A NON-INVASIVE APPROACH TO HISTORIC CEMETERY STUDIES IN MILWAUKEE AND GERMANY: WAS THE AMERICAN DREAM WORTH IT?

by

Bryan John Schutte

A Thesis Submitted in

Partial Fulfillment of the

Requirements for the Degree of

Master of Science

in Anthropology

at

The University of Wisconsin-Milwaukee

August 2024

ABSTRACT

A NON-INVASIVE APPROACH TO HISTORIC CEMETERY STUDIES IN MILWAUKEE AND GERMANY: WAS THE AMERICAN DREAM WORTH IT?

by

Bryan John Schutte

The University of Wisconsin-Milwaukee, 2024
Under the Supervision of Dr. Robert Sherman

This thesis tests a non-invasive approach using readily accessible historic cemetery data to examine 19th-century immigration to the United States, with a focus on the narrative of the American Dream. This narrative, which is embedded within modern American culture and history, is an inspiring tale of people, mainly immigrants, starting over in a new country and creating a better life for themselves and their posterity. What motivates immigration is the idea that anybody can achieve the American Dream. But is this true? Are immigrants necessarily going to have a better life in a new country? What do we know about the lives of those who stayed behind? This study interrogates the notion of the American Dream by critically examining the mass migration periods of the mid-19th century—with a primary focus on the so-called "48ers" who immigrated to the Milwaukee area from southwest Germany in 1848—to see whether it was genuinely advantageous for these individuals to immigrate using changes in average life span and life expectancy as a measure of quality of life. Online gravestone information is used to analyze the average life spans of people born two generations before, one generation during, and two generations after the arrival of the 48ers. The resulting data reveal outliers and trends in population dynamics of the living populations in the Milwaukee area and southwest Germany, painting a more differentiated picture of events overshadowed by the trope of the American Dream.

Dedication

To all my friends, family, and mentors: without your knowledge, support, and patience, I would not be where I am today. I will be forever grateful.

A special thanks to Mike for helping me several times during this process.

From the bottom of my heart,
Thank You

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGEMENTS

I want to thank all my committee members individually. Dr. Jason Sherman, my advisor, thank you so much for everything you have done to help me. I know that my work schedule is atypical for a regular grad student. However, your flexibility always relieved the pressure and stress when working on this thesis. I also cannot thank you enough for the opportunity to work with you in New Mexico. Although it was only a week and a half, the experience will stay with me forever. I know I am also not the best writer in academic writing, so your patience and dedication to reading the drafts I sent you probably was not the easiest, and I commend you. I took one class with you, and it was a fantastic experience, despite it being during COVID and a class on pottery, which was probably difficult to manage during a pandemic.

To Dr. Bettina Arnold, getting to know and learn from you has been amazing. I could not have gotten as much information as needed on the German sections without your help, especially since I do not speak the language. Your classes were also inspiring, especially your Who Owns the Past class; I cannot look at museum exhibits now without thinking about the provenience of the items on display in a good way. Your Professionalism class was probably the most significant to my education. Learning how to be a good graduate student and how to work on a thesis or a dissertation successfully also helps me outside of academics. In that class, you also helped me develop the topic for this thesis. Thank you for all knowledge and time you have given me, and I wish you the best in your upcoming retirement.

To Dr. Shannon Freire, thank you for being a part of my thesis committee. Even though we had never met before, nor have I taken a class of yours, I truly cherish this time we have gotten to know each other. It was refreshing to see someone closer to my age be successful in this field and within academia when my academic past is filled mostly with professors closer to

retirement with no successor. Your work and knowledge comfort someone going through grad school or even undergrad to show that you can make it within the field. Thank you also for all the resources you sent me that helped me write the thesis, especially on the cemeteries and city background. I hope you have a long and successful career at UWM or wherever life takes you.

I would also like to acknowledge and personally thank the staff at Findagrave.com. Thank you for allowing me to use the data from your website to complete my research. Without it, I would not have the thesis I have today, and it made my life much easier. I followed everything that we agreed upon that made it possible for me to utilize the data.

Chapter 1: Introduction

In recent decades, archaeology has increasingly been seen as invasive and problematic by descendant communities, especially in mortuary archaeology and bioarcheology (Scarre 2016:181-198). Researchers in the past have tended to dehumanize the subjects of their study, treating human remains no differently than any other artifact (Scarre 2016:181). Often, members of contemporary societies were not consulted when their cultural past and even their ancestors were excavated (Warrick et al. 2021). Historically, archaeologists have also tended to believe that their work in uncovering the past is vital for humanity and that the most affected people will eventually come around and, therefore, support archaeology no matter what (Ferris and Welch 2014:223). This belief was coupled with the notion that archaeology must focus on physical material remains to be validated as a science (Ferris and Welch 2014:220). Archaeology has since moved towards what Ferris and Welch (2014:225-226) call "sustainable archaeology" to prevent the destruction of protected sites, especially the use of non-invasive techniques to advance further archaeological understanding of history (Ferris and Welch 2014:225-226). Reflecting this methodological shift, this thesis adopts a non-invasive approach to the archaeology of 19th-century immigration in the United States.

The COVID-19 pandemic likewise forced new and existing research to move towards a non-invasive approach with less reliance on the collection of material evidence when the world essentially stood still (Magnani et al. 2021:51-52). More generally, higher education and research occupations were forced to change their methodologies and practices due to laws enacted during the pandemic (Papa et al. 2022:262). While alternative forms of research have been in place in multiple fields of study, COVID-19 abruptly brought them to the foreground (Papa et al. 2022:262). This dynamic affected my thesis research as I began graduate school at

the height of the pandemic. Non-invasive or remote research felt like the only available option as a subject for a thesis at that time, given restrictions on both travel and human contact. Conventional methods based on past forms of research seemed non-compliant in the wake of COVID-19 protocols. Research, therefore, was practically limited to easily accessible resources and data that a person could acquire without leaving home. Even data hidden behind paywalls that may have been financially manageable in the past were potentially problematic during the global pandemic when everything became more expensive.

I thus became interested in testing a non-invasive approach using readily accessible data to address a large anthropological question. Specifically, I wanted to critically examine a narrative that has been associated with previous generations and strongly resonates in US culture, the notion of "The American Dream." Living in a place like Milwaukee often reminds one of the town's proud German cultural heritage. German immigration to the city during the 19th century—especially the large wave of immigrants who arrived in 1848 (the so-called "48ers")—is often represented nostalgically as a golden era of the city's history. But how do we know their lives were improved because of this major upheaval? I considered looking at quality of life among immigrant groups as a good way to approach this question. One potential measure of the quality of life that can be studied using a non-invasive approach is average life span. Rather than relying on bioarcheological data, life span can also be assessed by using accessible online sources to find the ages of the individuals from this period. However, looking solely at Milwaukee cemeteries only reveals the average age at death of immigrants living in the city during a specific period. Therefore, I decided to compare cemeteries in Milwaukee with cemeteries in the region where many of the 48ers were from, southwest Germany. Additionally,

rather than focusing solely on the 48ers' generation, I considered previous and subsequent generations in order to attempt to ascertain possible trends in life expectancy through time.

Certainly, there were some potential issues associated with such an approach. I used a website called Findagrave.com, a free, volunteer-based data site for cemeteries, to generate the life expectancy data. The site relies on registered volunteer-based data entry, so some inaccuracies in the recorded data are to be expected. Another issue is that the amount of information available for individual graves may vary. Whereas complete family backgrounds are available for some graves, the information for other graves may include only what is inscribed on the gravestones. Therefore, the full spectrum of potential information associated with graves may not be available on the website. Other types of documents may provide more information, such as vital records or church cemetery records. While I could attain and read such records for cemeteries in Milwaukee, this was not true for Germany, as records there were primarily in German, which I am not able to read. The accessibility of German records was also restricted by paywalls. An additional issue with studying cemeteries in Germany is that the nation state we know today has only existed since the end of the Franco-Prussian War in 1871. Before that, it was a loosely structured group of principalities held together by people's connections to a "German" identity that was based mainly on language and diffuse ideas about blood and racial purity. Two World Wars, the division and reunification of West and East Germany and one of the most open immigration policies in Europe have resulted in a Germany that is very different today than it was during the main wave of immigration to the United States. Despite these issues, my study demonstrates that a non-invasive approach using historical cemetery data that are easily accessible online can still yield insights into the complex and ambiguous nature of the

American Dream to generate results that may be compared to other studies based on different kinds of archaeological or historical data.

The American Dream

Immigration is a perennial topic of debate within the United States (Ewing 2019:1). The increasing movement of people from various economically deprived or violence-prone areas of the world has led to much reflection on past mass immigration waves and what life was like for these immigrants. The American Dream narrative is often invoked to create a vague yet overall positive picture of immigration, fueling images of people fleeing or relocating from their native homelands to settle in the United States and increase their quality of life compared to what they left behind (Adams 1931). The American Dream is most often portrayed as a narrative of people seeking more economic freedom and advancement, but this is only one of many possible "American Dreams" (Cullen 2003:8). This thesis attempts to assess whether this narrative was true for everyone who emigrated to the US at a particular time and from a particular place in the mid-19th century.

What exactly is the American Dream? James Truslow Adams coined the term "The American Dream" in his book *The Epic of America*, published in 1931. According to Adams, the American Dream is:

> …that dream of a land where life should be better, richer, and fuller for everyone, with the opportunity for each according to ability or achievement. It is a difficult dream for the European upper class to interpret adequately, and too many of us ourselves have grown weary and mistrustful of it. It is not a dream of motor cars and high wages merely, but a dream of social order in which each man and each woman shall be able to attain the fullest stature of which they are innately capable and be recognized by others for what they are, regardless of the fortuitous circumstances of birth or position (Adams 1931:214-215).

The American Dream is often thought of as an extension of the preamble of the Declaration of Independence, which states that people "are endowed . . . with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness" (Cullen 2003:35-59). Later, the dream was described as people coming to the United States to seek a better life than initially available in their homelands (Jillson 2016:18). Even though the concept was first articulated in 1931, it was retroactively applied to the immigration waves of the mid-1800s as well.

The problem with this concept is that the focus is solely on its positive aspects while stories of failure eventually disappear from the narrative. Grandin (2019) highlights several periods in which the mass movement of people can be described as the ideal of the frontier. He quotes Martin Luther King Jr., who stated that the idea of the frontier could feed into multiple reinforcing pathologies: racism, violent masculinity, and moralism that celebrate the rich and punish the poor (Grandin 2019:4). This combination of factors has allowed the United States to avoid a true reckoning with its social problems, including economic inequality, racism, crime, punishment, and violence.

Case Studies

The immigration waves of the 1800s—including the wave in 1848 involving immigrants often called the "48ers"—were critical milestones in the immigration history of the United States. The 48ers included German-speaking people who eventually settled in the Milwaukee area (Gurda 2018:59-60). During this period, the narrative of the American Dream became a reality for the German-speaking immigrants with cultural advancements and economic growth (Gurda 2018:62). Success stories were often highlighted from this time to make others believe that these immigrants had found success by moving to the United States, especially the case of

Horatio Alger to name one of many (Schwartzman 2000). It is important to note that many of the success stories of immigration are the result of networks of chain migration (MacDonald and MacDonald 1964:84), which I will discuss later in this chapter. However, this was not the case for many people. Therefore, a reassessment of this period is needed in order to illuminate how the myth of the American Dream was created and reified.

Some of the well-known success stories in Milwaukee involve the city's early Beer Barons, such as Jacob Best and Frederick Pabst of the Pabst Brewery. According to the Wisconsin Historical Society, Best was born in Hesse-Darmstadt, Germany, in 1786. Before he immigrated to Milwaukee in 1844 and became a successful Beer Baron, he learned the trade while operating a small brewery in Mettenheim. With the help of two of his sons, Phillip and Jacob Jr., who had previously immigrated to Milwaukee in 1840, Best started a small brewing and distilling business. The distilling operation was not as successful as the brewing operation, which produced a popular light-lager style beer, so the distilling operation was closed. The name originally given to their operation was Empire Brewery, but this name was short-lived as they changed the name of their business to Best and Company. Best created the one of the most successful brewing companies at the time, and its beer became one of the most popular in Milwaukee. Jacob remained in the business until he retired in 1853, after which he devoted his time and effort to local politics and held minor public offices in the city. The name Pabst came from Phillip Best's son-in-law, Frederick Pabst, who became president of the firm in 1873. In 1889, the brewery was renamed the Pabst Brewing Company, which is still in existence today.

Another success story is that of the Schlitz Brewery. According to Cornell (2023), the brewery got its start with a Milwaukee restaurant and brewery established by 34-year-old August Krug, an immigrant from Bavaria, in 1848. Two years later, Krug hired Joseph Schlitz, who

immigrated from Mainz, as his bookkeeper. After Krug died in 1856, Schlitz took over and managed the brewery, married Krug's widow Anna, and changed the name of the brewery to what it is known as today, Schlitz Brewery. August Uihlein, Krug's 16-year-old nephew, began working under Schlitz to learn the business. Over the span of two decades, Schlitz became one of the most significant brewing operations in Milwaukee. In 1875, Schlitz drowned when the ship he was traveling back to Germany on went down at sea. August Uihlein took over the business alongside his three brothers, who had joined him by that time.

Under Uihlein's management, the brewery not only prospered but survived and thrived after prohibition was repealed (Cornell 2023). In the late 1940s, Schlitz became the highest-selling beer in the United States, taking the title away from another famous American brewery, Anheuser-Busch in St. Louis, which produced Budweiser. The two breweries vied for the status of "King of Beers" until 1957, after which Budweiser consistently outsold Schlitz. To regain its place as the top beer, Schlitz started to massively increase production by cutting corners and releasing new products to replace their original product, but to no avail. These endeavors were not enough and eventually forced the brewery into bankruptcy. The brewery was subsequently acquired by the Pabst Brewery, which released the original Schlitz beer recipe that had made the company famous and is still in production to this day.

Although success stories like these are well known by the public, they overshadow some of the tragic stories associated with the immigrant experience. One counter-narrative is represented by the Milwaukee County Poor Farm Cemetery (MCPFC) project undertaken by researchers at the University of Wisconsin-Milwaukee. The MCPFC encompasses four cemeteries within Milwaukee County. According to the MCPFC website, a large portion of the cemetery population would have been labeled as indigent. The term indigent is defined as

experiencing financial hardship sufficient to make a person eligible to receive official assistance in Milwaukee county (Freire and Haas, 2023). According to the MCPFC website, the burial of the poor was mandated by the state of Wisconsin after obtaining statehood under what is currently known as the Wisconsin Funeral and Cemetery Aids Program. Cemetery II was in use between 1882 and 1925 and was excavated by archaeologists in 1991-1992 and again in 2013. It is important to note that Cemetery II was disturbed multiple times throughout its history; this distinguishes it from the cemeteries used in this thesis, which, for the most part, have been undisturbed. One of the primary goals of the MCPFC is to identify the individuals who are buried within these cemeteries. Names and stories of individuals interred in Cemetery II are recounted in Richards and Kastell (1993), Richards (1997), Richards et al. (2016), and particularly in Drew's (2018) dissertation.

One story that fits the narrative of this study is that of the Rosche Family. The father, Frank Rosche, an iron molder, was a native of Wisconsin born in 1854; the mother, Minne, however, was a Prussian immigrant, arriving in the United States in August 1869 when she was fifteen years old (Drew 2018:179). They had several children together: Heinrich in 1877, Edward in 1879, Emma (Alvina) in 1879, Emil (William, Wilhelm, and Willie) in 1882, Rosa in 1884, Alma in 1886, Lillie (Hulda) in 1889, Ida (Louisa) in 1890, Mabel (Vrohne) in 1892, and Elsa in 1893 (Drew 2018:179). Alvina, Willie, Rosa, Louisa, and Mabel died of diphtheria in 1894. These children were buried in Cemetery II because the family did not have the means to arrange for proper burials while still caring for their remaining living children (Drew 2018:180). On 23 November 1908, grief-stricken after the loss of her children, Minne committed suicide by ingesting carbolic acid. However, she was not buried at the MCPFC but at Union Cemetery in Milwaukee; Frank was also buried in Union Cemetery after moving to and dying in Chicago in

1920 (Drew 2018:183). This is an unfortunate tale involving parents who had to make tough choices about how to bury their children—something not often talked about in the context of the American Dream narrative.

Research Questions

This study uses a non-invasive approach and accessible online data to critically examine the mass migration periods of the mid-19th century—with a primary focus on the 48ers who immigrated to the Milwaukee area from southwest Germany—to see whether it was genuinely advantageous for these individuals to immigrate based on changes in average life span or expectancy, which is one measure for quality of life (Steckel 2008:129-132). Certainly, there are other ways to infer quality of life based on factors such as satisfaction of a person's basic needs, good health and diet, favorable political circumstances, and freedom from war and famine. I chose to focus on life expectancy for this study due to the ability to gain online access to death and birth dates, particularly on gravestones. Gravestone information was then used to analyze the average life spans of people born two generations prior to, one generation contemporaneous with, and two generations after the arrival of the 48ers. The resulting data should reveal any outliers or trends in population dynamics of the living populations in the Milwaukee area and southwest Germany, painting a more accurate picture of events often overshadowed by narratives like the American Dream. My original hypothesis to be tested was whether life expectancy or average life spans decreased in Milwaukee after the immigration waves compared with German counterparts who remained in the homeland—that is, might some of these immigrants have lived longer if they had stayed in Germany?

There are many different ways to collect data for this type of study. The first is through questionnaires or interviews of people who lived during this time. Unfortunately, there are no

living immigrants left from this period. Their descendants could provide stories about their ancestors, but oral or written tradition is not always as accurate as one might wish. Another method is to study the skeletal remains of the original immigrants and compare them to people who decided to stay in Germany. This process is invasive, expensive, and very time-consuming due to the time required to conduct such analyses and was obviously beyond the scope of a master's thesis project. Another approach is to compare the life expectancy and average age at death of people living in the new city to those who remained in the homeland from which people emigrated. One way to obtain the comparative data needed for both Milwaukee and southwest Germany was to use cemetery records or tombstone dates. A multi-generation analysis of data from before, during, and after the mass immigration periods of the 1840s and 1850s was needed to fully understand changes in life expectancy among immigrants. Using the German immigrants of the mid-1800s to the Milwaukee area as a case study, this approach demonstrates that the American Dream narrative perpetuates the idea that everyone who immigrated to the United States had a better life than they would have had if they had stayed in their natal communities. The actual picture that emerges is more complex.

Life Expectancy

This study examines changes in the life expectancy of people immigrating to another country, specifically the United States, focusing on German migrants to Milwaukee in the later nineteenth century. This requires knowledge of factors that can either prolong or shorten life expectancy, as well as the basic needs of all humans to thrive in this world. Access to quality healthcare or the spread of a deadly disease can significantly impact the average life expectancy among people living in a specific area. Political agendas, wars, and revolutions can dramatically alter the life expectancy of the directly involved people. Even being born male or female or a

member of a particular socio-economic or ethnic group can significantly change an individual's life expectancy. It is also essential for this study to acknowledge that life expectancy or span is but one of the many factors that determine quality of life, among other factors such as education, nutrition, and security, to name a few (Costanza et al. 2006:2-3). For this study, the approach chosen was to quantify and study demographic data derived from gravestones. While there may be different or potentially better sources of data for this type of study, my focus was on testing the utility of non-invasive historic cemetery data as a means of critically examining the American Dream narrative.

Human Needs

What are the basic needs of all humans? One of the most cited pieces of literature on this topic is Maslow's (1943) hierarchy of needs. According to Maslow, there are five essential needs required by humans to thrive: physiological, safety, love and belongingness, esteem, and self-actualization. Physiological needs include biological requirements for human survival, such as air, food, drink, clothing, warmth, reproduction, sleep, etc. Such needs are fundamental since the human body cannot function and the human species could not survive without them. Safety encompasses protection from nature and the elements, security, order, law, stability, and freedom from fear. Love and belongingness are essential psychological and social needs for people, with healthy interpersonal relationships driving better behavior, which includes friendships, intimacy, trust, and acceptance. Esteem has a dual nature and includes self-esteem as well as esteem based on one's reputation or respect from others. Both are important to cultivate at a young age and are part of growing into mature adulthood. Maslow added self-actualization to mean realizing personal potential, having self-fulfillment, seeking personal growth, and aspiring to become

capable. This is the factor that the American Dream has represented for many, both in the past and in the present.

Health and Diet

More specific examples of needs in Maslow's categories can be considered further. One critical need that can be examined through an anthropological lens is diet. According to Elshahat et al. (2023), epidemiological evidence suggests that diet and nutrition impact an individual's physical and mental health. They found that immigrants' mental health improved significantly with access to better quality and more nutrient-rich foods, such as fruits, vegetables, and whole grains. This improvement occurred despite socioeconomic and sociocultural concerns such as financial pressures, language barriers, inaccessible/inadequate food systems, and high-priced foods. They also found that mental health and overall diet improved when immigrants maintained their ethnic foods or sought out their cultures' food.

Access to quality medical care and health professionals may contribute significantly to a greater life expectancy. Moore (1986) looked at Hispanic immigrant populations in Richmond, California, and their lack of access to medical care. Some of the main factors that limited access to medical professionals were language barriers, cultural differences, cost, folk medicine use, alienation, and a health care system created, controlled, and dominated by non-Hispanics. The primary roots of these obstacles were that undocumented migrants had less education, less money, less health insurance, poorer housing, and less understanding of the English language. Moreover, the immigrants were unable to access these primary needs due to their illegal status and the laws surrounding medical benefits. From this study and many others (e.g., Derose et al. 2007; Hacker et al 2005; Pavli and Maltezou 2017) we can surmise that recent immigrants may

initially have difficulty finding access to quality health care when they immigrate to a new country.

Some diseases in the past have been falsely attributed to specific groups of people who consequently were stigmatized, despite many not ever having the disease. Such was the case, for example, with homosexuals and drug users during the AIDS pandemic in the 1980s (Singer 1994). AIDS quickly became described as a disease of society, and people's mentalities shaped the perception and treatment of the disease. Brandt (1988) suggests many healthcare professionals refused to treat people who carried the virus because it was seen as a "gay" disease and, therefore, the consequence of immoral actions as deemed by broader society. As a result, many people did not receive the medical attention they deserved and, therefore, died younger than expected. Linking a disease to a specific group of stigmatized people can cause harmful effects, especially for members of minority groups.

There are even more recent examples of diseases being incorrectly associated with particular ethnic minorities in the United States. Katikireddi et al. (2021) describe the wrongful association of the COVID-19 pandemic with Chinese Americans, who were accosted, verbally and physically assaulted, or ostracized due to bigotry and the false association with the COVID-19 virus, which originated in Wuhan, China. This association fueled an unhealthy stigma and sabotaged the efforts of public health officials to combat the disease. Pandemics, disease, and death elicit fear and uncertainty, especially when a disease disrupts daily life and routines. Fear coupled with death and no explanation or foreseeable end to a crisis continually builds and eventually is released in some fashion. The anger is historically directed at scapegoats, usually minorities or other people who are seen as vulnerable. Often, public health responses are imposed on these vulnerable populations, such as Chinese Americans in the case of COVID-19,

who were subjected to harsher quarantines while other populations were unaffected. This causes distrust among the vulnerable population that eventually stifles efforts to combat the disease, allowing it to spread further and last longer, ultimately causing more harm to society.

Politics, War, and Revolutions

War and revolutions can have significant effects on life expectancy. Upsurges in violence, disease, starvation, and depressed economic functioning all indirectly impact mortality (Austin and McKinney 2012). Singer and Hodge (2010) discuss many instances in which war affects not only the health of people directly involved in the war but also civilians. Armed conflict can force civilians to flee and become refugees. Refugees often lack access to health care and adequate food supplies. War directly or indirectly affects lives all over the world, and violence and diseases spread while war is raging. The effects of war can also last for years. Moreover, war can also bring about other diseases that may kill soldiers and civilians. According to Sartin (1993), two-thirds of deaths in the American Civil War were caused by disease, not battle. Similarly, the Spanish Flu, the deadliest pandemic in history, spread globally as a result of battles during World War I and caused the death of hundreds of thousands of people (Barry 2020).

A good example from 19th century Milwaukee of how the Civil War directly impacted immigrants and people's health even if they survived the actual conflict is Charles (Carl) Doerflinger, the first curator of the Milwaukee Public Museum. Döerflinger was born in Baden, Germany, in 1843, and his family came to the United States in 1849 before settling in Milwaukee (Flowers 1881). Doerflinger was drafted into the Wisconsin 26th infantry and wounded at the age of 19 in the Battle of Chancellorsville, where his left leg was amputated above the knee (Watrous 1909:50). After the war, he was in chronic pain due to the poor quality of the medical

care that he received on the battlefield, and the amputated leg plagued him for the rest of his life (Watrous 1909:50-51). In spite of his injury, Doerflinger traveled extensively in Europe, where he visited many important Paleolithic cave excavations and lake-dwelling sites. The collections he brought back to the US were eventually donated to the Milwaukee Public Museum, which he helped found and directed during the initial years of the institution's existence (Watrous 1909:51). Also, he was a great educator and implemented some of the first kindergarten classes not only in Milwaukee but in the United States as well, greatly impacting the modern education system (Watrous 1909:51-52). Despite his many professional and civic accomplishments, Doerflinger's chronic and severe pain caused him to retire early; he ultimately established a company that specialized in the production of artificial limbs (Watrous 1909:51).

Political ideologies and economic strategies can also lead to longer or shorter life expectancies. According to Mackenbach (2013), European countries that experienced the communist political revolutions of the 1920s and 1930s also witnessed a rapid decrease in life expectancy. In contrast, the countries that maintained a more democratic form of government saw little change or an increase in life expectancy. In addition, implementing affordable universal healthcare may increase life expectancy, even in poorer countries such as Thailand (Sen 2015). Agostini (2020) highlights how changes in political and economic structures can affect overall health. She discusses how industrialization and the larger populations needed to supply the necessary workforces increased the transmission rate of venereal disease and morbidity among the poor and lower middle class (Agostini 2020).

Cemeteries and Living Populations

In undertaking a study of this nature, we must consider what can be learned from cemeteries. We must first consider why some societies choose to bury people in cemeteries in the

first place. E.B. Tylor (1871) suggested that people who bury their dead impress their ideological beliefs onto the deceased and that those beliefs are therefore reflected in mortuary remains. Radcliffe-Brown (1956) proposed that the origin of burials was simply a method to dispose of the problem of a dead body and its odor. He further argued that ritually speaking, mortuary rites are precise symbolic acts that have meaning to the people involved. Saxe (1971) and Binford (1971) took this one step further, proposing that because the ideals of a society are reflected in their mortuary behaviors, the reverse can also be true. This means we can use cemeteries in an archaeological context to study past civilizations or populations of people.

More recent approaches to mortuary archaeology demonstrate how the relationships between cemeteries and the living populations that build, use, and maintain these designated areas are complex and multifaceted. For example, Williams (2007) discusses the ways in which the emotions of the living are linked to places where they bury their dead. It must be emphasized, especially for this study, that ritualistic practices associated with bereavement can vary drastically from culture to culture. Emotions can affect the funerary process in various ways; they may alter care for a body, what the body is buried with, and even, one could argue, the way the individual is remembered through a memorial such as a tombstone. Williams (2007) uses the example of a medieval burial site in West Heslerton, North Yorkshire, where there is considerable variation in the burial area and practices associated with each interred individual. He concludes that the variation is not simply indicative of the identity of the individual, but rather represents an encompassing cultural event that extended past the immediate family to the community itself, and that illustrates the link between emotions and burials.

However, the relationship between emotions and mortuary rituals involving grave goods may lead to some biases in the archaeological record. Cannon (2009:68) suggests that grave

goods and adornment of burials often reflect social representation of the individual's gender. He further admits that these are often idealized representations of the people who are burying the individual because the dead do not bury themselves (Cannon 2009:68). But this is not always the case. Cannon (2009:68) argues that there is often a perceived notion that the individual has no agency within their own burial, which is not necessarily true as the dead may have agency when planning their own funeral. He offers the example of Halsall (1995), who recognized a pattern of more adornment in the burials of middle-aged women compared to adolescents or elderly individuals (Cannon 2009:69). A traditional interpretation of this study would conclude that middle-aged women enjoyed a higher social status within the culture (Cannon 2009:69), but Halsall (1995) offers a different explanation that relies on inheritance strategies rather than adornment after death. In this culture, individuals are buried with personal goods, so middle aged women would have the most personal material due to the culture's inheritance practices. Young women would not have as much material in their burials due to not having had enough time to inherit personal goods. Similarly, elderly individuals might have given away most of their possessions to their children, leaving them with very few personal goods (Cannon 2009:68).

We must also recognize that burial practices and patterns can change over time. Semple and Brookes (2020) offer a look at the changing "deathscapes" that many human cultures have created. Deathscapes comprise a culture's ideas regarding the representation of a deceased individual and their social significance for the living population (Hartig and Dunn 1998). Cannon (1989) offers a historical perspective on the changing deathscapes of Victorian to modern England by looking at changes in the ostentatiousness of the gravemarkers over time. In Victorian England during the mid-19th century, funerary processions and expensive grave markers were at their peak (Cannon 1989:438-439). This was because at that time death and

funerals were seen as a way to achieve a higher status in society than one may have been able to reach during one's lifetime (Cannon 1989:438). As the economy grew and industrialization and wealth spread to other classes in rural populations, mortuary behaviors of the middle to lower classes began to reflect those of higher classes (Cannon 1989:439). When an economic depression hit the country, the diversity of elaborate grave markers diminished (Cannon 1989:439-440).

One other potential issue with using cemetery data is the so-called "osteological paradox" (Wood et al. 1992). As Wood et al. (1992) discuss, this paradox is associated with trying to make health or demographic inferences about a living population based on a death assemblage (e.g., skeletal sample), and it involves three fundamental conceptual issues. The first of these, which they call "demographic nonstationarity," describes "the departure of a population from the stationary state—a state characterized by closed migration, constant age-specific fertility and mortality, zero growth rate, and an equilibrium age distribution" (Wood et al. 1998:344). This means researchers tend to consider skeletal and cemetery populations as stationary populations that exhibit very little change. However, this is not the case for many populations, including those considered this study, and this must be addressed. The second potential issue is "selective mortality," whereby there is a bias towards the dead of a given situation or historical context (Wood et al. 1998:344). For example, if one were to focus research on a specific epidemic, this might create a bias towards the people who died as a direct cause of the disease and fail to account for the people who may have survived but died from potential complications of the disease later in life. The third and final issue they identify is "hidden heterogeneity in risks," which refers to the fact that "the population from which the skeletal series is drawn was made up of an unknown mixture of individuals who varied in their underlying frailty or susceptibility to

disease and death" (Wood et al. 1998:345). One of the common misconceptions about life expectancy is that the young and the old are the most susceptible to death or disease, when, in fact, death is a constant threat to everyone. I will explain how the osteological paradox relates to this study in Chapter 5.

Migration Theory

Given this study's focus on mass immigration waves to Milwaukee in the 19th century, it is important to consider the use of migration theory in archaeology. Anthony (1990) traces the history of archaeological approaches to migration. One of the earliest archaeologists to consider migration was the German linguist Gustaf Kossinna, who identified prehistoric trait distributions (archaeological cultures) in Europe, equated those distributions with people, and argued that migration was the cause of the movements seen archaeologically. Although Kossinna's work was used to advance the claims of the Nazi regime (Kurlander 2017), it also was adopted by many later archaeologists, including V. Gordon Childe, who argued "that migration and diffusion between such normatively defined societies [archaeological cultures] were among the primary factors in intersocietal relations and social evolution" (Anthony 1990:896). A similar approach was taken by archaeologists in the United States into the 1950s, however with the emergence of processual archaeology in the 1960s, migration was largely dismissed as a secondary factor in cultural change, either external to the cultural system or a necessary behavior related to subsistence strategies (Anthony 1990:896-897).

Modern archaeological research, including DNA and isotope analysis, has enabled a better understanding of the impact of migration on many aspects of past populations. Frieman and Hofmann (2019) cite a newer study that identified a Mesolithic individual in a cave in southwest Britain with blue eyes and dark skin, contrasting with past understandings of what

individuals from this time period would have looked like due to lack of understanding of migration patterns at the time (Brace et. al 2018). Much of contemporary archaeological research appears to be focused on gene flow and DNA studies. For instance, Sarkissian et al. (2013) studied the mtDNA gene flow of hunter-gatherers in northeastern Europe to investigate migration patterns and their links to modern Europeans. In contrast to research that focuses on genetic data, the present study adopts a non-invasive approach, so we should consider potential migration-related factors that may be relevant to such a study.

Anthony (1990:897) discusses three lines of questioning that have made archaeologists wary of studying migration: "(1) a bias toward methodological approaches to the problem; (2) rejection of a century of migration studies by demographers and geographers; and (3) a paralyzing fascination with the causes of migration." He argues that methodological approaches to migration should be designed to allow for better classification of archaeological artifacts and chronology to refine our understanding of how groups of people might be connected to migration patterns. Regarding the second line of thinking, he suggests that past studies can still provide excellent details about migration that archaeologists often disregard. Lastly, archaeologists should not focus on trying to understand exactly why migration occurs, as the reasons are often very complex and may not be evidenced archaeologically (Anthony 1990:897-898).

Anthony (1990) then suggests several ways in which migration might be approached from an archaeological viewpoint. The first is by searching for and understanding the conditions that favor migration. According to Lee (1966), migration often occurs when negative stresses or events occur in a group's home region while more positive attractions are simultaneously occurring in a new destination. This model is often called the push-pull formulation, with negative factors pushing people away from a location while a more attractive situation pulls

people towards it (Anthony 1990:899-900). The factors that drive migration greatly depend on whether the trip is long or short for an individual. For instance, push factors for long-distance migration often have an economic basis (Lewis 1982: 117; cited in Anthony 1990:900).

For this study, I focus primarily on the long-distance theory of migration in relation to the mass migration waves in the United States during the 19th century. According to Anthony (1990:902), long-distance migration has the most distinct effects on the archaeological record. Migration across large distances requires very thoughtful planning on the agent's part. Therefore, it is often reliant upon a large system for the transmission of information, especially concerning the potential destination of individuals as well as the means of transportation. Networks or patterns are often created to enable this system (Anthony 1990:902).

There are several different ways that long-distance migration can occur. The first is called "leapfrogging" (Anthony 1990:902). Despite the use of the term "waves" in relation to migration throughout history, migration usually involves smaller, gradual leaps. Often there are people who venture out in front of a larger wave of immigrants and then relay information back to the larger group, practically scouting the area for potential migration. This is often accomplished by sending family members, most often men, to act as the scouts. The men seek work and subsistence and relay either their success or failure back to their families. This allows people to find desirable locations in which to live as a family successfully (Anthony 1990:902-903).

Another way long-distance migration may occur is called "migration streams" (Anthony 1990:903). Migration patterns can resemble streams rather than waves, as migrants travel along well-defined routes, often from a highly restricted point of origin. Again, kinship connections are the main means of conveying vital information about the optimal routes to travel. This method is like that of leapfrogging, but in this case, the initial migration is often not done by a single

person but by what might be considered an "apex" family. The apex family assumes a key status by aiding other family members to migrate, whose success is then built upon the success of other migrant families in the past. Over time, the special status of early apex families may lead to further status differentiation within the migrant community. Migration streams also tend to flow in a singular direction that may continue regardless of changes in the factors that originally prompted migration (Anthony 1990:903-904).

A similar concept to migration streams is what is known as chain migration. As defined by MacDonald and Macdonald (1964:82), this is a "movement in which prospective migrants learn of opportunities, are provided with transportation, and have initial accommodation and employment arranged *by means of primary social relationships with previous migrants.*" The vast majority of success stories during this period were centered around male migrants who served as the initiators of chain migration, primarily due to cultural ideas and the concept of delayed family migration (MacDonald and MacDonald 1964:89). Delayed family migration involves sending one family member, usually the head male or the individual most physically suited for labor, to immigrate (MacDonald and MacDonald 1964:89). Sending women as initial migrants may be viewed as less advantageous because manufacturing and employment involving hard labor offers the most likelihood of economic success (MacDonald and MacDonald 1964:89-90).

Anthony (1990) also discusses a secondary phenomenon related to migration streams called "return migration" (Anthony 1990:904). Return migration often involves a counter stream of movement back to migrants' place of origin. This occurs when the push and pull mechanisms reverse and the origin location begins to have more favorable outcomes again. This might be the case for wage laborers who migrate due to loss of income from a labor shortage and later return

to another and better job opportunity. Often when this occurs, the people who are involved do not "modernize" their new place of opportunity due to the need to send their wages home and look for opportunities to return (Anthony 1990: 904).

Additionally, long-distance migration often involves "migration frequency" (Anthony 1990:904). Migrants often tend to be people who have migrated previously, and there is a correlation between length of stay and choosing to migrate. If a person lives in a single location for a longer period of time, the likelihood of migration diminishes; likewise, if a person is moving frequently, the chances of migration are greatly increased. A potential explanation for this is that length of residence creates a sense of inertia while also reducing the social and cultural connections a person may have with the area in which they have lived. The act of migration itself basically enables more migration to occur (Anthony 1990: 904-905).

Outline of Thesis

Chapter 2 of this thesis provides important background information for my study, including a timeline of significant events in both Milwaukee and southwest Germany, placing the generations considered in the analysis into cultural and historical perspective and highlighting the European revolutions of 1848. It also briefly outlines the histories of the cemeteries from which I derived gravestone data for my study. Chapter 3 describes the methods used to gather and analyze data within the study's parameters. The results of my data analyses are presented and discussed in Chapter 4, which highlights trends in the data and suggests some potential explanations for what the data indicates. Chapter 5 presents the study's conclusion with some final notes on the cemeteries and their correlated data, along with future research implications.

Chapter 2: Background and Literature Review

Milwaukee History

This chapter presents the background information on Milwaukee and the German cities, cemeteries, and significant historical events analyzed in this thesis. At the end of the chapter, the reader can find a summary timeline of key events for both areas (see Figure 2.13).

Early Wisconsin History

Despite Milwaukee's strong German heritage, the Indigenous groups who inhabited the area initially interacted with French fur traders, the first Europeans to arrive on the shores of Lake Michigan. In his book, *The Making of Milwaukee*, John Gurda (2018) details the earliest history of the land that would eventually become the city of Milwaukee. Gurda (2018) is heavily cited in most publications about Milwaukee's history, so I use this source extensively in the following sections, in addition to other supplemental historical sources. Milwaukee has an extensive Native American history predating European contact that has been studied archaeologically as well as via historical records. However, the earliest history (before European settlement at Milwaukee) is not as pertinent to this study and thus will not be discussed in detail here. For earlier periods, one can reference Gurda (2008), Flower (1881), and Still (1848).

European Contact

It is believed that Jean Nicolet, a French explorer, was the first European to set foot in Wisconsin. Green Bay was the initial point of contact after Nicolet had explored other parts of the Great Lakes region, including St. Ignace and Mackinac Island. However, the Indigenous groups in the area most likely had experienced some form of European influence before his arrival. The tribes in the area were part of extensive trade networks that spanned much of North

America. They probably had acquired European trade goods from groups in other areas who had contact with European settlers before Nicolet even set foot in the Great Lakes region. Evidence of this includes non-local artifacts discovered in Indigenous settlements, including obsidian from Wyoming, turquoise from Arizona, and shells from the Gulf of Mexico. Copper kettles and glass beads were some of the materials acquired by Native Americans from European settlers (Gurda 2018:3-6).

The newly established trade networks with Europeans also resulted in the unintentional spread of several European diseases, such as smallpox, cholera, typhoid, scarlet fever, and influenza, among Indigenous groups. Because these diseases were introduced to new populations with no immunity, each disease spread through every group with an extremely high mortality rate. Europeans exploited the dwindling Native American populations to expand their regional influence, especially in the fur trade industry. Initially, there were two leading powers in the North American fur trade: the French, who were headquartered in Montreal, and the Dutch, who were headquartered in Albany. The Dutch allied themselves with the Iroquois, who helped them hunt valuable beaver fur around the Great Lakes region (Gurda 2018:4).

The French influence on the Great Lakes region, including Wisconsin, angered the Iroquois and led to a full-scale offensive against the interior tribes. This caused a mass migration as the latter sought shelter from the Iroquois onslaught; tribes affected included the Ho-Chunk, who moved into more of central Wisconsin. However, remnants of other tribes started to move into areas previously occupied by the Ho-chunk, including the Potawatomi, who took over the Lake Michigan coast; the Ojibway, who occupied northwestern Wisconsin and parts of Minnesota; the Sauk, who occupied northwestern Illinois and southern Wisconsin; and the

Mesquaki, who occupied the western part of Wisconsin along the Mississippi River (Gurda 2018:4-5).

With the movement into the area of tribes that spoke many languages, disputes erupted. This was mainly between the "Three-Fires Nations" (Ojibway, Ottawa, and Potawatomi) and the Fox Nation. Over time, disputes became less common as tribal lines blurred, though they were not entirely erased. The most prominent tribe to rise out of the Iroquois onslaught was the Potawatomi, who would hold the western shores of Lake Michigan and controlled the resources accompanying such expansive land holdings, which included Milwaukee when they expanded their influence into the area in the early 1600s, along with other smaller tribes (Gurda 2018:5).

In 1671, while there was a lull in the Iroquois wars, a small armada of French explorers and missionaries claimed a large portion of North America in the name of the French Empire with the creation of a small settlement at the Strait of Mackinac, Fort Michilimackinac. Soon afterward, Louis Joliet and Father Jacques Marquette began exploring the interior of Wisconsin and the Mississippi River with a small party. Their resting points along the way became the sites of many future cities: Green Bay, Portage, Prairie du Sac, Peoria, and Joliet. Notably, this did not include Milwaukee, mainly because the site held no strategic advantage in the battles that were being fought with the Iroquois. It was seen as more of a convenient location to stop, as the rivers in the area did not connect with other significant waterways (Gurda 2018:5-6).

In 1701, the Iroquois stopped ambushing traders and established neutral relationships with French and English traders around the Great Lakes region. However, the effects of their transgressions were still evident as groups of tribal refugees continued to trickle into Wisconsin. Over the next half-century, refugees from several tribes settled in the Milwaukee area and formed nine villages located on high ground around what is now called the Milwaukee River,

with the main entrance to the settled area at the mouth of the river most likely built upon the foundations of past settlements. Each village was estimated to have a fluctuating population of between 200 and 1200 individuals at a time, with the average being no more than 500 for an extended period. Most people in this area were not permanent residents and often moved between other regional settlements. These nine villages are most likely where the name Milwaukee originated, as terms from their many languages were combined over time and then translated into an English pronunciation that meant “Good Land” (Gurda 2018:6-7).

European culture would heavily influence the tranquil nature of the villages. The resources available in the region included an abundance of wildlife. The most valuable resource for the French fur trade was beaver pelts due to their ability to resist water, which was very valuable for European fashion. Due to its marshland and water sources, Milwaukee was a prime area to hunt beavers. The French utilized the local Indigenous groups in the area to hunt the beaver for them in exchange for European goods such as muskets, traps, hoes, kettles, beads, and blankets. With the influence of European culture and goods, the local groups eventually became dependent on European goods. The French took advantage of the natives' demand for their goods and began using them as instruments to enforce European policy and laws on their land. As the fur trade grew, so did the European desire to gain more and more land to control and have exclusive rights to hunt on. Other countries eventually followed the French into the North American fur trade, especially the English (Gurda 2018:8-10).

After 50 years of trade and mostly peaceful negotiations with the tribes in Wisconsin, the continent was thrown into a war between the French and English around 1754. Known in Europe as the Seven Years' War, in the United States it is colloquially known as the French and Indian War. As the predominant tribe in Wisconsin, the Potawatomi rushed to the aid of the French at

the battle for Fort Duquesne (modern-day Pittsburgh), resulting in a victory for the French forces and their allies. Montreal fell around 1760, causing New France to crumble along with it. Eventually, Wisconsin was incorporated into the British empire. The region was fully stabilized by about 1775 but was then disrupted by the American Revolutionary War. Most of the Indigenous tribes in the Great Lakes region followed their English allies against the colonists to maintain their potential trade rights for the future. However, a single band of Potawatomi in Milwaukee, led by a chief named Siggenauk, opposed the English. Siggenauk is known for helping to drive British forces out of Illinois and was a great source of frustration for British forces around the Great Lakes region (Gurda 2018:10-11).

Early Milwaukee

The American Revolution officially ended in 1783, and the dynamics of the Great Lakes region shifted again twice in 20 years. The region became a free trade zone with a modest military presence at Mackinac Island in Michigan and Fort Dearborn in present-day Chicago. Milwaukee also grew to become a significant center for trade in the region. At this point, the first generation considered in this study (as defined in Chapter 3) enters the picture, establishing trading posts for French, English, and Canadian companies in Milwaukee. This generation also witnessed the War of 1812, in which British forces, with the help of Indigenous tribes, attempted to recapture the Great Lakes region. British forces took Fort Detroit, Mackinac, and Green Bay. Milwaukee Potawatomi led the invasion of Fort Dearborn in Chicago, which was a decisive victory in favor of the Potawatomi (Gurda 2018:12-13).

Following the War of 1812, the second generation considered in this study witnessed the last stages of the fur trade in the Great Lakes region. The United States government passed the Exclusion Act of 1816, prohibiting trade between British subjects and Native American tribes.

Pre-established traders were excluded from this law, essentially being grandfathered in, but new traders were prohibited from creating trade connections. Existing traders began bringing in new traders to continue their business, which was allowed under the Exclusion Act. Jacques Vieau was a prominent trader in the Milwaukee region for many years. He brought over Laurent Solomon Juneau to take over his business. Many Milwaukee historians consider Juneau to be the founder of the City of Milwaukee (Gurda 2018:13-14).

Juneau arrived in Milwaukee around 1818 and married Vieau's daughter. Juneau became Vieau's apprentice and eventually moved to one of the trading posts in southeast Wisconsin to take over trade in the area. During his time at the post, a trader with the American Fur Company named James Kinzie established more trade in the region from his base in Chicago. He did this by illegally smuggling whiskey to the tribes in the area and essentially swindling them out of their products and livestock. Authorities were notified and Kinzie was exiled to Chicago and banned from doing trade in Wisconsin. Vieau was brought out of retirement to become the local leader of the American Fur Company in Wisconsin, with Milwaukee as its headquarters, to fill the trading void left behind by Kinzie's expulsion. Eventually, Solomon Juneau began working for the American Fur Company out of Milwaukee under his father-in-law (Gurda 2018:15-16).

Juneau established stable and peaceful relationships with the area's Potawatomi and Menominee. However, a smallpox outbreak occurred in the Milwaukee area in 1831. This caused many deaths among the Native traders and hunters during peak hunting season, resulting in a minimal yield of furs compared to past seasons. With many of his best workers dead, Juneau never recovered from that one season and his debts kept growing. During this time, however, westward expansion into a new frontier became appealing to many people on the East Coast. With the construction of the Erie Canal, people could travel by boat from the East Coast

throughout the Great Lakes. As a result, the Native American tribes in the area that had helped establish trade were essentially forced off their lands as the American government issued land grants allowing European settlers to start farming settlements in the area. The fur trade ended at this time, leaving Juneau without an occupation. He did, however, become the first mayor of Milwaukee. Though the city's location originally was not strategically advantageous, it was a prime location for commercial and residential development. People took notice of the city, which caused a massive surge in immigration in 1835 (Gurda 2018:16-21).

Four people are credited with being the founders of Milwaukee. The first is Juneau, as he was the first mayor and one of the individuals who helped define the region before the city existed (Gurda 2018:24-26). The second was an assistant to Juneau, Morgan Martin. Martin was originally a lawyer and first came to the region near the turn of the 19th century, seeking a new future through westward expansion. Initially settling in Green Bay, he visited the Milwaukee area in 1833, where he met Juneau, who convinced him that the Milwaukee wilderness was a prime area for a city. Martin purchased some of the land near the rivers from Juneau for around $500. They requested a federal survey of the central part of what would become Milwaukee to set the first property lines for a new city. When the survey was complete, Juneau and Martin began selling off their land in the newly defined sections while maintaining the prime land east of the river, which became the city center. In 1836, Milwaukee County was officially organized (Gurda 2018:26-32).

The third individual was Byron Kilbourn. Kilbourn is known for bringing enterprise to Milwaukee in its early development stages. Born in Connecticut, Kilbourn was raised in Ohio in a town his father founded called Worthington, now a suburb of Columbus. Kilbourn explored the west coast of Lake Michigan and decided to stake a claim on the west bank of the Milwaukee

River. Kilbourn decided to make this side of the river more of a commercial center where most of the city's business would occur. He created more landfills, focused more on planning buildings within grid lines, and built infrastructure, including Milwaukee's first bridge, and connected Milwaukee with other cities located on Lake Michigan via steamboat lines. Kilbourn became the leader of the west side of Milwaukee, while Juneau and Martin led the east side (Gurda 2018:32-37).

George Walker is also considered one of the city's founders, specifically of the south side of Milwaukee. Originally born in Virginia, he moved to Illinois with his family. Later, he participated in the final stages of the fur trade in Chicago and visited Milwaukee around 1834 to begin a new career in town development. He attempted to purchase land on the south side of the river, but with no prominent partners and no reputation within the community, he was unsuccessful. However, the people who originally purchased the land lost their claims as the rights to the land belonged to the Native American groups who originally occupied the land until 1838. After 1838, Walker became affiliated with a land development group that allowed him to purchase the land. It is speculated that if Walker had been able to develop the land when he initially tried to buy it in 1835, the south side of the river might have become the location of downtown Milwaukee. However, Kilbourn and Juneau had already decided where the city's downtown and business district would be before Walker could start developing the area that would be named Walker's Point (Gurda 2018:37-38).

Before Milwaukee became the city's official name, the area comprised two prominent towns and one smaller village: Juneautown along the river's eastern bank and Kilbourntown on the west bank, named after their respective founders, while Walker's Point was the smaller village on the south side. Wisconsin was separated from Michigan and became a territory in

1836. One advantage of being in a new territory was the ability to incorporate towns to form new cities. In 1839, Kilbourntown and Juneautown were combined to form the Town of Milwaukee. Walker's Point was still small but developing and was not incorporated until 1842 (Gurda 2018:49).

The Immigration Waves

Milwaukee's first wave of German immigrants arrived in 1839. They were nicknamed "Old Lutherans" after they fled a royal attempt to meld with Reformed Protestants in a Prussian state-run church. Thousands journeyed to the growing United States, with many of this initial wave settling in Buffalo, New York. The individuals who were not as impoverished made their way to Milwaukee, where they split into two groups. One group clustered near the modern intersection of Third and Chestnut in Kilbourntown, while the other group established a separate city nearby to the north that would eventually be called Mequon, Wisconsin (Gurda 2018:59-60).

This first influx of German immigrants was considerably smaller than the later waves of Germans who moved to Milwaukee during the 1840s. Most claimed political unrest, crop failures, and economic distress as the reasons for their immigration. Milwaukee began channeling these massive waves of German-speaking immigrants from the East Coast toward the city. The most significant wave came in the year 1848. The vast majority of these so-called "48ers" came from the southwestern region of what would become the nation-state of Germany at the end of the Franco-Prussian War in 1871, and their arrival in Milwaukee marked the start of the city's population boom (Ostergren et al. 2006). After the revolutions of 1848 in Europe were quelled, many who had participated found sanctuary in Milwaukee—including journalists, judges, students, and a variety of other highly educated, free-thinking individuals. The 48ers also contributed to one of the most famous industries associated with modern-day Milwaukee to the

city: beer brewing. Famous breweries such as Miller, Pabst, and Schlitz were founded or expanded during this time (Gurda 2018:60-64)—although it should be noted that the first brewery in Milwaukee was established by a group of Welshman in 1840, and soon after, the first German brewery was started by Herman Reutelschöfer (Walzer 2016). This period also marks the beginning of the third generation of this study.

It was at this point that the population of the Milwaukee area reached over 100,000 for the first time in the city's history (Gurda 2018:60). Ostergren et al. (2006) published statistical data on the explosive population growth of Milwaukee and its suburbs: By the end of the 1840s and into the early 1850s, the population of the Milwaukee area grew to over 400,000 after more waves of German-speaking people came to the region. By the end of the 1850s, the population was shy of one million people for the first time. The city and its suburbs reached around 1.4 million individuals by the 1880s and around 2.7 million by the 1890s. As the population grew, the city began to develop significantly, becoming a center for trade and commerce for Lake Michigan and the entirety of the Great Lakes. The development of the city's first significant shipping port, coupled with the beginning of the railroad system, allowed the city to flourish (Gurda 2018:74-91). The population of the actual city of Milwaukee is shown in Table 2.1 adapted from Leavitt (1996:11).

Table 2.1. City of Milwaukee Population Growth (adapted from Leavitt [1996:11])

Year	Population	% Increase
1850	20,061	1080.1
1860	45,246	125.5
1870	71,441	57.9
1880	115,587	61.8
1890	240,468	76.9
1900	285,315	39.5
1910	373,857	31.0
1920	457,147	22.3
1930	578,249	26.5
1940	587,249	1.6

It was during the third generation considered in this study (see Chapter 3) that the overall health of Milwaukee's residents began to change. Leavitt (1996) offers a good medical history of the city during this time. After the Socialist Party won the city elections in 1846, there was a clear consensus that the health of the city should be handled by the people rather than the government (Leavitt 1996:4). The government did not intervene with public welfare until 1865. In that year, the city government created its first health department and focused on three main aspects of community health: infectious disease, food safety, and public sanitation. As a result, mortality rates began to decline sharply (Leavitt 1996:4).

Recent History

The next major historical event to affect Milwaukee was the American Civil War. Wisconsin ideologically sided with the Union as a northern state in the war effort. A small

militia of primarily German and Irish immigrants was sent to the front lines of the war. However, many immigrants in the Milwaukee area greatly opposed the war and preferred to stay home rather than fight for a country to which they had only recently moved. Many of the soldiers who were fortunate enough to make it home were nonetheless wounded and disabled in battle; the already mentioned Charles (Carl) Doerflinger is a good example. Due to the nature of the war, many received only rudimentary medical treatment and were left to fend for themselves after being mustered out (Gurda 2018:93-100).

After the Civil War ended in 1865, Milwaukee experienced an industrialization boom driven by the steam engine's power. Many industries, including lumber, iron, wheat, and beer brewing, grew during this time. As industry and commerce grew, so did the city itself. More waves of immigrants from other countries like Poland, Greece, and Serbia were attracted by the wealth and growth of Milwaukee and decided to make the city their home, like the Germans who had arrived before them (Gurda 2018:100-124). This period coincided with the fourth generation defined in this study (1875-1904). This generation was also impacted by a large smallpox outbreak in 1894-1895 that killed many people in the city (Leavitt 1996:78). Sanitation was the responsibility of the health departments rather than the city engineers, resulting in widespread sickness due to unsanitary conditions during this time (Leavitt 1996:126). Food quality regulation was not introduced until 1881, when it was discovered that many of the city's milk sources were heavily contaminated and of poor quality; with the heavy reliance upon milk, thousands of people fell ill and possibly died from the contaminated milk (Leavitt 1996:156-169). It is to be expected that this episode of disease will be reflected in the data, as would other events such as the Civil War and periodic outbreaks of typhoid, cholera and influenza, all of which are historically documented.

World War I was the next major world event that caused a tumultuous time for Milwaukee's inhabitants. Many people living in the city were descendants of the first German immigrants who came to the United States in the mid-19th century. Even though they were not from Germany, these people still strongly sympathized with Germany and the Central Powers during the war. Serbian immigrants in Milwaukee especially were outspoken in their support of the Allied Powers. Despite these conflicting views, most of the people of Milwaukee favored not getting involved in the war and maintaining neutrality. When the United States eventually entered the war, Milwaukee became an industrial hub for the war effort. However, the war did not last that long after the United States entered; it officially ended in 1918 (Gurda 2018:227-233). World War I coincided with the earlier part of the fifth generation considered in this study (1905-1935).

The war generated wealth in the United States, and a prospering economy and a new wave of culture and art characterized the Roaring Twenties that followed. However, this short-lived prosperity was cut short only a decade after 1918 with the onset of the Great Depression. Whaples (1995) outlines key economic developments during this period. Several minor but continuous crashes in the stock market occurred in 1929. The following year, the Smoot-Hawley Tariff Act was passed to curb the continual decline of the stock market. Although the act was intended to prevent more crashes, many historians believe that it was the final nail in the coffin that resulted in the Great Depression. The act nearly doubled tariff rates on American exports, which caused an increase in the prices of American goods for international trade. This resulted in a decrease in the demand for exported American goods due to inflated prices, which resulted in a reduced cash flow to American companies.

Whaples (1995) further explains that the Great Depression caused massive labor shortages across not only the United States but the rest of the world, which was also affected by the decline of the United States' banking system. A massive drought occurred in tandem with the Great Depression, which greatly impacted the agricultural sector of the United States. Without extra money to help fight the drought, farmers and farming operations could not produce enough crops to make a living. This cycle created a food shortage as well, causing a general decline in people's health during this period. The Great Depression marked the last major event to fall within the span of the final generation considered in this study.

The Great Depression did not affect Milwaukee as early as other cities in the United States. Manufacturers claimed that orders were still coming through the town and that their businesses were still producing profits. Milwaukee became newsworthy as a haven from the downfall of the stock market crash plaguing much of the country. Unfortunately, what was being called a miracle was short-lived. Layoffs and unemployment eventually skyrocketed; the number of wage earners in the city decreased by 44% during this time. Due to a lack of funds, people often put off medical and dental care to focus on more critical needs. Homelessness also grew in Milwaukee, forcing multiple families to occupy single-family residences (Gurda 2018:276-278).

German History

The area currently known as the state of Baden-Württemberg in southwest Germany was initially composed of two separate territories, Baden (Figure 2.1) and Württemberg (Figure 2.2). The Hohenzollern dynasty (Figure 2.3) and family were also crucial to the region’s history and are therefore discussed in this chapter. The following sections also present some historical background on the individual cities that were the foci of this study in order to provide context for possible explanations for the results of the analyses presented in Chapter 4. Separate sections

also include background information for the cemeteries included in this study as well as potential causes of the revolutions of 1848. Many of the German history sources about this area have not been translated into English and I do not read German. Although translation programs are available, they are not always accurate and thus cannot be used for a thesis with confidence. Therefore, the *Encyclopedia Britannica* was used as the main source for specific historical events where an academic source was unavailable.

Baden History

According to the *Encyclopedia Britannica* (2023a), the first Margrave of Baden, the military leader of a region in the Holy Roman Empire, was inducted in 1112. In 1535, the region was divided into two margravates: Baden-Baden to the south and Baden-Durlach to the north. The Thirty-Years War that ravaged the region from 1614 to 1648 involved a conflict of religious ideologies between European Protestants and Catholics after the Protestant Reformation. King Louis XIV of France, during the expansionist wars of the late 17th century, also destroyed several towns, including Pforzheim, which is part of this study. Karlsruhe was founded by Charles William III, the Margrave of Baden-Durlach, as his capital. Baden was reunited under the reign of Charles Frederick from 1738 to 1811. The state of Baden thrived under his rule, which coincided with the first generation of this study (see Chapter 3).

Figure 2.1. Map of the historical State of Baden (adapted from Encyclopedia Britannica 2023a).

According to Selgert (2018), in the late 18th century, the state of Baden was embroiled in a constant power struggle between the Austro-Prussian powers of the Holy Roman Empire and Napoleonic France, which had a major impact on the political dynamics of the region and its inhabitants. In the Coalition War from 1793 to 1797, Baden forces allied with the imperial Prussian forces against its neighbor France. This was due to peace negotiations that took place in October 1795 in which an envoy negotiated compensation for the seizure by the French of lands that were occupied under the Baden Margraves on the left bank of the Rhine River. It was not until the Second Coalition War of 1799 to 1801 that these negotiations began to be enforced. Baden also received a large portion of land that was formerly a part of the Bavarian Palatinate located on the eastern/right bank of the Rhine River to the north, claiming the cities of Heidelberg and Mannheim from the peace of Lunéville in 1802. In 1805, Baden changed coalitions again, becoming a French ally (alongside Württemberg and Bavaria) in the Third

Coalition War against Austria, England, Russia, and other European forces. Following victory in this war, Baden received the area known as the Breisgau around the towns of Freiburg and Konstanz (Selgert 2018:20).

In 1813 Baden switched alliances again by joining a coalition against Napoleon in what is known as the *Frankfurter Akzessionsvertrag*. Despite having to supply soldiers for the French army in several wars against other countries, notably Prussia in 1806 and 1807, Austria in 1809, Spain from 1808 to 1814, and Russia from 1812 to 1813, Baden was able to provide more soldiers for the war against Napoleon. As a result of this monumental effort, Baden was awarded territorial integrity and sovereignty by the larger powers of the time which was confirmed by the Congress of Vienna in 1815. This point in Baden's history coincided with the beginning of the second generation defined in this study. It is also important to note that during this time several European countries introduced compulsory military service, which forced male subjects regardless of social class, with some exceptions for nobility or high-ranking civil servants, to join the military (Selgert 2018:20-22).

The Coalition Wars involved large territorial expansion and the need to integrate newly acquired holdings into a unified system. A new civil code, largely based on the Napoleonic Code, was implemented as a costly measure to train and implement new judges and local administrations under a single system. A new three-tiered system was implemented, and 118 new districts were formed with fewer individuals to govern. Each district was responsible for civil and criminal proceedings, public health, aid to the poor, and promoting agriculture and industry. A new secondary-level administration supervised these districts and linked outlying districts to the central agency. At the top of this new system were six new ministries that played specific administrative roles in all territories, such as the Ministry of the Interior, Finances, and Justice.

All ministries were under the control of the Grand Duke. This new system allowed for more control over local administration of districts, which had been an issue for several European regions since adopting this form of government in the 16th century (Selgert 2018:23-24).

Baden's new status among elite European countries also led to a revision of the region's financial situation. While the country had little debt before the Coalition Wars, the need to train and send new soldiers, the acquisition of new lands, and the need for new administration generated new debts. After the wars, the private debt of the country's rulers—especially the Margrave and his wife—was no longer separated from the public debt. However, separation of the rulers' and public debt became necessary when the land acquisitions, which involved not only land but also populations, allowed them to expand tax collection. During the 1830s, taxes grew significantly to reduce the debt. There was also significant opposition to raising taxes by the middle and lower classes especially (Selgert 2018:25-27).

In 1818, a new constitution granted citizens basic civil rights while limiting the Grand Duke's political decision-making. Yet, during the 1820s, the restrictions on his decision-making were very weak, and the power of the people was still minimal. It was not until the liberal movement in the 1830s that there was a broadening of citizenship and an expansion of voting rights throughout the communities. A communal self-government was created that allowed people to vote more easily and to govern themselves more. From 1830 to 1831, a more liberal press was allowed under a new law enacted by the Grand Duke that also introduced open court hearings and regulated the rights and obligations of members of the judicial system (Selgert 2018:30-32).

The end of the more liberal system created in the 1830s was promptly followed by a phase of repression and limited political progress from the 1840s through the 1850s. This period

coincided with the beginning of the third generation in this study. Many scholars point to this form of government as one of the main reasons for the revolutions of 1848 that took place in this region (see *The Revolutions of 1848* section below for more details). The 1860s were characterized by political stagnation, with the liberal faction of Baden seeking to continue limiting the governmental bureaucracy's powers. In 1863, a new administration was created that eliminated the original secondary administrative level and replaced it with a new body governed by the people and headed by a civil servant (Selgert 2018:33).

Weindling (1989) outlines the timeline of events in the German Empire before the rise of the Nazi regime. It is important to note that Baden and Württemberg were parts of the German Empire in 1871. The 1870s witnessed rapid industrialization and population growth that added to the overpopulation that had begun in the 1860s. There was also a large increase in emigration to industrial centers in Germany during this period. In 1878, a political crisis occurred when Otto von Bismark broke his alliance with the liberal parties and switched to a more non-interventionist state and conservative authoritarian approach (Weindling 1989:12-15), marking the beginning of the fourth generation included in this study.

Even though industrialization caused major health and life expectancy issues among workers, it also brought about new medical developments during this time in Germany. In 1883, Bismark instituted what could be called sickness insurance, which covered a worker during a period of illness and led to the creation of accident insurance and a pension system. At this time, the connection between poverty and overall health began to be recognized as a social and political issue to be addressed by the state. Science and medicine expanded during this period in response to the increasing industrialization-related needs of the sick and unhealthy. Bacteria were discovered to be the cause of many sicknesses that were plaguing the working class. In the

1880s, working conditions directly impacted an individual's health. These advances in knowledge led to improving health systems (Weindling 1989:15-17).

Later, in the 1880s, German colonization in Africa began. Colonization of West Africa and the Pacific was offered as a solution to overpopulation across the German Empire, as people in Germany were granted the ability to move to these new colonies. The colonies themselves were used to strengthen the German Empire from abroad. It was in the context of colonization that a German eugenics movement began to take place as a direct response to the fear of the decline of “the German Race” and the supposed purity and vigor of the German people. Many political and social issues plagued Germany until World War II (Weindling 1989:62-69).

Frederick II was the last Grand Duke of Baden; he abdicated in 1918 at the end of World War I. Under the new constitution, Baden ceased to be a grand duchy and became a State of the German Reich with the onset of World War I, which began in 1914 and ended in 1918 with the defeat of the Central Powers and the signing of the Treaty of Versailles in 1919. World War 1 was virtually unprecedented in terms of the slaughter, carnage, and destruction it caused due to the use of trench warfare and advanced instruments of war. According to some historians, the Treaty of Versailles imposed harsh sanctions upon the Central Powers, which left Germany "under legal sanctions, deprived of military power, economically ruined, and politically humiliated” (Schulze 1998:204). After the fall of the Nazi regime of World War II, the Allied countries of France and the United States created zones of occupation that divided the state of Baden, which eventually became the demarcation for the current state of Baden-Württemberg in 1952 (Britannica 2023a).

Württemberg History

The region designated as Württemberg originally belonged to Swabia, the traditional territory of a group of local dynasties called the Wirtembergs (Württembergs) that first appear in documentary records in the 11th century. When Württemberg was made a duchy in 1495, Stuttgart became its capital. Duke Ulrich, who became a vassal of the House of Habsburg, the ruling family of the Holy Roman Empire, introduced Lutheranism into the duchy in 1534. His son, Duke Christopher, who reigned from 1550 to 1568, created a centralized state-run church under the Protestant faith. Duke Frederick (1593–1608) allowed the region to become independent of the Habsburg family and, therefore, the Holy Roman Empire and was at the forefront of the Evangelical Union of Lutheran and Calvinist Leaders in 1608. Duke Eberhard Louis (reigned 1693–1733) invested heavily in providing better infrastructure and overall quality of life for his people by creating better defenses and schools, building the Ludwigsburg palace, and introducing Waldensian refugees, creating textile and other industries that the region had not had previously. This led to great prosperity for the first generation included in this study (Britannica 2023b).

Figure 2.2. Historical Map of the Kingdom of Württemberg (adapted from Britannica 2023b).

Ashton's (2014) dissertation provides an outline of Württemberg's history. In the early 19th century, Württemberg had a largely despised leader named Duke Friedrich II. In 1806, Duke Friedrich II allied himself with Napoleon Bonaparte of France but with heavy concessions (Ashton 2014:15). With expanded territories and French power backing it, Württemberg became a kingdom, and was granted the old Duchy of Swabia by Napoleon, doubling the kingdom's territory and population (Ashton 2014:56). This period coincided with the middle and end dates of the first generation defined in this study. However, Napoleon did not hold up his end of the treaty between the two powers, so Friedrich resisted French aid and tried to use their relationship more to his advantage. The southern states, including Baden and Bavaria, grew to resent the French and their policies and started making plans to become independent from their dependency on France (Ashton 2014:62-65).

In 1817—around the beginning of the second generation considered in this study—Friedrich II died and was succeeded by his son Wilhelm. Wilhelm introduced a liberal

constitution in 1819 that offered a degree of political freedom that was unheard of at this time. His constituents made full use of these unprecedented freedoms and the region grew into a bed of political liberalism for Europe. Wilhelm, unlike his father, was popular among his subjects; as a result, the people who originally belonged to the Dutchy of Swabia began to identify as belonging to Württemberg around 1826. Although Wilhelm's popularity rose due to his allowance of a more liberal political ideology and governance, he made a mistake by dissolving the *Landtag* (a self-governing legislative body) to allow a more progressive body to take its place in 1833. By the mid-1840s, liberalism had returned to Württemberg (Ashton 2014:159-166).

In 1846 and 1847, the beginning of the third generation examined in this study, financial instability and bad crop yields led to riots in Ulm and Stuttgart. On March 2, 1848, a rally in Tübingen with over 1,000 people gave Wilhelm a petition and request to form a citizens' council to allow more voting freedoms. For over two weeks, riots and dissent grew in many of the major towns of Württemberg. Wilhelm placed a more liberal politician, Friedrich Römer, in the office of Minister of Justice to reduce the possibility of revolts across the kingdom. Wilhelm feared the revolts that were taking place in nearly all the major towns of Württemberg's more liberal neighbor, Baden. The National Assembly met in Frankfurt in October 1848 and proposed a proposition to unite all German-speaking territories, including Austria, as one nation (Ashton 2014:166-177).

However, Austria was involved in a bloody conflict arising from Vienna and its Italian holdings. Vienna rejected the proposal, and without Austria, the Hohenzollern Dynasty, which would have also limited their power if the assembly had been successful, also declined it, causing the plan to fail. Württemberg invited the members who participated in the National Assembly to reconvene in Stuttgart to attempt to create a new proposition. However, this was a

last-ditch and desperate attempt that only the most die-hard delegates from the first convention attended. The failure of liberal politics resulted in a switch to a more conservative approach in the next *Landtag* election in 1849 (Ashton 2014:177-180).

In 1850, Württemberg and the other southern states became involved in a conflict between Prussia and Austria. Württemberg and Bavaria allied with Austria to install an electorate of their choosing. Austria and Prussia came to terms after a slight skirmish to reinstate a German Confederacy rather than the proposed Independent Germany. This confederation went directly against the liberal ideology of Württemberg, which was removed before the rise of liberal thinking in the 1830s. Württemberg adopted the political mindset of only participating in policies that would favor itself and not harm it. In April of 1859, Austria decided to go to war against the Italian state of Sardinia. France, however, entered the war on Sardinia's behalf. This allowed the satellite countries, including Württemberg, to form a new Third German Alliance. However, this concept kept slipping from the leader's grasp (Ashton 2014:180-213).

At the beginning of the 1860s, Württemberg witnessed an age of industrialization marked by new inventions and industries. Stuttgart became a mecca for clothing, dyes, and other consumer goods. Württemberg, being part of the *Zollverein* (a Customs Union of sorts), benefited from free-trade policies that lowered import duties on raw materials, allowing factories to thrive during this time. Metalworking became a main source of industry, which enabled an expansion of the railway system to allow even more industry to occur. Despite an increase in industry at the end of the 1860s, the region's economy was failing, heavily hindering Württemberg's political power. Wilhelm recognized that an invasion by France to recapture the Rhineland was imminent, but he could not do much to prevent it. The idea of the Third German Alliance emerged again; however, this time the proposed arrangement came from Saxony.

Wilhelm believed that this model was not in the interests of the alliance as a whole, as it allowed the smaller states like Württemberg to be carried along by Bavaria and Saxony but not as equals (Ashton 2014:214-235).

Wilhelm passed away in June of 1864 and was succeeded by his son Karl. Karl was known as a weak and less capable ruler than his father. In September 1864, Karl appointed Karl von Varnbüler as his foreign minister. Varnbüler had an accomplished history of establishing rules and regulations to aid governments. Although aligned heavily with Austria, he did not support the idea of a Prussian alliance, mainly due to his friendly relationship with the up-and-coming Otto Von Bismark. Bismarck had a clear plan for a unified Germany led by Prussia that did not include Austria. This placed Varnbüler in a tough position. Prussia and Austria could not come to terms to create a German Union, and war was inevitable (Ashton 2014:235-258).

In 1866, Württemberg allied with Austria in the Seven Weeks War, just like the other southern states. However, Württemberg was slow to deploy its armies to the aid of its allies while Prussia, most likely because of the inept leadership of Karl, the only person who could command the movement of the armies. In a shocking turn of events, Prussia—thought to be unable to meet the Austrian army's power—defeated the powerful nation. Württemberg had to pay a high indemnity to Prussia for siding with Austria during the war, but Prussia allowed it to maintain some form of sovereignty. In 1870, Württembergs's allegiance was questioned again when France started another conflict with Prussia. Varnbüler believed the idea of a unified Germany existed except in a legal sense. Therefore, he sided with Prussia in the Franco-Prussian War. Prussia won the war, and Württemberg joined Prussia in forming the new German Empire in 1871(Ashton 2014:258-294).

Under Hermann von Mittnacht, chief minister from 1876 to 1900, Württemberg retained much of its independence, which coincides with the beginning of the fourth generation considered in this study. Karl was succeeded in 1891 by William II (reigned 1891–1918), who ushered in a more liberal government and heavily invested in the arts and the humanities. World War I ended his reign, forcing him to abdicate his throne after the revolutions in November 1918. A republican constitution filled the void within the government, but it did not allow the state to remain independent. In 1933, a lieutenant governor was appointed to the region, which brought control of the state under the Nazi party. Former government policies, such as the State Diet, ceased to exist (Encyclopedia Britannica 2023b). This period coincided with the later part of the last generation included in this study.

Hohenzollern History

MacCauley (1916) offers insight into the importance of the Hohenzollern dynasty in the history of southwest Germany and German politics. The dynasty is believed to have been started by Frederick of Nuremberg when he proved himself to be a good leader around the beginning of the 15th century. His son Frederick II further expanded the territorial domains his father had originally claimed by conquering Berlin and establishing a royal castle within the city. His brother, Albert, rose to power in 1470 and expanded the territory further through conquest. At some point in the 16th century, Roman law was introduced; this empowered the courts while allowing the head of state to be the head of the church. Due to the large land gains and favorable position of the nobility and government officials, many of the smaller states around the territories allied themselves with the Hohenzollerns, including some provinces of the Rhine in 1609 and in Prussia in 1618 (MacCauley 1916:15-17).

Figure 2.3. Town of Hechingen, from Castle Hohenzollern, seat of the Hohenzollern Dynasty (author's photo).

In the 17th century, one of the most influential Hohenzollern rulers, Frederick William (also known as "The Great Elector"), left his mark on history. The Thirty Years War devasted much of Brandenburg along with several areas of southwest Germany; this war allowed Frederick William to consolidate his land holdings and create a powerful Prussian state, one that all European powers surely had to reckon with. His son Frederick, taking over the kingdom in 1688, decided to develop his capital Berlin into a center for the arts and learning. His successor at the beginning of the 18th century, King Frederick William I, engaged in imperialism and exercised absolute power. The Prussian military proved strong under his rule, capturing many new territories that earned the kingdom much wealth (MacCauley 1916:17-21).

In the mid-18th century, Frederick William I was succeeded by his son, Frederick II, known as the Great. He continued his father's imperial ambitions by capturing Silesia and, in

1756, he became the master of Saxony. This act, however, tipped the scales to a massive war. The “Seven Years War” involved two fronts, one in the Americas during the colonial period between mainly France and England and the other in central Europe, including Prussia and England. When the war concluded, Prussia was solidified as a powerful nation, while Frederick the Great turned his focus inward, promoting industry and commercial welfare in his country. It was during this time that Prussian literature and philosophy developed greatly. Frederick the Great was eventually succeeded by his son Frederick William II, ushering in a darker period in Hohenzollern history (MacCauley 1916:21-25).

In 1792, around the beginning of the first generation considered in this study, Prussia allied with Austria to restore the vacancy left in the Kingdom of France, but the alliance failed. In 1795, a peace treaty was negotiated with the new revolutionary French government. However, Napoleon's advances outside France's borders became quite alarming. Napoleon defeated the Prussian armies in several battles, and by 1806, the latter was utterly defeated when Napoleon marched into Berlin. However, in 1813, the great “Battle of Nations” took place in Leipzig, and the Allies, primarily led by Prussia, defeated the French forces, secured the liberation of Germany, and returned the Hohenzollerns to power. In 1815, at “The Congress of Vienna,” Prussia regained much of the landholdings that had been captured by French forces (MacCauley 1916:25-27). This time coincides with the beginning of the second generation defined in this study.

At this point, the ideas of liberalism, constitutional governments, and national unity became popular due to the influence of the French invaders in years prior. However, King William III resisted such liberal reforms in order to maintain as much power as he could. He formed the *Zollverein*, an inclusive customs union that included and gained much favor with

many other German states. In 1840, Frederick William IV ascended to the throne, and in 1847, he attempted to form a constitution for Prussia but turned against the idea at the conference in which it would have been set. These events occurred around the beginning of the third generation in this study. By 1848, demands for a constitution grew among the people of Prussia to the point where the threat of a violent revolution in the capital was imminent. It was at this point that Frederick William IV conceded the notion of divine rule and gave the people of Prussia a constitutional government (MacCauley 1916:27-29).

While Frederick William IV did establish a constitutional government, the people of Prussia had little newfound power within this system. Unfortunately, it was short-lived as well, as the ascension of King William I in 1861 represented the resumption of Hohenzollern power on the Prussian throne. William I appointed Otto von Bismark as Premier of the Ministry. Bismarck worked with William to secure Hohenzollern autocracy and became the mastermind of German unification under Hohenzollern rule. Prussia went to war with Austria and pushed them out of the country, annexing Hanover, Hesse-Cassel, Nassau, Frankfurt, and Schleswig-Holstein. All other German states, including the four southern states of Baden, Württemberg, Bavaria, and Hesse-Darmstadt, were compelled to form an alliance or confederation under the leadership of Prussia but were still independent. In 1871, King William I, after conquering France, was named Emperor of Germany in the Palace of Versailles (MacCauley 1916:29-36).

City Histories

Because this study incorporates data from four separate cities in Germany, it is also essential to provide a historical background for each of those cities: Stuttgart, Pforzheim, Karlsruhe, and Heidelberg (see Figure 2.4).

Stuttgart History

The following outline of Stuttgart's history is based on the historical timeline provided by Martin Baier (2024). The earliest known settlement in the area dates to around 250,000 years ago and was found in a travertine quarry mine near Münster. The earliest settlement in Stuttgart is around 100,000 years old. By 90 BCE, a Roman occupation was located along the Neckar River (where the section of Stuttgart currently called Cannstatt is situated). The city of Stuttgart was founded around 950 BCE, and at that time, the land was owned by Luis Dolf of Swabia and used to breed horses for the army. The city's name is derived from the words Stutten Garten, which translates as garden of mares (Figure 2.5).

Figure 2.4. Map of Southwest Germany with cities included in study marked (adapted from Wikipedia).

Figure 2.5. Schlossplatz, Stuttgart, Baden-Württemberg (author's photo).

The earliest construction of a castle in the city by Bruno von Calw was recorded in 1089. In 1108 viticulture was documented for the first time in Stuttgart, with the first vineyards being bequeathed by a clergyman named Ulrich in the valley belonging to the Blaubeuren Monastery. Pope Gregory IX recorded in a document that the Blaubeuren Monastery owned the land on which Stuttgart currently resides. In 1238, Ulrich I was declared the founder of Stuttgart after constructing a complete city wall between 1220 and 1240. He became the ruler of Württemberg and the surrounding area after his marriage to the Margraves's daughter in 1248. Count Eberhard I, who began his reign of the area in 1279, is credited with creating the city seal of a horse, which is still used today. King Henry VII waged war against Eberhard in 1310 and claimed the city with aid from Esslingen in 1312, although Eberhard regained control of the city in 1315 after Henry VII's death. In 1320, the relocation of the monastery in Avignon to Stuttgart was approved; this led to the establishment of one of the earliest colleges in the city.

By 1350, the city had a population of 3,000 to 4,000 people and maintained around 500 hectares of vineyards. In 1378, imperial troops conquered the city and destroy the vineyards. Eberhard III married Angela Visconti, who planted an herb garden in what is now the area dedicated to Karls Platz, the current town's main square. Eberhard III is credited with planning the urban layout of the town based on his visit to Prague in 1392. In 1442 the "state" of Württemberg was divided into two areas—an event known as the Division of Württemberg—and Stuttgart fell under the control of Ulrich V. Stuttgart became the political center of Württemberg around this time, and the first state parliament was held there in 1457. In 1508, there was a large flood that destroyed much of the city. In 1511 Stuttgart and Württemberg became allies with Bavaria through the marriage of Duke Ulrich and Sabina of Bavaria. After Duke Ulrich attacked Reutlingen in 1519, troops from other imperial cities drove him out of Stuttgart, allowing for the occupation by Austria with Emperor Charles V becoming governor of Stuttgart. In 1534, Ulrich regained control of Stuttgart and made the region Lutheran, with the first Protestant sermon being held in the college church.

Beginning in 1550, Duke Christopher began to institute various advances, allowing the city to expand and remodeling the city castle into a more renaissance style. The next major event in the city's history did not occur until 1718, when Eberhard Ludwig, Duke Eberhard III, moved the residence of the ruler of Stuttgart to Ludwigsburg Palace. The latter remained the capital of the region until 1734, when Duke Carl Alexander declared Stuttgart the capital again. At the time of the first generation considered in this study, Stuttgart was under the control of Carl Eugen. In 1796, during the First Coalition War, Austrio-Prussian and French troops clashed in Stuttgart. Frederick II became ruler of Stuttgart in 1797. Under the reign of William I, which began in 1816 and coincides with the second generation of this study, Stuttgart had a famine stemming

from the Napoleonic Wars. The Stuttgart trade school was founded in 1832, and the general pension fund was established the following year.

In 1847, around the beginning of the third generation included in this study, a bread riot occurred on Hauptstätter Straße. Wilhelm I was the only major prince to recognize the Paulskirche constitution which would have created a German nation state in 1849. Another unsuccessful attempt to establish a constitution occurred in Stuttgart later that same year. Industrialization in Stuttgart began in 1852, with the first machine factory being built in Stuttgart-Berg. In 1868, Stuttgart introduced the public horse-drawn tram. By 1871, the recorded population of Stuttgart was 91,623 residents. Around the start of the fourth generation of this study, in 1877, the first telephone line was connected in the city. In 1885, Gottlieb Daimler drove through the streets on Cannstatt after inventing the world's first car, which eventually became the company called Mercedes-Benz, as it is known today. In 1890, the city had 139,817 residents. The first electric tram began operations in 1895.

The regions of Canstatt, Untertürkheim, and Wangen were incorporated into the city of Stuttgart in 1905, around the beginning of the last generation defined in this study. The eight-hour working day was introduced in Stuttgart by the year 1906. In 1907, the first sewage treatment plant was constructed for the city. The area known as Degerloch was incorporated into the city by 1908. By 1910, the city of Stuttgart alone had 286,218 inhabitants. A new market hall opened in 1914. The next year, Stuttgart's tram network covered 70 km into World War I, with 22 people being killed in the city limits during air raids. Afterwards, Württemberg drafted a democratic constitution. By 1922, the first four platforms of the Stuttgart main train station were opened for the first time. Two years later, the first city airport opened and was connected to the European Air Traffic system. In 1925, the census of the city recorded a population of 341,967.

Daimler-Benz was formed in 1926 and incorporated an assembly line production in 1927; that same year the railway out of the city expanded south to Switzerland and northeast to Berlin. In 1928 there were 235 registered companies based in Stuttgart, with Bosch employing the most at 14,000. In 1932 the major industrial city of Zuffenhausen was incorporated. After Hitler was appointed Chancellor in 1933, skirmishes broke out between rival political parties in the streets of Stuttgart.

According to the *Encyclopedia Britannica* (2023c), Stuttgart is a major rail junction that connects the Danube and Rhine Rivers. Located in the largest industrial zone in southwest Germany, the city is home to several major companies, including Daimler AG and Porsche. The auto industry is the main industrial focus of the city, but Stuttgart also has several general and electrical engineering companies along with firms focused on clean and sustainable energy. It is also a major center for publishing and is one of Germany's largest wine-producing communes. It is home to three major universities: the University of Hohenheim (established in 1818), the University of Stuttgart (1829), and the Stuttgart Institute of Management and Technologies (1998).

Pforzheim History

The following history of Pforzheim is based on information provided on the city's website (Pforzheim 2023). The city was founded ca. 90 BCE as a Roman settlement called Portus on the Enz River, in the area occupied today by the Old Town Bridge. The name Pforzheim (Figure 2.6) was first used in 1067 by King Henry IV. By 1080, the town received market rights. A new city was founded at the foot of the Schlossberg around 1150. In the 13th and 14th centuries, the town grew due to an influential patrician class that developed a financial market only to leave slowly over time; the town had a population of around 1,000 to 1,200

inhabitants at that time. In 1455, Johannes Reuchlin, an important German humanist, was born in the city. In 1463, the town came under Palatine rule after the defeat of the Margrave of Baden. From 1535 to 1565, Pforzheim was the main residence of the Margravate of Baden-Durlach. Lutheranism was introduced to the city in 1556. The town was conquered by Swedish and French troops in 1644. The following year, it was conquered, looted, pillaged, and set on fire by Bavarian troops. The Palatine War of 1688-1697 caused massive destruction across southwest Germany; Pforzheim was looted and burned by French troops twice in 1689 and again in 1692.

Figure 2.6. Pforzheim Hauptfriedhof Gate Interior, Pforzheim, Baden-Württemberg, Germany (author's photo).

The famous "Women's Riot" of Pforzheim occurred in 1725 protesting the taxation policies of the Margrave of Baden. In 1718, the "Orphan, Mad, Sick, and Penitentiary Workhouse" was established in the shell of a Dominican convent which would later become the center of the town's jewelry industry. In the mid-18th century, the town's industry began to grow

with the founding of a textile factory in 1753 and an ironworks in 1761. In 1767, a watch and jewelry factory was established in the orphanage and spurred the town's jewelry industry, which was further strengthened by a Freedom of Trade act passed in 1776. This period roughly coincides with the beginning of the first generation considered in this study.

A massive typhus epidemic occurred in Pforzheim in 1805-06. Around 1836, Ferdinand Oechsle invented his must scale to determine the sugar content in wine as part of a product standardization effort. There were revolts in 1839 (during the second generation defined in this study) due to working conditions in the Pforzheim industry centers; these were known as the Pforzheim Goldsmiths Revolution. Pforzheim was connected to the railway network in 1861 (during this study's third generation). Pforzheim's first trade union was organized in 1869, and two years later, the city's first municipal hospital opened. In 1875, at the beginning of the fourth generation defined in this study, Social Democrats sat on the city's Citizens Committee for the first time. One of the first recorded long-distance trips in an automobile was conducted by Bertha Benz between Pforzheim and Manheim in 1888. During the fifth generation in this study, there was a revival of the watch industry in Pforzheim. Brötzingen and Dillweißenstein were incorporated into the city in 1905 and 1913, respectively. In 1919, typhoid and dysentery epidemics broke out in the city. After wristwatches became prominent in the 1920s, Pforzheim's watch industry grew rapidly.

Karlsruhe History

The city of Karlsruhe's media arts website (Burkhardt 2023) includes a historical timeline for the city. Unlike Stuttgart, there is not much evidence of the city's earliest history that is readily available. The sources I was able to locate start in 1715 when Margrave Karl Wilhelm von Baden-Durlach founded the city as a deed of privilege. It was renewed in 1772 (around the

beginning of the first generation considered in this study) to promote settlement, business, trade, and industrialization. Karlsruhe became the capital of the state of Baden when Margrave Karl Friedrich moved there in 1751 in order to make a model state (Figure 2.7). At the beginning of the 1800s, the city promoted the arts heavily with the construction of theaters, musical education, and choral organizations. By 1818, during the second generation considered in this study, Baden had the most liberal and progressive constitution in the world. In 1822, the Ständehaus was created as the original parliament building for Baden. Three years later, Duke Ludwig of Baden founded the Polytechnic School, which became the first technological university in Germany.

Figure 2.7. Karlsruhe Palace and Courtyard, Karlsruhe, Baden-Württemberg, Germany (author's photo).

In 1830 Duke Leopold ascended to the throne, ushering in more liberal policies for the region and the city (Vogel 1970). In 1831, the Landtag returned to the city with a fairer system, allowing more liberal press to be printed that heavily criticized the government. Throughout the next two decades, criticism of the government by the press caused the anger of the people to

grow. By 1847, near the beginning of the third generation considered in this study, tensions between the radical politicians of the parliament grew to dangerous levels and there was talk of a German nation-state. In late 1847, Duke Leopold addressed the congress/parliament about the state of the people who were suffering, and the following year, the Mannheim Petition, which called for a jury system, greater freedom of the press, the arming of the people, and the abolishment of a standing army, was brought to Karlsruhe. A demonstration by the working class in favor of the reforms occurred on March 1 while the government conducted business. In May 1848, the Frankfurt Constitution was essentially rejected by the government, causing political unrest around the state with Karlsruhe at its center.

According to Karlsruhe's media art website (Burkhart 2023), in 1886, during the fourth generation of this study, Heinrich Hertz discovered electromagnetic (radio) waves, which led to other inventions. In 1893, Germany's first grammar school for girls opened in Karlsruhe. In 1900, Baden became the first German state to mandate full access to university studies for women. 1914 marked the beginning of World War I, and 164 people were killed in the city during air raids. According to the *Encyclopedia Britannica* (Britannica 2023d), Karlsruhe today is a major producer of electrical products, machinery and steel products, building equipment, pharmaceuticals, motor-vehicle parts, and paper manufacturing. Following World War II, industry in the city was rehabilitated by the building of a nuclear reactor.

Heidelberg History

Heidelberg is the smallest of the German cities in this study, but it has a long history (Figure 2.8). The marketing website for the city of Heidelberg (Heß 2023) provides a good timeline of major historical events for the city. A complete maxilla of the hominin species *Homo heidelbergensis* dating to around 600,000 BCE was discovered in the region in 1907. Evidence

of settlement by the Celts dates to around 800 BCE. Around 70 CE, Romans occupied a fort at the foot of a hill overlooking what would become the city, in the area that is now known as Neuenheim, but this settlement was abandoned sometime around the 3rd century. The name Heidelberg was first used in a document associated with the Schönau Monastery in the Odenwald, which describes a town and pond near St. Peters Church. In 1386, Heidelberg University was founded by Elector Ruprecht I, making it the oldest university in modern Germany. Martin Luther held his "Heidelberg Disputation" there in 1518, his first theological appearance outside of the town of Wittenberg. In 1556, Elector Ottheinrich introduced the Reformation to the area and added onto Heidelberg Castle by creating one of the most important libraries at the time.

Figure 2.8. City of Heidelberg seen from Schloss Heidelberg lookout, Heidelberg, Baden-Württemberg, Germany (author's photo).

Following the marriage of Friedrich V to the English Princess Elisabeth Stuart in 1613, the city's castle was expanded into a complex with gardens that was a major achievement for the time. The town and castle were destroyed by French forces in the Palatine War of Succession in 1693 but the castle ruins remain a major tourist attraction today. Before 1720, Heidelberg was the seat of the Electoral Palatinate, until Karl Phillip moved the seat to Mannheim after failing to convert the people of the city to Catholicism. During the time of the first generation considered in this study, from 1786 to 1788, Karl Theodor built what is now known as "The Old Bridge" after the city experienced the worst flooding of the Neckar River in its history. In 1803, Heidelberg came under the control of the state of Baden, and under their Grand Duke, the university was reorganized as a state-funded institute. According to Tourism Heidelberg (Greitzke 2024), in 1815 the Holy Alliance was formed between Austria, Prussia, and Russia within the ruins of the castle. The historical information provided by the German sources I was able to find stopped before the third generation defined in this study; I therefore recommend reading the Baden history section (see above) to understand this time in Heidelberg's history.

According to the *Encyclopedia Britannica* (Britannica 2023e), Heidelberg's primary focus today is the university located in the city. Since it is one of the oldest in Europe, it has also seen many innovations throughout its time. Besides the university, the town also boasts some industry, including machine manufacturing, precision instruments, and quality leather, tobacco, and wood products. One of the largest revenue sources for the city is the tourist industry. Most of the tourism is directed towards the famous Heidelberg Castle that overlooks the city. The castle also houses the Heidelberg Tun, which was constructed in 1751 and is one of the largest wine casks in the world with a capacity of 49,000 gallons or 185,500 liters of wine.

Revolutions of 1848

As stated in this chapter, there were multiple waves of German immigration to Milwaukee beginning in the early 19th century. However, because the wave known as the 48ers is the focus of this study the reasons for the mass emigration of this generation must be discussed, in particular the persecution of reformers in the aftermath of the Revolutions of 1848 (Holzman 1945). The Revolutions of 1848 were a series of republican revolts against European monarchies, beginning in Sicily and spreading to France, Germany, Italy, and the Austrian Empire that were largely unsuccessful and were followed by widespread disillusionment among liberals and crackdowns on the part of the conservative aristocratic systems in the affected countries, including Germany.

As proposed by Berger and Sporer (2001), one of the main reasons for the revolutions, besides generalized political unrest, was the economic crisis experienced by Europe's lower and middle classes at the time. This manifested itself as an agricultural shortage in the period before 1848 during which most of a nuclear family's budget, approximately 50% to 75%, was spent on food for the household. Most of a family's nutrition was in the form of wheat or other grains and potatoes. Europe was in the throes of a potato famine at the time, which produced shortages of this staple food. When people could not get potatoes, they supplemented their diet with grains, and the demand especially for wheat grew ever higher, driving prices up as well. The rise in food prices caused economic turmoil for the middle and lower classes, who became frustrated with their governments for not intervening, adding fuel to the boiling point of the revolutions.

Hamerow (1954) suggests a more political reason for why the revolutions occurred. As we have learned, the southwest region of modern-day Germany was a breeding ground for leftist or socialist political views. The people involved with the revolutions, heavily influenced by

Marx and Engels, believed that the government, entirely composed of upper class individuals at the time, was not working in favor of the people; instead, they were looking to advance their positions in life by exploiting the hard labor of the working class. There was also the issue of the scholars of the region as well. The educated class, the main proponents of liberal ideas, felt that their governments stifled their ability to think and speak about the issues of the day. Intellectual ideas for social reform and theoretical policies were going nowhere, causing the riots to break out all over Europe, not just Germany. More detailed discussion of the reasons for the revolutions are provided in the preceding sections outlining the histories of the German states and cities.

Cemetery Backgrounds

Background information on each of the cemeteries included in the study is also necessary (see Table 2.2 at the end of this section for a summary of key information). According to *The Milwaukee Independent* (2018), Union Cemetery (Figure 2.9) was established in 1865 and contains the graves of some of the earliest settlers in the Milwaukee area. The grounds were originally farmland owned by the Krause family that was sold to the Lutheran Bethlehem congregation and eventually expanded to just over 70 acres. This cemetery should not be confused with the Town of Milwaukee Union Cemetery (Figure 2.10), which, according to city records in the digital archives of the Whitefish Bay Public Library, is located within the town of Glendale, Wisconsin. This cemetery is just under three-quarters of an acre in size and was acquired in 1854 by the Hesse family, becoming one of the main cemeteries for the north side of rural Milwaukee (Bird and Seeman 2011).

Figure 2.9. Union Cemetery grounds, Milwaukee, Wisconsin (author's photo).

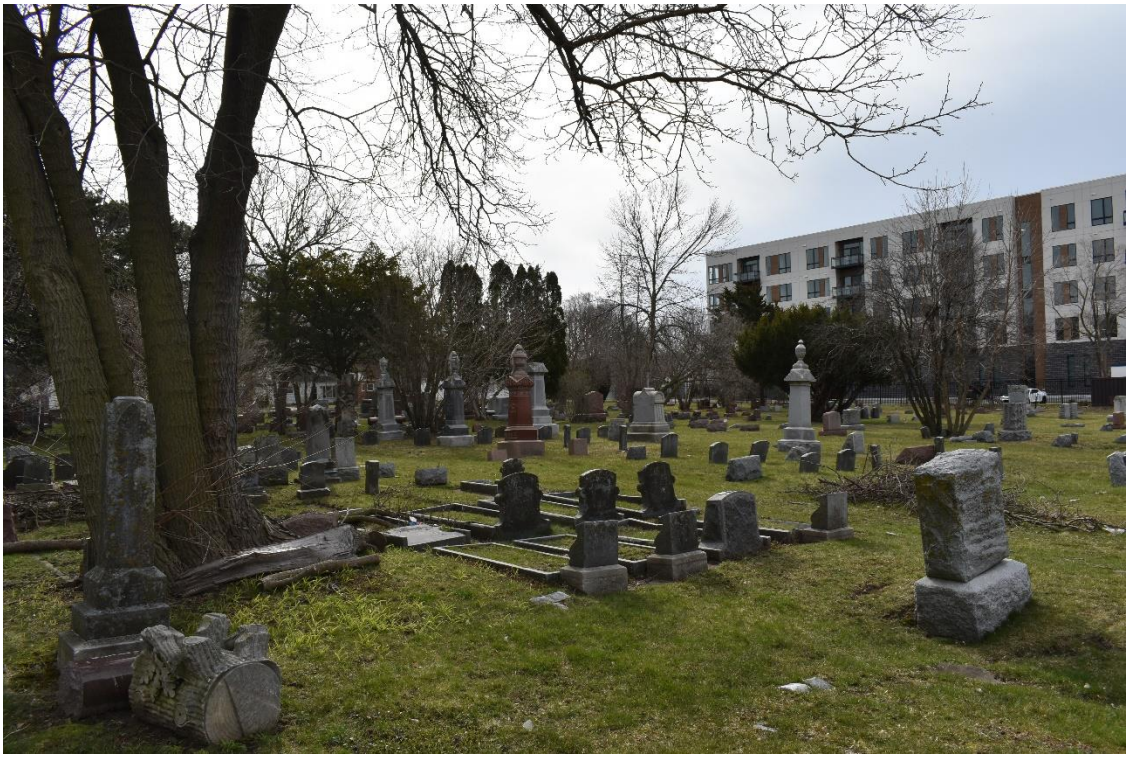


Figure 2.10. Town of Milwaukee Union Cemetery, Glendale, Wisconsin (author's photo).

According to Tomilin (2023), Forest Home Cemetery (Figure 2.11) was founded in 1850 as a beautiful cemetery for everyone, part of the Garden Cemetery movement prevalent at the time. Previously, well-maintained religious cemeteries in the city had been exclusive to certain members of the population, while the cemeteries operated by the city were open to all yet were poorly maintained. In 1849 St. Paul's Episcopal Church purchased 72 acres of land to establish Forest Home Cemetery, which would be open to all and not-for-profit. Fifty of the city's most prominent people at the time paid for future burial plots and Increase A. Lapham was chosen as the designer of this "Garden Cemetery." As the city grew following the Civil War, so did the cemetery. In 1900, the land purchase was finalized and the cemetery reached its maximum size of 189 acres. Industrialization brought more wealth into the city, which translated into lavish burial monuments in some of the cemetery sections, notably Brewer's Corner (Figure 2.11).

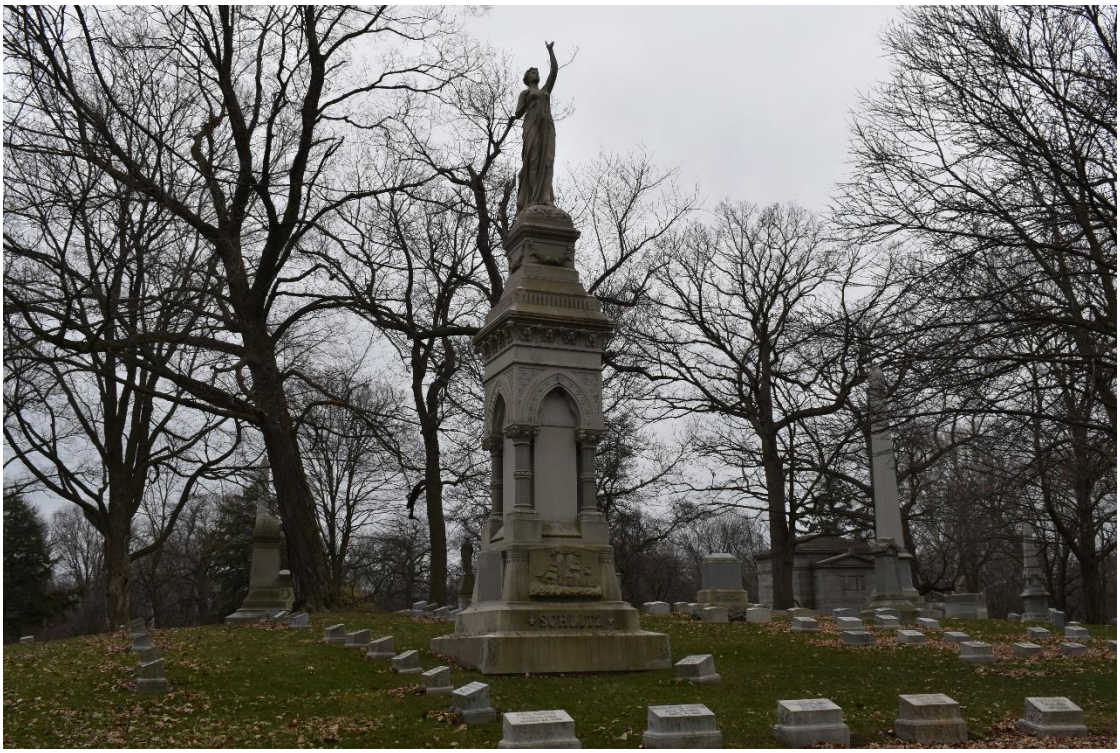


Figure 2.11. Schlitz Family Plot in Forest Home Cemetery, Milwaukee, Wisconsin (author's photo).

Calvary Cemetery (Figure 2.12) is a historic Catholic cemetery for Milwaukee (Chasco 2004). Originally, a cemetery had existed near the same location in 1845, but the current cemetery officially dates to around 1856, after the cemetery was expanded. The original church, founded by the first Catholic Bishop of the city, John Henni, was situated on just under ten acres in the incorporated town of Wauwatosa. By 1856, the need for more space for burials was evident, and an additional 55 acres were purchased. By 1880, the cemetery contained around 10,000 burials, so an additional 20 acres were secured. The original land on which the cemetery was located was meant to be for the Sisters of Notre Dame school, but it was sold to a land developer instead. Today, the cemetery is around 65 acres in size and is operated by the Archdiocese of Milwaukee, which is responsible for about 70,000 burials.

Figure 2.12. Calvary Cemetery, Wauwatosa, Wisconsin (author's photo).

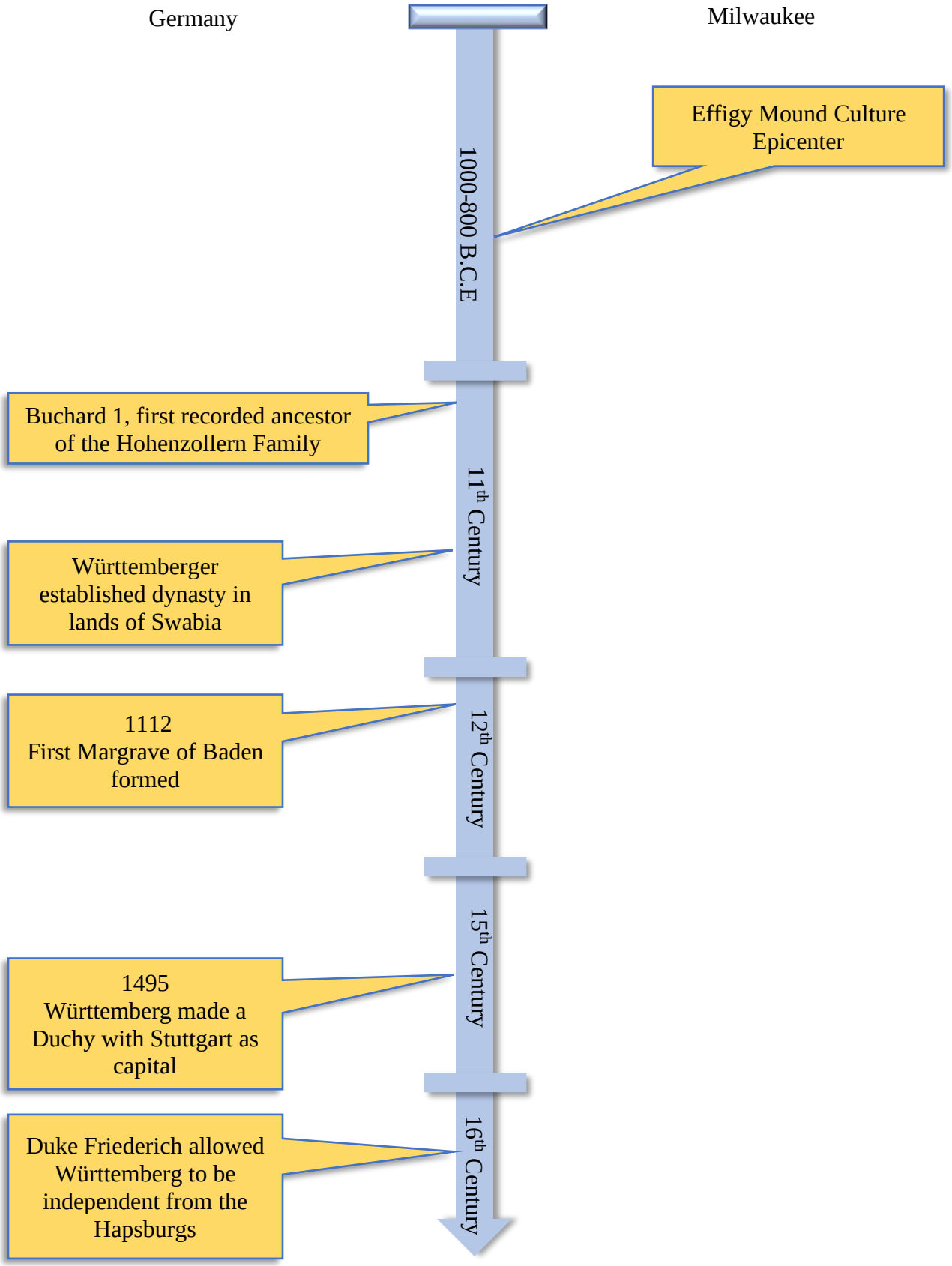
Stuttgart is the largest city in and capital of the modern state of Baden-Württemberg. The cemetery in this study, Pragfriedhof, is located in the Stuttgart-Nord section of the city. Initially opened in 1873, it contains people of all backgrounds, including a separate Jewish section (Hahn 1992). Heidelberg is the fifth-largest city in the state and contains a cemetery called Bergfriedhof Heidelberg, which was established in 1844 on an old vineyard site (Schiemer 2022). Karlsruhe is the third largest city in Baden-Württemberg and the state's former capital. The Hauptfriedhof Karlsruhe, the city's main cemetery, opened in 1874 after the original cemetery had no more free space (Zahn and Bräunche 2001). Pforzheim is a city between Stuttgart and Karlsruhe known as the Black Forest Gateway. The Hauptfriedhof Pforzheim was laid out in 1877 after the other city cemeteries had reached capacity (Timm 1995).

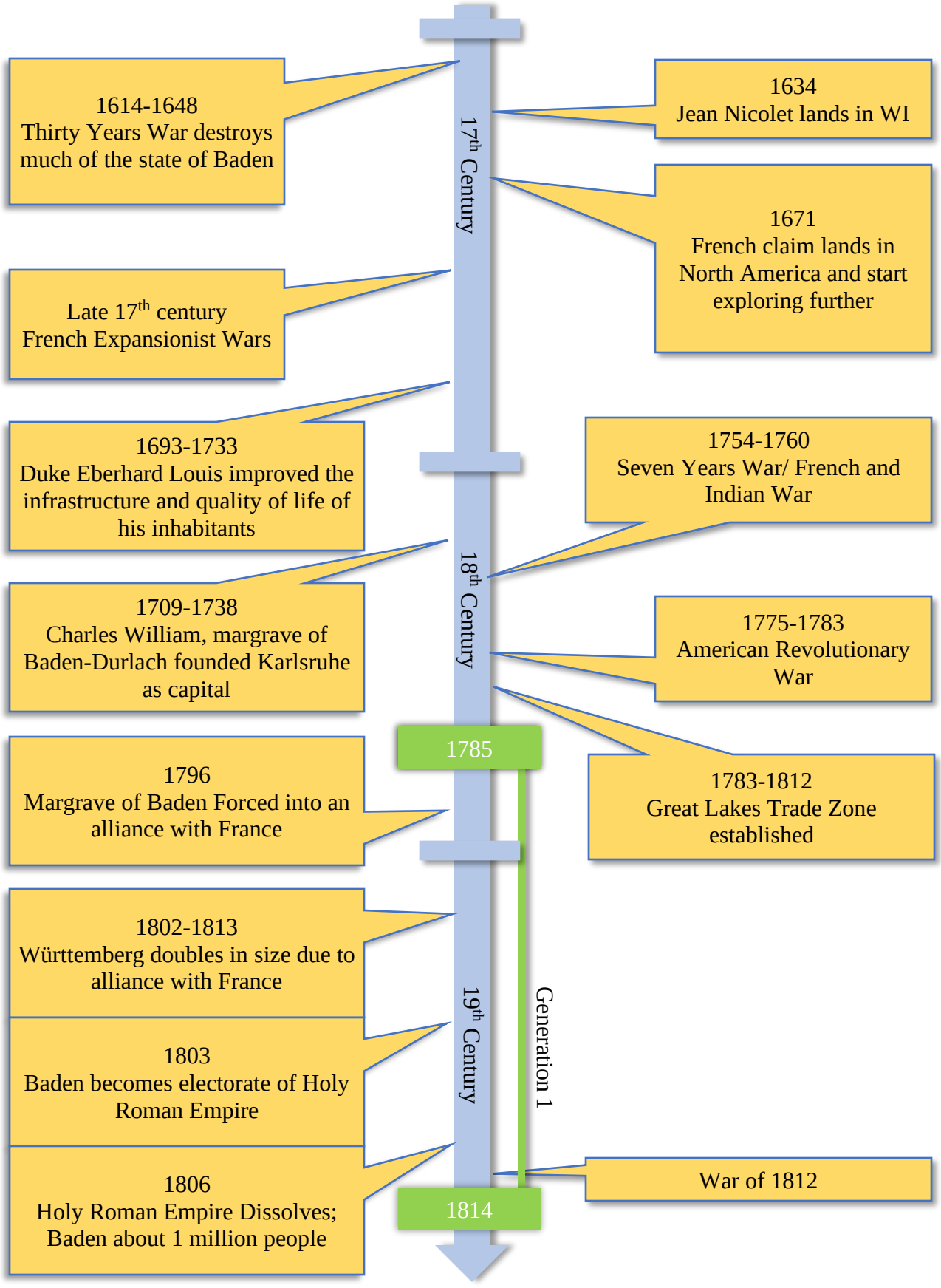
Table 2.2. Cemetery Background Information

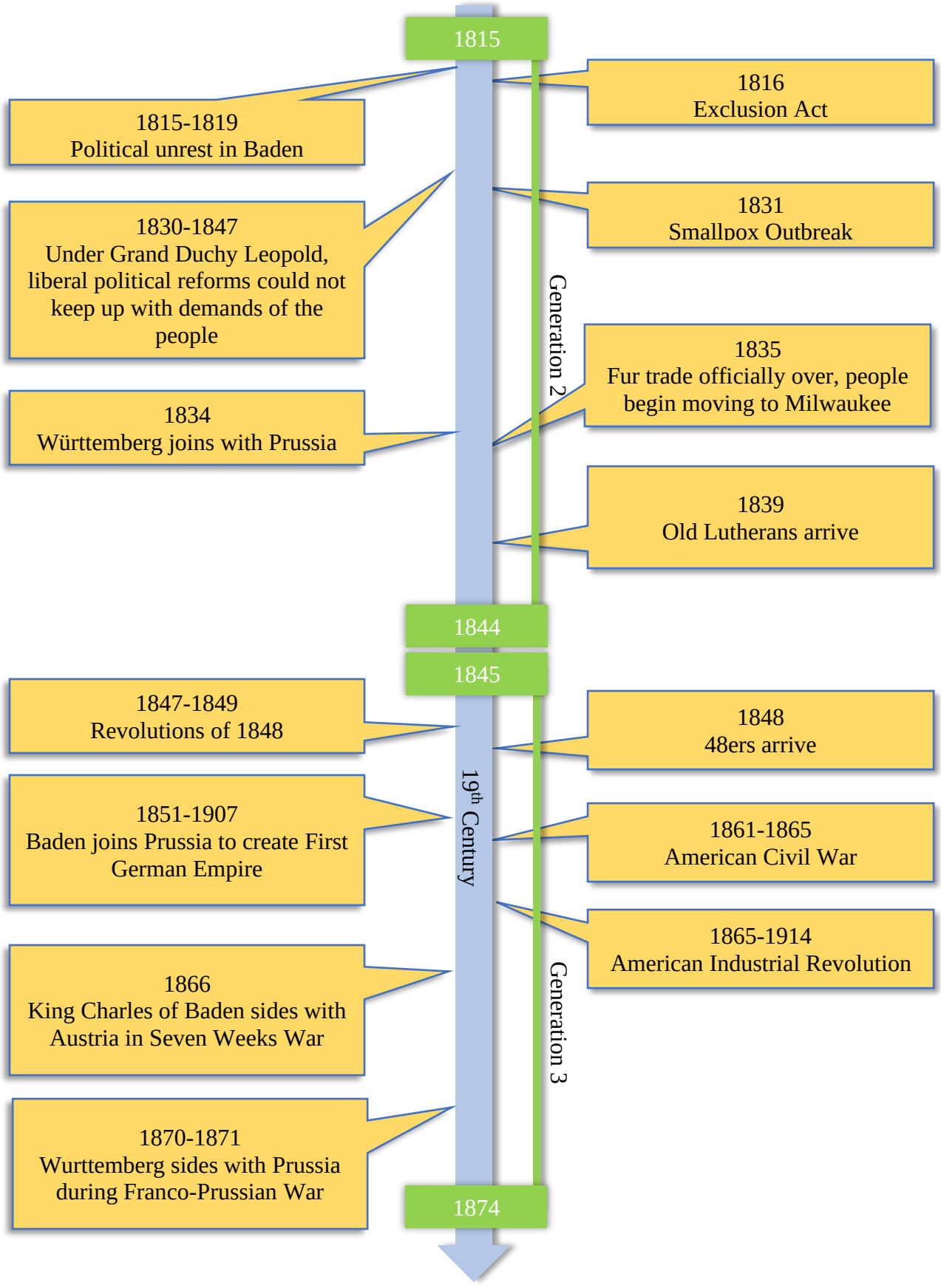
Name of Cemetery	Union Cemetery	Calvary Cemetery	Forest Home Cemetery	T.O.M.U.C
Location	Milwaukee	Milwaukee	Milwaukee	Glendale
Size (Acres)	51	75	198.5	2.68
Starting Year	1865	1857	1850	1848
Currently in Use	Yes	Yes	Yes	No
Maintenance	Private	Diocese	Non-profit	Private
Recorded Population	38,225	58,727	71,341	1,760
Initial Study Population	36,220	58,142	70,521	1,582

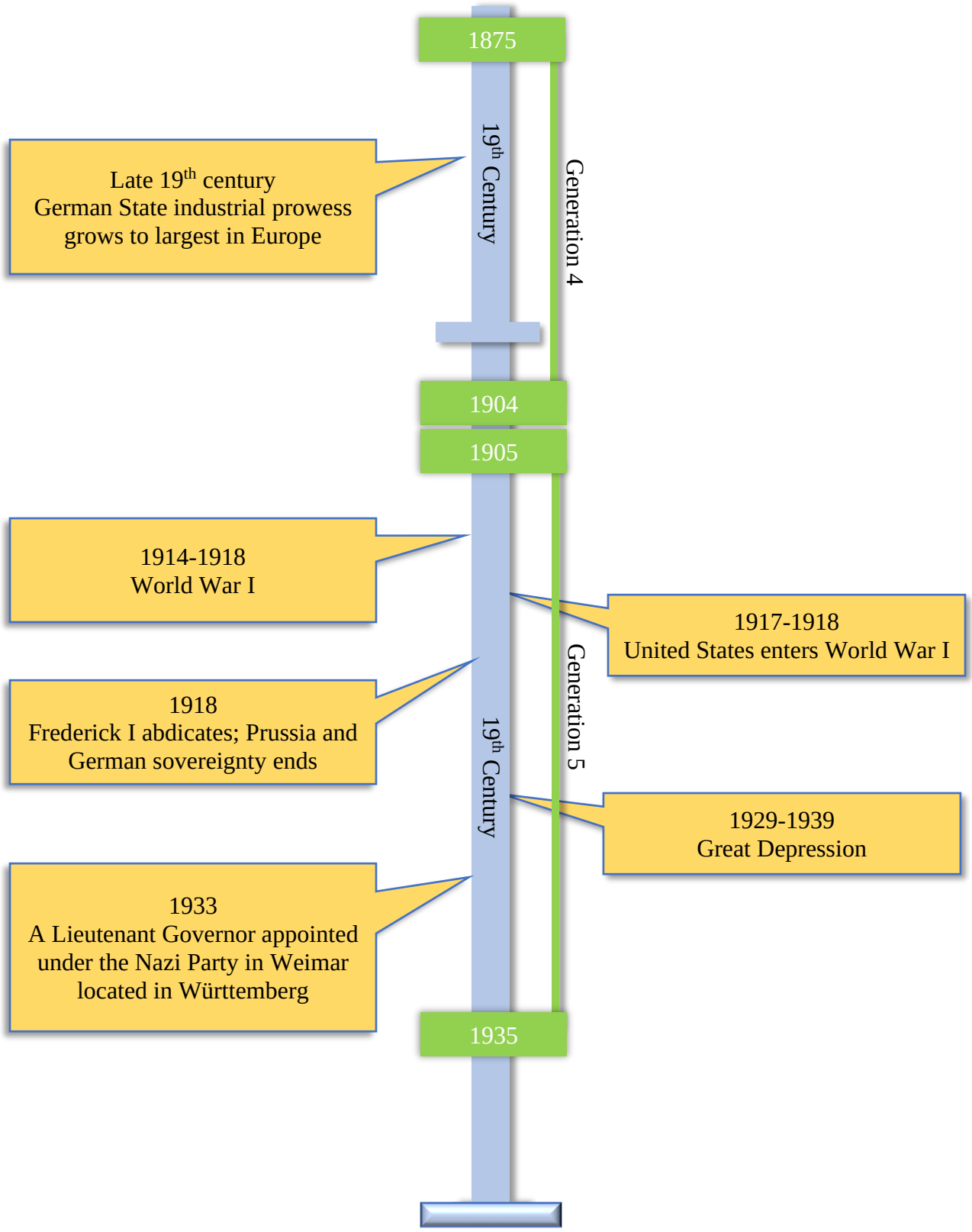
Name of Cemetery	Pragfriedhof Stuttgart	Hauptfriedhof Pforzheim	Hauptfriedhof Karlsruhe	Bergfriedhof Heidelberg
Location	Stuttgart	Pforzheim	Karlsruhe	Heidelberg
Size In Acres	51.89	82.53	84.02	37.07
Starting Year	1873	1877	1871	1844
Currently in Use	Yes	Yes	Yes	Yes
Maintenance	City	City	City	City
Recorded Population	7,187	37,952	41,508	1,979
Initial Study Population	6,996	36,943	40,044	1,719

Figure 2.13. Summary of Key Events Related to Study.




1614-1648
Thirty Years War destroys much of the state of Baden
1634
Jean Nicolet lands in WI
17th Century
1671
French claim lands in North America and start exploring further
Late 17th century
French Expansionist Wars
1693-1733
Duke Eberhard Louis improved the infrastructure and quality of life of his inhabitants
1754-1760
Seven Years War/ French and Indian War
18th Century
1709-1738
Charles William, margrave of Baden-Durlach founded Karlsruhe as capital
1775-1783
American Revolutionary War
1785
1796
Margrave of Baden Forced into an alliance with France
1783-1812
Great Lakes Trade Zone established
1802-1813
Württemberg doubles in size due to alliance with France
19th Century
Generation 1
1803
Baden becomes electorate of Holy Roman Empire
1806
Holy Roman Empire Dissolves; Baden about 1 million people
War of 1812
1814


1815
1815-1819
Political unrest in Baden
1816
Exclusion Act
1830-1847
Under Grand Duchy Leopold, liberal political reforms could not keep up with demands of the people
1831
Smallpox Outbreak
Generation 2
1834
Württemberg joins with Prussia
1835
Fur trade officially over, people begin moving to Milwaukee
1839
Old Lutherans arrive
1844
1845
1847-1849
Revolutions of 1848
1848
48ers arrive
19th Century
1851-1907
Baden joins Prussia to create First German Empire
1861-1865
American Civil War
1865-1914
American Industrial Revolution
1866
King Charles of Baden sides with Austria in Seven Weeks War
Generation 3
1870-1871
Wurttemberg sides with Prussia during Franco-Prussian War
1874


1875
19th Century
Generation 4
Late 19th century
German State industrial prowess
grows to largest in Europe
1904
1905
1914-1918
World War I
1917-1918
United States enters World War I
Generation 5
1918
Frederick I abdicates; Prussia and
German sovereignty ends
19th Century
1929-1939
Great Depression
1933
A Lieutenant Governor appointed
under the Nazi Party in Weimar
located in Württemberg
1935

Chapter 3: Methods

Defining Generations

An integral part of this study is the definition of generation and average generation length. According to Lamb (2015), the term generation has two meanings. The anthropological and genealogical definition refers to the relationship between parents and their children, which ties into the culture's sense of kinship. The second is a more social or sociological definition that defines a generation as a group of people who live together during a particular historical period and share an identity, practices, and beliefs. Generations define social change, with each generation trying to make the world a better place for themselves and future generations. The study of the length of generations is complex (Tremblay and Vezina 2000). Scholars often use a mean interval of 20-25 years when defining generations. The problem is that the length of a generation can change depending on various factors, including the current generation living in the present, individuals' gender, and the cultural characteristics of the society being studied. For example, Tremblay and Vezina (2000) analyzed genealogical data of the modern Saguenay population north of Quebec, Canada. They found that a mean generational length of 30 years was more accurate for the people of this area. In a similar study, Forster (1996) focused on northern German and Danish populations from the 17th to 19th century and came to the same conclusion.

Because my study is focused on German immigrants to the United States, a generational length of 30 years will be used. As previously stated, the most significant wave of German immigrants that came to Milwaukee was the group known as the 48ers. They derived their name from the years after 1848 when many immigrated in the wake of the revolutions in Baden-Württemberg and elsewhere in Europe. However, these were not the first people of German

descent to live in the Milwaukee area. Therefore, the study includes a few generations before the 48ers to determine what motivated these individuals to leave Germany and how they fared in the new country. The conditions in the Baden-Württemberg region before the revolutions started are also considered.

The act of emigrating to the United States has always been romanticized as an inspirational story, leaving your home to start fresh in a foreign land where you may not have much to your name. In a sense, it is the beginning of the rags to riches story that continues to inspire people today, which assumes the iconic immigrant starts with nothing and makes a name for themselves and their future family. It implies that there may be a bright future even when starting from nothing as long as you persevere. The typical American Dream story is a success story, but failures are not featured in our national mythology (see Sonnenfeld's [2023] discussion of the "Horatio Alger Myth"). In the case of Milwaukee, the successes include the Beer Barons like the Pabst, Miller, and Schlitz families. What is not mentioned is the people who were left behind or chose to stay in their homeland. What happened to them? What was the fate of the people who did not become famous or wealthy after moving to the US? What about the family members who joined them but are often forgotten?

Generations Included in this Study

Finding answers to such questions is why studies like this are important: they provide a more complete picture of immigration that features not just the stories that make us feel good but the bad ones that make us uneasy. The 48ers who came to Milwaukee, the people who came before them, and the generations that came after are a good proxy for the larger story of immigrant success and failure in America. This study includes one generation during the mass German migration to Milwaukee, two generations before, and two after the peak period of

migration. In defining the middle generation, I decided that it should not start in 1848 but rather in 1845 to encompass the entirety of the generation of 48ers as well as individuals who may have immigrated before the height of the revolutions. The generations included in this study are listed in Table 3.1.

Table 3.1. Date Ranges of Generations Used in the Study

Generation	Date Range
Generation 1	1785-1814
Generation 2	1815-1844
Generation 3	1845-1874
Generation 4	1875-1904
Generation 5	1905-1935

Data Collection

The information in this study was obtained from grave records, cemeteries, and, most importantly, gravestones. Gravestones are artifacts by definition; however, this diverges from the traditional way of thinking of an artifact in an archaeological context. An artifact is any portable object humans use, modify, or make (Renfrew and Bahn 2012:51). The general public assumes that relics are usually buried and unearthed through archaeological excavations but headstones that identify a currently used designated grave site are, by definition, artifacts even though they are above ground. Many are portable; they typically consist of pieces of stone that humans have modified. The use of gravestones as material culture markers that can be studied archaeologically was first proposed in the mid-1960s in a study of the imagery on New England headstones (Dethlefsen and Deetz 1966, 1967). Grave markers have changed drastically over time and trends in what constitutes a grave marker have also changed. For example, Cannon (1989) has noted changes in Victorian to modern-day English headstones, demonstrating that the ostentation

of Victorian imagery gave way to more refined and uncomplicated markers in modern cemeteries due to changes in ideas about respecting the dead.

This study investigates the immigration of the 48ers to Milwaukee in order to test the idea that such a move was genuinely advantageous for the majority of individuals who made that journey. Because immigration is a highly contested topic in the current zeitgeist of American politics (Ewing 2019:1), this study can shed light and perspective on historical examples of mass immigration in the past. This study focuses on a particular historical case (German immigration to the US in the mid to later 19th century). It considers whether the people who moved to a different country lived longer, which would suggest that the move was advantageous for them, or if they lived shorter lives than their contemporaries who remained in the homeland, which would tend to cast doubt on the universality of the American Dream myth. Although there are many different factors influencing quality of life, life expectancy or life span is one that can be quantified and offers reliable statistical data.

This type of study would be complex to replicate in some areas due to the multitude of people from different cultures who currently immigrate to the United States every year. However, regions of the United States with a significant cultural connection to a specific heritage may provide some insights into the nature of immigration, including its risks and its value to those engaging in it. Milwaukee is an excellent example; its well-known German heritage stems from the mass migration of German immigrants during the decade following the 1840s. Some of the oldest cemeteries from that period in Milwaukee contain large numbers of individuals of German descent. Therefore, Milwaukee is the perfect location for a study comparing the cemeteries in the cities from which people migrated to those to which people migrated.

The cemetery data included in this study was accessed at the Web site Find a Grave (www.findagrave.com), which was started in 1995 by Jim Tipton to share his hobby of visiting the graves of famous people. He discovered that many individuals were equally fascinated and quickly opened the site for any interested individuals. The site's mission became to find and record burial places and final disposition information worldwide. Thousands of contributors submit new listings, updates, corrections, photographs, and virtual flowers every hour, with a team at the site headquarters helping and verifying individual entries. Since the establishment of the site, there have been millions of contributions, including memorial information, photos, GPS locations, biographies, and other information that people may find helpful. As the site grew, so did the community. According to the website, Find a Grave now houses "the world's most extensive international graving community." In 2013, the site became a wholly owned subsidiary of Ancestry®. According to Ancestry®, for the last 40 years, it has been one of the leading websites for genealogical and personal history research. This is an outcome of digitizing and automating records and research, making them more accessible (Ancestry.com). Ancestry® has built the most extensive and distinguished collection of family history records. The organization continues to refine its technology and expand its databases to help individuals find their familial history. The acquisition of Find a Grave by Ancestry® was intended to help people find their family members' final resting places and provide images and information to people looking for their family members (Ancestry.com).

Initial searches for cemeteries included in this study were conducted using Find a Grave's search function for cemeteries in the Milwaukee area and in the German state of Baden-Württemberg, from which many early migrants to Milwaukee came. Cemeteries were selected based on whether they contained data old enough to pertain to the earliest generations included

in the study. Using the advanced search function of Find a Grave, a starting date of 1785 was used in people's birth years with a range function that added or subtracted 25 years, the maximum differential the website would allow within the search function. If there was a large amount of data to support the earliest generation, cemetery information was used. If the cemetery had little information of relevant date, it was not included in the study.

Thirty-six cemeteries in the city of Milwaukee have records on Find a Grave. Several others in the region have not been cataloged yet by the website or a data-collecting volunteer. There are many more in neighboring cities that are a part of the Milwaukee metropolitan area, such as Waukesha and South Milwaukee. Only cemeteries in the city of Milwaukee proper were considered because they existed during the period covered by the study. That said, a comparison of small, rural cemeteries and Milwaukee cemeteries for the same time periods could provide a useful follow-up study. Three cemeteries were selected for analysis because they met the temporal criteria: Union Cemetery on the north side of the city, Forest Home Cemetery on the south side, and Calvary Cemetery to the west. These cemeteries provided datasets large enough for the statistical analyses performed in this study and included burials of the appropriate period.

The German cemeteries included in this study were selected using a different method. Cities in southwest Germany with larger population sizes were emphasized, as I assumed that people who took part in the mass migration waves of the 1840s would have had a higher chance of being from these cities. Since immigration records indicating where people immigrated from were limited, this was the best solution to maintain statistical comparability. Cemeteries in four German cities—Stuttgart, Heidelberg, Karlsruhe, and Pforzheim—yielded enough information to be included in the study.

All memorials (the term that Find a Grave uses for burials) from each cemetery listed above were sourced from Find a Grave. All data listed on each memorial page were then entered in an Excel file and separated based on the data categories on the website (see Table 3.2). The data for each individual included a memorial, first name, last name, birth date, birth year, birth month, day of birth, country of origin, state of origin, death date, death year, death day, country of death, and state of death. Once all the data were entered into the Excel file, data outside the parameters of the study were removed. This included any person born before 1785 or after 1935, any individual with missing birth or death years whose age at death could not be ascertained, or any individual designated as unknown or in an unmarked grave. Once such individuals were removed, the remaining individuals were sorted further by calculating the age at death. This was done by subtracting the birth year from the death year. For many people, only birth and death years were listed in Find a Grave; more specific death dates were unavailable. Therefore, this was the only way to consistently determine the age at death for all burials in the sample. Next individuals were sorted chronologically according to their birth year from earliest to latest and assigned a generation code based on the year ranges discussed previously. There were several instances in which only one of the necessary years needed to calculate age was listed. Such individuals were eliminated from the dataset.

Table 3.2. Example of Excel File Used for Data Extraction

First Name	Last Name	Birth Date	Birth Year	Birth Month	Birth Day	Death Date	Death Year	Death Month	Death Day	Age	Generation
		1827	1827			18 Feb 1875	1875	2	18	48	2
		1886	1886			1969	1969			83	4
		6 May 1810	1810	5	6	23 Jun 1883	1883	6	23	73	1

After sorting the data and assigning generation codes to each individual, I calculated the average age at death for each generation in each of the cemeteries, as well as overarching averages for each generation in the three Milwaukee cemeteries combined and in the four Baden-Württemberg cemeteries combined. Calculating these averages for both areas allows us to assess which had a longer average life span for each generation.

Any individuals who fit within the earlier generational parameters were included in this study, regardless of their descent. The data obtained from the website did not include genealogical information about individuals, so it would have been extremely difficult and time-consuming to reduce the number of individuals further based on descent. One could argue that name alone should be sufficient evidence to determine an individual's descent. However, due to cross-cultural marriage and the taking of spouses' last names, this method is not foolproof and could omit some individuals of German descent (German women marrying non-German men) or the opposite (German men marrying non-German women). However, after skimming through individuals' names in the dataset used for this experiment, it appears that most people included in this study were of German descent. The number of people of non-German descent seemed to be relatively small and thus should have had a minimal effect on the overall lifespan averages that were calculated. Moreover, studies of immigrant inter-marriage have shown that first and second-generation individuals tend to marry within their religious and ethnic groups.

However, to address the main research question, the focus was on immigrants who would have been considered of German descent or may have self-identified as German. For this reason, two smaller cemeteries, Union Cemetery in Milwaukee and the cemetery in Stuttgart were reanalyzed by gender based on the first names on the grave markers. This secondary analysis was intended to assess whether gender may have played a role in people's life expectancy during this

period and to identify possible differences between men's and women's life expectancies in Milwaukee vs. Germany.

Complications With Data Collection

Gender Differences

Gender is an important factor in the average lifespan of an individual. As previously stated, on average, women tend to live longer than men in developed nations (Austad 2006). There are various reasons for this but this assumption may not always apply depending on the kinds of historical events that we know impacted this research. Gender analyses are still a vital way to understand the dynamics of people's health during this time. For instance, according to the World Health Organization (2019), one of the leading reasons that men live longer in non-developed nations in modern times is the high risk of death during pregnancy or improper medical procedures associated with pregnancies in those countries, which lowers women's life expectancy by comparison. As these factors only affect females, this can significantly decrease average life expectancies among women if unequal access to medical is a persistent issue.

But what about factors that differentially affect males? As this study deals with both the United States and Western Europe from the 18th through 20th centuries, wars would have been a leading cause of lower life expectancy for men versus women. As shown by Plümer and Neumayer (2006), men are more likely to die in wars than women are. Although civilian casualties do occur, the number of women who are killed would still be eclipsed by the men fighting and dying in armed conflicts. While two world wars affected death rates in Germany and the United States, the latter would also have been affected by the War of 1812, the Spanish-American War, and the American Civil War during the period covered by this thesis.

What if there are no discrepancies between men and women, but average life expectancies are still low? This could be the result of a non-discriminatory event that caused widespread mortality in men, women, and children alike. Multiple factors might contribute to this scenario, so the history of both countries must be considered to determine proximate causes, such as disease, environmental factors such as natural disasters, or poor medical care.

Names and Cultural Identification

Basing German ancestry on an individual's last name comes with some complications. However, when individuals marry, first names are traditionally not changed. First names are often ways to connect to a culture, so they may be a more reliable basis for inferring whether individuals are of German descent rather than relying on surnames (Elchardus and Siongers 2011). By looking at first names, we could potentially determine not only gender but also whether the individual was German or self-identified as German. For the data included in this study, if German ancestry could not be determined based solely on the first name, middle names were included to infer gender and ethnic identity. Although gender could not be determined for all individuals, this number was not statistically significant. These included graves listing only the first letter of the individual's first name with the last name and graves of infants who were not named or described as "Baby Girl" or "Baby Boy," as in several cases in each Milwaukee cemetery. In the German cemeteries, individuals whose names contained a character not found in the English alphabet, such as some names containing umlauts or additional letters such as β, did not translate into Excel correctly and could not be gendered. Therefore, these individuals were not included in the analysis. Still, they were few relative to the large number of people whose gender could be identified and should not significantly affect the statistical results.

There is also the issue of people who were buried in the cemeteries who were not of German descent at all. A few first names were not German; for instance, many were common Hispanic names, so these individuals were excluded from the analysis. Some first names are shared across many different cultures; in these cases, cultural identity cannot be inferred from names alone. For instance, like many other Western European countries and cultures, many German people give their children Biblical names such as John, Peter, and Mary. Peter is spelled the same way in both English and German, for example. Some examples of culturally ambiguous people were mentioned in this study. They often had a Biblical first and middle name with a common last name or ones that appeared Germanic. These individuals were generally included in the study due to the lack of cultural distinction, for they may have culturally identified as German. In addition, first names were often anglicized and can appear in the historical records in both forms (Carl or Charles Doerflinger/Dörflinger, for example). Overall, the number of individuals whose ethnic identity was not clear was relatively small (less than 1%), so including them in the dataset would not significantly affect the overall results of the analysis.

Urban vs. Rural

We must also look at the dynamic of urban versus rural life during this time. During the earliest part of this study, Milwaukee was an agricultural community that grew rapidly with the influx of German immigrants. This transformation from rural farmland to a large metropolis undoubtedly resulted in many problems involving people's health and life expectancy. Given this, I also decided to investigate a rural cemetery near Milwaukee that was used during the study period to identify potential similarities or differences between life expectancy in the rural vs. urban environment.

For this reason, the Town of Milwaukee Union Cemetery (TOMUC), located in Glendale, Wisconsin, was chosen for this study. Although Glendale is within the metropolitan area of Milwaukee today, the city's expansion towards the north, where Glendale is located, is a recent development. During the earlier decades covered by this research, the TOMUC would have been considered a rural cemetery. The town of Glendale and its cemetery are also older than many other communities in the Milwaukee Metropolitan area, and the cemetery contained enough data to be included in the analysis.

Chapter 4: Data Analysis, Results, and Discussion

Extraction and sorting of data for all eight cemeteries chosen for this project yielded some interesting but not unexpected results. Each cemetery was analyzed by generation in Excel, and box and whisker plots were created to show age distributions, including median and mean values and data ranges. Box and whisker plots were the most effective way to graphically represent and compare data (age range, average and median ages, etc.) for the various cemeteries included in this study. Overall trends could be ascertained once the charts and numbers were calculated (Figures 4.1-4.9). For clarity, the outliers were removed for each generation in every cemetery. When producing the graphs, every generation produced at least one outlier. The later generations of this study, which included significantly more individuals, had correspondingly more outliers. The graphs in those sections would have been too complicated to read, so they were removed. In addition to the box and whisker plots, the data are summarized in Tables 4.1 and 4.2, which appear at the end of the German Cemeteries Discussion and the Milwaukee Cemeteries Discussion sections below.

German Cemeteries

Stuttgart Pragfriedhof

The dataset for Stuttgart Pragfriedhof initially contained 6,997 records of individuals interred within the cemetery grounds. The parameters of this study narrowed this count down to 6,217 individuals born between 1785 to 1935 and whose age at death could be determined (Figure 4.1). Generation One contained 57 individuals with an age range between 53 to 94 years, an average age of 76 years, a median of 78 years, and an interquartile range of 12 years (71- to 83-year life spans). Generation Two contained 473 individuals with an age range of 36 to 98, an

average age of 69 years, a median of 71 years, and an interquartile range of 17 years (61- to 78-year life spans). Generation Three contained 1,123 individuals with an age range of 28 to 104 years, an average age of 68 years, a median of 71 years, and an interquartile range of 21 years (59- to 80-year life spans). Generation Four contained 2,278 individuals with an age range of 27 to 102 years, an average age of 69 years, a median of 75 years, and an interquartile of 23 years (61- to 84-year life spans). Generation Five contained 2,285 individuals with an age range between 38 to 107 years, an average age of 75 years, a median of 81 years, and an interquartile range of 20 years (68- to 88-year life spans). According to the data, life expectancy appears to have been decreasing for people leading up to the revolutions of 1848, but afterward, life expectancy increased.

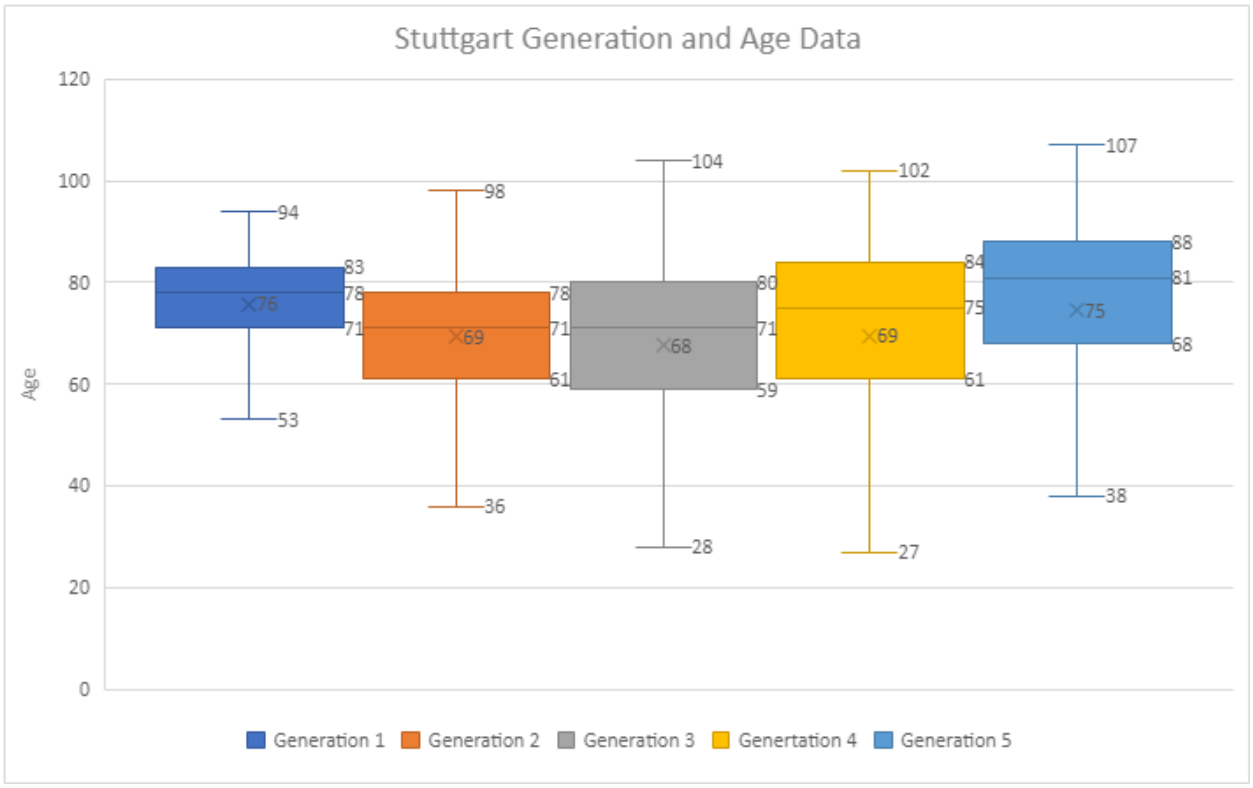


Figure 4.1. Age Distributions for Individuals Buried in the Stuttgart Pragfriedhof by Generation.

Hauptfriedhof Karlsruhe

The dataset for Hauptfriedhof Karlsruhe initially contained 40,045 individuals interred within the grounds. The parameters of this study narrowed this down to 33,005 individuals born between 1785 to 1935 whose age at death could be determined (Figure 4.2). Generation One contained 71 individuals with an age range of 43 to 93 years, an average age of 69 years, a median of 71 years, and an interquartile range of 30 years (63- to 73-year life span). Generation Two contained 367 individuals with an age range of 42 to 99 years old, an average age of 70 years, a median of 71 years, and an interquartile range of 15 years (64- to 79-years old). Generation Three contained 1788 individuals with an age range of 35 to 104 years old, an average age of 70 years, a median of 73 years, and an interquartile range of 19 years (62- to 81-year life span). Generation 4 contained 9,672 individuals with an age range of 24 to 107 years old, an average age of 71 years old, a median of 77 years, and an interquartile range of 25 years (61- to 86-year life span). Generation Five contained 21,107 individuals with an age range of 47 to 106 years, an average age of 76 years old, a median of 76 years, and an interquartile range of 16 years of (71- to 87-year life span). This pattern is slightly different from that of the cemetery in Stuttgart, as life expectancy increased somewhat leading up to the revolutions. In contrast, a post-revolution pattern of increasing life span is evident in both cemetery populations.

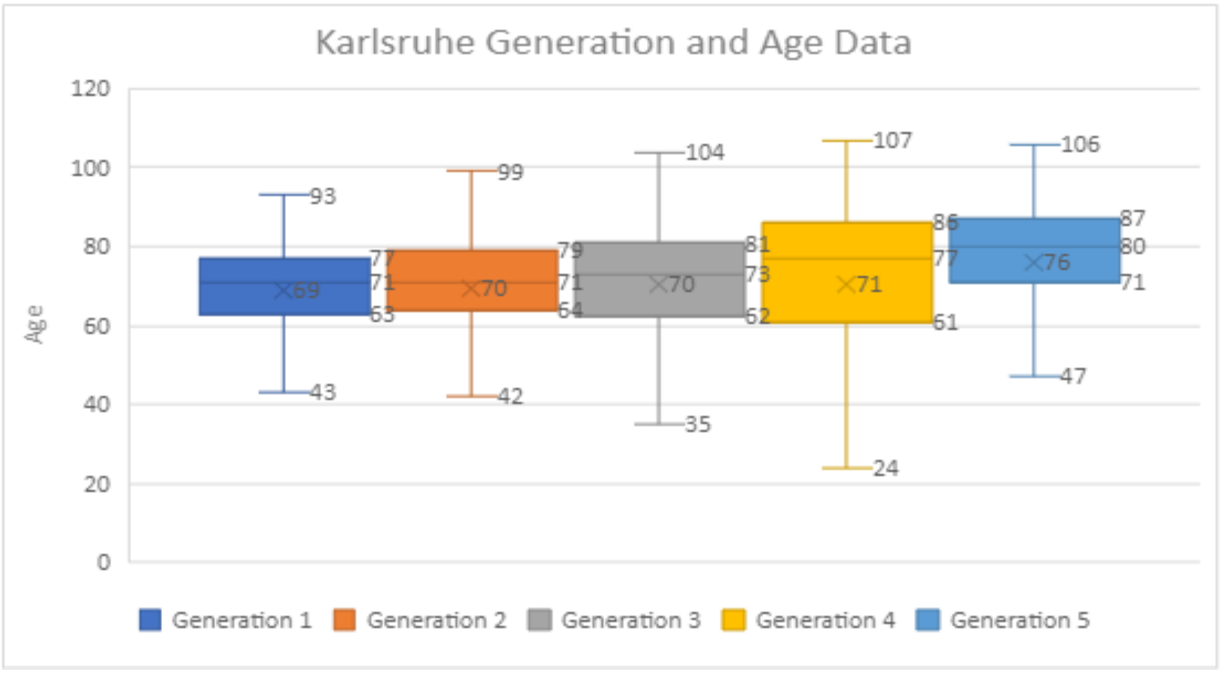


Figure 4.2. Age Distributions for Individuals Buried in Hauptfriedhof Karlsruhe by Generation.

Heidelberg Bergfriedhof

The dataset for Heidelberg Bergfriedhof initially included 1,720 individuals interred within the grounds. The parameters of this study narrowed this count down to 1,545 individuals who were born between 1785 to 1935 and whose age at death could be determined (Figure 4.3). Generation One contained 59 individuals with an age range of 58 to 93 years, an average age of 75 years, a median of 75 years, and an interquartile range of 14 years (69- to 83-year life spans). Generation Two contained 245 individuals with an age range of 34 to 97 years, an average age of 69 years, a median of 69 years, and an interquartile range of 18 years (61- to 79-year life spans). Generation Three contained 478 individuals with an age range of 23 to 96 years, an average age of 64 years, a median of 64 years, and an interquartile range of 21 years (54- to 75- year life spans). Generation Four contained 408 individuals with an age range of 0 to 101 years, an average age of 60 years old, a median age of 60 years, and an interquartile range of 37 years (44-

to 81-year life spans). Generation Five contained 354 individuals with an age range of 37 to 103 years, an average age of 71 years, a median of 71 years, and an interquartile range of 20 years (66- to 86-year life spans). The Heidelberg sample exhibits the same pattern as Stuttgart for most generations except for Generation Four, during which there was a pronounced decrease in life expectancy, which will be addressed in Chapter 5.

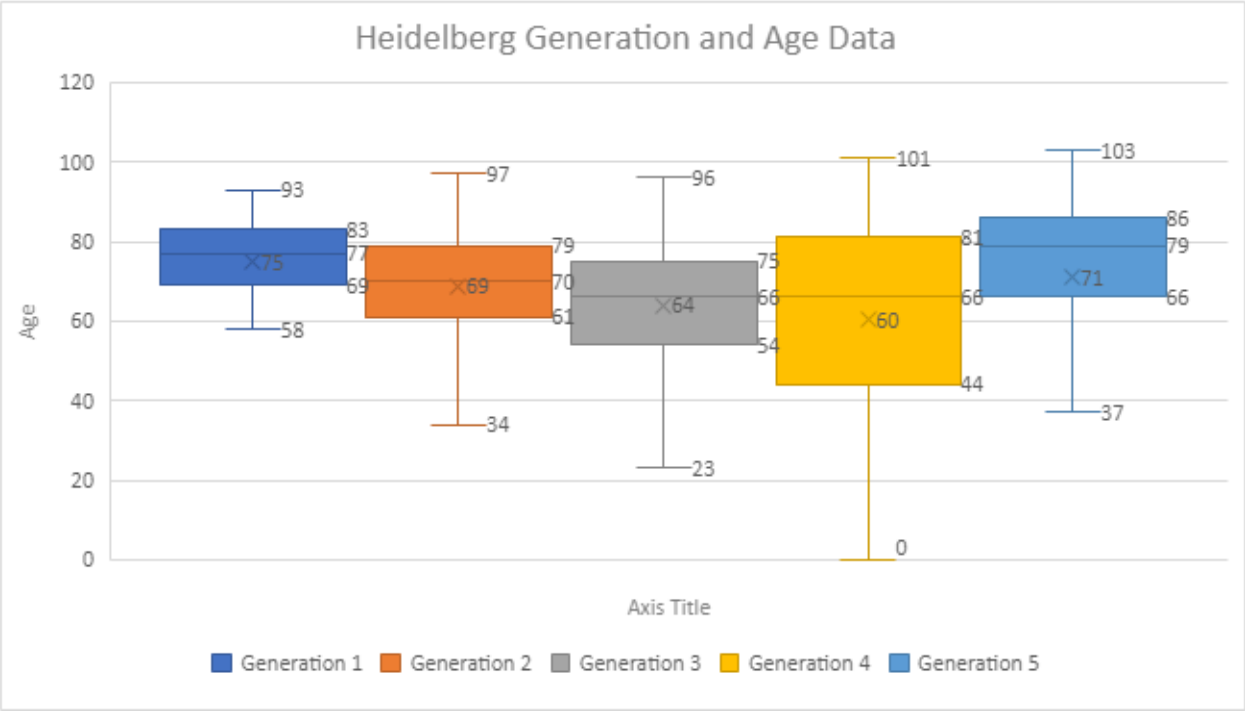


Figure 4.3. Age Distributions for Individuals Buried in Heidelberg Bergfriedhof by Generation.

Pforzheim Hauptfriedhof

The dataset for Pforzheim Hauptfriedhof (Figure 4.4) initially included 36,944 records of individuals interred within the grounds. The parameters of the study narrowed this count down to 29,858 individuals who were born between 1785 to 1935 and whose age at death could be determined (Figure 4.4). Generation One included 16 individuals with an age range between 45 to 107 years, with an average life span of 69 years, a median of 71 years, and an interquartile

range of 20 years (65- to 85-year life spans). Generation Two contained 277 individuals with an age range of 46 to 97 years, an average life span of 71 years, a median of 72 years, and an interquartile range of 13 years (65- to 78-year life spans). Generation Three contained 1712 individuals with an age range of 35 to 106 years, an average life range of 70 years old, a median of 72 years, and an interquartile range of 18 years (62-to 80-year life spans). Generation Four contained 8,786 individuals with an age range of 31 to 117 years, an average life span of 72 years, a median of 77 years, and an interquartile range of 22 years (64- to 86-year life spans). Generation Five contained 19,066 individuals with an age range of 45 to 110 years, an average life span of 76 years old, a median of 80 years, and an interquartile range of 17 years (71- to 87-year life spans. The pattern for the Pforzheim data was similar to that for Stuttgart, following a traditional reverse bell curve shape of the average life expectancy for each generation.

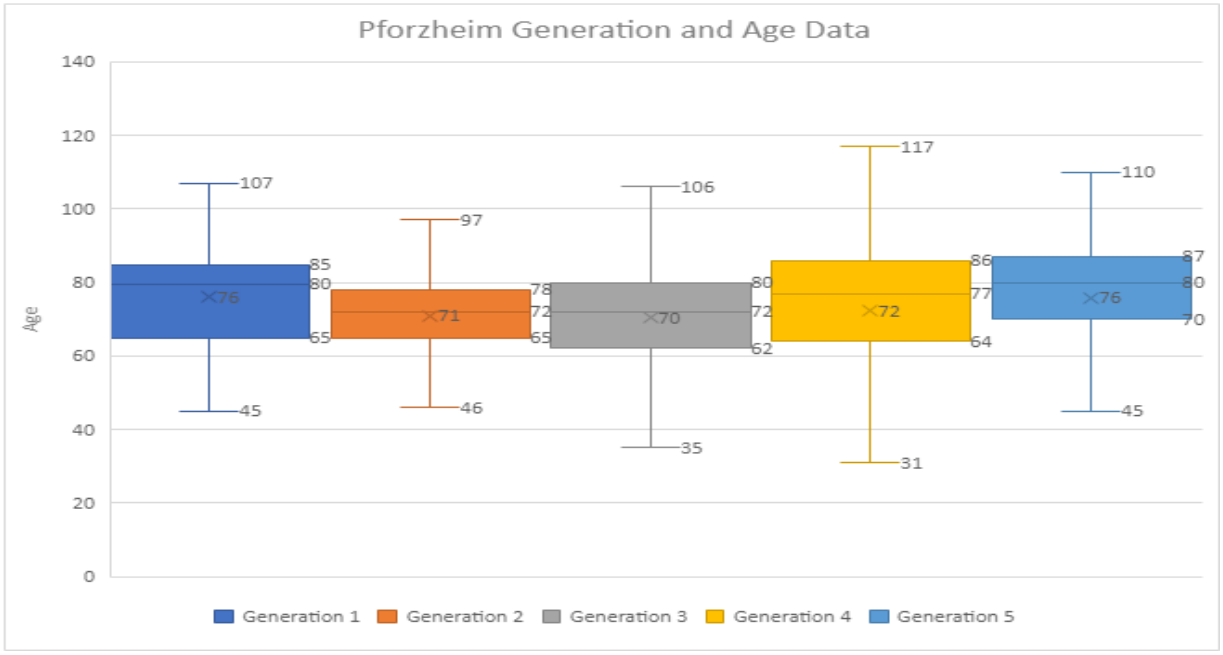


Figure 4.4. Age Distributions for Individuals Buried in Pforzheim Hauptfriedhof by Generation.

German Cemeteries Combined

All the data for the four German cemeteries were combined to visually represent the overall trends for the German cemetery data analyzed. It was necessary to present the trends of all individual cemeteries first in case of any outliers that might skew the overall results. The total number of graves analyzed of people born between the years 1785 to 1935 whose age at death could be determined for all German cemeteries was 70,687 (Figure 4.5). Generation One included 203 individuals with an age range of 43 to 94 years, an average life span of 73 years old, a median of 76 years, and an interquartile range of 16 years (66- to 82-year life spans). Generation Two included 1,362 individuals with an age range of 37 to 99 years, an average life span of 70 years old, a median of 71 years, and an interquartile range of 17 years (62- to 79-year life spans). Generation Three included 5,101 individuals with an age range of 33 to 106 years, an average life span of 69 years old, a median of 72 years, and an interquartile range of 19 years (61- to 80-year life span). Generation Four included 21,143 individuals with an age range of 26 to 117 years, an average life span of 70 years, a median of 77 years, and an interquartile range of 26 years (62 to 88-year life spans). Generation Five included 42,812 individuals with an age range of 45 to 110 years, an average life span of 76 years old, a median of 80 years, and an interquartile range of 17 years (70- to 87-year life spans). The overall pattern indicates a slight decrease in average life expectancy leading up to the revolution that occurred in the Third Generation, a slight increase in Generation Four, and a more pronounced increase in Generation Five.

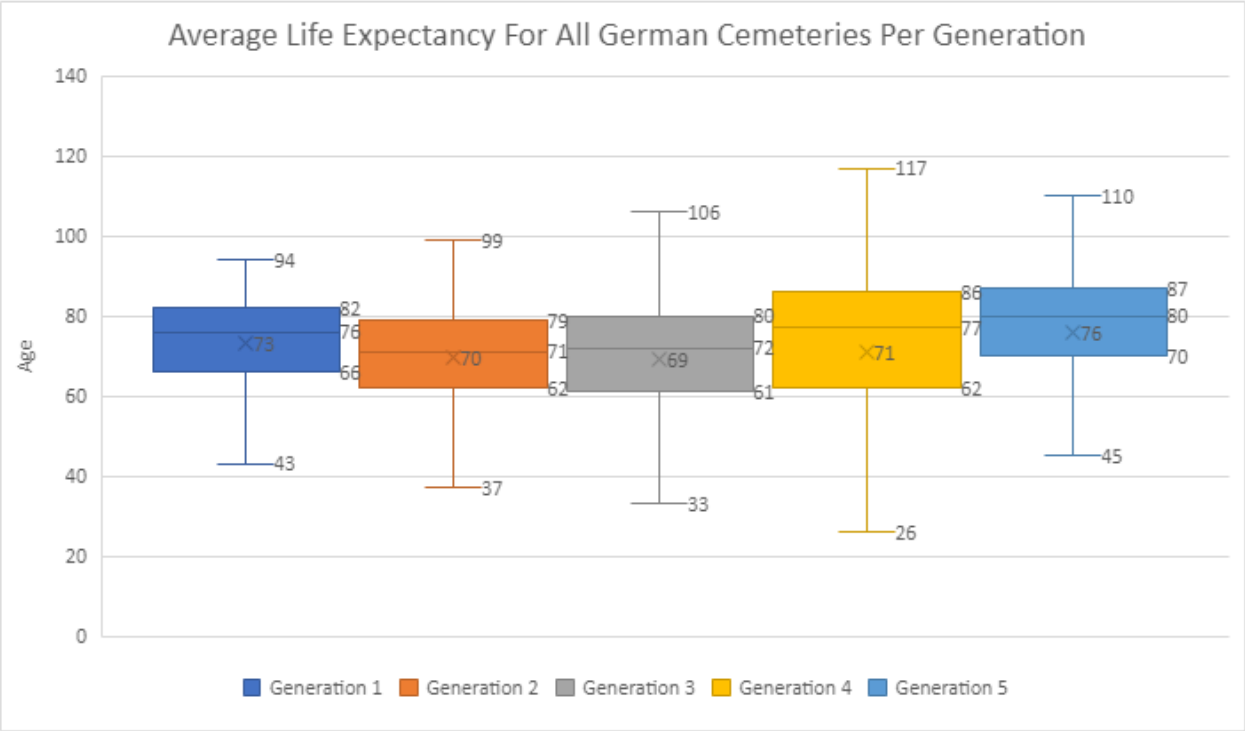


Figure 4.5. Age Distributions for Individuals Buried in All German Cemeteries by Generation.

Milwaukee Cemeteries

This next section presents the data analyzed for all cemeteries located within the Milwaukee area. These cemeteries underwent the same sorting as the German cemeteries in this study with the same parameters. All individuals born between 1785 to 1935 whose age at death could be determined were included, separated by generation. What is different about this section is one cemetery, the Town of Milwaukee Union Cemetery (a different cemetery than another cemetery labeled Union Cemetery), is a rural cemetery that was analyzed to identify possible differences between life expectancies between the city and the countryside during the time period covered by this analysis.

Union Cemetery

The dataset for Union Cemetery originally included 36,221 individuals interred within cemetery grounds. The parameters of this study narrowed this count down to 32,945 individuals (Figure 4.6). Generation One included 639 individuals with an age range of 54 to 99 years, an average age and median of 77 years, and an interquartile range of 13 years (71- to 84-year life spans). Generation Two included 5,842 individuals with an age range of 37 to 103 years, an average age of 70 years, a median age of 57 years, and an interquartile range of 17 years (62- to 79-year life spans). Generation Three included 11,984 individuals with an age range of 0 to 111 years, an average age of 52 years, a median age of 57 years, and an interquartile range of 37 years (36- to 73-year life spans). Generation Four included a total of 12,225 individuals with an age range of 0 to 109 years, an average age of 28 years, a median age of 17 years, and an interquartile range of 53 years (1- to 54-year life span). Generation Five included 2,254 individuals with an age range of 0 to 100 years, an average age of 22 years, a median age of 0 years, and an interquartile range of 46 years (0- to 46-year life spans). The data for Union Cemetery show a gradual decline in the average life span leading up to the mass migration generation, followed by a sharp decline during the last two generations. The interquartile ranges for the last few generations were also significantly larger than that of the German counterparts. Possible reasons for this will be discussed later in this chapter.

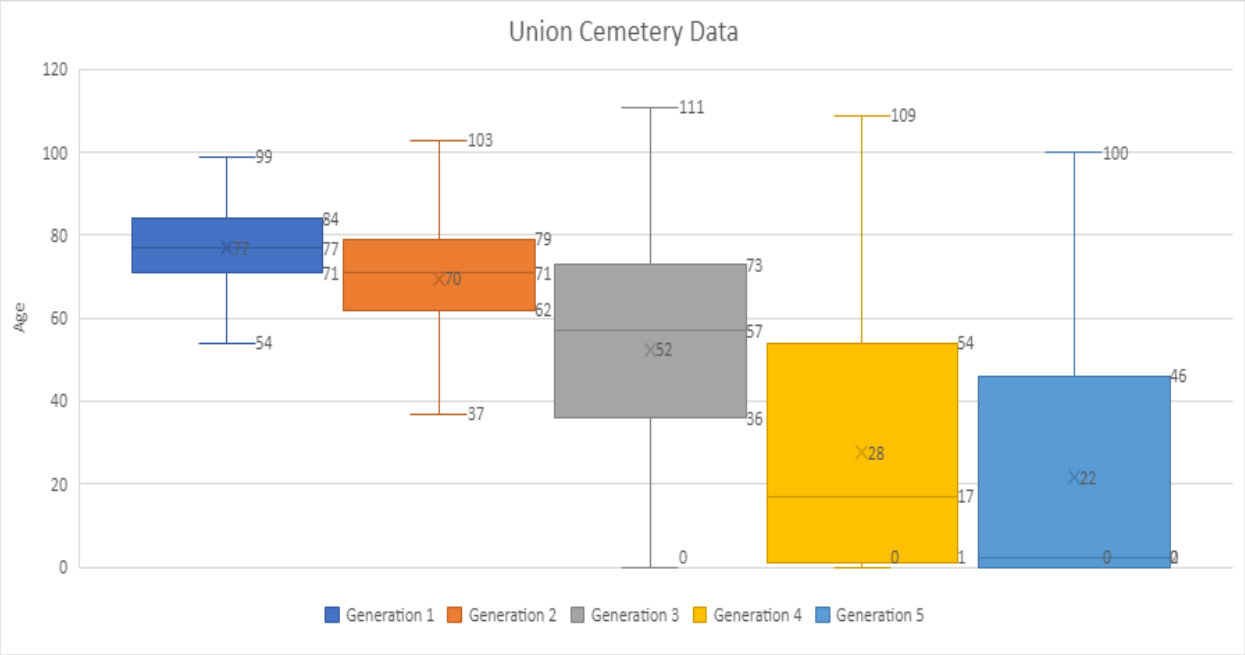


Figure 4.6. Age Distributions for Individuals Buried in Union Cemetery by Generation.

Calvary Cemetery

The dataset for Calvary Cemetery originally included 58,142 recorded individuals interred within the grounds. The parameters of the study reduced this count to 49,344 individuals (Figure 4.7). Generation One included 1,228 individuals with an age range of 49 to 105 years, an average age of 76 years, a median age of 78 years, and an interquartile range of 14 years (70- to 84-year life spans). Generation Two included 7,035 individuals with an age range of 33 to 102 years, an average age of 68 years a median age of 70 years, and an interquartile range of 18 years (60- to 78-year life spans). Generation Three included 16,668 individuals with an age range of 0 to 117 years, an average age of 53 years, a median age of 57 years, and an interquartile range of 38 years (36- to 74-year life spans). Generation Four included 18,838 individuals with an age range of 0 to 113 years, an average age of 33 years, a median age of 23 years, and an interquartile range of 64 years (1- to 65-year life spans). Generation Five contained 5,574

individuals with an age range of 0 to 107 years, an average age of 30 years, a median age of 4 years, and an interquartile range of 69 years (0- to 69-year life spans). The data for Calvary Cemetery exhibits a similar pattern to Union Cemetery, in that there was a constant decline in life expectancy through all generations, with the most significant decrease occurring after the mass migration period.

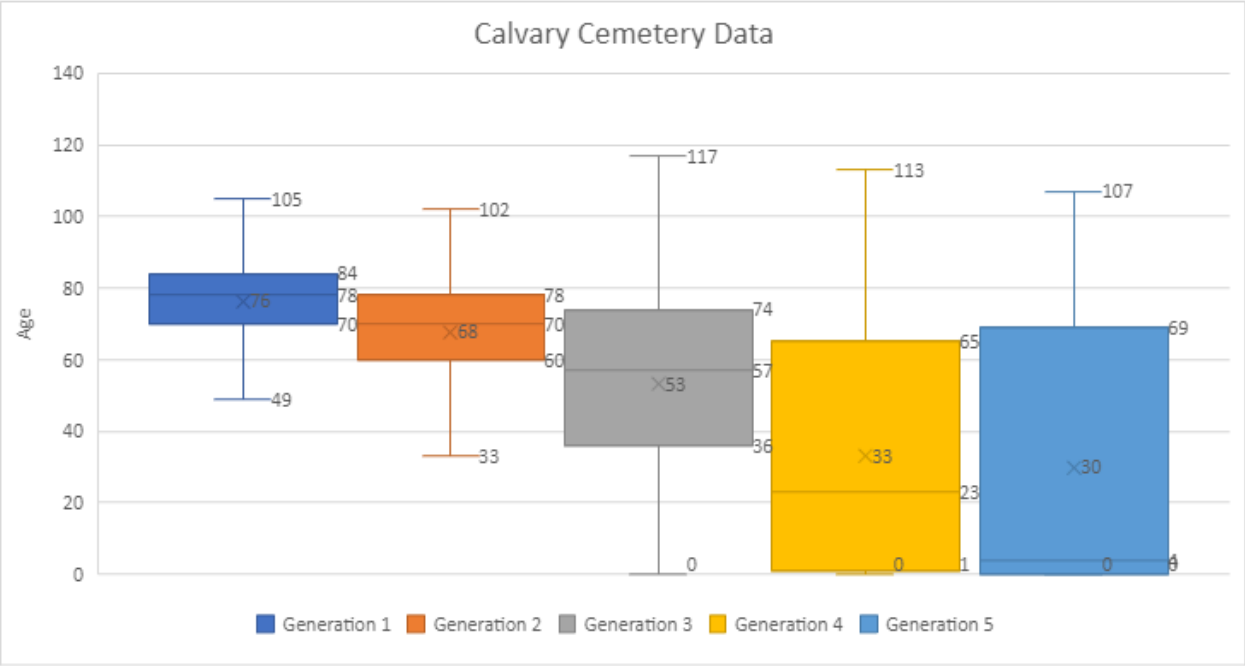


Figure 4.7. Age Distributions for Individuals Buried in Calvary Cemetery by Generation.

Forest Home Cemetery

The dataset for Forest Home Cemetery originally included 70,521 individuals interred within the grounds. The parameters of the study reduced this count to 61,596 individuals (Figure 4.8). Generation One included 1,545 individuals with an age range of 45 to 100 years, an average age of 74 years, a median age of 76 years, and an interquartile range of 15 years (67- to 82-year life span). Generation Two included 5,842 individuals with an age range of 37 to 103 years, an

average age of 70 years, a median age of 71 years, and an interquartile range of 17 years (62- to 79-year life spans). Generation Three included 18,529 individuals with an age range of 0 to 115 years, an average age of 60 years, a median age of 66 years, and an interquartile range of 32 years (46- to 78-year life spans). Generation Four included 20,660 individuals with an age range of 0 to 108 years, an average age of 55 years, a median age of 66 years, and an interquartile range of 53 years (28- to 81-year life spans). Generation Five included a total of 11,688 individuals with an age range of 28 to 108 years, an average age of 69 years, a median age of 76 years, and an interquartile range of 23 years (62- to 85-year life spans). Notably, data from the Forest Home Cemetery and Mausoleum do not exhibit the same pattern as the other Milwaukee cemeteries included in the study. Though there was a steady decrease in average life span leading up to the mass migration period and into the fourth generation, this was followed by a substantial increase in the fifth generation. A potential explanation is provided in the discussion portion of this chapter.

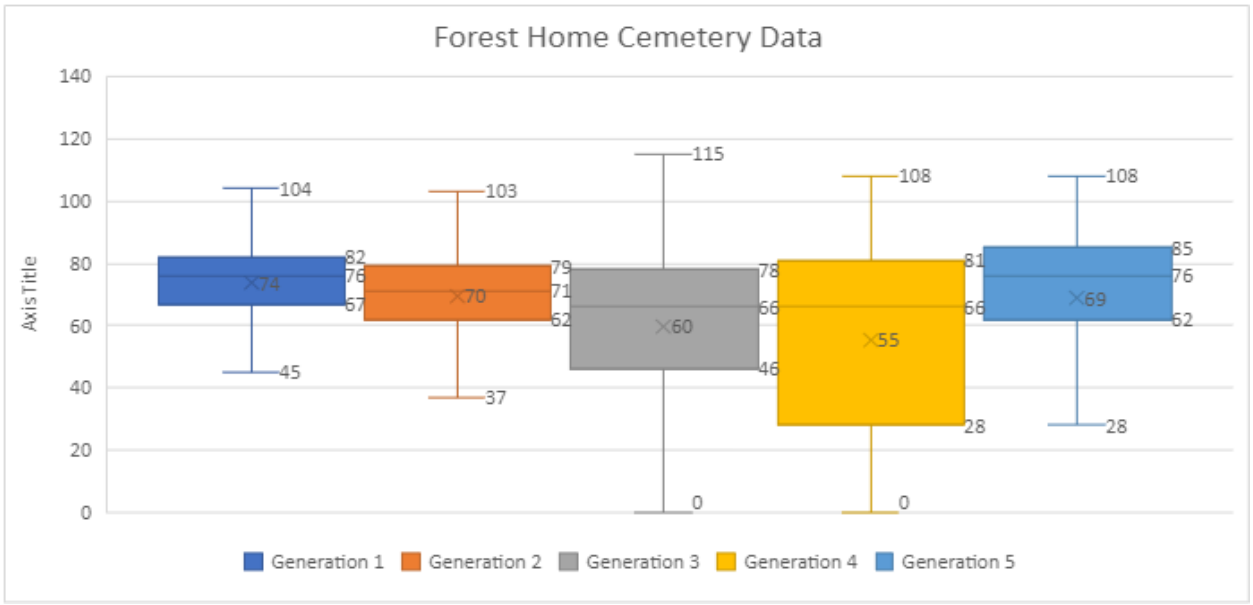


Figure 4.8. Age Distribution for Individuals Buried in Forest Home Cemetery by Generation.

Milwaukee Cemeteries Combined

The dataset for all metropolitan Milwaukee cemeteries included a total of 140,551 graves that fit the parameters of the study (Figure 4.9). Generation One included 3,412 individuals with an age range of 48 to 104 years, an average age of 75 years, a median age of 77 years, and an interquartile range of 14 years (69- to 83-year life spans). Generation Two included 18,719 individuals with an age range of 34 to 103 years, an average age of 69 years, a median age of 39 years, and an interquartile range of 18 years (61- to 79-year life spans). Generation Three included a total of 47,181 individuals with an age range of 0 to 117 years, an average age of 56 years, a median age of 61 years, and an interquartile range of 34 years (39- to 75-year life spans). Generation Four included a total of 51,723 individuals with an age range of 0 to 113 years, an average age of 41 years, a median age of 39 years, and an interquartile range of 72 years (2- to 74-year life spans). Generation Five included 19,516 individuals with an age range of 0 to 108 years, an average age of 52 years, a median age of 67 years, and an interquartile range of 77 years (5- to 82-year life spans).

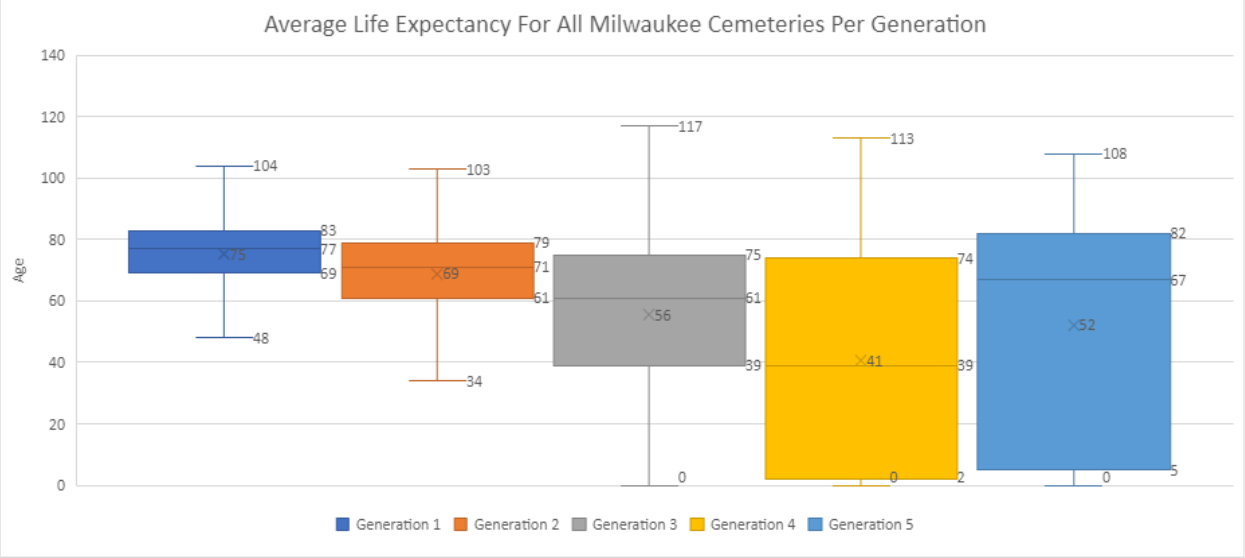


Figure 4.9. Age Distributions for Individuals Buried in All Milwaukee Cemeteries by Generation.

Analysis of Data

These data suggest that life expectancy among certain groups in Milwaukee was similar to life expectancy in Germany before the mass migration period, but afterward there was a sharp decline in life expectancy for the last two generations of German immigrants to Milwaukee. These trends are primarily evident in the Union and Calvary cemetery data. In contrast, the average life span in the Forest Home sample decreased in Generation 4 but then increased in the subsequent generation. Overall, Generation One lived an average of 4 years longer in Milwaukee than in Germany, the life span was comparable in Germany and Milwaukee during Generation Two, Generation Three lived an average of 13 years longer in Germany, Generation Four lived on average 29 years longer in Germany, and Generation Five lived an astonishing 24 years longer in Germany. These overall trends suggest that, on average, German immigrants lived longer in the Milwaukee area before the major period of immigration. However, the assumption that people would live longer after immigration to Milwaukee across all generations is not supported by the data. In fact, the data suggest an average decrease in life spans in Milwaukee, whereas there was an average increase in life spans in Germany during the same period.

Gender and German Heritage

In order to explore possible relationships between life span and both gender and German heritage, the smallest Milwaukee cemetery (Union) and the Stuttgart Pragfriedhof were compared. Union was chosen due to its more manageable number of individuals while maintaining a balance of individuals in upper and lower society. Stuttgart was selected because of the comparable size of its data set, because it is the largest city in the study, and because it represents a wide range of socioeconomic backgrounds. The data were analyzed using the individuals' first names in each cemetery within the study parameters. Individuals whose gender

and German descent could not be inferred were not included in the analysis; they constituted less than one percent of the overall Milwaukee data set and did not substantially impact the results.

For Stuttgart Pragfriedhof females (Figure 4.10), Generation One included 15 individuals with a range of 68 to 88 years, an average age of 77 years, a median age of 78 years, and an interquartile range of 11 years (72- to 83-year life spans). Generation Two included a total of 170 individuals with a range of 47 to 96 years, an average age of 72 years, a median age of 74 years, and an interquartile range of 13 years (66- to 79-year life spans). Generation Three included 504 individuals with a quartile range of 30 to 99 years, an average age of 69 years, a median age of 73 years, and an interquartile range of 21 years (60- to 81-year life spans). Generation Four included a total of 1,051 individuals with a range of 37 to 100 years, an average age of 73 years, a median age of 79 years, and an interquartile range of 20 years (66- to 86-year life spans). Generation Five included a total of 1,019 individuals with a range of 53 to 107 years old, an average age of 80 years, a median age of 84 years, and an interquartile range of 15 years (75- to 90-year life spans). Females buried in the Stuttgart cemetery exhibited the standard pattern for the German cemeteries overall, with a slight decrease in life span leading up to the migration period, followed by an increase in life expectancy in the later generations.

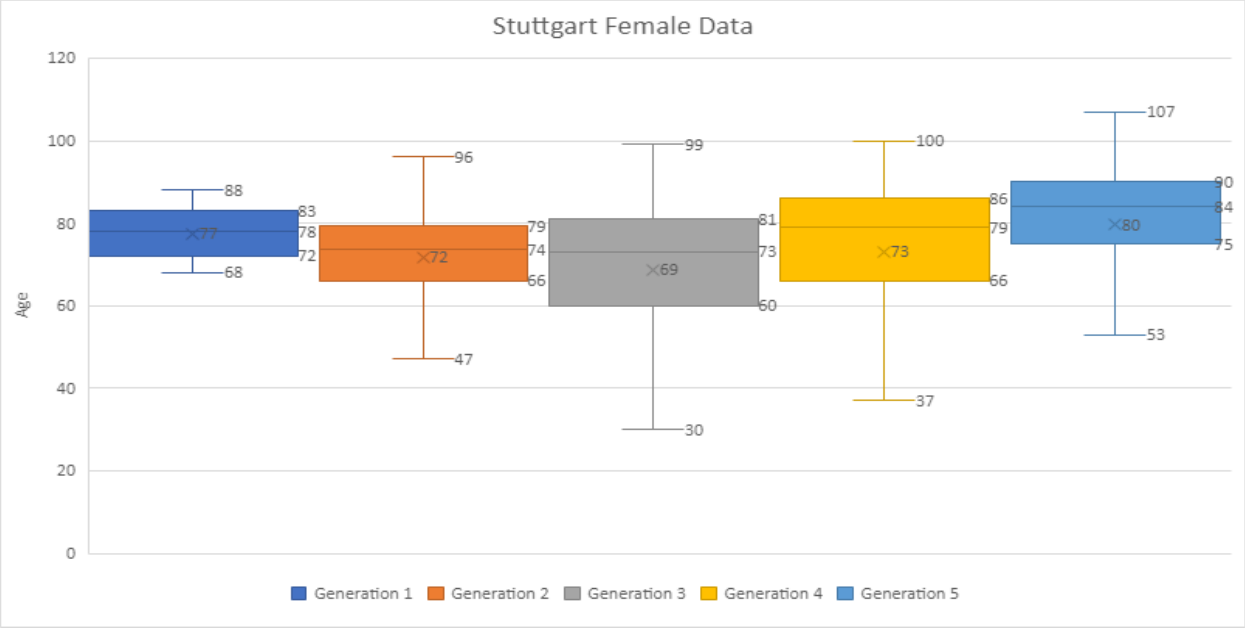


Figure 4.10. Age Distributions for Females Buried in Stuttgart Pragfriedhof by Generation.

For the males (Figure 4.11), Generation One included 39 individuals with a range of 45 to 94 years, an average age of 75 years, a median age of 78 years, and an interquartile range of 14 years (68- to 84-year life spans). Generation Two included 291 individuals with a range of 32 to 98 years, an average age of 68 years, a median age of 70 years, and an interquartile range of 18 years (59- to 77-year life spans). Generation Three included 607 individuals with a range of 30 to 104 years, an average age of 67 years, a median age of 70 years, and an interquartile range of 21 years (58- to 79-year life spans). Generation Four included 1,219 individuals with a range of 20 to 102 years, an average (median) age of 66 years, a median age of 71 years, and an interquartile range of 25 years (57- to 82-year life spans). Generation Five included 1,250 individuals with a range of 26 to 107 years, an average age of 70 years, a median age of 77 years, and an interquartile range of 24 years (62- to 86-year life spans). As discussed in Chapter 2, on average males typically do not live as long as females. The data for males in the Stuttgart cemetery accord with that tendency. However, they also exhibit a pattern similar to that of

females, with a decrease in life span before the migration period and an increase in the later generation. However, the difference in life spans between females and males by the fifth generation—with the former living an average of 10 years longer than the latter—is statistically significant than the average difference between males and females in many cultures (Vaupel et al. 2011).

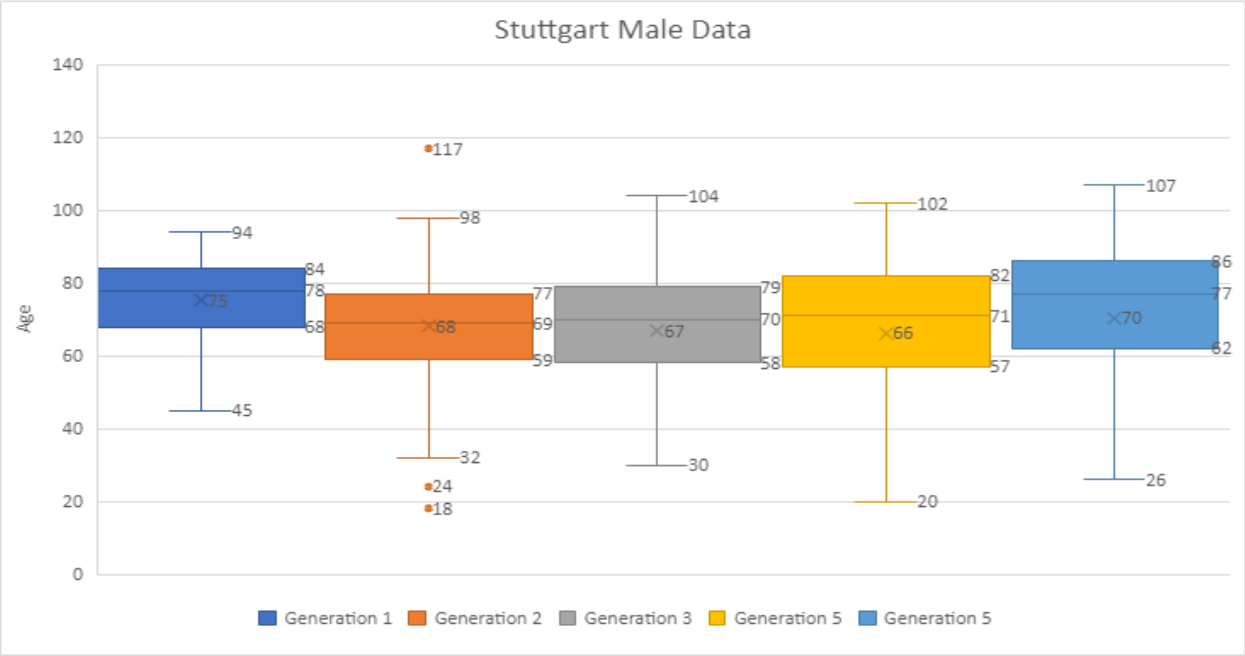


Figure 4.11. Age Distributions for Males Buried in Stuttgart Pragfriedhof by Generation.

For Union Cemetery females (Figure 4.12), for Generation One, there are a total of 313 individuals with a range of 55 to 99 years, an average age of 78 years, a median age of 78 years, and an interquartile range of 13 years (71- to 84-year life spans). Generation Two included 2,743 individuals with a range of 40 to 103 years, an average age of 71 years, a median age of 73 years, and an interquartile range of 16 years (64- to 80-year life spans). Generation Three included 5,913 individuals with a range of 0 to 111 years, an average age of 55 years, a median age of 61 years, and an interquartile range of 39 years (37- to 76-year life spans). Generation Four included

5,712 individuals with a range of 0 to 109 years, an average life expectancy of 31 years, a median age of 21 years, and an interquartile range of 61 years (1- to 62-year life spans). Generation Five included 1,003 individuals with a range of 0 to 99 years, an average age of 24 years, a median age of 3 years, and an interquartile range of 55 years (0- to 55-year life spans). Women followed a similar pattern to Union Cemetery as a whole: a significant decrease in the average life span of the individuals after the mass migration period.

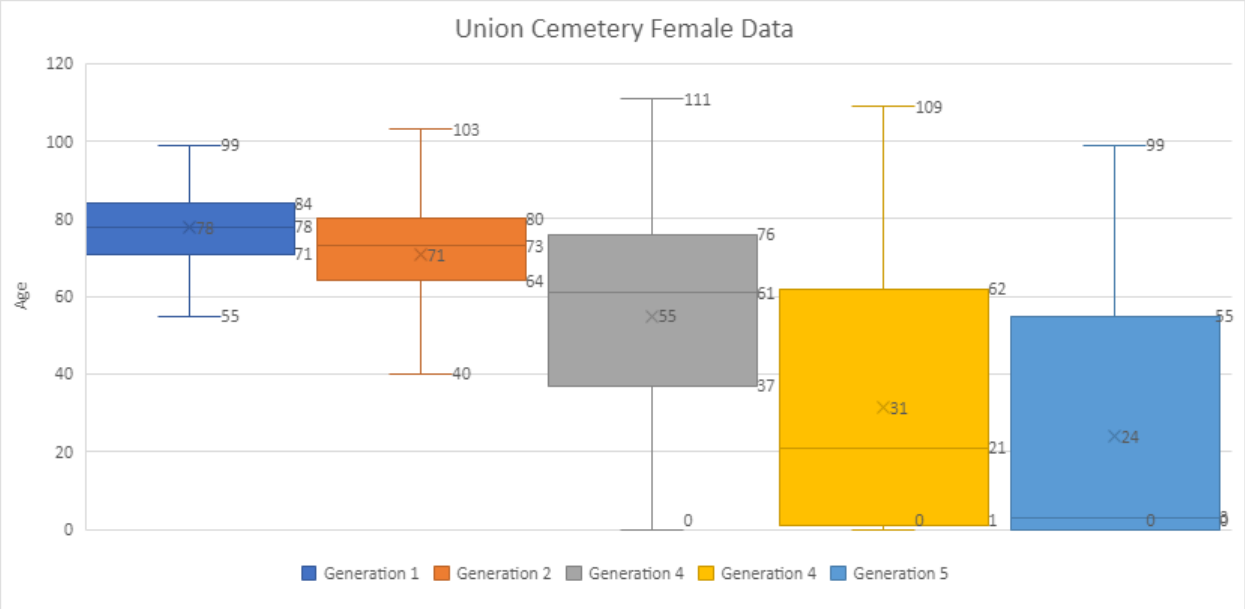


Figure 4.12. Age Distribution For All Females Buried in Union Cemetery by Generation.

For the men (Figure 4.13), Generation One included 317 individuals with an age range of 54 to 95 years, an average age of 76 years, a median age of 77 years, and an interquartile range of 13 years (70- to 83-year life spans). Generation Two included 3,066 individuals with an age range of 33 to 101 years, an average age of 68 years, a median age of 70 years, and an interquartile range of 18 years (60- to 78-year life spans). Generation Three included 5,939 individuals with an age range of 0 to 101 years, an average age of 51 years, a median age of 54

years, and an interquartile range of 34 years (36- to 70-year life spans). Generation Four included 6,051 individuals with an age range of 0 to 101 years, an average age of 26 years, a median age of 16 years, and an interquartile range of 48 years (1- to 49-year life spans). Generation Five included 1,118 individuals with an age range of 0 to 100 years, an average age of 21 years, a median age of 2 years, and an interquartile range of 42 years (0- to 42-year life spans). The males exhibit a similar pattern to females while staying within the average of a 5-year difference between the sexes in modern society (Vaupel et al. 2011), with only Generation Four exhibiting a significant difference of six years.

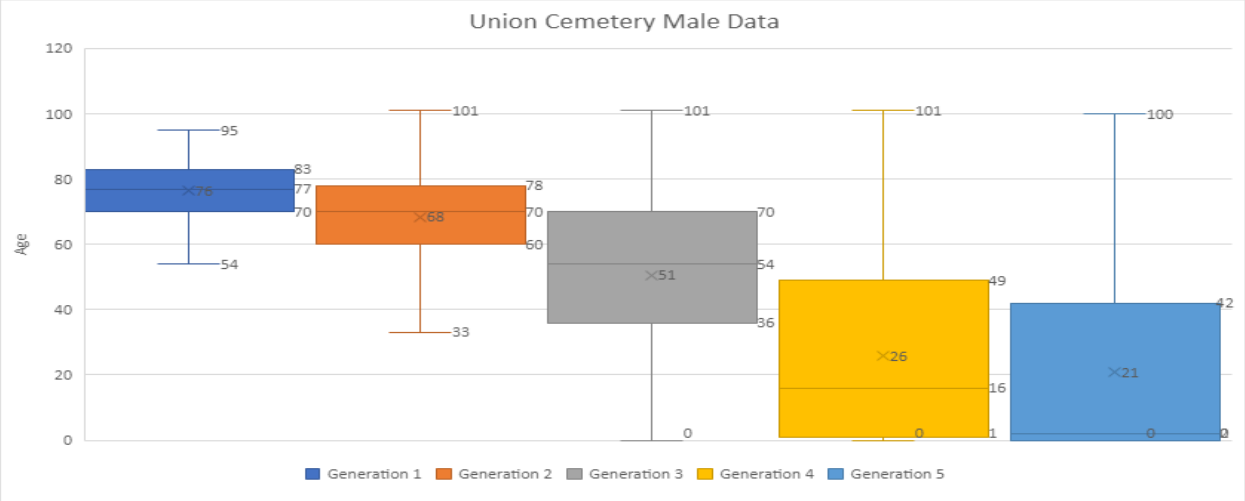


Figure 4.13. Age Distributions for Males Buried in Union Cemetery by Generation.

Town of Milwaukee Union Cemetery Results

It was considered useful to compare a rural cemetery in the Milwaukee area—the Town of Milwaukee Union Cemetery (TOMUC)—with an urban one to determine whether this might influence the results. Generation One in the TOMUC dataset (Figure 4.14) included 39 individuals with an age range of 61 to 102 years, an average age of 76 years, a median age of 76 years, and an interquartile range of 14 years (70- to 84-year life spans). Generation Two included 301 individuals with an age range of 40 to 99 years, an average life span of 72 years, a median

age of 73, and an interquartile range of 17 years (64- to 81-year life spans). Generation Three included 509 individuals with an age range of 0 to 98 years, an average life span of 60 years, a median age of 66 years, and an interquartile range of 32 years (46- to 78-year life spans). Generation Four included 462 individuals with an age range of 0 to 101 years, an average life span of 40 years, a median age of 37 years, and an interquartile range of 63 years (6- to 69-year life spans). Generation Five included 117 individuals with an age range of 0 to 94 years, an average age of 39 years, a median age of 37 years, and an interquartile range of 71 years (1-to 72-year life spans). Overall, the data from this cemetery exhibited a similar pattern to the inner-city cemeteries. However, while the average life expectancies for the later generations were higher among individuals in the TOMUC than in the urban cemeteries, they were still not as high as those from the contemporary German cemeteries at the same time.

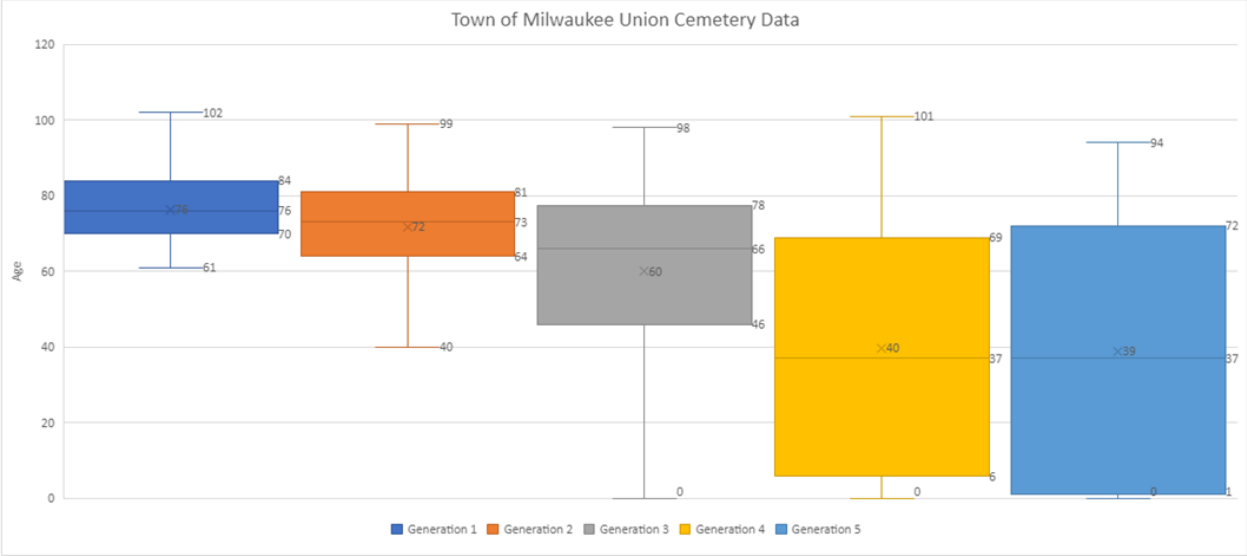


Figure 4.14. Age Distributions for Individuals Buried in TOMUC by Generation.

The dataset for TOMUC females (Figure 4.15), Generation One, included 18 individuals with an age range of 61 to 102 years, an average life span of 78 years, a median age of 77 years, and an interquartile range of 17 years (67- to 84-year life spans). Generation Two included 142

individuals with an age range of 43 to 99 years, an average life span of 72 years, a median age of 73 years, and an interquartile range of 16 years (66- to 82-year life spans). Generation Three included 251 individuals with an age range of 0 to 96 years, an average life span of 60 years, a median age of 66 years, and an interquartile range of 35 years (44- to 79-year life spans). Generation Four included 218 individuals with an age range of 0 to 97 years, an average life span of 42 years, a median age of 41 years, and an interquartile range of 65 years (8- to 73-year life spans). Generation Five included 43 individuals with an age range of 0 to 94 years, an average life span of 47 years, a median age of 57 years, and an interquartile range of 78 years (3- to 81-year life spans).

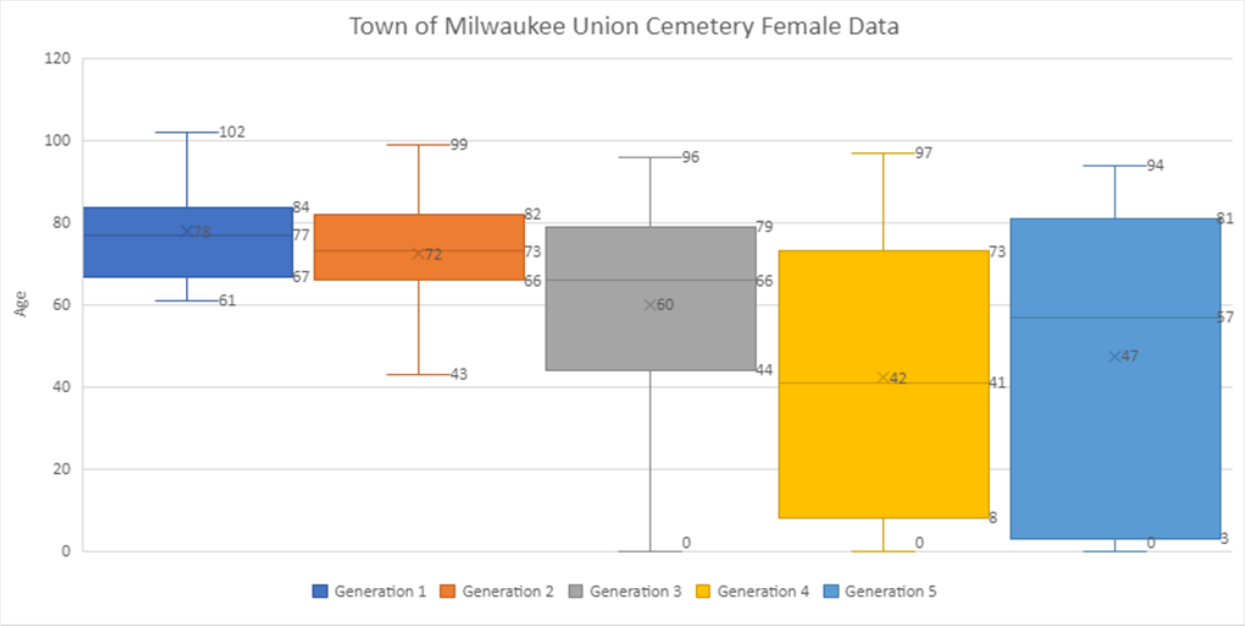


Figure 4.15. Age Distributions For Females Buried in TOMUC by Generation.

The dataset for TOMUC males (Figure 4.16), Generation One, included 21 individuals with an age range of 62 to 93 years, an average life span of 75 years, a median age of 76 years, and an interquartile range of 13 years (71- to 84-year life spans). Generation Two included 157 individuals with an age range of 36 to 99 years, an average age of 71 years, a median age of 74

years, and an interquartile range of 18 years (63- to 81-year life spans). Generation Three included 257 individuals with an age range of 17 to 98 years, an average age of 60 years, a median age of 66 years, and an interquartile range of 26 years (50- to 76-year life spans). Generation Four included 232 individuals with an age range of 0 to 101 years, an average life span of 39 years, a median age of 38 years, and an interquartile range of 60 years (6- to 66-year life spans). Generation Five included 69 individuals with an age range of 0 to 90 years, an average life span of 36 years, a median age of 36 years, and an interquartile range of 62 years (1- to 63-year life spans). Overall, males and females exhibit similar patterns in the first three generations, with males having an average shorter life expectancy. In the later generations, the difference between females and males was more pronounced, especially during Generation Five, when females lived an average of 8 years longer than males.

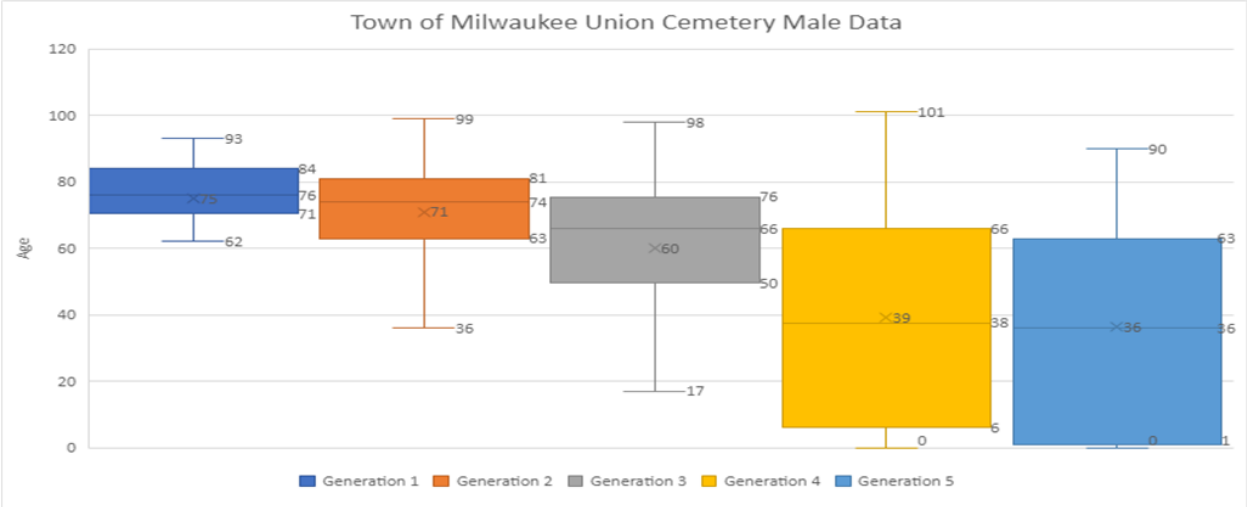


Figure 4.16. Age Distributions for Males Buried in TOMUC by Generation.

Differences in American and German Cemeteries

Sloane (1991:3-4) notes that although cemeteries in the United States were heavily influenced by—and thus in many ways are similar to—European cemeteries, there are also some

critical differences between them. The first is that European cemeteries, when not in the care of a church, are often run by municipalities, whereas American cemeteries are generally private corporations. Second, many European cemeteries rent out burial plots or familial plots for a designated amount of time. In contrast, American cemeteries follow what is called a continental model in which plots are sold to families. Third, because plots in many European cemeteries are rented, European families are in a constant state of anxiety regarding their ability to make payments so their loved ones can remain buried in case the rent is increased. This is not the case in the United States due to ownership of the land. Fourth, the management of European cemeteries is seen as more of a public service rather than a for-profit enterprise like it is in America. Lastly, there is increased importance associated with monuments in European cemeteries, which often are "clumped" near each other. In contrast, there is a greater focus on the surroundings and space for monuments in American cemeteries. One other difference is Europeans favor cremation over their American counterparts; this may reflect Europe's long-standing relationship with death and wars such that emotions surrounding burial practices have been stripped down to their bare necessities (Sloane 1991:3-4); it also reflects the much more limited amount of space available for burials, especially in cities.

There are two differences between American and European cemeteries that I believe may have the biggest impact on this study. First, the fact that American cemeteries are more likely to be run by private corporations rather than municipalities may create a bias towards people who could afford the "better" cemeteries in Milwaukee. This would mean that the people who were buried in the cemeteries in this study could have been more financially successful while they were alive, often contributing to a potentially higher life expectancy. Second, the concept of renting burial plots rather than owning plots, which allows for potential changes to burial records

due to the replacement of bodies and families, means that we may not be getting an accurate population representation in the German cemeteries. On the other hand, the bias is likely to be favoring wealthier families who could afford the plot rental in German cemeteries, which would correspond to a possible bias in favor of the more well-to-do in American cemeteries as well. As a result I believe that the differences and potential issues may not impact the results significantly due to basing the data solely on birth and death dates in cemeteries as they are now. Selecting a range of cemeteries within the Milwaukee area as well as in Germany would to some extent mitigate these issues.

German Cemeteries Discussion

The first generation of German people considered in this study would have included people who experienced the dissolution of the Holy Roman Empire (Ramm 2019). Both states, Baden and Württemberg, expanded their landholdings in the region and nearly tripled their population during this time. This was because Napoleon I and Tsar Alexander I wanted to strengthen the central states to serve as a counterweight for the opposing forces of France and Russia. Due to the influx of provisions from both wealthy powers and marriage and family connections to their heads of state, the German cities grew wealthy. People tend to live longer in prosperous cities or cities with wealthy populations (Chetty et al. 2016). This is most likely why life expectancy was relatively high for people of this generation (see Table 4.1).

Table 4.1. Quantifiable German Cemetery Data

Name of Cemetery	Pragfriedhof Stuttgart	Hauptfriedhof Pforzheim	Hauptfriedhof Karlsruhe	Bergfriedhof Heidelberg
Population of Study	6,216	29,858	33,068	1,545
Gen 1 Population	57	16	71	59
Gen 1 Percentage	0.92%	0.05%	0.21%	3.82%
Gen 1 Mean	76	76	68	75
Gen 1 Median	78	80	70	77
Gen 2 Population	473	277	367	245
Gen 2 Percentage	7.61%	0.93%	1.11%	15.86%
Gen 2 Mean	69	71	70	69
Gen 2 Median	71	72	71	70
Gen 3 Population	1123	1712	1788	478
Gen 3 Percentage	18.07%	5.73%	5.41%	30.94%
Gen 3 Mean	68	70	70	64
Gen 3 Median	71	72	73	65
Gen 4 Population	2278	8,876	9,672	408
Gen 4 Percentage	36.65%	29.73%	29.25%	26.41%
Gen 4 Mean	69	70	71	60
Gen 4 Median	75	72	77	66
Gen 5 Population	2285	19,066	21,107	354
Gen 5 Percentage	36.76%	63.86%	63.83%	22.91%
Gen 5 Mean	75	76	76	71
Gen 5 Median	81	80	80	79

The second generation witnessed the rise of the Industrial Revolution that swept across Europe and the rest of the world, accompanied by many changes in social, political, and demographic areas of life. Wilde (2019) offers several suggestions on how the advancement of the Industrial Revolution negatively impacted people's health. Many people moved into larger

urban areas to take advantage of job opportunities. Populations also rose steadily, which meant higher population densities and increases in diseases that necessitated better public works and healthcare systems. With the increase in factories, pollution was at an all-time high without people understanding the impact of these conditions on their health. Children were also involved in production, often participating in hazardous and life-threatening occupations. These factors may have contributed to this generation's slight decrease in average life expectancies.

During the third generation, the revolutions of 1848 and mass immigration to the United States and other parts of the world occurred. The Industrial Revolution brought new ideologies and political identities that challenged the status quo (Vries 1994). As Berger and Sporer (2001) explain, a wave of socialist and liberal thinking rejected monarchies in favor of a political order based on nation-states, and a severe decline in the quality of crops, specifically the potato, caused massive food shortages for most of northern and western Europe. According to Hamerow (1954), people became increasingly aware of the enormous disconnect between the nobility and the expanding working class, and they believed there needed to be political revolutions to correct these inequalities. The revolutions began throughout Europe in 1848, including a massive uprising in Baden in April, with some becoming violent and resulting in many deaths (Sperber 2005). The decline in working conditions, inadequate food sources, and the threat of political revolutions likely contributed to the apparent decrease in life expectancy among the third generation considered in this study.

The fourth generation comprised individuals who witnessed the aftermath of the revolutions. The individuals involved in the revolutions fled the country after their ambitions were thwarted, leaving a population resigned to the status quo (Hamerow 1954). Food shortages and the potato famine also ended, making food more readily available and affordable (Berger

and Sporer 2001). According to Stürmer (1971), eventually, under Otto von Bismark, there was a movement toward German unification instead of several nation-states allied with each other. Once the separate states were unified under his rule, Bismark created one of the strongest powers within Europe—a change that may have contributed to higher average life expectancy.

The fifth generation lived through World War I and, in some cases, experienced the beginning of World War II. According to Tulchinsky (2018), the German economy and technology boomed after Bismarck started to unify Germany. With unification, more industry and trade could occur between former nation-states, and railways became more advanced as the new unified government financed them. Due to its economic and industrial development, Germany's population rose, but more importantly, its food production was also substantial enough to maintain the new population growth. However, population growth did not affect health during this period as much as it had during the first generation. Improved working conditions and industry standards for laborers and the middle class were implemented, improving conditions compared to the first industrial revolution, which meant more safety standards for the workers. Otto von Bismark also sought to create a more universal healthcare system and laid the foundations for many modern systems that we see today. An economic boom, safer working conditions, improved diets, a more universal healthcare system, and industrial growth are likely among the reasons that life expectancy appears to have increased during this period.

Milwaukee Cemeteries Discussion

According to Gurda (2000:1-22), the first generation of Europeans living in the Milwaukee area would have been descendants of the fur traders working there. These traders were of either French or English descent. Even though this thesis focuses on German

immigrants, these individuals were included in this study to match the timeline and generations of the German cemeteries. There was an established Native American village and a European trading post in what would eventually become the city of Milwaukee. This trading post obtained medical supplies via its many connections around the Great Lakes, including Green Bay, Fort Michilimackinac (located in modern-day Mackinac City, Michigan), and Montreal, where the greatest number of fur traders were located. This community also had access to routes to the growing encampment that would become the city of Chicago. This first generation would still have produced their own food and obtained supplies in less densely populated areas, making it harder for diseases to spread.

Gurda (2000:11-18) also explains that these first-generation settlers had another potential advantage: they had relatively positive relations with the Native American groups that also resided in the area. The European settlers in the region established trade relationships with groups such as the Potawatomi, Menominee, Sauk, Ottawa, and Ojibwe to advance their fur trading activities. Native Americans found it advantageous to work with white settlers. They could obtain European goods while the settlers used the furs they hunted to make a profit, thus maintaining a stable peace between the groups. Because Europeans in the Milwaukee area were not being attacked and killed by Native Americans, unlike settlers during the period of westward expansion, deaths were due primarily to natural causes, which may have contributed to a higher average life expectancy (Gurda 2018:10-18) (see Table 4.2).

-

Table 4.2. Quantifiable Milwaukee Cemetery Data

Name of Cemetery	Union	Calvary	Forest Home	T.O.M.U.C
Size (Acres)	51	75	198.5	2.68
Still in Use	Yes	Yes	Yes	No
Recorded Population	38,225	58,727	71,341	1,760
Initial Population of Study	36,220	58,142	70,521	1,582
Population of Study	32,945	49,343	61,595	1,428
Gen 1 Population	639	1,228	1,545	39
Gen 1 Percentage of Pop	1.94%	2.49%	2.51%	2.73%
Gen 1 Mean Age	77	76	74	76
Gen 1 Median Age	77	78	76	76
Gen 2 Population	5,842	7,035	5,842	301
Gen 2 Percentage of Pop	17.73%	14.26%	9.48%	21.08%
Gen 2 Mean Age	70	68	70	72
Gen 2 Median Age	71	70	71	76
Gen 3 Population	11,984	16,668	18,529	509
Gen 3 Percent of Pop	36.38%	33.78%	30.08%	35.64%
Gen 3 Mean Age	52	53	60	60
Gen 3 Median Age	57	57	66	66
Gen 4 Population	12,225	18,838	20,660	462
Gen 4 Percentage of Pop	37.11%	38.18%	33.54%	32.35%
Gen 4 Mean Age	28	33	55	40
Gen 4 Median Age	17	23	66	37
Gen 5 Population	2,254	5,574	11,688	117
Gen 5 Percentage of Pop	6.84%	11.30%	18.98%	8.19%
Gen 5 Mean Age	22	30	69	39
Gen 5 Median Age	2	4	76	37

The second generation in Milwaukee witnessed the end of the fur traders in the Midwest and the westward expansion of the American colonies after the American Revolution and War of 1812 (Gurda 2018:15). After the end of British control, the fur trade included more American companies, such as the American Fur Company, that expanded into Wisconsin. As more people from the East Coast moved into the area, they brought many diseases, such as smallpox, which

the people already living in the established fort of Milwaukee may not have been equipped to handle. There was a reported smallpox outbreak in 1831 that continued into 1832 and another in 1833 through 1834 (Nelsen 2021:13). Most of the deaths during this outbreak were among Indigenous hunters who supplied furs, along with some of the Europeans involved with the trade. As immigrants or people who emigrated from the East Coast were moving into the area of Milwaukee, malaria outbreaks were also common due to the swampy land that the expanding city was built upon (Harstad 1959-1960:83-96). However, at the same time, the first licensed physician emigrated to Milwaukee around 1839, joining unlicensed medical practitioners from the initial colonization period (Frank 1915). Access to medical treatment by a physician may have contributed to a slightly higher average life expectancy for those who could afford it. In fact, at the beginning of the arrival of the larger waves of immigrants, there were only 41 physicians in Milwaukee, which had a population of about 18,000 (i.e., a ratio of only one physician for every 439 people) (Frank 1915:20). Overall, the slight dip in, but still relatively high, life expectancy during this generation may reflect both disease-related deaths as well as the introduction of professional medical care (Harstad 1960:253-263).

During the third generation, which started right before the mass migration period of 1848, people would have started having first-generation American children. As noted above, data from the Milwaukee cemeteries suggest a slight decrease in life expectancy compared to the previous generation. This change may have been due to the act of immigration itself. According to the World Health Organization (McAuliffe and Triandafyllidou 2022), immigration can take a drastic toll on people's health due to several factors, such as a new environment, people who were already living in the area, and problems stemming from a significant population increase in an area that may not have been able to handle the rapid changes. A significant issue during this

time was diseases transmitted to other people during travel. Most notably, cholera and typhus were deadly diseases brought to Milwaukee by immigrants and traders (Dundon 1959).

Cholera has been a deadly disease throughout history (World Health Organization 2023a). Originating in the Ganges River basin in India during the 19th century, cholera is a bacterial disease caused by consuming either contaminated food or water. The disease causes severe acute diarrhea in the body between twelve hours and five days after exposure. Once symptoms become apparent, an infected individual may have less than twelve hours to live if they are not treated for the dehydration caused by the severe diarrhea. Immigrants to Milwaukee who contracted cholera may have consumed contaminated food or water while traveling and either presented symptoms immediately or shortly after arriving. People may also have carried the bacteria while traveling and infected the local food or water supply.

Typhus was the other major killer. According to the Centers for Disease Control and Prevention (2020), the most likely form of typhus that would have impacted immigrants in Milwaukee is now called epidemic typhus; this form of typhus is caused by a bacterium called *Rickettsia prowazekii*, which is spread by body lice and has caused millions of deaths worldwide throughout history. If left untreated, the disease can be deadly due to spinal cord, spleen, and heart muscle inflammation, kidney failure, internal bleeding, liver damage, pneumonia, and septic shock (Svoboda 2022). These symptoms can appear two weeks after exposure to infected body lice. Immigrants who suffered from typhus may have come into contact with someone with body lice while traveling and brought it to Milwaukee.

A lack of adequate medical care in the growing city may have compounded the effects of the disease. The city's medical system may not have been able to cope with the large numbers of people who immigrated to Milwaukee in a relatively short time. Although Milwaukee’s first

medical board of directors was formed when the 48ers came to the city, there were probably not enough doctors to care for people suffering from these communicable diseases (see Frank 1915). There may also have been language barriers that impeded medical care, as doctors who were in the city before the immigration period most likely spoke English or French. In contrast, the new wave of immigrants spoke various dialects of German, making communication very difficult.

Overall, the data show a decline in average life expectancy in the third generation. Due to the overall poorer living conditions compared to the European cities, this generation was expected to have a somewhat shorter life expectancy than the previous two generations. However, their descendants should have benefitted from the rectification of the spread of diseases and the hardships of immigrating; unfortunately, one major event, the American Civil War, would have potentially significantly impacted overall life expectancy at that time. Due to poor living conditions during the war, lack of medical treatment on the battlefield, and the potential for a soldier to spend time as a prisoner of war, the American Civil War drastically reduced life expectancy for all those directly involved (Logue and Blanck 2004).

The fourth generation considered in this study would have included first- and possibly second-generation Americans and some new German immigrants from other parts of the United States. These individuals would have experienced the aftermath of diseases spread among their immigrant parents, along with additional waves of disease brought by newer immigrants. Indeed, Milwaukee experienced another smallpox epidemic in 1894-1895 (Leavitt 1979). According to the World Health Organization (2023c), smallpox is caused by the variola virus from the orthopoxvirus family, which includes other diseases such as chicken and cowpox. It is considered one of the deadliest diseases in history, having existed for over 3,000 years. Smallpox

is transmitted from person to person via infectious droplets during close contact with infected people who have disease symptoms. Smallpox is considered deadly in around 30% of cases.

A vaccine had existed for smallpox since 1756, about a century before the fourth generation considered in this study and was available in Milwaukee after the epidemic (Leavitt 1976:544). However, there was tension between the citizens of Milwaukee and the city's medical board during this period. People did not trust their doctors or the vaccine, and when a minor outbreak occurred, they refused to listen to medical professionals. This caused the disease to spread rapidly, resulting in about 2,000 deaths. Even if people did not die from smallpox, having the disease could have had lasting effects on their health. This smallpox epidemic likely contributed to the dramatic drop in life expectancy, which is evident in the data summarized above, in addition to the other diseases that were also mentioned (Harstad 1960:253-263). During this period, Milwaukee was growing rapidly and faced several health-related issues due to a population boom and industrialization, which led to sanitation problems and food quality issues (Leavitt 1996) that would have resulted in a decrease in life expectancy during this period. For more information regarding smallpox in Milwaukee see Avella (1987).

The last generation considered in this study included second-generation American-born citizens whose grandparents were most likely 48ers. This generation, however, was also affected by dreadful diseases. In 1918, the Spanish flu pandemic spread worldwide, caused by an H1N1 virus with genes of avian origin. It is estimated that approximately 3% to 5% of the world's population became infected, global life expectancy fell by 12 years, and around 550,000 people died due to complications from the disease. This disease greatly affected younger generations of people; in fact, 99% of the people who died were individuals under the age of 65 (Tsoucalas et

al. 2016). This may explain why the average life expectancy for individuals in the Milwaukee cemeteries calculated for this period in the current study was only around 40 years of age.

The other significant event during this time was World War I. However, the effects of this war on the cemetery data used in the study may be minimal. Though the war lasted for four years (1914-1918), when soldiers die in combat, their bodies are traditionally buried at the battle site, or if they are returned home, they are buried in a veteran or military cemetery with other fallen soldiers as a sign of respect (Zambernardi 2017). Because this study did not incorporate data from any military cemeteries, it seems unlikely that deaths directly linked to World War I would have affected the results in any significant way. However, secondary deaths related to health complications from the war may have contributed to the lower average life expectancy if some veterans were buried in the cemeteries. Also, the 1918 Spanish flu was spread by demobilization due to the ending of the war, resulting in more cases worldwide that would have caused many deaths (Tsoucalas et al. 2016).

In interpreting the results of the analyses discussed above, it is important to consider the significant socioeconomic differences between the Milwaukee cemeteries included in this study. Union and Calvary cemeteries were for regular citizens of Milwaukee, i.e., blue-collar workers, average citizens, and often poorer families or individuals who did not necessarily achieve the American Dream they were striving for. In contrast, Forest Home Cemetery was the final resting place for many prominent families and individuals who helped make Milwaukee what it is today, including the Schlitz family of the Schlitz Beer Brewery, the Pabst family of the Pabst Brewery, the Miller family of the Miller Brewery, and individuals like William Frankfurth, Carl Dörflinger, and Adolph Meinecke, who contributed to the civic institutions of the city as well as its industrial base. Individuals buried in Forest Home initially were people of a higher

socioeconomic background who had more money to take care of their families and who could afford better medical care. This is likely why we see a greater life expectancy among individuals buried in Forest Home during the later generations covered by this study.

Another clear pattern evident from the comparison between Milwaukee and German cemeteries is the presence of many infants and children in the former and relatively few in the latter. In Christianity, and most notably in Catholicism, an infant is not necessarily "human" in the eyes of the church; babies are burdened by the concept of Original Sin and are, therefore, unable to be with God in heaven until they are baptized (Hausmair 2018). Once the child is baptized, the sins they are born with are washed away, and they can go to heaven with God. However, if they die before they are baptized, they are considered sinners and may not be buried at all; burial was reserved for church members who received their baptism. This could explain why German cemeteries did not have as many infant burials listed on a family plot. In addition, some cemeteries include "baby lands," where the ashes of babies are placed without a headstone or marker of some kind. Due to the lack of a headstone, some infants may not be on the Findagrave website, or it may not have been possible to calculate their age. It is also important to note that Calvary Cemetery is the only cemetery designated as a Catholic cemetery, while all others are undesignated, while most likely being Protestant or non-denomination in the case of the German cemeteries which could affect this data. In any case, the data suggest higher infant mortality in Milwaukee cemeteries than in the German cemeteries, which may skew the data towards a lower average life expectancy for that generation.

Another potential reason is that burial space is limited in most of Europe. Often, families bury their deceased relatives in family plots, and their remains replace the oldest burial within the plot. Families might not have wanted an infant to take the place of someone who had lived a

fuller life. People of German descent in Milwaukee may have had similar beliefs. However, for immigrants who made the long trans-Atlantic journey and tried to start again in the United States, the death of a child who was supposed to have had a better life but died at a young age would be devastating and thus may have warranted burial. Moreover, unlike in Europe, the abundance of land available for cemeteries in Milwaukee may have encouraged infant and child burials. This concept of reusing burial space due to limited space most likely did not affect the overall trends in the data of this study, as people who were previously buried in the grave would still be listed on the marker afterward.

Representation of Males Vs. Females

The results of the gender-based representation of Union Cemetery, TOMUC, and Stuttgart do not exhibit unexpected gender patterns (see Table 4.3). All three cemeteries show a relatively equal gender composition, with both Milwaukee cemeteries having a slightly higher percentage of males than females, while the opposite is true for Stuttgart. This suggests that in neither region are the cemetery data heavily skewed towards one gender or the other.

Table 4.3. Quantifiable Data from Gender Study

Cemetery	Population Total	Total Male	Male Percentage	Total Females	Female Percentage
Union Cemetery	32,945	16,491	50.06%	16,454	49.94%
T.O.M.U.C	1428	737	51.61%	691	48.39%
Pragfriedhof Stuttgart	6,996	3,406	48.68%	3,590	51.32%

Chapter 5: Conclusion

The non-invasive approach to historic cemetery research adopted in this study used readily accessible online data to examine changes in average life span among predominantly German immigrants to Milwaukee in the mid to late 19th century. Patterns in Milwaukee cemetery data were compared with patterns from contemporaneous populations in southwestern Germany (the region from which the largest immigrant waves, including the so-called 48ers, came) and interpreted in light of critical historical events and societal conditions. The results of this comparative analysis allowed me to make inferences about the quality of life among German immigrants in Milwaukee and critically examine the narrative of the American Dream. In the case of Milwaukee during the mass immigration waves of the 19th century, if life span is taken as a proxy for quality of life, then based on the cemetery data analyzed in this study, many immigrants and their descendants did not attain the American Dream during their lifetime. Overall, the German immigrants who came to the Milwaukee area might have done better if they had stayed in Baden-Württemberg, especially during the latter part of the 19th century into the early 20th century. While the non-invasive approach used in this study produced intriguing results and allowed me to address my primary research question effectively, there are also some potential issues and limitations associated with the analysis and its implementation. How these issues may be addressed by future research is discussed later in this chapter.

Final Thoughts on German Cemeteries and Data

My original hypothesis regarding the data from the German cemeteries included in this study was that the first two generations would exhibit a decrease in lifespan leading up to the third generation due to historical events in Europe at the time. As discussed in Chapters 2 and 4,

there was a decline in the quality of life for the ordinary people of Europe due to a combination of the potato famine, economic instability, religious oppression, and unfavorable political conditions. If conditions in Germany had not have fomented the revolutions that occurred in 1848 there might have been no need to emigrate to the United States. My expectations regarding the final two generations in the study were less clear. Three potential demographic patterns might be revealed in the data: life spans might stay the same, slightly increase, or decrease somewhat. The first two scenarios seemed more likely than the latter. However, there was no way to know for sure until the data were analyzed.

For Stuttgart Pragfriedhof, data for the first two generations supported my original hypothesis (Figure 4.1). As expected, a sizeable decrease in life span was experienced by the third generation. In the fourth generation, the average life span increased slightly by about one year. The biggest surprise was that the fifth generation's average life span increased by six years. These data suggest that life spans and quality of life increased dramatically in the later generations after the revolutions. Most likely, the new policies implemented after the rebellions were more progressive and increased overall prosperity (see Selgert 2018; Ashton 2014; MacCauley 1916). This provided a baseline model that could be compared with the patterns for the rest of the German cemeteries. One thing to note about the Stuttgart Pragfriedhof cemetery is that it was the city's main cemetery. Hence, the individuals buried in it represent a cross-section of the socioeconomic classes in Stuttgart at the time (Figures 5.1 and 5.2).

Figure 5.1. Example of a Lavish Family Plot in Stuttgart Pragfriedhof (author's photo).

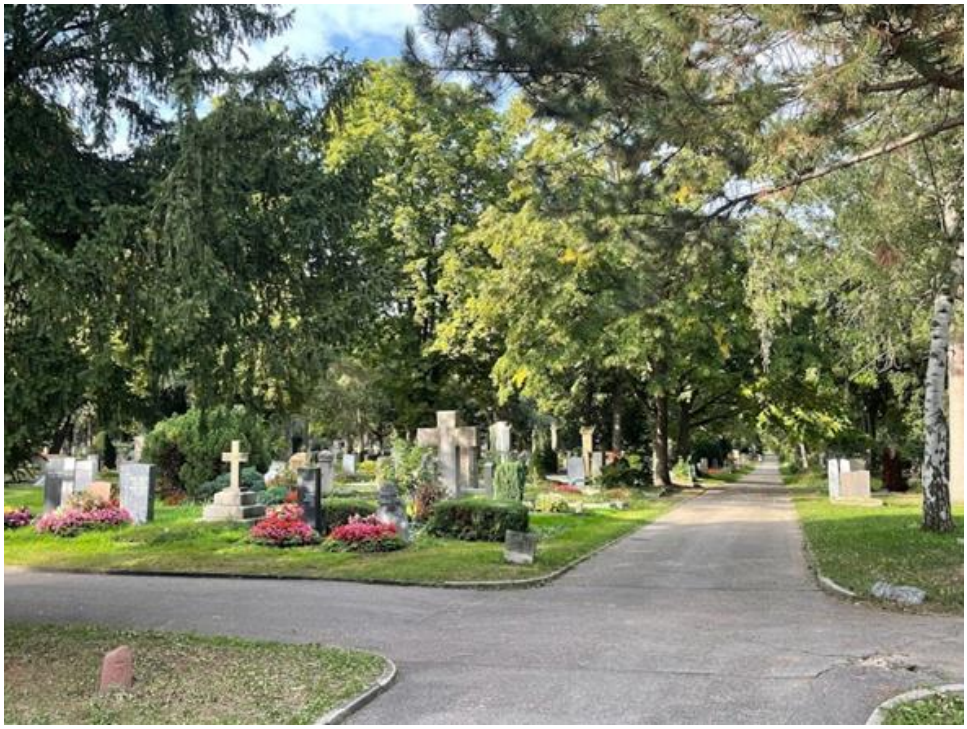


Figure 5.2. Examples of Non-Familial Plot Grave Markers in Stuttgart Pragfriedhof (author's photo).

The patterns revealed in the data for Hauptfriedhof Karlsruhe were slightly different from those of the other German cemeteries in the study. The data from the former cemetery suggested that average life expectancy remained unchanged before the third generation and that the average life span among the fourth generation did not increase as much as it did for individuals buried in the other German cemeteries included in this study. However, there was still evidence of a significant increase in the average life span during the fifth generation, as was seen in all the German cemeteries. There is another point to make about this cemetery in particular: the actual burials themselves. When I visited this cemetery in 2023, I noted that it contained many memorials. The one that stood out most was the World War II air victim's memorial (Figure 5.3). There is a separate marker for each individual in the memorial, including a name and dates, so they would have been included in the dataset for this study (which included all gravestones with at least a name and birth and death dates). Most of these individuals would have been in the last three generations. This might explain why the average life span during the fourth generation represented in the Hauptfriedhof Karlsruhe cemetery did not increase as much as it did among individuals in the other cemeteries.

Figure 5.3. Memorial to Air War Victims in World War II in the Hauptfriedhof Karlsruhe (author's photo).

At the Heidelberg Bergfriedhof cemetery, the data for the first three generations exhibit a similar pattern to Stuttgart in that there was a slight decrease in the average life span until the third generation. However, the fourth generation in Heidelberg Bergfriedhof differed from the fourth-generation individuals buried in the other cemeteries. At the same time, a slight increase in average life span was evident in the latter; the Heidelberg data indicate a four-year decrease. One potential reason for this was war, either the Franco-Prussian war in which Heidelberg may have been involved (Becker 2008; also see Figure 5.4) or, in the case of individuals born later in this generation, involvement in World War I. Notably, this cemetery has no war memorials like those in Karlsruhe; individuals killed in battle are honored by a separate monument outside the cemetery. Instead, the individuals buried in the Heidelberg Bergfriedhof cemetery were the ones who most likely survived and may have died later in life due to complications associated with battlefield medical treatments (similar to individuals who died following the American Civil War, as discussed in Chapter 4). Another important characteristic of this cemetery is that people

of a higher social class used it compared to individuals buried in the other municipal cemeteries included in this study. This could have skewed the data, although the decrease in average life span during the fourth generation suggests that any skewing is minimal.

Figure 5.4. Memorial for the lives lost in the Franco-Prussian War in Heidelberg Bergfriedhof (author's photo).

The pattern for Pforzheim Hauptfriedhof was similar to that for Stuttgart; both formed a traditional reverse bell curve, with a decrease in average life span leading up to the third generation. This was expected due to the mass immigration waves occurring within the third generation of this study. If there were no reason for people to immigrate to the U.S., there would not have been a significant decrease in average life spans. After the immigration waves, there was an increase in average life spans following the revolutions, as was also evident in the data for the other cemeteries except for Heidelberg. I believe that the primary reason for the apparent increase in overall life expectancy in Germany during the later generations considered in this study is summarized well by Weindling (1989:15):

> The rise of science during the 19th century was associated with liberal values of education, intellectual freedom, and humanitarianism. These values were incorporated into medicine, as it developed as a scientifically based profession with the humanitarian

> task of relieving suffering. The individual and family's health were regarded as the basis of personal well-being and prosperity and of a civilized and productive society.

Weindling (1989:1) offers insight into why we see a decrease in life expectancy for Heidleberg's fourth generation, arguing that post-1870s Germany witnessed advances in health and public welfare through public and social reform and investment in public welfare institutions. Moreover, mortality among German individuals reached an all-time high in the 1870s due to social conditions and disease caused by poverty and industrial working conditions. This is reflected in the fact that what today would be called white collar workers' overall health and mortality rates were normal and healthy. Weindling also states that the infant mortality rate was at an all-time high during this period, which lasted until the 20th century. While adult mortality declined after the 1870s, social conditions began to show signs of problems for the working class that impacted overall health. Due to this, industrial workers may have had a greater impact on the average life expectancy during this time period.

Final Thoughts on Milwaukee Cemeteries and Data

My original expectation for the Milwaukee cemeteries was that individuals buried in them would have average life spans relatively similar for the first three generations, with life spans during the final two generations being lower than those of individuals interred in the German cemeteries. The results for the cemeteries in Milwaukee were astonishing, to say the least, with each cemetery exhibiting a different pattern. It is fair to say that my original hypothesis was correct, but the extent to which the data supported it was completely unexpected.

The high average life expectancy of individuals in Union Cemetery during the first few generations was unexpected. They are on par with Stuttgart and Heidelberg and are higher than Pforzheim and Karlsruhe. However, during the third generation, the average life span began to

decrease. The immigrant waves began to escalate in Milwaukee, bringing many diseases with them (see discussion in Chapter 4). This caused many premature deaths, which brought the average lifespan down significantly. Another important point that needs to be mentioned is that many infant burials appear in the Union Cemetery records. This was not the case in Germany, where few infant burials were recorded. The sheer quantity of child burials in Union Cemetery drastically reduced the average life spans in the later generations. What is worth mentioning as well is that child burials were not common in earlier generations either. The demographics of the people buried in this cemetery, like Stuttgart, are very diverse, which may contribute to the varying life spans.

The data for Calvary Cemetery were very similar to those for Union Cemetery. The average life span among the first few generations was high and on par with the German cemeteries. It was during Generation 3 that the increased immigration began, resulting in a decreased average life span. However, the average life span in the last two generations was significantly higher than for Union Cemetery, although still relatively low. Calvary Cemetery became the cemetery for all Catholics in Milwaukee later in its history, which is reflected in the range of socioeconomic backgrounds of people buried there. Religious exclusivity may also have resulted in a greater representation of upper-class people, skewing the average life expectancy upward relative to Union Cemetery, which served a predominantly Lutheran population.

Forest Home Cemetery is the significant outlier of the group. The pattern evident in the average life span data for this cemetery is similar to that of Heidelberg: a slight decrease in the first three generations, then a significant decrease in the fourth generation, followed by a substantial increase in the fifth generation. Forest Home was an early cemetery for the city. Still, as Milwaukee grew, families with money often relocated the remains of their deceased family

members to Forest Home if the cemetery where they were originally interred was going to be demolished for urban development. Forest Home became the premier cemetery for the city, where many famous or well-off people are buried. The higher average life expectancy among individuals in this cemetery likely reflects wealthier families' ability to afford not only the relocation of burials to a more desirable cemetery but also higher-quality health care.

Thoughts on Gender and Urban-Rural Analysis

This study also considered average life expectancies for males versus females. Union Cemetery and Stuttgart Cemetery were compared due to their similar sizes and the socioeconomic demographics of people buried there. The comparative analysis showed that females lived, on average, longer than men, which is well documented in anthropology and archaeology. Both genders also exhibited patterns similar to the overall trends in the cemeteries. This suggests that factors causing increases or decreases in average life expectancy were non-exclusive—that is, they tended to have comparable effects on both females and males.

There is also the issue of rural versus urban settings. There are higher population densities within urban environments, allowing diseases to spread more rapidly than in rural areas with relatively low population densities. This is why including a smaller rural cemetery in this study and the larger urban cemeteries was beneficial. The Town of Milwaukee Union Cemetery, currently located in the suburb of Glendale, Wisconsin, would have been a rural cemetery when Milwaukee was growing. The data from this cemetery exhibited similar averages and values to Calvary Cemetery, with high average life spans in the first three generations and a slight decrease in the later generations. The last generations witnessed a significant decline in values overall. The results of this comparative study suggest that whatever was happening in Milwaukee

with regard to life expectancy declines was not confined to the city but was experienced by both urban and neighboring rural populations.

Limitations and Future Research

There are several limitations associated with the non-invasive approach adopted in this study, but the approach also has some advantages. Future research building on the current study could include analysis of the ancestral records of the people included in the investigation. The advantage of using a site like Findagrave.com is that it is linked to Ancestry.com, which means that many people buried in the cemeteries discussed in this thesis can be connected to records about their descendants. Such records would allow a researcher to reconstruct familial histories and compare life expectancy, quality of life, and socio-economic success across generations. This study focused on large numbers of individuals rather than reviewing records associated with specific individuals to reveal general patterns in life expectancy among groups of people through time. If an analysis such as this was instead focused on smaller data sets, it might be feasible to combine a larger-scale statistical approach with a records-based qualitative approach.

There are some limitations to using a website like Findagrave.com. One issue is that the data is mainly collected from individual volunteers. Since there is a human component to the data collection, some human error seems likely. Notable human error was discovered in the data-sorting phase of the study. For instance, one individual's birth and death dates indicated that they lived for more than 200 years; this suggests that their dates were erroneously crossed with those of another individual. However, such errors in the website's data were minimal, and any problematic data I noticed were excluded from the study. Another issue is that, most likely, not all burials or interments are mentioned on the website, but they could be recorded in cemetery or burial records. Incorporation of information from such records in future research would

complement the approach taken in the present study. Potential evidence for this includes posts on the city cemeteries page without an uploaded grave photo. There is also the issue of differential preservation of grave markers—that is, it may not be possible to obtain accurate information from some markers made of cheaper or less durable materials due to weathering or deterioration over time. This could mean that some individuals from families of lower economic status or pauper's graves may not be included, skewing the analysis results. Utilizing a non-invasive method makes discerning such information more difficult.

The other limitation of this study is its focus on Germany. We currently consider Germany relatively recent compared to the area's history. Modern Germany begins in the late 1980s, after the fall of the Berlin Wall, when the nation-state was no longer divided by the lines formed after World War II ended. Before that, Prussia and the Holy Roman Empire had enormous land holdings throughout Europe. Thus, many people who self-identified as German when they came to the United States would not be considered German today. There will be errors when you have a study that only looks at names and tries to narrow the study sample down to a smaller geographical location. However, if the population size is large enough, errors may not impact the data to a statistically significant degree. Fortunately, German immigrants to Milwaukee have been heavily studied and documented by people in Milwaukee, reducing the error in this case. Also, ethnic German identity rather than geo-political identity is based on language and shared culture and in that sense the individuals included in this analysis can be considered German and would have seen themselves that way as well.

As noted above, it might be fruitful to compare the results of the present analysis—which was based on easily accessible online data—with information obtained from other types of historical sources, such as actuary tables, church records, or census data. These data types would

be easily accessible to someone living in the United States, reading English, and studying a social phenomenon in America. However, suppose a researcher needs the same information from a different country. In that case, it may be difficult to acquire if they do not know the language and the relevant data are not digitized. The other potential disadvantage of this type of information is that some of the best records might be behind paywalls that would be expensive to access.

The advantage of this type of study is that it is easily replicable. Unlike what we usually think of as archaeology or archaeological fieldwork, the "artifacts" in this case consist of data that can be accessed remotely, although I did visit the cemeteries included in the study in person in order to get a feel for the places in which they are located. The methods for this type of study are relatively easy for the public to understand. With online databases such as Findagrave.com becoming more advanced and user-friendly, studies like this can be undertaken more easily in the future. Because the website utilizes volunteers to add more information to the data for a cemetery, there will always be new data to study. For researchers interested in working with online cemetery data, I recommend contacting the website directly instead of getting the data elsewhere. The staff for websites like this are often willing to help facilitate a research project if they find something exciting and it is within their means to help.

It is also important to note that I did seek permission from Find A Grave to use their data for this study. Though I was permitted to use the data, it was with the condition that I would delete all of my data once this study was completed. Thus, no data appendices are included in this thesis, as I wanted to respect the wishes of the website's staff. If another researcher is interested in conducting a similar study, they should contact the website directly to receive the

required data. Some legal documents may need to be signed to obtain permission if there is a significant amount of data to be used.

The other advantage of this type of study is that it is non-discriminatory in that such an approach could be used for any country, region, city, or ethnic group. Researchers can also use as much data as they believe is necessary. The potential for bias when properly doing this type of study is also relatively small. Although a person could selectively use subjects within their research to fit their hypothesis better, a follow-up analysis could rectify the bias that was created in the original. Anyone with internet access can perform this type of study. The necessary data are not restricted behind a paywall that allows only sure researchers to use them, except in Ancestry's case, which was not used in this study.

It is also necessary to consider the possible effects of the "osteological paradox" discussed by Wood et al. (1992), which is associated with trying to make health or demographic inferences about a living population based on a death assemblage (e.g., skeletal sample). Overall, I believe that the way the study was structured helped to minimize the effects of the paradox, as it examined populations over time rather than during a fixed period, it did not focus on a highly specific group (the category of "German people" is large and diverse), and it proposed multiple factors that may have affected life expectancies rather than a single reason. At the same time, it is important to acknowledge the potential for bias. Comparison of the results of this cemetery-focused study with other sources of information (e.g., census data) on populations in southwest Germany and Milwaukee as a whole might allow us to determine if there are specific groups that are over- or underrepresented in the cemeteries relative to the larger populations, and thus identify at least one possible source of bias.

Final Remarks

Is the utilization of a non-invasive approach viable for studying historic cemetery populations? I believe that this study was relatively successful in establishing a basis for similar studies in the future. The results suggest that there were considerable differences in life spans in Germany and Milwaukee during the periods covered by the survey. However, there were also limitations associated with this study due to the potential for better data sources for this type of study. Differences in how cemeteries were managed, how data were gathered, and input within findagrave.com and language barriers complicated the study results. However, we live in a vastly growing online world, and I believe these limitations may be resolved so a survey of this nature can be conducted more efficiently in future.

One of the best ways to determine the effectiveness of the study was to determine whether the research question was answered. Did relocating to Milwaukee from Germany in pursuit of the American Dream benefit immigrants during the 19th and early 20th centuries? The results of this study suggest that, at least in terms of life expectancy, the United States would not be the country it is today without immigration. It is essential to note that this is one example from a large pool of potential stories. Just because some immigrants to the United States did not live as long as their contemporaries in the Old Country does not mean they would have lived a longer or better life if they had remained in Europe. A longer life span is just one aspect of the quality of life that people want to achieve. A study undertaken in another area in the United States with a large German immigrant population, such as Texas, might produce results that lead to conclusions different from those of this study. Similar studies in other regions or focused on other ethnic groups would complement the results presented in this thesis. One useful parallel case study would be Irish immigration to Milwaukee. Studies like these provide vital insights

into American and world history, challenging the popular narratives often used to promote idealistic ideologies.

References Cited

Agostini, Gina
2020 The Bioarchaeology of Structural Violence: a Theoretical Framework for Industrial Era Inequality. In *Health, Well-being, and Structural Violence After Sociopolitical Revolution*, edited by Lori A. Tremblay and Sarah Reedy, pp. 233–251. Springer, Cham, Switzerland.

Ancestry Corporate
2024 Our story: Ancestry corporate. *Ancestry*®. https://www.ancestry.com/corporate/about-ancestry/our-story

Anthony, David W.
1990 Migration in Archeology: The Baby and the Bathwater. *American Anthropologist* 92(4): 895–914.

Ashton, Bodie Alexander
2014 The Kingdom of Württemberg and the Making of Germany, 1815-1871. Unpublished PhD Dissertation. University of Adelaide, Australia.

Austad, Steven N.
2006 Why Momen Live Longer than Men: Sex Differences in Longevity. *Gender Medicine* 3(2): 79–92.

Austin, Kelly F., and Laura A. McKinney
2012 Disease, War, Hunger, and Deprivation: A Cross-National Investigation of the Determinants of Life Expectancy in Less-Developed and Sub-Saharan African nations. *Sociological Perspectives* 55(3): 421–447.

Avella, Steven M.
1987 Health, Hospitals, and Welfare: Human Services in Milwaukee County. In *Trading Post to Metropolis: Milwaukee County's First 150 Years*, edited by Ralph M. Aderman, pp. 196- 254. Milwaukee County Historical Society, Milwaukee, Wisconsin.

Baier, Martin
2024 *Chronik Stuttgarts*. https://www.pangloss.de/cms/index.php?page=chronik-stuttgarts

Barry, John M.
2020 *The Great Influenza: The Story of the Deadliest Pandemic in History*. Penguin Books, New York, NY.

Becker, Josef
2008 The Franco-Prussian Conflict of 1870 and Bismarck's Concept of a "Provoked Defensive War": A Response to David Wetzel. *Central European History* 41(1): 93–109.

Berger, Helge, and Mark Spoerer
2001 Economic Crises and the European Revolutions of 1848. *The Journal of Economic History* 61(2): 293–326.

Binford, Lewis R.
1971 Mortuary Practices: Their Study and their Potential. *Memoirs of the Society for American Archaeology* 25: 6–29.

Bird, Mimi, and Harold Seeman
2011 Volume 04: Town of Milwaukee Cemetery: 1917-1988 Records. *Whitefish Bay Public Library*. https://content.mpl.org/digital/collection/wfb/id/1937k/

Brace, Selina, Yoan Diekmann, Thomas J. Booth, Zuzana Faltyskova, Nadin Rohland, Swapan Mallick, Matthew Ferry et. al.
2018 Population Replacement in Early Neolithic Britain. *Nature Ecology & Evolution* 3: 765-771.

Brandt, Allan M.
1988 AIDS and Metaphor: Toward the Social Meaning of Epidemic Disease. *Social Research: An International Quarterly* 87(2): 413–433.

Burkhart, Daniela
2023 Timeline. *Karlsruhe UNESCO City of Media Arts*. Accessed December 5. https://www.cityofmediaarts.de/en/profile/timeline/

Britannica, The Editors of Encyclopedia Britannica
2023a Baden. *Encyclopædia Britannica*. Encyclopædia Britannica, Inc. https://www.britannica.com/place/Baden-historical-state-Germany

2023b Württemberg. *Encyclopædia Britannica*. Encyclopædia Britannica, Inc. https://www.britannica.com/place/Wurttemberg

2023c Stuttgart. *Encyclopædia Britannica*. Encyclopædia Britannica, Inc. https://www.britannica.com/place/Stuttgart-Germany

2023d Karlsruhe. *Encyclopædia Britannica*. Encyclopædia Britannica, Inc. https://www.britannica.com/place/Karlsruhe-Germany

2023e Heidelberg. *Encyclopædia Britannica*. Encyclopædia Britannica, Inc. https://www.britannica.com/place/Heidelberg

Cannon, Aubrey
1989 The Historical Dimension in Mortuary Expressions of Status and Sentiment. *Current Anthropology* 30(4): 437–458.

2009 Mortuary Expression of Mother-Daughter Inheritance and Identity. In *Que(e)rying Archaeology: Proceedings of the Thirty-Seventh Annual Chacmool Conference,* edited by Susan Terendy, Natasha Lyons, and Michelle Janse-Smekal, pp. 67–76. University of Calgary, Calgary, Canada.

Centers for Disease Control and Prevention
2018 History of 1918 Flu Pandemic. *Centers for Disease Control and Prevention*. Centers for Disease Control and Prevention, Accessed March 21, 2024. https://archive.cdc.gov/www_cdc_gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm#:~:text=The%201918%20influenza%20pandemic%20was,spread%20worldwide%20during%201918%2D1919.

2020 Epidemic Typhus. *Centers for Disease Control and Prevention*. Centers for Disease Control and Prevention, Accessed November 13, 2023. https://www.cdc.gov/typhus/about/epidemic.html#:~:text=Symptoms%20of%20epidemic%20typhus%20include,typhus%20involves%20the%20antibiotic%20doxycycline.

Chasco, Randal
2004 Self-guided Tour of Historic Calvary Cemetery. *Archdiocese of Milwaukee*. Milwaukee, WI. https://www.cemeteries.org/Catholic-Cemeteries/PDF1/CalvarySelfGuidedTour_Final.pdf

Chetty, Raj, Michael Stepner, Sarah Abraham, Shelby Lin, Benjamin Scuderi, Nicholas Turner, Augustin Bergeron, and David Cutler
2016 The Association between Income and Life Expectancy in the United States, 2001-2014. *Journal of American Medical Association (JAMA).* 315(16): 1750.

Cornell, Martyn
2023 Schlitz: How Milwaukee's Famous Beer Became Infamous. *The Beer Connoisseur*®. The Beer Connoisseur, Accessed September 7, 2023. https://beerconnoisseur.com/articles/schlitz-how-milwaukees-famous-beer-became-infamous

Costanza, Robert, Brendan Fisher, Saleem Ali, Caroline Beer, Lynne Bond et al.
2006 Quality of Life: An Approach Integrating Opportunities, Human Needs, and Subjective Well-Being. *Ecological Economics* 61(2–3): 267–276.

Cullen, Jim
2003 *The American Dream: A Short History of An Idea That Shaped a Nation*. Oxford University Press, New York.

Der Sarkissian, Clio, Oleg Balanovsky, Guido Brandt, Valery Khartanovich, Alexandra Buzhilova et al.

2013 Ancient DNA Reveals Prehistoric Gene-flow from Siberia in the Complex Human Population History of North East Europe. *PLoS Genetics* 9(2):1-17

Derose, Kathryn Pitkin, José J. Escarce, and Nicole Lurie
2007 Immigrants and Health Care: Sources of Vulnerability. *Health Affairs* 26(5): 1258–1268.

Dethlefsen, Edwin, and James Deetz
1966 Death's Heads, Cherubs, and Willow Trees: Experimental Archaeology in Colonial Cemeteries. *American Antiquity* 31(4): 502–510.

Drew, Brooke L.
2018 Death in Anonymity: Population Dynamics and the Individual Within the Milwaukee County Poor Farm Cemetery, 1882–1925. Unpublished PhD Dissertation. University of Wisconsin-Milwaukee.

Dundon, George A.
1959 Health Chronology of Milwaukee. *Milwaukee Health Department*, Milwaukee, WI. https://www.marquette.edu/cgi-bin/cuap/db.cgi?uid=default&ID=3491&view=Search&mh=1

Elchardus, Mark, and Jessy Siongers
2011 First Names as Collective Identifiers: An Empirical Analysis of the Social Meanings of First Names. *Cultural Sociology* 5(3): 403–422.

Elshahat, Sarah, Tina Moffat, Olivia Gagnon, Lein Charkatli, and Emily D. Gomes-Szoke
2023 The Relationship between Diet/Nutrition and the Mental Health of Immigrants in Western Societies through a Holistic Bio-Psycho-Socio-Cultural Lens: A Scoping Review. *Appetite* 183: 106463.

Ewing, Walter A
2019 *Opportunity and Exclusion: A Brief History of U.S. Immigration Policy*. American Immigration Council. U.S. Government Printing Office, Washington, DC.

Ferris, Neil, and John R. Welch
2014 Beyond Archaeological Agendas: in the Service of Sustainable. In *Transforming Archaeology: Activist Practices and Prospects*, edited by Sonya Atalay, Lee Rains Clauss, Randall H. McGuire, and John R. Welch, pp. 215–237. Left Coast Press, Inc., Walnut Creek, CA.

Find a Grave
2023a Hauptfriedhof Pforzheim in Pforzheim, Baden-Württemberg. Find a Grave. https://www.findagrave.com/cemetery/2242560/hauptfriedhof-pforzheim

2023b Millions of Cemetery Records, Find a Grave. https://www.findagrave.com/about

Flowers, Frank A.
1881 *History of Milwaukee, Wisconsin, From Pre-Historic Times to the Present Date, Embracing a Summary Sketch of the Native Tribes, and an Exhaustive Record of men and Events for the Past Century; Describing in Elaborate Detail the City as it now is; its Commercial, Religious, Educational and Benevolent Institutions, Its Government, Courts, Press, and Public Affairs; its Musical, Dramatic, Literary, Scientific and Social Societies; its Patriotism During the Late War; its Development and Future Possibilities; and Including Nearly Four Thousand Biographical Sketches of Pioneers and Citizens.* Western Historical Co. Chicago, IL.

Forest Home Cemetery
1926 *Forest Home Cemetery, Milwaukee, Wisconsin: A Notable Institution to Which Not Only Milwaukee but All Wisconsin Points with Pride*. Forest Home Cemetery, Milwaukee, WI.

2023 Forest Home Cemetery and Arboretum: Milwaukee, Wisconsin. *Forest Home Cemetery*. Accessed December 18. https://foresthomecemetery.com/history/

Forster, Peter
1996 Dispersal and Differentiation of Modern Homo Sapiens Analysed with Mitochondrial DNA. Unpublished PhD thesis. University of Hamburg.

Frank, Louis Frederick
1915 *The Medical History of Milwaukee 1834-1914*. Germania Publishing Company, Milwaukee.

Freire, Shannon, and Jennifer Haas
2023 MCPFC Stories. *Milwaukee County Poor Farm Cemetery*. https://sites.uwm.edu/milwaukee-county-poor-farm-cemetery/mcpfc-stories/

Frieman, Catherine J., and Daniela Hofmann
2019 Present Pasts in the Archaeology of Genetics, Identity, and Migration in Europe: A Critical Essay. *World Archaeology* 51(4): 528–545.

González Zapata, Laura Inés; Alvarez-Dardet Díaz, Carlos; Nolasco Bonmatí, Andrew; Pina Romero, José Aurelio; Medrano, Maria José
2006 Famine in the Spanish Civil War and Mortality from Coronary Heart Disease: A Perspective from Barker's Hypothesis. *Gaceta Sanitaria* 20(5): 360-367. U.S. National Library of Medicine.

Grandin, Greg
2019 *The End of the Myth: From the Frontier to the Border Wall in the Mind of America*. Metropolitan Books, Henry Holt and Company, New York.

Greitzke, Tobias
2024 Heidelberg History. *Heidelberg Germany - Travel Germany On Your Vacation*. https://www.tourism-heidelberg.com/destination/history/index_eng.html

Gurda, John
2018 *The Making of Milwaukee*. Milwaukee County Historical Society, Milwaukee, WI.

Hacker, Karen, Maria Elise Anies, Barbara Folb, and Leah Zallman
2015 Barriers to Health Care for Undocumented Immigrants: A Literature Review. *Risk Management and Healthcare Policy* 8: 175.

Hahn, Joachim
1992 Prague Cemetery, Israelite Part. *Cemeteries in Stuttgart* 3. Hohenheim. Stuttgart, Germany

Hamerow, Theodore S.
1954 History and the German Revolution of 1848. *The American Historical Review* 60(1): 27-44.

Harstad, Peter T.
1959 *Disease and Sickness on the Wisconsin Frontier: Malaria, 1820-1850*. State Historical Society of Wisconsin, Madison.

1960 Disease and Sickness on the Wisconsin Frontier: Smallpox and Other Diseases. *The Wisconsin Magazine of History* 43(4): 253-263.

Hausmair, Barbara
2018 Break a Rule but Save a Soul. In *Archaeologies of Rules and Regulation: Between Text and Practice*, edited by Barbara Hausmair, Ben Jervis, Ruth Nugent, and Elanor Williams, pp. 273–290. Berghan Books, New York, NY.

Heß, Simon
2024 *History of Heidelberg*. https://www.heidelberg-marketing.de/en/discover/experience/historical/history-of-heidelberg

Holzman, Hanni M.
1945 The German Forty-Eighters and the Socialists in Milwaukee: A Social Psychological Study of Assimilation. Unpublished Masters Thesis. University of Wisconsin-Madison, Madison, WI.

Jillson, Calvin C.
2016 *The American Dream in History, Politics, and Fiction*. University Press of Kansas, Lawrence, KS.

Kewalani, Riya, and Insiya Sajjad Saifudeen
2021 Exploring Human Longevity: The Impact of Climate on Life Expectancy. *International Journal of High School Research* 3(3): 28–34.

Katikireddi, Srinivasa Vittal, Sham Lal, Enitan D. Carrol, Claire L. Niedzwiedz, Kamlesh Khunti, Ruth Dundas, Finn Diderichsen, and Ben Barr
2021 Unequal Impact of the Covid-19 Crisis on Minority Ethnic Groups: A Framework for Understanding and Addressing Inequalities. *Journal of Epidemiology and Community Health* 75(10): 970–974.

Kurlander, Eric
2017 *Hitler's Monsters: A Supernatural History of the Third Reich*. Yale University Press, New Haven, CT.

Lamb, Sarah
2015 Generation in Anthropology. In James D. Wright (editor-in-chief) *International Encyclopedia of the Social and Behavioral Sciences*, 2nd Edition, Vol 9. Oxford: Elsevier. pp. 853–856.

Leavitt, Judith
1976 Politics and Public Health: Smallpox in Milwaukee, 1894-1895. *Bulletin of the History of Medicine* 4(50): 553–568.

1996 *The Healthiest City: Milwaukee and the Politics of Health Reform*. University of Wisconsin Press, Madison, WI.

Lee, E.S.
1966 A Theory of Migration. *Demography* 3(1): 47-57.

Logue, Larry M. and Peter Blanck
2004 There is Nothing that Promotes Longevity like a Pension: Disability Policy and Morality of Civil War Union Army Veterans. *Wake Forest Law Review* 39(49): 50–67.

MacCauley, Clay
1916 *The Hohenzollern Dynasty: Motive and Movement.* 福音印刷, Tokyo.

MacDonald, John S., and Leatrice D. MacDonald
1964 Chain Migration, Ethnic Neighborhood Formation and Social Networks. *The Milbank Memorial Fund Quarterly* 42(1): 82.

Mackenbach, Johan P.
2013 Political Conditions and Life Expectancy in Europe, 1900–2008. *Social Science and Medicine* 82: 134–146.

Magnani, Matthew, Natalia Magnani, Anatolijs Venovcevs, and Stein Farstadvoll
2021 A Contemporary Archaeology of Pandemic. *Journal of Social Archaeology* 22(1): 48–81.

Mariani, Fabio, Agustin Perez Barahona, and Natacha Raffin
2010 Life Expectancy and the Environment. *Journal of Economic Dynamics and Control*, 34(4) 798-815

Maslow, Abraham Harold.
1943 A Theory of Human Motivation. *Psychological Review* 4(50): 370–396.

McAuliffe, Marie, and Anna Triandafyllidou
2022 *World Migration Report 2022*. International Organization for Migration, Geneva, Switzerland.

Milwaukee Independent
2018 Neighborhood around Union Cemetery Known as Borchert Field after City's First Baseball Park. *Milwaukee Independent*. October 19. https://www.milwaukeeindependent.com/articles/neighborhood-around-union-cemetery-known-as-borchert-field-after-citys-first-baseball-park/

Moore, Erin
1986 Issues in Access to Health Care: the Undocumented Mexican Resident in Richmond, California. *Medical Anthropology Newsletter* 17(3): 65–70.

Nelsen, James
2021 *A History Lover's Guide to Milwaukee*. The History Press, Charleston, SC.

Ostergren, Robert Clifford, Cora Lee Kluge, and Heike Bungert
2006 *Wisconsin German Land and Life*. Max Kade Institute for German-American Studies, University of Wisconsin--Madison, Madison, WI.

Papa, Veronica, Elena Varotto, Massimo Galli, Mauro Vaccarezza, and Francesco M. Galassi
2022 One Year of Anatomy Teaching and Learning in the Outbreak: Has the Covid-19 Pandemic Marked the End of a Century-Old Practice? A Systematic Review. *Anatomical Sciences Education* 15(2): 261–280.

Pavli, Androula, and Helena Maltezou
2017 Health Problems of Newly Arrived Migrants and Refugees in Europe. *Journal of Travel Medicine* 24(4): 1-8

Pforzheim
2024 Kleine Pforzheimer Stadtchronik. *Stadt Pforzheim*. https://www.pforzheim.de/stadt/stadtgeschichte/kleine-stadtchronik.html

Plümper, Thomas, and Eric Neumayer
2006 The Unequal Burden of War: The Effect of Armed Conflict on the Gender Gap in Life Expectancy. *International Organization* 60(03): 723-754

Radcliffe-Brown, Alfred R.
1954 Structure and Function in Primitive Society: Essays and Addresses. *American Anthropologist* 56(1): 118–120.

Ramm, Agatha
2019 *Germany 1789-1919: A Political History*. Routledge, New York, NY.

Ray, Michael
2018 Timeline of World War I. *Encyclopædia Britannica*. Encyclopædia Britannica, Inc. https://www.britannica.com/list/timeline-of-world-war-i

Renfrew, Charles, and Paul G. Bahn
2012 *Archaeology: Theories, Methods and Practice*. Thames and Hudson, London.

Richards, Patricia B.
1997 Unknown Man No. 198: The Archaeology of the Milwaukee County Poor Farm Cemetery. Unpublished PhD Dissertation. University of Wisconsin-Milwaukee.

Richards, Patricia B., Eric E. Burant, Brooke L. Drew, Emily M. Epstein, Catherine R. Jones, Nicholas W., Richards, and Thomas J. Zych
2016 Nine for Mortal Men Doomed to Die: The Archaeology and Osteology of the 2013 Milwaukee County Poor Farm Cemetery Project (Froedtert Tract-47 MI 0527). *University of Wisconsin-Milwaukee Cultural Resource Management Report of Investigations 381*.

Richards, Patricia B., and M.W. Kastell
1993 Archaeological Excavations at the Almshouse Burial Ground Milwaukee County Poorhouse, Wauwatosa, Wisconsin. *Reports of Investigation No. 333. Great Lakes Archaeological Research Center*. Milwaukee, WI.

Sartin, J. S.
1993 Infectious Diseases during the Civil War: The Triumph of the "Third Army." *Clinical Infectious Diseases* 16(4): 580–584.

Saxe, Arthur A.
1971 Social Dimensions of Mortuary Practices in a Mesolithic Population from Wadi Haifa, Sudan. *Memoirs of the Society for American Archaeology* 25: 39–57.

Scarre, Christopher, and Geoffrey Scarre
2006 *The Ethics of Archaeology: Philosophical Perspectives on Archaeological Practice*. Cambridge University Press, Cambridge.

Schiemer, Mathias
2022 Bergfriedhof (Mountain Cemetery). *Willkommen in Heidelberg!*. Accessed May 2, 2024 https://www.heidelberg-marketing.de/en/poi/bergfriedhof-mc.

Schulze, Hagen
1998 The Great War and Its Aftermath. In *Germany: A New History*. Translated by Deborah Lucas Schneider, pp. 191-214. Harvard University Press, Cambridge, MA.

Schwartzman, Roy
2000 Recasting the American Dream Through Horatio Alger's Success Stories. *Studies in Pop Culture* 23(2): 75-91.

Seifarth, Joshua E., Cheri L. McGowan, and Kevin J. Milne
2012 Sex and Life Expectancy. *Gender Medicine* 9(6): 390–401.

Selgert, Felix
2018 *Baden and the Modern State: The Implementation of Administrative and Legal Reforms in the German State of Baden During the 19th Century*. De Gruyter, Berlin.

Semple, Sarah, and Stuart Brookes
2020 Necrogeography and Necroscapes: Living with the Dead. *World Archaeology* 52(1): 1–15.

Sen, Amartya
2015 Universal Health Care: the Affordable Dream. *HPHR Journal* 2015(5) https://hphr.org/5-article-sen/

Singer, Merrill
1994 AIDS and the Health Crisis of the U.S. Urban Poor; The Perspective of Critical Medical Anthropology. *Social Science and Medicine* 39(7): 931–948.

Singer, Merrill, and G. Derrick Hodge
2010 *The War Machine and Global Health: a Critical Medical Anthropological Examination of the Human Costs of Armed Conflict and the International Violence Industry*. AltaMira Press, Lanham, MD.

Sloane, David Charles
1991 *The Last Great Necessity: Cemeteries in American History*. Johns Hopkins University Press, Baltimore, MD.

Sonnenfeld, Jeffrey
2023 Time to Bury the Horatio Alger Myth. *Time*. Accessed August 17, 2023. https://time.com/6305543/horatio-alger-myth-american-dream/

Sperber, Jonathan
2005 *The European Revolutions, 1848-1851*. Cambridge University Press, Cambridge.

Steckel, Richard H
2008 Biological Measures of the Standard of Living. *Journal of Economic Perspectives* 22(1): 129–152.

Stürmer, Michael
1971 Bismarck in Perspective. *Central European History* 4(4): 291–331.

Svoboda, Elizabeth
2023 Typhus: Symptoms, Causes, Diagnosis, Treatment, Prevention. *WebMD*. https://www.webmd.com/a-to-z-guides/what-is-typhus

Timm, Christoph
1995 *The Pforzheim Main Cemetery. A Guide to the Historical Grave Monuments.* Verlag Regionalkultur, Ubstadt-Weiher, Germany.

Tomilin, Sara
2023 History of Forest Home Cemetery: Milwaukee, WI. *Forest Home Cemetery*. Accessed April 21, 2024. https://foresthomecemetery.com/history/

Tremblay, Marc, and Hélène Vézina
2000 New Estimates of Intergenerational Time Intervals for the Calculation of Age and Origins of Mutations. *The American Journal of Human Genetics* 66(2): 651–658.

Tsoucalas, Gregory, Antonios Kousoulis, and Markos Sgantzos
2016 The 1918 Spanish Flu Pandemic, the Origins of the H1N1-Virus Strain, a Glance in History. *European Journal of Clinical and Biomedical Sciences* 2(4): 23–28.

Tulchinsky, Theodore H.
2018 Bismarck and the Long Road to Universal Health Coverage. In *Case Studies in Public Health*, edited by Theodore H. Tulchinsky, pp. 131–179. Elsevier, Amsterdam, Netherlands.

Vaupel, James W., Zhen Zhang, and Alyson A. van Raalte
2011 Life Expectancy and Disparity: an International Comparison of Life Table Data. *BMJ Open* 1(1): 1-6.

Vries, Jan de
1994 The Industrial Revolution and the Industrious Revolution. *The Journal of Economic History* 54(2): 249–270.

Vogel, Dorothy C.
1970 Historiographical Analysis of the Baden Revolutions of 1848-1849. Unpublished PhD Disstertaion, New York University, New York, NY.

Watrous, J.A.
1909 *Memoirs of Milwaukee County: From the Earliest Historical Times Down to the Present, Including a Genealogical and Biographical Record of Representative Families in Milwaukee County (Vol. 2).* Western Historical Association, Madison, WI.

Walzer, Joseph B.
2016 Brewing. *Encyclopedia of Milwaukee*. Accessed December 3, 2024. https://emke.uwm.edu/entry/brewing/

Warrick, Gary, Bonnie Glencross, and Louis Lesage
2021 The Importance of Minimally Invasive Remote Sensing Methods in Huron-Wendat Archaeology. *Advances in Archaeological Practice* 9(3): 238–249.

Weindling, Paul
1989 *Health, Race, and German Politics between National Unification and Nazism, 1870-1945*. Cambridge University Press, Cambridge.

Weston, Evans Robert John, and Hartmut Pogge von Strandmann
2005 *The Revolutions in Europe, 1848-1849 from Reform to Reaction*. Oxford University Press, Oxford.

Whaples, Robert
1995 Where is There Consensus among American Economic Historians? The Results of a Survey on Forty Propositions. *The Journal of Economic History* 55(1): 139–154.

Wikipedia
2024 Württemberg. *Wikipedia*. Wikimedia Foundation, Accessed March 19, 2024. https://en.wikipedia.org/wiki/W%C3%BCrttemberg

Wilde, Robert
2019 How did Public Health Develop during the Industrial Revolution? *ThoughtCo*. ThoughtCo, Accessed August 31, 2023. https://www.thoughtco.com/public-health-in-the-industrial-revolution-1221641#:~:text=This%20set%20of%20public%20health,%2C%20public%20works%2C%20and%20lighting.

Williams, Howard
2007 The Emotive Force of Early Medieval Mortuary Practices. *Academia.edu*. Accessed November 22, 2023. https://www.academia.edu/5190301/The_emotive_force_of_early_medieval_mortuary_practices

Wisconsin Historical Society
2012 Diseases and Epidemics in Wisconsin. *Wisconsin Historical Society*. Accessed August 3, 2024. https://wisconsinhistory.org/Records/Article/CS564

Wood, James W., George R. Milner, Henry C. Harpending, Kenneth M. Weiss, Mark N. Cohen, Leslie E. Eisenberg, Dale L. Hutchinson, Rimantas Jankauskas, Gintautas Cesnys, M. Anne Katzenberg, John R. Lukacs, Janet W. McGrath, Eric Abella Roth, Douglas H. Ubelaker, and Richard G. Wilkinson
1992 The Osteological Paradox: Problems of Inferring Prehistoric Health from Skeletal Samples. *Current Anthropology* 33(4): 343–370.

World Health Organization
2019 World Health Statistics 2019: Monitoring Health for the SDGS, Sustainable Development Goals. *World Health Organization*. https://www.who.int/publications-detail-redirect/9789241565707

2023a Smallpox. *World Health Organization*. https://www.who.int/health-topics/smallpox#tab=tab_1

2023b Refugee and Migrant Health. *World Health Organization*. https://www.who.int/health-topics/refugee-and-migrant-health#tab=tab_1

2023c Cholera. *World Health Organization*. https://www.who.int/news-room/fact-sheets/detail/cholera

Zahn, Karl, and Ernst Otto Bräunche
2023 Gräber, Grüfte, Trauerstätten: Der Karlsruher Hauptfriedhof. *Der Hauptfriedhof - Friedhöfe Karlsruhe*. Verlag Regionalkultur, Karlsruhe, Germany.

Zambernardi, Lorenzo
2017 Excavating Soldier Deaths: A Study of Changing Burial Practices. *International Political Sociology* 11(3): 292–307.

Zarulli, Virginia, Julia A. Barthold Jones, Anna Oksuzyan, Rune Lindahl-Jacobsen, Kaare Christensen, and James W. Vaupel
2018 Women Live Longer than Men Even during Severe Famines and Epidemics. *Proceedings of the National Academy of Sciences* 115(4): 1-9.