolic significance
- biographical information
- familial relationships
- fraternal affiliations
- occupational information
- changing economic fortunes (when examining groups of markers from one community during several time periods)
- changing cultural or religious beliefs (again, when examining the entire population of a community through time)

As you introduce these elements, ask students to think of examples from their drawings or call attention to them yourself (i.e. pointing out any religious or secular symbols they might draw on their markers, calling attention to biographical information, such as age, name, family members, etc.)

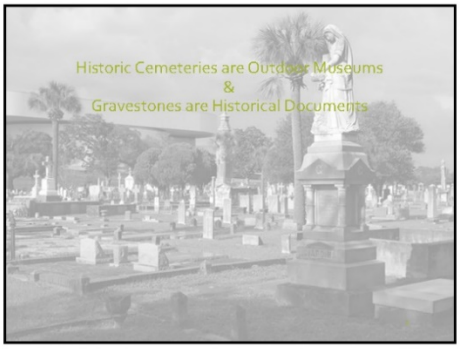
HISTORIC CEMETERIES:

Outdoor Museums and Above-Ground Archaeological Sites

FLORIDA PUBLIC ARCHAEOLOGY NETWORK

University of West Florida | Division of Anthropology and Archaeology

ARE CEMETERIES ARCHAEOLOGICAL SITES?



What will we be doing?

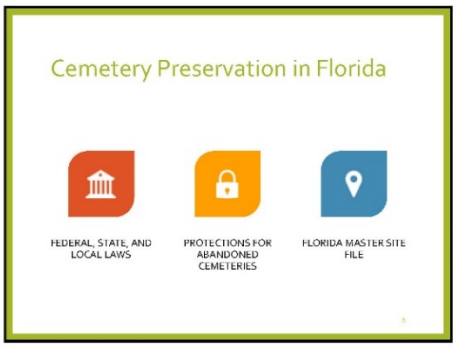
- Recording Headstones
  - Transcribing
  - Sketching
  - Mapping
- Analyzing our Results
- Sharing our Work

DO NOT:

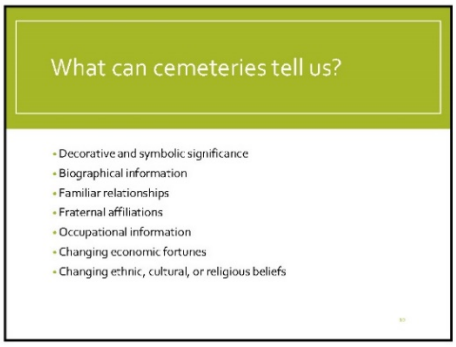
- Do grave rubbings
- Clean the graves with bleach
- Remove pieces of glass or pottery
- Touch unstable headstones

WHY IS IT IMPORTANT?


ABANDONMENT


Cemetery Preservation in Florida
FEDERAL, STATE, AND LOCAL LAWS
PROTECTIONS FOR ABANDONED CEMETERIES
FLORIDA MASTER SITE FILE


DRAW YOUR "FINAL RESTING PLACE"


What can cemeteries tell us?
Decorative and symbolic significance
Biographical information
Familiar relationships
Fraternal affiliations
Occupational information
Changing economic fortunes
Changing ethnic, cultural, or religious beliefs

Name(s): _____

Lesson 2.1: Initial Observations of the Cemetery

Wander through the cemetery and make some observations about what you see. Answer the questions below or use them as jump-off points to make your own observations. Use the back of the paper if you need to and be ready to share what you learned with everyone at the end of class.

1. What are some of the oldest dates you see on markers? What are some of the most recent dates?

2. What are some of the symbols you see on markers? Do you know their meanings? Are there any that you don't recognize?

3. Are there any markers that identify occupation or affiliation with any social or religious groups? How can you tell?

4. Can you tell if the markers are grouped in some sort of order? Are there similarities in family names, dates of birth or death, occupation, or anything else you notice?

5. What materials were used for markers and surrounding structures? What other types of materials might not preserve?

6. Are there any unusual epitaphs or inscriptions? Can you interpret them?

7. Are the markers mostly hand-carved or machine carved?

FPAN Individual Marker Form

FPAN/Florida Historic Cemetery Recording Project			
Project #	Date (DD/MM/YY)	Surveyor Initials:	FS#
Cemetery Name:		GPS:	
Section #	Row #	Grave #	Orientation (E/W or N/S, etc.):
Photo #'s			
Inscription (use back for more space, indicate here if back is used)			

Type of Marker (check multiple if needed)		
☐Above Ground Vault	☐Handmade	☐Metal Temporary
☐Cradle	☐In-ground Vault	☐Obelisk/Monolith
☐Government Issue	☐Ledger	☐Table Tomb
☐Ground Marker	☐Mausoleum	☐Upright
		Other:

Marker Material (check multiple if needed)		
☐Concrete	☐Metal/Aluminum	☐Wood
☐Granite	☐Metal/Cast Iron	☐Other stone:
☐Limestone	☐Metal/Zinc	☐Other metal:
☐Marble	☐Sandstone	Other:

Material Notes
(note kerbing, maker's marks, footstone, etc.):

Gravestone Design/Iconography (ex. Dove, Tree, Cross, Star of David, etc.)	**Sketch marker below, use metric scale**
Grave Goods	

Condition of Marker
☐**Good** (minimal impacts, will last many years)
☐**Fair** (sinking, chipping, currently impacted)
☐**Poor** (at risk of loss in near future)
Additional Notes

FPAN Individual Marker Form

FPAN/Florida Historic Cemetery Recording Project			
Project # N/A	Date (DD/MM/YY)	Surveyor Initials:	FS# N/A
Cemetery Name:		GPS: Use one set of coordinates collected during Lesson 2.3	
Section # *	Row # *	Grave # *	Orientation (E/W or N/S, etc.): inscription faces...
Photo #'s This is only necessary if students take photos with their phones. If used, you may want to create a numbering system			
Inscription (use back for more space, indicate here if back is used)			
When transcribing a marker, ensure to copy it exactly as written, including spelling errors, punctuation, and lowercase/ uppercase letters. If you can't read a letter or a word, use _____ to hold its place. Use a / to indicate a new line of text. Example: May Chambers/ Born JUN 22 1884/ Died FEB 28 1907			

Type of Marker (check multiple if needed)		
☐Above Ground Vault ☐Cradle ☐Government Issue ☐Ground Marker Use design guide to identify type	☐Handmade ☐In-ground Vault ☐Ledger ☐Mausoleum	☐Metal Temporary ☐Obelisk/Monolith ☐Table Tomb ☐Upright Other:

Marker Material (check multiple if needed)		
☐Concrete ☐Granite ☐Limestone ☐Marble Use materials guide to identify type	☐Metal/Aluminum ☐Metal/Cast Iron ☐Metal/Zinc ☐Sandstone	☐Wood ☐Other stone: ☐Other metal: Other:
Material Notes (note kerbing, maker's marks, footstone, etc.): Use the design guide to include additional elements, like footstones, fencing, etc.		

Gravestone Design/Iconography (ex. Dove, Tree, Cross, Star of David, etc.)	Sketch marker below, use metric scale
Use the symbol guide to identify these elements	Sketch the marker in this area. Measurements are not necessary, but if they are included, use the metric system.
Grave Goods	
Includes items purposefully left at marker, such as flowers, flags, shells, ceramics, figurines, stones, etc.	
Condition of Marker	
☐**Good** (minimal impacts, will last many years)	
☐**Fair** (sinking, chipping, currently impacted)	
☐**Poor** (at risk of loss in near future)	
Additional Notes	
Any additional information about the condition of the marker, such as weathering, staining, damages, threats, etc.	

*= Your cemetery may already have a system for section, row, and grave numbers. Work with your point of contact to determine whether or not you need to include this information. If not, leave it blank.

Cemetery Marker Guide

FLORIDA PUBLIC ARCHAEOLOGY NETWORK
WWW.FLPUBLICARCHAEOLOGY.ORG

Material Types

Concrete

Granite

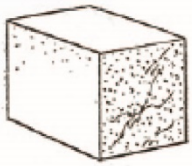
Limestone

Marble

Sandstone

Design Elements

Fencing



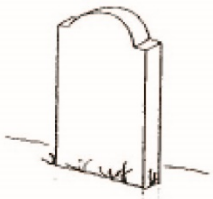
Coping

Urn

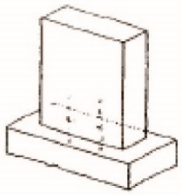
Images courtesy of the Chicora Foundation (2005)

Cemetery Marker Types

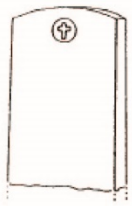
Upright Markers



Headstone



Die on Base

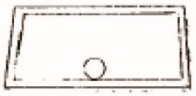


Government Issue

Ground Markers

Raised Top

Plaque



Lawn-Type Marker

Other Marker Types

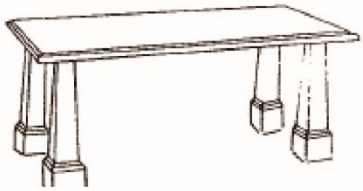
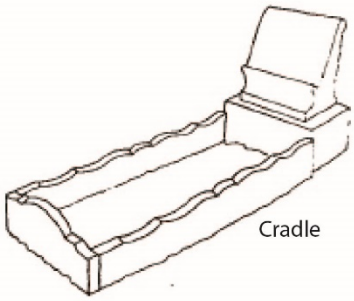
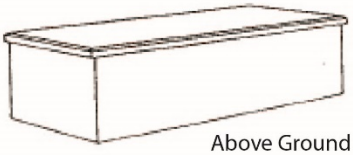


Table Tomb



Cradle

Obelisk



Above Ground

Ledger

Guide created by the Chicora Foundation (1999)

Guide to Funerary Art

Figures/Objects

Anchor
Symbol of hope; often a symbol for individuals associated with the sea

Angel
Judeo-Christian symbol; messengers and attendants of God

Open Book
Judeo-Christian symbol; represents the word of God

Broken Chain
A life that has been cut short

Cherub
Judeo-Christian symbol; usually associated with children's graves

Clasped Hands
A sign of marriage: inseparable in life and inseparable in death

Cross
Christian symbol; resurrection

Cross with winding sheet
Christian symbol; descent from the cross

Crown
Christian symbol; reward of faithful

Crown and Cross
Christian symbol; sovereignty of Christ

Drapery over anything
Sorrow

Hand pointing down
Christian symbol; hand of God, sudden death; can also hold a flower or broken chain

Hand pointing up
Christian symbol; soul is in heaven, reward of the afterlife

Hourglass
Symbol of the swift and unstoppable passage of time

Inverted torch with flames
Christian symbol found only in cemeteries; represents the soul's existence in the next realm

Upright torch with flames
Christian symbol; represents life, truth, or the Nativity

Lyre
Used to designate musical skill

Quatrefoil
Christian symbol; symbolizes the four evangelists: Matthew, Mark, John, Luke

Rocks
Christian symbol; represents the Lord; can also represent permanence, stability, and strength

Shell
Christian symbol; a symbol of a person's Christian journey through life; also, a tradition for those of African or Indian descent

Ship
Christian symbol; represents the mother church; if seen in profile, symbol of a seafaring profession

Star, five points
Christian symbol; star of Bethlehem

Christian symbol; represents the Father, heavenly wisdom

Star of David
Judaic symbol; symbol of divine protection

Sun
Christian symbol; represents God or Son (setting sun represents death; rising sun represents resurrection)

Trefoil
Christian symbol; symbolizes the Trinity (Father, Son, Holy Spirit) surrounded by the Circle of Eternity

Urn
Symbol of earthly death; associated with a repository for ashes of the dead

Birds/Animals

Dove
Purity and peace

Eagle
Resurrection and rebirth

Lamb
Christian symbol; represents Christ, innocence; often associated with children's markers

Snake
Associated with death; with its tail in its mouth, symbolizes eternity

Cypress
Symbolizes sorrow; Roman symbol for mourning

Laurel
Symbolizes victory, eternity; usually in form of a wreath

Flora

Anemone
Symbolizes withered hope

Daisy
Symbolizes innocence; usually associated with children's markers

Lilly
Represents innocence, purity, resurrection

Bouquet
Symbolizes grief

Flower bud
Represents a life that's been cut short

Oak Tree/Leaves
Symbolizes strength, endurance, virtue

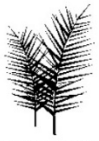
Calla Lily
Symbolizes majestic beauty and marriage

Forget-me-not
Symbolizes remembrance

Olive Tree/Branch
Symbolizes peace, purity, strength, victory

Cedar
Symbolizes strong faith

Ivy
Symbolizes abiding memory, immortality, fidelity



Palm Tree
Christian symbol; spiritual victory over death

Poppy
Represents sleep, death, oblivion

Rose
Represents love, friendship

Sheaves of wheat
Symbolizes a fruitful life, immortality, resurrection

Tree Trunk
Represents a Woodman of the World (WOW); symbolizes equality and commonwealth; for more information, visit http://www.woodmen.com/

Vine
Christian symbol; represents the Christian church, the symbolic blood of Jesus, the sacraments

Weeping Willow
Symbolizes mourning, bereavement, sorrow

Yew
Represents immortality

FLORIDA PUBLIC ARCHAEOLOGY NETWORK
A PROGRAM OF THE UNIVERSITY of WEST FLORIDA
FLPublicArchaeology.org

Sources: Douglas Keister (2004) Stories in Stone: A Field Guide to Cemetery Symbolism and Iconography, http://www.gravestonestudies.org, and http://etc.usf.edu/clipar

Lesson 2.3: GPS Mapping

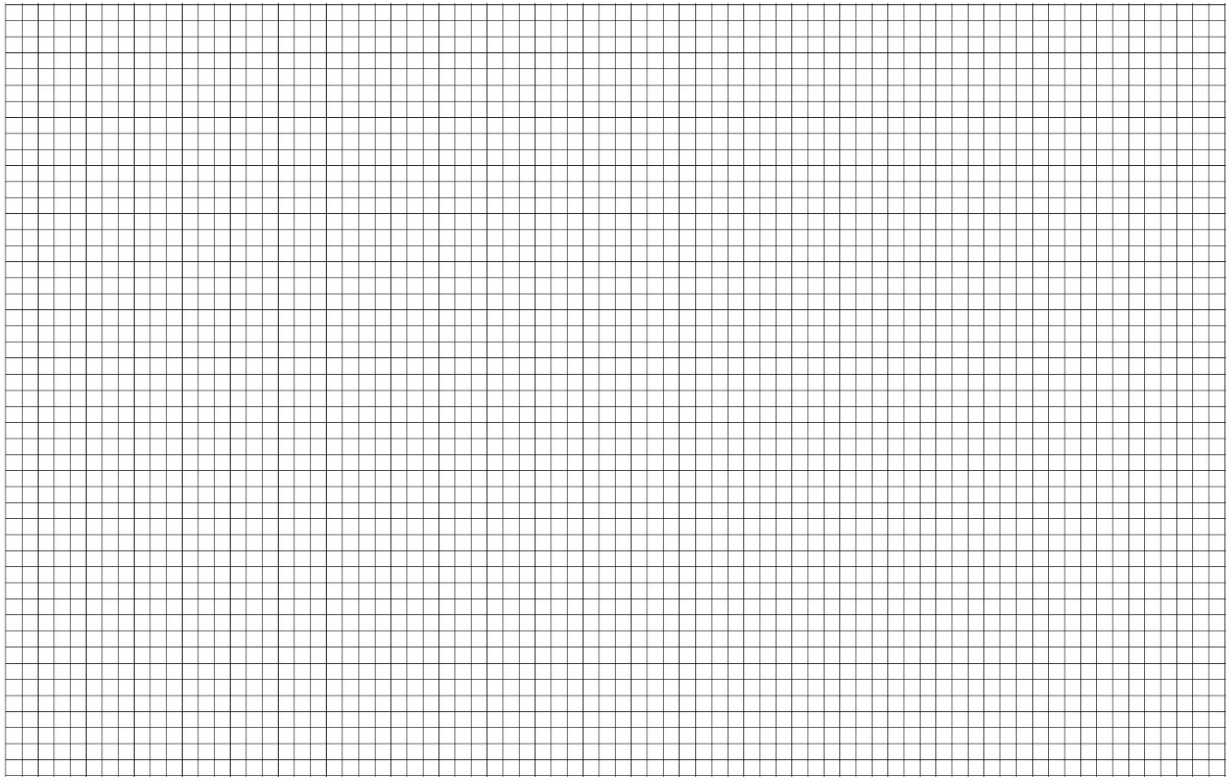
Name: _____ Cemetery Section: _____ Row:_____

Name	**Date of Birth**	**Date of Death**	**Other Information**	**GPS Coordinates** (Include ALL digits- do not round)

Name	Date of Birth	Date of Death	Other Information	GPS Coordinates

Name (s): _____ **Name of Cemetery:** _____

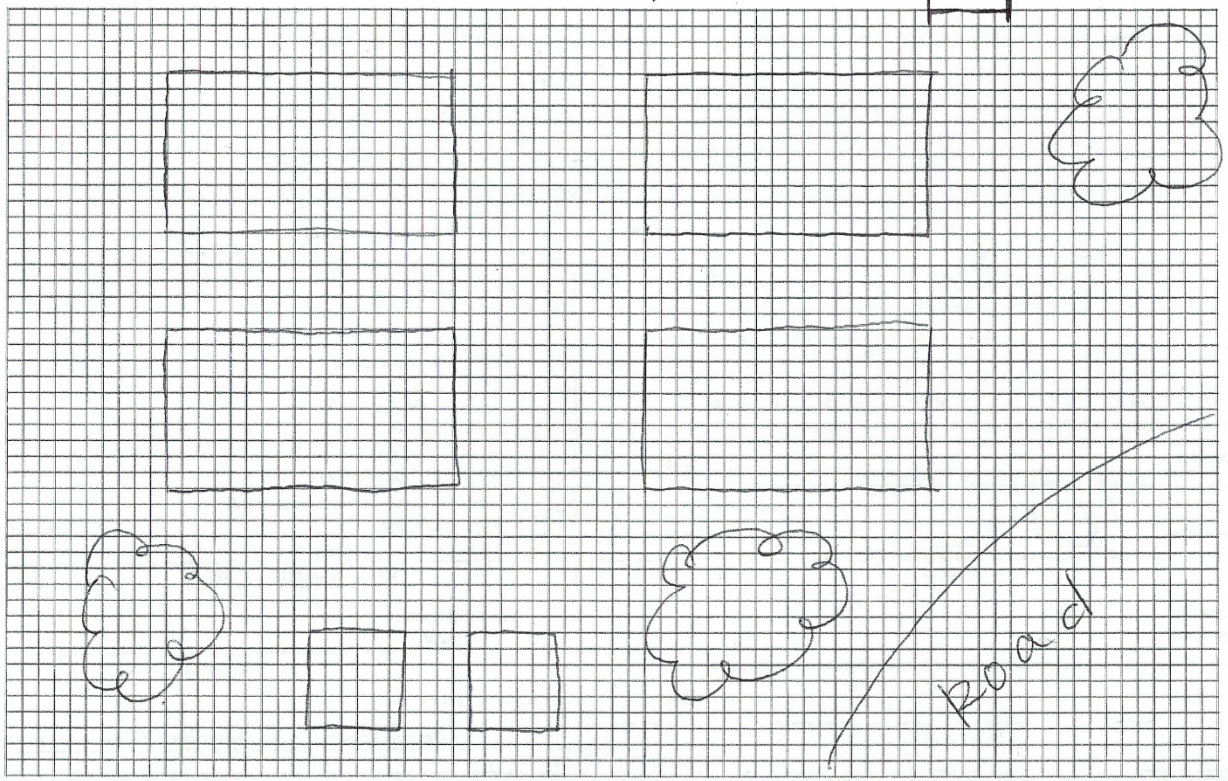
Lesson 2.4: Sketch Mapping **North Arrow:** **Scale:**



Legend:

Name (s): Rachel Hines Name of Cemetery: Milton Cemetery

Lesson 2.4: Sketch Mapping North Arrow: ↑ Scale: 1m



Legend:

□ = Grave Marker = Tree

Lesson 3.1: Drawing Conclusions from our Data

PowerPoint Notes

Slide 2: There are several ways to analyze the data we collected at the cemetery. You can examine individual headstones to learn about the person or people it represents, you can look at the cemetery as a whole to find patterns within the cemetery, and you can place the cemetery in its larger context to better understand the local community, or even its connections to regional and national trends and events.

Slide 3: To start, we'll look at individual headstones. *Have students follow along with the "Drawing Conclusions" worksheet and answer questions as they are addressed in the PowerPoint.*

Gravestones can be read just like other historical documents. There are three primary ways to examine them:

1. Analyze the writing
2. Interpret the symbols
3. Look at the stone for clues

Archaeologists also look at the overall context of the cemetery to understand each grave as a part of a larger whole. How old is the cemetery? Are there any patterns in the burials? How does the burial in question compare to surrounding burials?

Slide 4: Analyze the Writing- Just from this simple marker, we can learn a person's name, their family members' names, the date they were born, the date they died, and their age.

Slide 5: Now you try- what can we learn from this headstone? (occupation, name and home port of ship, where born, where died, where lived, etc.)

Answer Question 1 on worksheet: List as much information as you can from the inscription, including name, date born, date died, age, other family members, and occupation.

Slide 6: Sometimes, graves contain epitaphs, which are short texts honoring a deceased person. These can be analyzed for clues into a person's qualities as well

Answer Question 2 on worksheet: Does your marker have an epitaph? If so, what is it? What do you think it means?

Slide 7: In addition to reading the writing, archaeologists can interpret the symbols on the markers as well.

Slides 8-10: These are a number of examples of symbols and their meanings.

Answer Question 3 on worksheet: What symbols are depicted on your marker? What do they mean?

Slide 11: Finally, archaeologists look for clues in the overall stone. For example, stone carver might have hand-signed the marker, or the materials might have been shipped long distances, indicating they were expensive

Answer Question 4 on worksheet: What material(s) is your marker made of? Are they available locally?

Slide 12: Many times, items will be intentionally left at a marker to honor the person buried there. These are referred to as "grave goods." Common grave goods include flowers, flags, shells, stones, and figurines. Sometimes, these items can provide insight into an individual's social, ethnic, occupational, or religious affiliations.

Take a few minutes to answer questions 5 and 6 on worksheet: What grave goods were found near your marker? What do you think they signify?

Question 6: Write a 4-5 sentence description of the individual(s) represented by your marker based your answers to the questions above. Use back of paper if needed.

If time permits, invite students to share their answers in small groups or as a class.

Use the final slide as you see fit: they could be used to introduce the next few lessons now, or you could show them to introduce each lesson when you teach them.

Slide 13: In addition to examining individual artifacts to understand information about an individual, archaeologists look for patterns in data to understand an entire population. Analyzing data is arguably the most important part of archaeology. It's great to preserve cultural resources in place, but without studying them, we will never know what information they have to offer us.

Two of the most common methods used to examine artifacts and archaeological sites are statistical analysis and spatial analysis, both of which we'll explore. First, we'll use Microsoft Excel to type up our data in a spreadsheet format. In Excel, we'll be able to perform statistics and create graphs and charts to better understand the data we collected.

Then we'll use a mapping software called ArcGIS to map the coordinates we collected at the cemetery. This will allow us to look at the layout of the markers to determine if there are any patterns. We can also map different attributes, such as occupation, hometown, ethnicity, religion, or family name to explore of there are any organizational patterns in the cemetery.

By looking at the dataset as a whole, we can better understand the entire population that each individual lived in. We can start to understand what daily life might have been like for these people by identifying their norms.

Name: _____

Lesson 3.1: Drawing Conclusions from Cemetery Markers

Choose one marker that you recorded at the cemetery on your field trip and fill out this worksheet to understand more about the individual person or people it represents.

Name(s) on Marker: _____

1. List as much information as you can from the inscription, including name, date born, date died, age, other family members, and occupation.

2. Does your marker have an epitaph? If so, what is it? What do you think it means?

3. What symbols are depicted on your marker? What do they mean?

4. What material(s) is your marker made of? Are they available locally?

5. What grave goods were found near your marker? What do you think they signify?

6. Write a 4-5 sentence description of the individual(s) represented by your marker based your answers to the questions above. Use back of paper if needed.

HISTORIC CEMETERIES:

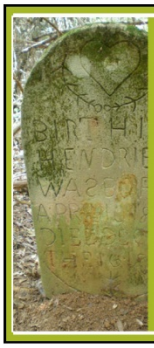
Drawing Conclusions from Data

FLORIDA PUBLIC ARCHAEOLOGY NETWORK

University of West Florida | Division of Anthropology and Archaeology

Data Analysis

1. Looking at Individual Headstones
2. Finding patterns within the cemetery
3. Understanding the Cemetery in a larger historical context



Gravestones as Historical Documents

Three ways to "read" a gravestone:

1. Analyze the writing
2. Interpret the symbols
3. Look at the overall stonework for clues

Step 1: Analyze the Writing

- Name
- Other family members
- Date born
- Date died
- Age

What can we learn?

Epitaph

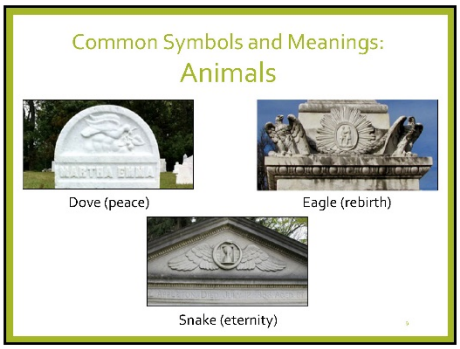
Epitaph is defined as a short text honoring a deceased person.

May be analyzed for clues.

"Sleep on dear mother and take thy rest
God called thee home, he thought it best"


STEP 2: INTERPRET THE SYMBOLS

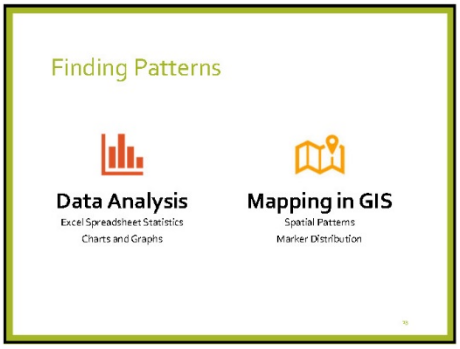

Common Symbols and Meanings:
Flowers
Ivy: Memory, immortality
Lily: Purity, resurrection
Rose: Love, friendship
Olive Branch: Peace, purity


Common Symbols and Meanings:
Animals
Dove (peace)
Eagle (rebirth)
Snake (eternity)


Common Symbols and Meanings:
Objects
Anchor: Hope, the sea
Broken column: Life cut short
Harp/Lyre: Music, musician


STEP 3: LOOK FOR CLUES IN THE STONE

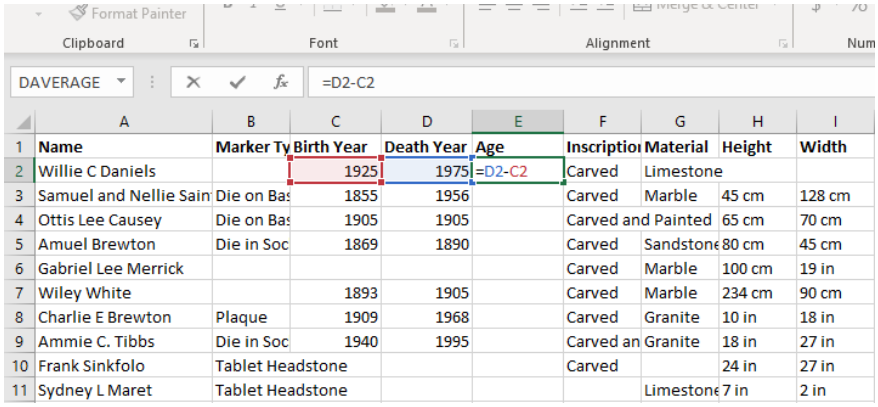

GRAVE GOODS


Finding Patterns
Data Analysis
Excel Spreadsheet Statistics
Charts and Graphs
Mapping in GIS
Spatial Patterns
Marker Distribution

Lesson 3.2: Data Analysis in Excel

Follow the instructions below to create an Excel spreadsheet of the data you collected at the cemetery. Then you can use Excel to perform statistical measures and create graphs of your dataset to better understand the population buried at the cemetery.

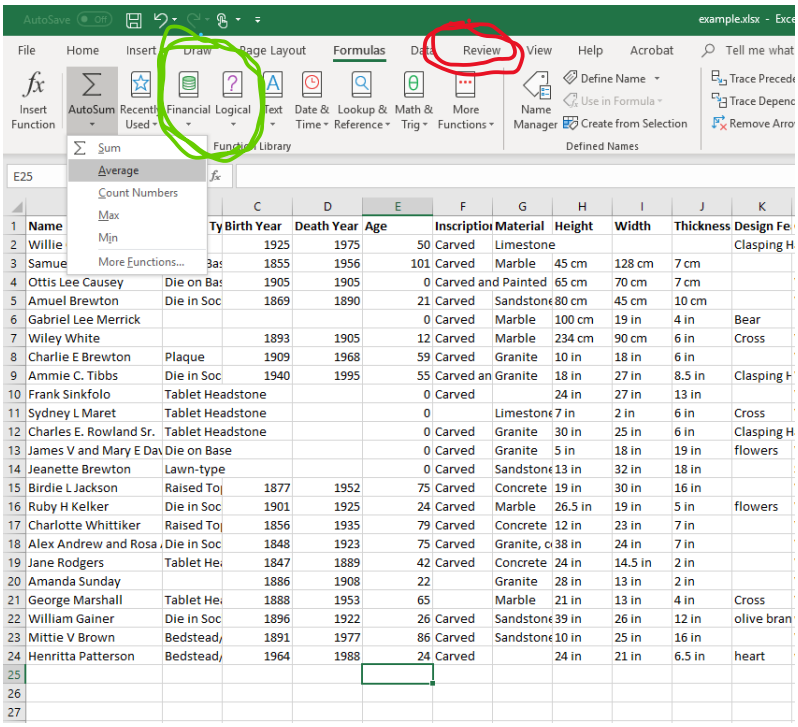
1. Create a heading for each field from the headstone recording form.
2. Enter data from each headstone recording form on an individual line until all the forms have been typed.
3. Create two additional columns for birth year and death year by right clicking and choosing "insert column."
    - Fill out these columns with the birth year and death year listed on the markers. Leave the field blank if there weren't any dates listed on the marker.
4. Analyze the data using several formulas. First, create a new column next to the birth and death year columns called Age of Death and set up an equation to determine the age each individual was at the time of death.
    - This equation will subtract the "Birth Year" column (C, in the example below,) from the "Death Year" column (D) for each row. In the first empty field, type =D2-C2. (If your Death Year and Birth Year column letters are different than in the example, be sure to use those instead.)



	A	B	C	D	E	F	G	H	I
1	Name	Marker Ty	Birth Year	Death Year	Age	Inscriptio	Material	Height	Width
2	Willie C Daniels		1925	1975	=D2-C2	Carved	Limestone		
3	Samuel and Nellie Sain	Die on Bas	1855	1956		Carved	Marble	45 cm	128 cm
4	Ottis Lee Causey	Die on Bas	1905	1905		Carved and	Painted	65 cm	70 cm
5	Amuel Brewton	Die in Soc	1869	1890		Carved	Sandstone	80 cm	45 cm
6	Gabriel Lee Merrick					Carved	Marble	100 cm	19 in
7	Wiley White		1893	1905		Carved	Marble	234 cm	90 cm
8	Charlie E Brewton	Plaque	1909	1968		Carved	Granite	10 in	18 in
9	Ammie C. Tibbs	Die in Soc	1940	1995		Carved an	Granite	18 in	27 in
10	Frank Sinkfolo	Tablet Headstone				Carved		24 in	27 in
11	Sydney L Maret	Tablet Headstone					Limestone	7 in	2 in

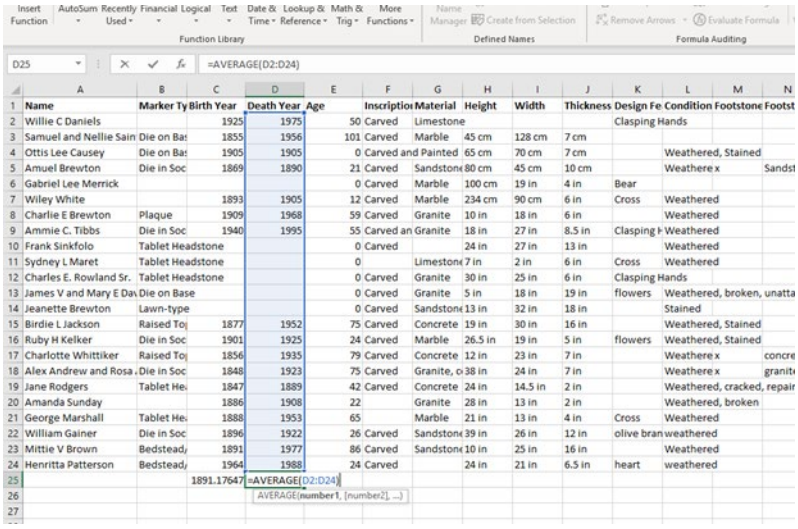
    - Move your cursor over the lower right hand corner of the box where you entered the formula. A white plus sign will appear. Right click on the plus sign and drag down to select the entire Age of Death column. Excel will automatically populate each box with the Age of Death for each marker.

5. Use the average formula to find the average age of death. On the top of the window, select the "Formulas" tab (circled in red in the example on the next page).
    - Select "AutoSum" (circled in green) and Choose "Average." This will automatically calculate the average age of death for the individuals in your cemetery based on the ages you created with your last formula.



	A	B	C	D	E	F	G	H	I	J	K
1	Name		Ty	Birth Year	Death Year	Age	Inscriptio	Material	Height	Width	Thickness	Design Fe
2	Willie			1925	1975	50	Carved	Limestone				Clasping H
3	Samue		Bas	1855	1956	101	Carved	Marble	45 cm	128 cm	7 cm	
4	Ottis Lee Causey	Die on Bas		1905	1905	0	Carved and	Painted	65 cm	70 cm	7 cm	
5	Amuel Brewton	Die in Soc		1869	1890	21	Carved	Sandstone	80 cm	45 cm	10 cm	
6	Gabriel Lee Merrick					0	Carved	Marble	100 cm	19 in	4 in	Bear
7	Wiley White			1893	1905	12	Carved	Marble	234 cm	90 cm	6 in	Cross
8	Charlie E Brewton	Plaque		1909	1968	59	Carved	Granite	10 in	18 in	6 in	
9	Ammie C. Tibbs	Die in Soc		1940	1995	55	Carved an	Granite	18 in	27 in	8.5 in	Clasping H
10	Frank Sinkfolo	Tablet Headstone				0	Carved		24 in	27 in	13 in	
11	Sydney L Maret	Tablet Headstone				0		Limestone	7 in	2 in	6 in	Cross
12	Charles E. Rowland Sr.	Tablet Headstone				0	Carved	Granite	30 in	25 in	6 in	Clasping H
13	James V and Mary E Dav	Die on Base				0	Carved	Granite	5 in	18 in	19 in	flowers
14	Jeanette Brewton	Lawn-type				0	Carved	Sandstone	13 in	32 in	18 in	
15	Birdie L Jackson	Raised To		1877	1952	75	Carved	Concrete	19 in	30 in	16 in	
16	Ruby H Kelker	Die in Soc		1901	1925	24	Carved	Marble	26.5 in	19 in	5 in	flowers
17	Charlotte Whittiker	Raised To		1856	1935	79	Carved	Concrete	12 in	23 in	7 in	
18	Alex Andrew and Rosa	Die in Soc		1848	1923	75	Carved	Granite, c	38 in	24 in	7 in	
19	Jane Rodgers	Tablet He		1847	1889	42	Carved	Concrete	24 in	14.5 in	2 in	
20	Amanda Sunday			1886	1908	22		Granite	28 in	13 in	2 in	
21	George Marshall	Tablet He		1888	1953	65		Marble	21 in	13 in	4 in	Cross
22	William Gainer	Die in Soc		1896	1922	26	Carved	Sandstone	39 in	26 in	12 in	olive bran
23	Mittie V Brown	Bedstead/		1891	1977	86	Carved	Sandstone	10 in	25 in	16 in	
24	Henritta Patterson	Bedstead/		1964	1988	24	Carved		24 in	21 in	6.5 in	heart
25												
26												
27												

- Make sure every entry is highlighted; if there are some empty rows, Excel might automatically choose a group instead of the entire column. You may have to select it yourself.

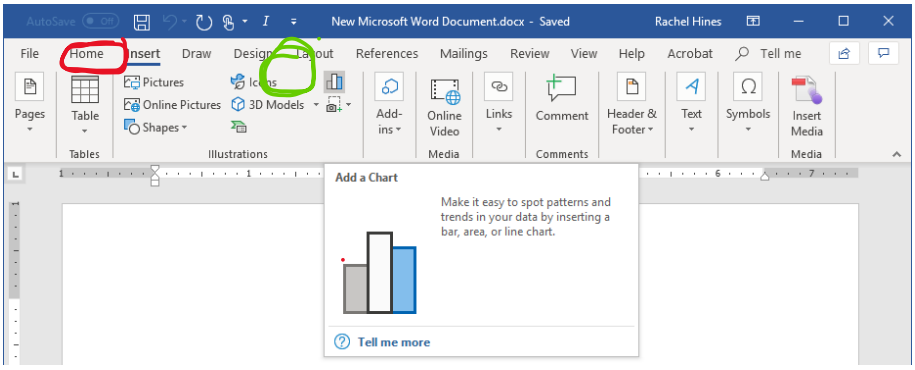


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Name	Marker Ty	Birth Year	Death Year	Age	Inscriptio	Material	Height	Width	Thickness	Design Fe	Condition	Footstone	Footst
2	Willie C Daniels		1925	1975	50	Carved	Limestone				Clasping	Hands		
3	Samuel and Nellie Sain	Die on Bas	1855	1956	101	Carved	Marble	45 cm	128 cm	7 cm				
4	Ottis Lee Causey	Die on Bas	1905	1905	0	Carved and	Painted	65 cm	70 cm	7 cm		Weathered,	Stained	
5	Amuel Brewton	Die in Soc	1869	1890	21	Carved	Sandstone	80 cm	45 cm	10 cm		Weathere	x	Sandst
6	Gabriel Lee Merrick				0	Carved	Marble	100 cm	19 in	4 in	Bear			
7	Wiley White		1893	1905	12	Carved	Marble	234 cm	90 cm	6 in	Cross	Weathered		
8	Charlie E Brewton	Plaque	1909	1968	59	Carved	Granite	10 in	18 in	6 in		Weathered		
9	Ammie C. Tibbs	Die in Soc	1940	1995	55	Carved an	Granite	18 in	27 in	8.5 in	Clasping H	Weathered		
10	Frank Sinkfolo	Tablet Headstone			0	Carved		24 in	27 in	13 in		Weathered		
11	Sydney L Maret	Tablet Headstone			0		Limestone	7 in	2 in	6 in	Cross	Weathered		
12	Charles E. Rowland Sr.	Tablet Headstone			0	Carved	Granite	30 in	25 in	6 in	Clasping	Hands		
13	James V and Mary E Dav	Die on Base			0	Carved	Granite	5 in	18 in	19 in	flowers	Weathered,	broken,	unatta
14	Jeanette Brewton	Lawn-type			0	Carved	Sandstone	13 in	32 in	18 in		Stained		
15	Birdie L Jackson	Raised To	1877	1952	75	Carved	Concrete	19 in	30 in	16 in		Weathered,	Stained	
16	Ruby H Kelker	Die in Soc	1901	1925	24	Carved	Marble	26.5 in	19 in	5 in	flowers	Weathered,	Stained	
17	Charlotte Whittiker	Raised To	1856	1935	79	Carved	Concrete	12 in	23 in	7 in		Weathere	x	concre
18	Alex Andrew and Rosa	Die in Soc	1848	1923	75	Carved	Granite, c	38 in	24 in	7 in		Weathere	x	granit
19	Jane Rodgers	Tablet He	1847	1889	42	Carved	Concrete	24 in	14.5 in	2 in		Weathered,	cracked,	repair
20	Amanda Sunday		1886	1908	22		Granite	28 in	13 in	2 in		Weathered,	broken	
21	George Marshall	Tablet He	1888	1953	65		Marble	21 in	13 in	4 in	Cross	Weathered		
22	William Gainer	Die in Soc	1896	1922	26	Carved	Sandstone	39 in	26 in	12 in	olive bran	weathered		
23	Mittie V Brown	Bedstead/	1891	1977	86	Carved	Sandstone	10 in	25 in	16 in		Weathered		
24	Henritta Patterson	Bedstead/	1964	1988	24	Carved		24 in	21 in	6.5 in	heart	weathered		
25			1891.17647	=AVERAGE(D2:D24)										
26														
27														

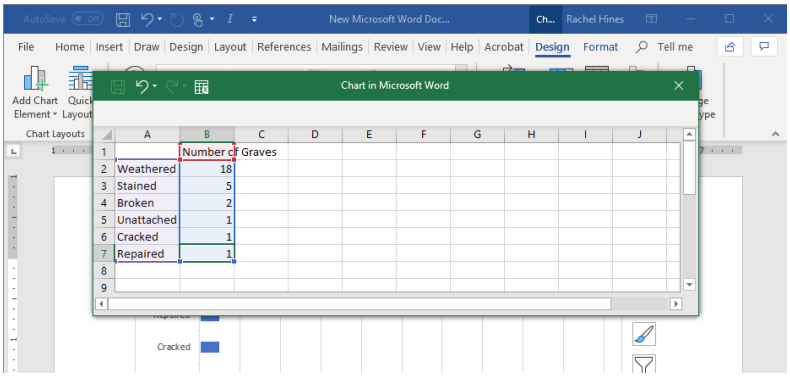
6. Use the average formula to examine some of your other fields, such as finding the average year of death or average year of birth to understand the time period of the cemetery.
7. You can also analyze your data by creating different types of charts. Excel makes this easy by providing suggested charts. Click on the “Recommended Charts” button in the “Insert” tab.

- A pop-up window will appear with a number of charts. If any of the charts are useful, you can select them and insert them into Excel.

8. You can also create charts on your own in Microsoft Word. Excel is better for analyzing numerical data, but it doesn't automatically produce charts for the text-based fields. Open Word and select the "Insert" tab (circled in red in the example below). Click on the chart symbol (circled in green below).



9. A list of charts will appear. Create 3 charts with your data. For example, you could create a bar chart that shows the condition types of the markers by selecting "Bar." Then count up the number of markers for each condition type and enter them into the spreadsheet that appears. It will automatically populate your chart.

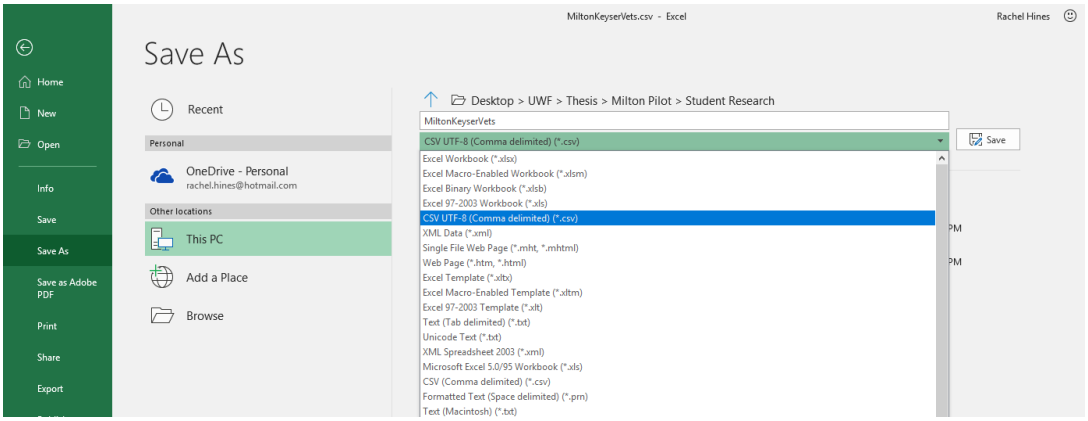


10. Write a two-paragraph summary of what you've learned in Microsoft Word. Include some of the charts you created in Word and Excel as support for your summary. Address some of the following questions:
    - What time period does your cemetery date to?
    - What are the most common design styles?
    - What are the most common marker material types?
    - What is the condition of the cemetery?

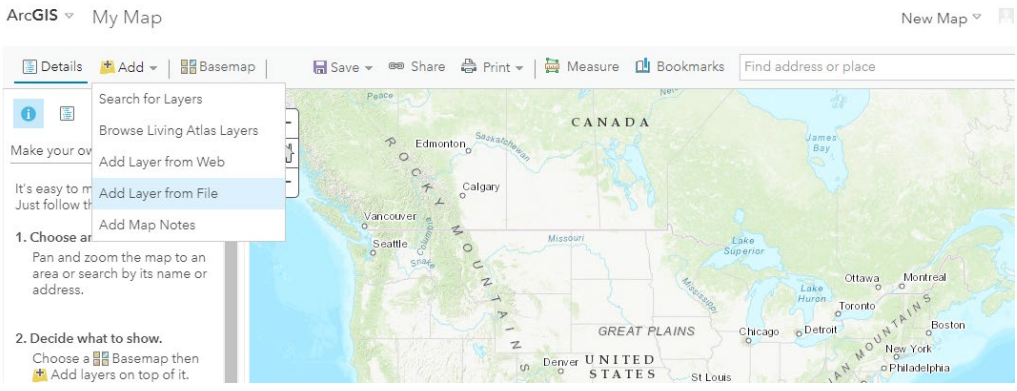
Lesson 3.3: GIS Mapping

Geographical Information Systems (GIS) applications present and analyze spatial and geographic data. We will be creating GIS maps of the GPS points you collected at the cemetery using ArcGIS Online, a free web-based GIS application. Follow the instructions below to create a GIS Map the cemetery data.

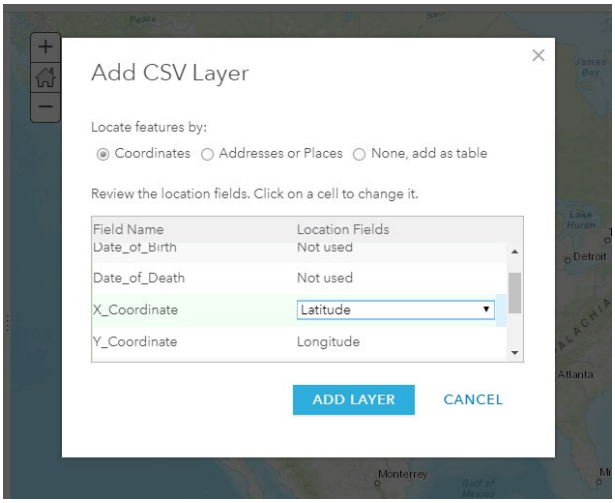
1. Prepare the data for ArcGIS Online by entering the data into an excel spreadsheet. Your spreadsheet must include two fields for the X and Y coordinates you collected in the cemetery.
2. Export your Excel spreadsheet into a .csv file by clicking "File" in the upper left hand corner of Word and choosing "Save As." Choose .csv from the drop down list of file types. This file type is easier for the website to process.



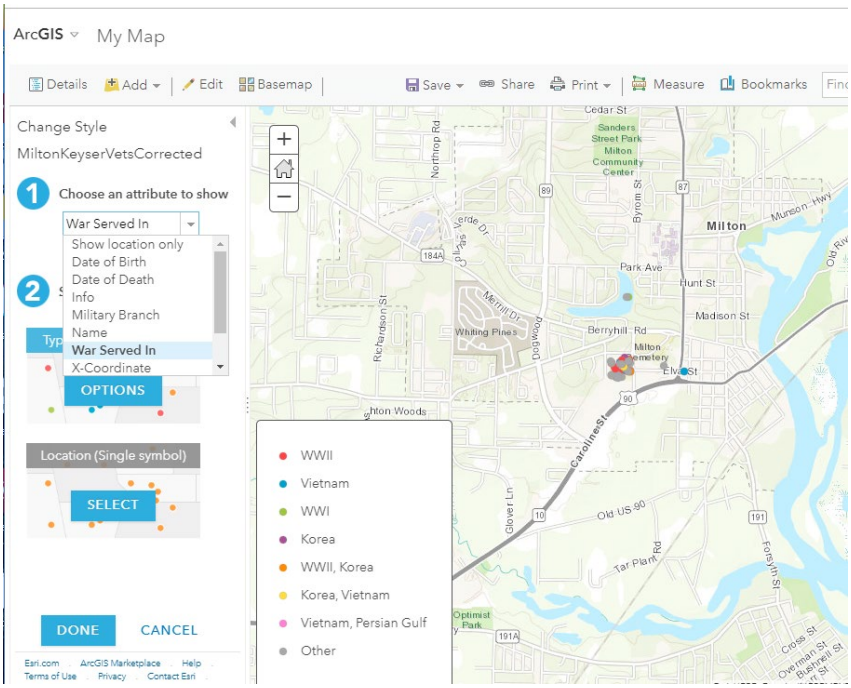
3. Go to www.arcgis.com and create a free account OR log-in to the class account that your teacher created.
4. Create a map by selecting "Map" at the top of the screen. This will bring you to a blank map document.
5. Upload the .csv file you created that contains the GPS points by clicking "Add" and selecting "Add layer from file." Follow the instructions in the pop-up window to import your .csv file.



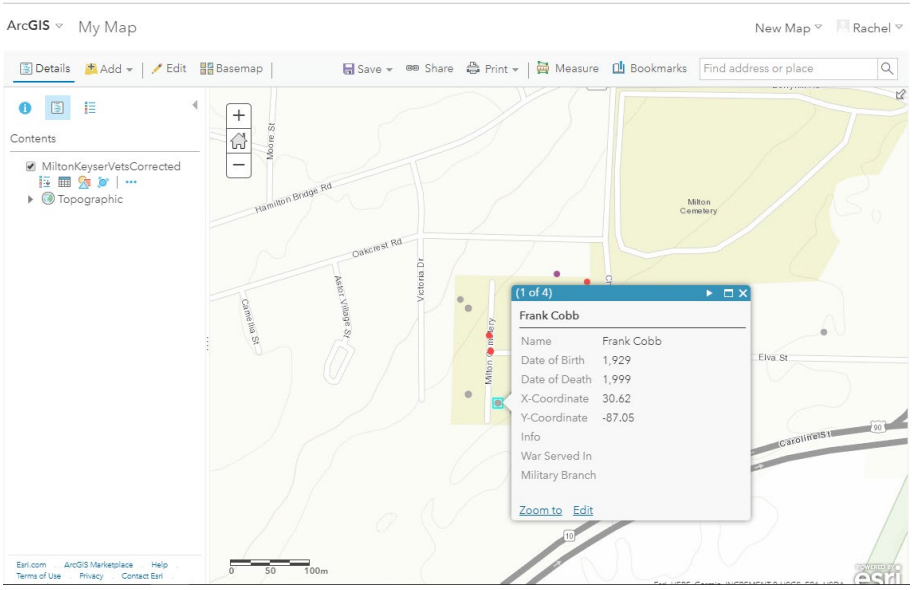
6. When you upload the CSV file, you will have to specify that the X-coordinates are the Latitude and the Y-coordinates are the Longitude. Your GPS points should appear in the map. If your coordinates show up in the wrong place, you might have mixed up the latitude and the longitude. Double check your spreadsheet to make sure each X-coordinate has a positive value and each Y-coordinate has a negative value.



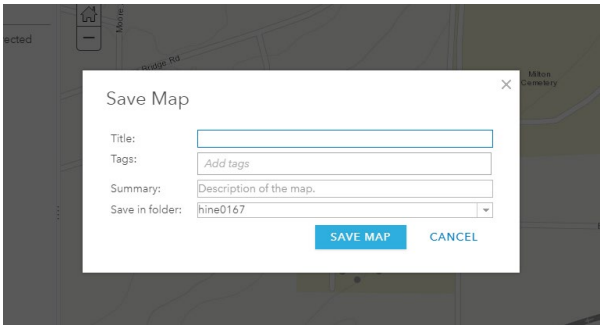
7. A bar will appear on the left side of the screen where you can choose how to symbolize your points. First, you choose the field you want to symbolize. Then you select "Types (unique symbols)" as your drawing style. The map will automatically display your points as different colors.



8. If you click on a point, a pop-up window will appear, allowing you to learn more about that point. You can edit this pop-up by clicking “edit” at the bottom of the window.



9. Save your map by clicking “Save” at the top of the screen. Give your map a title, a couple tags (descriptive words about your map, such as “cemetery”), and a summary description of what the map shows.



10. Finally, share your map with the world by clicking “Share.” This will make the map public, so others can view it.

Historic Cemetery Form

Cemetery Name: _____

Date Recorded: _____

Cemetery Address: _____

Cemetery Coordinates: X: _____ Y:_____

History

Year Cemetery was established: _____

Cemetery Owner: _____

□ Private- Profit □ Private-Nonprofit □ Private- individual □ Private-Other

□ City □ County □ State □ Federal

□ Unknown □ Other (Describe): _____

Local, state, or national people of importance (Describe)**:**

Description

Ethnic Group: □ White non-Hispanic □ Hispanic □ Asian

□ Caribbean □ African American □ American Indian- tribe: _____

□ Unknown □ Other (Describe): _____

Status: □ In Use □ No longer used for burials, but maintained □ Abandoned

Condition: □ Well-maintained □ Partly maintained □ Poorly maintained

□ Not maintained, but identifiable □ not maintained, hard to identify

Total # of Graves: **Does total include Unmarked Graves:** □ Yes □ No

Boundary: (e.g. Cast Iron fence, hedge, etc.) _____

_____

Vegetation: (trees, shrubs, flowers) _____

_____

Public access: □ Unlimited □ Restricted: how? _____

Threats: □ Abandonment □ Agriculture □ Mining/Timbering

□ Public Development □ Private Development □ Desecration/Vandalism

□ Other (Describe): _____

Grave Marker Descriptions

Grave groupings (check all that apply)**:** □ Family □ Fraternal Order □ Military

□ Religious □ Ethnic Heritage □ Other (Describe): _____

Groupings indicated by (check all that apply)**:** □ Curbing □ Fence

□ Hedge □ Wall □ Other (Describe): _____

Orientation of graves (East/West, North/South): _____

Methods of marking graves (i.e. headstones, mounds, depressions, objects, etc.) _____

_____

Marker materials (check all that apply)**:** □ Marble □ Concrete/Cement □ Fieldstone □ Wrought Iron
□Granite □ Cast Iron □ White Bronze/zinc □ Sandstone □ Slate □ Wood

□ Other (Describe): _____

Describe grave goods: _____

_____

Describe marker damage and conditions (i.e. sunken, tilted, chipped, weathered, broken, etc.): _____

_____

_____

Are descriptions legible? □ Yes □ No

Distinctive grave markers, monuments, architectural features: _____

_____

_____

Names of stone carvers (if known): _____

_____

Recorder Information

Name(s): _____

School: _____

Contact info (address, phone, or email): _____

_____

Appendix D

Evaluation Templates

Cemetery Education Project: Survey and Interview Questions

Survey following each lesson

Please respond to the following statements on a scale from 1-3. (1=disagree, 2=somewhat agree, 3=completely agree)

Lesson is well-organized and user-friendly	1	2	3
Lesson meets designated outcomes	1	2	3
Lesson is engaging for students	1	2	3
Lesson is relevant within the broader course curriculum	1	2	3
I would use this lesson again	1	2	3

Interview Questions [Interview will be audio-recorded and transcribed]

1. Why did you decide to participate in this project?
2. Have you incorporated archaeology in your classroom in the past?
3. What changes did you make to the program? (walk through the changes with them)
4. How would you change the format or content of the lesson plans? (Participants will be provided with a pen to mark up the lesson plans)
5. Is there anything you would do differently if you taught this unit again?
6. Are there any activities or elements that you feel are irrelevant to the overall learning objectives?
7. Are there any activities or elements you would like to see added to the program?
8. Did you feel adequately prepared to teach the lesson based on the materials you were given?
9. Is there any additional training or resources you'd like to have before taking on a program like this?
10. Do you see this as being similar or different to other lesson planning models you use? (Ask for examples?)
11. Do you usually modify lessons? If so, how and why?
12. Does this program enhance the mandated standards?
13. Would you use this program (or an altered form of it) in your classroom? (either in this course or a in different course)
14. Is there anything else you want to discuss that we haven't already touched on?
15. At the end of the interview, I will also ask participants to identify their race and gender; however, they are free to opt out if they choose.

Cemetery Education Project: Observational Rubric

Name of Lesson: Date:

Instructor: Course:

School: Number of Students:

Setting Description:

Part I: Introduction

- □ Activity was performed
- □ Set-up was minimal
- □ Introductory PowerPoint (or video) loaded correctly
- □ Entire presentation was used/shown
- □ Information was factually correct
- □ Teacher was able to answer student questions based on materials provided

- □ Final Resting Place Activity was performed
- □ Teacher possessed all the necessary materials for the activity
- □ After the activity, the instructor drew between the student drawings and the remainder of the presentation
- □ Lesson was an appropriate length for one class period

Description:

Observational Rubric

Name of Lesson: Date:

Instructor: Course:

School: Number of Students:

Setting Description:

Part II: Field Trip (Collecting Data)

Logistics

- □ Class arrived at cemetery in a timely fashion
- □ Bus was able to unload or park near cemetery
- □ Class had access to amenities, like bathrooms
- □ Little to no lag between activities
- □ Teacher was able to adequately supervise their students
- □ No injuries occurred
- □ No damages were done to cemetery

Making Observations Worksheet

- □ Activity was performed
- □ Appropriate materials were provided
- □ Teacher was able to explain activity based on materials provided
- □ Teacher was able to answer questions based on materials provided
- □ Teacher facilitated dialogue based on student observations
- □ Lesson was appropriate for time allotted (~45 minutes)

GPS Mapping

- □ Activity was performed
- □ Appropriate materials were provided
- □ Teacher adequately explained how to use phones as GPS based on materials provided
- □ Teacher was able to answer questions based on materials provided
- □ Lesson was appropriate for time allotted (~45 minutes)

Recording Headstones

- □ Activity was performed
- □ Appropriate materials were provided
- □ Teacher adequately explained activity based on materials provided
- □ Teacher was able to answer questions based on materials provided
- □ Teacher was able to provide minimal assistance to students during activity
- □ Lesson was appropriate for time allotted (~2 hours)

Description:

Observational Rubric

Name of Lesson: Date:

Instructor: Course:

School: Number of Students:

Setting Description:

Part III: Drawing Conclusions

Drawing Conclusions Lecture

- □ Activity was performed
- □ Set-up was minimal
- □ Introductory PowerPoint (or video) loaded correctly
- □ Entire presentation was used/shown
- □ Information was factually correct
- □ Teacher was able to answer student questions based on materials provided
- □ Lesson was an appropriate length for one class period

Analysis in Excel

- □ Activity was performed
- □ Explanation of activity was linked to content in Drawing Conclusions lecture
- □ Teacher was able to answer student questions based on materials provided
- □ Appropriate technology was provided, including laptops with Microsoft Excel
- □ Activity was taught in class
    - Lesson was an appropriate length for one class period

GIS Mapping

- □ Activity was performed
- □ Explanation of activity was linked to content in Drawing Conclusions lecture
- □ Teacher was able to answer student questions based on materials provided
- □ Appropriate technology was provided, including laptops with a web browser
- □ Internet speed was adequate
- □ Websites were navigable
- □ Lesson was taught in class
    - Lesson was an appropriate length for one class period

Recording and Reporting

- □ Activity was performed
- □ Explanation was linked to content in Drawing Conclusions lecture
- □ Teacher was able to answer student questions based on materials provided
- □ Appropriate technology was provided, including laptops with a web browser
- □ Internet speed was adequate
- □ Websites were navigable

- □ Lesson was taught in class
    - Lesson was an appropriate length for one class period

Description:

Observational Rubric

Name of Lesson: Date:

Instructor: Course:

School: Number of Students:

Setting Description:

Part IV: Sharing Work

- □ Activity was performed
- □ Appropriate technology was provided, including laptops with a web browser
- □ Internet speed was adequate
- □ Websites were navigable
- □ Lesson was taught in class

Description:

Appendix E

Informed Consent Form

Teacher Consent Form
Santa Rosa County Cemetery Education Project

Rachel Hines
University of West Florida
Florida Public Archaeology Network

You are invited to participate in a research study that involves the implementation and evaluation of archaeology-related educational materials. Your participation and feedback would contribute to master's thesis research that seeks to identify sustainable, replicable, and accessible ways to integrate hands-on archaeology lessons into mandatory curriculum and to develop potential educational programs in Santa Rosa County. Please read this form and ask any questions you may have before agreeing to participate in the study.

Background Information:

This project will assess the effectiveness of a series of archaeology-related lesson plans for high school social studies classes through observation, surveys, and face to face interviews. The study supports a broader master's thesis which aims to make hands-on archaeological education accessible by using local historic cemeteries as a venue for discussing historic preservation and archaeological concepts. In the past, archaeology lesson plans have been minimally utilized in public high schools, due both to their inaccessibility and to a lack of articulation with state educational standards. This thesis hopes to resolve some of these issues through collaboration with high school social studies teachers and administrative officials.

The project's research design emphasizes understanding existing barriers between teachers and archaeology lesson plans, and therefore is concerned with the accessibility, effectivity, and usability of the lesson plan. Key goals include determining whether or not teachers would integrate this lesson plan into their broader curriculum plans and what alterations need to be made to ensure this lesson plan is actually utilized by local teachers after the thesis is published. Results will be disseminated through a master's thesis and may also be published in relevant academic journals.

Procedures:

If you agree to participate in this study, you will be asked to do the following things:

- Teach one or more of the provided lesson plans, both in your classroom and at local historic cemeteries, while being observed by the researcher. You are free to make any alterations you see necessary or appropriate.
- Complete a short, 5-question survey after teaching each lesson
- Participate in a one-on-one interview within two weeks of the project's completion
- Attend a wrap-up meeting with other participating teachers in December 2019

The interview will be approximately one hour in length. Interviews will be recorded using an audio recorder and transcribed. Your responses to surveys and the transcription of your interview will be stripped of any identifying information before being analyzed. Audio recordings will be destroyed in May 2020, once the master's thesis has been published, but transcriptions will be retained indefinitely.

The duration of your participation in this study will conclude when you have completed the above-described surveys and interview. You may withdraw from all or any part of this study at any time.

Confidentiality:

The records from this study will be kept private. Research will be published in the form of a master's thesis but will not include any identifying information. Records will be stored securely and only authorized researchers will have access to the information.

- Pseudonyms will be applied to the transcribed recordings (unless consent is given by participant to include their actual name).
- Recorded discussions will be erased after transcriptions are produced.
- Transcriptions and survey responses may be retained indefinitely.
- The data may be used for future research projects, but no identifying data will be used in any publication, product, or future research that may extend from this study.

Risks and Benefits of Participation:

No more risk than is typically associated with everyday classroom activities is associated with this study. Your responses to interviews and surveys will not be shared with Santa Rosa County educational staff and will not have any impact on your teaching position. Your participation will take place completely during work hours with the support of the school district administration.

Individual benefits include exposure to innovative methods of teaching archaeological concepts, professional development, and the opportunity to contribute to a potential long-term educational program. The possible benefits to society include contributing perspectives and experiences to the development of hands-on, project-based, and civically engaged educational programming.

Voluntary Nature of the Study:

Participation in this study is voluntary. If you decide to participate, you are free to not answer any question or to withdraw at any time.

Contacts and Questions:

You may ask any questions you have now. If you have questions later, you are encouraged to contact the Principal Investigator, Rachel Hines, University of West Florida MA Student, Phone: 612-986-4021, Email: rlh66@students.uwf.edu; or Dr. Della Scott-Ireton, Florida Public Archaeology Network Associate Director, Phone: 850-595-0050 Ext: 102, Email: dscottireton@uwf.edu

Statement of Consent:

_____I have read and understood the above information. I have asked questions and have received answers as applicable. I consent to participate in the study.

Please check the following as applicable.

_____I consent to have my one-on-one interview audio-recorded.

_____I would prefer to have a pseudonym assigned to my interview responses.

Signature:_____ Date: _____

You will be given a copy of this information to keep for your records.

Appendix F

Final Lesson Plans

Welcome!

Thank you for using G.R.A.V.E. (Gravestone Research and Volunteer-based Education) in your classroom. This series of lessons is designed to introduce your students to archaeology and local history by learning about and recording historic cemeteries. Through this process, students exercise critical thinking skills, make local connections to broad historical events, and contribute to their local communities.

The lessons are designed for use in Florida World History courses; however, they are appropriate for high school students and can be adapted for use in a variety of classes.

The project is organized into three sections:

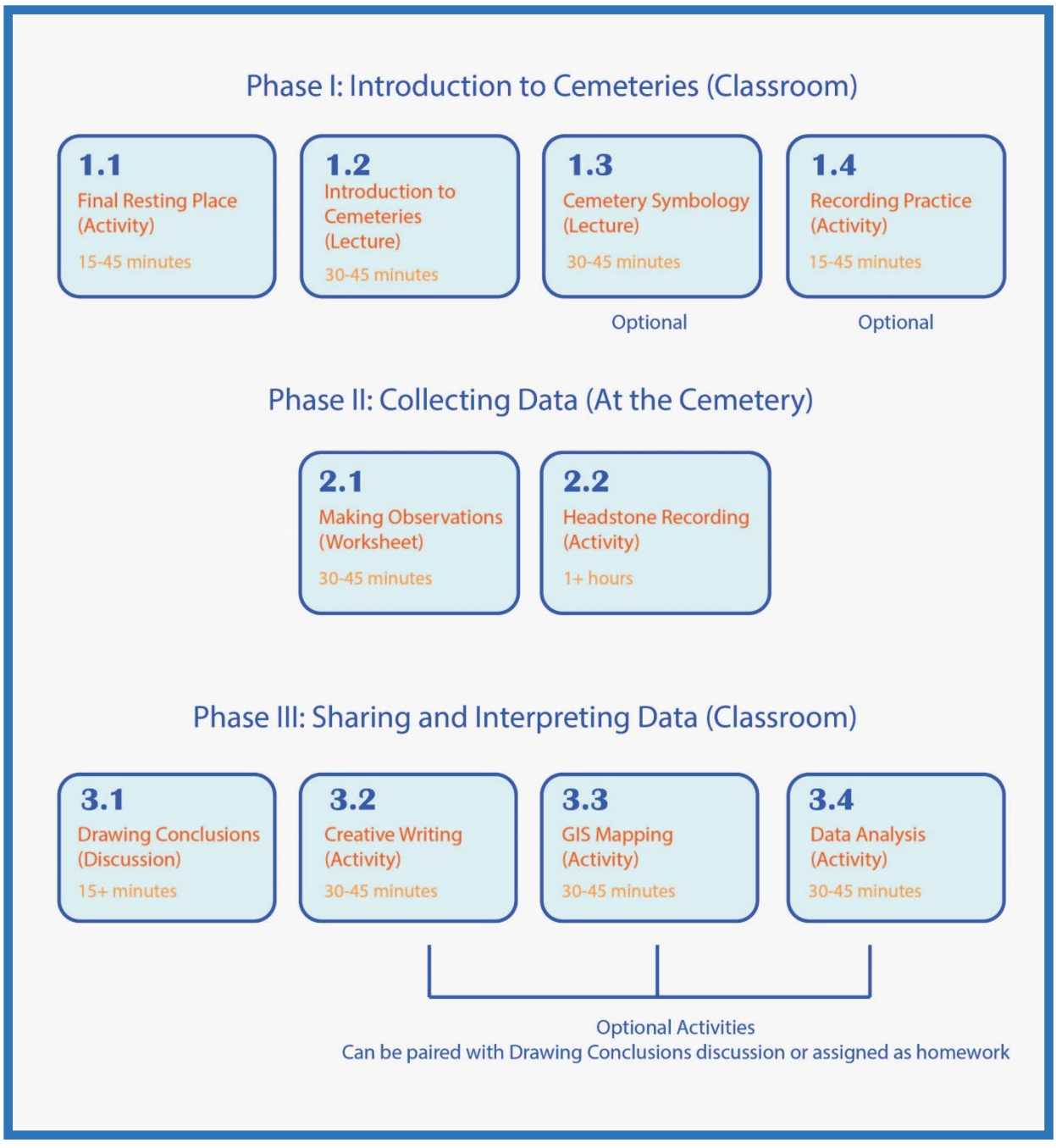
1. Introduction to Cemeteries (1-4 class periods): The introductory classroom portion includes a drawing activity, a PowerPoint lecture, and two optional lessons to prepare your students for the cemetery visit.
2. Collecting Data in the Cemetery (1+ field trip): On your field trip to a local historic cemetery, your students will put their new skills to work by recording cemetery markers. If you are unable to visit a cemetery, you can create this experience in your classroom using photos of cemetery markers.
3. Sharing and Interpreting Data (1-4 class periods): After your field trip, students return to the classroom to unpack their experiences through a short discussion. There are three optional lessons that can be paired with this discussion or assigned as homework, and several suggestions for final projects, if desired.

This packet includes background information and guidance for setting up a G.R.A.V.E. project, including:

- G.R.A.V.E. Program Outline (p.2)
- Curriculum Connections and Outcomes (p.3)
- Project Planning Guidance (p.4)
- Cemetery Safety Tips (p.5)
- Resources and Next Steps for Students (p. 6)
- Cemetery Recording form (p. 7)
- Cemetery Introductory Letter Template (p. 8)

For more information or to request a G.R.A.V.E. teacher training, contact your local FPAN office at www.fpan.us. We look forward to hearing from you!

G.R.A.V.E. Program Outline



Curriculum Connections and Learning Outcomes

Relevant World History Standards and Benchmarks

Standard 1: Utilize historical inquiry skills and analytical processes.

SS.912.W.1.3 Interpret and evaluate primary and secondary sources.

SS.912.W.1.4 Explain how historians use historical inquiry and other sciences to understand the past.

Articulation with the Florida World History Textbook

There are several places where this series of lessons fit within the World History curriculum. Depending on the cemetery and the creativity of the instructor, these lessons could fit almost anywhere.

- Chapter 1: Ancient Civilizations and Chapter 14: Peoples of North American and Mesoamerica both emphasize archaeological skills. By drawing parallels between recent and ancient archaeological sites, students can learn how archaeologists use the same skills to investigate any time period, even the recent past, and can learn these skills firsthand.
- Chapters 27-29 discuss World War I, the Great Depression, and World War II, respectively. By studying cemeteries, students can better understand daily life and attitudes during these time periods. For example, a class might investigate the materials and decorations on grave markers before, during, and after the Great Depression to understand if burial practices were impacted by the economic crisis. Similarly, a class might compare markers from WWI and WWII to understand which military branches were represented during each war.
- Several chapters discuss religious practices. Religious symbology is very common on grave markers and can be easily tied to these chapters as well.
- World cultures can also be tied to local cemeteries through immigration patterns and burial customs.

General Learning Outcomes

1. Students will learn archaeology is the study of human culture through material remains, both through excavation and through other processes
2. Students will explore how archaeology can provide stories of daily life and average people, as well as perspectives that have been forgotten or obscured
3. Students will employ the scientific method to study the past, understanding the same process is used whether examining artifacts from 50 years ago or 1000 years ago
4. Students will use headstones as primary sources, employing several types of analyses to examine them in different ways
5. Students will understand how archaeology and preservation are beneficial for communities and take pride in their local historical resources

Project Planning Guidance

Step 1: Identify a cemetery

Before beginning your project, you will need to identify a nearby historic cemetery. You can work with your local FPAN Public Archaeology Coordinator to make arrangements with the property owner or you can do this yourself. It is very important that the property owner knows about and approves of your project prior to doing any work in the cemetery. A sample letter for local cemetery representatives is attached and can be modified to include project timelines and number of students.

Step 2: Make a Plan of Action

Ideally, you or your local FPAN staff member will coordinate with a cemetery representative to identify any goals the cemetery wants to achieve. You might be able to help them reach these goals through the project activities. You may also want to create a recording plan, especially if you are visiting a large cemetery. You might assign certain rows or sections to groups of students to ensure they are not duplicating work or missing any markers.

Step 3: Organize your Cemetery Visit

Follow your school's policies to arrange busing, substitute teachers, and student permission slips. If you are unable to arrange busing, there may be a cemetery within walking distance of your school, or you can create a mock cemetery by printing out photos of markers and hanging them on the wall. Depending on your schedule, you may plan one day-long field trip or you might do one or more short cemetery visits. You might even visit multiple cemeteries during your field trip to compare them.

Step 4: Share your Data

Sharing your data ensures your students efforts make an impact on the broader community. If the cemetery is interested, you can send the completed forms to a representative for their records at the end of the project. With the permission of the cemetery, you could also make the data available by donating it to a local historical society or to an online platform, like UCF's RICHES database (https://riches.cah.ucf.edu/) Finally, ensure your cemetery is recorded on the Florida Master Site File by filling out the attached postcard and emailing it to your local FPAN office.

Cemetery Safety Tips

Every cemetery is different, but there are a few general guidelines to ensure a safe visit to the cemetery, both to protect you and your students and the cemetery itself.

Environmental Protection

- Wear close-toed shoes and pants to avoid any foot injuries
- Wear sunscreen and hats to avoid sunburn
- Drink plenty of water to avoid dehydration
- Be aware of any student allergies, especially bees or plants, to avoid reactions
- Avoid snakes, ants, and other pests to avoid injuries
- If possible, bring a first aid kit to the cemetery for minor cuts and scrapes

Respectful Behavior

- Act respectfully and be mindful of other visitors. No running or yelling the cemetery
- Avoid touching unstable or leaning headstones so they do not fall over
- Do not remove any "trash," like glass, pottery, or shells. Sometimes these items are actually grave offerings left by loved ones
- Do not walk on top of flat grave markers, both out of respect and for safety reasons. Sometimes these underground vaults are unstable and can collapse
- Do not make rubbings of the markers. This practice used to be common but can actually erode the face of the marker over time

Logistical Preparations

- Students should use the bathroom before leaving, as bathroom use will be limited
- Scope out the ground surface prior to visiting to determine potential parking spots and safe wheelchair routes
- If possible, note shady places to rest and take breaks when needed, especially on hot days
- Be sure the land owner knows you will be on site and has given you permission to be there

Resources and Next Steps for Interested Students

Continue Learning about Archaeology

- Visit the calendar on our website (www.fpan.us) for events and volunteer opportunities
- Follow Florida Public Archaeology Network on Facebook and Instagram

Cemetery Volunteer Opportunities

- Laying American flags for Veteran's Day and Memorial Day: Cemeteries commonly lay flags around these holidays to honor deceased veterans. Contact your local cemetery to see if they need help.
- Cemetery Clean-ups: Many cemeteries hold clean-up days where volunteers remove trash and perform basic maintenance. Reach out to your local cemetery or even organize a clean-up day to raise awareness. Your local FPAN office may also have cemetery clean-up dates on their calendar (www.fpan.us)
- Wreaths Across America (https://www.wreathsacrossamerica.org/) provides volunteer opportunities each December to lay commemorative wreaths on veteran graves. Visit their website to find an event near you.

Cemetery Research

- The Association for Gravestone Studies (https://www.gravestonestudies.org/) has more information about cemetery symbols and markers, and even has local chapters for those who want to connect with other cemetery enthusiasts
- The Chicora Foundation (https://www.chicora.org) has lots of resources about cemetery symbols and preservation, specifically of African American cemeteries, on their website
- Find a Grave (https://www.findagrave.com/) contains photos and information about millions of cemetery memorials. Students can search for local cemetery markers or can upload the information they collected.
- "Ask a Mortician" This YouTube series with mortician Caitlin Doughty is a fun way to learn more about burial practices, past and present.

Organize a Cemetery Resource Protection Training (CRPT)

FPAN offers a day long training about cemetery preservation, including best practices in cemetery maintenance and headstone cleaning. (https://fpan.us/workshops/CRPT.php) Students can organize a CRPT by contacting local FPAN staff, especially if they would like to provide an opportunity for other community members to get involved in preserving local cemeteries.

Historic Cemetery Recording Form

Cemetery Name: _____

Closest Address: _____

City/Town and County: _____

GPS Coordinates: _____

Cemetery History

Approximate year established (if known): _____

Earliest/Latest headstone dates: _____

Description

Circle all that apply: Abandoned Overgrown Well-Maintained

Broken Headstones Threatened

Describe visible damage: _____

Approximate size of cemetery/number of headstones: _____

_____

Contact Information

Name/Organization: _____

Email address: _____

Phone number: _____

Send completed forms to your local Florida Public Archaeology Network Office. Contact information can be found at www.fpan.us

(use school letterhead)

[Insert cemetery contact name and address]

[Insert date]

Dear [insert cemetery contact name here],

Our [grade level] class at [insert high school name here] is preparing to learn about historic cemeteries through Florida Public Archaeology Network's G.R.A.V.E. program (Gravestone Research and Volunteer-based Education). This project introduces students to archaeology and local history through the study of historic cemeteries. More information about this program can be found online at www.fpan.us/resources.

If possible, we would like to visit your cemetery as part of our unit. Through our project, we would record and research individual headstones by copying inscriptions, identifying symbols, sketching markers, and determining marker condition. We would not do any rubbings, maintenance, cleaning, removal of objects, or anything destructive in nature. We are also interested in working with you to record any markers of interest or to complete any goals you might have. The students' recordings and research can of course be shared with you if you wish.

Please contact me at [phone number] or [email address] at your earliest convenience, as we will not visit the cemetery without your permission. Written permission, either via letter or email, would be most appreciated. You can also reach out to your local Florida Public Archaeology Network office for more information about the program itself (www.fpan.us). We look forward to talking with you more about the project.

Thank you!

[insert your name here]

Phase I: Introduction to Cemeteries

Time Frame: 1-4 class periods

Location: Classroom

The first phase of the cemetery project will take place in the classroom and is guided by the Introduction PowerPoint lecture. To hook students, Lesson 1.1 asks them to draw their "final resting place." This can be a short activity or can last for a day, depending on time constraints. Next, students are introduced to archaeology and to cemetery preservation through Lesson 1.2, the Introduction to Cemeteries lecture.

There are two options for additional classroom lessons which are included at the end of the PowerPoint: Lesson 1.3, a lecture on cemetery symbology and Lesson 1.4, a practice session where students "record" cemetery markers depicted on photos.

Use the following symbols to modify the lessons to fit your schedule:

Ask your students

Can be assigned as homework

Optional activity

For more opportunities

Lesson 1.1: Final Resting Place Activity

Time Frame: 15-45 minutes (or as homework)

Students draw their "final resting place" on a sheet of paper. They can either share their drawings with the class or in pairs, depending on the time frame. This activity allows students to share their own perceptions of cemeteries and fosters a personal connection with the subject before beginning the project.

 Can be assigned as homework

Required Materials

- Pens/Pencils or Markers
- Scratch Paper
- Optional: Introduction PowerPoint lecture (Slide 2)

Lesson Procedures

Slide 2: *Have students draw their "final resting place." Encourage creativity and try not to let your own ideas about cemeteries or burial places influence their drawings. Have students share their drawings, either in pairs or with the class if time permits.*

Lesson 1.2: Introduction to Cemeteries

Time Frame: 30-45 minutes

This PowerPoint introduces students to historic cemeteries and discusses current issues in cemetery preservation to provide context for the cemetery visit. It can be paired with the Final Resting Place activity. There are several opportunities for students to share their own thoughts and experiences with cemeteries, making the time frame flexible.

The PowerPoint contains several green words; if desired, students can follow along on a note sheet (attached at end) and fill in the blanks with these green words.

Required Materials

- Introduction PowerPoint lecture (Slides 3-11)

Lesson Procedures

Slide 3: Are cemeteries considered archaeological sites? Yes, historic cemeteries are archaeological sites. Archaeologists aren't necessarily the first people that come to mind when thinking about cemeteries, but they do study cemeteries, both above ground and below.

> Archaeologists study human culture through material remains- anything left behind by human beings. Excavation (digging) is commonly associated with archaeology, but archaeologists use other tools to study past behavior as well. Even items on the surface of the ground, like headstones in cemeteries, are studied by archaeologists.

 *Ask students who has been to a cemetery. Bring up local cemeteries or famous cemeteries, like Arlington National Cemetery in D.C. or the New Orleans cemeteries.*

Slide 4: Archaeologists view historic cemeteries as "outdoor museums," full of information about people from the past, and gravestones as primary sources that can be examined like historical documents.

 *Ask students if they have been to a museum and to share their experiences with a partner or with the class.*

> Cemeteries are often thought of as "spooky" places, but in the past they were seen as park-like places to visit loved ones. In addition to providing information about a historical population and serving as "final resting places," cemeteries can be very beautiful and even serve as tourist destinations (like St. Michael's Cemetery in Pensacola shown in the upper picture, which is actually a state park, and the New Orleans cemeteries, shown in the lower picture.)

Slide 5: What can cemeteries tell us?

Historical sources often address big events and sometimes leave out information about what day to day life was like or what the interests and beliefs of a population were.

Many perspectives are typically left out of the primary historical narrative, like those of women or minority groups. Headstones can fill in the gaps in the documentary record to provide information about non-dominant perspectives or those of the average person.

Ask students: "What kinds of information can we learn from cemetery markers?"

Slide 6: These are some of the types of information we can learn from individual headstones:

- decorative and symbolic significance
- biographical information
- familial relationships
- fraternal or social affiliations (like the Freemasons)
- occupational information
- Economic status
- Cultural or religious beliefs

As you introduce these elements, ask students to think of examples from their drawings or call attention to them yourself (i.e. pointing out any religious or secular symbols they might draw on their markers, calling attention to biographical information, such as age, name, family members, etc.)

Slide 7: Why is it important to study cemeteries? Many would argue we have a moral and ethical responsibility to protect and preserve burial grounds. Additionally, cemeteries contain abundant information about past populations, both above ground, through grave markers and monuments, and below ground, through skeletal remains. They are historical places with stories to tell. Finally, many cemeteries face a number of threats and run the risk of being forgotten or developed.

Slide 8:A major threat to historic cemeteries is vandalism. This is a picture of the Milton Historic Cemetery in Milton, FL, where 30+ graves were knocked over in Fall 2017.

By maintaining cemeteries and showing people why they are important, historic places, you can help prevent vandalism. Additionally, in the unfortunate instances when headstones are totally destroyed or stolen, you will have recorded valuable information about what they said so that history is not lost.

Slide 9: Neglect is another major threat to historic cemeteries. Many of Florida's cemeteries are abandoned or neglected. When residents move away, churches close, or people begin burying their loved ones in newer cemeteries, older cemeteries are sometimes forgotten and can become overgrown

This picture shows Mt Zion cemetery in Pensacola, which the University of West Florida has begun to clean-up and maintain. Your work can help record these cemeteries and draw attention to their importance.

Ask students: "Have you seen any abandoned or neglected cemeteries in your neighborhood? Do you know who is responsible for caring for them?"

If students know of abandoned cemeteries, they can look up property ownership on the county Property Appraiser website.

Slide 10: There are a number of federal, state, and local laws protecting cemeteries on public lands; however, on private land, cemetery maintenance is the responsibility of the land owner. Sometimes, land owners don't have the ability to maintain the grounds, and at times they don't even know they are responsible for its upkeep. Florida law allows local governments to care for cemeteries that have been abandoned for over six months.

The Florida Master Site File is a list of all historic properties in the state of Florida, including historic buildings, archaeological sites, and historic cemeteries. This list is consulted during development projects to determine whether any historic properties would be impacted by construction projects. However, many known sites are not listed on the file, including a large number of Florida's historic cemeteries. Recording projects like ours are important to ensure all historic cemeteries are listed on this site form.

If students ask: Though the Florida Master Site File doesn't offer legal protection for listed sites, it does ensure that impacts to the properties are considered and mitigated during publicly funded development projects.

Slide 11: Through this project, we will:

1. Learn new skills in the classroom
2. Visit the cemetery to record headstones
3. Analyze the information we collected after the trip

We won't be doing any excavation while we're in the cemetery. We will focus on studying what's above ground, like grave markers, to understand the history of our local community.

Always remember: it is incredibly important to be respectful in a cemetery. This is where people honor their loved ones.

Lesson 1.3: Cemetery Markers and Symbology (Optional)

Time Frame: 30-45 minutes

This optional PowerPoint lecture introduces students to cemetery markers and symbology in preparation for their visit to the cemetery. It can be paired with Lesson 1.4, Headstone Recording practice, if desired. There are also opportunities for students to analyze the marker they completed in Lesson 1.1, Final Resting Place activity.

+ Optional activity

Required Materials

- PowerPoint Lecture (Slides 12-27)
- Optional: Symbology Packets

Lesson Procedures

Slide 12: Gravestones can be read just like other historical documents. There are three primary ways to examine them:

1. Analyze the writing
2. Interpret the symbols
3. Look at the stone for clues

Slide 13: Analyze the Writing: Just from this simple marker, we can collect biographical information, including: a person's name (Melissa Florida), their family members' names (John and Ann Campbell), the date they were born (October 14, 1834), the date they died (November 21, 1850), and their age (16).

Slide 14: What can we learn from this marker? *Students should point out name (James Thomson), occupation (Late Chief Engineer for West India and Pacific Company ship named Darien), birthplace (Scotland) birth date (June 1, 1851), death place (New Orleans), death date (October 19, 1893), and age (42)*

Ask students: "What information could someone learn about you from your final resting place drawing?"

Slide 15: Sometimes, graves contain epitaphs, which are short texts honoring a deceased person. These can be analyzed for clues into a person's qualities as well.

For example, this one reads: "Sleep on dear mother and take thy rest, God called the home, he thought it best."

Ask students: "What can we learn about Mary Settles from this epitaph?"

Click for responses: She was a mother, she was religious (probably Christian), her death was probably peaceful

Slide 16: Benn's epitaph reads: "Pure at thy death as at Thy birth, Thy spirit caught no taint from Earth." This refers to his young age, only 2 years old, and is actually a line from a poem.

Slide 17: In addition to reading the writing, archaeologists can interpret the symbols on the markers as well.

Slides 18-20: These are a number of examples of symbols and their meanings.

Ask students: "Did you draw any symbols on your Final Resting Place? If so, why did you choose them? Do they have a deeper meaning? Would someone else be able to interpret the meaning?"

Slide 21: Finally, archaeologists look for clues in the actual stone. For example, stone carver might have hand-signed the marker, like in the one on the left. Archaeologists also examine the materials the marker is made of; especially here in Florida, where there isn't much naturally occurring rocks, many materials were shipped long distances, indicating they were expensive

Slide 22: Many times, items will be intentionally left at a marker to honor the person buried there. These are referred to as "grave goods." Common grave goods include flowers, flags, shells, stones, and figurines. Sometimes, these items can provide insight into an individual's social, ethnic, occupational, or religious affiliations.

Slide 23: Archaeologists also look at the overall context of the cemetery to understand each grave as a part of a larger whole. How old is the cemetery? Are there any patterns in the burials? How does this individual marker compare to surrounding burials?

By looking at the entire cemetery, we can better understand an entire community and how it changed throughout history.

Slide 24: Now we'll look at a few markers to practice our new skills. This marker has a last name, but no birth or death dates. Can we learn anything from the symbol? *Students should respond that the broken column represents life cut short, so the person buried here was likely young.*

Slide 25: What can we learn from this marker? *Students should answer with name (George Weiland), home state (Vermont), rank (Lieutenant Colonel), military branch (Army Air Forces), wars served in (World War I and II), birth date (July 1, 1894), death date (July 31, 1957), and age (63). They might also point out the flag represents his veteran status, the marker is government issue, and the cross indicates he is Christian.*

Slide 26: What can we learn from this marker? *Students should answer with name (Harold Murray Hirshberg), rank (private), military branch (army), war served in (WWII), was a husband, father, grandfather, and great-grandfather, and the star indicates he is Jewish.*

Leaving stones on cemetery markers is a Jewish tradition. There are different interpretations of this practice, but it is generally meant to symbolize the person's continued memory after their death.

Compare this marker to the previous one. They are both government issue veteran markers, but the cross commonly found on these markers is replaced with the Jewish star on the second marker.

Slide 27: What can we learn from this marker? *Students should answer name (Samuel Joynes), birth date (February 21, 1857), death date (December 7, 1911), and age (54). They might also refer to the epitaph, which reads: Death is eternal life, why should we weep. This indicates his belief in the afterlife and a positive view of death.*

This marker is in the shape of a tree trunk and indicates Samuel Jhoynes belonged to Woodmen of the World, a fraternal order founded in 1890 that provided life insurance to its members. Members of Woodmen of the World received these distinctive grave markers.

Lesson 1.4: Headstone Recording Practice (Optional)

Time Frame: 30-45 minutes

This optional activity familiarizes students with the Headstone Recording form and gives them an opportunity to practice recording markers before the visit to the cemetery. Four examples of markers are provided in the PowerPoint. If additional practice is desired, you can download more photos of cemetery markers and have students practice recording them individually or in small groups using the headstone recording form.

+ Optional activity

Required Materials

- PowerPoint Lecture (Slides 28-40)
- Optional: Headstone Recording Forms

Lesson Procedures

Slide 28: One of the most important fields on the Headstone Recording form is the inscription. There is a specific way to record inscriptions to keep these forms consistent.

1. Copy the inscription EXACTLY as it is written on the stone. Include all misspellings and reversals. Copy uppercase as UPPERCASE and lowercase as lowercase. Copy all punctuation, even if it looks wrong to you.
2. Use a slash "/" to indicate a new line of text.
3. NEVER guess what a word, letter, or number is. If you don't know, leave a blank space: "_____"

Slide 29: Practice writing this transcription. *Have students fill write the transcription on scratch paper, on the board, or on a headstone recording form.*

Slide 30: This is what the transcription should look like. *Note: January is misspelled on the headstone, so it is misspelled in the transcription.*

Slide 31: This is the headstone recording form, which we'll use to record markers on our cemetery visit. In addition to recording the transcription, we will also record the marker type, the material, design elements, and the condition of the marker. *Walk through these elements with the students. They can use the recording packet to learn more about marker types, symbols, and materials.*

Slide 32: Practice writing this transcription. *Have students fill write the transcription on scratch paper, on the board, or on a headstone recording form.*

Slide 33: This is what the transcription should look like. *Note: The backward "N" in "born" is drawn backward in the transcription.*

Slide 34: This is the completed headstone recording form. *Walk through these elements with the students. They can use the recording packet to learn more about marker types, symbols, and materials.*

Slide 35: Practice writing this transcription. *Have students fill write the transcription on scratch paper, on the board, or on a headstone recording form.*

Slide 36: This is what the transcription should look like. *Note: The lowercase "i" in "died" is written in lowercase in the transcription.*

Slide 37: This is the completed headstone recording form. *Walk through these elements with the students. They can use the recording packet to learn more about marker types, symbols, and materials.*

Slide 38: Practice writing this transcription. *Have students fill write the transcription on scratch paper, on the board, or on a headstone recording form.*

Slide 39: This is what the transcription should look like. *Note: The difference between the lowercase and uppercase letters in the transcription.*

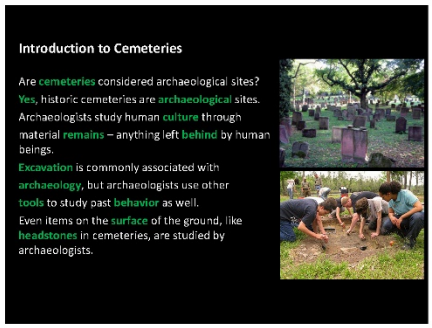
Slide 40: This is the completed headstone recording form. *Walk through these elements with the students. They can use the recording packet to learn more about marker types, symbols, and materials.*


G.R.A.V.E.
Gravestone Research and Volunteer-based Education

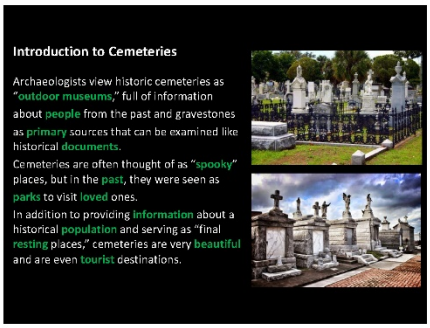
1


Draw your final resting place

2


Introduction to Cemeteries
Are cemeteries considered archaeological sites?
Yes, historic cemeteries are archaeological sites.
Archaeologists study human culture through material remains – anything left behind by human beings.
Excavation is commonly associated with archaeology, but archaeologists use other tools to study past behavior as well.
Even items on the surface of the ground, like headstones in cemeteries, are studied by archaeologists.

3


Introduction to Cemeteries
Archaeologists view historic cemeteries as "outdoor museums," full of information about people from the past and gravestones as primary sources that can be examined like historical documents.
Cemeteries are often thought of as "spooky" places, but in the past, they were seen as parks to visit loved ones.
In addition to providing information about a historical population and serving as "final resting places," cemeteries are very beautiful and are even tourist destinations.

4


What can we learn from Cemeteries?
Historical sources address big events but often leave out information about day to day life or the interests and beliefs of a population.
Headstones can fill in these gaps and provide us with other perspectives.

5

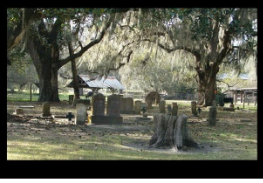

What can we learn from Headstones?
Decorative and symbolic significance
Biographical information
Familial relationships
Fraternal affiliations
Occupational information
Economic status
Cultural or religious beliefs

6

1

Why should we study Cemeteries?

- To protect and preserve burial grounds
- To collect information about past populations
- To learn the stories these historical places can tell
- To prevent neglect, vandalism, and development



7

Cemetery Vandalism

8

Cemetery Neglect

9

How can you help?

Federal, state, & local laws protect cemeteries on public lands.

On private land, it is the responsibility of the land owner.

Florida law allows local governments to care for cemeteries that have been abandoned for over six months.

The Florida Master Site File is a list of all historic properties in the state of Florida. This list is consulted during development projects.

Many known sites are not listed on the file, including a large number of Florida's historic cemeteries.

Projects like ours are important to ensure all historic cemeteries are recorded and preserved.

10

What will we be doing?

- Learning new skills
- Recording Headstones:
  - Transcribing Information
  - Sketching Symbols
  - Mapping Locations
- Analyzing our Results

- We will not do any excavation while we're in the cemetery.
- We will study what's above ground to understand the history of our local community.

11

Gravestones as Historical Documents

1. Analyze the writing
2. Interpret the symbols
3. Look at the overall stonework for clues

12

Step 1: Analyze the Writing

- Name
- Other family members
- Date born
- Date died
- Age

13

14

Epitaphs

An **epitaph** is a short text **honoring** a deceased person.
What can this **epitaph** tell us?
"Sleep on dear mother and take thy rest God called thee home, he thought it best"

- She was a **mother**
- She was **religious**, probably **Christian**
- Her death was likely peaceful

15

Benn's Epitaph:

Pure at thy death as at Thy birth, Thy spirit caught no taint from Earth.

16

Step 2: Interpret the Symbols

17

Common Symbols: Flowers

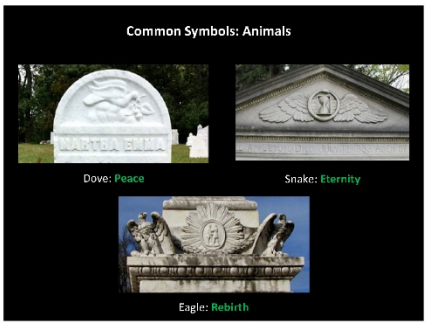
Ivy: **Memory** & **Immortality**

Lily: **Purity** & **Resurrection**

Rose: **Love** & **Friendship**

Olive Branch: **Peace** & **Purity**

18



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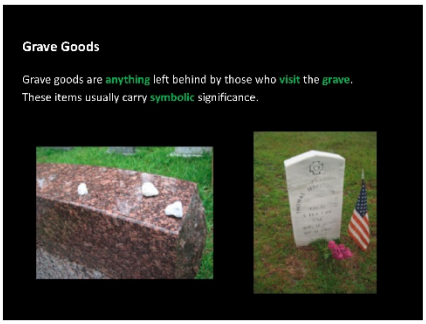

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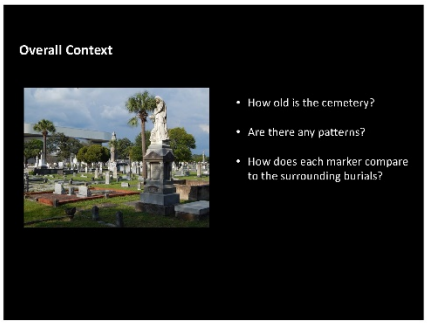

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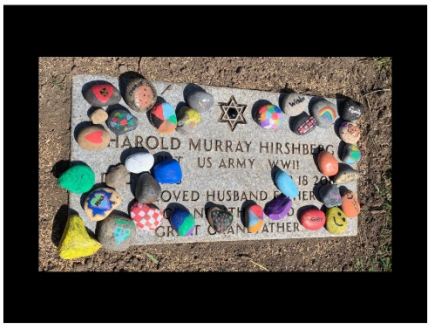


26

27

Recording Transcriptions

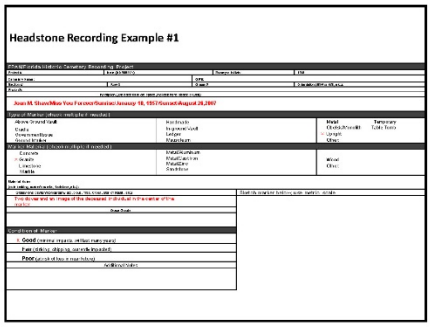
1. Copy the inscription **EXACTLY** as it is written on the stone. **Include** all **misspellings** and reversals.
   - Copy uppercase as **UPPERCASE** and lowercase as **lowercase**.
   - Copy all **punctuation**, even if it looks **wrong** to you.
2. Use a **slash** "/" to indicate a new line of **text**.
3. NEVER **guess** what a word, letter, or number is. If you don't know, leave a **blank** space: "_____"

28

29

Joan M. Shaw/Miss You Forever/Sunrise/Janaury 10, 1957/Sunset/August 26,2007

30



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32

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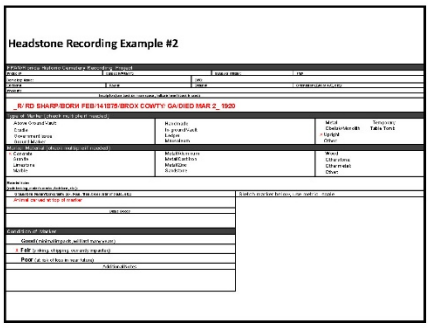

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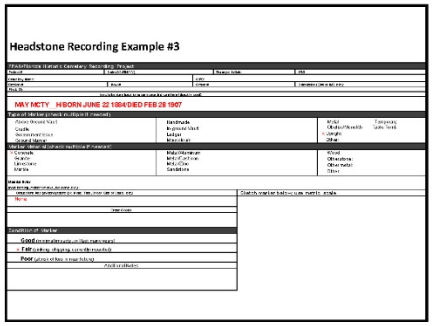

Headstone Recording Example #3
MAY MCTY HBORN JUNE 22 1884/DIED FEB 28 1907

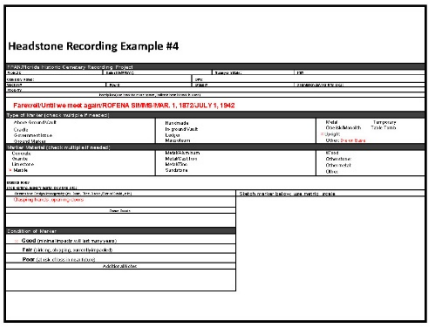
37


Farewell
Until we meet again
ROFENA SIMMS
MAR. 1, 1872
JULY 1, 1942

38


Farewell
Until we meet again
ROFENA SIMMS
MAR. 1, 1872
JULY 1, 1942
Farewell/Until we meet again/ROFENA SIMMS/MAR. 1, 1872/JULY 1, 1942

39


Headstone Recording Example #4
Farewell/Until we meet again/ROFENA SIMMS/MAR. 1, 1872/JULY 1, 1942

40

Name: _____

Introduction to Cemeteries Notes

Introduction to Cemeteries

1. Are _____ considered archaeological sites?
   - _____, historic cemeteries are _____ sites.
   - Archaeologists study human _____ through material _____ – anything left _____ by human beings.
   - _____ is commonly associated with _____, but archaeologists use other _____ to study past _____ as well.
   - Even items on the _____ of the ground, like _____ in cemeteries, are studied by archaeologists.
2. Archaeologists view historic cemeteries as "_____ _____," full of information about _____ from the past and gravestones as _____ sources that can be examined like historical _____.
   - Cemeteries are often thought of as "_____" places, but in the _____, they were seen as _____ to visit _____ ones.
   - In addition to providing _____ about a historical _____ and serving as "final _____ places," cemeteries are very _____ and are even _____ destinations like St. Michael's Cemetery in Pensacola.
3. What can cemeteries tell us?
   - Historical sources often address _____ _____, but often leave out information about _____ life or the _____ and _____ of a population.
   - Headstones can fill in these _____ and provide us with other perspectives.
4. What types of information we can learn from headstones?
   - _____ and symbolic significance
   - _____ information
   - _____ relationships
   - _____ affiliations
   - _____ information
   - _____ status
   - _____ or _____ beliefs
5. Why is it important to study cemeteries?
   - To _____ and _____ burial grounds
   - To collect _____ about past _____
   - To learn the _____ these historical places _____ can tell

- To prevent _____, _____, and _____

6. How can you help?
   - Federal, state, & local laws _____ cemeteries on _____ lands.
   - On _____ land, it is the responsibility of the land _____.
   - Florida law allows _____ governments to care for _____ that have been abandoned for over _____ months.
   - The Florida _____ _____ File is a list of all _____ properties in the state of Florida.
   - This list is _____ during _____ projects.
   - Many known sites _____ listed on the file, including a large number of Florida's _____ cemeteries.
   - Recording projects like _____ are _____ to ensure _____ historic cemeteries are _____ on this site form.
7. What will we be doing?
   - Recording _____:
     - Transcribing _____
     - Sketching _____
     - Mapping _____
   - Analyzing our _____
   - We will _____ do any _____ while we're in the cemetery.
   - We will _____ what's _____ ground to understand the _____ of our local _____

Cemetery Markers and Symbology:

Epitaphs:

- An _____ is a short text _____ a deceased person.
- What can this _____ tell us?
- *"Sleep on dear mother and take thy rest God called thee home, he thought it best"*
  - She was a _____
  - She was _____, probably _____

Symbols:

- Ivy: _____ & _____
- Lily: _____ & _____
- Rose: _____ & _____
- Olive Branch: _____ & _____
- Dove: _____

- Eagle: _____
- Snake: _____
- Anchor: _____ & The _____
- Harp/Lyre: _____ & _____
- Broken _____: Life cut _____

Grave Goods:

1. Grave goods are _____ left behind by those who _____ the _____.
2. These items usually carry great _____ significance to _____ who left them and/or the person _____ there.

Survey and Recording Transcription:

- Copy the inscription _____ as it is written on the stone. _____ all _____ and reversals.
  - Copy uppercase as _____ and lowercase as _____.
  - Copy all _____, even if it looks _____ to you.
- Use a _____ "/" to indicate a new line of _____.
- NEVER _____ what a word, letter, or number is. If you don't know, leave a _____ space: "_____"

Phase II: Collecting Data

Time Frame: 2 hours+

Location: Cemetery

The second phase of the project, data collection, takes place at the cemetery. This can take the form of a one-day field trip or can be implemented over multiple visits. The introductory activity, “Making Observations,” is designed to make students feel comfortable in the cemetery and to prompt them to think about the information markers can tell us. The Headstone Recording activity is flexible and depends on how many markers you want to record. It can also be supplemented with GPS Mapping for a simpler exercise.

Use the following symbols to modify the lessons to fit your schedule:

Ask your students

Can be assigned as homework

Optional activity

For more opportunities

2.1: Making Observations

Time Frame: 30-45 minutes

Students will answer a set of questions designed to familiarize themselves with the cemetery and to reveal the types of data offered by cemeteries and grave markers. In groups, pairs, or on their own, students will explore the cemetery and make observations guided by the questions in the provided worksheet.

Required Materials

- "Making Observations" Worksheet (provided p. 19)
- Pen or pencil
- Writing surface

Lesson Procedures

1. Prior to beginning the lesson, you should provide a brief orientation to the cemetery. If you have any background knowledge of the cemetery to share or if a cemetery official is present and would like to speak with the class, this would be an appropriate time to do so.
2. Remind students of your expectations for their behavior in a cemetery, which was covered in the introductory lecture, including:
    - Acting in a calm and respectful manner
    - Avoiding broken or leaning headstones
    - Leaving items like pottery, shells, or glass in place
3. Break students into groups or partners (if desired) and provide them with the Making Observations worksheet. Allow them to explore the cemetery for about 20 minutes while they respond to the questions on the sheet.
4. Call the students back and discuss their observations as a group. This could be done as a class or students could compare their results in small groups. Below are a few sample discussion questions, but feel free to add your own questions.

Discussion Questions:

1. What was the oldest marker in the cemetery? (Use this as an opportunity to remind students the death date is the date the marker was made and to differentiate between birth and death dates)
2. What were some of the different symbols or social or religious affiliations?
3. What materials were used to make the markers? Are they available locally?
4. Are the markers hand-carved or machine carved? (Hand-carved markers might point to an earlier date or a less affluent community)
5. Based on all the collected observations, can we make any initial guesses about the population that is buried in the cemetery? (i.e. what time period does it date to, what social class, race, ethnicity, or religion were these people affiliated with, etc.)

Name(s): _____ Date:_____

Making Observations in the Cemetery

Wander through the cemetery and make some observations about what you see. Answer the questions below or use them as jump-off points to make your own observations. Use the back of the paper if you need to and be ready to share what you learned with everyone at the end of class.

1. What are some of the oldest dates you see on markers? What are some of the most recent dates?

2. What are some of the symbols you see on markers? Do you know their meanings? Are there any that you don't recognize?

3. Are there any markers that identify occupation or affiliation with any social or religious groups? How can you tell?

4. Can you tell if the markers are grouped in some sort of order? Are there similarities in family names, dates of birth or death, occupation, or anything else you notice?

5. What materials were used for markers and surrounding structures? What other types of materials might not preserve?

6. Are there any unusual epitaphs or inscriptions? Can you interpret them?

7. Are the markers mostly hand-carved or machine carved?

2.2: Recording Headstones

Time Frame: 20+ minutes

Students will use the Headstone Recording Form to record individual grave markers and monuments. An informational packet explaining marker types and common symbols is provided to assist with recordation. Students can work individually, in pairs, or in small groups. You may want to check their work throughout the activity to ensure they are writing clearly and the information is accurate and thorough.

This lesson can be completed multiple times and depends on how many markers you want to record. The students will use the information they collect to complete activities back in the classroom; however, afterward, this information can be provided to the cemetery board or property owner, if desired. More information about this is included in the teacher packet.

Required Materials

- Example Headstone Recording Form (provided for your reference)
- Headstone Recording Forms (provided)
- Informational Packet (provided)
- Phone with a GPS app (AppleMaps, GoogleMaps, etc.)
- Pencils
- Writing Surface
- Rulers/tape measures (optional)

Lesson Procedures

1. As a class, walk through the entire Headstone Recording Form together using one marker as an example. Use the Example Headstone Recording Form as a guide for best practices in cemetery recording. The provided informational packet will help answer questions about gravestone design and symbols. Leave fields blank as necessary and when you are unsure how to respond.
2. Explain how to identify the GPS coordinates for your current location with a phone.
    a. In GoogleMaps, students should press down and hold the blue dot marking their current location and the latitude and longitude will appear in the search bar.
    b. In Apple Maps, students should press down on the dot marking their current location and then swipe up on the informational panel at the bottom of the screen. The latitude and longitude will be displayed on the screen.
    c. When collecting GPS points with a phone, it is very important to zoom in on your location as much as possible to get the most accurate point you can.
    d. The coordinates for the points will be incredibly similar because the markers are close together, so be sure the students write down *all* of the digits instead of rounding up.
3. Break students into partners or small groups to record the headstones. Ensure that each group has at least one person with a phone that has a mapping app, such as Apple Maps, GoogleMaps, or Bing Maps.
4. Provide each student/group with several Headstone Recoding forms and an informational packet. Be sure they write *clearly and legibly*, as they will later compile this data into an excel spreadsheet for data analysis.

    a. Students can also use their phones to photograph each marker as they record them. Photographs preserve details for future researchers and can be uploaded to the website Find a Grave if your cemetery is not already listed and photographed.
5. Students can complete as many or as few Headstone Recording Forms as necessary, based on your cemetery size, time constraints, and/or class research questions. If the cemetery is large, you may want to restrict students to a specific area of the property or to a specific type of marker (i.e. military markers or markers from a certain time period). You may also want to assign them specific markers to ensure they are not duplicating work.
6. If time allows, you can round them up as a group and revisit the "Making Observations" worksheet they completed earlier. Have any of the students' responses changed? If so, how and why?

FPAN Individual Marker Form

FPAN/Florida Historic Cemetery Recording Project			
Project #	Date (DD/MM/YY)	Surveyor Initials:	FS#
Cemetery Name:		GPS:	
Section #	Row #	Grave #	Orientation (E/W or N/S, etc.):
Photo #'s			
Inscription (use back for more space, indicate here if back is used)			

Type of Marker (check multiple if needed)		
☐Above Ground Vault ☐Cradle ☐Government Issue ☐Ground Marker	☐Handmade ☐In-ground Vault ☐Ledger ☐Mausoleum	☐Metal Temporary ☐Obelisk/Monolith ☐Table Tomb ☐Upright Other:

Marker Material (check multiple if needed)		
☐Concrete ☐Granite ☐Limestone ☐Marble	☐Metal/Aluminum ☐Metal/Cast Iron ☐Metal/Zinc ☐Sandstone	☐Wood ☐Other stone: ☐Other metal: Other:
Material Notes (note kerbing, maker's marks, footstone, etc.):		

Gravestone Design/Iconography (ex. Dove, Tree, Cross, Star of David, etc.)	**Sketch marker below, use metric scale**
Grave Goods	

Condition of Marker
☐**Good** (minimal impacts, will last many years)
☐**Fair** (sinking, chipping, currently impacted)
☐**Poor** (at risk of loss in near future)
Additional Notes

FPAN Individual Marker Form

FPAN/Florida Historic Cemetery Recording Project			
Project # N/A	Date (DD/MM/YY)	Surveyor Initials:	FS# N/A
Cemetery Name:		GPS: Use one set of coordinates collected during Lesson 2.3	
Section # *	Row # *	Grave # *	Orientation (E/W or N/S, etc.): inscription faces...
Photo #'s This is only necessary if students take photos with their phones. If used, you may want to create a numbering system			
Inscription (use back for more space, indicate here if back is used)			
When transcribing a marker, ensure to copy it exactly as written, including spelling errors, punctuation, and lowercase/ uppercase letters. If you can't read a letter or a word, use _____ to hold its place. Use a / to indicate a new line of text. Example: May Chambers/ Born JUN 22 1884/ Died FEB 28 1907			

Type of Marker (check multiple if needed)		
☐Above Ground Vault ☐Cradle ☐Government Issue ☐Ground Marker Use design guide to identify type	☐Handmade ☐In-ground Vault ☐Ledger ☐Mausoleum	☐Metal Temporary ☐Obelisk/Monolith ☐Table Tomb ☐Upright Other:

Marker Material (check multiple if needed)		
☐Concrete ☐Granite ☐Limestone ☐Marble Use materials guide to identify type	☐Metal/Aluminum ☐Metal/Cast Iron ☐Metal/Zinc ☐Sandstone	☐Wood ☐Other stone: ☐Other metal: Other:
Material Notes (note kerbing, maker's marks, footstone, etc.): Use the design guide to include additional elements, like footstones, fencing, etc.		

Gravestone Design/Iconography (ex. Dove, Tree, Cross, Star of David, etc.)	Sketch marker below, use metric scale
Use the symbol guide to identify these elements	Sketch the marker in this area. Measurements are not necessary, but if they are included, use the metric system.
Grave Goods	
Includes items purposefully left at marker, such as flowers, flags, shells, ceramics, figurines, stones, etc.	
Condition of Marker	
☐**Good** (minimal impacts, will last many years)	
☐**Fair** (sinking, chipping, currently impacted)	
☐**Poor** (at risk of loss in near future)	
Additional Notes	
Any additional information about the condition of the marker, such as weathering, staining, damages, threats, etc.	*= Your cemetery may already have a system for section, row, and grave numbers. Work with your point of contact to determine whether or not you need to include this information. If not, leave it blank.

Cemetery Marker Guide

FLORIDA PUBLIC ARCHAEOLOGY NETWORK

Material Types

Concrete

Granite

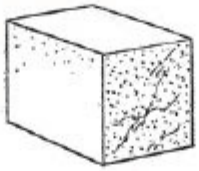
Limestone

Marble

Sandstone

Design Elements

Fencing



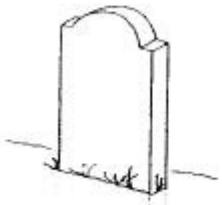
Coping

Urn

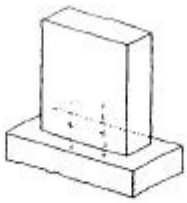
Images courtesy of the Chicora Foundation (2005)

Cemetery Marker Types

Upright Markers



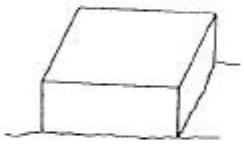
Headstone



Die on Base

Government Issue

Ground Markers



Raised Top

Plaque

Lawn-Type Marker

Other Marker Types

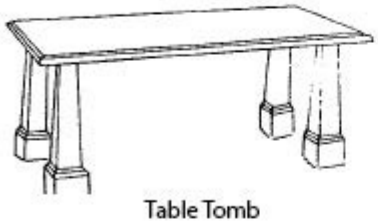
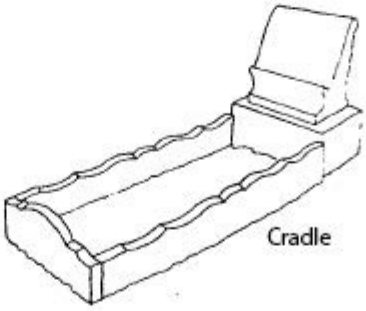
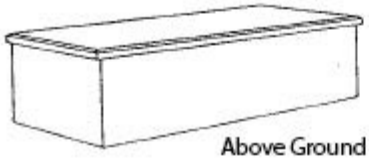


Table Tomb



Cradle

Obelisk



Above Ground

Ledger

Guide created by the Chicora Foundation (1999)

Cemetery Symbology

Anchor
Symbol of hope; often a symbol for individuals associated with the sea

Angel
Judeo-Christian symbol; messengers and attendants of God

Open Book
Judeo-Christian symbol; represents the word of God

Broken Chain
A life that has been cut short

Cherub
Judeo-Christian symbol; usually associated with children's graves

Clasped Hands
A sign of marriage: inseparable in life and inseparable in death

Cross
Christian symbol; resurrection

Cross with winding sheet
Christian symbol; descent from the cross

Crown
Christian symbol; reward of faithful

Crown and Cross
Christian symbol; sovereignty of Christ

Drapery over anything
Sorrow

Hand pointing down
Christian symbol; hand of God, sudden death; can also hold a flower or broken chain

Hand pointing up
Christian symbol; soul is in heaven, reward of the afterlife

Hourglass
Symbol of the swift and unstoppable passage of time

Inverted torch with flames
Christian symbol found only in cemeteries; represents the soul's existence in the next realm

Cemetery Symbology

Upright torch with flames
Christian symbol; represents life, truth, or the Nativity

Lyre
Used to designate musical skill

Quatrefoil
Christian symbol; symbolizes the four evangelists: Matthew, Mark, John, Luke

Rocks
Christian symbol; represents the Lord; can also represent permanence, stability, and strength

Shell
Christian symbol; a symbol of a person's Christian journey through life; also, a tradition for those of African or Indian descent

Ship
Christian symbol; represents the mother church; if seen in profile, symbol of a seafaring profession

Star, five points
Christian symbol; star of Bethlehem

Christian symbol; represents the Father, heavenly wisdom

Star of David
Judaic symbol; symbol of divine protection

Sun
Christian symbol; represents God or Son (setting sun represents death; rising sun represents resurrection)

Trefoil
Christian symbol; symbolizes the Trinity (Father, Son, Holy Spirit) surrounded by the Circle of Eternity

Urn
Symbol of earthly death; associated with a repository for ashes of the dead

Dove
Purity and peace

Eagle
Resurrection and rebirth

Lamb
Christian symbol; represents Christ, innocence; often associated with children's markers

Cemetery Symbology

Snake
Associated with death; with its tail in its mouth, symbolizes eternity

Cypress
Symbolizes sorrow; Roman symbol for mourning

Laurel
Symbolizes victory, eternity; usually in form of a wreath

Anemone
Symbolizes withered hope

Daisy
Symbolizes innocence; usually associated with children's markers

Lilly
Represents innocence, purity, resurrection

Bouquet
Symbolizes grief

Flower bud
Represents a life that's been cut short

Oak Tree/Leaves
Symbolizes strength, endurance, virtue

Calla Lily
Symbolizes majestic beauty and marriage

Forget-me-not
Symbolizes remembrance

Olive Tree/Branch
Symbolizes peace, purity, strength, victory

Cedar
Symbolizes strong faith

Ivy
Symbolizes abiding memory, immortality, fidelity

Palm Tree
Christian symbol; spiritual victory over death

Cemetery Symbology

Poppy
Represents sleep, death, oblivion

Rose
Represents love, friendship

Sheaves of wheat
Symbolizes a fruitful life, immortality, resurrection

Tree Trunk
Represents a Woodman of the World (WOW); symbolizes equality and commonwealth; for more information, visit
http://www.woodmen.com/

Vine
Christian symbol; represents the Christian church, the symbolic blood of Jesus, the sacraments

Weeping Willow
Symbolizes mourning, bereavement, sorrow

Yew
Represents immortality

Sources: Douglas Keister (2004) Stories in Stone: A Field Guide to Cemetery Symbolism and Iconography, http://www.gravestonestudies.org, and http://etc.usf.edu/clipart

2.2 Modified Lesson: GPS Log

This lesson is optional

Lesson 2.2 can be modified by having your students record cemetery markers on a simple GPS Log instead of filling out the Headstone Recording forms. This simplifies the data collection process and produces less paper. The modified is best used when you have limited time or when the emphasis is on mapping, like in a Geography class.

Required Materials

- GPS Log (provided p. 28-29)
- Pencils
- Writing Surface
- Phone with a GPS App (Apple Maps, GoogleMaps, etc.)

Lesson Procedures

1. Divide students into pairs or small groups and provide each group with a GPS Log. Ensure that each group has at least one person with a phone that has a mapping app, such as Apple Maps, GoogleMaps, or Bing Maps.
2. Explain how to identify the GPS coordinates for your current location with a phone.
    a. In GoogleMaps, students should press down and hold the blue dot marking their current location and the latitude and longitude will appear in the search bar.
    b. In Apple Maps, students should press down on the dot marking their current location and then swipe up on the informational panel at the bottom of the screen. The latitude and longitude will be displayed on the screen.
    c. When collecting GPS points with a phone, it is very important to zoom in on your location as much as possible to get the most accurate point you can.
    d. The coordinates for the points will be incredibly similar because the markers are close together, so be sure the students write down *all* of the digits instead of rounding up.
3. Have students record the GPS points and other pertinent information on the log, recording pertinent information based on a research question. For example, have the class collect the points of every military grave and record the war served in and the military branch of each individual. Later, the students can create a map that shows the distribution of these graves across the cemetery. (This is described in Lesson 3.3)

Lesson 2.3: GPS Mapping

Name: _____ Cemetery Section: _____ Row:_____

Name	**Date of Birth**	**Date of Death**	**Other Information**	**GPS Coordinates** (Include ALL digits- do not round)

Name	Date of Birth	Date of Death	Other Information	GPS Coordinates

Phase III: Interpreting Data

Location: Classroom

Time Frame: 1-4 class periods

During this phase, students unpack their cemetery visit to make sense of what they learned. The Drawing Conclusions discussion allows students to process the information they collected in the cemetery and to share their thoughts with their classmates. This can be a standalone activity or can be paired with one of the three follow-up activities.

Three optional activities, Lesson 3.2, Drawing Conclusions Essay, 3.3, GIS Mapping, and 3.4, Data Analysis in Excel, can be done in-class or as homework assignments. You might also give students the chance to pick the activity that appeals most to them. A number of additional opportunities are provided to extend the project and share data with the broader community.

Use the following symbols to modify the lessons to fit your schedule:

Ask your students

Can be assigned as homework

Optional activity

For more opportunities

3.1: Drawing Conclusions Discussion

Time Frame: 15+ minutes

This discussion gives students a chance to unpack their experience at the cemetery and to share their thoughts with you and their classmates. It does not have to be a long discussion, but it is important to give the students a chance to process what they learned at the field trip. A series of sample questions are provided before; however, you can use as many or as few questions as you believe necessary.

If time is limited, this discussion could be quickly completed at the beginning of class after the cemetery visit. However, it could be extended or can be paired with one of the optional lessons (3.2, Drawing Conclusions essay, 3.3 GIS Mapping, or 3.4 Data Analysis) to fill an entire class period.

Discussion Questions

1. What kind of information can we learn from cemeteries? *(Students might list biographical information, family connections, socioeconomic status, religious or social affiliations, etc.)*
2. How long has this cemetery been used? How could you tell? *(Students should reference the oldest and most recent markers in the cemetery)*
3. Who are the people buried in the cemetery you visited? Can you tell if they were wealthy, if they were religious, or if they belonged to any ethnic or racial groups? How do you know this? *(Students should refer to the symbols and inscriptions on the markers, the different types of materials, and grave goods at the cemetery)*
4. What is the most interesting thing you learned on the cemetery field trip?
5. If you could talk to one person buried in the cemetery, who would it be and why?
6. Are historic cemeteries worth protecting and preserving? Why or why not?

3.2: Drawing Conclusions Essay

Time Frame: 1 class period (30-45 minutes)

Students choose one headstone they recorded during the cemetery visit. They then answer a series of questions about the marker and write a short essay based on their answers. They may want the Headstone Recording form for reference. Students should incorporate elements from the marker, such as the time period, the person's age, the symbols on the marker, and other family connections in the cemetery.

Students could write either from the perspective of the individual or in the third person. If desired, you could also encourage students to do some research on who this person was using websites like Ancestry.com.

 Can be assigned as homework

 Optional activity

<u>Required Materials</u>

- Drawing Conclusions worksheet (provided)
- Pencil

Name: _____

Drawing Conclusions from Cemetery Markers

Choose one marker that you recorded at the cemetery on your field trip and fill out this worksheet to understand more about the individual person or people it represents.

Name(s) on Marker: _____

1. List as much information as you can from the inscription, including name, date born, date died, age, other family members, and occupation.

2. Does your marker have an epitaph? If so, what is it? What do you think it means?

3. What symbols are depicted on your marker? What do they mean?

4. What material(s) is your marker made of? Are they available locally?

5. What grave goods were found near your marker? What do you think they signify?

6. On the back of this worksheet, write a one-page essay about the individual(s) represented by your marker. Use your answers to the questions above to help you imagine what life was like for this person.

3.3: GIS Mapping

Time Frame: 1 class period (40+ minutes)

Students will use ArcGIS Online, a free mapping software, to create maps of the GPS points they collected in the cemetery. The maps can then be published and shared on the ArcGIS website. As with the previous lesson, this lesson can either be performed as a class or individually. Similarly, you may want to have each student type up the points they collected and then combine all the data into a master spreadsheet.

An instruction sheet has been provided for students to perform the lesson independently; otherwise, you can walk them through these instructions while they follow along on a laptop. You can either create a class account or they can each create their own account.

 Can be assigned as homework

 Optional activity

Required Materials

- GIS Mapping Instructions (provided)
- Laptops with Internet Connection
- Data collected in cemetery and typed into an excel spreadsheet

Lesson Procedures

1. Remind students this activity is part of the data analysis phase of the project.
2. Either walk the students through this activity as a class using the attached instructions or hand out the instructions so students can work independently or in small groups.
3. Once students have finished creating their maps, have each student or group share them with the class.

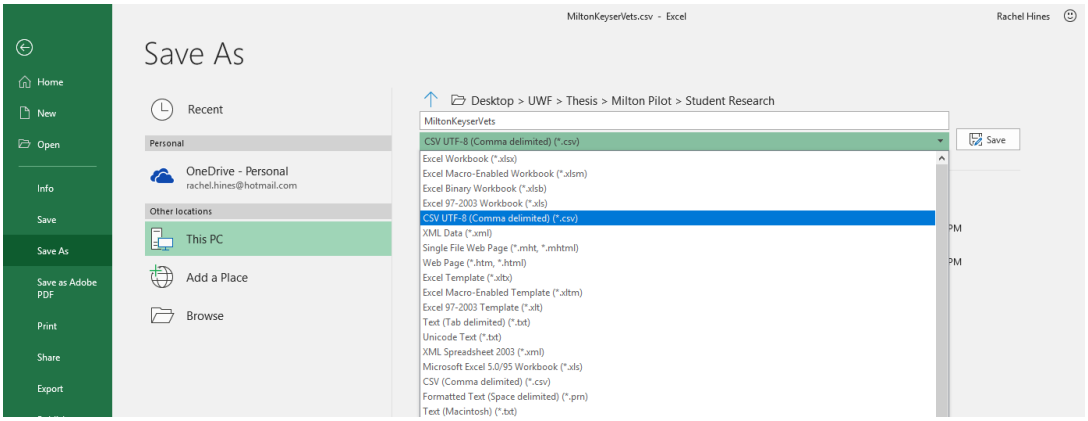
 Discussion Questions

- Do they notice any patterns?
- How do the maps compare to one another?
- What does this data say about the population buried at the cemetery?

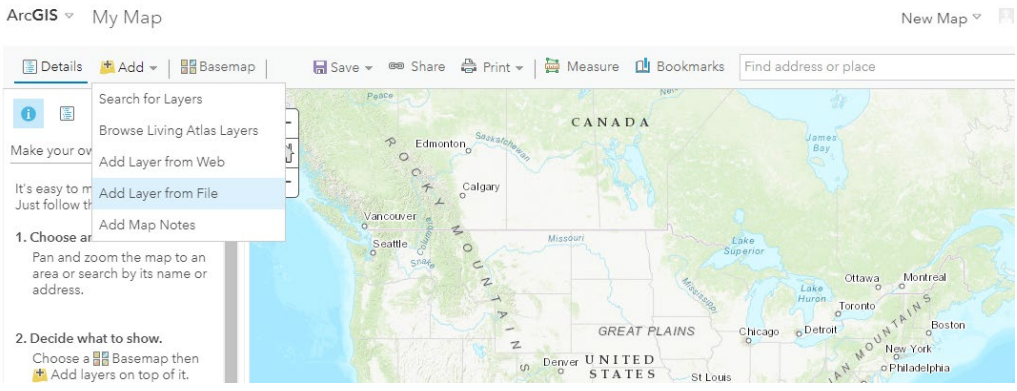
Lesson 3.3: GIS Mapping

Geographical Information Systems (GIS) applications present and analyze spatial and geographic data. We will be creating GIS maps of the GPS points you collected at the cemetery using ArcGIS Online, a free web-based GIS application. Follow the instructions below to create a GIS Map the cemetery data.

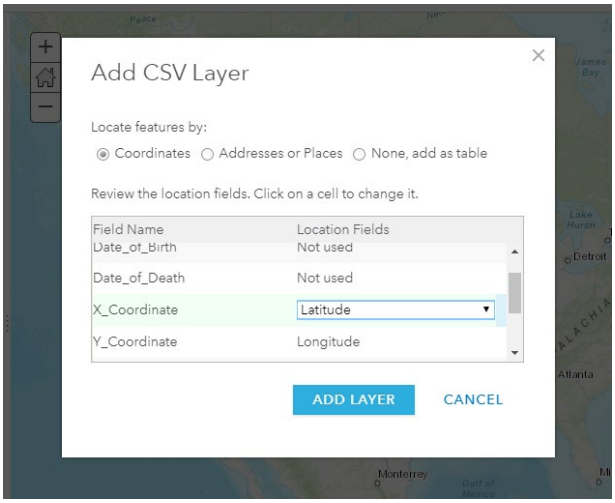
1. Prepare the data for ArcGIS Online by entering the data into an excel spreadsheet. Your spreadsheet must include two fields for the X and Y coordinates you collected in the cemetery.
2. Export your Excel spreadsheet into a .csv file by clicking "File" in the upper left hand corner of Word and choosing "Save As." Choose .csv from the drop down list of file types. This file type is easier for the website to process.



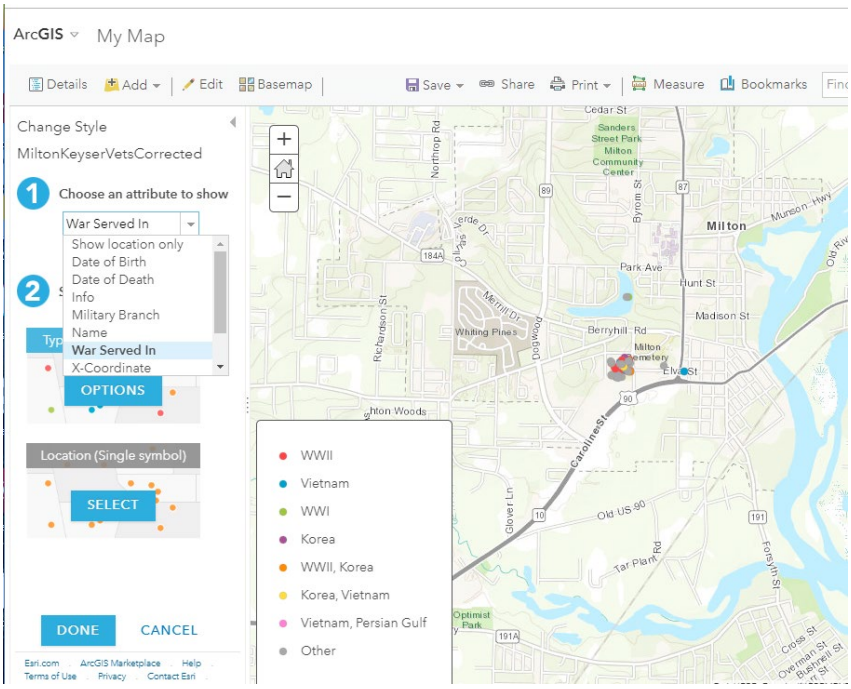
3. Go to www.arcgis.com and create a free account OR log-in to the class account that your teacher created.
4. Create a map by selecting "Map" at the top of the screen. This will bring you to a blank map document.
5. Upload the .csv file you created that contains the GPS points by clicking "Add" and selecting "Add layer from file." Follow the instructions in the pop-up window to import your .csv file.



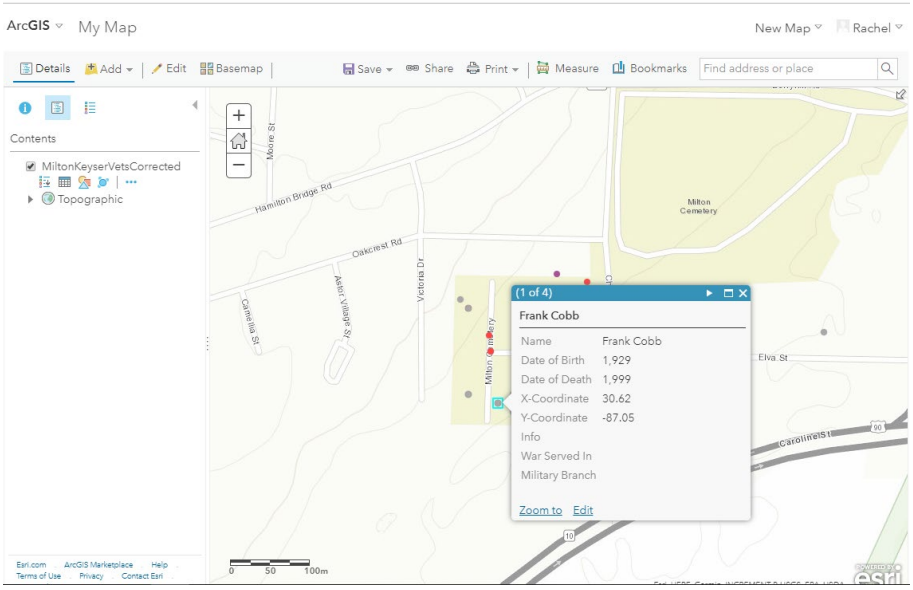
6. When you upload the CSV file, you will have to specify that the X-coordinates are the Latitude and the Y-coordinates are the Longitude. Your GPS points should appear in the map. If your coordinates show up in the wrong place, you might have mixed up the latitude and the longitude. Double check your spreadsheet to make sure each X-coordinate has a positive value and each Y-coordinate has a negative value.



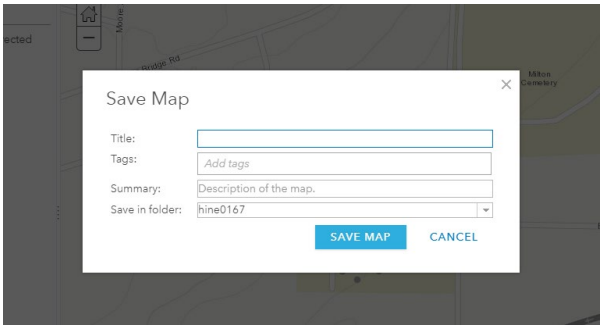
7. A bar will appear on the left side of the screen where you can choose how to symbolize your points. First, you choose the field you want to symbolize. Then you select "Types (unique symbols)" as your drawing style. The map will automatically display your points as different colors.



8. If you click on a point, a pop-up window will appear, allowing you to learn more about that point. You can edit this pop-up by clicking “edit” at the bottom of the window.



9. Save your map by clicking “Save” at the top of the screen. Give your map a title, a couple tags (descriptive words about your map, such as “cemetery”), and a summary description of what the map shows.



10. Finally, share your map with the world by clicking “Share.” This will make the map public, so others can view it.

3.4: Data Analysis in Microsoft Excel

Time Frame: 1 class period (30+ minutes)

Students will enter the data they collected at the cemetery into a Microsoft Excel spreadsheet and perform simple statistical analyses. You may want to have each student enter a few forms into Excel and then combine them all into one spreadsheet, depending on how many markers were recorded. This data can be used to create charts and graphs that illustrate the population represented at the cemetery.

This lesson can either be performed as a class or individually. An instruction sheet has been provided for students to complete the lesson independently; otherwise, you can walk them through these instructions while they follow along on a laptop.

Required Materials

- Microsoft Excel Instructions (provided)
- Laptops with Microsoft Excel
- Dataset collected at a cemetery

Lesson Procedures

1. Remind students this activity is part of the data analysis phase of the project.
2. Either walk the students through this activity as a class using the attached instructions or hand out the instructions so students can work independently or in small groups.
3. Once students have finished creating their charts and graphs, have each student or group share one or more of the charts they created with the class.
4. Discuss how these graphs compare with what you already knew about the cemetery.

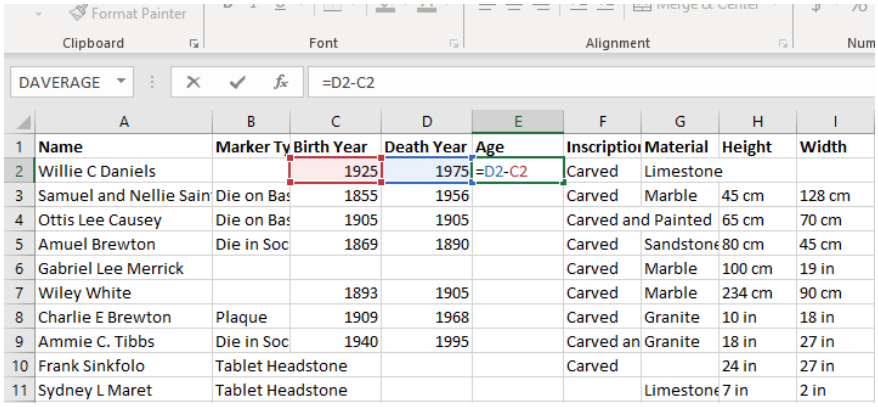
Discussion Questions

- Were there any surprises?
- Did you identify any trends or patterns?
- What does this data set say about the population buried at this cemetery?

Lesson 3.4: Data Analysis in Excel

Follow the instructions below to create an Excel spreadsheet of the data you collected at the cemetery. Then you can use Excel to perform statistical measures and create graphs of your dataset to better understand the population buried at the cemetery.

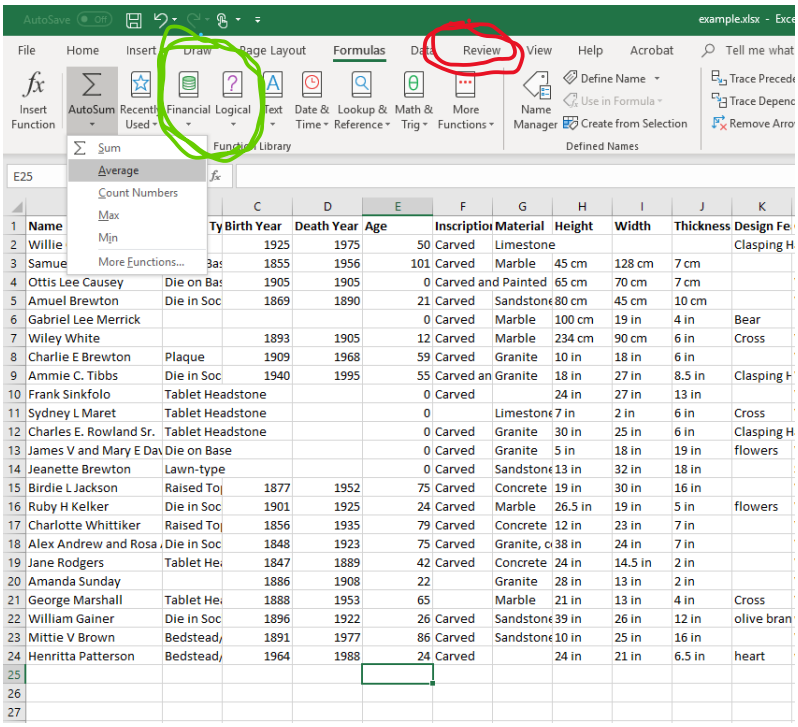
1. Create a heading for each field from the headstone recording form.
2. Enter data from each headstone recording form on an individual line until all the forms have been typed.
3. Create two additional columns for birth year and death year by right clicking and choosing "insert column."
    - Fill out these columns with the birth year and death year listed on the markers. Leave the field blank if there weren't any dates listed on the marker.
4. Analyze the data using several formulas. First, create a new column next to the birth and death year columns called Age of Death and set up an equation to determine the age each individual was at the time of death.
    - This equation will subtract the "Birth Year" column (C, in the example below,) from the "Death Year" column (D) for each row. In the first empty field, type =D2-C2. (If your Death Year and Birth Year column letters are different than in the example, be sure to use those instead.)



	A	B	C	D	E	F	G	H	I
1	Name	Marker Ty	Birth Year	Death Year	Age	Inscriptio	Material	Height	Width
2	Willie C Daniels		1925	1975	=D2-C2	Carved	Limestone		
3	Samuel and Nellie Sain	Die on Bas	1855	1956		Carved	Marble	45 cm	128 cm
4	Ottis Lee Causey	Die on Bas	1905	1905		Carved and	Painted	65 cm	70 cm
5	Amuel Brewton	Die in Soc	1869	1890		Carved	Sandstone	80 cm	45 cm
6	Gabriel Lee Merrick					Carved	Marble	100 cm	19 in
7	Wiley White		1893	1905		Carved	Marble	234 cm	90 cm
8	Charlie E Brewton	Plaque	1909	1968		Carved	Granite	10 in	18 in
9	Ammie C. Tibbs	Die in Soc	1940	1995		Carved an	Granite	18 in	27 in
10	Frank Sinkfolo	Tablet Headstone				Carved		24 in	27 in
11	Sydney L Maret	Tablet Headstone					Limestone	7 in	2 in

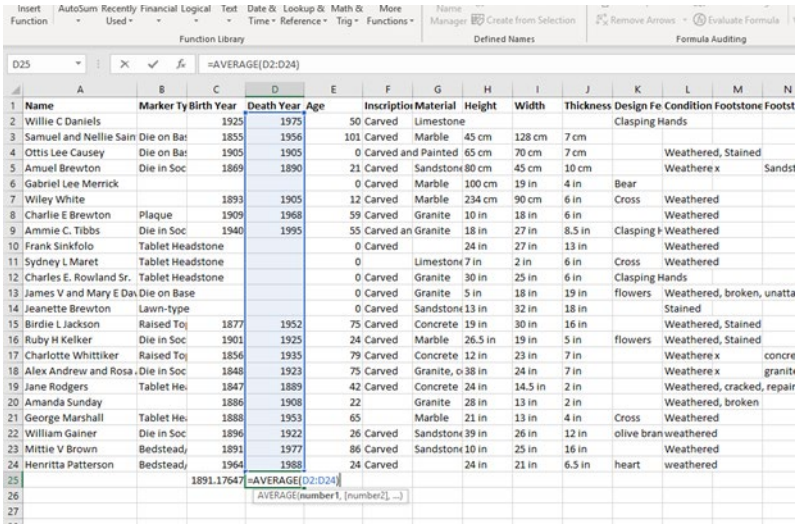
    - Move your cursor over the lower right hand corner of the box where you entered the formula. A white plus sign will appear. Right click on the plus sign and drag down to select the entire Age of Death column. Excel will automatically populate each box with the Age of Death for each marker.

5. Use the average formula to find the average age of death. On the top of the window, select the "Formulas" tab (circled in red in the example on the next page).
    - Select "AutoSum" (circled in green) and Choose "Average." This will automatically calculate the average age of death for the individuals in your cemetery based on the ages you created with your last formula.



	Name		Ty	Birth Year	Death Year	Age		Inscriptio	Material	Height	Width	Thickness	Design Fe
2	Willie			1925	1975	50		Carved	Limestone				Clasping H
3	Samue		Bas	1855	1956	101		Carved	Marble	45 cm	128 cm	7 cm	
4	Ottis Lee Causey	Die on Bas		1905	1905	0		Carved and	Painted	65 cm	70 cm	7 cm	
5	Amuel Brewton	Die in Soc		1869	1890	21		Carved	Sandstone	80 cm	45 cm	10 cm	
6	Gabriel Lee Merrick					0		Carved	Marble	100 cm	19 in	4 in	Bear
7	Wiley White			1893	1905	12		Carved	Marble	234 cm	90 cm	6 in	Cross
8	Charlie E Brewton	Plaque		1909	1968	59		Carved	Granite	10 in	18 in	6 in	
9	Ammie C. Tibbs	Die in Soc		1940	1995	55		Carved an	Granite	18 in	27 in	8.5 in	Clasping H
10	Frank Sinkfolo	Tablet Headstone				0		Carved		24 in	27 in	13 in	
11	Sydney L Maret	Tablet Headstone				0			Limestone	7 in	2 in	6 in	Cross
12	Charles E. Rowland Sr.	Tablet Headstone				0		Carved	Granite	30 in	25 in	6 in	Clasping H
13	James V and Mary E Dav	Die on Base				0		Carved	Granite	5 in	18 in	19 in	flowers
14	Jeanette Brewton	Lawn-type				0		Carved	Sandstone	13 in	32 in	18 in	
15	Birdie L Jackson	Raised To		1877	1952	75		Carved	Concrete	19 in	30 in	16 in	
16	Ruby H Kelker	Die in Soc		1901	1925	24		Carved	Marble	26.5 in	19 in	5 in	flowers
17	Charlotte Whittiker	Raised To		1856	1935	79		Carved	Concrete	12 in	23 in	7 in	
18	Alex Andrew and Rosa	Die in Soc		1848	1923	75		Carved	Granite, c	38 in	24 in	7 in	
19	Jane Rodgers	Tablet He		1847	1889	42		Carved	Concrete	24 in	14.5 in	2 in	
20	Amanda Sunday			1886	1908	22			Granite	28 in	13 in	2 in	
21	George Marshall	Tablet He		1888	1953	65			Marble	21 in	13 in	4 in	Cross
22	William Gainer	Die in Soc		1896	1922	26		Carved	Sandstone	39 in	26 in	12 in	olive bran
23	Mittie V Brown	Bedstead/		1891	1977	86		Carved	Sandstone	10 in	25 in	16 in	
24	Henritta Patterson	Bedstead/		1964	1988	24		Carved		24 in	21 in	6.5 in	heart

- Make sure every entry is highlighted; if there are some empty rows, Excel might automatically choose a group instead of the entire column. You may have to select it yourself.

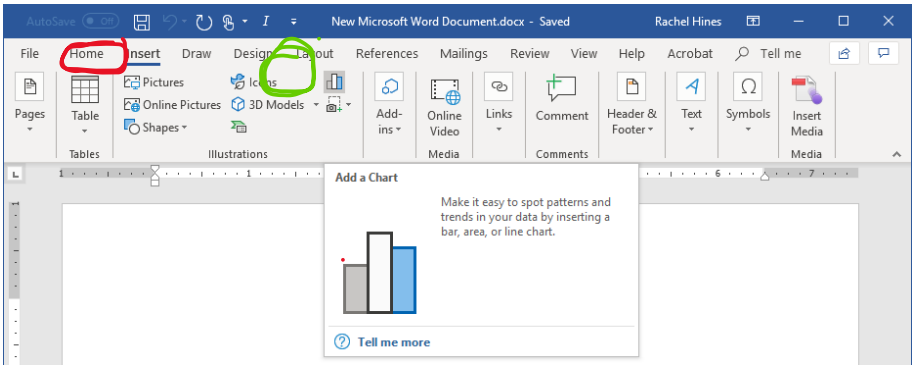


	Name	Marker Ty	Birth Year	Death Year	Age	Inscriptio	Material	Height	Width	Thickness	Design Fe	Condition	Footstone	Footst
2	Willie C Daniels		1925	1975	50	Carved	Limestone				Clasping	Hands		
3	Samuel and Nellie Sain	Die on Bas	1855	1956	101	Carved	Marble	45 cm	128 cm	7 cm				
4	Ottis Lee Causey	Die on Bas	1905	1905	0	Carved and	Painted	65 cm	70 cm	7 cm		Weathered,	Stained	
5	Amuel Brewton	Die in Soc	1869	1890	21	Carved	Sandstone	80 cm	45 cm	10 cm		Weathere	x	Sandst
6	Gabriel Lee Merrick				0	Carved	Marble	100 cm	19 in	4 in	Bear			
7	Wiley White		1893	1905	12	Carved	Marble	234 cm	90 cm	6 in	Cross	Weathered		
8	Charlie E Brewton	Plaque	1909	1968	59	Carved	Granite	10 in	18 in	6 in		Weathered		
9	Ammie C. Tibbs	Die in Soc	1940	1995	55	Carved an	Granite	18 in	27 in	8.5 in	Clasping H	Weathered		
10	Frank Sinkfolo	Tablet Headstone			0	Carved		24 in	27 in	13 in		Weathered		
11	Sydney L Maret	Tablet Headstone			0		Limestone	7 in	2 in	6 in	Cross	Weathered		
12	Charles E. Rowland Sr.	Tablet Headstone			0	Carved	Granite	30 in	25 in	6 in	Clasping	Hands		
13	James V and Mary E Dav	Die on Base			0	Carved	Granite	5 in	18 in	19 in	flowers	Weathered,	broken,	unatta
14	Jeanette Brewton	Lawn-type			0	Carved	Sandstone	13 in	32 in	18 in		Stained		
15	Birdie L Jackson	Raised To	1877	1952	75	Carved	Concrete	19 in	30 in	16 in		Weathered,	Stained	
16	Ruby H Kelker	Die in Soc	1901	1925	24	Carved	Marble	26.5 in	19 in	5 in	flowers	Weathered,	Stained	
17	Charlotte Whittiker	Raised To	1856	1935	79	Carved	Concrete	12 in	23 in	7 in		Weathere	x	concre
18	Alex Andrew and Rosa	Die in Soc	1848	1923	75	Carved	Granite, c	38 in	24 in	7 in		Weathere	x	granit
19	Jane Rodgers	Tablet He	1847	1889	42	Carved	Concrete	24 in	14.5 in	2 in		Weathered,	cracked,	repair
20	Amanda Sunday		1886	1908	22		Granite	28 in	13 in	2 in		Weathered,	broken	
21	George Marshall	Tablet He	1888	1953	65		Marble	21 in	13 in	4 in	Cross	Weathered		
22	William Gainer	Die in Soc	1896	1922	26	Carved	Sandstone	39 in	26 in	12 in	olive bran	weathered		
23	Mittie V Brown	Bedstead/	1891	1977	86	Carved	Sandstone	10 in	25 in	16 in		Weathered		
24	Henritta Patterson	Bedstead/	1964	1988	24	Carved		24 in	21 in	6.5 in	heart	weathered		

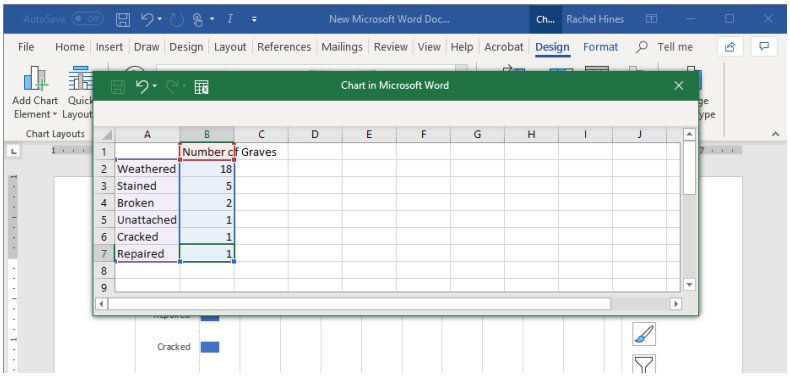
6. Use the average formula to examine some of your other fields, such as finding the average year of death or average year of birth to understand the time period of the cemetery.
7. You can also analyze your data by creating different types of charts. Excel makes this easy by providing suggested charts. Click on the “Recommended Charts” button in the “Insert” tab.

- A pop-up window will appear with a number of charts. If any of the charts are useful, you can select them and insert them into Excel.

8. You can also create charts on your own in Microsoft Word. Excel is better for analyzing numerical data, but it doesn't automatically produce charts for the text-based fields. Open Word and select the "Insert" tab (circled in red in the example below). Click on the chart symbol (circled in green below).



9. A list of charts will appear. Create 3 charts with your data. For example, you could create a bar chart that shows the condition types of the markers by selecting "Bar." Then count up the number of markers for each condition type and enter them into the spreadsheet that appears. It will automatically populate your chart.



10. Write a two-paragraph summary of what you've learned in Microsoft Word. Include some of the charts you created in Word and Excel as support for your summary. Address some of the following questions:
    - What time period does your cemetery date to?
    - What are the most common design styles?
    - What are the most common marker material types?
    - What is the condition of the cemetery?

Further Opportunities

Time Frame: 1 class period or more (45-90+ minutes)

Depending on time, resources, and preferences, there are several options for students to share the data they collected. These projects could be done in class or as homework assignments and could be performed individually, in groups, or as an entire class.

 Can be assigned as homework

 Optional activities

- Write a brochure or walking tour for your cemetery
    - This activity may require additional historical research, either online or at local archives or libraries
- Add your cemetery to The Clio or UCF Riches Database
    - The Clio (https://www.theclio.com/web/) is a map-based website and app that provides information about local historical points of interest.
- Submit the data you collected to University of Central Florida's RICHES Database. Use the release form to donate your data to this database, making it available for other cemetery researchers (https://riches.cah.ucf.edu/?page_id=950) You will want to ensure this is okay with the cemetery officials.
        - This website also provides a platform for students to make "exhibits" about historical topics, if desired.
- Upload your marker photos and transcriptions to Find a Grave
    - Find a Grave (https://www.findagrave.com/) makes images and transcriptions of cemetery markers available digitally. If your cemetery is not listed on Find a Grave, students can add data to this website.
- Create a Story Map in ArcGIS Online
    - Several Story Map templates are available on ArcGIS Online (https://www.arcgis.com/home/index.html) Students can build on the products they created in Lesson 3.3 to make an interactive web tour of the cemetery.
- Plan a community engagement day at the cemetery
    - Working with cemetery officials, students could plan an open house or even a volunteer day for community members to learn more about the history of the cemetery and to accomplish any goals, such as cleaning markers or removing trash.
- Report your local cemetery to the Florida Master Site File
    - Check with cemetery officials or your local FPAN office to determine whether or not your cemetery is listed on the Florida Master Site File. Your class can report it to the Florida Division of Historical Resources by filling out the attached "Historic Cemetery Form" and passing it on to your local FPAN office. Contact information for FPAN offices can be found online here: https://www.flpublicarchaeology.org/

Historic Cemetery Form

Cemetery Name: _____

Date Recorded: _____

Cemetery Address: _____

Cemetery Coordinates: X: _____ Y:_____

History

Year Cemetery was established: _____

Cemetery Owner: _____

□ Private- Profit □ Private-Nonprofit □ Private- individual □ Private-Other

□ City □ County □ State □ Federal

□ Unknown □ Other (Describe): _____

Local, state, or national people of importance (Describe)**:**

Description

Ethnic Group: □ White non-Hispanic □ Hispanic □ Asian

□ Caribbean □ African American □ American Indian- tribe: _____

□ Unknown □ Other (Describe): _____

Status: □ In Use □ No longer used for burials, but maintained □ Abandoned

Condition: □ Well-maintained □ Partly maintained □ Poorly maintained

□ Not maintained, but identifiable □ not maintained, hard to identify

Total # of Graves: **Does total include Unmarked Graves:** □ Yes □ No

Boundary: (e.g. Cast Iron fence, hedge, etc.) _____

_____

Vegetation: (trees, shrubs, flowers) _____

_____

Public access: □ Unlimited □ Restricted: how? _____

Threats: □ Abandonment □ Agriculture □ Mining/Timbering

□ Public Development □ Private Development □ Desecration/Vandalism

□ Other (Describe): _____

Grave Marker Descriptions

Grave groupings (check all that apply)**:** □ Family □ Fraternal Order □ Military

□ Religious □ Ethnic Heritage □ Other (Describe): _____

Groupings indicated by (check all that apply)**:** □ Curbing □ Fence

□ Hedge □ Wall □ Other (Describe): _____

Orientation of graves (East/West, North/South): _____

Methods of marking graves (i.e. headstones, mounds, depressions, objects, etc.) _____

_____

Marker materials (check all that apply)**:** □ Marble □ Concrete/Cement □ Fieldstone □ Wrought Iron
□Granite □ Cast Iron □ White Bronze/zinc □ Sandstone □ Slate □ Wood

□ Other (Describe): _____

Describe grave goods: _____

_____

Describe marker damage and conditions (i.e. sunken, tilted, chipped, weathered, broken, etc.): _____

_____

_____

Are descriptions legible? □ Yes □ No

Distinctive grave markers, monuments, architectural features: _____

_____

_____

Names of stone carvers (if known): _____

_____

Recorder Information

Name(s): _____

School: _____

Contact info (address, phone, or email): _____

_____