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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)

Prepared by Patricia B. Richards

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University of Wisconsin-Milwaukee Cultural Resource Management

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Archaeological Research Laboratory Report of Investigations No. 381

Cover Image:
Overview of excavations in the western project area;view to east.

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Prepared by
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Report Prepared For:

Froedtert Hospital
ATTN: John Balzer, Vice President Planning and Development

Wisconsin Historical Society Compliance
12-0916/MI

Volume I

University of Wisconsin-Milwaukee
Cultural Resources Management Program
University of Wisconsin-Milwaukee
Archaeological Research Laboratory Report of Investigations No. 381
UWM-CRM Project 2013-001
Milwaukee, Wisconsin
August 2016

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MANAGEMENT SUMMARY

The Milwaukee County Poor Farm Cemetery – Froedtert tract (MI-0527, BMI-0076), is located in the NEl/4, SEl/4, SW1/4, NWl/4 of Section 28, T7N, R21E, in the City of Wauwatosa, Milwaukee County, Wisconsin. Froedtert Hospital received permission to disturb the Paupers Cemetery – Froedtert tract on May 21, 2013, and a contract between University of Wisconsin-Milwaukee Historic Resource Management Services (UWM HRMS), the Wisconsin Historical Society (WHS) and Froedtert Hospital was executed on May 31, 2013. Fieldwork commenced the week of June 10, 2013, and was completed September 6, 2013. The archaeological excavation of burials was conducted in specific impact localities associated with the construction of the Froedtert Hospital Center for Advanced Care (CFAC) project and related infrastructure such as utility corridors, roads and crane tower locations. Approximately 0.48 acres (0.19 hectares) were machine stripped to facilitate burial removal, including 0.02 acres (.008 hectares) of previously excavated area that was part of excavations conducted by Great Lakes Archaeological Research Center (GLARC) in 1991 and 1992. The 2013 excavations resulted in the recovery of 632 coffin locations and a single lot assigned to a bone dump from graves previously disturbed.

Osteological analysis, material culture analysis, and spatial analysis of materials removed from the cemetery began in September of 2013 and was completed in March of 2015. Report preparation began in December of 2014 and was completed in September of 2015. The total number of individuals recovered includes 550 individuals exclusive to a coffin (294 adults and 256 juveniles), and 100 individuals recovered from mixed burials that are age exclusive (either adult or juvenile) (81 adults and 19 juveniles). Finally, seven adult sized coffins contained the remains of both adults and juveniles (6 adults and 9 juveniles). In total, coffin burial locations produced a minimum of 665 individuals including 381 adults and 284 juveniles. An additional 50 commingled lots represent an MNI of 166 that brings the total of potential individuals represented to 831.

A surprising quantity and diversity of material culture was recovered as a result of the 2013 excavations. Of the 264 mapped juvenile coffin locations, more than twice as many locations had material culture represented (n=177) as locations that did not (n=87). Of the 368 adult coffin locations, a roughly equal number of locations contained material culture (n=185) as did not (n=183). A total of 3,441 associated clothing artifacts were produced by 274 (43%, n=632) burial locations. A total of 198 whole or fragmentary personal items were recovered from 80 (13%, n=632) burial locations.

Calculations for grave density describe a density of 0.03 adult-sized graves/sq. ft. (i.e. three graves in every 100 square feet) and a density of 0.07 juvenile/infant graves/sq. ft. (i.e. seven graves per each 100 square feet). Extending the pattern of adult and juvenile/infant burials observed in the southeast corner of the former GLARC excavations to the western boundaries of the site limits determined by the 2013 excavations, it is estimated that roughly 209 adult-sized graves and roughly 671 juvenile/infant-sized graves remain intact under and along the southern edge of Doyne Avenue.

It is recommended that great care should be taken to monitor infrastructure development that might impact these burials. Utility lines (electric, water, telephone and fiber optic) are located in and near the boundaries of the Froedtert tract cemetery (MI-0527, BMI-0076). Any work related to these utilities should be carefully monitored to avoid disturbing any more burials. Finally, any improvements to Doyne Ave undertaken by Milwaukee County should be carefully considered with the presence of these burials in mind.

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COMMONLY USED ACRONYMS

CFAC	Center for Advanced Care
COD	cause of death
DHA	Wisconsin Division of Hearings and Appeals
MJ	Milwaukee Journal
MS	Milwaukee Sentinal
GLARC	Great Lakes Archaeological Research Center
MCHS	Milwaukee County Historic Society
MCPFC	Milwaukee County Poor Farm Cemetery
MMC	Milwaukee Medical College
MNI	minimum number of individuals
UWM ARL	University of Wisconsin Milwaukee Archaeological Research Laboratory
UWM CRM	University of Wisconsin Milwaukee Cultural Resource Management
UWM HRMS	University of Wisconsin Milwaukee Historic Resource Management Services
TDS	Total Data Station
WAS	Wisconsin Archaeological Survey
WCPS	Wisconsin College of Physicians and Surgeons
WHS	Wisconsin Historical Society

Disclaimer/Warranty Statement

This archaeological study was completed for Froedtert Hospital of Wisconsin. The work was required under specifications of Wis.Stats 157.70. All fieldwork and laboratory analysis was conducted under the direction of qualified archaeologists and qualified skeletal analysts as defined in Wis.Stat 157.70 and Wis. Admin.Code 2.02 (12) and 20.04 (6)(b). Additionally all work was conducted in compliance with the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation as amended and annotated, Guide for Public Archaeology in Wisconsin, as revised in 2012, and Chapters 44.40 and 157.70 of the Wisconsin Statutes.

Acknowledgments

During the course of material culture analysis, nine rings were identified among the material culture recovered from the 2013 excavations of the Milwaukee County Poor Farm Cemetery, bringing to mind this quote and suggesting the title of this report.

Three Rings for the Elven-kings under the sky,

Seven for the Dwarf-lords in their halls of stone,

Nine for Mortal Men doomed to die,

One for the Dark Lord on his dark throne

In the Land of Mordor where the Shadows lie.

J.R.R. Tolkien, The Lord of the Rings, Epigraph

By virtue of its size there are many people who are due thanks for the smooth running of the Milwaukee County Poor Farm Cemetery Excavation Project.

From Froedtert Hospital:

First and foremost, John Balzer has my heartfelt thanks. His support of UWM and of this project was invaluable. John's frequent visits to the site and his ever present enthusiasm for WHATEVER we happened to be finding were invariably the bright spot in our day. Thanks also to Kathy Sieja, Froedtert Hospital Public Relations Director, who allowed us to do our work without having to worry about the press, and to Cathy Buck, President of Froedtert Hospital, who took time to visit the project.

From M.A. Mortenson:

Thanks go to Michael Gleeson for working through the clash of culture that occurs when the social scientist and engineer attempt to communicate. Thank you to Brian and Bobby, for their day-to-day support of the project, their senses of humor, and their endless patience in the face of our whining about everything. They built ladders on the spot, raised and lowered the sides of the tent, maneuvered huge fans around and provided overall logistical support. Finally, Brian Marble deserves thanks for his masterful management skills, his calm reaction to almost anything, including being sworn at by me, and his admirable social skills.

I'd also like to thank Tom Bromley of New Berlin Grading. Tom is the most skilled backhoe operator I have had the pleasure to work with. I also very much enjoyed his conversation while we worked and the interest he showed in the project.

From UWM:

Jennifer Kuhr, formerly of the UWM Office of Sponsored Research, deserves thanks for her tireless and professional work negotiating multiple contracts. Thanks also for the support of the UWM College of Letters and Science and the UWM Department of Anthropology.

The 2013-2015 field and laboratory crew and supervisors listed below represent some of the finest professionals I have had the opportunity to work with. Each person contributed in a significant and invaluable way to the project.

I need to thank particularly Dr. Katie Zejdlik for her invaluable direction and expertise in dealing with the complexities of multiple burials. The organizational skills of Eric Burant, Catherine Jones and Emily Epstein provided order in the lab and made analysis a joy. Thanks also to the late night crew of Catherine Jones, Jess Skinner, Alexis Jordan and Shannon Freire who demonstrated Dr. Zejdlik's rule that a bad day is two or more meals a day consumed in the lab. Finally, I owe a debt to Tom Zych for yes, field supervision, database building, and map making, but most importantly for keeping me sane, inhabiting my nightmares, and being one of the best human beings I know.

This report is dedicated to the Richards children, Nick, Willa and Emma. They were with me at the beginning and again at the end. I am the most fortunate of all parents to have my children see, participate in, and understand my passion. And they should know that while I am proud of this work, I am humbled by the human beings they have become. Oh, and sorry for the dinnertime conversation.

Milwaukee County Poor Farm Cemetery 2 Excavations - 1992

Milwaukee County Poor Farm Cemetery 2 Excavations - 2013

Field supervisors	Field Crew		Photographer
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	Ed Broughton	Jim McEachran	
	Brianne Charles	Maria McEachran	
	Shaheen Christie	Rachel McTavish	
	Rachel Davies	Robert Meyer	
	Jeremy Doyle	Sonja K. Peterson	
	Brooke Drew	Jennifer Picard	
	William J. Eichmann	Victor Ponte	
	Ethan Epstein	Nicholas Richards	
	Ned Farley	Willa Richards	
	Shannon Freire	Marcus Schulenburg	
	Adrienne Frie	Katharine Schwantes	
	Kevin Garstki	Kari Shoufer	
	Kim Harrison	Zac Stencil	
	Katelyn Ingersoll	Kat Sterner-Miller	
	Ed Jakaitis	David Strange	
	Jim Johnson	Lisa Zimmerman	
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Laboratory Supervisors	Laboratory Crew	Osteology Crew	Report Preparation
Eric Burant	Kevin Akemann	Brianne Charles	Kevin Akemann
Emily Epstein	Alex Anthony	Shannon Freire	Eric Burant
Catherine Jones	Katy Bindley	Adrienne Frie	Brooke Drew
	Rachel Davies	Chris Hamlin	Emily Epstein
	Shannon Freire	Alexis Jordan	Catherine Jones
	Adrienne Frie	Jessica Skinner	Jessica Skinner
	Kalin Garvens	David Strange	Jennifer Picard
	Chris Hamlin		Nicholas Richards
	Kim Harrison		Willa Richards
	John Herne		Thomas Zych
	Alexis Jordan		
	Angela Kappen		
	Jennifer Picard		
	Marcus Schulenburg		
	Kat Sterner-Miller		
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CHAPTER 1. INTRODUCTION

by Patricia B. Richards

Introduction

A young German immigrant walked from her home in Wauwatosa to the Milwaukee County Home for Dependent Children in the afternoon of February 9, 1900, to ask for either coffee or food. While at the Home for Dependent Children the woman's five-year-old son ran the reportedly short distance from their house (200 feet) to find his mother and report a fire. Killed in the fire was the little boy's sister, aged 7.

A front page story printed in the Milwaukee Journal on February 10, 1900, reports:

> Cause of the Fatal Burn
>
> Little Louisa Sackersdoffer, who was burned to death yesterday afternoon while at play with her little brother in their home opposite the home for dependent children ignited her clothing by dropping a match upon it while attempting to smoke her father's pipe [Milwaukee Journal [MJ] 10 February 1900:1].

Page 30 of the *Register of Burial at Milwaukee County Poor Farm* lists Theresa Zarkersdorf as buried in grave U. 57. For date of burial, only the month, February, and the year, 1900, are listed for Theresa, whose age is recorded in the Register as 6 years. Further, the section for health certificate number and date is left blank although in this portion of the burial register the "Date of Certificate of Health Department" is listed for all other individuals.

The officially filed records for the young Zarkersdorf/Sackersdoffer child include a Milwaukee County Death Certificate and a Milwaukee County Coroner's Inquest. These two documents both list the deceased as Elizabeth Sarkersdorff, daughter of Ludwig Sarkersdorff and Bertha Bartz, both born in Germany. The Milwaukee County Death Certificate of Elizabeth Sarkersdorff lists her date of birth as August 26, 1892, place of birth as Wauwatosa, Wisconsin, date of death as February 9, 1900, and cause of death as "accidental by being burned." The coroner listed on the death certificate is Jacob P. Van Lare, the certificate is dated February 19, 1900, the place of burial is recorded as "Poor Farm," the date of burial as February 19, 1900, and Chas Kieckhefer is listed as the undertaker of record.

On February 10, 1900, a coroner's inquest was held for Elizabeth (Theresa/Louisa) Sarkersdorff (Zarkersdorf/Sackersdoffer). Official Circumstances of Death of Case no. 37 concludes, "On examination of the body of ELIZABETH SARKERSDORFF and testimony taken I find that the said ELIZABETH SARKERSDORFF came to her death on the 9th of February 1900, by being accidentally burned" (Coroner's Inquests, Milwaukee County Historical Society [MCHS] Box 103). The testimony in the coroner's inquest reports that the:

> Mother gave testimony, said she was married to the girl's father, but didn't know how old she was. She said she went to the Home for Dependent Children, which was 200 feet from her house, to get coffee and her younger son (five years old) came over and said there was a fire. He said his sister had been playing with paper and the fire, trying to entertain him by lighting a pipe like their father and her clothes caught and she was burned to death. The janitor from the home, who tried to help put out the fire, said the mother was at the Home trying to get food for the children because they were poor [Coroner's Inquests, MCHS Box 103].

Elizabeth Sarkersdorff's records help humanize one individual buried in the Milwaukee County Poor Farm Cemetery. She was the child of immigrants who were without resources to bury their child "properly" and indeed, to live adequately. Elizabeth's biological mother may have died, as Bertha Bartz could not remember how old her daughter was, and Bartz made the point of telling the coroner that she was married to the girl's father, Ludwig Sarkersdorff. Bertha Bartz was also proud enough to report that she was visiting the Home for Dependent Children to get some coffee while a janitor claimed she was at the Home to get food for the children because the family was poor.

The story typifies the difficulty of historical document research. Reported names, ages and circumstances of death differ depending on whether the *Register of*

Burial at Milwaukee County Poor Farm, a contemporary newspaper report, the death certificate, or the Coroner's Inquest is consulted. Curiously, while Bertha Bartz does not remember Elizabeth's birthday, there is a specific birthday listed on the death certificate (8/26/1892, resulting in an age at death of 7 years, 5 months and 13 days). However, since she was born in Wauwatosa, it may be the case that when the death certificate was completed, the birth certificate was consulted in order to list a birthday and age at death. The different versions of Elizabeth's name remain a mystery.

On June 3, 1909, nineteen year old John M. Moran, released two days earlier from the Wisconsin State Reformatory in Green Bay, was walking along the Chicago Milwaukee and St. Paul Railway Company's right of way within the City of Milwaukee when he was hit and killed by a northbound freight train. Sixteen days later, on June 19, 1909, young Mr. Moran was buried in Grave J59 in the Milwaukee County Poor Farm Cemetery in Wauwatosa. The story of the events that transpired from the time of Mr. Moran's death until his burial is typical of the 150 individuals who died of railroad related accidents and were buried in the same cemetery as Mr. Moran. The story may even reflect the circumstances of many of the 7,222 individuals who were buried along side Mr. Moran in this Milwaukee County Poor Farm Cemetery. On the day of his death, John's body was taken to the Milwaukee County Coroner's Office, perhaps by law enforcement agents or perhaps transported by Undertaker Frederick Bark who was ultimately responsible for John's burial on the County Grounds. On the person of John M. Moran at the time of his death were, among other things, a letter in Moran's pocket addressed to the deceased, a pair of glasses in a case that bore the name of a doctor, and a pair of socks stamped with the number "1354". Apparently recognizing the stamp, Frank Luehring, Coroner for Milwaukee County, wrote to the Wisconsin State Reformatory on June 3, 1909, to inquire about the body. On June 5, 1909, Coroner Luehring also wrote to John Moran's father and brother, presumably to addresses from the letter found in John Moran's pocket. The Wisconsin State Reformatory replied to Coroner Luehring's inquiry on June 7:

> Replying to yours of June 3 regarding the body of a young man found on the tracks of the CM & St P Ry in whose pocket was a letter directed to John M. Moran, Green Bay and with socks marked with the number 1354, and requiring whether he had been an inmate of this institution, I beg leave to reply that John M Moran, No 1354 was an inmate of this institution and was discharged on June 1, which was last Tuesday. I enclose his picture to further his identity. He was between 18 and 19 years of age, and his father is John Moran residing at Plain View, Yell County, Arkansas. He has a brother Louis Moran who lives in Polk City, Iowa; he has a sister Mrs. Albert Yates at Onyx, Arkansas. He was sentenced here July 1, 1908 from Grant County for a term of one year, for burglary [Coroner's Inquests, MCHS, Box 259].

The official inquest conducted on June 7, 1909, concluded:

> That the said John M. Moran came to his death on the 3rd day of June, 1909, in the City and County of Milwaukee, Wisconsin, by being accidentally struck by a north bound freight train of the Chicago, Milwaukee and St. Paul Railway Company while on said company's right of way. From the evidence in this case I have been unable to determine what caused him to be in that neighborhood, excepting that he was evidently trying to steal a ride [Coroner's Inquests, MCHS, Box 259].

The Coroner's report notes that the body was mangled but the face was intact enough to allow a positive identification based on the photo provided by the Wisconsin State Reformatory (Figure 1.1). Following the inquest, the Coroner's office received replies from John Moran's father and brother.

Figure 1.1 John M. Moran

Initially his father sent a telegraph: "bury remains my son in Milwaukee." John Moran's brother's response expressed shock at the death of this brother, as another Moran brother had died in April of 1909. Louis Moran also wanted to come to Milwaukee to make arrangements for his brother John but his employer was out of town and Louis could not get away. Louis Moran asked the coroner to "bury his brother right" and to please inform him as to the cost of the burial so he could provide money:

On June 12, the senior John Moran wrote a letter to Coroner Luehring asking about the details of his son's death and inquiring if anything could be arranged regarding proper burial. Coroner Luehring replied to the senior John Moran on June 15:

> In reply to your letter of the 12th inst., asking for information as to how your son, John M Moran, came to his death, will say that he was run over by a freight train of the CM & St, P Ry on the morning of June 3r last, while evidently trying to steal a ride.
>
> We are in receipt of advice from the Wisconsin State Reformatory. Green Bay, that he had served out the time of one year June 1st for burglary in which he committed in Grant County, and it is very evident that he was trying to steal a ride out of Milwaukee to Chicago and was killed in that way. He was not in the employ of the C M and St P Ry Co.
>
> An inquest was held over his body on June 7th, and if you desire a copy of the testimony taken, which shows how he came to his death, I will be pleased to mail you a copy for the price of 10 cents a folio. This would enable you to tell whether it showed carelessness on anybody's part or not.
>
> As advised you by before, his body was buried at Potter's Field, Wauwatosa, Wis at the expense of Milwaukee County [Coroner's Inquests, MCHS, Box 259].

While not strictly true as of June 15, the date of this letter, John M. Moran's body was eventually buried in the Milwaukee County Poor Farm Cemetery on June 19, 1909, under the supervision of undertaker Frederick Bark.

Both John M. Moran and Elizabeth Sarkersdorff were buried in the Milwaukee County Poor Farm Cemetery (MO-0527, BMI-0076, Paupers Cemetery Froedtert Tract). Like most of the individuals buried in the cemetery, the specific burial locations, while numbered in the burial register, remain unknown. Also unknown is whether the burials of John and Elizabeth were disturbed in one of the episodes of disturbance that occurred within the boundaries of this cemetery; whether they remained intact and were removed as a result of archaeological projects that took place in 1991, 1992, or 2013, or whether they remain in place under present day Doyne Avenue along with as many as 800 other individuals. Nonetheless, the narrative created by the historical documentation relating to John and Elizabeth serves to humanize the individuals buried in the Milwaukee County Poor Farm Cemetery (MCPFC).

It was with the narrative of John and Elizabeth and the "unknowns" and all of the individuals buried in the Milwaukee County Poor Farm Cemetery firmly in mind that we as archaeologists and osteologists proceeded with our work. It is these stories that guided us, kept us humble, kept us scrupulous, and kept us rigorous. This report details the results of the 2013 excavation and subsequent analysis of a portion of the Milwaukee County Poor Farm Cemetery. It sincerely hoped that this report also serves to preserve and honor the lives of the individuals who were buried in the Cemetery.

Project Area

Paupers Cemetery – Froedtert tract (MI-0527, BMI-0076) includes approximately 0.8 acres and is the last remaining portion of an irregularly shaped plot originally covering approximately 3.48 acres. The cemetery was developed to replace the original County Cemetery (Cemetery 1 MI-0528, BMI-0173, Milwaukee County Grounds - Windsor Tract) that had become unusable. Cemetery 2 (MI-0527, BMI-0076, Milwaukee County Grounds, Froedtert tract) opened in 1882 and closed in 1925. Based on excavated burial density and Milwaukee County Death Certificates, Cemetery 2, if completely utilized when abandoned, may have held 7,222 burials, 5,363 of which are listed in the Register of Burial at Milwaukee County Poor Farm Cemetery. In order to accommodate a continuing need for County sponsored burial services, a new location, Cemetery 3 (MI-0530, BMI-0075, - Milwaukee County Grounds - Potters Field) was established about three-fourths of a mile northeast of Cemetery 2. This cemetery operated

from 1925 until 1974 and is today enclosed by fencing and identified by signage. A fourth cemetery sometimes referred to as the Asylum Cemetery (MI-0529) is located near Cemetery 3. Dates are undocumented but may span 1884 - 1914. Figure 1.2 provides a general project location. Table 1.1 lists the Milwaukee County Cemeteries. In 1928, Milwaukee County began construction of a Nurse's Residence directly east of Cemetery 2 (MI-0527, BMI-0076). To accommodate this construction, burials in Cemetery 2 were to be exhumed and re-buried in Cemetery 3. Contemporary accounts suggest the burials that were moved were those very few whose relatives visited regularly. However, while some of the Cemetery 2 graves do appear to have been moved at that time, the bulk of the burials were left in place. Grave markers were removed, and varying amounts of fill placed over the cemetery area. The fence delimiting the cemetery area was dismantled and the cemetery was no longer marked as a burial site. During the ensuing decades, a variety of developments including building construction, installation of steam tunnels and utility conduits, and road building severely disturbed the remaining Cemetery 2 grave sites. Finally, in 1991, pursuant to demolition of the Nurse's Residence and construction of a trauma center and associated parking structure, all but 1.6 acres of Cemetery 2 was completely obliterated. However, operating under the Wisconsin Burial Site Preservation statute enacted four years prior in 1987 (WisStats 57.70), archaeologists were able to excavate 1649 individuals in the cemetery area affected by the construction. The archaeological project extended from 1991 to 1992 and a report of the archaeological project

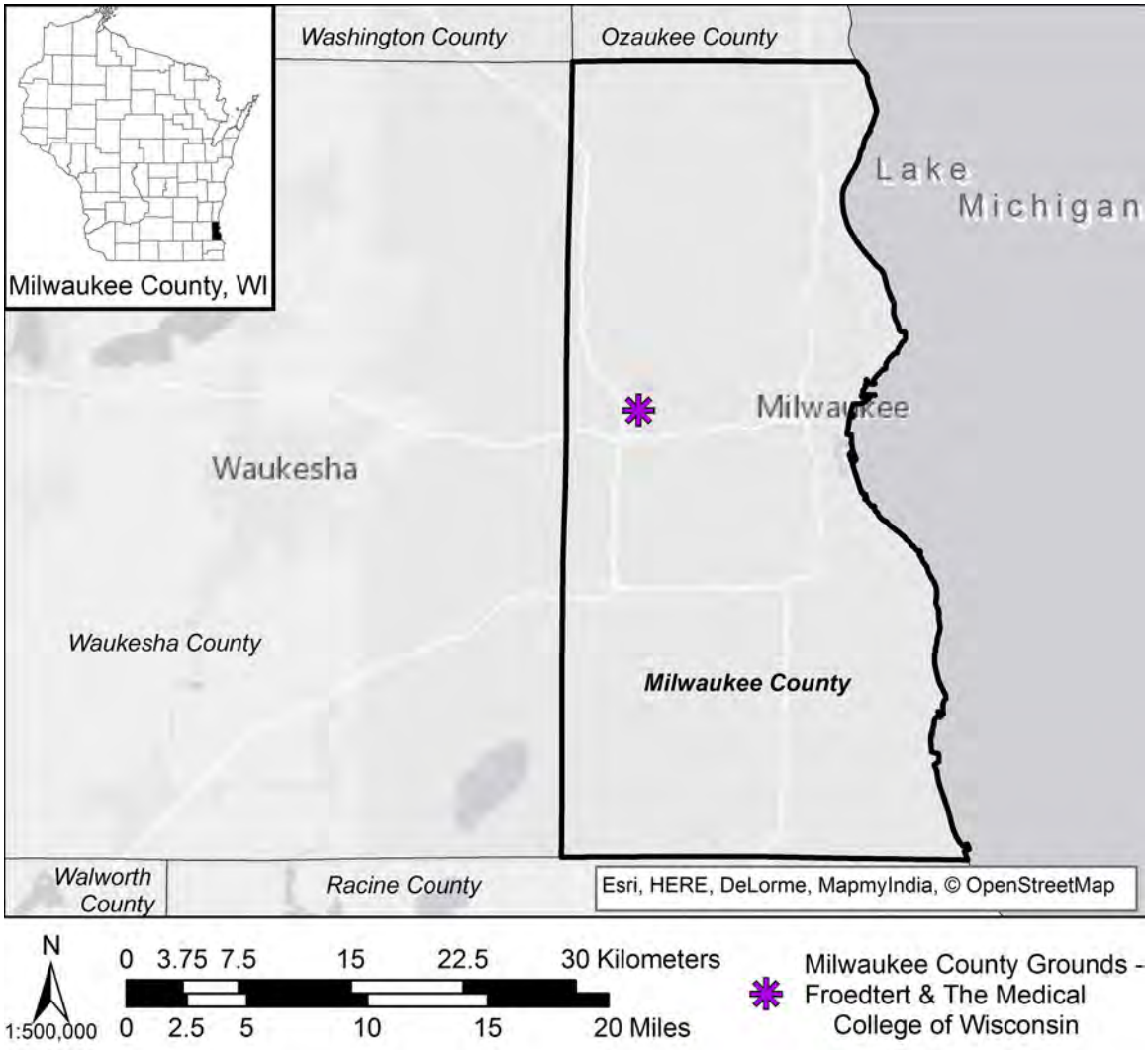

Figure 1.2 Project Location of MCIG and Froedtert Hospital Within Milwaukee County

Table 1.1. Burial Sites within One Mile of the Milwaukee County Institution Grounds Cemetery

Site Number	Burial Site Number	Site Name	Site Type	Cultural Affiliation	Bibliography
MI-0527	BMI-0076	Milwaukee County Grounds - Froedtert Tract	Cemetery/ burial	Historic Euro-American (1882 - 1925)	Richards, Patricia B. and. M. Kastell 1993 Archaeological Excavations at the Almshouse Burial Ground Milwaukee County Poorhouse, Wauwatosa, Wisconsin. Great Lakes Archaeological Research Center, Inc. Reports of Investigations No. 333. Richards, Patricia B. 1997 Unknown Man No. 198: The Archaeology of the Milwaukee County Poor Farm Cemetery. Doctoral dissertation, Department of Anthropology, The University of Wisconsin, Milwaukee, Wisconsin
MI-0528	BMI-0173	Milwaukee County Grounds - Windsor Tract	Cemetery/ burial	Historic Euro-American (1870s-1882)	Overstreet, David and Keith Sverdrup, 1993, Archaeological and Remote Sensing Investigations at Windsor Court and West Wisconsin Avenue, Milwaukee County Medical Complex, Milwaukee County, Wisconsin, GLARC ROI #312: Milwaukee, WI. Overstreet, David, n.d., Phase I Investigation of Five Proposed Alternative Dropshaft Locations. Haas, Jennifer, 2014, Letter to Chip Brown re: Disturbance to MI-0528, WHS October 30, 2014, on file WHS-ASI Site Files.
MI-0529	BMI-0174	Milwaukee County Grounds - Cemetery Two	Cemetery/ burial	Historic Euro-American (1870s-1900s)	Richards, Patricia and John D. Richards, 2001, Archaeological Investigations of Milwaukee Metropolitan Sewerage District Development Areas, Milwaukee County Grounds, Wauwatosa, Wisconsin, University of Wisconsin-Milwaukee ROI#146: Milwaukee, WI.
MI-0530	BMI-0175	Milwaukee County Grounds - Potters Field	Cemetery/ burial	Historic Euro-American (1925-1974)	Richards, Patricia B., 2001, Archaeological Investigation of Milwaukee Metropolitan Sewerage District Potential Development Areas, Milwaukee County Grounds, Wauwatosa, Wisconsin, UWM-ARL ROI #146: Milwaukee, Wi. Mikos, Susan Gibson, 1996, An Historical Investigation for Storm Water West Detention Basin #1 at 87th and Watertown Plank Road, Wauwatosa, Wisconsin, BZE 196245: West Allis, WI

was completed in 1993 (Richards and Kastell 1993). At that time, archaeological testing adjacent to the presumed boundaries of the cemetery in conjunction with remote sensing positively identified the limits of interments and this limit was used to codify the

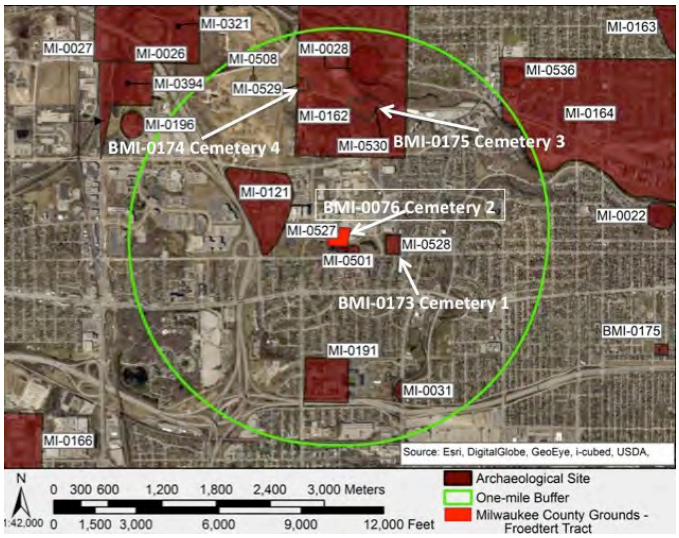

Figure 1.3 Site numbers and locations for Cemeteries 1 through 4 in relation to other archaeological sites.

remaining burials as a catalogued burial site under Wis. Stats. 157.70, encompassing an area of 69,975.48 sq. ft., or 1.610 acres. Figure 1.3 illustrates the WHS site numbers and locations for Cemeteries 1 through 4 in relation to other archaeological sites.

Project History

As a result of the 1991 and 1992 excavations, Froedtert Hospital learned that the property they leased from Milwaukee County beginning in 1976 contained a burial site. Consequently, Froedtert Hospital's planners carefully avoided locating any new facilities in that area until 2012. At that time, the choice of the Cemetery 2 location as the preferred development site for a new Center for Advanced Care (CFAC) was based on the following needs and constraints:

1. Physical connection and logistical coordination with existing facilities

2. Maintenance of required level of ambulatory care services

3. Maintenance of an unobstructed flight path for the Flight for Life helicopter that limits the height of campus buildings

4. The lack of existing structures capable of supporting added stories that similarly limits building heights

5. The lack of suitable existing open space elsewhere on the campus capable of supporting a building of the required size and configuration

On September 7, 2012, Froedtert submitted an application for a request to disturb the portion of the Milwaukee Country Grounds - Froedtert Tract located within the boundaries of the land that Froedtert leased from Milwaukee County.

On October 23, 2012, the director of the WHS officially notified the persons listed in the Registry of Interested Persons as having an interest in the Milwaukee County Medical Complex Paupers Cemetery or having an interest in that class of catalogued burial site about Froedtert's application to disturb the site, letting them know they had the right to request a hearing.

On November 21, 2012, the president of the Wisconsin Archaeological Survey (WAS, the organization of Wisconsin's professional archaeologists) requested a hearing on behalf of the organization. WAS requested the hearing based on legislation that provides special consideration to publicly owned burial sites by prohibiting municipalities from transferring burial sites to private entities without approval of the WHS. WAS was concerned that the burial site had been transferred to Froedtert as part of the 1995 lease agreement between Milwaukee County and Froedtert Hospital without permission of the WHS.

On January 8, 2013, the director of WAS sent a contested case referral – essentially providing an Order for Hearing.

On February 15, 2013, interested parties and other interested persons appeared at the Class I Contested Case. This Administrative Hearing was held at the State of Wisconsin Building in Milwaukee. On April 18, 2013, Rachel L. Ping on behalf of the State of Wisconsin Division of Hearings and Appeals (DHA) issued a decision, which concluded that the benefits to permit applicant Froedtert in disturbing the catalogued burial site outweighed the benefits to all other persons shown to have an interest in not disturbing the burial site. Consequently, the DHA

ordered that Froedtert Hospital's request for a permit to disturb the burial site be granted.

As per administrative rules implementing s. 227.11 (2) (a) Wis. Stats., and interpreting s. 157.70 Wis. Stats., Froedtert Hospital received permission from the Wisconsin Historical Society (WHS) to disturb Paupers Cemetery – Froedtert tract (MI-0527, BMI-0076) on May 21, 2013, and a burial contract between UWM HRMS, Froedtert Hospital, and WHS was executed on May 31, 2013 (see Appendix D). A small crew of supervisors was on site the week of June 3 to oversee the erection of a large tent to cover the excavation area. Full-scale fieldwork commenced the week of June 10, 2013, and was completed September 6, 2013. The excavated portion of the cemetery is located in the NEl/4, SEl/4, SW1/4, NWl/4 of Section 28, T7N, R21E, in the City of Wauwatosa. Archaeological excavation of burials was conducted in specific impact localities associated with the construction of the Froedtert Hospital Center for Advanced Care (CFAC) project and related infrastructure such as utility corridors, roads and crane tower locations.

Report Organization

This report presents the findings of the 2013 excavations at MI-0527 (BMI-0076 Froedtert Tract) in a two-volume report. Volume One includes Chapters 1 through 7, References Cited, and Appendices A through F. Volume Two consists of Appendix G, individual detailed burial descriptions of lot numbers 10002 through 10499. Volume Three consists of Appendix G, individual detailed burial descriptions of lot numbers 10500-11054.

A little under 0.5 acres of land was stripped to facilitate the removal of 632 individual burial locations containing the remains of a minimum of 665 individuals including 381 adults and 284 juveniles. An additional 50 commingled lots represent an MNI of 166, which brings the total of potential individuals represented to 831. Material culture includes 7084 whole and fragmented artifacts recovered from 362 of the 632 mapped coffin locations.

Chapter 2 of this report provides the historical context of the developing Milwaukee County Institutions intended to deal with Milwaukee County's sick and poor. A brief history of the Milwaukee County Institutions in Wauwatosa is found in Chapter 2 along with census data for the years Cemetery 2 was in operation. Finally, a summary of archival research based on the Register of Burial at Milwaukee County Poor Farm Cemetery, Milwaukee County Death Certificates and Milwaukee County Coroner's Inquests is presented in Chapter 2.

Chapter 3 contains the archaeological and osteological field and laboratory methods employed during the course of this project. Chapter 4 provides the temporal and spatial analysis associated with the archaeology. Chapter 4 includes a discussion of mortuary behavior, land use history, cemetery organization and an estimate of remaining intact burials located under Doyne Avenue. Chapter 5 provides a description and analysis of material culture recovered from the 2013 excavations at the Milwaukee County Poor Farm Cemetery. Material culture is presented in the following sections: items considered grave goods including clothing or personal items; items of material culture categorized as medical or hospital such as autopsy tools, research items, and medical waste; material culture that may have been placed in a coffin inadvertently as a result of behavior of the undertaker or other individual responsible for conducting the burial, and coffin and coffin hardware. Chapter 6 presents the osteological analysis including the results of basic age and sex determination as well as presentation and discussion of pathology and trauma and postmortem investigation. Chapter 7 summarizes the results of this study and provides recommendations. Appendix A is the Lot Book. Appendix B provides examples of excavation and analysis forms. Appendix C provides copies of permits related to the project. Appendix D consists of the burial contract between UWM HRMS, Froedtert Hospital, and WHS. Appendix E is an updated site form for Cemetery 2 (MI-0527, BMI-0076). Appendix F is the WHS ARI form.

Appendix G (Volumes Two and Three) provides a detailed burial description for each lot number that includes context, material culture summary, osteology summary, a photograph, and a sketch.

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CHAPTER 2. HISTORICAL CONTEXT

by Patricia B. Richards, Nicholas W. Richards, and Brooke L. Drew

The Midwest

One of the most popular characterizations of Midwestern life at the turn of the twentieth century is Upton Sinclair's novel *The Jungle*. Published in 1906, the novel, known for its exposé of the meatpacking industry in Chicago, was more broadly a critique of twentieth century labor and business practices in the Midwest specifically and in the United States generally. The novel takes place during a time when significant numbers of poor European immigrants were changing the demographic of American cities. The Lithuanian immigrant family portrayed in The Jungle struggles to adapt to their new lives in the United States. Immigrants to the rapidly expanding industrial cities of the American Midwest lived in overcrowded, run-down tenement buildings with no access to clean water or proper sewage systems. Clearly socialist in his political views, Sinclair sought to tell the story of the exploitation of workers by millionaire businessmen. *The Jungle* became a best seller around the world and lead to the 1906 passage of the Food and Drug Act, but Sinclair's socialist agenda was overshadowed by shocking descriptions of the meat packing industry in Chicago. Just north of Chicago was another rapidly expanding industrial city – Milwaukee, Wisconsin. Like Chicago, immigrants went to Milwaukee for work, and provided a low-cost source of labor for Milwaukee industrialists. Milwaukee attempted to attract immigrants by comparing itself favorably to Chicago. According to historian John Gurda, Milwaukee, particularly when compared to its neighbor Chicago, was touted as both a healthy and worker-friendly city as well as a place where labor was reliable and cheap (Gurda 1999). That labor however was largely immigrant, unskilled and poor, creating a divide between the wealthy and the workers. Milwaukee's rapid expansion and industrial growth beginning in the mid nineteenth century was both positive and negative for the city. The disparity between the rich and the poor grew. "As the years passed, men like Frederick Pabst and Guido Pfister found they has less and less in common with the Adolfs and Ottos on their bottling lines and tannery floors" (Gurda 1999). In the 1880s, Milwaukee's industries included meat packing plants, iron mills, flour mills, tanneries and of course, breweries.

In addition to long hours and low pay, workers' conditions were hazardous. Everything from steam-driven machines with exposed drive shafts and open belts to thick clouds of grain dust, direct exposure to animal offal and regular exposure to temperatures near 160 degrees, workers were subject to unsafe conditions in all of Milwaukee's early industries. (Gurda 1999). During the 1880s in Milwaukee, labor unions attempted to organize around the issues of wages and an eight-hour work day but a series of protests turned deadly with the involvement the National Guard and state militias.

Twenty years after the first efforts to organize, Milwaukee voters actually did something unique in this country, likely a result of the labor movement begun in the 1880s. In 1906, Milwaukee elected a Socialist major, Emil Seidel, who served from 1910 to 1912. Seidel was followed by Socialists Daniel Hoan from 1916 to 1940 and Frank Zeidler from 1948 to 1960.

The idea of public enterprise was central to Milwaukee's Socialist public policy. Not content to manage the city and enforce laws and regulations, the Socialist policies pushed a program of public necessities that had a very real impact on quality of life: public parks, public libraries, public schools, public health, public works, public port facilities, public housing, public vocational education and even public natatoria (Gurda 1999). It is in this spirit of attention to public necessities that Milwaukee officials considered their responsibility to the poor and sick.

Milwaukee County

It is necessary to understand the history of the political organization of Milwaukee County in order to understand how Milwaukee County became responsible for the care of the poor. According to Gurda, Milwaukee County can be understood as seven rural towns located around the urban core of the City of Milwaukee. All of the towns and cities of Milwaukee County can be understood as places where people "live" while Milwaukee County can be defined on the basis of the services provided. Welfare, health and the courts are all county responsibilities defined by charter (Gurda 1999).

Milwaukee County was organized when Wisconsin was still part of the Michigan Territory. In September of 1834, the governor of the Michigan Territory officially defined the boundaries of Milwaukee County, effectively separating it from Brown County, and by August of 1835 Milwaukee County had appointed court officials, a clerk, a judge of probate and a sheriff, Benoni Finch, who also served as commissioner of roads, director of the poor and fence viewer (Milwaukee Writers' Project 1947). Milwaukee County was divided into two towns that represented political divisions not urban centers. At this time there were two prevailing models for governing political counties: the "Southern" system where authority was in the hands of county commissioners or judges who represented the county as a whole, and the "New York" system where authority was granted to elected officials from each town (Vogel 1987:93). Both of these systems were in use in the Wisconsin Territory. As population increased within Milwaukee County the tension between these two systems resulted in only vaguely defined authority for both the county board of supervisors and the village of Milwaukee government (Milwaukee Writers' Project 1947). Jurisdiction of the poor was particularly problematic. In the Wisconsin Territory under the town system, the poor of a given town or city were tended to by the officials of that polity; any 'pauper' who did not have a residence in a particular town was then the responsibility of the county government. By the time the city of Milwaukee was incorporated in 1846, each town of Milwaukee County and all of the wards of the City of Milwaukee were given County Board representation. When Wisconsin became a state in 1848, a system of formal governance of Milwaukee County was in place (Vogel 1987).

Aid to the Poor

Relief for the poor began prior to the formal organization of the Wisconsin Territory when the first two Superintendents of the Poor were appointed in Milwaukee in 1835. The Superintendents, one of whom was Solomon Juneau, were tasked with determining need and providing aid-in-kind. This system was known as outdoor relief, and was utilized to provide aid to those for whom traditional religious, private charity, or family help was not available. As the population began to increase, the first instance of "indoor relief" began with the purchase and operation of a First Ward property near North Point by the City of Milwaukee, established by 1842 (Avella 1987).

The new Wisconsin State Legislature in 1849 assigned responsibility for the poor to individual municipalities, but also permitted county boards, with a two-thirds vote of the members, to assume that responsibility. City of Milwaukee supervisors in particular argued for the county system that was adopted in 1849 (Avella 1987).

Until 1852, Milwaukee County cared exclusively for its poor with a system of "outdoor relief" (Avella 1987), in which needy people were provided with food, firewood and occasionally lodging. By 1852, the cost of outdoor relief increased dramatically after a deadly cholera epidemic swept the city of Milwaukee (Milwaukee Writers' Project 1947). As a cost saving alternative, the Milwaukee County Board discussed the possibility of a county institution or poorhouse where some of the needy could be provided with housing and food.

The concept of a poorhouse can be traced to Elizabethan England's Poor Law of 1601. This law recognized the government's responsibility for poor people and its legal requirements for the relief of the poor were incorporated into the charters and laws of various North American colonies (Tratner 1974). Furthermore, strong religious beliefs motivated individuals and municipalities to provide relief to the poor. The Puritans believed that the poor were provided to society in order to offer the opportunity to perform charitable acts (Tratner 1974). Conversely, the Puritans also believed that a lack of moral character was responsible for individual poverty. This dual and conflicting attitude toward the poor continued into the twentieth century and was characteristic of writings and policies dealing with the poor of Milwaukee. The National Conference of Charities and Correction report found poor relief "the practical expression of sympathy with the afflicted" and the "price that society pays for its own safety" to control the poor (1893).

Wisconsin legislation was quite specific regarding the method to be used for poor relief in the first laws drafted in 1849. According to Section 35 of the law for the "Relief and Support of the Poor", county supervisors were granted the authority to purchase a poor farm and poorhouse to which the poor of the county "may be removed" (Crafer 1910). The poorhouse was intended to provide a refuge for those truly in need as a result of sickness, age, or disability. At the same time, the poorhouse was also intended to discourage those capable of work from relying on public assistance. In Wisconsin, relief institutions

became increasingly important in the 1850s and 1860s as a result of severe economic recessions in 1857 and 1858. During the 1850s, most of the more populated counties of Wisconsin established poorhouses.

Milwaukee County Institutions

After discarding several other locations closer to Milwaukee, the Milwaukee County Board decided to purchase the 160-acre farm belonging to Hendrik Gregg, a member of the county board at the time. The farm was located in the northwest quarter of section 28 in township 7 north, range 21 east, approximately seven miles west of the City of Milwaukee in the Town of Wauwatosa. The property was purchased for $5,000 and included a large farmhouse, barns, and livestock, as well as crops in the field (Avella 1987; Milwaukee Daily Sentinel 1853).

In November 1852, the first twenty-four residents or inmates were living in the farmhouse and the "indoor relief" system began. According to a newspaper article dated May 28th, 1856, the number of people living at the so-called "Almshouse" had increased to 53 by 1856. In the same year the County added a school located in a small frame house next to the main building, and hired a teacher for the children living at the Almshouse (Milwaukee Writer's Project 1947). At this time, the poor, the sick, the orphans, and the insane shared the same living quarters (Milwaukee Sentinel: May 28, 1856).

A county hospital of 30 beds was constructed in 1860 for the contagiously ill paupers and a separate wing of the Almshouse was designated as an infirmary for the sick poor. Taxpayers' complaints regarding rising costs prompted an 1861 County Board ruling that all adult paupers shall labor and that minors shall be indentured.

In an 1866 article in the Milwaukee Sentinel, the Milwaukee County Board of Supervisors confronted the citizens of Milwaukee County with the problems of the residents of the County farm. The necessity of updating and enlarging the facilities, especially the insane department, was emphasized, and plans were made to enlarge and repair the house (May 16, 1866).

It was not, however, until 1868 that the construction of a new hospital building began. The brick building was 41 feet by 34 feet with a wing on each side 26 feet by 52 feet. It contained a kitchen in the basement, a dining room, and a room for washing and ironing. The new building was situated on a hill close to the existing Poorhouse. This hospital brought the first separation of the sick poor from the rest of the Almshouse inmates (Drew 1924).

In the first year, 184 people were admitted for treatment. Most mid-nineteenth century Americans received medical treatment in their homes, including midwife-assisted birth. The County hospital, therefore, was only a refuge for charity cases. Dr. F. H. Day, a Wauwatosa physician, visited the hospital 158 times during the year 1868. He reported asthma, consumption, rheumatism, bowel complaints, fevers, frostbite, and a large number of miscellaneous diseases.

Eighteen infants were born that year in the "lying-in" department. The stigma of unwed or abandoned motherhood was compounded for those women forced to give birth in the county hospital. Twenty-five deaths were reported due to diseases such as "softening of the brain, still born, chronic dysentery, cancer of bowels, soldier's diarrhea, small pox, and old age". Surgeries performed in 1868 included amputation of feet, toes and fingers, opening abscesses and extracting teeth. Dr. Day wrote that the duty of any attending physician at the County hospital was, "to exercise the same care, vigilance and treatment, and to apply the same medical remedies to relieve suffering humanity among the poor of the county as he would employ in his own private practice" (Day letter to Milwaukee County Board of Supervisors 1868 on file in the Local History Room of the Milwaukee Public Library).

Despite the effort of Dr. Day, the conditions of all the institutions at the County farm remained less than satisfactory. Soon after the hospital was built it was faced with overcrowding and hygiene problems. In the following years, Dr. Day repeatedly informed county officials of the necessity of additions and renovations for institution buildings (Drew 1924).

After one of their periodic visits, the County committee reported on March 18th, 1868, that the insane department was adequate with the exception of heating. The hospital was considered to be "clean enough" but lacking in any heating system for individual cells. Although the critical conditions of the insane department were repeatedly expressed, no improvements were made. The Superintendent of the Poor reported on September 14, 1875, that the actual accommodations in the insane department served thirty-eight while forty-three inmates occupied the premises.

The year 1876 marked a significant change. Dr. Day was elected superintendent of the county hospital on December 19th. For the first time, the administration of the hospital was put into the hands of a physician. Consistent with his earlier involvement, Dr. Day's goal, as superintendent, was to contribute to the humane treatment of the sick and the poor. Day's efforts eventually would bring many needed reforms to the county institutions (Drew 1924).

In 1880, eleven years after initial occupancy, a fire in which two inmates were killed destroyed the existing hospital. The county board authorized the construction of separate institutions for the care of the sick and the insane. The hospital was immediately rebuilt and additions were added. The care of patients changed significantly in 1887 when the new hospital superintendent, Dr. M. E. Connell and his wife Dr. Anna Gregory Connell established a class for the "instruction and training of nurses for service." The care of the sick was performed under clean, orderly, and antiseptic conditions (Drew 1924). Figure 2.1 illustrates a view of the hospital looking southeast with Watertown Plank Road in the foreground. The nurses' residence built in 1901 is the building to the left. Figure 2.2 provides a view of the hospital looking south from Watertown Plank Road with the new Asylum for the Chronically Insane in the far right background.

The 70-acre Hart farm located directly north of the county farm was purchased in 1880, and in that same year the new insane asylum was completed at a total cost of $160,000 (Figure 2.3). Three hundred patients could be accommodated in the new hospital building. A physician was elected to be the superintendent for this department. New roads were built and the surrounding area was landscaped for use as a park for inmates and visitors.

After the State Asylum in Madison began sending their chronically insane to Milwaukee County, the inmate capacity of the institution became increasingly inadequate. Once again the state board called for the creation of an additional facility to separate the chronically insane from those who were potentially curable. This separation became a reality in 1889. The new building, called the Asylum for the Chronically Insane, provided care for cases of incurable insanity such as severe retardation. The older facility was renamed the Milwaukee County Hospital for the Acute Insane. Here, rehabilitation of patients was occasionally possible (Avella 1987).

Initial impetus for construction of a children's facility derived from a provision made in 1882, stating children over five and under sixteen should not be sent to the Almshouse (Drew 1924). As a result, Milwaukee County was forced to build a temporary home for children on the county grounds. If the children could not be returned to their families, efforts were made for either adoption or housing

Figure 2.1. Milwaukee County Hospital (date unknown; image source: http://resources.msoe.edu/library/archive/digital/mss01/Photos/image13.htm).

Figure 2.2. Milwaukee County Hospital and Road (date unknown; image source: http://resources.msoe.edu/library/archive/digital/mss01/Photos/image14.htm).

Figure 2.3. Stylized Drawing of the Milwaukee County Hospital for the Insane(1881; image source: http://resources.msoe.edu/library/archive/digital/mss01/Photos/image14.htm).

at state and private industrial schools that boarded and educated children until they reached maturity. Another cholera outbreak in the 1890s, together with increased immigration, contributed to dangerous overcrowding at the temporary children's home. With conditions reaching a critical point, the County Board made plans for the erection of a Home for Dependent Children (Avella 1987). In 1897, the Milwaukee County Board of Supervisors authorized construction of the Home for Dependent Children at the previously purchased Falbe Farm. The buildings were completed on February 25th, 1898.

From this point on, the management of the home was under the control of a board of trustees and laws were passed governing the management of the institution. Although the new facility was intended as a temporary home, some children became permanent residents. The county provided school instruction and developed recreational programs. The Almshouse, established in 1852, received new quarters in 1893. The new building had a capacity of 700 inmates, two hundred women and five hundred men. By 1896, the new Almshouse building provided housing for 592 occupants. By the turn of the twentieth century, all of the Milwaukee County institutions were established in Wauwatosa. Because of its negative implications ,the Board of Administration changed the name "Almshouse" to the Milwaukee County Infirmary. The Milwaukee County Home for Dependent Children became the Milwaukee County Home for Children; the Milwaukee County Hospital for Acute Insane became the Milwaukee County Hospital for the Mentally Diseased, and the Milwaukee County Asylum for the Chronic Insane became the Milwaukee County Asylum for Mental Diseases (Avella 1987). Despite these name changes, a February 14, 1924, map reflects only the "almshouse" to "infirmary" name change. The Home for Dependent Children, the Hospital for Insane, and the Hospital for Acute Insane all appear on this dated map shown in Figure 2.4. A copy of this map is on file in the UWM-ARL.

Important additions followed the turn of the twentieth century, including an addition to the hospital in 1903. This 1903 hospital was later known as Unit II or the Rehabilitation Hospital and was located in the area of Children's Hospital. In 1905, a separate laboratory building was constructed to house the facility previously located in the basement of the Hospital. The Muirdale Sanitarium was constructed in 1915 to treat tuberculosis patients (Weihing 1988). Figure 2.5 provides a timeline of institutional dates and name changes.

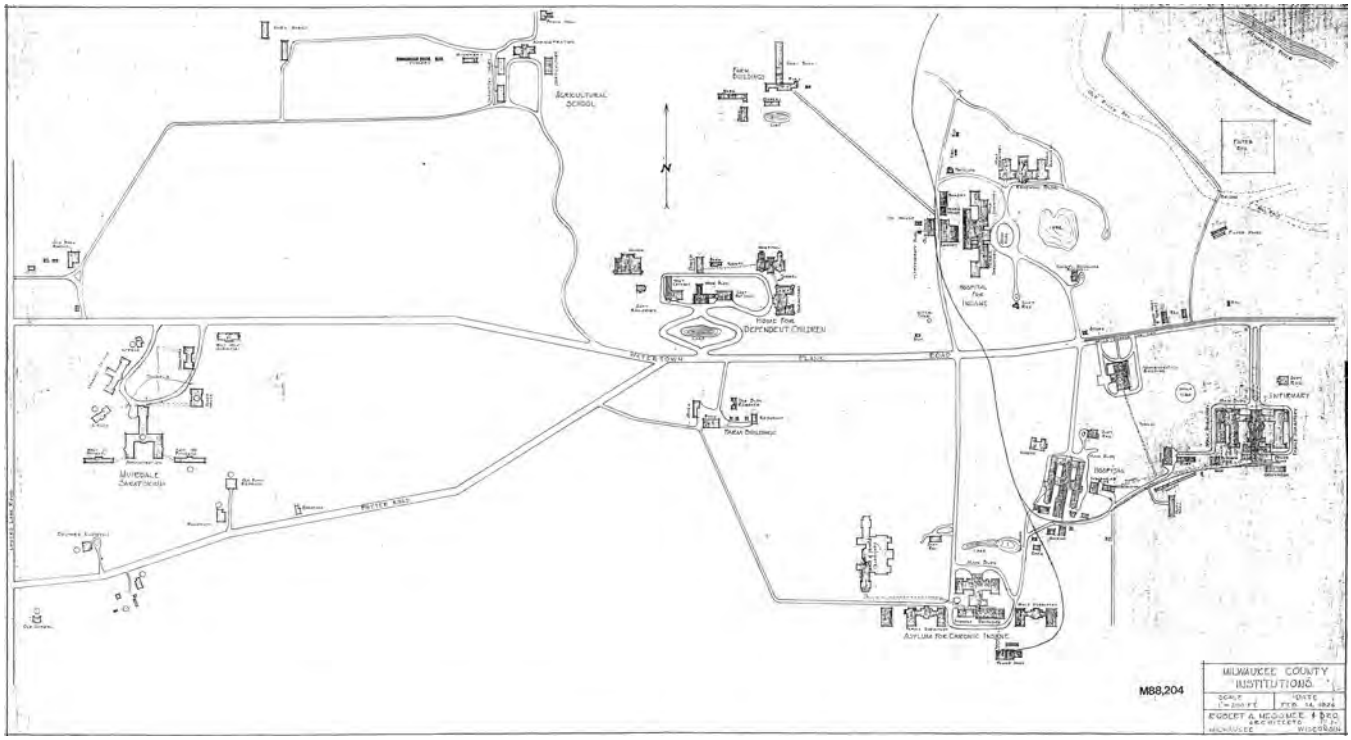


Figure 2.4. Map of the Milwaukee County Institutions (1924).

The period following the end of the First World War was marked by high rates of unemployment and homelessness. Consequently, "patients" who required neither nursing nor medical care would reside in a corridor that connected the two wings of the hospital where they received free meals as well as lodging.

By 1923 the hospital was again too small and a new County hospital was opened in 1930 (Weihing 1988). Figure 2.6 provides a 1939 map of County Institutions that illustrates the location of the 1930 County Hospital. An additional building important to the history of the Milwaukee County Poor Farm Cemetery should be noted here. In 1901, the program of nursing established by hospital superintendent Dr. M. E. Connell and his wife Dr. Anna Gregory Connell found new quarters in a two-story building located near the new the hospital (see figure 2.1). The program outgrew this facility and in 1932, two years after the construction of the new County General Hospital, a large H-shaped nurses' residence and school was constructed (Weihing 1988).

This building, which contained classrooms, laboratories, a large reference library, dormitory space, and common areas, was constructed within the boundary of roughly the eastern two-thirds of the second Milwaukee County Poor Farm location. Figure 2.7 illustrates the new hospital and the nurses' residence.

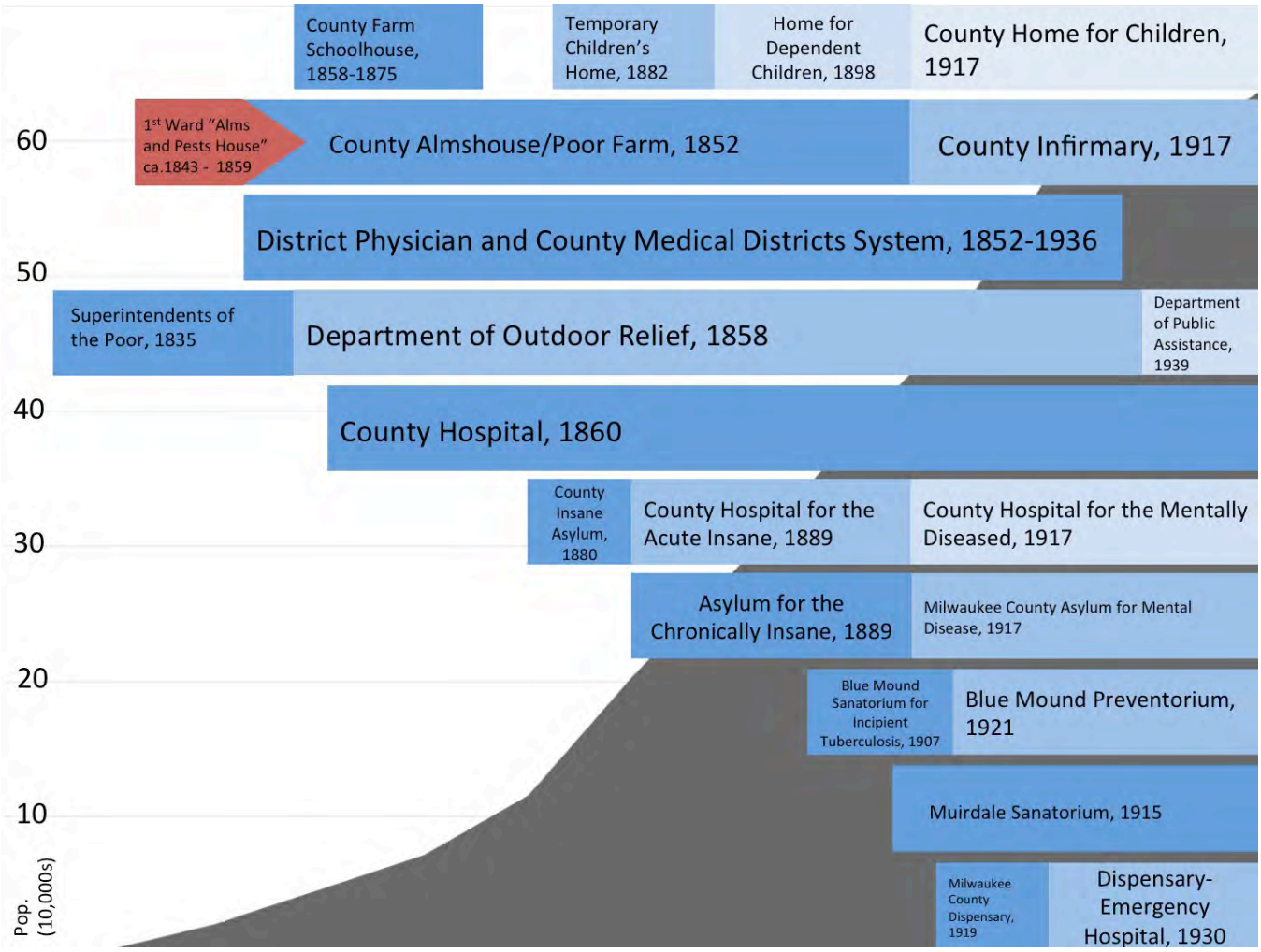


Figure 2.5. A timeline of institutional dates and name changes.

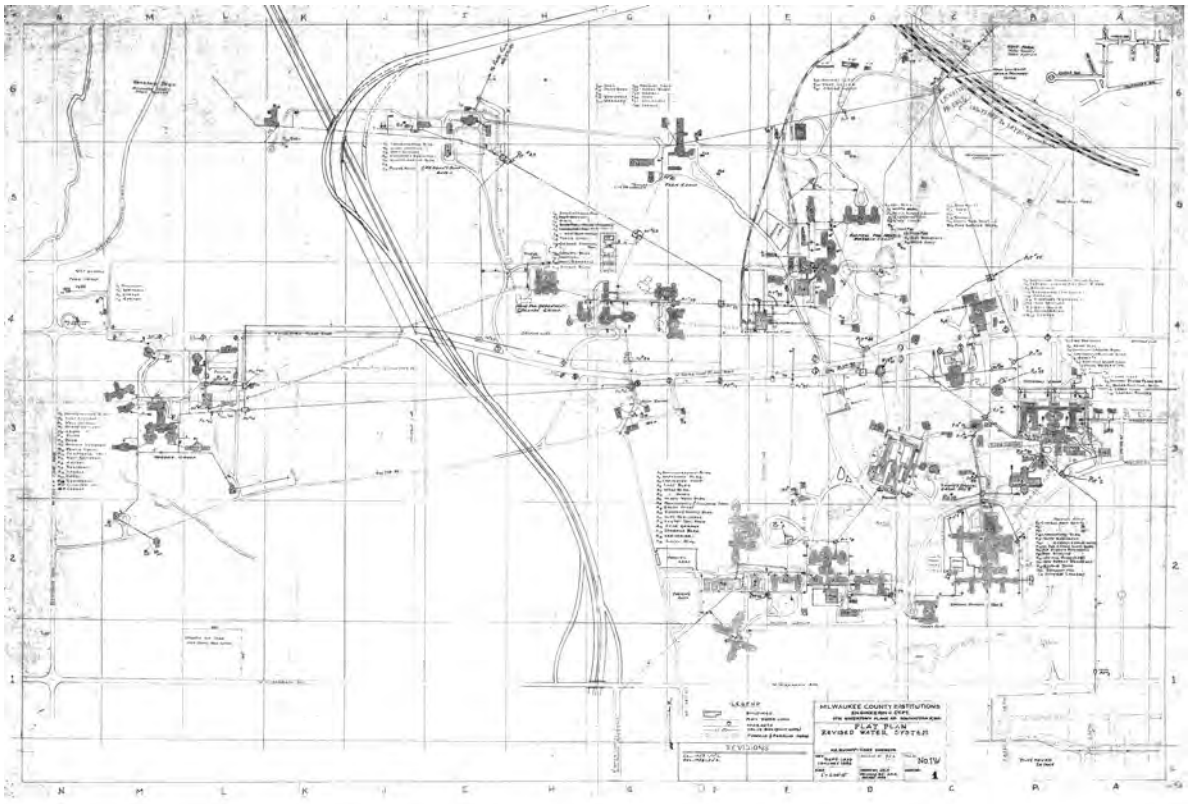


Figure 2.6. 1939 map of the Milwaukee County Institutions.

Figure 2.7. Hospital right, nurses' residence, left. Circa 1940 (image source: http://resources.msoe.edu/library/archive/digital/mss01/Photos/image2.htm).

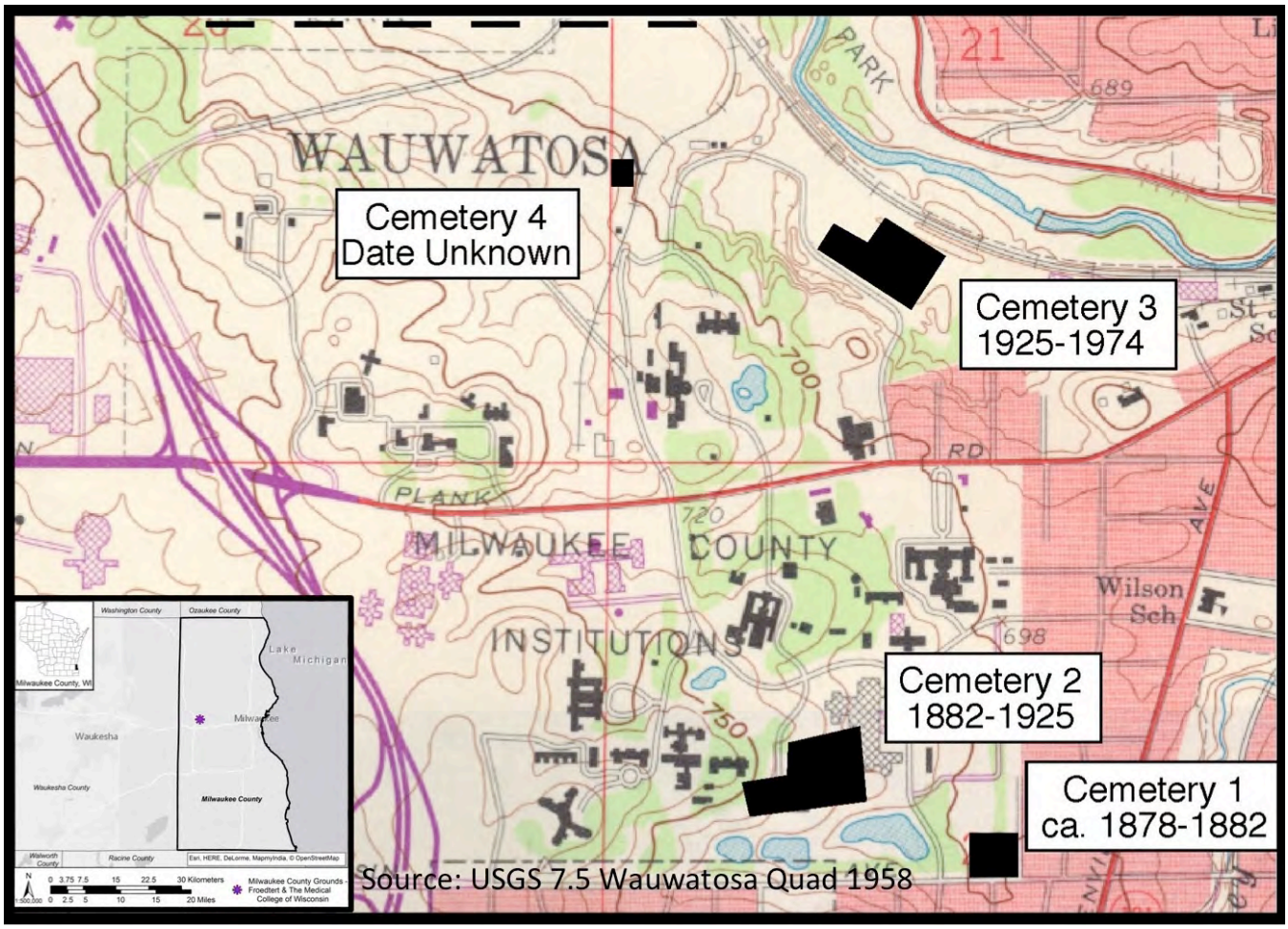


Figure 2.8. Locations of the Milwaukee County Poor Farm Cemeteries.

Milwaukee County Poor Farm Cemetery

Milwaukee County began recording burials of indigent and unidentified individuals on the county grounds in 1882 and continued the practice through 1974. As of 2015, four locations (Figure 2.8) have been identified as cemeteries representing the burial of more than 10,000 individuals.

Three of these cemeteries, 1, 3, and 4, are located on the periphery of the Milwaukee County Grounds and remain undisturbed. The fourth cemetery, Cemetery 2, is located in one of the most densely used portions of the Regional Medical Center and has been disturbed multiple times since 1932. The most recent disturbance, in 1991, resulted in recovery operations conducted by Great Lakes Archaeological Research Center, Inc. The project uncovered, documented and removed 1,649 burials.

Figure 2.9 illustrates the western extension of the 1992 excavations and the area of burials remaining intact. The view is to the west. Approximately 1,300 burials were estimated as remaining intact outside of the area of construction disturbance.

When the Milwaukee County Poor Farm began operation on the former Hedrick Gregg property in November of 1852, no mention is made of a cemetery associated with the farm. However, it is likely that the county utilized the property for burial of those individuals who died while residents of the Poor Farm.

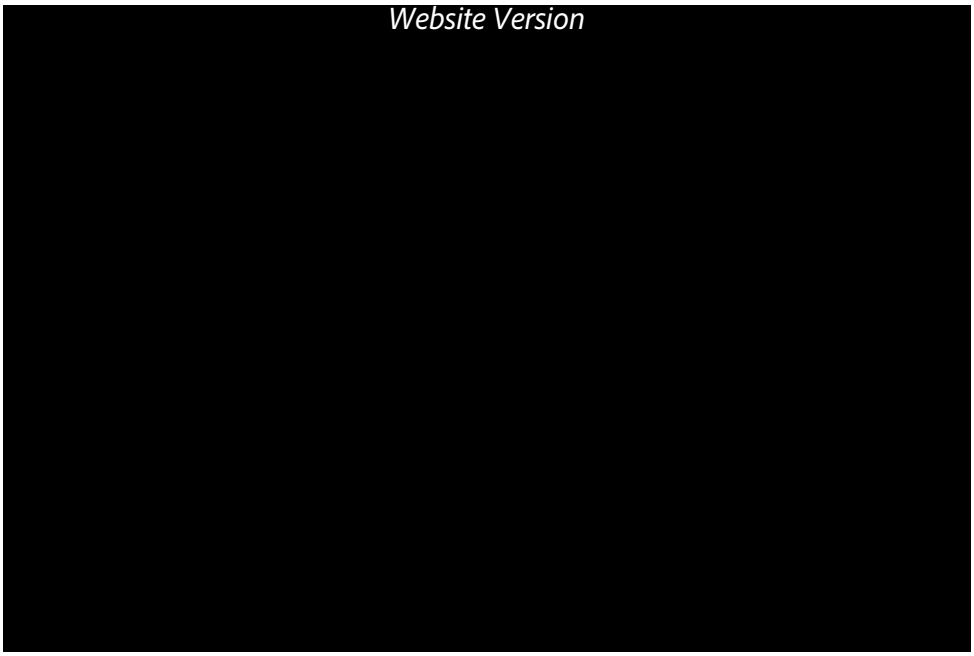


Figure 2.9. Location of the Milwaukee County Poor Farm Cemeteries, 1992 (photograph on file in the UWM-ARL).

The City of Milwaukee's Superintendents of the Poor were directed in November of 1859 to relocate the poor from the city's facility to the County Poor Farm at the Wauwatosa location, but there is still no specific written record of a cemetery on the Wauwatosa property.

The first written record of a County Poor Farm cemetery occurs in the death certificate, dated 1872, of the infant of Rosa Flymann buried at the Poor Farm in Wauwatosa. The Milwaukee County Board of Supervisors Proceedings for the year 1878 also mentions a Poor Farm Cemetery:

> The immediate attention of the Board is directed to the present condition of the cemetery of the Poor Farm. It is situated on the Southeast corner of the premises, and contains less than two and a half acres of land. One third of which is comparatively high ground and nearly filled up with graves. Most of the remainder is low meadow and at certain seasons of the year in digging a grave the water will rise to within six inches of the top and even overflow portions of the land. There are at present some ten or fifteen buried in this low land.
>
> Even on ground sufficiently dry the graves are not as they should be. Six or seven were dug on such a spot in readiness to receive candidates for immortality. Thinking the empty graves looked rather shallow, a tap measure was applied and their depth was ascertained to be two feet ten inches. Allowing sixteen inches as height of a full sized coffin, the corpse rest only eighteen inches bellow the surface of the earth. This truly is "granting little earth for charity." [Proceedings of the Board of Supervisors, 1878].

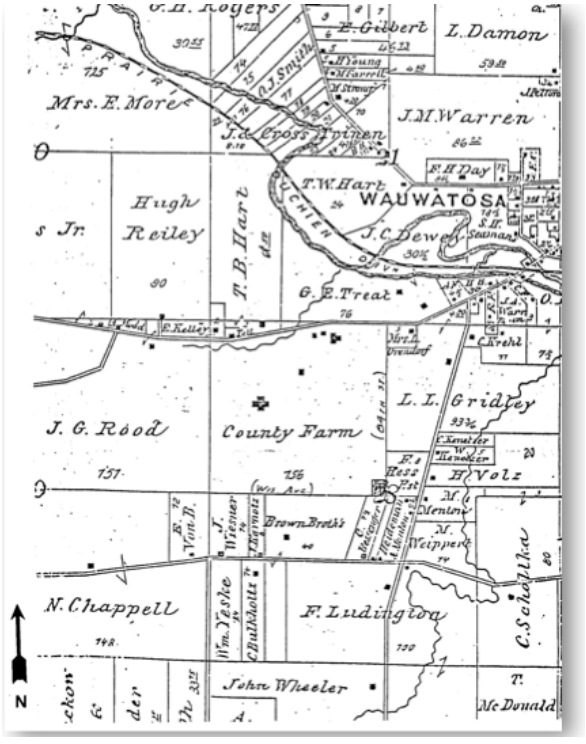


Figure 2.10. County Farm from the 1876 Illustrated Historical Atlas of Milwaukee County.

This cemetery must be the small cemetery depicted by a small cross (partially obscured by the numeral 28) in the southeast corner of the County Farm from the 1876 Illustrated Historical Atlas of Milwaukee County (Figure 2.10).

The location of this cemetery was confirmed by means of remote sensing and stripping (Overstreet and Sverdrup 1992). The condition of the cemetery was clearly of concern to the Board of Supervisors in 1878 and since only one-third of the small 2.5 acre plot was considered entirely suitable for graves (the remainder being low and wet) a new cemetery location was sought. The Milwaukee County Rules and Regulations for the County Farm and Almshouse published in 1894 includes Rule 17 as follows:

> Rule 17. The Superintendent shall keep a record of all pauper burials on the County Farm, file all burial permits, and place a painted and numbered head board at each grave, which grave shall, in no case, be less than six feet deep. The burial record shall specify the name of the deceased, date and cause of death, number of burial permit, and the number of the grave in which buried. It shall be the duty of the Superintendent to see that the cemetery is kept in decent order.

In 1882, the *Register of Burial at Milwaukee County Poor Farm* was begun. This register is a handwritten ledger-format book approximately 15 by 22 inches in size. The register lists burials beginning with an entry for Elizabeth Hoffmann on February 14, 1882, and ends with a June 14, 1974, listing of an unknown female. Entries in the burial register constitute 178 pages. This register recorded individual interments that took place at the Milwaukee County Grounds between the years of 1882 and 1974. Figure 2.11 illustrates pages 96 and 97 for the years 1917 and 1918 from the burial register curated at the MCHS. The register's entries begin in February of 1882; however, a notation marks interments in a "new Cemetery" on August 22 of 1882. The *Register of Burial at Milwaukee County Poor Farm* records yet another "new cemetery for elders" created on July 3, 1925, along with a new cemetery for children on November 4, 1925. This most recent cemetery is likely the location of the presently marked cemetery north of Watertown Plank Road that was closed in 1974.

Figure 2.11. *Register of Burial at Milwaukee County Poor Farm*, pages 96 and 97 (original curated at the Milwukee County Historical Society, copy on file at the UWM-ARL).

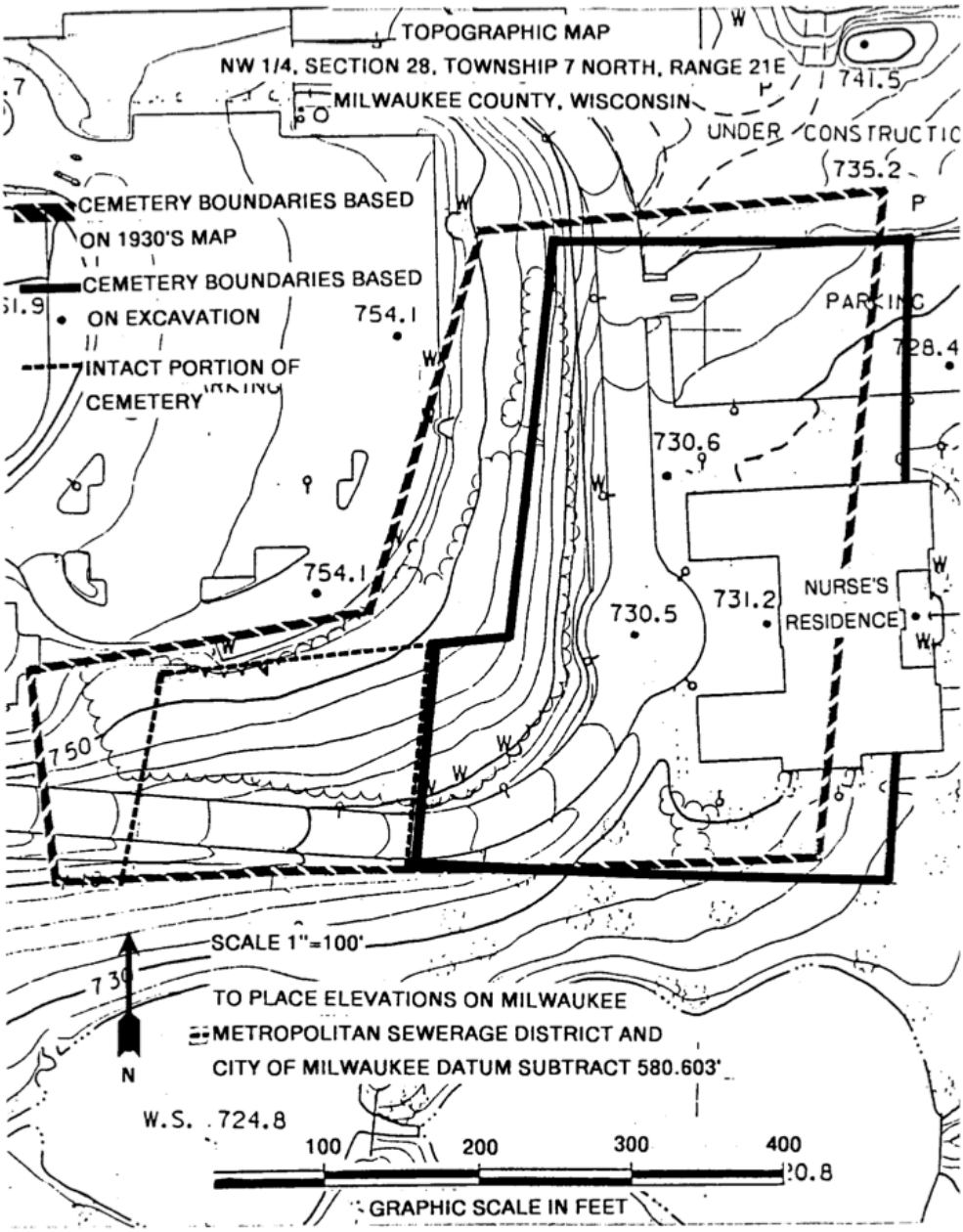


Figure 2.12. Cemetery Boundary based on WPA map and 1990s Excavation Adapted from Richards (1997).

It is likely that the cemetery excavated in 1991 and 1992 and again in 2013 is the "new" cemetery begun in 1882 and depicted on an unannotated map. A copy of this map is on file at the UWM-ARL. The only label on the map is "Section 28, T7N, R21E". The map is constructed at a scale of 1" = 200', has a contour interval of 5', and identifies early county facilities on the County Farm Property excluding the nurses' residence constructed in 1931. The map depicts the cemetery as an irregularly shaped fenced area to the west of a fenced road and south of the various County Institution buildings (Figure 2.12).

Demography

The city of Milwaukee, Wisconsin is consistently described as unique among larger, industrial Midwestern cities (Still 1948, Conzen 1976). Milwaukee has been characterized as more densely compact, more homogeneous in terms of occupation and ethnicity, and relatively healthy compared to cities of comparable size.

Table 2.1. Country of Birth of Individuals Buried in the MCPFC, 1890-1920; derived from US Census data.

Year	Native-born	Foreign-born
1890	61	39
1900	69	31
1910	70	30
1920	76	24

*from US Census data

Table 2.2. Percent of Native-born vs. Foreign-born individuals interred in MCPFC 1882-1910.

Year	Native-born	Foreign-born	Unknown
1882	14% (n=4)	29% (n=8)	57% (n=16)
1890	49% (n=21)	37% (n=16)	14% (n=6)
1900	57% (n= 55)	32% (n=31)	11% (n=10)
1910	49% (n=96)	32% (n=62)	19% (n=37)

*from *Register of Burial at Milwaukee County Poor Farm*, death certificates, and Coroner's reports

In 1850, Milwaukee's population was approximately 20,000 people; by 1880, 115,000 people lived in Milwaukee and by the turn of the century, the population had increased to over 250,000 (Leavitt 1982). The growing population provided a labor force for Milwaukee's expanding economy. It also quickly surpassed the ability of private philanthropy, churches, and small local agencies to provide for the homeless, jobless, and poor.

Urban life seemed to exacerbate health problems which in turn led to poverty. Although conditions did not match New York City's in scale or density, the typical frame cottage on the southwest side of Milwaukee resembled "a stable where the family herds together like cattle" (Simon 1971). Recognition of the problems associated with a rapidly expanding urban environment during the late nineteenth and early twentieth centuries led also to the recognition of responsibility on the part of the government for those individuals impacted by such problems. These included the homeless, the jobless, and the sick-poor. Although native-born and particularly Wisconsin-born residents predominated in terms of population in the city of Milwaukee after 1870, the city retained a distinctly European flavor (Still 1948). Table 2.1 provides the census data for native versus foreign-born Milwaukee residents.

Table 2.2 uses data derived from the *Register of Burial at Milwaukee County Poor Farm*, Milwaukee County death certificates and Milwaukee County Coroner's reports to characterize those interred in the Milwaukee County Poor Farm Cemetery during the years 1882 to 1910. The U.S. Census of 1890 concluded that Milwaukee was the most "foreign" of the twenty-eight largest cities in the United States. In particular, German-born residents of Milwaukee comprised a third of the population in 1870, and while by 1910 only 17% were German-born, more than half the residents of the city (53.5%) still identified themselves as of German heritage (Still 1948). Table 2.3 provides the census data for country of birth for the city of Milwaukee.

Table 2.3. Percentage of Milwaukee Residents by Country of Birth, from the U.S. Census of 1890-1920.

Country	1890	1900	1910	1920
Germany	27	19	17	8.7
Poland	4.5	6	_	5
Ireland	1.7	0.93	0.52	0.31
Britain	1.7	0.1	0.72	0.61
Norway	0.89	0.6	0.57	0.40
Bohemia	0.71	0.6	_	_
British America	0.61	0.66	0.5	0.45
Austria	0.45	0.57	3	1.2
Holland	0.34	_	_	_
Switzerland	0.29	0.23	0.22	_
Italy	_	0.25	0.9	0.88
Russia	_	0.4	3.2	1.6
Hungary	_	_	1.4	1
Greece	_	_	0.29	0.4
Czechoslovakia	_	_	_	0.98

Table 2.4 uses historical-documentation-derived data to present the country of birth for the individuals buried in the Milwaukee County Poor Farm during the years 1882 to 1910.

Just before the turn of the century, other ethnic groups began to settle in Milwaukee in significant numbers. Irish and Poles arrived earlier; Italians, Greeks, eastern European Jews and smaller numbers of many eastern and southern European nationalities soon followed. Data from the burial register, death certificates and coroner's reports, while not illustrating the change from German to eastern European immigrants, does mirror the city data by showing German immigrants to be the most prevalent.

Data from the Twelfth (1900) and Fourteenth (1920) U. S. Census Reports provides age distribution data for the city of Milwaukee. In 1900, only 12 percent of Milwaukee's population was under the age of five; by 1920, that number had dropped to 10 percent. Conversely, from 1890 to 1900, this age group (under five) accounted for 50 percent or more of Milwaukee's mortality. This mortality figure had dropped to 35 percent by 1920 (Leavitt 1882) (Figure 2.13). Despite this drop, however, children under five accounted for a disproportionately large number of deaths in the city of Milwaukee at the turn of the century.

Either very old or very young individuals seem to dominate the *Register of Burial at Milwaukee County Poor Farm*. However, closer examination suggests this is not the case for individuals sent from the community poor to be buried at County expense. In particular, unidentified suicides and accidents make up a significant number of this group. The burials of those who fall within the 20-40 age group at the Milwaukee County Poor Farm appear to be those who were from the community at large.

Figure 2.14 presents the data on age at death for individuals interred in the Milwaukee County Poor Farm, derived from death certificates or Coroner's reports.

Table 2.4. Country of Birth for Individuals Buried in the MCPFC, 1882-1910.

Country	Number of Individuals	Percent
USA	1380	46.6
Unknown	594	20.1
Germany	582	19.6
Ireland	74	2.5
Austria/Austria-Hungary	70	2.4
Poland/"Poland Russia"	37	1.2
Canada	32	1.2
Norway	31	1
England	23	0.8
Russia/"Russia Poland"	20	0.7
Switzerland	19	0.6
Bohemia	17	0.6
Denmark	13	0.4
Sweden	12	0.4
Hungary	10	0.3
Holland	9	0.3
Scotland	8	0.3
France	5	0.2
Italy	5	0.2
Finland	5	0.2
Wales	3	0.1
Saxony	3	0.1
Mexico	2	0.1
Macedonia	2	0.1
Prussia	1	0
Turkey	1	0
"Czecho Slovakia"	1	0
"Slavenia"	1	0
Bavaria	1	0
“Europe”	1	0
TOTAL	2962	100

*from death certificates or coroner’s reports of cemetery interments

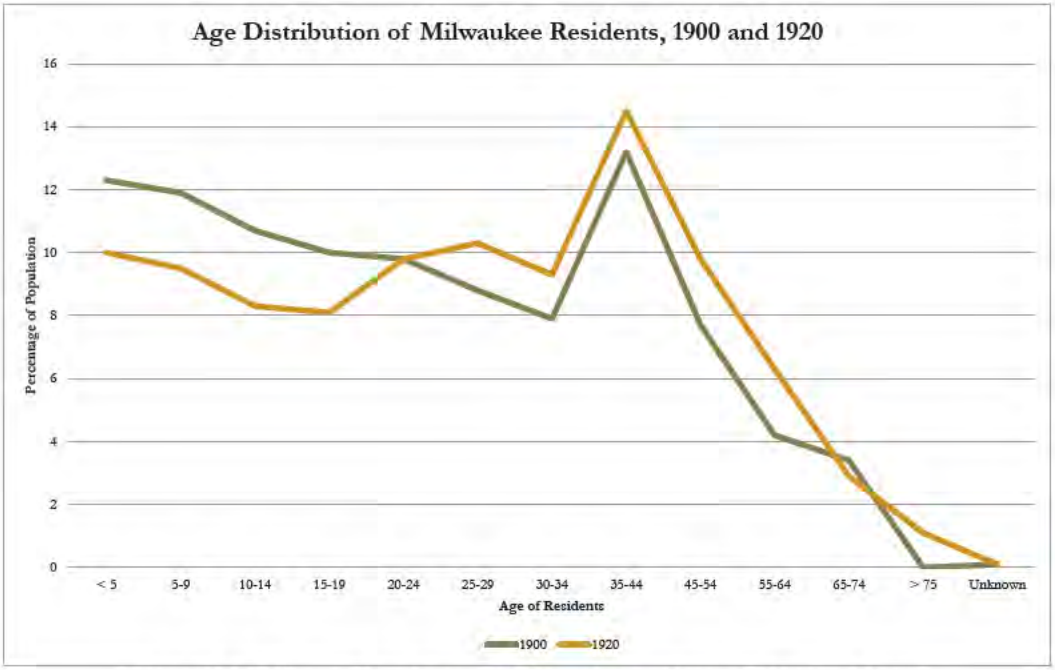


Figure 2.13. The age distribution of Milwaukee residents in 1900 and 1920.

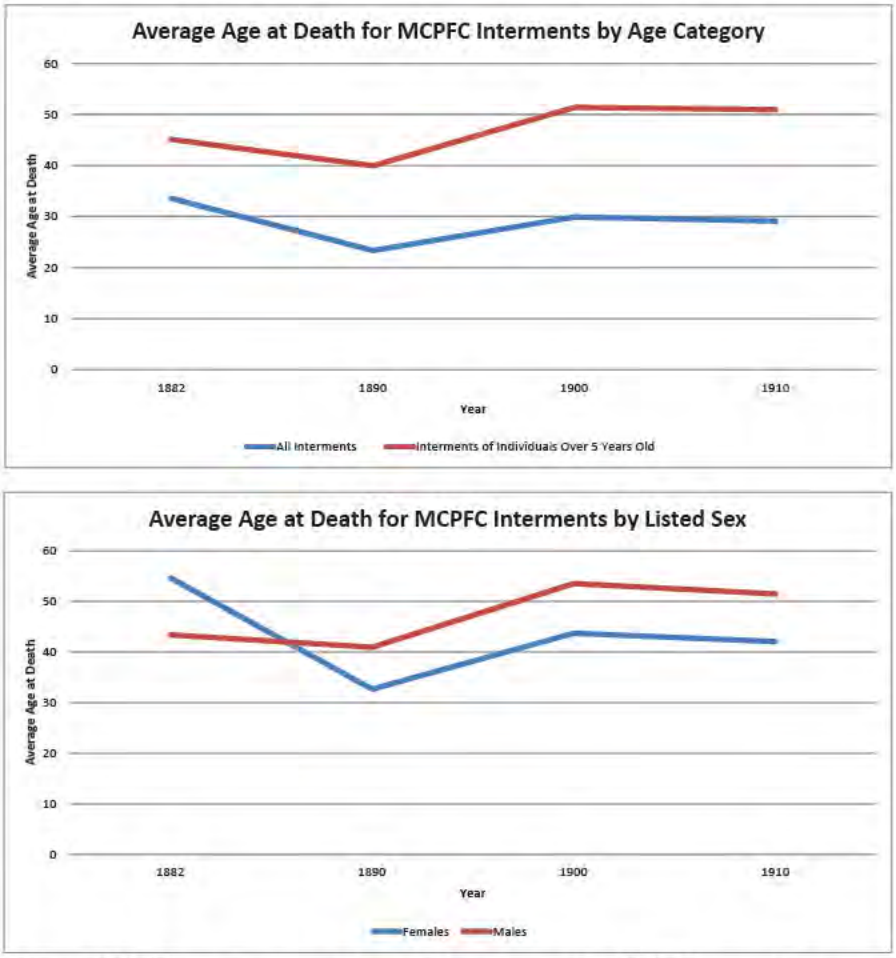


Figure 2.14. The average age at death of those interred at MCPFC according to sex.

Table 2.5. Sex of Milwaukee Residents, 1890-1920.

	Males		Females		Total	
Year	Number	%	Number	%	Number	%
1890	100,773	49.3	103,695	50.7	204,468	100
1900	140,536	49.3	144,779	50.7	285315	100
1910	189,488	50.7	184,369	49.3	373844	100
1920	228,614	50	228,533	50	457147	100

Table 2.6. Individuals Buried in the MCPFC, 1882.

	Males		Females		Total	
Year	Number	%	Number	%	Number	%
1882	17	85	3	15	20	100
1890	22	92	2	8	24	100
1900	42	82	9	18	51	100
1910	104	95	6	5	110	100

U.S. Census data for the years 1890, 1900, 1910, and 1920 provide the total population according to sex for the city of Milwaukee (Table 2.5). The ratio of males to females is roughly similar from 1890 to 1920. Similar data from the burial register, death certificates and coroner's reports of individuals interred in the Milwaukee County Poor Farm Cemetery for the years 1882 – 1910 reveal a very different pattern (Table 2.6).

Male adult burials consistently outnumber female adult burials. This is curious since the annual reports of both the almshouse and the chronic asylum note similar numbers of male and female inmates. The discrepancy could be a result of fewer females dying as inmates (perhaps leaving the institutions in greater numbers than males). Like age, the male-to-female ratio may reflect the numbers of murder, accident and suicide victims.

Archival records research

The *Register of Burial at Milwaukee County Poor Farm Cemetery* has been the foundation for historical and archaeological research concerning the county institution burial population. The original register is now curated at the MCHS. Until recently it was believed the register documented most, if not all, burials between 1882 and the final burial in 1974. However, the 2013 excavations as well as comprehensive archival investigations have shown that burial activities on the county grounds were far more complex than the register suggests (Drew 2015).

Archival research relies on three main sources: the burial register, Milwaukee County death certificates, and coroner inquests. The data recorded in the burial register over its 92 years is extremely inconsistent – the only information in every entry is name of deceased, health department certificate date, and grave number. Even within the grave number data, however, the numbering system is not internally consistent. Despite these shortcomings, the *Register of Burial* is the foundation for all other documentary research. To facilitate the analysis of the register and management of related documents, each entry was transcribed and entered into an Access database. This database is on file at the UWM-ARL.

While all entries from the register have been entered in the database, the subsequent research was narrowed to reflect the presumed years of use of the cemetery represented by the 1991, 1992, and 2013 excavations. The Milwaukee County Coroner's Inquest Index, located at the MCHS, was investigated using the burial register as a master list. Approximately 1600 inquests for individuals buried on the county grounds between 1882 and 1925 have been identified. The inquests can contain detailed descriptions of the circumstances of death, newspaper articles about the deceased, morgue photographs, and clothing samples. If an autopsy was conducted, it might include the physical characteristics of the deceased, as well as injuries and traumas.

A search of the Milwaukee County Register of Deaths located on microfilm at University of Wisconsin-Milwaukee's Golda Meir Library was conducted to record death certificates for individuals who did not have coroner's inquests. Additional death certificates unavailable at the library were acquired from the Register of Deeds for Milwaukee County. Recognizing that a complete description of the entire Milwaukee County Poor Farm Cemetery burial population was necessary, every death certificate filed in Milwaukee County between 1882 and 1925 (some 250,000) was examined.

Milwaukee County Poor Farm Cemetery Population

This research has identified 7,222 individuals buried on the County Grounds from 1882 to 1925. Of these, only 5,363 (74%) are listed in the Register, resulting in 1,859 burials undocumented; 1,088 (20%) of the total population were medical cadavers. The overall number of interments per year increased somewhat steadily from 79 in 1882 to the peak usage in 1917 and 1918, with 277 and 274 burials respectively. An earlier burial spike in 1894 reflects diphtheria and small pox outbreaks. There was a major decline in interments during the last seven years of operation of Cemetery 2. Figure 2.15 illustrates all burials in Cemetery 2 from 1882 to 1925 based on the burial register, coroner's inquests and death certificates.

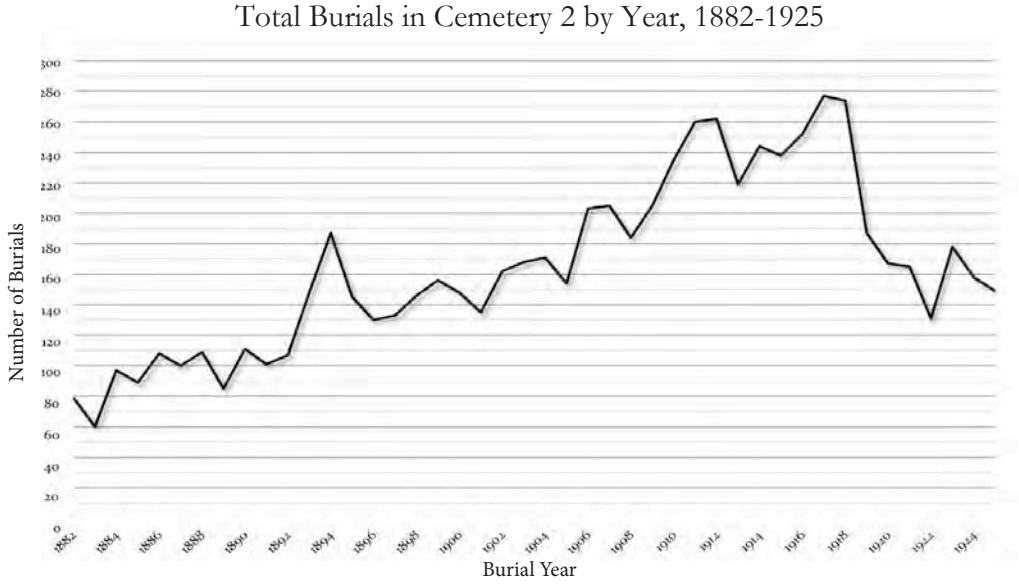


Figure 2.15. All burials in Cemetery 2 from 1882 to 1925.

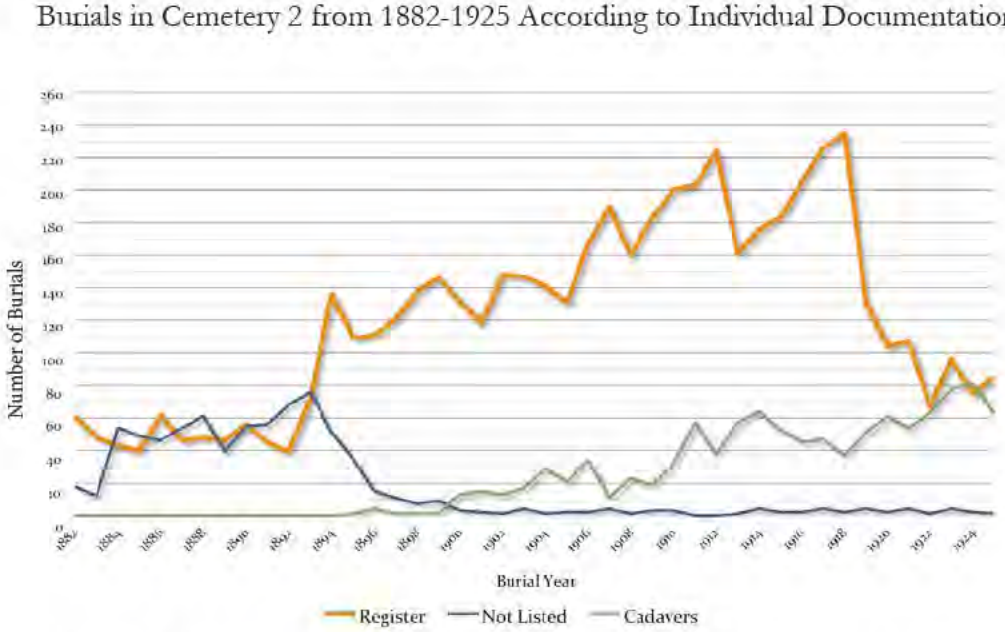


Figure 2.16. Burials in Cemetery 2 from 1882 to 1925 according to individual documentation.

Burials specifically listed in the register mirror the overall pattern of burials at the cemetery, as can be seen in Figure 2.16. A number of non-cadaver interments are not listed in the register; these occurred predominantly between 1882 and 1899. Eighty-three percent (n=645) of the unlisted non-cadavers are individuals that died at a county institution; listed and non-listed burials may reflect differing landscape usage dependent on place of death, either community or county institution. Figure 2.16 illustrates burials in Cemetery 2 from 1882 to 1925 according to individual categories of, listed in the register, not listed in the register but derived from coroner's inquests and death certificates, and specifically, medical cadavers.

The number of medical cadavers buried in the cemetery but not listed in the Register follows a temporal pattern inverse to both listed and other non-listed individuals. No cadaver burials are documented until 1894, after which only a few are recorded each year until 1900. This begins to significantly increase in 1904, the year following the codification of an anatomical purposes law (Sec. 2 Ch. 406, Laws of 1903), and continues to rise throughout the cemetery operation. In fact, in 1924, more cadavers (n=81) were buried in the cemetery than non-cadavers (n=77).

Age and Sex

The document research employs age categories that correspond to those employed in Chapter 6 of this and include: prenatal/fetal, infant (birth–11.9 months), toddler (1–2.49 years), early childhood (2.5–5.9 years), late childhood (6–12.9 years), adolescent (13–18 years), young adult (18–34.9 years), middle adult (35–49.9 years), and old adult (50 years and older). Categories for indeterminate juvenile and indeterminate adult were added for individuals

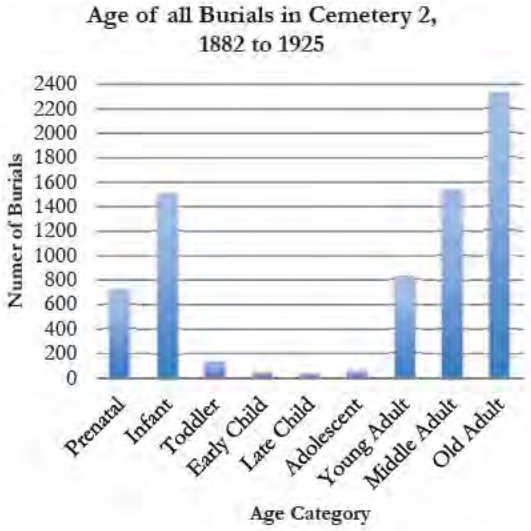


Figure 2.17. Age of burials in Cemetery 2 from 1882 to 1925.

without a specific age listed, but for whom a general age group is suggested (e.g. unknown infant or unknown man).

Figure 2.17 provides age data for all age categories. Based on document research, prenatals (n=718, 9.9%), infants (n=1,507, 20.9%), and adults (n=4,694, 64.1%) dominate the distribution of age categories within the Milwaukee County Poor Farm Cemetery burial population. The intermediate categories - toddler, early childhood, late childhood, and adolescent - represent only 1.8 percent (n=135)

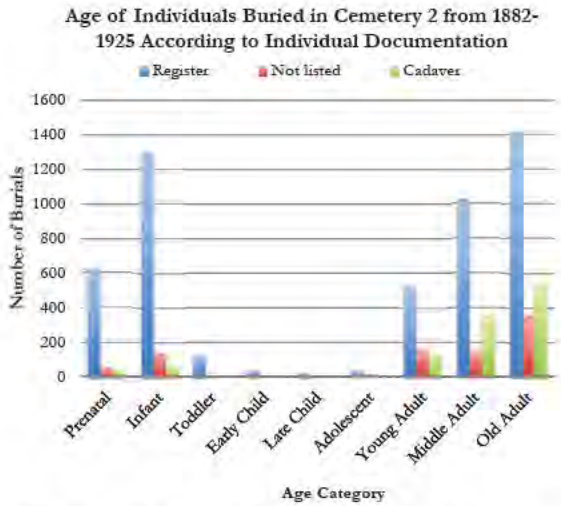


Figure 2.18. Age of burials in Cemetery 2 from 1882 to 1925 according to individual documentation.

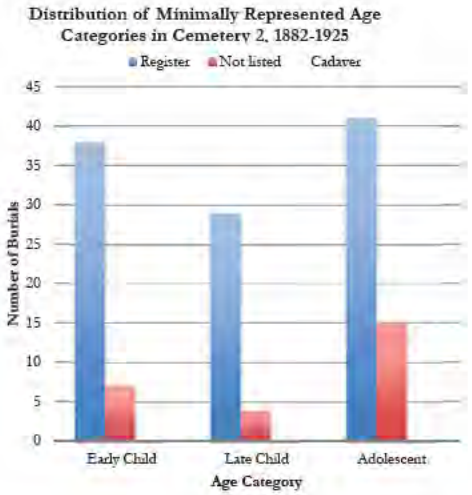


Figure 2.19. Distribution of minimally represented age categories in Cemetery 2 from 1882 to 1925 according to individual documentation.

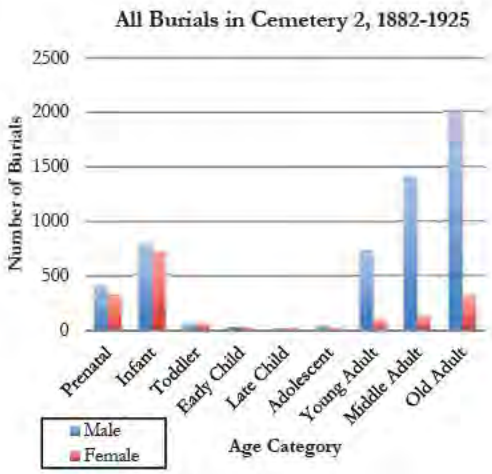


Figure 2.20. Age and sex of all burials in Cemetery 2 from 1882 to 1925.

0.6 percent (n=46), 0.5 percent (n=34), and 0.8 percent (n=60) respectively.

When viewed by register burials, unlisted non-cadavers, and cadavers, the overall age category distribution is not considerably different from the distribution of all burials at the cemetery (Figure 2.18).

However, the exclusion from the Register of the three categories that make up the smallest portion of the burial population (early childhood, late childhood, and adolescent) is significant. Almost all toddler-aged individuals are listed in the Register, however, 13 percent (n=7) of Early Childhood individuals are not listed, as well as 17 percent (n=5) of Late Childhood individuals and 33 percent (n=15) of Adolescents (Figure 2.19).

Sex as well as age is an important variable. The pre-adolescent age groups are fairly evenly represented with regard to sex. However, in the age categories from adolescent up through old adult, the majority of individuals are listed as male. Females represent only 14 percent (n=641) of individuals in these categories, and of these, 36 percent (n=231) are buried in the cemetery but not listed in the Register (Figure 2.20).

Marital Status

Marital status was available from death certificates for 3,351 (71%) adults buried in the cemetery (Figure 2.21). Among young, middle, and old adult age categories, the proportion of married females is higher than single and divorced females (Figure

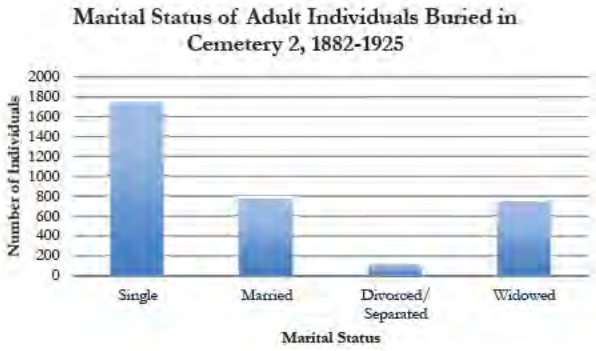


Figure 2.21. Marital status of male and female adults buried in Cemetery 2 from 1882 to 1925 according to death certificates.

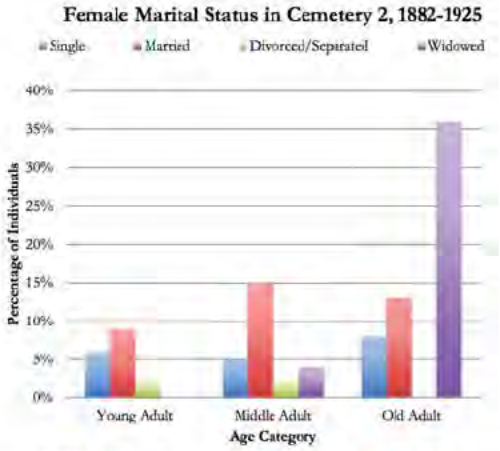


Figure 2.22. Marital status of females buried in Cemetery 2 from 1882 to 1925 according to death certificates.

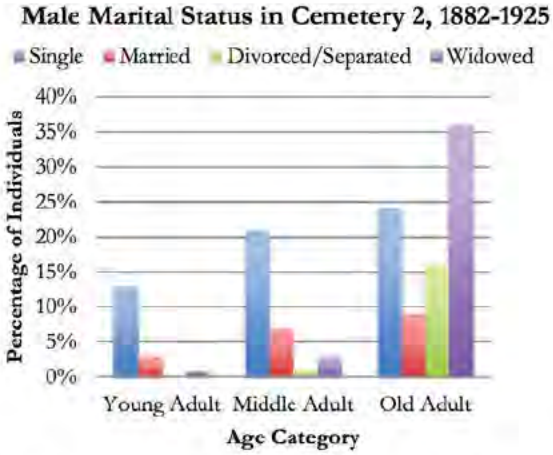


Figure 2.23. Marital status of males buried in Cemetery 2 from 1882 to 1925 according to death certificates.

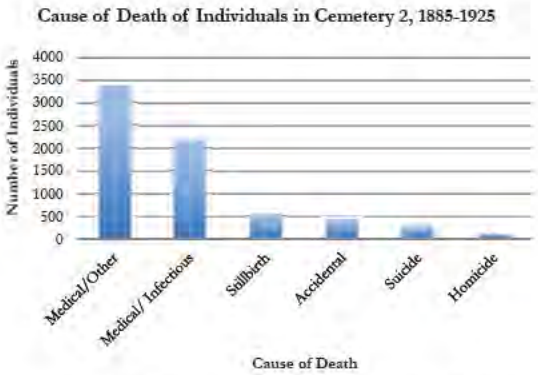


Figure 2.24. Major causes of death of individuals in Cemetery 2 from 1882 to 1925 according to death certificates.

2.22). However, as might be expected, widowed females make up the largest proportion of the old adult age category.

Conversely, single males are more frequently represented than other marital statuses in both young and middle adult age categories (Figure 2.23). The large number of single males buried in the cemetery clearly reflects the large unmarried male immigrant population in Milwaukee at the time. However, in terms of the married females, as Cannon (2005) observes, the perception of relative status as expressed in the mortuary ritual may be of more concern to women who lose their husbands than it is to men on the occasion of their wife's death. Perhaps Milwaukee's married women of the late nineteenth and early twentieth centuries were more concerned with the negative social implications of burying their spouse in the pauper cemetery than were married men.

Cause of Death (COD)

Based on data derived from death certificates collected from individuals interred in the Milwaukee County Poor Farm Cemetery, cause of death was entered into the database when possible. All listed causes were organized into the major categories of medical, medical/infectious, stillbirth, accidental, homicide, suicide, indeterminate, and unknown (Figure 2.24).

Medical deaths account for 46 percent (n=3,354) of the total population, followed by: infectious diseases 30 percent (n=2164), stillbirths 8 percent (n=553), accidental traumas 6 percent (n=411), suicides 4

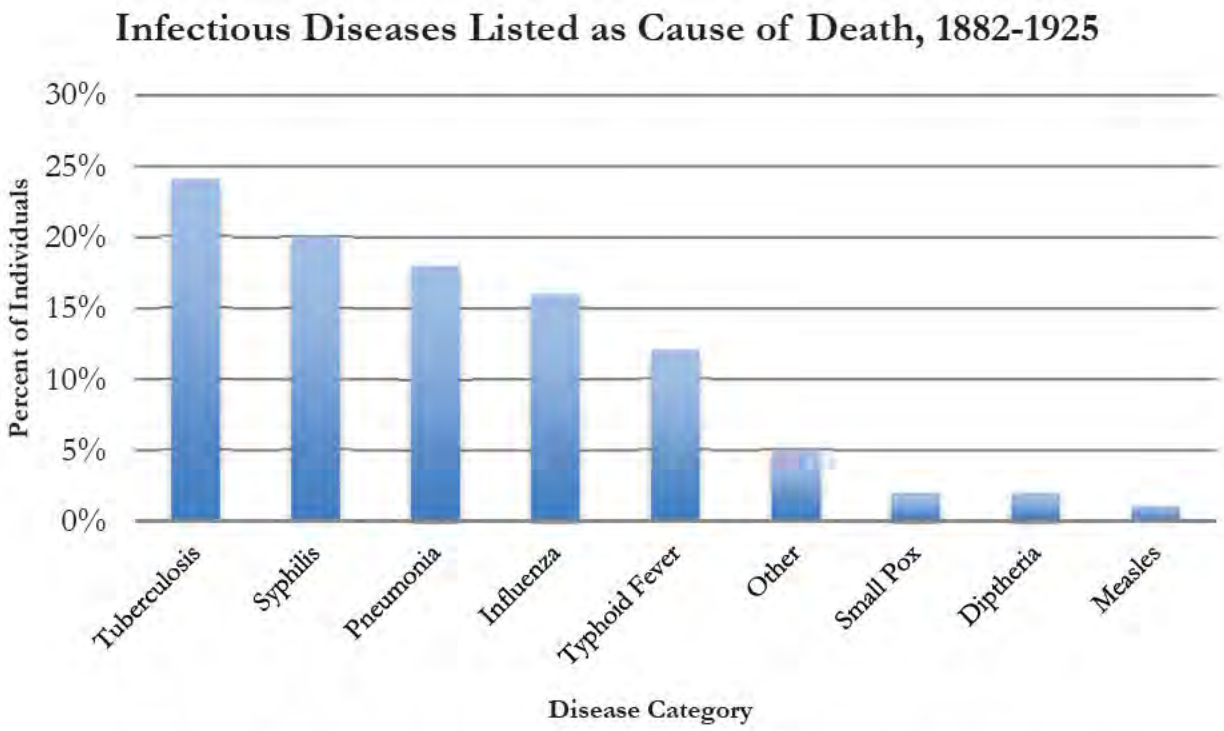


Figure 2.25. Infectious disease categories listed as cause of death for individuals buried in Cemetery 2 from 1882 to 1925 according to death certificates.

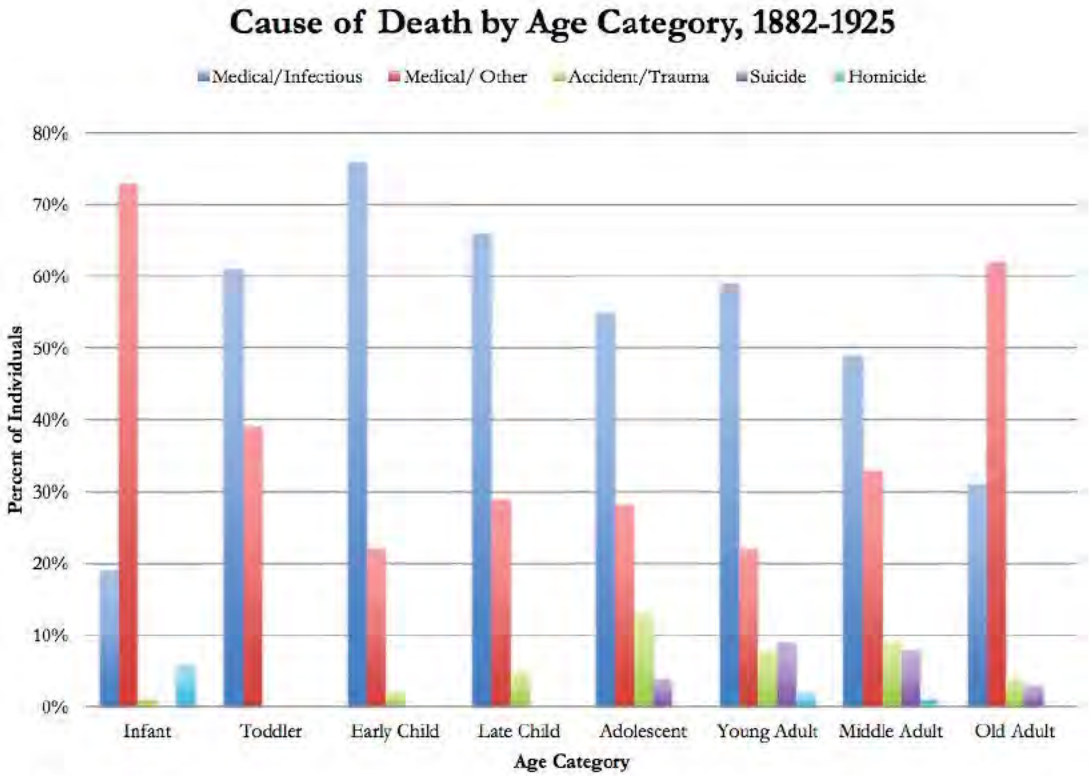


Figure 2.26. MCPFC Major causes of death by age category for individuals buried in Cemetery 2 from 1882-1925.

percent (n=285), and homicides 1.3 percent (n=99). Causes of death are not provided for 4 percent (n=253) of individuals and 1 percent (n=103) have causes of death listed, but do not provide enough information for classification (for example, COD listed as drowning, but no information indicating an accident or a suicide). In addition to these general classifications, 338 deaths are also tagged as mental illness-related, 131 as alcohol-related, and 56 as both mental illness- and alcohol-related.

Diseases categorized as a medical/infectious cause of death include diphtheria, influenza, measles, pneumonia, small pox, syphilis, tuberculosis and typhoid fever. By far the most common, tuberculosis killed 1,099 (15%) of the population (Figure 2.25). The most common accidental deaths are railroad traumas (n=138), drownings (n=129) and falls (n=56). Examples of deaths by suicide include hanging (n=72), gunshot wounds (n=63), the consumption of various poisons (n=58), and inhaling illuminating gas (n=17). Of the homicide victims buried at the Milwaukee County Poor Farm Cemetery, 69 percent (n=68) are infants. Causes listed by the coroner include neglect and exposure (n=21), asphyxia (n=20), and strangulation (n=14).

The medical/infectious COD category dominates all age categories with the exception of the infant and old adult age categories (Figure 2.26). In the infant age category, premature births (n=189), gastrointestinal ailments (n=126) and failure to thrive (n=217), all contribute to the predominance of medical/other causes of death. In the old adult age category, the same predominance can be accounted by the prevalence of cardiovascular disease (n=463) and general debility (n=207). Females have a higher proportion of non-infectious medical deaths [69.2% (n=427) non-infectious to 26.3 percent (n=162) infectious], as compared to males who have almost equal proportions of the two medical categories [43.3% (n=1240) non-infectious to 40 percent (n=1552) infectious]. The frequency of accidental traumas and suicides are higher in the adult male group, 10 percent (n=381) and 7 percent (n=269) respectively, than females who had 2 percent of both (12 males and 14 females), though the distribution is relatively even within the sexes (Figure 2.27).

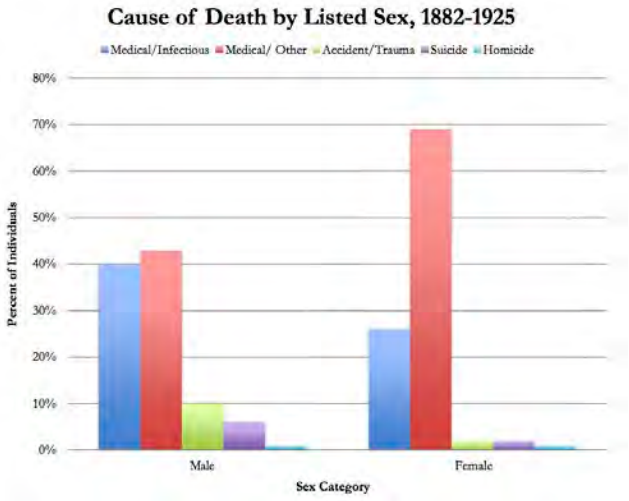


Figure 2.27. Major causes of death among male and female individuals buried in Cemetery 2 from 1882-1925 according to death certificates.

Context of Medical Specimen Use as Reflected in the Milwaukee County Poor Farm Cemetery

Data relating to postmortem autopsies was acquired from both the county death certificates and county coroner's inquests. In addition, information regarding the early medical facilities whose cadavers were often buried in the cemetery was consulted. Both examination of county records and the archival research documented that postmortem investigations were typical for certain individuals buried in the Milwaukee County Poor Farm Cemetery. Evidence includes having the place of burial listed as "anatomical purposes," or as one of the "medical colleges". Further, Charles E. Judson was the undertaker employed by the Milwaukee Medical College and the Wisconsin College of Physicians and Surgeons. Judson was also under contract to Milwaukee County to provide undertaking services. Records that list Judson as undertaker often indicate medical cadaver.

The earliest documented evidence of a medical cadaver is John Oeschger, a 45-year-old carpenter and German immigrant who committed suicide by shooting on September 10, 1894 (Figure 2.28). Interestingly, Mr. Oeschger's death certificate, issued by the coroner, does not indicate he was used for anatomical purposes, but the burial register notes that his remains had been received from the medical college, and the heath department certificate for burial is dated a full eight months after his date of death.

Medical cadavers or those whose remains were used for anatomical purposes at the local medical colleges make up the majority of the unrecorded individuals.

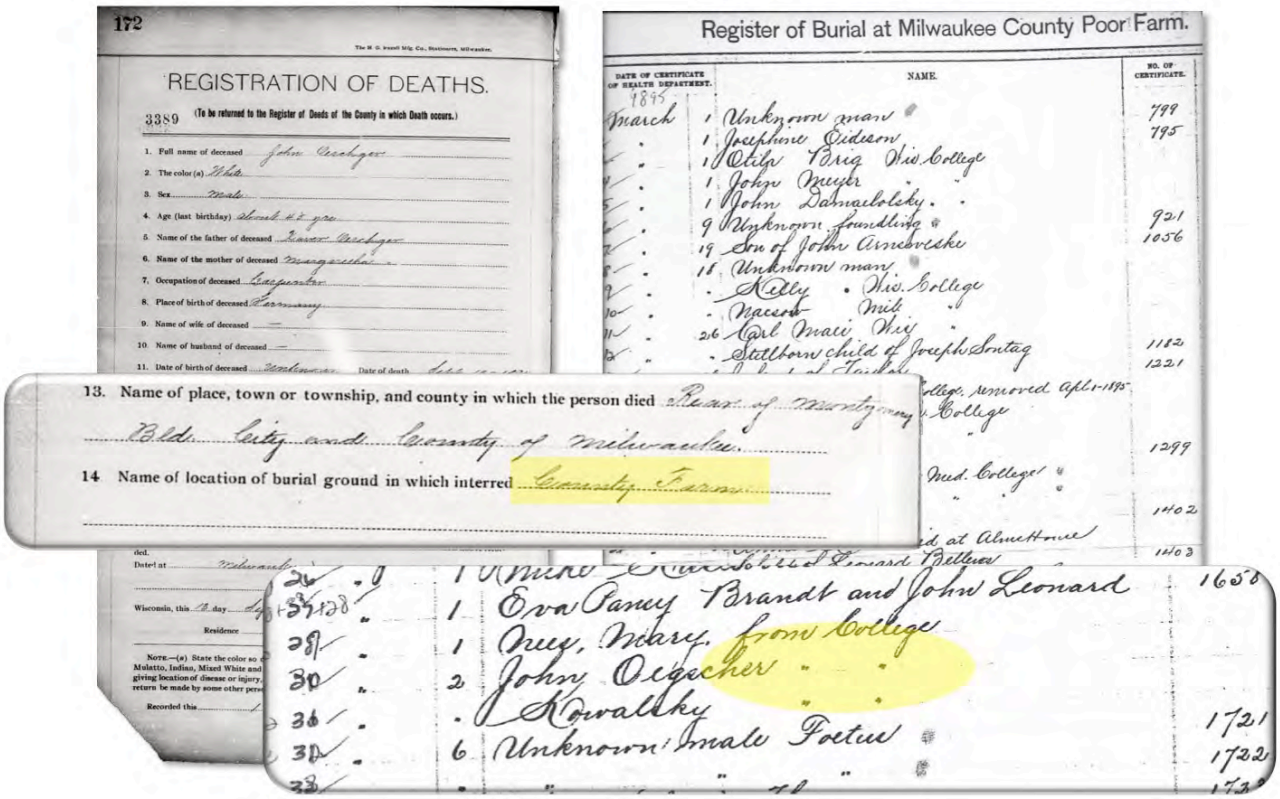


Figure 2.28. Earliest evidence for use as a medical cadaver: John Oeschger.

Death certificates indicate that 1,471 individuals were used as medical cadavers between 1882 and 1925; 1,088 or 74 percent of them are not included in the burial register.

Milwaukee's medical establishment was a central force in the creation of the cemetery's archaeological signature. The two earliest 'official' medical schools, the Wisconsin College of Physicians and Surgeons (WCPS 1893-1913) and the Milwaukee Medical College (MMC 1894-1907). WCPS and MMC, and later Marquette University Medical School or Department, are listed as places of burial on death certificates and coroners reports for individuals who are listed in the county burial register. There are many more records for 'anatomical material' or some variation thereof.

For early medical societies and schools in Wisconsin, the official 'anatomical material' or cadaver-getting process was straightforward. Following an 1871 law, any public official in possession of an unclaimed body was to notify the appropriate medical establishment, who might request it as a medical cadaver providing they pay for a proper burial. If the school had need of the body, they were to request in writing its consignment. For those for whom an inquest was held, the inquest document often includes the official letters from the medical colleges promising to use the bodies properly and bury them decently. The school had the body turned over to their agent, usually an undertaker, who would deliver the body first to the medical school, and presumably later to the county cemetery for burial.

For instance, Daniel Shea died on September 3rd of 1906 by falling into a ditch while intoxicated, according Henry Broegman, the coroner (Coroner's Inquest of Daniel Shea, 3 September 1906, pp. 1-3). Noting in the death certificate that the body must be delivered to a medical school for anatomical purposes, Broegman received a letter dated September 18th from William Washburn, the secretary of WCPS, requesting that Charles Judson be allowed to transport Shea's unclaimed body to WCPS for anatomical purposes according to the 1903 law. Charles Judson served as the agent specified in the law for both schools. Judson was an undertaker operating in Milwaukee as early as 1888, and was closely tied to the medical establishment throughout his career. His business partner, according to Milwaukee directories, was Fernando Mock, who graduated from WCPS and began a medical practice while continuing to work as an undertaker.

After repeated failures beginning in the 1840s, medical professionals in Milwaukee had by the turn of the century succeeded in establishing two medical colleges in the city: The Wisconsin College of Physicians and Surgeons in 1893, followed by the Milwaukee Medical College in 1894. The Milwaukee Medical College, founded by Drs. William Earles and W.H. Nielson, was an independently operated stock company before Marquette University adopted it as its own medical program in 1907. The Wisconsin College of Physicians and Surgeons also began as a profit-seeking venture, growing from an initial capital stock of $1500.00 to $100,000 before faculty "became more interested in […] students, than in making their stock pay dividends" in 1906 (Frank 1915). It was nominally the medical department of Carroll College by 1910, but in 1913 was also acquired by Marquette University. Driven by new national standards for medical education, Marquette eventually built these institutions into the Marquette University School of Medicine, which became the Medical College of Wisconsin in 1970.

In 1910, The Wisconsin College of Physicians and Surgeons had no full-time teachers and "utterly wretched" clinical facilities, according to Abraham Flexner's study of medical education across the U.S. and Canada. Visiting Milwaukee in February of that year, Flexner found little to like. Laboratories and dispensaries were ill equipped or poorly maintained. The Milwaukee Medical College (9th and Wells) and Wisconsin College of Physicians and Surgeons (4th and Reservoir) were five miles from the County Hospital, hindering advertised clinical teaching relationships and limiting access to the many acute cases available for observation at the County Grounds. He was suspicious of the close relationship between Trinity Hospital and the Milwaukee Medical College, "practically part of the same corporation", noting that the 75-bed hospital primarily performed surgery on paying patients. He went as far as to question whether the four-year high school requirement for medical school matriculants had been enforced, finding it "impossible to procure any information at all" from an unnamed Wisconsin education official regarding the issue. "The two Milwaukee schools are without a redeeming feature," Flexner finished, and suggested that the Madison "half-school" was the clear choice for the further development of medical education in Wisconsin. Still, the report was not entirely negative: commenting on the laboratory facilities at the Milwaukee Medical College, he found that anatomy was "better than ordinary". The MMC's access to cadavers must have been judged sufficient, given Flexner's disappointment in the WCPS Anatomy department's inability to produce a complete skeleton during his visit (Flexner 1910).

Both schools claimed ready access to cadavers and adherence to their official curriculum would have required it. The anatomy laboratory was the prevailing concern at these schools, operating in short semesters from mid-October through early March, taking advantage of the cold to slow decay. In 1906, for example, students at the MMC were to be in the anatomical laboratory from 2:00-6:00 in the afternoon for their first four semesters, during which time they would complete at least two dissections as well as observe operations on cadavers in the auditorium. MMC also encouraged students in the 1906-1907 school year to "own a human skeleton", but in any case the college had "secured a large number which [could be] loaned to the student upon a nominal fee" (Milwaukee Medical College, 34-35). There was a similar schedule at the Wisconsin College of Physicians and Surgeons, which urged students to make as many dissections as possible, reminding them the dissection room was always open in the winter.

As in many states at the time, the schools could rely on a state law to take anatomical material from the nominally unclaimed bodies of poor people. Death certificates, coroner's reports, and school correspondence confirm that county officials gave 283 individuals to the Milwaukee Medical College and the 149 to the Wisconsin College of Physicians and Surgeons between 1895 and 1913, pursuant to state statutes first adopted in 1871. In 1895, the schools began obtaining bodies under the statute (Ch. 406, 1871) which then put, upon request, any unclaimed remains to be buried with public expense at the disposal of a county's medical institutions for anatomical purposes, with the schools assuming the cost of transportation and "decent burial" of the body. This privilege was codified into law in 1903 (Sec. 2 Ch. 406, Laws of 1903) when both schools were specified as proper recipients for bodies from the eastern U.S. judicial district, while Madison received those from the western U.S. judicial district; MMC came to use a form letter for this purpose. Even so this may not have fulfilled their needs: MMC would have only had on average 15 cadavers a year if they relied solely on the poor cited under state law, while requiring cadavers for demonstrations, dissections, and anatomical specimens for a student body of 150 by 1906. Still, as for-profit enterprises this would have been a healthy benefit for the schools. For their

part, the schools did not consistently fulfill their legal obligation to the people whose bodies they used. A decent burial at the time would not have included multiple individuals in a single coffin nor medical waste and trash, as was recovered during the 2013 excavations. Dealing with remains after anatomical use was a problem from the beginning: in 1896, the city was horrified when a dismembered woman was found at a rendering plant, the latest in a series of incidents where medical cadavers were thrown in the trash or left in an empty lot (MJ, 1 February 1896).

Despite all these complications, the law remained relatively unchanged across the multiple iterations of medical education in Milwaukee. When the schools became part of Marquette University Medical College, and later formally the Marquette University School of Medicine, the state law changed accordingly, providing the cadavers to Marquette. Based on death certificates, Marquette Medical College or Marquette University received 82 cadavers between 1913 and 1925.

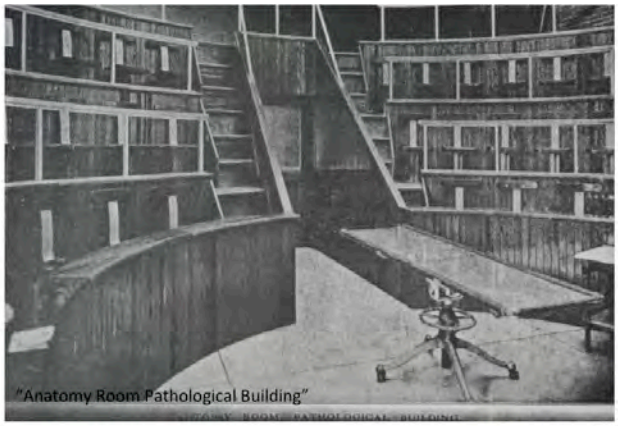
Milwaukee County Pathology Department

In a "Report of the Resident pathologist, October 1, 1908 – September 30, 1909" which is found in the Annual Report of the Milwaukee County Hospital, County Farm, Alms House and Water Works, Department of Out-Door Relief and District Physicians of Milwaukee County, Wis. October 1, 1908 to September 30, 1909, the pathologists writes:

> Post Mortem Examinations: Fifty-six autopsies have been held during the past year. This is an unfortunately low number when one considers the number of patients who have died at the County Hospital during the past year and the benefits that may have been derived from such autopsies. It is desirable that some steps be taken to remedy this condition.
>
> Museum: Several interesting specimens have been added to the museum the past year, increasing our collection to over 275 gross anatomical specimens. These specimens are of great value to the medical staff and attending men, and are also of special value for supplementary demonstrations in autopsies clinics. They can be used to great advantage for teaching purposes [Annual Report of the Milwaukee County Hospital 1909].

Figure 2.29 illustrates a plan and photograph of the facility from the 1908- 1909 report.

Official reports from the county pathology department form an important group of sources documenting postmortem interventions. MCHS and Milwaukee Public Library holdings include official reports from the superintendents of the various county institutions to the county board of supervisors. Although the annual summaries from the pathology department did not contain the extensive autopsy records sometimes found with the coroner's documents, the writers do reflect on the basic work typical of early twentieth century pathology labs carried out in their efforts towards scientific and career advancement. Beginning in the basement of the old hospital, the pathology department eventually got its own building complete with an auditorium and a museum in 1904.



Report of the Resident Pathologist Oct 1, 1908 – September 30, 1909

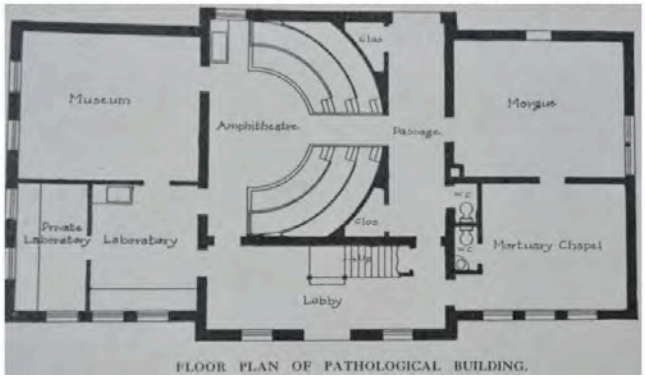


Figure 2.29. Plan and photograph of the Pathological Facility noted in the 1908-1909 Report of the Resident pathologist.

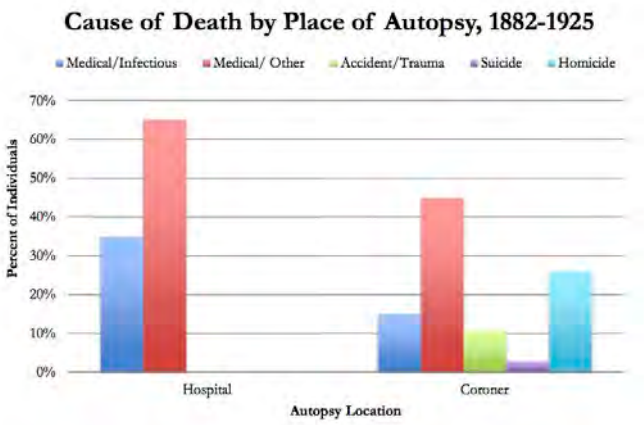


Figure 2.30. Major causes of death determined by the Milwaukee County Hospital and the Milwaukee Coroner for individuals buried in Cemetery 2 from 1882-1925.

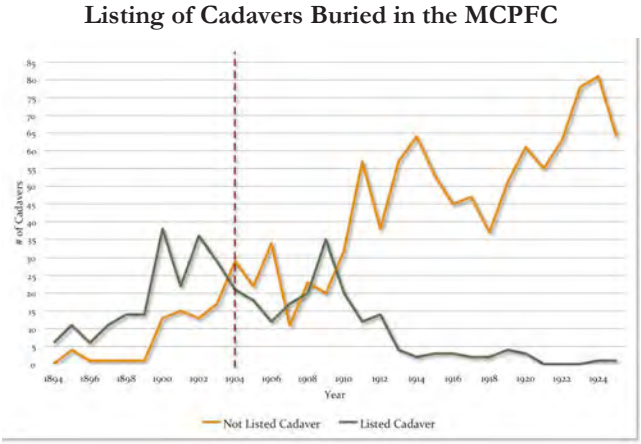


Figure 2.31. Cadavers listed or not listed in the *Register of Burial at Milwaukee County Poor Farm*.

Postmortems: Autopsies and Cadavers

Autopsies and specimen collection were done here before the pathology department and county laboratories moved into the new main hospital building in 1922. Unlike the medical schools, the pathologists who worked here had trouble acquiring either enough time or permissions to complete all the desired postmortems in their department. The department performed an average of 76 autopsies a year based on available reports, and collected hundreds of "very valuable specimens" for their anatomical museum, but in the first decade of the twentieth century the administration of the department routinely complained about the "unfortunately low number" of autopsies performed the previous year and lamented their inability to take advantage of the "abundant" anatomical material generated by the operation of the county hospital. It seems the dead were selected for autopsy or speciminization based on medical interest first, rather than the legal and scholastically useful availability of a corpse. Significantly, several of the doctors also published articles in contemporary medical journals: in 1911 department personnel had received permission to publish "interesting cases" from the wards. Some of the articles included reports of cases that were investigated at the county hospital, replete with initials and other identifying medical information of the patient, and these documents confirm that the county pathology department was another origin of the postmortems interred in the Milwaukee County Poor Farm Cemetery.

Postmortem procedures conducted at the Milwaukee County General Hospital for research or academic reasons were usually held shortly after death. Unfortunately, the county death certificates only record the occurrence of a Milwaukee County Hospital autopsy after 1917. Nonetheless a comparison of available information for the autopsies conducted by the coroner and by the Milwaukee County Hospital reveals a differential distribution of COD categories. Non-infectious medical deaths were the most common in both locations, 65 percent (n=74) for the hospital, 45 percent (n=106) for the coroner. However, all of the hospital autopsies were medically related, while 26 percent (n=61) of the coroner's autopsies were homicides, 11percent (n=25) were accidental traumas, and 3 percent (n=8) were suicides (Figure 2.30).

As illustrated in Figure 2.31 the majority of cadaver burials are listed in the Register until 1904 when most medical cadavers were no longer listed. This pattern continues until 1921; during the cemetery's last five active years, only two out of 341 cadavers are listed. The number of juveniles subject to postmortem investigation is consistently less than the of number of adults. Within the juvenile age categories of prenatal, infant, early and late childhood, all exhibit a similar percentage of cadavers while the toddler category is smaller (Figure 2.32).

Within the adult age categories, old adults exhibit the greatest percentage of cadavers (32%, n=733). Among all age groups, the cause of death categories most commonly resulting in use for anatomical

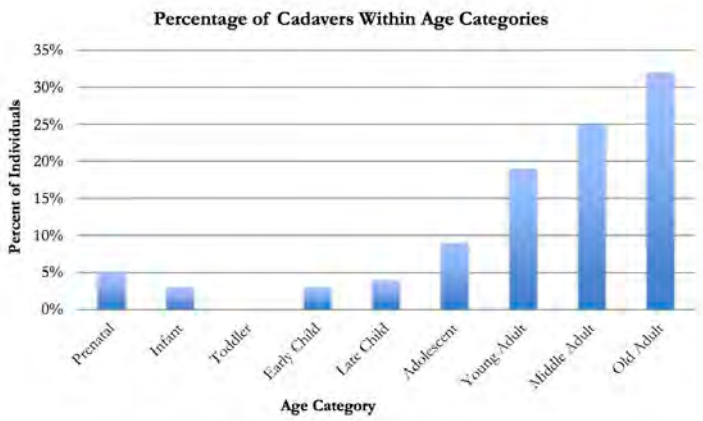


Figure 2.32. Cadaver use by age category for individuals buried in Cemetery 2 from 1882-1925.

purposes are suicides (36%) and infectious diseases (44%). Only 19 percent (n=639) of non-infectious medical conditions resulted in anatomical dissection. Of these however, 33 percent were reported as being alcohol-related and 41 percent had a cause of death with a mental illness component.

Within the suicide COD category, those who died by inhaling illuminating gas (55.6%, n=10) were more likely to become cadavers than those who hung (n=72), shot (n=63), drowned (n=45) or cut (n=13) themselves. Similarly, there appears to have been a preference for certain types of infectious diseases, with tuberculosis (37.9%, n=417), syphilis (n=50, 29.8%), and pneumonia (29.1%, n=160) having higher proportions of cadavers. The proportions of adult females and males used for anatomical purposes is not significantly different: 24 percent (n=147) and 30 percent (n=1189), respectively.

Other factors that may have influenced an adult's chances of becoming a medical cadaver include place of death and residence at the time of death. Of those with known places of death, 44 percent (n=386) of individuals who died at one of the county institutions became cadavers. Other places of death with high cadaver frequency include correctional facilities with 38.5 percent (n=30), Milwaukee Emergency Hospital with 31 percent (n=89), and Milwaukee County General Hospital with 28 percent (n=642). With regards to residence, 71 percent (n=22) of those who were being treated at the Milwaukee Emergency Hospital but died at the County Hospital became cadavers, as well as 54 percent (n=13) of those who lived at the Milwaukee Rescue Mission, 53 percent (n=10) of those incarcerated at a correctional facility, and 43 percent (n=84) of those who lived at the County Almshouse/Infirmary.

Discussion

This chapter provides temporal and geographical context for the burials excavated from the Milwaukee County Poor Farm Cemetery 2 in 2013. The life experiences of the people who were buried in the cemetery were shaped firstly, by the immigrant experience, and secondly, by a rapidly expanding City of Milwaukee within an industrial landscape. The land of opportunity was also a land of disparity between the rich and the poor. Life was dangerous in the meat packing plants, iron mills, flour mills, tanneries and breweries. Language, cultural, and economic barriers existed for immigrants to southeast Wisconsin and those without familial, religious or cultural support lived very much on the edge.

Milwaukee County took its responsibility for the care of the poor and sick seriously and the poorhouse was intended to provide a refuge for those truly in need as a result of sickness, age, or disability. At the same time, the poorhouse was also intended to discourage those capable of work from relying on public assistance. Finally, it is clear that those who were in need also paid a price. For Milwaukee's poor, death while a resident at one of the Milwaukee County Institutions, or death without means to provide for a "proper" burial likely meant a meager burial in a county plot and potentially the use of your body in a postmortem investigation. It surely meant that your place of burial was likely to be neglected and quickly "forgotten."

CHAPTER 3. FIELD AND LABORATORY METHODS

by Thomas J. Zych and Patricia B. Richards

Introduction

Archaeological excavation and analysis of human remains and associated objects from the Milwaukee County Poor Farm Cemetery (47MI0527/BMI-0076) were carried out as specifically outlined in the archaeological contract among Froedtert Memorial Lutheran Hospital (hereafter Froedtert), UWM-CRM, and the Wisconsin Historical Society. Terms of this contract included adherence to both the Wisconsin Archaeological Survey's guidelines for the excavation and analysis of human remains, and to the guidelines set forth by the United States Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. All ground disturbing activities prior to, during, and following Phase III excavations within or directly adjacent to the site area were monitored by a "qualified archaeologist" as specified under Wis. Stats § 157.50 (l)(i) and Wis. Admin. Code 2.04 (6); during the course of excavations a "qualified archaeologist" and a "skeletal analyst," as defined in Wis. Stat § 157.70 and Wis. Admin. Code 2.02(12) and 2.04(6)(b), were on site at all times. The following chapter outlines the methods and procedures utilized by UWM-CRM in the course of excavation and laboratory analysis. These methods meet those minimum requirements specified in the archaeological contract and those set forth by the Wisconsin Archaeological Survey. All staff were provided a detailed outline of the excavation protocol and procedures (Richards 2013), as well as a pre-field training session that oriented them with the project background and goals. Additionally, all UWM-CRM staff working on-site attended a mandatory Mortenson Construction Safety Training Program prior to accessing the project area, as required by the contractor.

Field Investigation

Archaeological Monitoring

Project plans for the proposed expansion of Froedtert hospital included disturbing more than a half acre (~0.2 hectare, ~2,000 m^2) of land that fell within the boundaries of the Milwaukee County Poor Farm Cemetery (47MI0527/BMI-0076). To allow for continual excavation during rainy weather, a large tent was constructed over approximately 5,900 ft^2 (2,900 m^2) of the overall project area. Tent construction necessitated minor leveling of the existing ground surface and setting of long stakes to secure the tent footings. Qualified UWM-CRM archaeologists (see above) monitored all project related ground-disturbing activity within the project area. From a safe vantage point, qualified UWM-CRM staff monitored all construction crews as they removed topsoil and exposed underlying subsoil deposits within the project area. Staff also visually inspected piles of excavated soils for the presence of any previously disturbed cultural materials. Pre-excavation activity also included the exact delineation of buried fiber optic utilities along the north curb of Doyne Avenue. In three locales a hydro-excavator was used to remove fill and identify the depth of the existing cable lines; qualified UWM-CRM staff monitored all hydro-excavation activities. Following the excavation of all burials within the project area, additional archaeological monitoring was conducted in conjunction with the installation of horizontal directional bores for large 'soil nails' used to provide additional stability for the foundation associated with the proposed hospital construction.

Monitoring presents a number of safety challenges as archaeological crews work in close proximity to crews operating heavy machinery. Archaeologists were required to follow the same safety rules and guidelines as the construction crews and engineers. Personal protective equipment including safety vests, safety shoes, and hard hats were worn at all times while in the project area. In addition, archaeologists working near operating machinery maintained constant visual eye contact with machinery operators when entering and exiting the excavation area.

Phase III Excavations

Site Grid

Preceding the start of field excavations, a site grid was established to record the horizontal and vertical location of all encountered burials, excavation blocks, utility corridors, and other cultural features identified during excavation. This Cartesian grid, with all coordinates reported as Northing and Easting, divides the site into a series of five-foot units, established using a Sokkia Set 5F Total Data

Station (TDS) with a Topcon FC-2500 data collector. To facilitate spatial corroboration with the proposed construction footprint, the site grid coordinates coincided with the previously established survey data utilized by Mortenson Construction surveyors. This ensured all spatial data collected would correspond with the proposed construction plans, identifying all portions of the cemetery to be impacted by the proposed construction, and simultaneously ensuring no unnecessary burial disturbance occurred. Additionally, UWM-CRM surveyors worked closely with Mortenson Construction engineers, exchanging regularly updated progress maps to ensure all proposed impacts to the site area were mitigated properly.

Utilizing mapping control points already established by Mortenson Construction surveyors, UWM-CRM excavations were recorded utilizing the Wisconsin State Plane South coordinate system (FIPS 4803, linear US feet) referencing the NAD 1927 datum. For the purposes of UWM-CRM site grid, only the last five digits from the Northing and the Easting are used (three digits before the decimal and two digits following the decimal). Note, Northing numbers increase from south to north, and Easting numbers increase from west to east.

The site grid was continually extended west as machine excavations proceeded (see below). Grid corners were staked with landscape spikes set into the ground, with grid coordinates labeled on flagging tape tied to each spike. Note, when a grid corner fell within the limits of a coffin, that grid corner was not staked and excavators utilized the next closest grid corner for feature mapping (see below).

Given the extensive landscape modification occurring within the project area, north of Doyne Avenue, UWM-CRM surveys established three permanent data points in the Milwaukee County park located directly south of the project area and south of Doyne Avenue (Figure 3.1). These were marked with 30" metal survey monuments set flush with the natural terrain. The coordinates for the three monuments are listed in Table 3.1. In the event that human or natural causes (i.e. lawn-mower strike, freezing, thawing, etc.) caused the elevation of these monuments to fluctuate over time, elevations were recorded for the north and south end of a water-retaining wall associated with the ponds located within the Milwaukee County park (see Figure 3.1). At the north end, the top of this wall had an elevation of 142.35 ft (N 384983.5847 E 2528299.912) and the southern end had an elevation of 142.0632 ft (N 384943.7685 E 2528297.824). Any possible future investigations associated with the remnant of Cemetery 2 under Doyne Avenue should be able to associate with the 2013 UWM-CRM grid.

Machine-Aided Excavation

Previous excavations by Great Lake Archaeological Research Center, Inc. (GLARC) confirmed newspaper accounts noting historic fills associated with the construction of the former nurses' residence. This residence covered the western portion of Cemetery 2 (MJ, 6 April 1932:L1). Machine-aided excavations were thus necessary to reach the elevation of the buried coffins in a timely and efficient manner. A hydraulic excavator, or track-hoe, was utilized during the course of the project to expose burials within the project area. This machine was equipped with a 3" wide bucket with a steel plate attached across the teeth of the bucket to ensure a smooth, flat surface was exposed during excavation. Additionally, a compact- or mini-excavator equipped with a 16-inch trenching bucket was utilized to expose and remove a fiber-optic cable line that ran through the southern edge of the project area along Doyne Avenue. All machine excavations were closely monitored and directed by UWM-CRM supervising staff. During the 1991-1992 excavations at Cemetery 2, GLARC excavators noted that manipulation of the excavator's bucket across the length of the coffins (i.e. east-west) expedited the identification of grave shafts and coffins (Richards and Kastell 1993), thus this procedure was adopted in 2013 and proved very successful. UWM-CRM monitors worked closely with a skilled excavator to safely remove approximately an inch of soil with each pass of the bucket. This proved an efficient means of quickly and carefully exposing the buried coffins.

As individual grave shafts were identified, the UWM-CRM monitor closely directed the pace of machine excavation using established hand signals. This allowed for clear communication between the machine operator and the excavation monitor. Excavations continued down until the tops of the individual coffins were identified. Once this level was reached, each grave shaft edge was defined via shovel-skimming (i.e. hand excavation). Individual grave shafts were marked using pin flags labeled with an assigned Lot Number (i.e. unique identifier). Additionally, utility marking spray paint was used to mark the grave shaft edges in highly-visible color markings to both clearly identify each grave for mapping as well as to ensure crew members

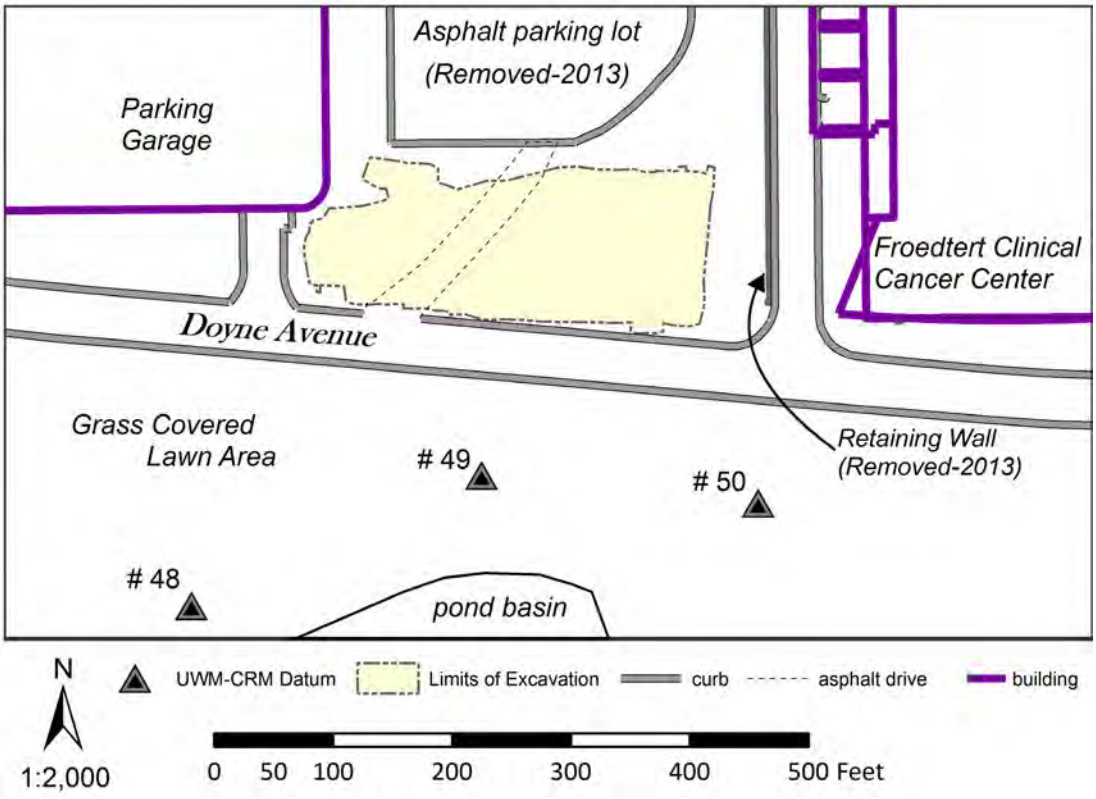


Figure 3.1 Map showing location of permanent survey markers south of Doyne Avenue.

Table 3.1. Coordinates for UWM-CRM Permanent Survey Monuments.

UWM-CRM ID	Northing	Easting	Elevation (ft)
48	384997.8065	2528016.564	146.7523
49	385085.5058	2528192.003	147.989
50	385075.8805	2528363.327	143.8208

navigating through the excavation area avoided disturbing the graves.

Fragmented human remains were occasionally encountered during machine excavations through the overburden covering the cemetery. Notably, several elements were recovered from trench fill associated with a water main that passed through the middle of the remaining cemetery area (Figure 3.2). 2013 investigations later revealed that the installation of this water main had previously disturbed several burials. This explained the presence of human remains in the trench fill. Human remains and coffin fragments were also found outside of this trench, likely associated with the historic dumping of materials from Cemetery 2, which were disturbed during the construction of the former nurse's residence that once stood on the eastern portion of Cemetery 2 (MJ, 6 April 1932:L1). These isolated remains were collected as they were identified, and excavations were halted during this process. This ensured future excavations could continue without damaging isolated remains.

Lot Assignment

Provenience was maintained using a lot number system that assigned a unique identifier to an individual burial. Lot numbers represent a two-part numbering system consisting of the project identifier and a unique catalogue number. For instance, the lot number 2013-001.10000 represents the unique UWM-CRM project number, "2013-001," and the unique catalogue record "10000." (Note: the 2013 UWM-CRM excavations began with the number 10000 to avoid duplicating lot numbers that are associated with burials excavated during the previous

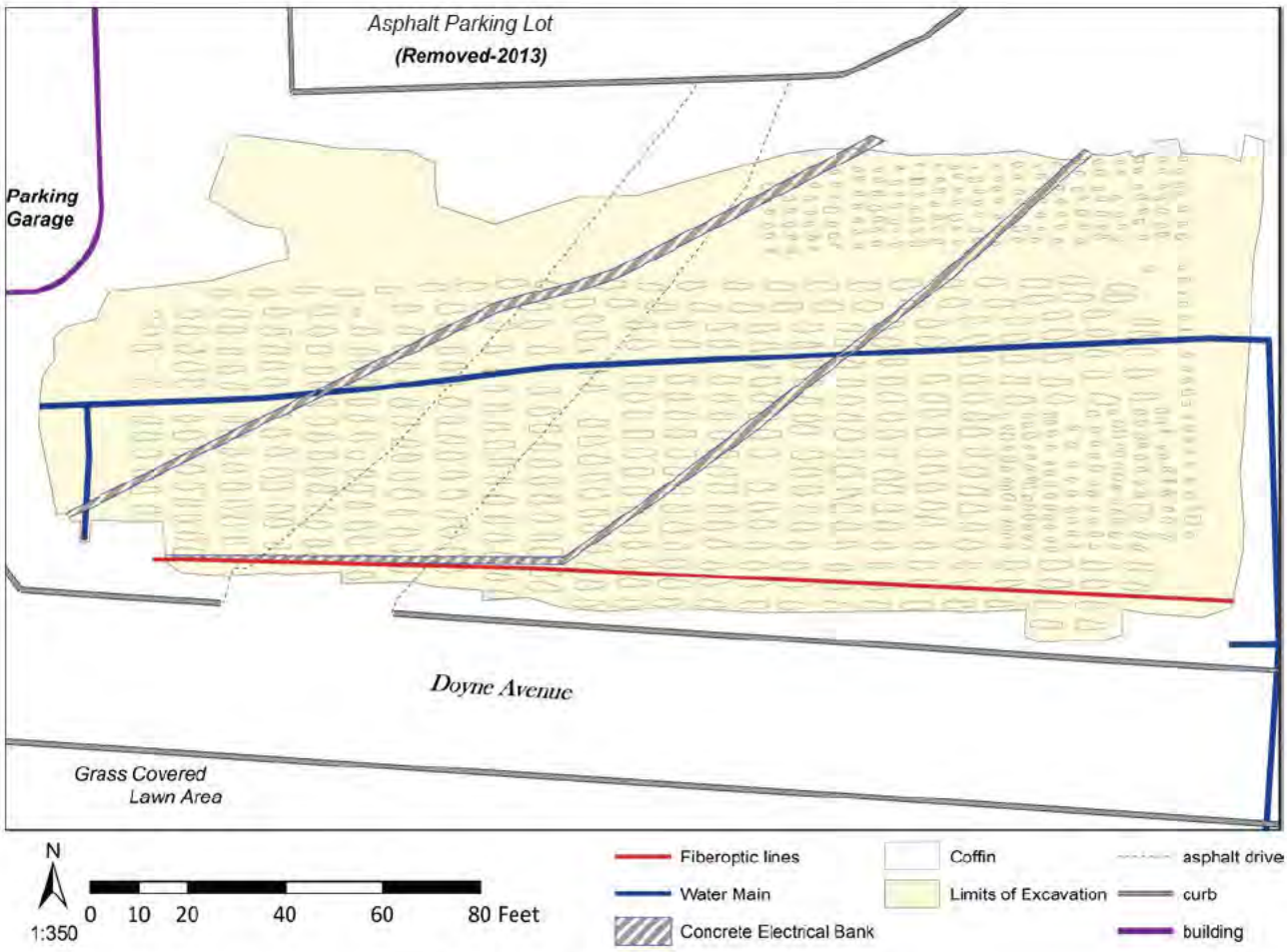


Figure 3.2 Map of utility disturbances at BMI-0076.

1991-1992 GLARC excavations.) The 2013 UWM-CRM Lot Book can be found in Appendix A.

Immediately following the definition of individual grave features by machine and the clear delineation of grave shaft edges, each burial was assigned a lot number. Each lot number catalogues specific provenience information, including grid location, elevation, the absence/presence of grave goods, and the presence of multiple individuals within each grave. Note: the lot number associated with each coffin also represents the primary individual burial identified within each grave.

Several graves identified during the 2013 excavations contained more than one individual interred in each coffin (or in one case, in a grave shaft). When more than one individual or more than one set of non-individualized human remains were present in a single coffin, individuals were, when possible, assigned individual lot numbers. This resulted in three recovery contexts: a single individual in a single coffin assigned a unique lot number regardless of the completeness of the individual; a "mixed" context where at least one individual was more than 50 percent complete but where other remains could be individualized and assigned multiple lot numbers, and a "commingled context," where individuality was unclear and a single lot number was assigned to all remains regardless of the minimum number of individuals represented.

Burial Excavation

Information pertinent to each burial (i.e. lot number) was collected and recorded on burial excavation forms specific to the age of the burial (juvenile or adult - see Appendix B). Each form recorded the corresponding burial lot number, grid coordinates, photograph information, coffin shape and dimensions, burial position (head to east or west) burial pit dimensions, associated grave goods, level of preservation observed, estimated completeness of skeleton observed, sex and age of each individual

(if possible), soil descriptions, total number of associated bags, boxes, and flotation samples, and general comments pertaining to the particular burial. Additionally, a skeletal recording form with a sample illustration of a human skeleton was used to allow excavators to darken (or color-in) the skeletal elements observed and collected during excavation, as well as to provide additional space for notations particular to the skeleton itself.

Prior to excavation, each grave was mapped in plan view on individual sheets of graph paper that remain with the individual burial records described above. These maps illustrate the basic outline of the coffin, the outline of the grave shaft, and the location of the closest site grid coordinate. Additional information that provided context or that may have been unique to a specific burial was also captured (e.g. neighboring grave lot numbers, evidence of disturbance, etc.). If coffin edges were not clearly discernible, then excavators began hand excavation (i.e. using trowels and shovel) to identify the boundaries of the grave shaft and coffin. Fill removed from above or directly adjacent to the coffin was sifted through ¼-inch mesh hardware screen. Once coffin edges were identified, six mapping-reference nails were placed at the corners of six-sided coffins. Four nails were used for rectangular coffins. The coordinates for each nail were recorded via the TDS, relative to the established site grid (see above). Excavators then retrieved elevation data for each nail from the UWM-CRM surveyor and recorded the pertinent information on their burial paperwork. All plan maps were then checked by UWM-CRM supervising staff to check for accuracy and to ensure all significant data was recorded. Each plan map was associated with the burial excavation forms for each burial (see above). Following completion of the plan map, each grave was photographed by the UWM-CRM photographer.

Excavation proceeded with the careful removal of sediments surrounding the burial(s) using plastic, bamboo or wooden implements and brushes. Metal tools were not permitted so as to avoid damaging the remains during the course of excavation. Typically, excavators proceeded by locating the cranium first. The cranium usually protrudes out furthest from the bottom of the grave or coffin, thus is likely the first element to be encountered. Additionally, locating the cranium provides the excavator with information regarding the burial orientation and likely position of the post-cranial skeleton. Hand excavation proceeds with exposing the more durable skeletal elements (e.g. long bones of the legs and arms). All excavated sediment from within the coffin (except soil retained for flotation) was sifted through a ¼-inch hardware mesh. Note, all fill within the coffin of infant and juvenile burials was collected for flotation to ensure complete recovery of all skeletal elements. Flotation samples were transported daily from the site to the UWM-ARL for processing.

Field Photography

Once an excavator had fully exposed the individual(s), ensuring all skeletal elements were visible and free of surrounding matrix, the grave was photographed by the UWM-CRM photographer. Care was taken to ensure all mapping nails were visible in the photographs. Given the time constraints of this project, mapping the contents of each individual coffin was not possible. Instead, field photography methods were designed to produce stereoscopic images of each grave. These images could be pieced together and georeferenced to data collected via total station by the UWM-CRM surveyors.

Removal and Bagging Procedure

After the burial was photographed, supervisors checked paperwork to ensure that excavators had recorded all the necessary data. Excavators then proceeded with the removal of skeletal elements, grave goods, and associated material culture (nails, coffin hardware, wood, etc.). Skeletal elements were removed in a predetermined order to ensure elements were removed carefully, and placed within clearly marked bags. Particular care was taken to ensure elements placed into bags were labeled respective of the side of the skeleton they were removed from (i.e. left or right). Skeletal elements were collected as follows: cranium, mandible, loose teeth, right ribs, left ribs, right scapula and clavicle, left scapula and clavicle, vertebrae, right arm (humerus, radius, ulna, left arm (humerus, radius, ulna), right hand, left hand, pelvis, right leg (femur, tibia, fibula), left leg (femur, tibia, fibula), right foot, left foot, and miscellaneous bone. Removal and bagging of skeletal elements was closely monitored by supervising staff. All skeletal elements were then boxed in the field, labeled with the appropriate provenience information, and transported to the UWM-ARL daily. All human remains removed from their contexts were returned to the UWM-ARL each evening.

Coffin hardware and grave goods were bagged separately from all human remains, and transported in separate containers from any human remains. Prior

to completion of each coffin excavation, supervisory staff checked all material bags and associated boxes for proper labeling and scrutinized all paperwork to ensure proper completion. Upon approval from supervisory staff, all coffin wood was removed from the original context. A select number of well-preserved coffin wood samples were collected and transported to the UWM-ARL for preservation.

Data Management

Field notes (both field forms and prose notes), maps, and digital spatial data were maintained throughout the project by the project manager. Feature locations were recorded using a total data station (see above). All photographic images of the project are digital. All digital data, including spatial and photographic data, were backed up on multiple systems daily. All field notes, maps, and recovered human remains and cultural materials are curated at the UWM-ARL in Milwaukee, Wisconsin.

Laboratory Methods

Once all human remains, coffin hardware, and grave goods were transported to the UWM-ARL, the materials were cleaned, stabilized, inventoried, and analyzed according to standardized methods.

To facilitate the analysis of the materials and management of related documents, all data collected was entered into a Microsoft Access database. The database was designed to allow for data categorization and summary, as well as for recordation of spatial characteristics.

Osteological Methods

A series of Standard Operating Procedures manuals were prepared for laboratory work related to the Milwaukee County Poor Farm Cemetery excavations. These manuals included the inventory process for adult and juvenile human skeletal remains, analysis of single adult skeletons, analysis of mixed lot skeletons, analysis of juvenile human skeletal remains, and inventory and analysis of material culture.

Rebagging and Labeling

All osteological material was bagged in glassine bags to ensure curatorial integrity. Each bag was labeled to accurately reflect the contents within the bag using the following template:

Line 1: MCPFC
Line 2: HRMS #2013.001
Line 3: Lot #
Line 4: Contents (e.g., right ribs)
Line 5: Quantity (e.g., 2 + 1 frag)
Line 6: Excavation Date: Mo/Da/Yr, excavator
Line 7: Stabilization Date: Mo/Da/Yr, technician
Line 8: Analysis Mo/Da/Yr, analyst

Adult Inventory

An *Adult Burial Inventory Record* (see Appendix B) was created for each lot number. This record allowed for the collection of both a visual and a quantitative inventory. For the purposes of quantification, the following definitions were used:

Element: a complete, unbroken, bone. For example, a humerus, a femur, etc. An element is a type of *specimen*.

Fragment: an incomplete bone. For example, distal anterior humerus, cancelous bone, etc. A fragment is a type of *specimen*.

Specimen: a complete element or a fragment thereof; a single piece of osseous material.

Miscellaneous elements: those elements that exceed the expected number for a single adult burial. For example, a second left leg.

Miscellaneous fragments: fragments that are not able to be identified as representing any particular element.

NISP: number of identified specimens.

Three wooden trays were utilized in order to lay out an individual burial. Bags were removed from the burial boxes and skeletal material was placed within the trays in a supine position.

Quantitative inventory data was recorded on Page 1 of the *Adult Burial Inventory Record*. All elements were quantified, as were fragments larger than one inch. However, whole elements that were smaller than one inch such as terminal phalanges and sesamoids were counted.

A visual inventory was completed by shading in the represented elements on the skeletal outline provided in the *Adult Burial Inventory Record*. Teeth

that were present in the mandible and maxilla were also recorded by shading.

Juvenile Inventory

In contrast to adult human remains, inventory was the last procedure in the analysis of juveniles. The juvenile inventory process required selection of an appropriate skeletal outline. In order to avoid adding bias into the age assessment process, the inventory was completed after the age assessment. In all cases, the same analyst was responsible for completion of the analysis and inventory for a single juvenile burial lot. Similar to adult recordation, the juvenile form provides both a visual and a quantitative inventory. Unlike the adult process, the inventory requires the analyst select the form that corresponds to the broad age category to which the juvenile skeleton was assigned during the aging category. These forms include: Prenatal – 2.49 years, Early Childhood, Late Childhood, or Adolescent. Quantitative inventory data was collected while the juvenile skeleton was fully laid out in a wooden tray or trays. The visual inventory is completed on the appropriately chosen skeletal outline drawing.

Adult Age, Sex, and Stature

An *Adult Age, Sex, and Stature Recording Form* (see Appendix B) was completed for each single adult. Scores were recorded for observations of sex, age, and stature for each individual.

Estimating Sex

Sexually dimorphic traits of the pelvis and the skull were recorded according to a range of known variability. Methods for estimated the sex of the pelvis follow Phenice (1969), Milner (1992), and Walker (2005). Methods for estimating the sex of the skull follow Acsádi and Nemeskéri (1970).

Non-metric traits recorded for the pelvis include the ventral arc, subpubic concavity, ischiopubic ramus ridge, greater sciatic notch, and preauricular sulcus. After scoring these traits, an estimation of non-metric pelvic sex was made and recorded.

The features are evaluated together as conforming to one of the following categories:

0 - *Indeterminate Sex*. Insufficient data are available for sex determination (e.g., only one feature was scorable).

1 - *Female*. All features scored as female.

2 - *Probable Female*. The majority, but not all, of the features scores as female (e.g., four features scored female and one feature scored as male or ambiguous.

3 - *Ambiguous*. There is a relatively even mixture of female and male scores or a majority of ambiguous scores, OR the majority of the features scored are ambiguous (e.g., two traits scored male, two traits scored female, and one scored ambiguous).

4 - *Probable Male*. The majority, but not all, of the features scored as male (e.g., four features scored male and one feature scored female or ambiguous).

5 - *Male*. All features scored as male.

Non-metric traits recorded for the skull include the cranial nuchal crest, mastoid process, supraorbital margin, and glabella, and the mental eminence of the mandible. After scoring these traits, an estimation of non-metric cranial sex was made and recorded. The relative quantity of female, male, or ambiguous features are noted as conforming to one of the categories listed above.

Analysts combined the scores of non-metric sex for the pelvis and skull to determine a comprehensive non-metric sex score (Table 3.2). This was recorded and assisted in determining the appropriate methods for assessing the age of the individual.

When collecting osteometric data for estimation of sex, analysts used the left element whenever possible; the right element was measured when the left element was incomplete or absent. Notation was made of the side measured and, if applicable, why osteometric data could not be collected. All measurements were recorded in millimeters (mm). Osteometric measurements included the maximum length of the talus following Steele (1970), as well as the vertical diameter of the humeral head and maximum diameter of the femoral head, both following Stewart (1979) and Spradley and Jantz (2011).

Once all osteometric data was collected, an estimate of metric sex for each individual was made. In cases where female, male, and ambiguous scores were

Table 3.2. Determining Final Estimated Non-Metric Sex from Combined Non-Metric Scores (Drew 2013).

Total Score for Pelvis	Total Score for Skull	Final Estimated Non-Metric Sex Category
0	0	Indeterminate sex
0	1	Probable female
0	2	Probable female
0	3	Ambiguous
0	4	Probable male
0	5	Probable male
1	0	Female
1	1	Female
1	2	Female
1	3	Probable female
1	4	Probable female
1	5	Ambiguous
2	0	Female
2	1	Female
2	2	Female
2	3	Probable female
2	4	Probable female
2	5	Probable female
3	0	Ambiguous
3	1	Female
3	2	Probable female
3	3	Ambiguous
3	4	Probable male
3	5	Male
4	0	Male
4	1	Probable male
4	2	Probable male
4	3	Probable male
4	4	Male
4	5	Male
5	0	Male
5	1	Ambiguous
5	2	Probable Male
5	3	Probable male
5	4	Male
5	5	Male

returned, the following rank order of metric accuracy was employed:

1. maximum diameter of the femoral head (88% accurate [Spradley and Jantz 2011])
2. maximum length of talus (80% accurate [Steele 1978])
3. vertical diameter of humeral head (73-82% accurate [Spradley and Jantz 2011])

Estimating Age

Due to the poor dental health evident in this skeletal collection, tooth wear was not considered a useful indicator of age. Age at death was estimated by evaluating non-metric features of the pelvis and cranium according to a range of known variability. Scores were recorded for each single adult lot on the *Adult Age, Sex, and Stature Recording Form*.

If the analyst was able to estimate sex based on non-metric evaluation of the pelvis, the Suchey-Brooks method (1990) was applied to estimate age. With the aid of print descriptions, images, and physical casts of established phases, the analyst evaluated the pubic symphyses to determine an average age and age range.

If the researcher was unable to estimate the sex of the individual based on non-metric traits, then the Todd (1920, 1921) method was applied. With the aid of print descriptions and images of established phases, the analyst evaluated the pubic symphyses to determine an age range. When this method was employed, an average age was reached by taking the mean of the established age range.

Evaluation of the auricular surface was used to estimate age based on Osborne et al. (2004, after Lovejoy et al. 1985). With the aid of print descriptions and images of established phases, the analyst evaluated the left auricular surface (the right only when the left was unscorable) to determinate an average age and age range. The auricular surface was scored only if the entire surface was present.

Evaluation of cranial suture closure was used to estimate age following Meindl and Lovejoy (1985) and Buikstra and Ubelaker (1994). Each of seventeen suture locations were assessed to achieve a score. The left side of the skull was used in cases of bilateral observational points. Palate sutures were scored across their entire length. Scores for the vault and lateral-anterior sutures were tallied and scored according to Buikstra and Ubelaker (1994:36, Figure 14).

After gathering all pelvic and cranial age data, a final estimated age score was determined. This score was then used to select one of the following adult age categories:

Young Adult (18-34.9 years)
Middle Adult (35-49.9 years)
Old Adult (≥50 years)
Indeterminate Adult (insufficient data)

Estimating Stature

Individual stature measurements were taken for the maximum length of the femur and tibia in each single adult lot. The left element was used for measurements when possible; when the left was incomplete or absent, the right was used. All measurements were taken with an osteometric board and recorded in millimeters (mm). Regression equations for the calculation of living stature were completed according to Ousley (1995).

Juvenile Age

The juvenile age estimation process included three distinct assessments: primary element development and epiphyseal fusion following Scheuer and Black (2000) and Schaefer et al. (2009); dental development following Lysell et al. (1962, as described in Scheuer and Black 2000), Moorrees et al. (1963a, 1963b), Sunderland et al. (1987), and Ubelaker (1989); and overall osteometric growth following Fazekas and Kósa (1978) and Maresh (1970). Before beginning the first assessment, analysts decided whether the size of the remains more closely represented one of two broad size categories of smaller/younger (e.g. fetal) or bigger/older (e.g. late childhood). This allowed both selection of the correct analysis forms and reduction in the number of required observations per burial.

Evaluation of primary element development and epiphyseal fusion involved assessment of fusion rates at each of 64 specific joints throughout the skeleton. The *Juvenile Age Assessment Part I - Fusion* form was used to record data; the *Prenatal to Childhood* or *Childhood to Adolescence* form was used depending on the previously determined size of the individual (Appendix B). Each was assigned a numerical code

based on completion of joint fusion: O (open or not fused), U (fusion underway), and F (fusion complete). As analysis for the current study does not involve a determination of sex for juvenile remains, the fusion ages utilized for assessment of epiphyseal development reference an average of male and female fusion data. Once each fusion site was evaluated, the lowest age range suggested by an O or U fusion observation and the highest age range suggested by an F fusion observation were combined to create an overall estimated fusion age range. If not enough data was present to evaluate, an age range of Indeterminate was assigned. The overall estimated fusion age range was then used to select one of the following juvenile fusion age categories:

Prenatal-2.5 years (0 fetal weeks-2.5 years)
Early Childhood (2.5-5.9 years)
Late Childhood (6-12.9 years)
Adolescent (13-18 years)
Young Adult (≥18 years)

Occasionally, the preservation of an individual prevented assessment of fusion rates but other observations could suggest an age range (e.g. a pars petrosa fragment comparable to an individual of 20 fetal weeks). In these cases, this assessment would be recorded and used to select a juvenile fusion age category.

Seven methods of juvenile dental assessment were utilized in this study. All methods that were applicable to the individual lot were used in order to provide the most accurate assessment. The dentition of individuals assigned to the Fetal to Late Childhood categories by evaluation of epiphyseal fusion were assessed by four methods and results recorded on the *Juvenile Age Assessment Part II - Prenatal-2.49 Years* form (Appendix B).

Sunderland et al. (1987) was utilized to assess dentition that had not yet erupted or loose dentition for which the crown had not yet fully developed. Age in weeks past fertilization was assigned based on the latest age for mineralized teeth recorded as present.

Moorrees et al. (1963a) was used to assess the deciduous mandibular canine, first molar, and second molar; due to the nature of the data, this assessment was not applied to fetal individuals. With the aid of images of established phases, the analyst evaluated each canine and molar to determine an average age of development.

Ubelaker (1989) was applied to evaluate unerupted maxillary and mandibular teeth. The tooth formation and eruption of the individual were compared to images of established phases to determine an average age and age range of development. Because this method was derived from data collected from non-European individuals, dental eruption was also evaluated following Lysell et al. (1962). This method was applied to teeth extending beyond the alveolar margin. Erupted teeth were noted as present or absent and the oldest mean age and age range was recorded.

The dentition of individuals assigned to the Childhood to Adolescent categories by evaluation of epiphyseal fusion were assessed by four methods and results recorded on the *Juvenile Age Recording Form Part II - Early Childhood-Adolescence* form (Appendix B).

The same Moorrees et al. (1963a, 1963b) assessment of the deciduous mandibular canine, first molar, and second molar that was applied to the younger individuals was applied to the older individuals. Additionally, these three teeth were evaluated for resorption of the root, which was compared against established age ranges. Finally, any loose permanent incisors and mandibular canines, premolars, and molars were assessed for crown development, root development, and degree of apical closure. With the aid of comparison images, the analyst determined an average age of mineralization.

Ubelaker's (1989) mixed dentition formation and eruption assessment was also applied to the older individuals. The tooth formation and eruption of the individual lot was compared to images of established phases to determine an average age and age range of development.

Once all dental assessments were complete, the lowest and the highest age range were combined to create an overall estimated dental age range. If not enough data was present to evaluate, an age range of Indeterminate was assigned. The overall estimated dental age range was then used to select one of the following juvenile dental age categories:

Embryo (0-8 fetal weeks)
Fetus (9-40 fetal weeks)
Neonate (birth-28 days)
Infant (29 days-11.9 months)
Toddler (1-2.49 years)
Early Childhood (2.5-5.9 years)
Late Childhood (6-12.9 years)

Adolescent (13-18 years)
Indeterminate (insufficient data)

Osteometric measurements for individuals assessed as Embryo, Fetus, and Neonate follow Fazekas and Kósa (1978) and Scheuer and MacLaughlin (1994). Osteometrics for individuals assessed as Infant through Adolescent follow Maresh (1970). Complete elements throughout the skeleton were measured with sliding calipers, a digital miniature osteometric board, and a full-size sliding osteometric board. Measurements were compared to known ages and ranges and were recorded on the *Juvenile Age Assessment Part II* form (Appendix B).

Once all osteometric assessments were complete, the lowest and the highest age range were combined to create an overall estimated osteometric age range. If not enough data was present to evaluate, an age range of Indeterminate was assigned. The overall estimated osteometric age range was then used to select one of the following juvenile osteometric age categories:

Embryo (0-8 fetal weeks)
Fetus (9-40 fetal weeks)
Neonate (birth-28 days)
Infant (29 days-11.9 months)
Toddler (1-2.49 years)
Early Childhood (2.5-5.9 years)
Late Childhood (6-12.9 years)
Adolescent (13-18 years)
Indeterminate (insufficient data)

Adult and Juvenile Pathology and Trauma

Pathological lesions result from processes triggered by a variety of stressors, including inadequate nutrition, metabolic and developmental stress, congenital abnormality, joint wear, infection and disease, and trauma. Analysis of individuals recovered during the 1991 and 1992 excavations at the Milwaukee County Poor Farm Cemetery revealed a high frequency of pathological skeletal tissue (Milligan 2010). When evaluating remains from the 2013 excavation, bone and teeth from each lot were observed for the presence or absence of pathological lesions. If present, the lesion was described and documented on either the *Skeletal Pathology and Trauma Recording Form - Adult* or *Juvenile* (Appendix B). As diagnosis of condition was not a goal of this study, examination was confined to the higher orders of pathological classification. Both a table and a skeletal line drawing were completed for this assessment.

Growth and Developmental Stress

Bone hypertrophy: noted when abnormal periosteal bone growth was observed.

Osteolysis: noted when localized destruction or resorption of bone was observed.

Porotic Hyperostosis: noted when swelling of the cranial diploic tissue concurrent with thinning of the compact bone was observed

Cribra Orbitalia: noted when this form of porotic hyperostosis causing a porous surface in the orbital roof was observed.

Spina Bifida Occulta: noted when incompletely fused neural arches of the sacral vertebrae were observed.

Unidentified Cranial and Postcranial Morphology: noted when abnormal juvenile bone formation of unknown etiology was observed.

Joint Pathologies

Ankylosis: noted when abnormal fusion of elements was observed.

Eburnation: noted when a highly polished or shiny patina on articular surfaces indicative of cartilage erosion was observed.

Schmorl's Nodes: noted when pitting on the superior and inferior vertebral centra were observed.

Osteophytic Lipping: noted when osteblastic growth at joints and ligament attachment sites was observed.

Degenerative Joint Disease (DJD): noted when joints showed a combination of degenerative porotic change in the subchondral bone surface and the formation of osteophytes at the margins of the articular surface

Non-Specific Infection

Periostitis: noted when inflammatory periosteal reactive growth was observed.

Osteomyelitis: noted when inflammatory reactive growth resulting from infection of the bone marrow was observed.

Neoplastic Conditions

Osteoma: noted when small benign neoplastic growth was observed on the cranium.

Neoplasm: noted when disordered growth of bone or cartilage was observed.

Trauma and Fracture

Healed Fracture: noted when a fibrous callus and new lamellar bone were observed over an area of previous fracture.

Pre- or Antemortem Medical Intervention

Healed Amputation: noted when a clean cut with remodeled bone at the incision site was observed

Healed Trepanation: noted when an incised cranial hole with regrowth of bone on the rim was observed.

Perimortem Medical Intervention:

Cut or Sawed Bone noted when bone incisions made by sharp cutting instruments were observed.

Craniotomy: noted when horizontal cuts through the cranium were observed.

Unhealed Burr Hole Trepanation: noted when evidence that a mechanical drill was used to remove a small circular plug of bone from the cranium was observed.

Unhealed Fracture: noted when fractures with no evidence of remodeling were observed.

Dental Pathology

Pathologies affecting the dental arcade, maxilla, and mandible were also recorded for both adults and juveniles. If present, the condition was described and documented on either the *Skeletal Pathology and Trauma Recording Form - Adult* or *Juvenile* (Appendix B).

Growth and Developmental Stress

Enamel Hypoplasia: noted when lines indicative of disrupted amelogenesis were observed in the enamel.

Unidentified Enamel Morphology: noted when abnormal juvenile enamel formation of unknown etiology was observed.

Periodontal Disease

Calculus: noted when mineralized deposits of plaque were observed.

Caries: noted when demineralized lytic pits in the enamel were observed.

Abscess: noted when smooth-walled lytic cavities near the tooth root were observed.

Remodeled Alveolus/Tooth Loss: noted when remodeled alveolar surface of the maxilla or mandible was observed.

Anomalous Condition

Peg Tooth: noted when microdontia of an individual tooth was observed.

Supernumerary Tooth: noted when hyperdontia was observed in the maxillary or mandibular arcade.

Dental Agenesis: noted when hypodontia of juvenile teeth was observed.

Cultural/Occupational Modifications

Pipestem Grooves: noted when curved depressions in the mesial-occlusal dental surface from long-term clenching of a pipestem were observed

Durable Medical Device

Bridge/Denture/Fillings: noted when the presence of dental prostheses was observed.

General *Other* categories were provided for both skeletal and dental pathology categories to note unanticipated conditions affecting the individuals in the sample, including vertebral anomalies, mastoid abscesses, treponematosis, gunshot wound, impacted teeth, and extra cusps, among others.

Adult and Juvenile Taphonomy

Taphonomy was considered to include all processes affecting an individual after the time of interment. Observation of taphonomic change was recorded on either the *Skeletal Taphonomy Recording Form - Adult* or *Juvenile* (Appendix B). Taphonomic changes were broadly divided into adherent materials, chemical changes, physical changes, and curatorial changes. Adherent materials included dessicated tissue (e.g.

brain tissue), adipocere, hair, and textiles. Chemical changes included stains and chemical erosion. Physical changes included water damage and postmortem fracture. Curatorial changes included the cleaning involved in stabilization of the skeleton.

Analysis of Mixed Lots

"Commingling" is a categorical term used to refer to burials in which the bones of two or more individual human skeletons have become intermixed. The commingled graves excavated in 2013 represent small-scale, episodic-usage commingled burials. Due to the highly varied composition of these burials, the term "mixed" was utilized as an umbrella category encompassing all cases of intentional and unintentional burial mingling recovered during the 2013 excavation.

Mixed lots were designated by either the presence of two or more identical skeletal elements or by identifying incongruities in the general morphology of bone recovered from a single burial (e.g. disproportionate robusticity between bilateral elements, inconsistencies of sex or developmental markers, etc.).

Two methods were used to excavate mixed burials. When no individuals were immediately identifiable in the burial, one lot number was assigned for all skeletal elements within the grave. The bones were removed and placed into labeled bags, the contents of which were recorded on the excavation form. Multiple photographs of the excavation were taken throughout element removal and all articulations were noted. When the presence of more than one individual was determined in a single grave, multiple lot numbers were assigned to each element set that was designated as an "individual" (i.e. representing 50 percent or more elements of one human skeleton). Any remaining extraneous elements and element sets were assigned to a single "commingled" lot number.

All associated lots in a mixed burial were analyzed concurrently due to their close depositional relationship. Each individual lot was laid out on consecutive tables with care taken to prevent intermixing. All provenience information collected during the excavation and cleaning processes was maintained during element sorting by the use of index cards, string tags, or masking tape placed on the tray. During analysis, excavation photographs were colorized by the analyst and used to identify depositional position and possible articulation of elements (for examples see Appendix G: Burial Descriptions).

Each lot in a mixed burial was examined to ensure that all elements were associated with the correct lot (i.e., to ensure that no elements in commingled lot A should be reassigned to single lot B). To this end, demographic analysis could not commence until the elements in any associated commingled lots were examined and separated to the extent possible into associated sets. The major methods of separating commingled remains applicable to the Milwaukee County Poor Farm Cemetery collection are described below. Some commingled lots required all of these methods while some were not separable by any of the methods listed. The methods were applied in the order presented; however, because every case of commingling was different in nature, each method was not necessarily utilized in every case.

Commingled lots were laid out by element group with respect to any articulations noted by the field excavator. Separation and matching of commingled remains relied on observation of several factors of general morphology (robusticity, muscle markings, epiphyseal shape, general symmetry, etc), articulation, age and sex markers, systemic pathology, and occasionally taphonomic indicators. Bones suspected of matching as a result of these methods were tagged with their provenience information and a note explaining the justification for the proposed match. The analysis was continued until all applicable methods were exhausted, making sure to include suspected pair-matches in each step.

Fragments

Before separating the elements, broken and fragmented bone in the lot was examined for potential reassociation. Beginning with any miscellaneous bone, unidentified fragments were, to the extent possible, identified to the element (e.g. scapula), type of bone (e.g. flat bone), or region of the skeleton (e.g. torso). Very small fragments deemed diagnostically ineffectual were set aside not identified in this manner.

Next, all element fragments were compared to identify refits. This was conducted for all skeletal elements to the degree possible, with particular reference to the excavation record. The broken margins of fragments were examined for variations in morphology, thickness, preservation, coloring, and texture that would suggest a puzzle-piece-like match

with another fragmented element. The excavation form and excavation photographs were consulted to identify neighboring sets of skeletal remains to which the extraneous elements might belong. Once fragments and elements had been refit, sorting could begin.

Visual Pair-Matching

Visual pair-matching is a method by which homologous bones are associated based on congruence of gross morphology. This method was used exclusively on the same element types (e.g. two femora, two radii, etc.) and never for disparate elements (e.g. femur and radius).

The human range of skeletal variation encompasses both very small, gracile builds and large, robust frames. Differences in musculature and pathology can create individualized skeletal remains in certain cases that allows for the separation of bones.

Working element group by element group, two bones were held side-by-side and visually assessed for similarities of morphology and topography. Care was taken to observe both bones from various angles and to feel the markers of both bones; the size (length and width) and development of the bones, followed by the overall shape and the shape of any processes, facets, and muscle attachments were compared. The more corresponding features evident between the bones, the greater was the confidence in their positive association. Bones were evaluated for discrepancies as well. Multiple concordances were considered necessary to assert a positive match between two bones, but just one significant discrepancy ruled out an association. Discrepancies that prohibited a match were noted on the *Commingled Lot Assessment - Element Association Exclusions* form.

Articulations

Because the bones of moving joints grow in close relationship to each other, several points of the body create articulations that strongly reflect the morphology of the opposing bone. These close articulations can be useful in re-associating non-homologous bones that cannot be evaluated through visual pair-matching. Due to the variation in load and usage, some joints are more reliable for this sort of evaluation than others. Table 3.3 ranks these significant articulations with an indication of degree of confidence in a fit.

Pathology and Taphonomy

Systemic pathologies such as treponemal disease, remodeled joints, diffuse idiopathic skeletal hyperostosis, etc., affect multiple bones of the individual skeletal system. These conditions can be useful in rematching disparate elements, especially when the condition creates highly identifiable lesions on adjacent elements. However, because the presentation of pathology differs both within individuals and person-to-person, markers of pathology were only used as a secondary method of element matching.

Due to the nature of burial and the vagaries of the depositional period, there is a possibility that taphonomic processes will leave distinct markers on commingled bone, which can be used to associate disparate elements. This method was primarily of use on bones that became commingled sometime after

Table 3.3. Articulations and Joints Ranked by Confidence of Refit (after Byrd and Adams 2009).

HIGH	MEDIUM	LOW
Cranium, mandible	Cranium, atlas	Ribs, thoracic vertebra
Vertebrae	Tibia, fibula	Manubrium, clavicle
5th lumbar vertebra, sacrum	Femur, tibia	Humerus, scapula
Humerus, ulna	Innominate, femur	
Innominate, sacrum	Patella, femur	
Tibia, talus	Navicular (scaphoid), radius	
Ulna, radius	Carpals (except the articular surface of the pisiform)	
2nd-4th Metatarsals	Carpals, metacarpals	
2nd-4th Metacarpals		
Tarsals		

the period immediately following initial deposition, but can still be useful for commingled bone from an undisturbed burial. Bone from different sections of a grave may be exposed to different processes, from varied soil coloring to the effects of water ingress, the movements of small animals, and even proximity to various grave goods.

Bones were examined for taphonomic markers such as coloring, mass, surface weathering, cracking, colored stains and oxidation, root trails, etc. Due to the idiosyncratic nature of taphonomic processes, bones from the same skeleton may exhibit drastically different taphonomic markers. Therefore, this method was primarily used to separate or match bone from a geographically close area of the burial site. Reference to excavation photographs was particularly helpful to this type of analysis.

Defining Element Sets

If a match between elements was confirmed by at least two of these methods, the paired bones were categorized as an Element Set. An Element Set (ES) refers to two or more elements which can be determined through deposition or analytical methods to be individually associated with each other. The bones were given a new sub-lot identification number and bagged together, so that, for example, a humerus and ulna reassociated through articulation and reference to the excavation photo would be labeled as ES1: right humerus and ulna. This allowed analysts to recognize the presence of limbs and other body parts even if they did not add up to the 50 percent element presence required for Individuals. All Element Sets were recorded on the *Commingled Lot Assessment - Element Set Inventory* form.

Inventory and Demographic Analysis

Single lots in a mixed burial were inventoried and analyzed according to the Adult and Juvenile methods described above. Each lot was analyzed in its entirety before moving on to the next. If a commingled lot was associated with the mixed burial, it was inventoried and analyzed last. A quantitative element inventory was recorded on the *Adult Commingled Burial Inventory Record*. Depending on the composition of the commingled lot, analysts evaluated age and sex markers and recorded results on the *Commingled Lot Assessment - Age* and *Sex Recording* forms. When long bones were complete enough for stature assessment, the osteometric measurements were recorded on the *Commingled Lot Assessment - Stature Recording* form. Skeletal and dental pathology and taphonomy were marked as present or absent on the *Commingled Lot Assessment - Skeletal Pathology and Trauma*, *Dental Pathology and Trauma*, and *Skeletal and Dental Taphonomy* forms (Appendix B).

Determination of MNI

After the inventory and demographic analysis was complete, the analyst determined how many individuals were represented in each commingled lot. There are several methods utilized by physical and forensic anthropologists and archaeologists to achieve this number, the foremost being the Minimum Number of Individuals (MNI), Lincoln Index (LI), and Most Likely Number of Individuals (MLNI). The key difference in these three analytical methods is that while the MNI estimates the *recovered* number of individuals, the LI and MLNI estimate the *original* number of individuals represented by the skeletal assemblage. The nature of commingling at the Milwaukee County Poor Farm Cemetery – which is more skewed towards medical limb disposal and expedient grave shaft usage, and does not suffer from significant taphonomic loss – makes MNI the most useful measure for number of individuals represented in each lot.

Varied formation processes (accretional and taphonomic) affect the commingling of bone, and so there are several ways to determine MNI including assessing the relative completeness of elements, counting the presence of individual features, and feature-based bone density measurements. The Milwaukee County Poor Farm Cemetery project utilized a multiphase method of MNI calculation involving the assessment of articulated bone and sorting of unarticulated skeletal elements.

In a standardized order, each bone in the commingled lot was counted by placing a tally mark in the appropriate box on the *Commingled Lot Assessment - MNI Inventory* form for every element or element landmark present (see Appendix B for the full list of elements and landmarks used in this study). The appropriate column was used when recording bilateral elements to note anatomical siding. An element was only marked as complete if all the landmarks were present; if the element was complete, the landmark lines for that element would be left blank. An element that was conjoined from fragments earlier in the analysis was counted as complete only if the conjoined fragments formed 100 percent of the bone. If less that 50 percent of a landmark was present, the

landmark was not recorded as these were usually not confidently identifiable fragments.

After tallying all present elements, the most numerous element landmark was chosen to conduct MNI calculations. In the Figure 3.3 example, the olecranon process of the ulna would been chosen as the most numerous landmark.

Calculating the MNI

After identifying the most numerous landmark, the tallied number for both sides of the body is added to the number of complete elements present for that landmark. In the Figure 3.3 example, the four represented olecranon processes are added to the two complete, unpaired ulnae for a total of six. Supplementary data is then added or subtracted from this tallied total as required. Supplementary data is any data unique to the lot which would have an affect on this calculation. For example, if the complete ulnae in Figure 3.3 had been pair-matched through earlier methods, this would be noted and one would be subtracted from the calculated total to avoid counting one 'individual' twice.

Occasionally, commingled lots did not contain duplicated elements but showed other evidence of multiple individuals. Significant differences in size, obvious disparity in age and sex markers, incompatibility in articulation at the most reliable joints, and asymmetrical paired elements outside the usual boundary for the population and absent obvious pathology are all diagnostic elements which can reliably indicate the presence of another individual. When any of these were observed within the commingled lot, the observation was noted as supplementary data and added or subtracted from the MNI calculation.

Material Culture Methods

Material culture inventory and analysis methods were intended to quickly clean and stabilize recovered artifacts in order to allow for effective quantitative and qualitative analysis.

Stabilization

Material culture recovered in the field was labeled, boxed, and transferred to the UWM-ARL. Throughout stabilization and analysis, field tags were kept with the artifacts to maintain all provenience information. Due to the heavy clay content of the soils at the site, many artifacts were coated in a layer of hardened earth. To remove any exterior sediment, a combination of wet and dry brushing was applied. Sensitive materials were not treated with water, and were instead only brushed or carefully picked with a wooden skewer. Stabilization was needed to maintain material culture integrity and insure preservation for further research of the collection. Conservation methods were applied to wood, paper, fabric, leather, ceramic, and glass artifacts. Paper artifacts were dry brushed to provide minimal damage to the fragile material. Identification of text was usually limited to the exterior of paper artifacts. Due to the fragmentary nature of the material, matted paper artifacts or prayer books were not opened. After cleaning, leather and cloth artifacts, especially shoes, were dried and stored on a flat surface. This provides even support for fibrous materials of woven, stitched, sewn, or tacked manufacture. All artifacts are stored in museum quality acid free bags and boxes. All material culture is stored in the UWM-ARL collections facility, providing a cool, clean, stable environment with no direct sunlight exposure.

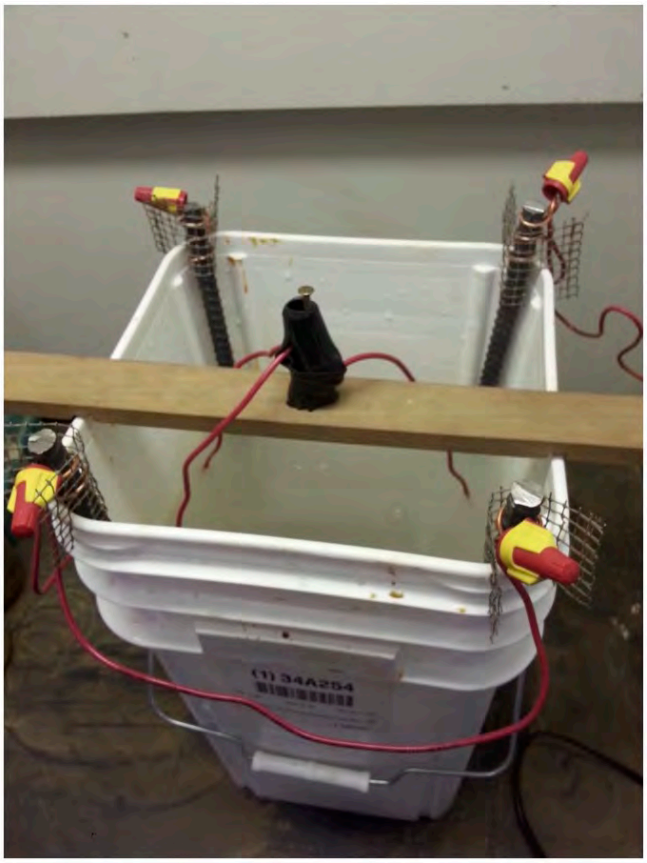
ELEMENT	L	M	R
Complete Ulna	|		|
1. Olecranon	|||		|
2. Coronoid process	||		
3. Shaft w/nutrient for.		||	
4. Styloid process			|

Figure 3.3 Example of a completed section of the MNI inventory; the left and right Complete Ulna are not pair-matched.

Electrolysis

Most of the recovered metal artifacts were heavily corroded, a condition which both inhibits analysis and is damaging to the artifact itself. In order to reduce the damaging corrosion, a dedicated stabilization process was devised. Electrolysis, or electrolytic reduction, of metal artifacts was determined to be the most effective and gentle method of removing corrosion. A tank was filled with a two percent sodium carbonate solution and the artifact was suspended from an insulated copper wire securely attached to an alligator clip (Figure 3.4). The object was surrounded by four steel anodes connected by a separate insulated copper wire and placed approximately ten centimeters apart. The negatively charged battery terminal connector was attached to the cathode, while the positive charge was attached to the insulated copper wire linking each anode. A DSR Pro-series 12 volt battery charger set to two amperes was used to supply the electrical current. The power was supplied by a GFCI electrical outlet to provide protection for the equipment and operators (Figure 3.5).

Each artifact was left to bathe in the system for up to eight hours. Objects with particularly high corrosion levels were allowed to soak for up to 12 hours. Due to the higher levels of corrosion, coffin handles were often treated by electrolysis for longer periods of time than were other artifacts. After each item was removed from the tank, it was cleaned with a toothbrush and set to dry. Successful cleaning revealed detail on artifacts otherwise not observable on the corroded exterior (Figure 3.6). Green corrosion typical of copper alloys was present on many rings, coins, religious medallions, and crucifixes (Lillie and Mack 2013). Thus far, no testing has been done on these artifacts to distinguish copper from brass. The primary use of electrolysis in this study was on the large, ferrous-based hardware category of coffin handles. Electrolytic reduction stabilization allowed analysts to group handles recovered from the Milwaukee County Poor Farm Cemetery into ten separate identifiable types. These ten types can be defined by a series of characteristics including: shape and size of the plate, shape and size of the swing or pull bar, manufacturing stamp, number of screw holes, decoration, the metal, and the metal treatment from which the handle was manufactured.



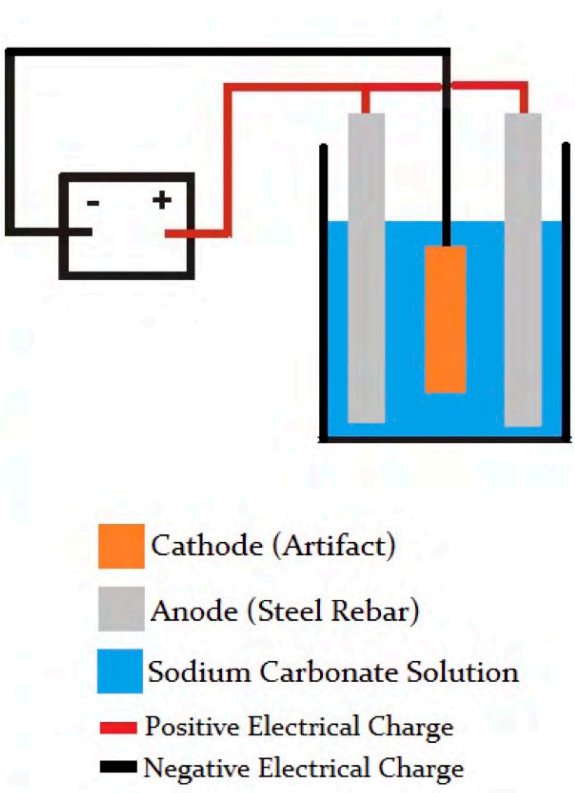


Figure 3.4 Photograph and schematic of electrolysis apparatus.

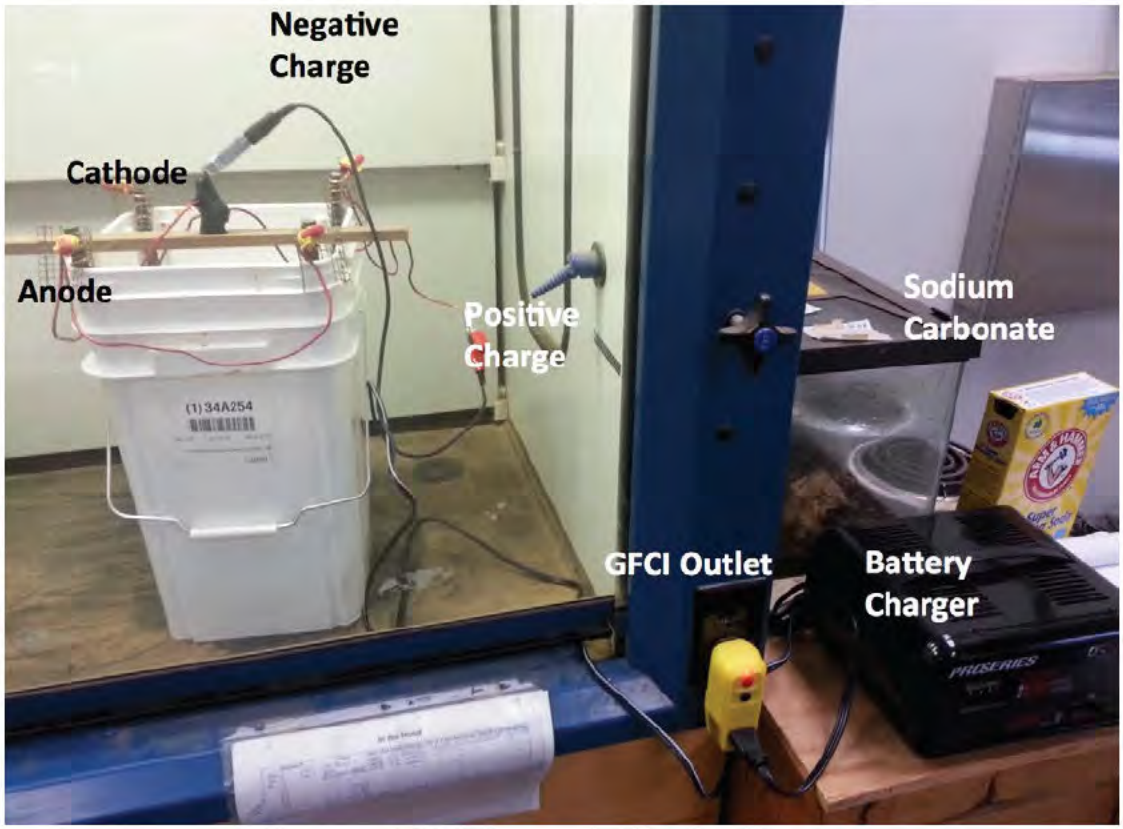


Figure 3.5 Labeled photograph of electrolysis laboratory.

Figure 3.6 Coffin handles before and after electrolysis.

CHAPTER 4. ARCHAEOLOGY AND THE SPATIAL AND TEMPORAL ORGANIZATION OF THE MILWAUKEE COUNTY POOR FARM CEMETERY

by Patricia B. Richards and Thomas J. Zych

INTRODUCTION

As per administrative rules implementing s. 227.11 (2) (a) Wis. Stats., and interpreting s. 157.70 Wis. Stats., Froedtert Hospital received permission from WHS to disturb Paupers Cemetery - Froedtert tract (MI-0527, BMI-0076) on May 21, 2013 and a burial contract between UWM HRMS, Froedtert Hospital, and WHS was executed on May 31, 2013 (see Appendix D). A small crew of supervisors was on site the week of June 3, 2013, to oversee the erection of a large tent to cover the excavation area.

Full-scale fieldwork commenced the week of June 10, 2013, and was completed September 6, 2013. The excavated portion of the cemetery is located in the NEl/4, SEl/4, SW1/4, NWl/4 of Section 28, T7N, R21E, in the City of Wauwatosa. Figure 4.1 provides a locational map of the project area. Archaeological excavation of burials was conducted in specific impact localities associated with the construction of the Froedtert Hospital Center for Advanced Care (CFAC) project and related infrastructure such as utility corridors, roads and crane tower locations.

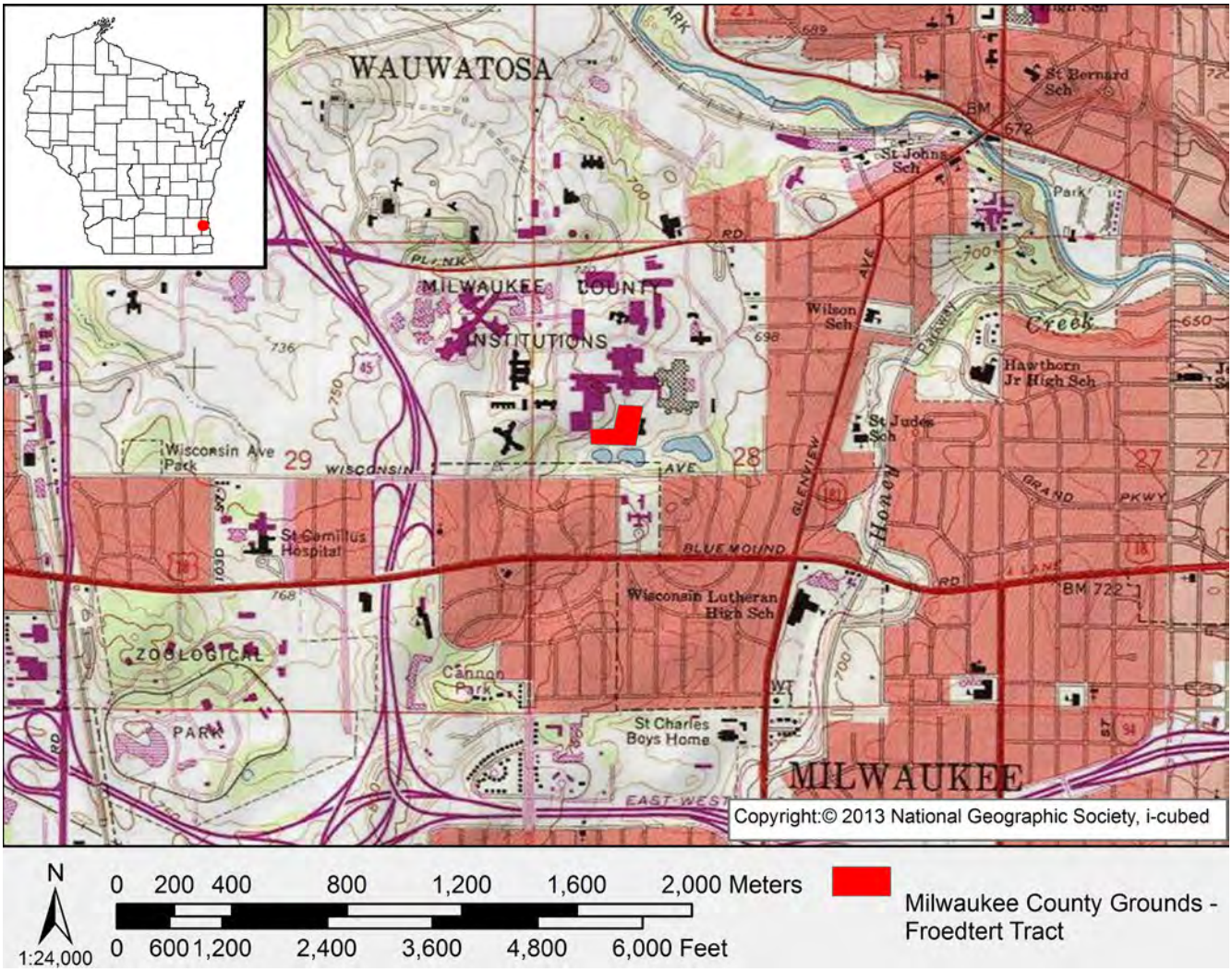


Figure 4.1. Project Location.

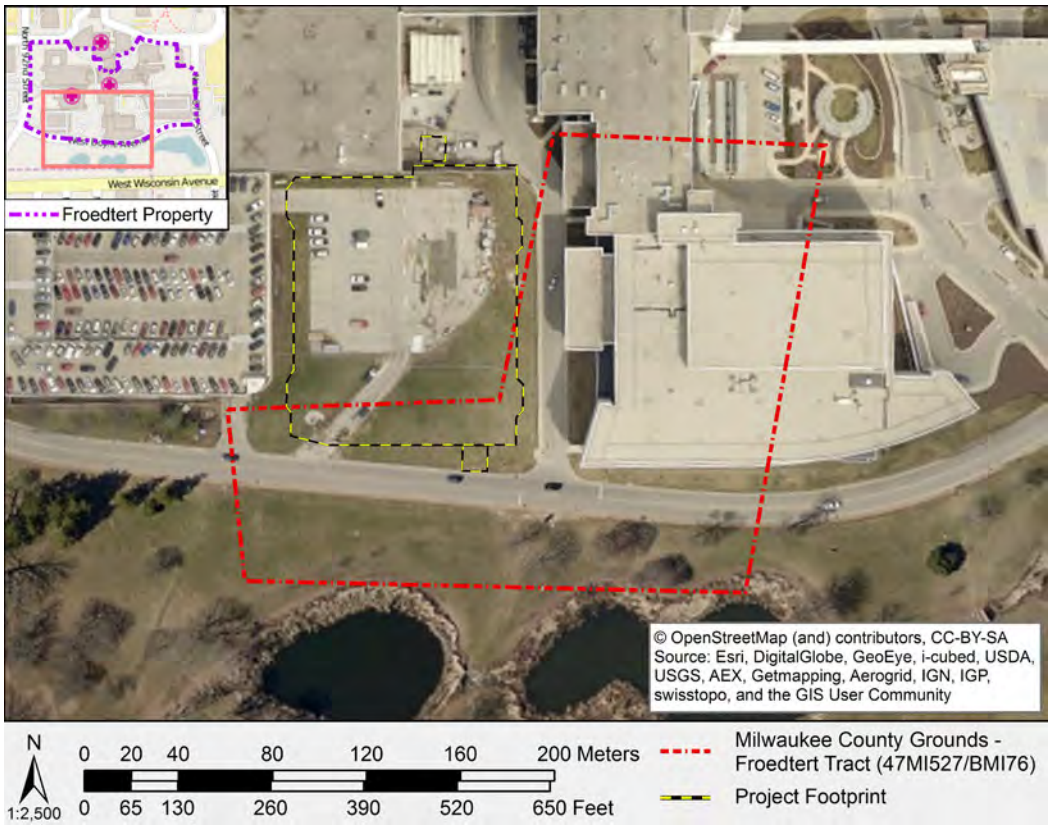


Figure 4.2. Overview of the Froedtert property and the CFAC project footprint.

Figure 4.3. Overview of the tent location within the project area.

Figure 4.2 provides an overview of the Froedtert property and the CFAC project footprint. Figure 4.3 is a graphic provided by M.A. Mortenson Company that illustrates the tent in relation to the buildings and proposed tower crane foundations.

Every urban historical archaeology project has its own set of constraints and difficulties and this was no different. The excavation was not visible or subject to a daily set of visitors, typical of many urban projects, as a result of the large tent that effectively shielded the project from view. Excavations occurred in the midst of an increasingly active construction project. UWM HRMS' designation as just one more subcontractor of M.A. Mortenson Company was challenging on many levels. Every UWM HRMS employee was required to go through a safety training before being allowed to work on site and every excavator was required to wear personal protective equipment (PPE) including a high visibility vest, hard hat, eye protection, and gloves. The particular constraints of excavating allowed archaeologists to dispense with the gloves and, in some instances, the hard hat while actively excavating. Toward the end of the project, archaeologists wore ear protection due to high noise levels. The landscape of the excavation site changed radically from the beginning to the end of the project (Figure 4.4) and shifting depth meant that ladders and ladder safety training became necessary. Additionally, M.A. Mortenson Company required all workers on site to participate in a "bend and stretch" period prior to beginning work every day.

FIELD RESULTS

Preceding the start of field excavations, a site grid was established to record the horizontal and vertical location of all encountered burials, excavation blocks, utility corridors, and other cultural features identified during excavation. This Cartesian grid, with all coordinates reported as Northing and Easting, divides the site into a series of five-foot units, established using a Sokkia Set 5F Total Data Station (TDS) with a Topcon FC-2500 data collector. The site grid was continually extended west as machine excavations proceeded. Grid corners were staked with landscape spikes set into the ground, with grid coordinates labeled on flagging tape tied to each spike. When a grid corner fell within the limits of a coffin, that grid corner was not staked and excavators utilized the next closest grid corner for feature mapping.

For reasons of privacy and control of site access, a large 25,000 square foot tent was erected over the cemetery area. M.A. Mortenson Company served as the project manager for the Froedtert CFAC project. The excavation schedule, site access, project logistics, and safety training was all managed by Mortenson.

Machine removal of overburden was undertaken using a Caterpillar 320E LRR Medium Hydraulic Excavator. This piece of equipment was advantageous for two reasons. First, the excavator meets U.S. Tier 4 emission standards, and the engine features an after-treatment regeneration process that automatically starts once the filtering system reaches a predetermined level.

Figure 4.4. Changing landscape June through August 2013 (UWM photo on file, UWM-ARL).

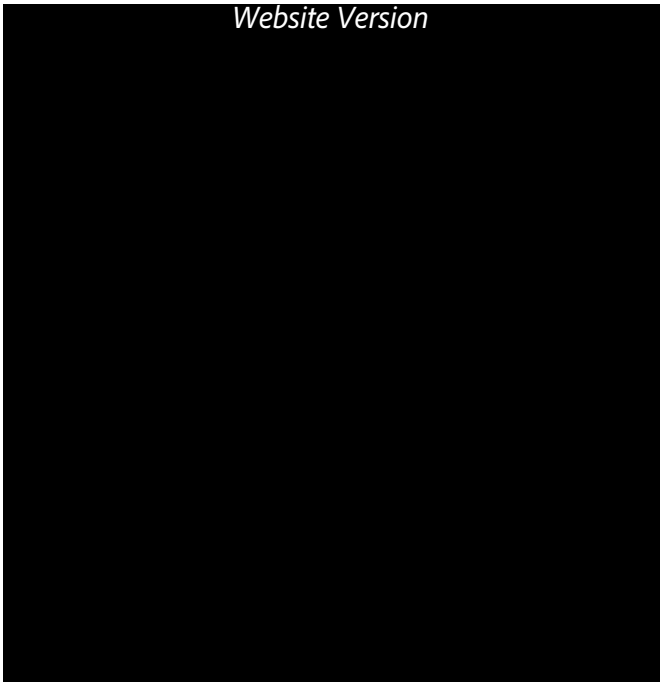


Figure 4.5. Caterpillar 320E LRR Medium Hydrolic Excavator at work (UWM photo on file, UWM-ARL).

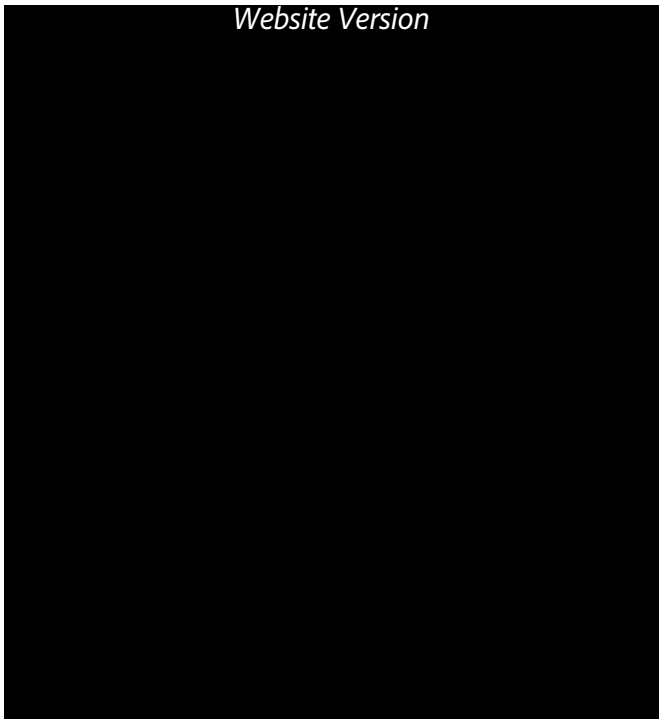


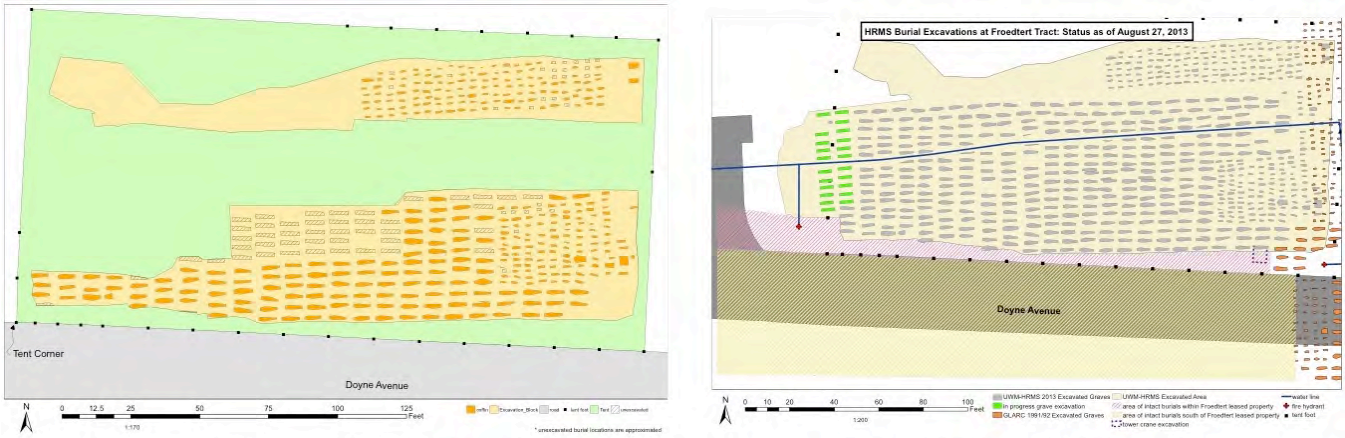
Figure 4.6. Exterior and interior of the excavation tent (UWM photo on file, UWM-ARL).

This was important given that excavation took place within a partially closed tent and air quality was a concern. Second, also related to working within a tent, the 320E LRR's tail swing radius is 6'10" facilitating work in space-restricted areas. New Berlin Grading provided machine removal of the overburden. Figure 4.5 illustrates the backhoe at work inside the tent.

Largely as a result of construction schedule mandates, burial removal began along the southern edge of the cemetery from east to west, then continued in the northern portion of the cemetery from east to west, and lastly moved to the center of the cemetery from east to west. Halfway through the field season, the eastern half of the tent was removed and work continued in the western portion of the cemetery under the remaining tent. In mid-August, the entire large tent was removed and, as a small portion of the westernmost extent of the cemetery was exposed, a portable covered structure was provided for the remaining three weeks of excavation. Figure 4.6 illustrates the main tent and the working conditions within the tent.

Approximately 0.48 acres (0.19 hectares) was stripped to facilitate burial removal, including 0.02 acres (0.008 hectares) of previously excavated area (i.e. area cleared during the 1991-1992 excavations). Figure 4.7 provides two field progress maps that show the extent of the tent in relation to the stripped area. Overburden, consisting entirely of fill, varied in depth from five feet to almost 10 feet. The ground surface from which the burials originated was not observable. This is not surprising given that this portion of the cemetery was supposed to be moved prior to the construction of the new hospital in 1930. The area was landscaped after the supposed grave removal and tress were planted. The area of the cemetery slopes upward toward the north. Figure 4.8 illustrates a north profile.

The nature of the burials present in the Milwaukee County Poor Farm Cemetery presented a set of complex excavation challenges. Provenience was maintained using a lot number system that assigned a unique identifier to an individual burial. When more than one individual or more than one set of non-individualized human remains were present



Progress report map dated 17 July 2013

Progress report map dated 27 August 2013

Figure 4.7. Progress report maps showing tent boundaries in relationship to excavated areas.

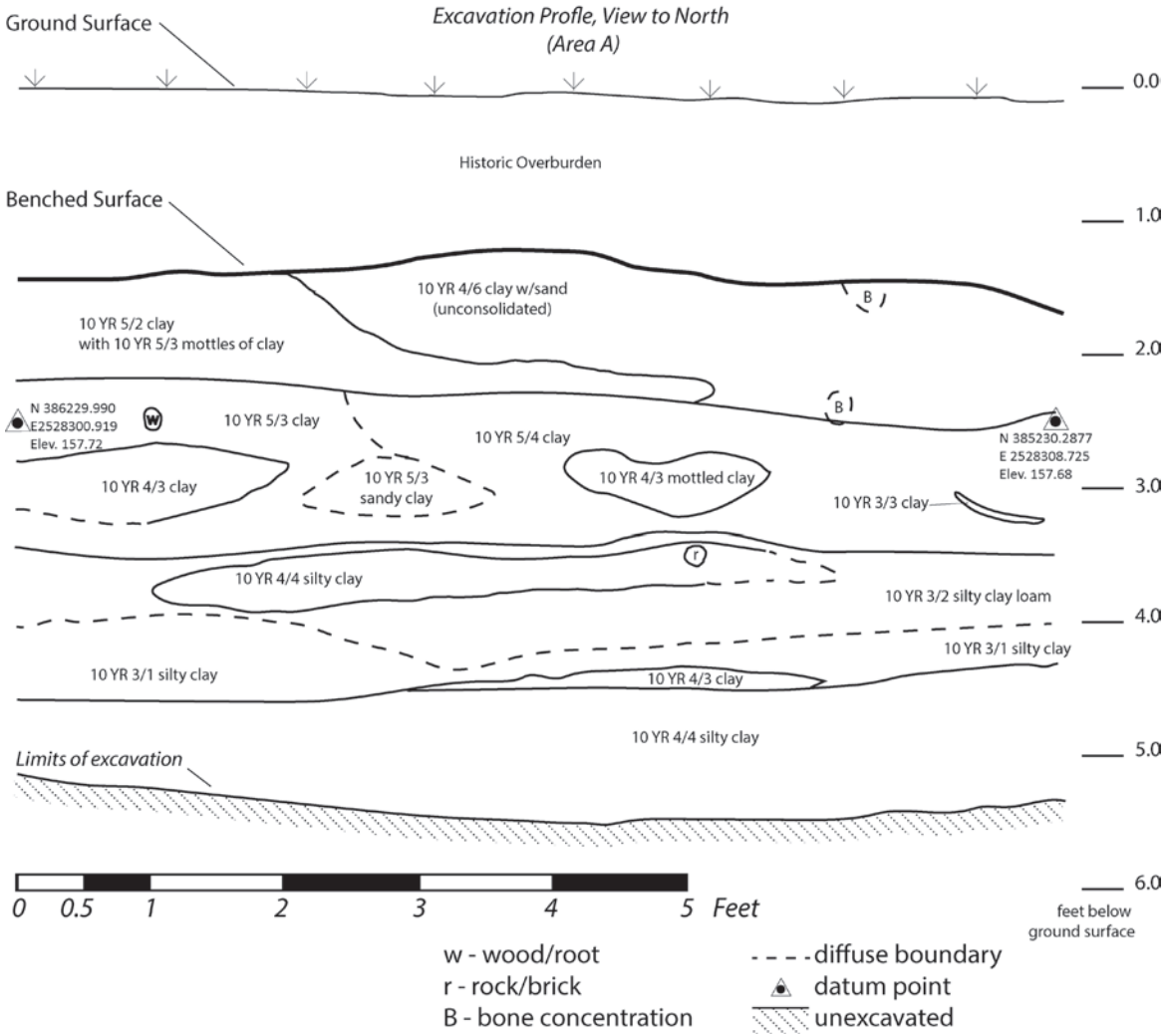


Figure 4.8. North wall profile.

in a single coffin, individuals were, when possible, assigned individual lot numbers. This resulted in three recovery contexts: a single individual in a single coffin assigned a unique lot number; a "mixed" context where one or more individuals were represented by more than 50 percent of the skeletal elements and assigned multiple lot numbers; and a "commingled" context, where individuality was unclear and a single lot number was assigned to all remains regardless of the minimum number of individuals represented. Since each coffin was mapped, the convention was to assign a "coffin lot number" which represented the mapped location on the ground. In the instances of individual lots ("single lots"), the coffin lot number and the burial lot number are the same. In instances of "mixed" burials, the coffin lot number and the primary individual burial lot number are the same. Primacy is defined on the basis of being placed first in the coffin. Additional burial lot numbers were assigned based on how many additional individuals of more than 50 percent completeness were recovered from the coffin. Finally, a burial lot number was also assigned to commingled human remains that could not confidently be associated with a single individual or remains that represented less than 50 percent of any one individual. In practice this means that a mapped coffin location could contain one lot number representing a single individual (Figure 4.9:a), multiple lot numbers representing individuals (Figure 4.9:b), one or more individuals and commingled remains (Figure 4.9:c), or simply commingled remains (Figure 4.9:d).

Figure 4.9. Examples of burial context - a: single individual; b: multiple individuals; c: multiple individuals and commingled lot; d: commingled lot (UWM photo on file, UWM-ARL).

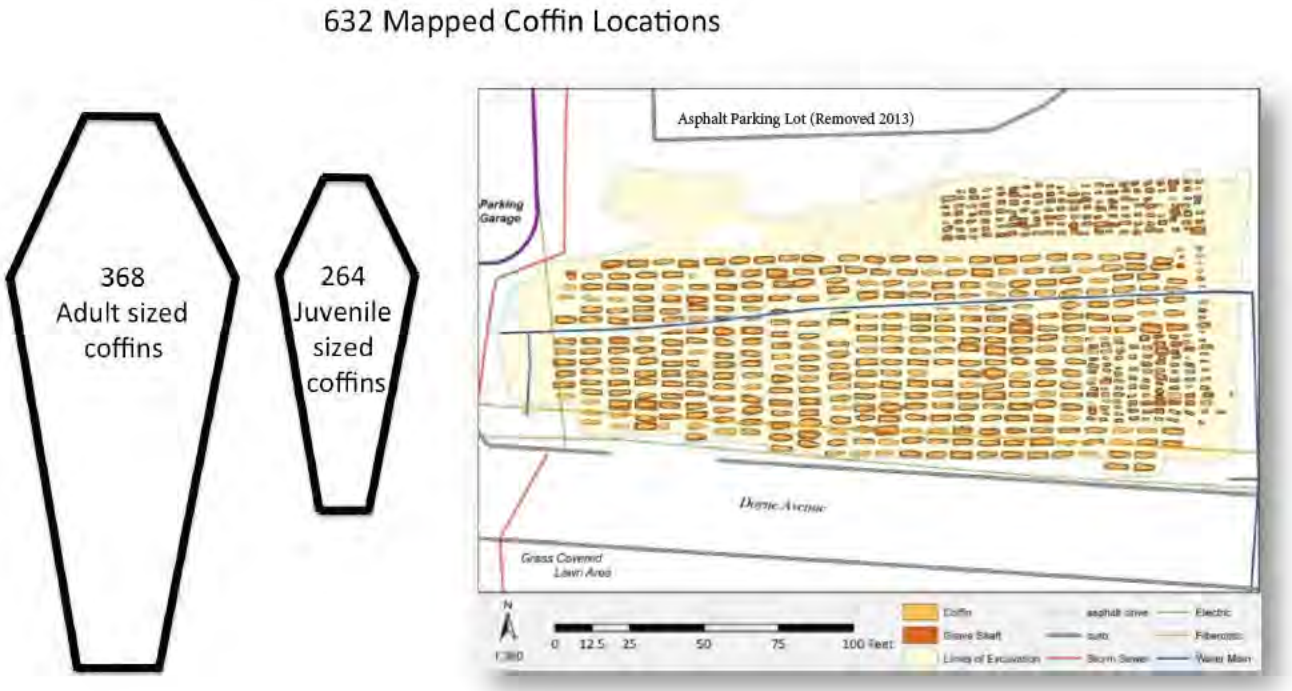


Figure 4.10. Mapped coffin locations.

The 2013 excavations resulted in the recovery of 632 coffin locations (Figure 4.10) and a single lot (Lot 10088) assigned to a bone dump from graves previously disturbed. Of these, 368 were adult-sized coffins and 264 were juvenile-sized. Of the 264 mapped juvenile coffin locations, seven did not contain human remains.

Ten adult coffins contained the remains of juveniles of adolescent or late childhood age. Figure 4.11 provides a detailed map of the excavation results by burial lot number.

Adult-sized coffins containing adult burials include 294 single adult burials (age 20 or older) and 57 mixed burials containing the remains of more than one individual. Juvenile-sized coffins include 246 single juvenile burials (age 19.9 and younger), nine mixed burials and one dog. Additionally there are seven adult-sized coffins that contain both adult and juvenile individuals and one juvenile-sized coffin that has juvenile and adult remains (Figure 4.12). Total number of individuals recovered includes 550 individuals exclusive to a coffin (294 adults and 256 juveniles), and 100 individuals recovered from mixed burials that are age exclusive (either adult or juvenile) (81 adults and 19 juveniles). Finally seven adult sized coffins contained the remains of both adults and juveniles (6 adults and 9 juveniles).

In total, coffin burial locations produced a minimum of 665 individuals including 381 adults and 284 juveniles (Figure 4.13). An additional 50 commingled lots represent an MNI of 166 that brings the total of potential individuals represented to 831. Figure 4.14 provides the burial lot numbers associated with the various adult contexts. Figure 4.15 provides the burial lot numbers associated with the various juvenile contexts.

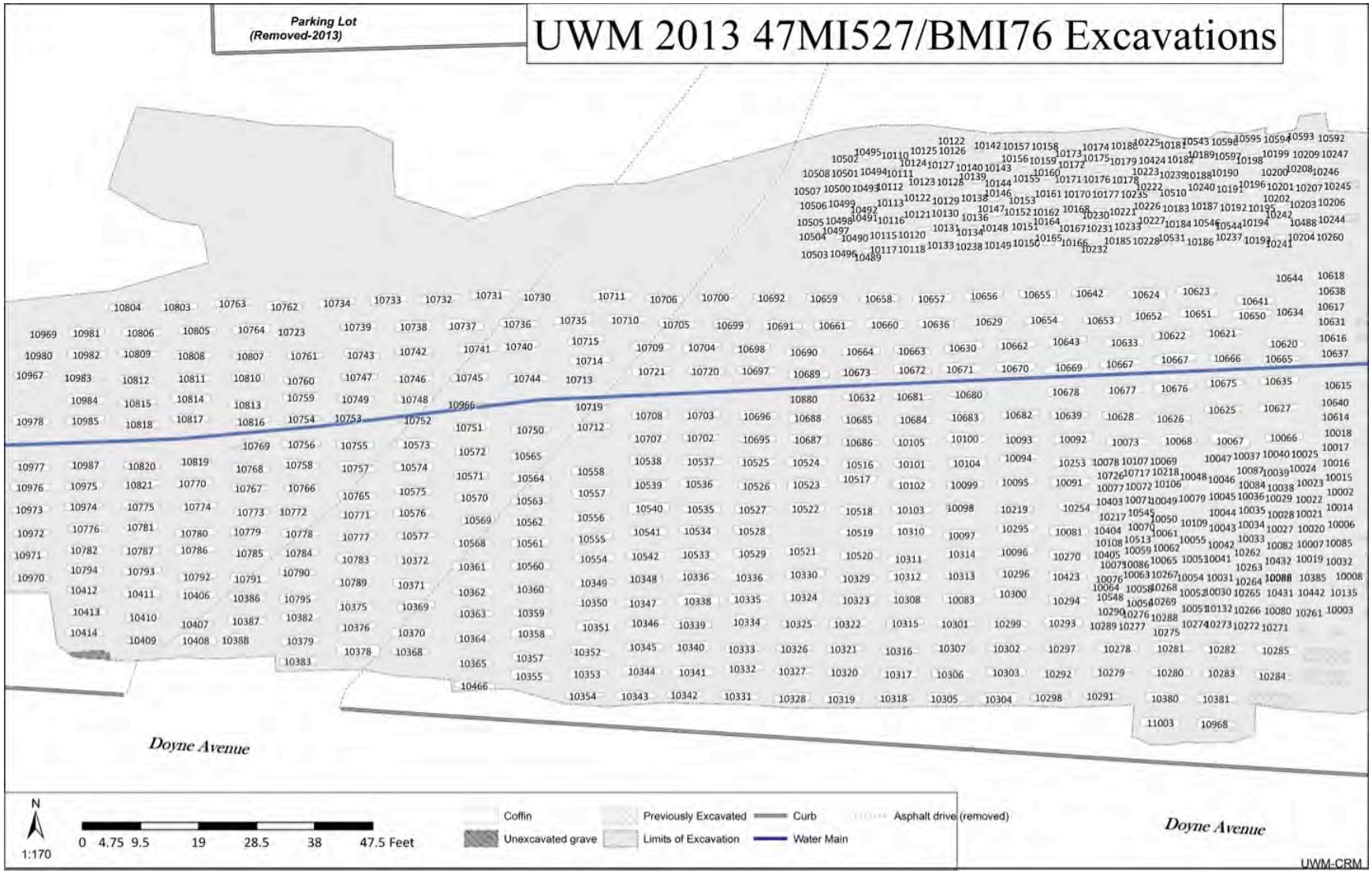


Figure 4.11. Excavation map by burial lot number.

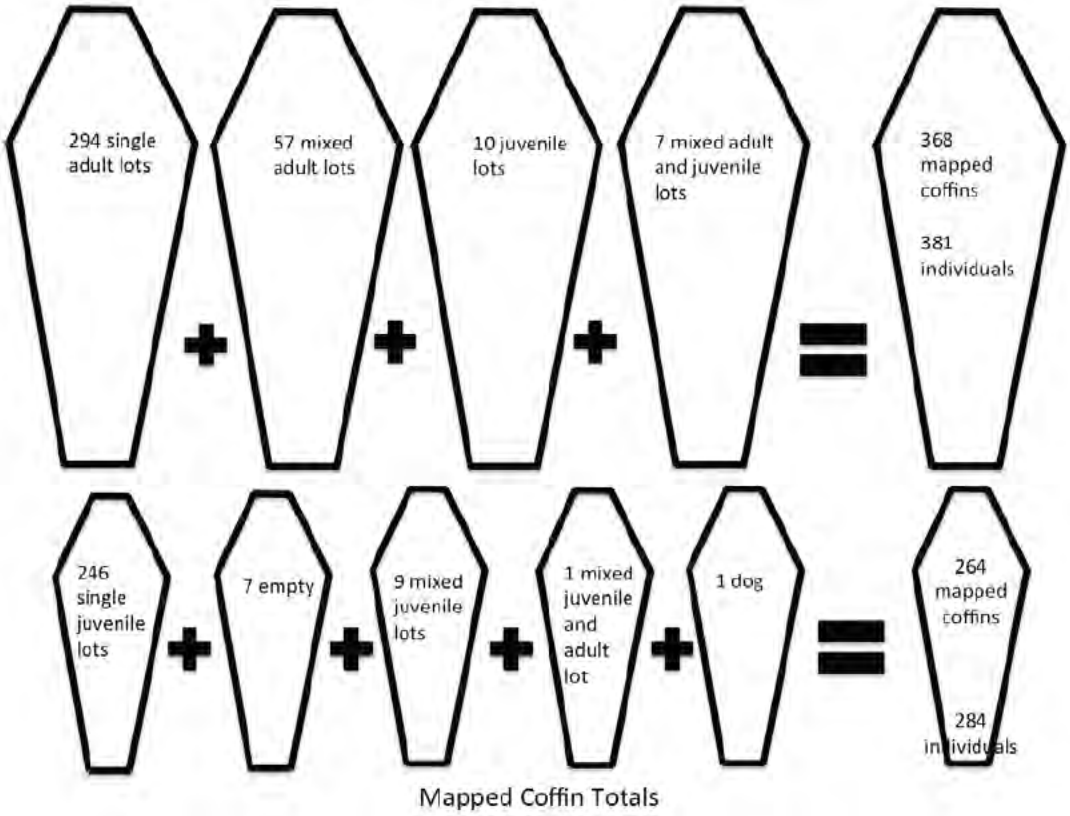


Figure 4.12. Visual summary of mapped coffin locations.

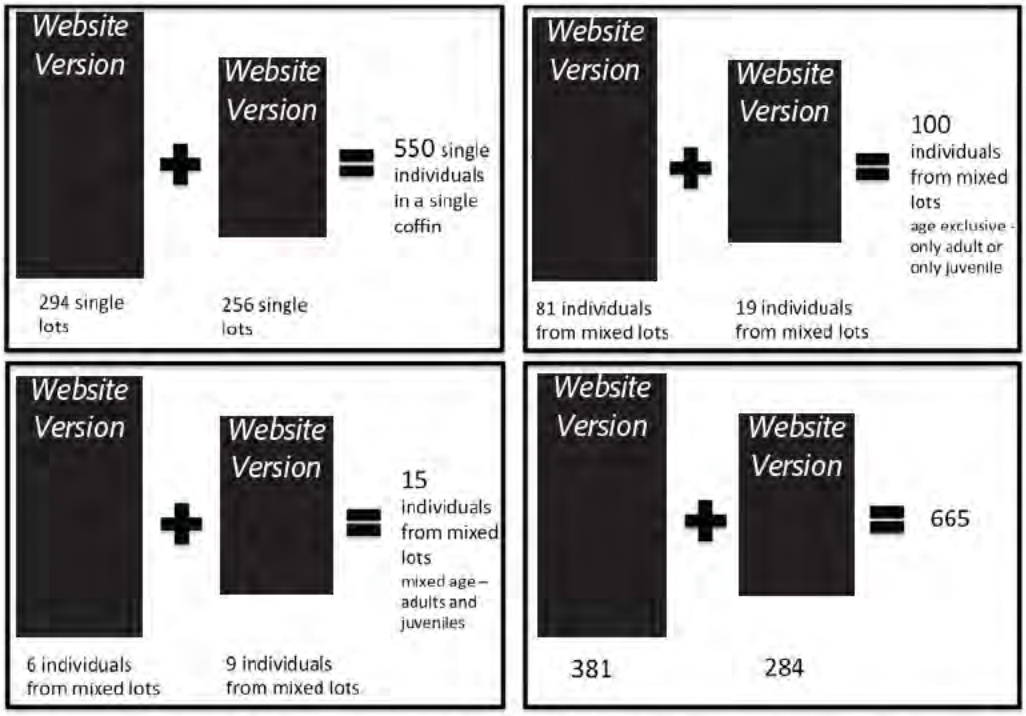


Figure 4.13. Visual summary of number of individuals recovered.

ADULT BURIAL LOTS
368 mapped locations
381 Adults
50 comingled lots

294 single adult Burial lots

10066	10311	10363	10555	10658	10712	10772	10968
10067	10312	10364	10556	10659	10713	10774	10972
10068	10314	10365	10557	10660	10714	10775	10973
10081	10316	10368	10558	10661	10719	10776	10974
10083	10319	10369	10560	10665	10720	10777	10975
10091	10320	10370	10561	10666	10721	10778	10976
10093	10321	10371	10562	10667	10723	10779	10977
10094	10323	10372	10563	10671	10735	10780	10978
10100	10324	10375	10564	10672	10736	10781	10980
10101	10325	10376	10565	10673	10737	10782	10982
10102	10326	10379	10568	10675	10738	10783	10984
10103	10327	10380	10573	10676	10740	10784	10985
10105	10329	10381	10574	10677	10741	10785	10987
10253	10330	10382	10575	10678	10742	10786	11003
10254	10332	10383	10576	10680	10743	10787	
10270	10333	10386	10577	10681	10744	10789	
10278	10334	10387	10620	10682	10745	10790	
10279	10335	10388	10621	10683	10747	10791	
10280	10336	10406	10622	10684	10748	10792	
10281	10337	10407	10623	10685	10749	10793	
10282	10338	10408	10624	10686	10750	10794	
10283	10339	10411	10625	10687	10752	10795	
10284	10340	10412	10626	10688	10753	10803	
10285	10341	10413	10627	10689	10754	10804	
10291	10343	10414	10628	10690	10755	10805	
10292	10344	10423	10629	10691	10756	10806	
10293	10345	10466	10632	10692	10757	10807	
10294	10346	10517	10635	10696	10758	10808	
10297	10349	10519	10636	10697	10759	10810	
10298	10350	10520	10639	10698	10760	10813	
10299	10351	10522	10641	10699	10761	10814	
10300	10352	10523	10642	10700	10762	10815	
10301	10353	10524	10643	10702	10764	10816	
10302	10355	10527	10650	10703	10765	10817	
10303	10357	10528	10651	10704	10766	10818	
10304	10358	10529	10652	10705	10767	10820	
10305	10359	10537	10653	10706	10768	10821	
10307	10360	10540	10654	10709	10769	10880	
10308	10361	10541	10656	10710	10770	10966	
10310	10362	10554	10657	10711	10771	10967	

57 mixed adult Burial lots

12 mixed NO comingled(assoc#)

10073 (10724)
10092 (10823)
10095 (10256) (10259)
10097 (10137)
10098 (10258)
10099 (10480)
10315 (10477)
10328 (10400)(10401)
10347 (11024)
10348 (10467)
10670 (10851)
10811 (10955)

Total of 26 single adults

33 mixed and comingled(adults only)

10096 (11015) (10479)
10219 (10515)
10296 (10402)(11018)
10306 (11046)
10313 (10460) (10484)
10331 (11022) (11023)
10342 (10429)(11021)
10354 (11026)
10525 (11052)
10526 (10872)
10533 (10580)
10534 (10842)
10535 (11050) (11051)
10536 (10843, 10848) (10844)
10538 (11048) (11049)
10542 (10587) (11047)
10570 (10940) (11053)
10571 (10607)
10572 (10610)
10662 (11045)
10663 (10855) (10856)
10664 (11054)
10668 (11044) (10836)
10708 (10905)
10715 (10925) (11041)
10731 (10912) (10913)
10732 (11039) (11040)
10733 (10909) (10910)
10751 (10885) (11038) (10886)
10763 (11036) (11037)
10809 (11033) (11031)
10970 (11034) (11035)
10981 (11032)

55 single adults

12 only comingled

10295
10378
10409
10410
10539
10569
10655
10695
10730
10746
10812
10983

7 Mixed Adult and Juveniles

Adult Juvenile Comingled

10104, (10471)
10318, (10393)
10322, (10451)
10630, (10829), (10835)
10669, (11042), (11043)
10707, (10881)(10884)
10971, (10996). (11028)

6 single adults
8 single juveniles

*(11027) in juvenile coffin

10 Juveniles

10317
10516
10518
10521
10633
10734
10739
10733
10819
10969

10 single juveniles in adult coffins

Figure 4.14. Adult burial lot numbers according to burial context.

JUVENILE BURIAL LOTS

264 mapped Juvenile locations

284 Juveniles

246 single juvenile Burial lots

10002	10035	10062	10110	10138	10166	10191	10226	10268	10491	10592
10003	10036	10063	10111	10139	10168	10192	10227	10269	10492	10595
10006	10037	10064	10112	10140	10170	10193	10230	10271	10493	10596
10007	10038	10065	10113	10141	10171	10194	10231	10272	10494	10597
10008	10039	10069	10115	10143	10172	10195	10232	10273	10495	10614
10014	10040	10070	10116	10144	10173	10196	10235	10274	10496	10615
10015	10043	10071	10117	10145	10174	10198	10237	10275	10497	10616
10016	10044	10072	10118	10148	10175	10199	10238	10276	10498	10617
10017	10045	10075	10121	10149	10176	10200	10239	10277	10499	10618
10018	10046	10076	10122	10150	10177	10201	10240	10288	10500	10631
10019	10047	10077	10123	10151	10178	10202	10241	10289	10501	10634
10020	10048	10078	10124	10152	10179	10203	10242	10290	10502	10638
10021	10049	10079	10125	10153	10180	10204	10245	10385	10504	10640
10022	10050	10080	10126	10155	10181	10206	10246	10403	10505	10644
10023	10051	10082	10127	10156	10182	10207	10247	10404	10506	10717
10025	10052	10084	10128	10157	10183	10208	10260	10405	10507	10726
10027	10053	10085	10129	10158	10184	10209	10261	10424	10510	
10028	10054	10086	10130	10159	10185	10217	10262	10431	10513	
10029	10055	10087	10131	10160	10186	10218	10263	10432	10531	
10030	10056	10106	10132	10161	10187	10221	10264	10442	10543	
10031	10058	10107	10133	10162	10188	10222	10265	10488	10544	
10033	10059	10108	10134	10164	10189	10223	10266	10489	10546	
10034	10061	10109	10136	10165	10190	10225	10267	10490	10548	

9 Mixed juv coffin lots	*1 Mixed adult/juv coffin lots*	7 empty juvenile Burial lots	1 Dog
10120 (11008)	10503 (11027)	10024	10508
10142 (11009)		10032	
10147 (11011)		10041	
10167 (11013)		10042	
10228 (11016, 11017)		10135	
10233 (11019)		10594	
10244 (11020)		10637	
10545 (11029)			
10593 (11030)			
19 juveniles	1 juvenile		

Figure 4.15. Juvenile burial lot numbers according to burial context.

MORTUARY ANALYSIS

The ways in which a society manages its dead can tell us much about how that society understands the meaning of death. Perhaps, as sociologist Robert Hertz argues, "mourning, at its origin, is the necessary participation of the living in the mortuary state of their relative..." and " death as a social phenomenon consists in a dual and painful process of mental disintegration and synthesis. It is only when this process is completed that society, its peace recovered can triumph over death." (Hertz 2006:212) Or perhaps, as Ariès states, by the early decades of the 20th century death had become something to be hidden, something that "neither the individual nor the community is strong enough to recognize" (Ariès 2008:47). The mortuary program represented by the burials of the Milwaukee County Poor Farm Cemetery was dictated by Milwaukee County officials and by financial constraints. Clearly the purpose was to provide a burial that was societally acceptable while working within the considerable financial constraints of a large political entity responsible for providing services to the living. It is unlikely that Milwaukee County officials consciously understood the motivations responsible for the burial of indigents but clearly they followed a set of routines and minimal rituals in order to fulfill their societal responsibilities.

Figure 4.16. Typical juvenile (top, burial lot 10161) and adult (bottom, burial lot 10293) coffin burials (UWM photo on file, UWM-ARL).

A discussion of the physical aspects of the burials including nature of the burials, burial orientation and positioning, and body treatment, follows. Other dimensions of mortuary analysis are discussed elsewhere including artifact accompaniments, coffins and coffin hardware (Chapter 5), demographic composition (Chapter 6) and spatial analysis (discussed separately below).

Coffin Burials

All burial at the Milwaukee County Poor Farm Cemetery occurred in coffins with the exception of burial lot 10088 that represents a disposal of disturbed burials. Many coffins were very well preserved, but in those cases where the coffin wood had completely disintegrated, either outlines could be recognized by the discoloration of the soil or the former presence of a coffin could be identified from the presence of coffin hardware. Figure 4.16 illustrates a typical juvenile (burial lot 10161) and typical adult (burial lot 10293) coffin burial. Each grave was originally marked with a wooden cross to which a brass tag was attached.

This tag corresponded to a line in the *Register of Burial at Milwaukee County Poor Farm Cemetery*. While no numerical brass tags were recovered in 2013, in some instances the remnant of a wooden post was preserved at the head of a burial. Several of these posts exhibited remnants of white paint. Table 4.1 lists the burial lots where evidence for posts was

Table 4.1. Burial Lots With Evidence for Marker Posts

Juvenile	Adult
10041	10287
10047	
10048	
10049	
10050	
10071	
10130	
10148	
10176	
10201	
10202	
10237	
10246	

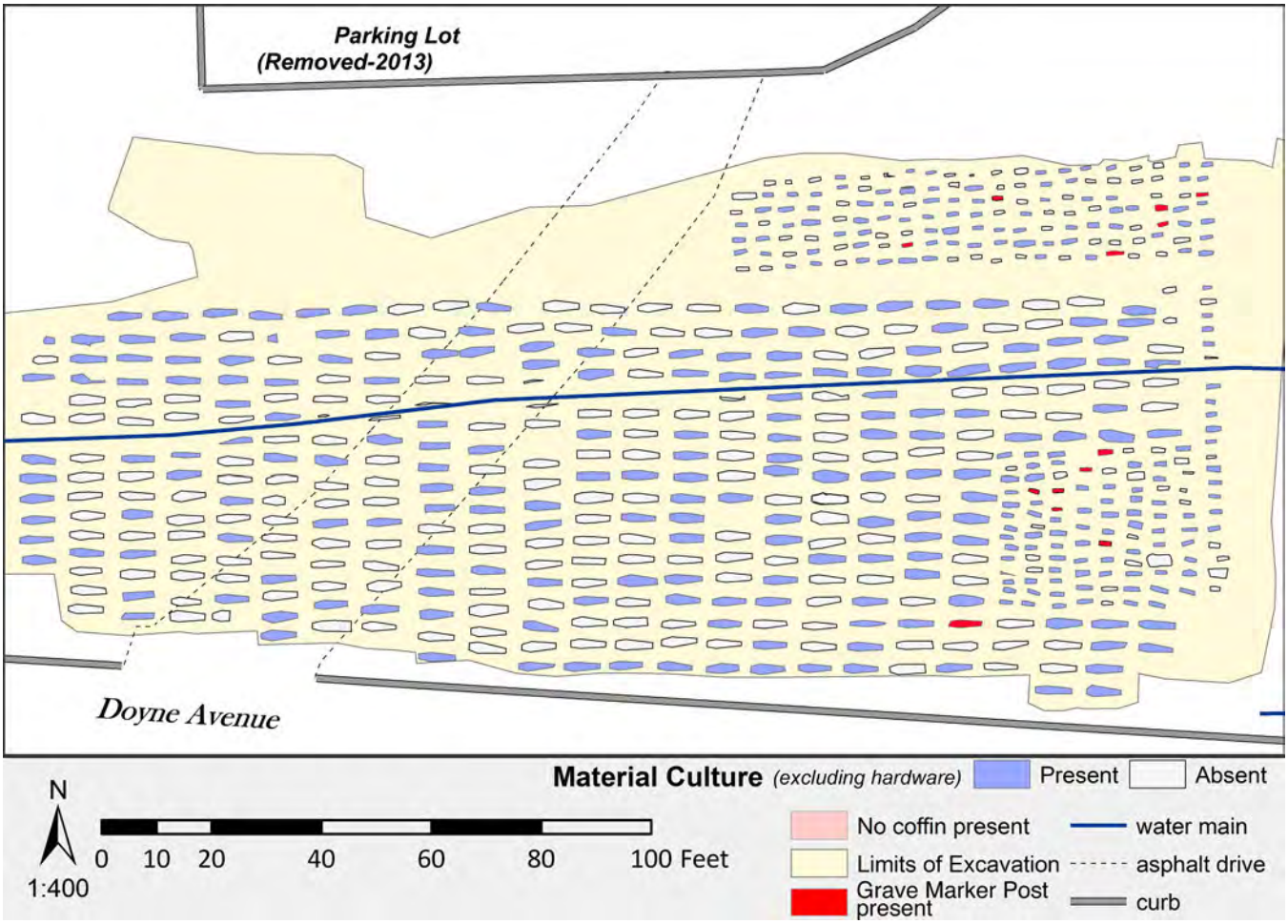


Figure 4.17. Map of burial lots with evidence for marker posts.

present. Twelve locations produced evidence for marker posts at the west end of a juvenile burial. One adult burial had a remnant marker post at the west end. Figure 4.17 provides a map of burial lots with evidence for posts. Figure 4.18 depicts a post in place.

Burial Orientation

There are three orientation categories that are characteristic of the coffin burials in the Milwaukee County Poor Farm Cemetery: head to the west end of the coffin, head to the east end of the coffin, and a general indeterminate orientation. The indeterminate category includes those coffin burials in which either there was no observable orientation, most often in mixed burials or those instances in which previous disturbance did not allow a determination of orientation. Figure 4.19 illustrates the distribution of each of these orientations according to burial category.

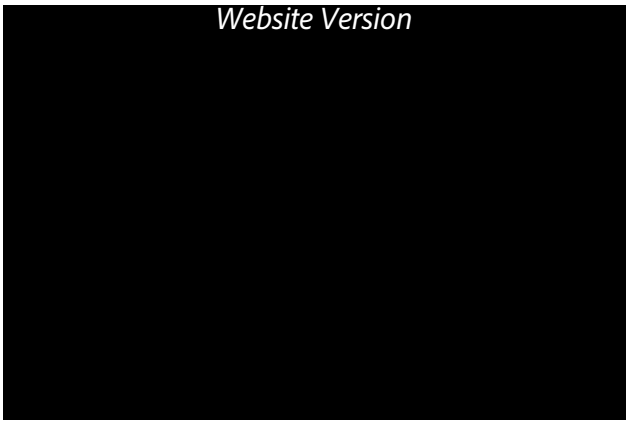


Figure 4.18. Grave marker post in place at west end of burial lot 10071 (UWM photo on file, UWM-ARL).

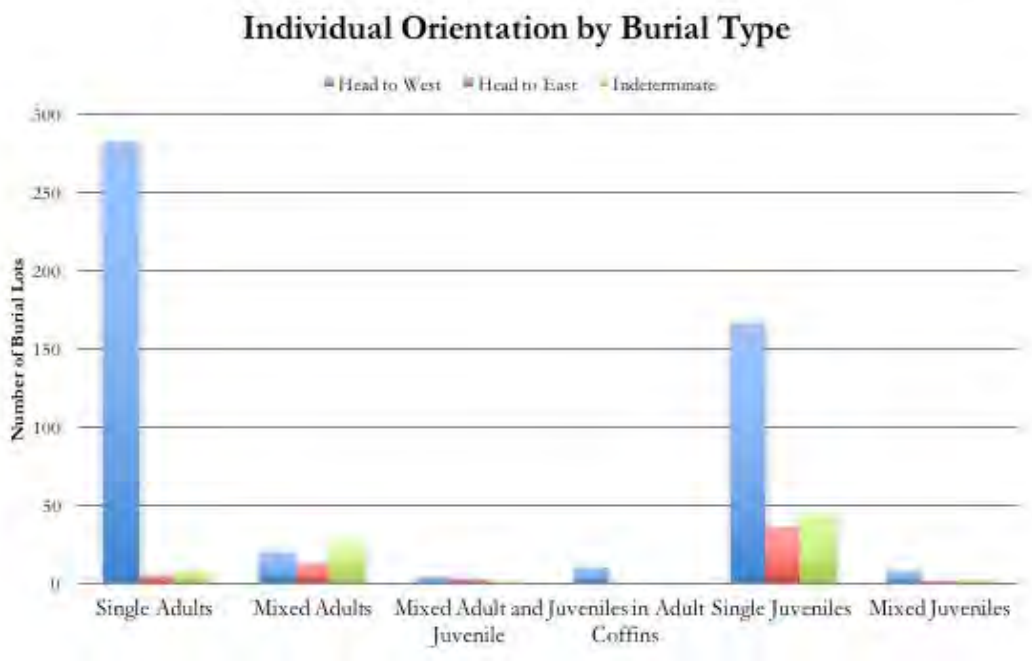


Figure 4.19. Distribution of body orientation by burial type.

Adult Orientation

Of the 368 mapped adult-sized coffin locations, most were oriented with the head to the west (see figure 4.19). The tradition of burying with the feet to the east and the head to the west is a Christian tradition attributed to the concept of resurrection and Jesus as the "Light of the World". Matthew 24:27 is often cited as the biblical justification for this tradition although the tradition itself predates the King James Version of the Bible. "For as the lightning cometh out of the east, and shineth even unto the west; so shall also the coming of the Son of man be" (Matthew 24:27).

Head to the west oriented adult burials number 315 (86%). Nineteen burials (5%) are oriented head to the east and the orientation was indeterminate for the remaining 34 adult burials (9%). Considering only single adult-size coffin burials (n=294), head to the west oriented single adult burials number 282 (96%). Five burials (2%) are oriented head to the east and the orientation was indeterminate for the remaining 7 single adult burials (2%). The 57 mixed lot adult size coffins include 19 oriented to the west (33%), 12 to the east (21%), and 26 indeterminate (46%). The tradition of placing the burial head to the west is strongly adhered to in single adult burials. The mixed adult burials represent multiple individuals, some of whom are oriented east to west and some for whom there was no formal orientation.

Juvenile Orientation

Orientation is more variable in juvenile-sized coffin burials although head to the west placement is still most common (see figure 4.19). Of the 246 juvenile-sized single coffin burials, head to the west oriented burials number 166 (67%). Thirty-six burials (15%) are oriented head to the east and the orientation was indeterminate for the remaining 44 burials (18%). The 10 mixed lot adult-size coffins include seven oriented to the west (70%), one to the east (10%), and two (20%) are indeterminate.

Burial with head to the west orientation is the predominant form of burial for both adults and juveniles. Given the hexagonal shape of most adult-sized coffins this orientation would have been obvious with the coffin closed. Head orientation in a rectangular coffin would not have been obvious with the lid closed, perhaps accounting for the greater number of east oriented juvenile coffins. It is likely that deviation from the traditional Christian burial orientation was a matter of accident rather than conscious choice or even disregard on the part of the persons carrying out the interment.

Positioning

All coffin burials recovered from the Milwaukee County Poor Farm Cemetery were extended and most were supine. A total of 420 burials were placed in the supine position. Positioning could not be determined for 194 burials, most of them juvenile burials (n=121). Sixteen adult burials were prone and no juvenile burials were found in the prone position. Burial lots that exhibit prone positioning are listed in Table 4.2. Ten of these burial lots are single adults that represent a single individuals clearly placed in the coffin face down (Figure 4.20). The nine mixed lot burials contain individuals or portions of individuals who are placed in a prone position often with another individual in the coffin who is in a supine position. These mixed burial prone placements may represent an effort to fit more than one individual in a coffin.

Table 4.2. Burial Lots Exhibiting Prone Positioning

Burial Lot	Burial Context
10341	single adult
10343	single adult
10347	mixed adult
10348	mixed adult
10326	single adult
10520	single adult
10536	mixed adult
10570	mixed adult
10572	mixed adult
10654	single adult
10661	single adult
10680	single adult
10698	single adult
10731	mixed adult
10737	single adult
10984	single adult

In extended supine burials, the formal positioning of arms was observed in eighteen burial lots, however, the majority of individuals exhibited either no formal positioning or arms were extended along the side of the body. Table 4.3 provides the lot number, position of arms, and type of burials for those burials where formal arm positioning was observed. Extended supine burials were observed with three different types of arm positioning: arms crossed over the torso, over the pelvis, or over the chest. Three mixed adult burial lots were observed with arms crossed over the torso. Seven single adult burial lots exhibited arms crossed over the pelvis and six single adult burial lots exhibited arms crossed over the torso. Formal arm positioning was observed in one juvenile burial, a toddler with arms crossed over the torso. Formal positioning of the arms of individuals buried in the Milwaukee County Poor Farm Cemetery is very rare, found in less than three percent of the burials. Figure 4.21 illustrates an example of arms crossed over the pelvis (burial lot 10987) and over the torso (burial lot 10305).

Treatment of the body

A discussion of treatment of the body should include items placed with the body. Of the 264 mapped juvenile coffin locations more than twice as many locations had material culture represented (n=177)

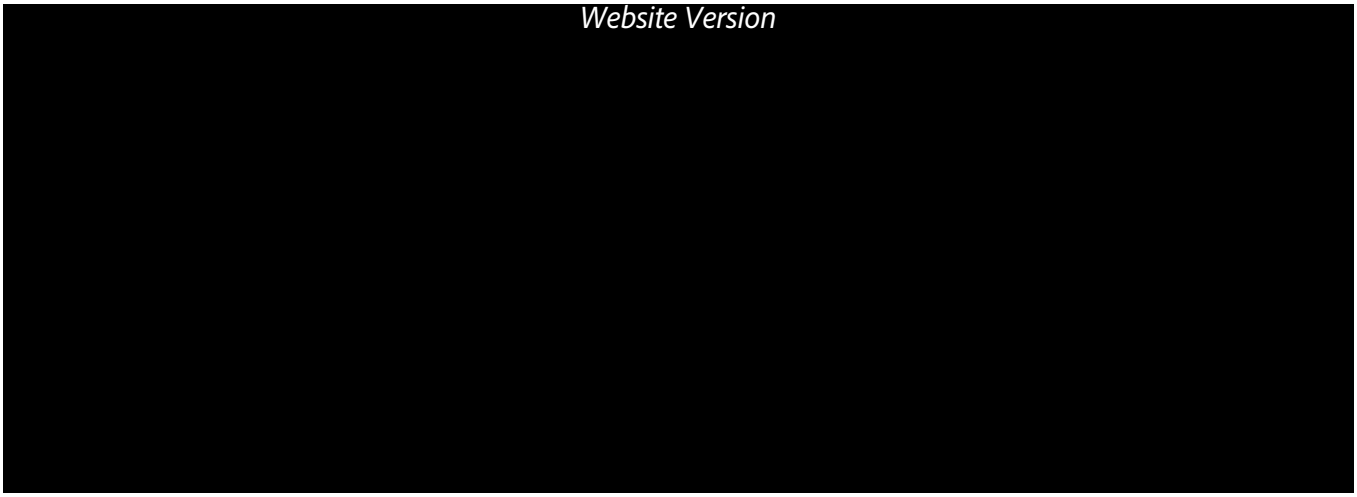


Figure 4.20. Adult burial lot 10737 exhibiting prone positioning (UWM photo on file at UWM-ARL).

Table 4.3. Burial Lots Exhibiting Formal Arm Positioning

Burial Lot	Arm Position	Burial Context
10072-	over torso	single juvenile
10270-	over pelvis	single adult
10305-	over torso	single adult
10329-	over torso	single adult
10335-	over torso	single adult
10346-	over torso	single adult
10360-	over torso	single adult
10364-	over pelvis	single adult
10408-	over pelvis	single adult
10414-	over pelvis	single adult
10423-	over pelvis	single adult
10429-	over torso	mixed adult
10779-	over torso	single adult
10851-	over torso	mixed adult
10973-	over chest	single adult
10975-	over pelvis	single adult
10987-	over pelvis	single adult
11036	over torso	mixed adult

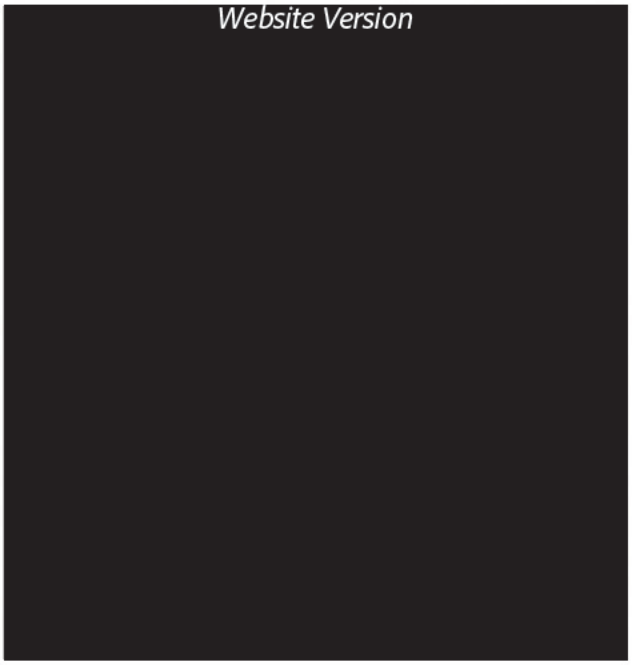


Figure 4.21. Formal arm positioning: burial lot 10987 over pelvis and burial lot 10305 over torso (UWM photo on file, UWM-ARL).

as locations that did not (n=87); see Figure 5.3 in Chapter 5 for a breakdown of material culture presence by juvenile age category. Of the 368 adult coffin locations, roughly equal number of locations contained material culture (n=185) as did not (n=183). Material culture is discussed in greater detail in Chapter 5 but a summary of those items considered "grave goods" follows.

Material culture considered directly associated with the body was grouped into a large category of "grave goods". Material culture directly associated with an individual's burial may include items that have been purposefully associated or buried with an individual or may have simply been on the person at the time of death and subsequent burial. Items considered grave goods can be placed into one of two major categories: clothing and personal items. The clothing category includes fasteners (non-belt buckles, buttons, snaps, hook and eyes sets, sock garters, suspenders, and toggles), buttons, safety pins, fabric, footwear, and belts. Items included in the personal category are items of adornment (beads, bows, metal links, cuff links, earrings, rings, tie chains), pocket tools, indulgences, medical and health items, ritual items, and coins. A total of 3,441 total associated clothing artifacts were produced by 274 (43%, n=632) burial locations. A total of 198 whole or fragmentary personal items were recovered from 80 (13%, n=632) burial locations.

At the Milwaukee County Poor Farm Cemetery, treatment of the body also includes how the coffin was place into the ground. As discussed in Chapter 5, most adult- sized coffins had 4 box handles attached. Presumably this means that the coffin was lowered into the grave by means of the handles. Juvenile coffins did not, with few exceptions, have handles and may have been lowered into the ground via ropes, or just placed in the ground. Evidence for dropping rather than lowering coffins into the ground is found in both adult- and juvenile-sized coffins. In the case of adult coffins, the evidence is displacement of skeletal elements to one side of the coffin as well as disruption of the supine position. Such examples include burial lots 10308 (Figure 4.22), 10337, 10344, 10793, and 10987 where the skeletal elements are described as displaced toward the northwest portion of the coffin. The remains in adult burial lot 10623 were shifted to the southwestern portion of the coffin.

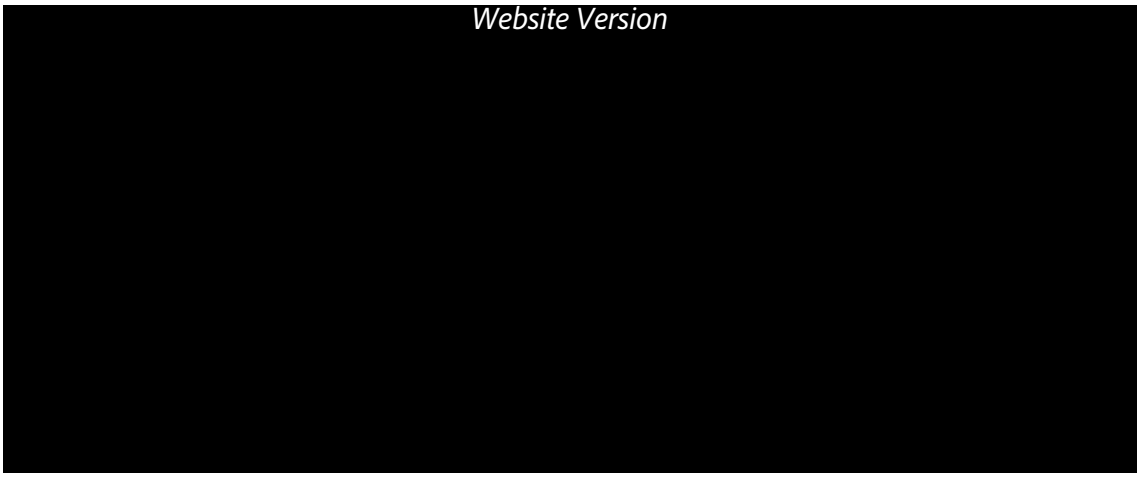


Figure 4.22. Adult burial lot 10308 illustrating displacement to the northwest due to dropping of the coffin into the burial shaft (UWM photo on file, UWM-ARL).

Evidence for dropping of juvenile-sized coffins includes both displacement of skeletal elements as well as extreme angle of coffin placement. The lighter, smaller size of these coffins suggests that they were more easily displaced as they landed at the bottom of the grave shaft as evidenced by coffin angle in relation to the bottom of the grave shaft. Angles of 45° to 75° either sideways or lengthwise were observed.

Juvenile burial lots with both displaced coffins and skeletal elements include 10033, 10035, 10064, 10143, and 10548 (Figure 4.23).

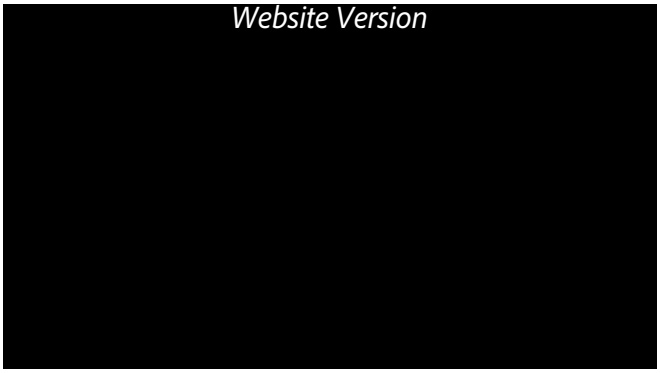


Figure 4.23. Juvenile burial lot 10548 illustrating coffin on side (UWM photo on file, UWM-ARL).

A final example of treatment of the body characteristic of the Milwaukee County Poor Farm Cemetery relates to postmortem investigation. Of the 381 adult lots analyzed, 176 exhibit craniotomy or cut marks of some type. Mixed and commingled contexts account for 113 of these (64.2%) and single contexts account for 63 (35.8%). Slightly more than half are males (98 individuals) and eleven are female. Middle adult is the most common age category represented at 57 (32.4%).

Cut marks are present on each element of the adult skeleton (Figure 4.24). Cervical vertebrae are the most common bones exhibiting cut marks that are either superficial or fully bisecting and are present in 55 (31.2%) of lots with cut bones (14.4% of total lots). Cut cervical vertebrae are the only bones exhibiting cut marks in 13 of these 55 lots (23.6%), suggesting that the only postmortem investigation was removal of the skull prior to burial. Lot 10792 is the only single adult lot with cut cervical vertebrae and is unusual in that the cut runs obliquely through C1 to C3. Clavicles are the next most numerous, with severing cuts present in 52 (29.5%) of lots with cut bones (13.6% of total lots). A similar pattern was observed on dissected individuals from the Newcastle Infirmary and the Royal London Hospital Cemeteries in England (Mitchell et al. 2011). All cut clavicles were recovered from mixed lots; no single adult lot exhibits a cut clavicle. Although autopsy manuals of the time do not explicitly recommend severing the clavicle at the midshaft, its removal would facilitate investigation of the chest cavity and especially removal of the heart and organs of the neck (Delafield and Prudden 1904; Hektoen 1894; Miller 1914). Other bones in order of prevalence include the femur (43, or 24.4%) and ribs, (33, or 18.8%). Overall, surface cuts and false-start scratches were minimal outside of craniotomy cuts, suggesting that the bones were not defleshed prior to cutting. Very few lots suggest osteological dismemberment by individuals with anatomical training. Typically, this results in a pattern in which limbs are disarticulated near the joints and scratches or small kerf marks are

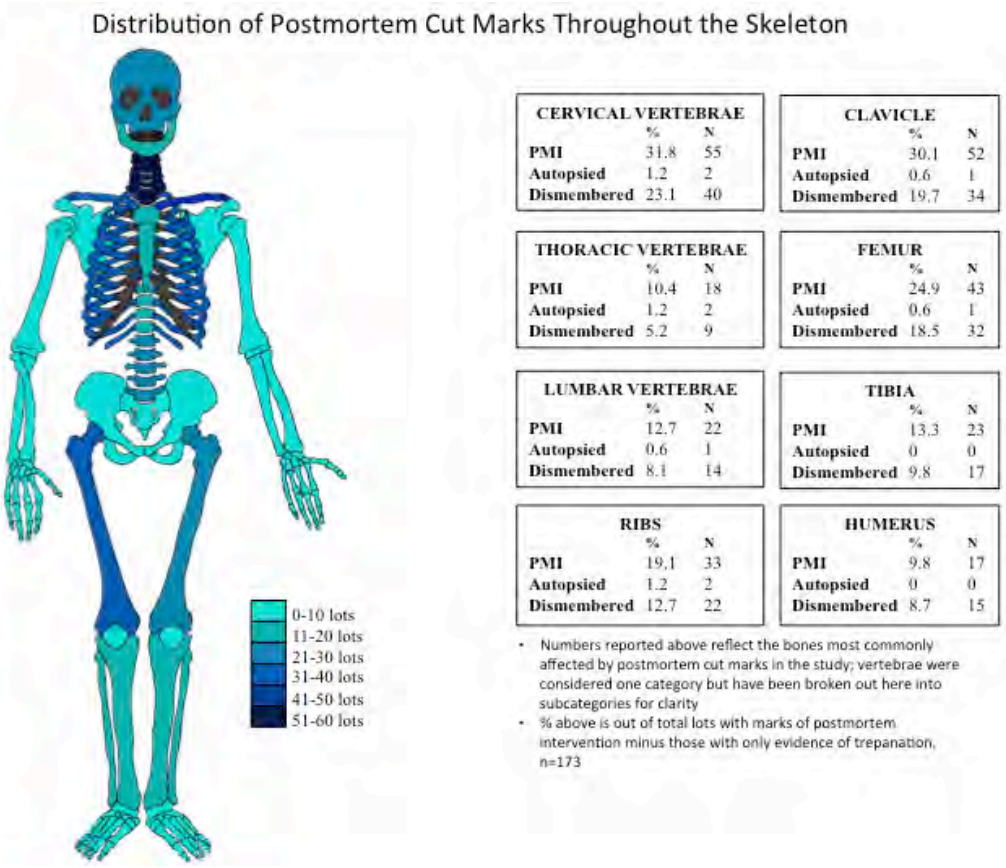


Figure 4.24. Distribution and prevalence of cut marks among adult skeletal elements.

visible near articular surfaces. Instead, the majority of lots were dismembered by limb bisection, in which severing cuts are made near the joints, long bones are detached in the proximal and distal thirds (especially at the elbow and knee), and the feet and hands are severed at ankle and wrist (Reichs 1998). This does not represent the extent of postmortem intervention; many bones showed multiple severing cuts in various locations and angles, and cuts were not reserved for the long bones and limbs, but could affect nearly every bone in the body, including the scapulae, innominates, and patellae.

SPATIAL ANALYSIS

In order to understand land use history, historical documentation in the form of maps and records were consulted in the hope of refining an understanding of the organization of Cemetery 2 on the Milwaukee County Grounds. Unfortunately, none of the cemeteries were mapped on the series of dated maps of the Milwaukee County Grounds with one exception. Cemetery 2 appears on a copy of a portion of an undated, purported Works Progress Administration (WPA) era map. This map bounds the cemetery in an L-shaped fenced area to the west of a fenced road leading south from the former Milwaukee County General Hospital and adjacent buildings. Figure 4.25 illustrates a copy of this map on file at the UWM-ARL. A 1924 map of the Milwaukee County Institutions shows similar buildings to that of the map that depicts Cemetery 2. The Powerhouse, the railroad tracks leading from the Powerhouse, and the series of nearby Asylum buildings clearly mirror one another on the two maps. Even more interesting is the road on the 1924 map that seems to end in the middle of nowhere but that clearly leads to the cemetery on the undated map (Figure 4.26).

Further documentation of the relationship of the cemetery to the Powerhouse and the Asylum buildings and railroad track can be seen in the aerial photo that also shows the western portions of Cemetery 2 (Figure 4.27).

A 1939 map of the Milwaukee County Institutions reveals that the Asylum complex is still in roughly the same configuration but the railroad tracks are missing. However, the distinctively shaped nurses'

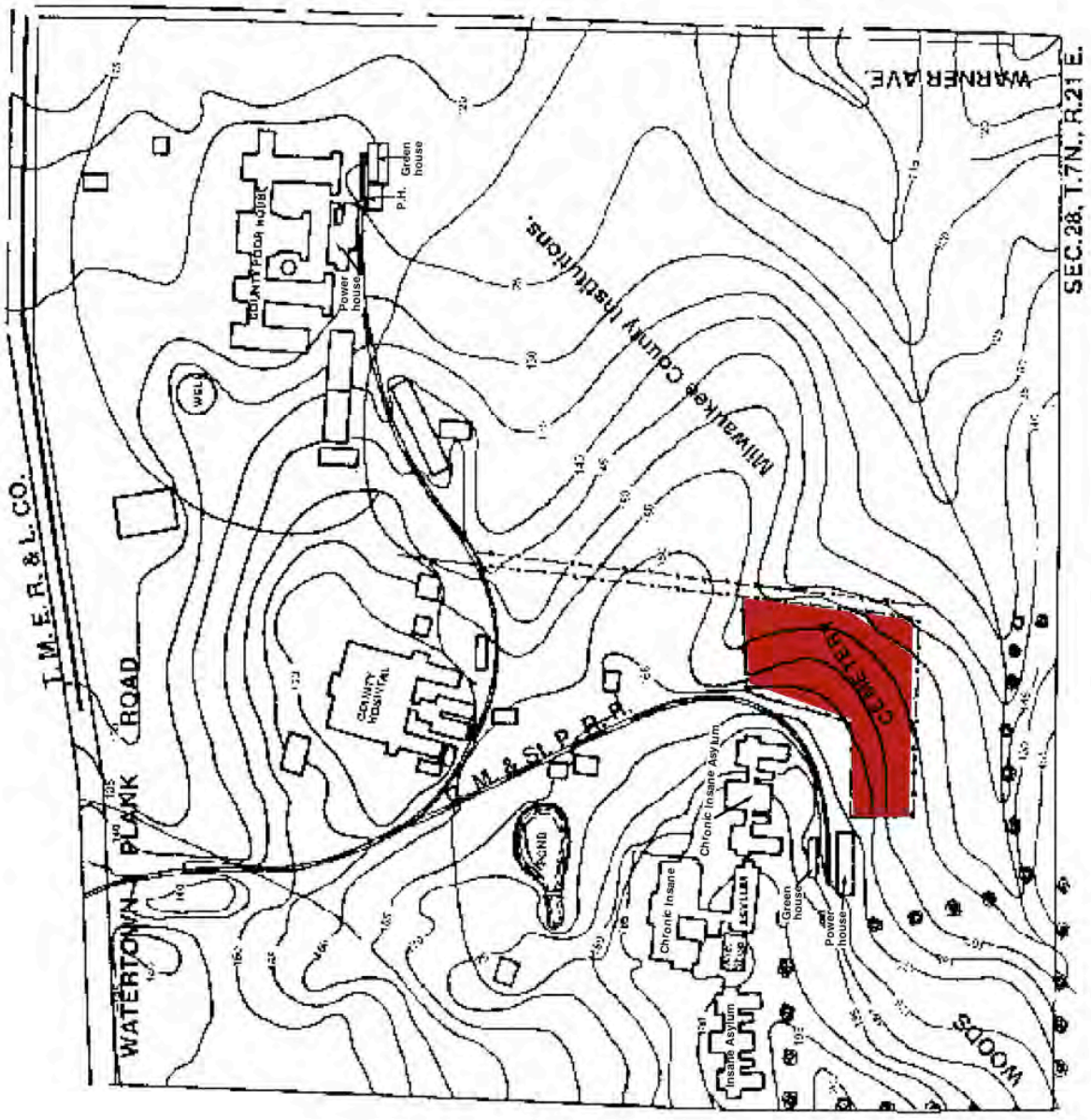


Figure 4.25. Undated Works Progress Administration era map show, Cemetery 2 in red.

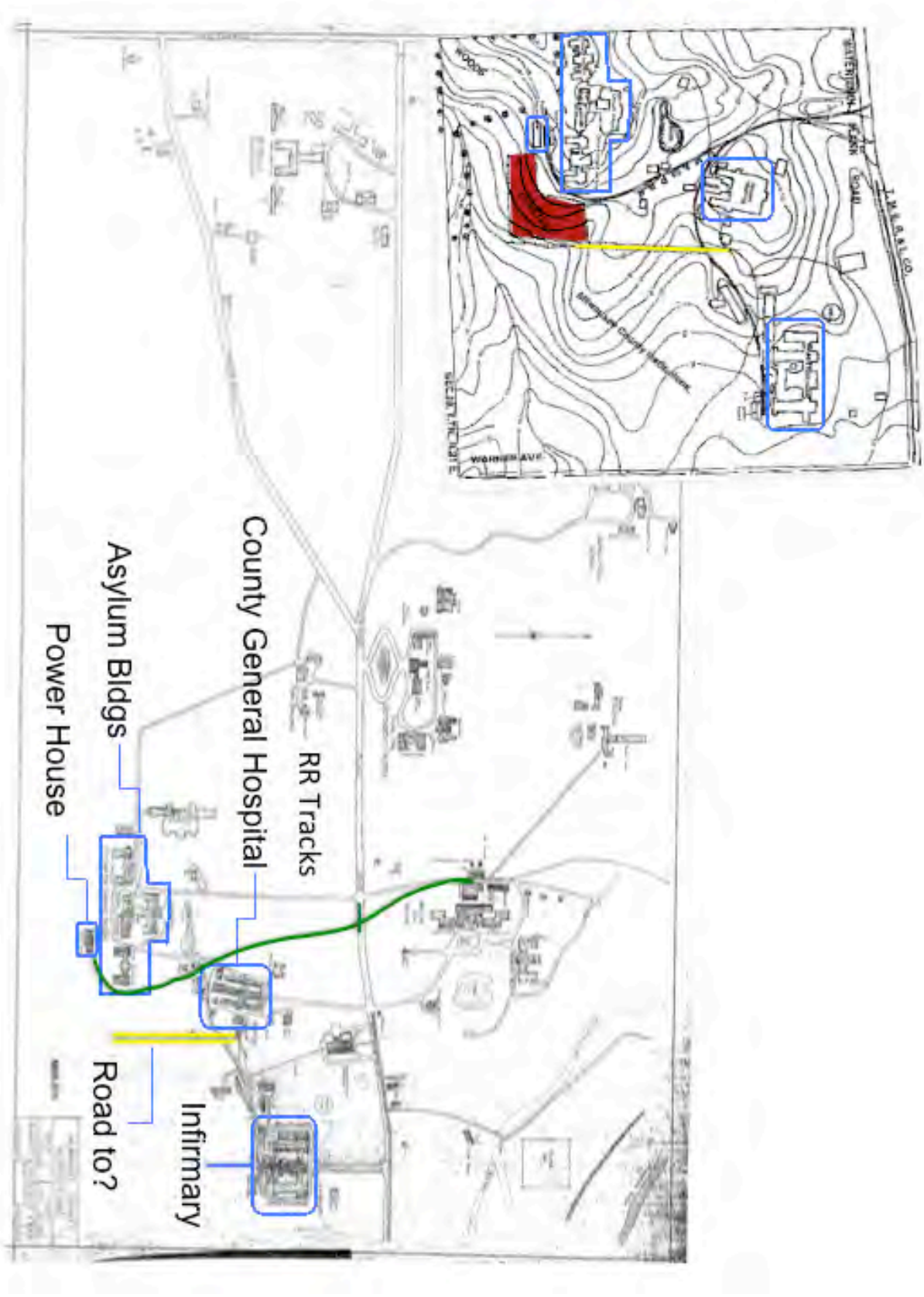


Figure 4.26. Comparison of features on undated WPA era map and 1924 Milwaukee County Institutions map (UWM photo on file a, UWM-ARL).

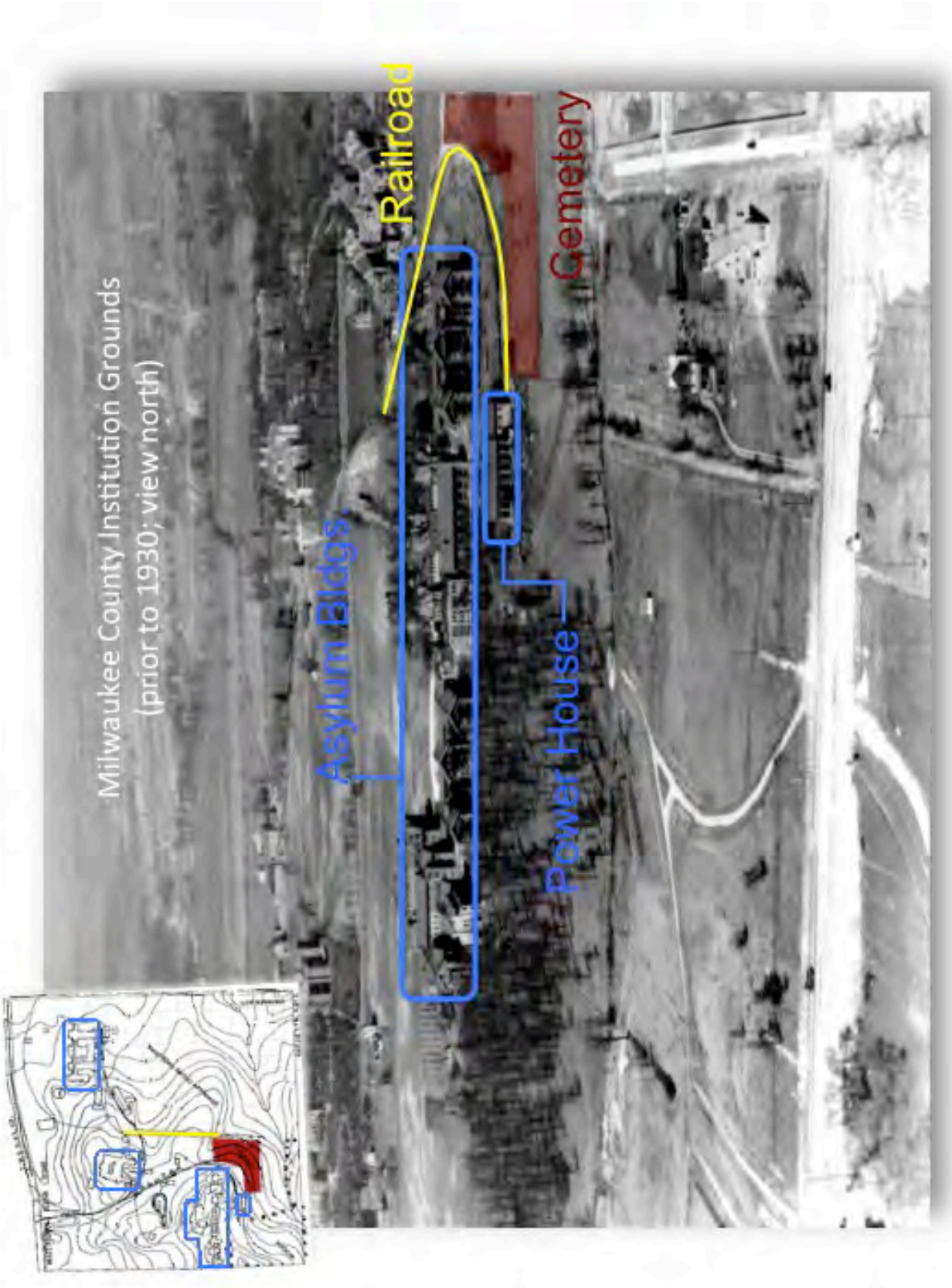


Figure 4.27. Comparison of features on undated WPA era map and 1920s aerial photograph (used with permission of the Milwaukee County Historical Society).

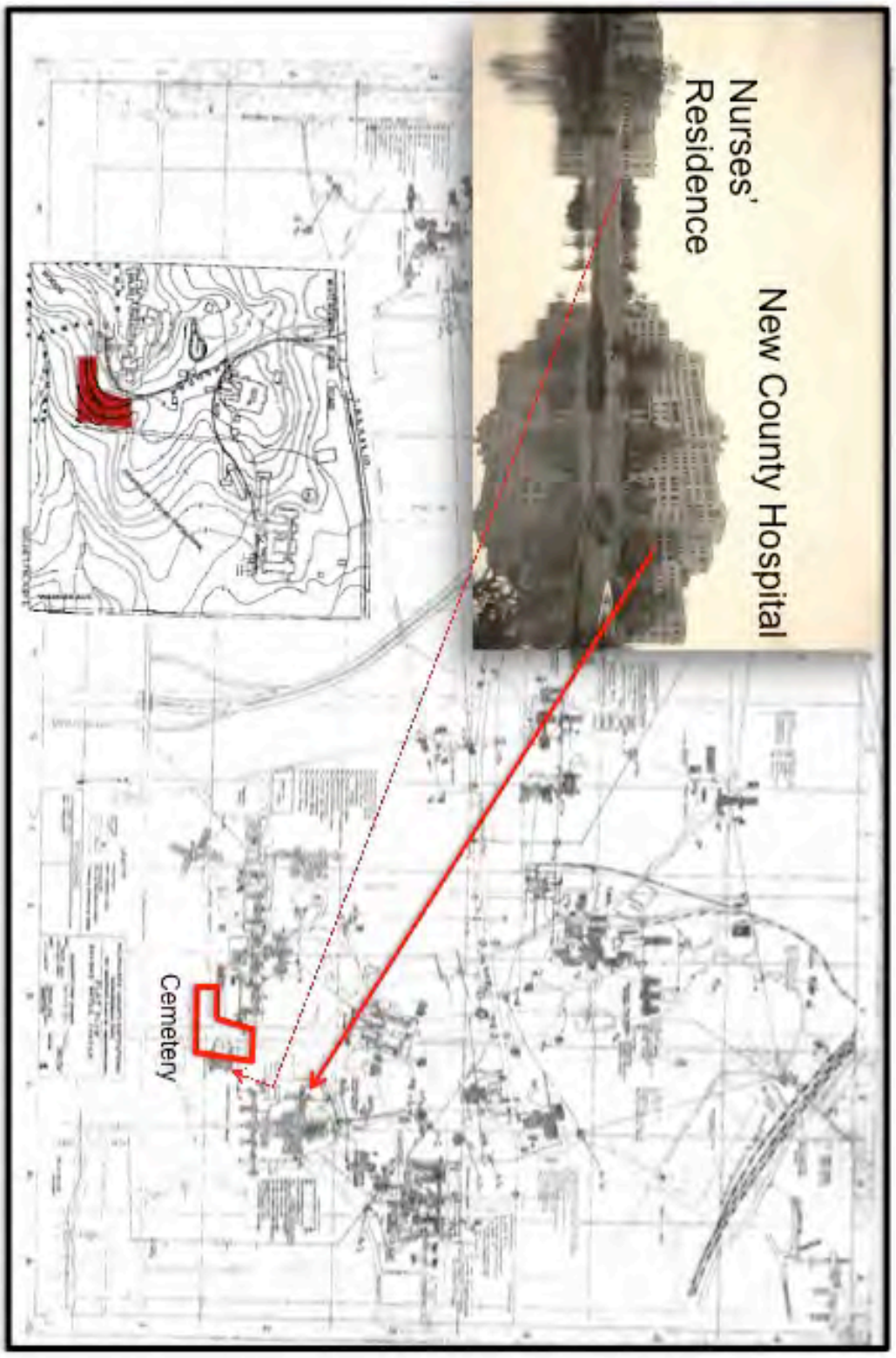


Figure 4.28. Comparison of features on undated WPA era map and 1939 Milwaukee County Institutions map.

Figure 4.29. Construction of County Hospital, 1929 - 1930 (used with permission of the Milwaukee County Historical Society).

residence is present in the location of the cemetery (Figure 4.28).

Another aerial photo, depicting the construction of the new hospital, dates to 1930; the photo shows the eastern boundary of the cemetery and was taken before the construction of the nurses' residence (Figure 4.29).

> DIGGING FOR NURSES' HOME; FIND COFFINS
>
> Power shovels excavating for the new county hospital nurses' residence in Wauwatosa Wednesday unearthed a number of coffins from the potter's field abandoned in 1929. The site of the nurses' residence is almost in the center of the 15 acre field which was set aside 70 years ago for the graves of the penniless and unknown (MS, 7 April 1932).

> PAUPER CEMETERY IN TOSA COULD HOLD 4,700 GRAVES
>
> A lost pauper cemetery discovered during construction at the Milwaukee County Medical Complex in Wauwatosa this summer could contain the remains of 4,700 early county residents, an archeologist [sic] and a state historical expert said Thursday.
>
> "A 1930s map of the County Grounds shows that the cemetery, which was not used after 1929, encompasses about 5 1/2 acres," said David Overstreet of the Great Lakes Archaeological Research Center, the firm hired to remove old graves where the hospital's ambulatory care facility is being built (MS, 25 October 1991).

The quotes above appearing in the same paper 59 years apart indicate that between 1925 when the cemetery ceased to be utilized, 1930 when - based on the aerial photo of the hospital construction - the cemetery was still extant, and 1932 when the nurse's residence was constructed, the cemetery appears to have been "lost." Ironically, it seems to have been lost yet again by 1991.

Temporally Sensitive Artifacts And Features

Two artifact classes recovered in the 2013 excavations and one landscape feature of Cemetery 2 have temporal qualities that can shed light on the temporal use of the site.

Coins

Five coins were recovered from four adult burials in 2013. One dime, two pennies and two nickels were recovered including a "Liberty Head" Nickel-1900, "Barber" Dime-1903, "Indian Head" Penny-1905, "Liberty Head" Nickel-1906, and "Indian Head" Penny-1908. Figure 4.30 illustrates the distribution of these coins. Based on the dates of these coins, the portion of Cemetery 2 excavated in 2013 postdates 1900. Further, the 1900 coin was found with a coin dated to 1908. This suggests that this portion of the cemetery could postdate 1903, the next oldest coin.

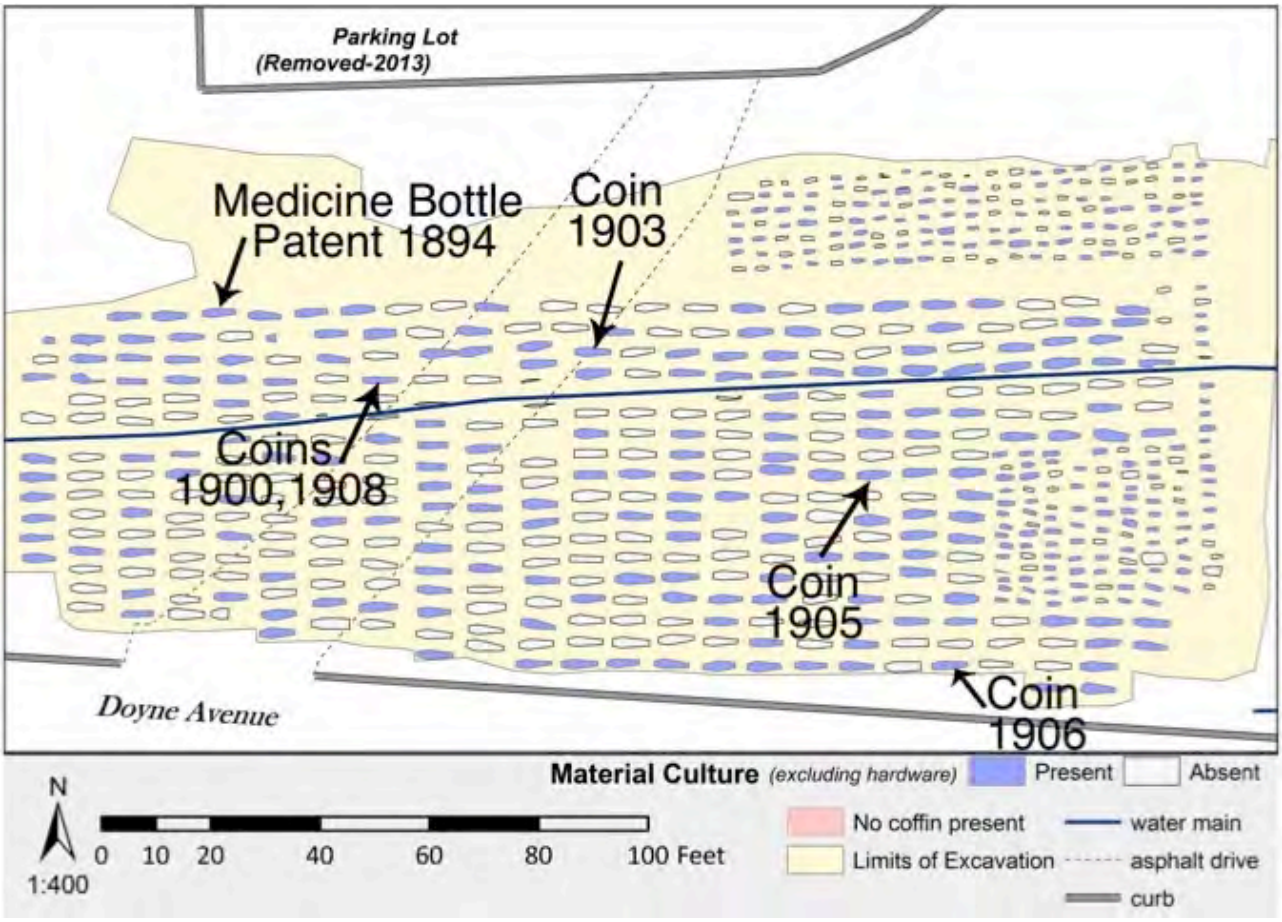


Figure 4.30. Distribution of coins recovered from Milwaukee County Poor Farm Cemetery 2.

Handles

The coffin handles recovered from the 2013 Milwaukee County Poor Farm Cemetery excavations exhibit far less variability than those recovered in 1991 and 1992. See Chapter 5 for a more in depth discussion of the coffin handle recovered in 2013. Most of the 2013 assemblage fits comfortably within the Richards 1997 Type I and Type II handles. The Richards 1997 Types X, XI, XII, XIII and IX represent decorative coffin handles and these types compare favorably, but not exactly, to the 2013 defined Types III and IV. No examples of the Richards 1997 Types III, IV, V, VI, VII or IX have been identified from the 2013 handle assemblage.

Manufacturers for the Richards 1997 Type I handles could not be identified. Type I handles are very similar to Type II handles differing only in the number and placement of screws used to attach the handle to the coffin. Type II handles were available from 1897 through 1925 and could be purchased locally (Richards 1997). These dates would suggest that the area excavated in 2013 could date from 1897 to the closing of the cemetery in 1925.

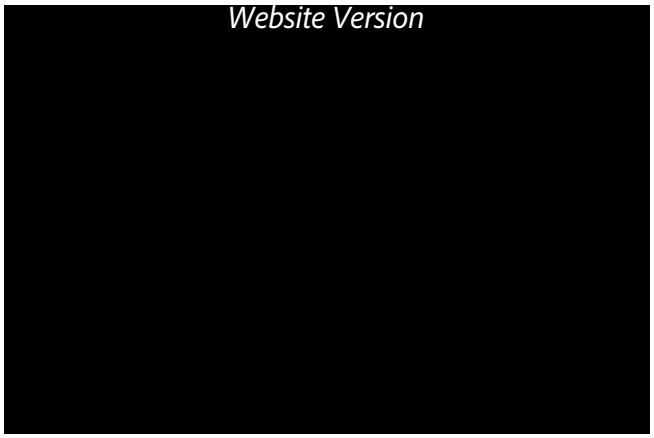


Figure 4.31. Remnant stairs; view north, upslope (UWM photo on file, UWM-ARL).

Stairway

During the course of excavation, a feature was encountered that was interpreted as a set of steps (Figure 4.31). It is possible these steps were part of

Figure 4.32. Remnant stairs in relation to burials excavated in 2013.

the landscaping project that postdated the 'removal' of the cemetery. An April 6, 1932 Milwaukee Journal article makes mention of construction "amid some 8,500 decayed graves in an abandoned potter's field the county is building its new $500,000 nurses home at the new county hospital, Wauwatosa."

The article goes on to say that disturbed coffins were loaded into trucks and "the debris was hauled a few hundred feet west of the nurses home site, spread near the hospital for the chronic insane and crushed into the ground as the basis for a proposed landscape project."

The steps encountered in 2013 are clearly placed above existing burials suggesting fill was deposited on the existing graves to the west of those disturbed by construction of the nurses building in 1932. Figure 4.32 illustrates the location of the burials in relation to the steps and an example of the possible configuration of such steps.

MAPPING

A major challenge faced by the 2013 excavators was to properly corroborate the previous 1991-1992 excavation maps with the modern 2013 excavations. Over the course of 22 years between the excavations of Cemetery 2, the hospital grounds underwent a series of alterations including the implosion and removal of the nurses' residence built in the center of Cemetery 2 and construction of the new cancer center at that location, as well as the extension of Doyne Avenue that cuts across the southern edge of the cemetery.

During the 1991-92 field season, excavators mapped the location of each burial using an alidade and plane table. Additionally, particular landscape features such as the former nurse's residence and several historic and modern utility lines were mapped (Figure 4.33).

During the 2013 excavations, modern mapping technologies, incorporating a laser transit and digital data collector, proved to be more expedient and reliable in terms of accuracy (Figure 4.34).

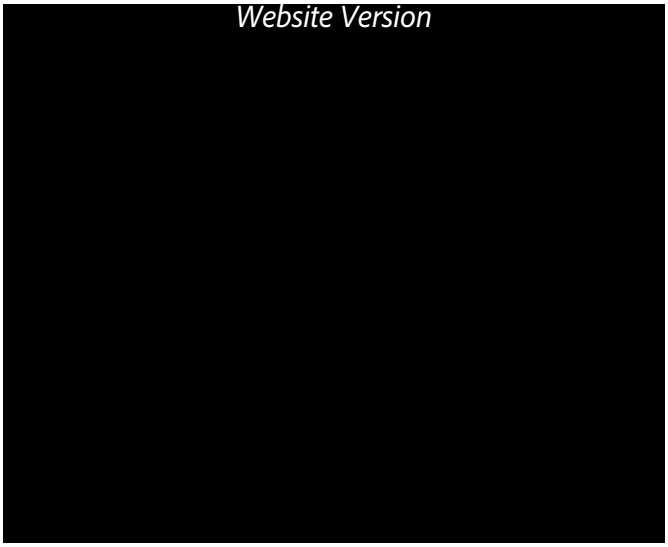


Figure 4.33. Previously excavated burial pits (1992) at the eastern end of the 2013 excavation area.

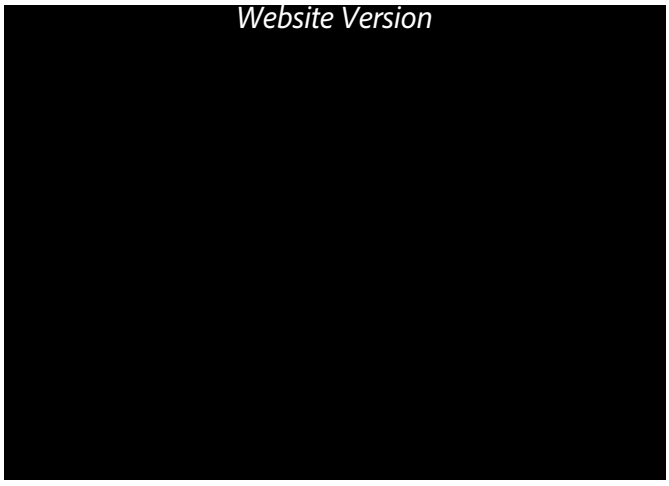


Figure 4.34. Overview of steam tunnel used to reference the 1991/1992 with the 2013 excavations (GLARC and UWM photos on file, UWM-ARL).

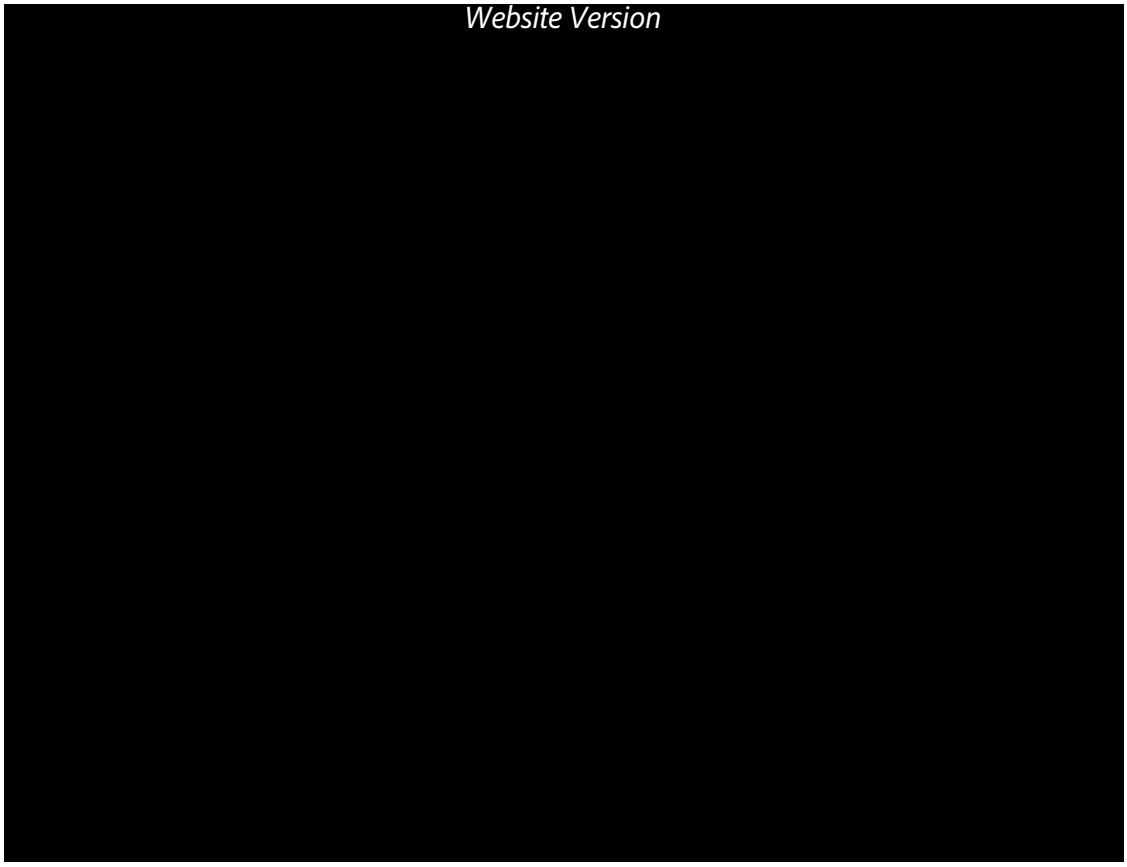


Figure 4.35. Previously excavated burial pits at the eastern end of the 2013 excavation area (GLARC and UWM photos on file, UWM-ARL).

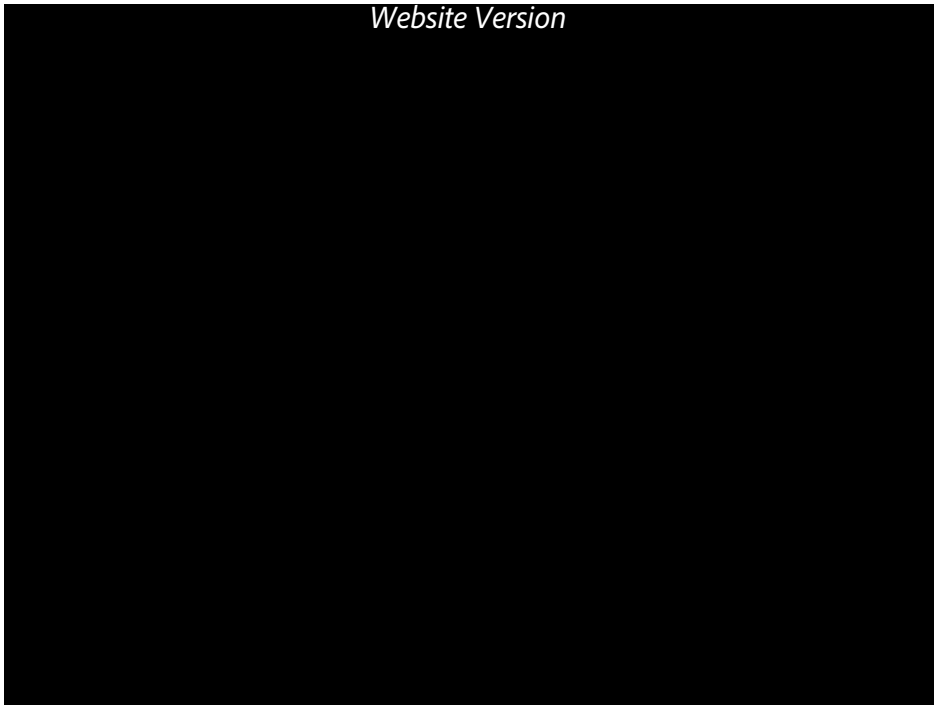


Figure 4.36. Overview of the steam tunnel used to reference the 1991-1992 excavations with the 2013 excavations (GLARC and UWM photos on file, UWM-ARL).

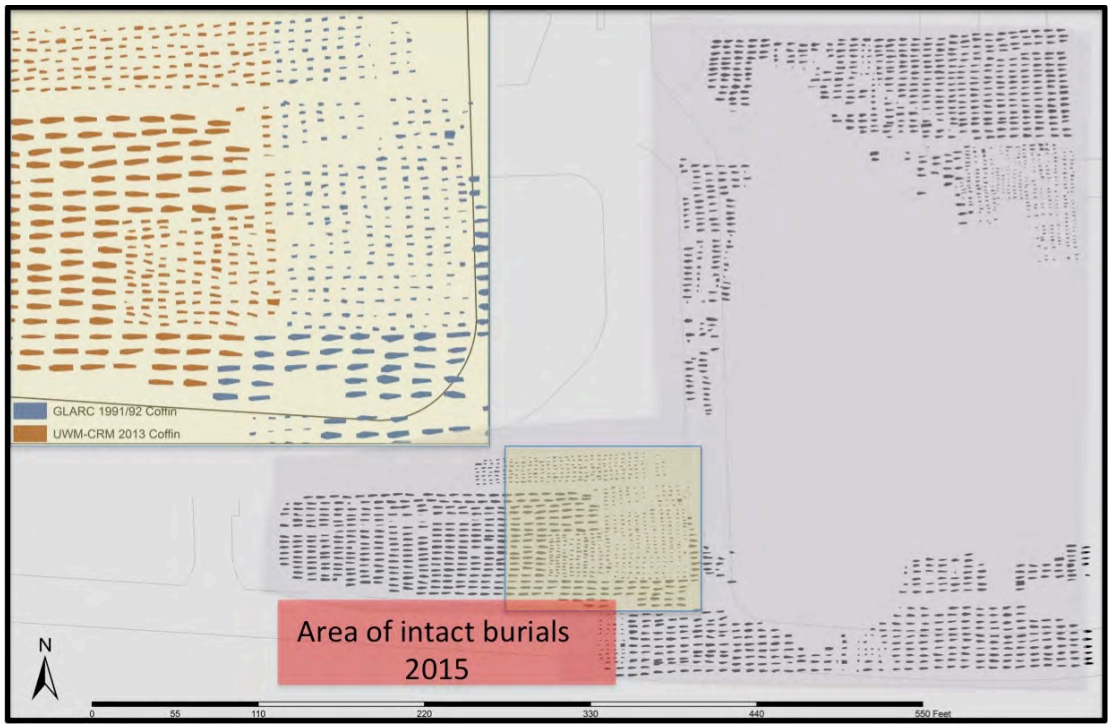


Figure 4.37. All excavated burials from 1991, 1992 and 2013 Milwaukee County Poor Farm Cemetery 2 excavations (UWM photo on file, UWM-ARL).

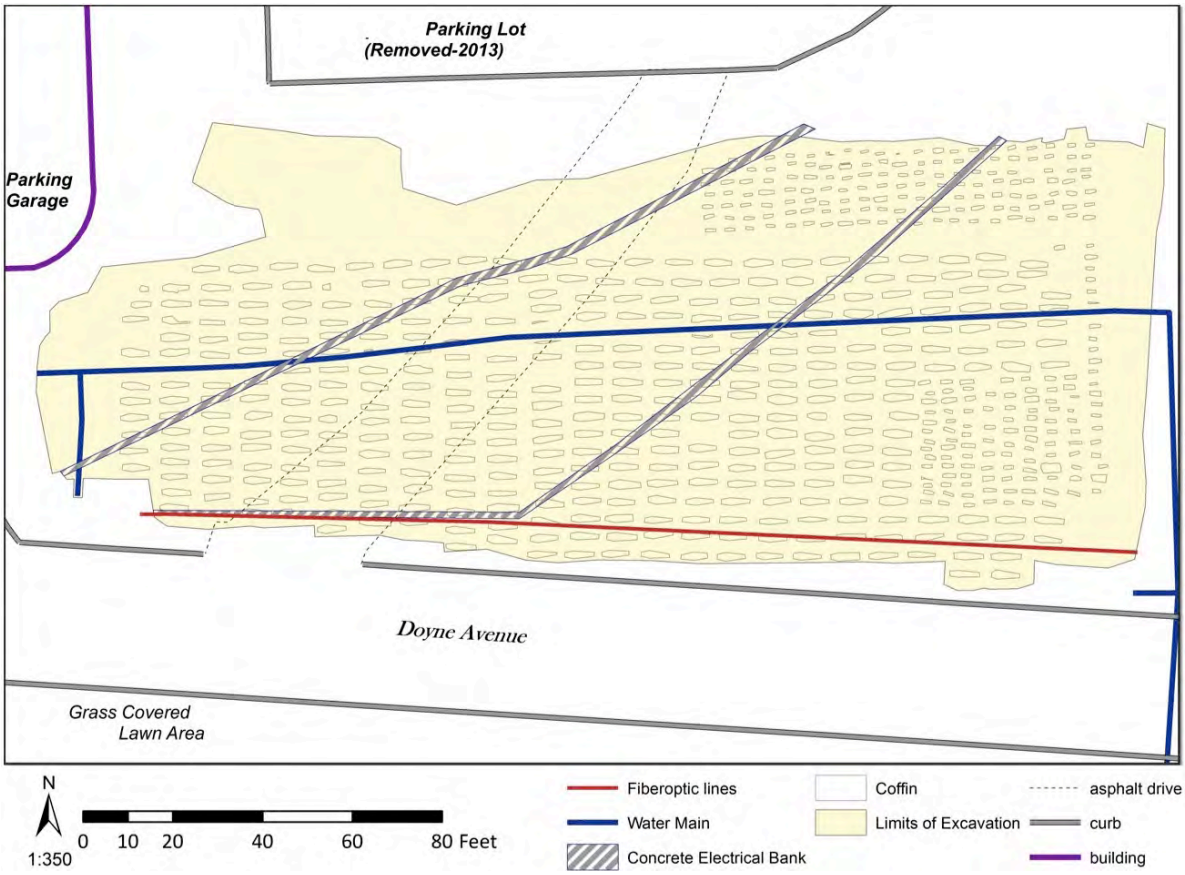


Figure 4.38. Utility disturbances as of 2013, Milwaukee County Poor Farm Cemetery 2 (UWM photo on file, UWM-ARL).

Aligning the mapping between the two series of excavations proved successful due to two factors. First and foremost, UWM-CRM surveyors were able to successfully locate several of the previously excavated burial pits at the eastern end of the 2013 excavation area (Figure 4.35). Secondly, the mapping by the 1991-1992 crews plotted an assortment of buried utilities and steam tunnels. Remnants of these tunnels survived to the 2013 excavations (Figure 4.36), and subsequent mapping of these features in 2013, allowed proper alignment of the two series of excavations. Figure 4.37 provides a map of excavated burials from 1991, 1992 and 2013.

Disturbance

A variety of recent historic disturbances were encountered during the course of investigations. These were primarily associated with utility lines (i.e. electric, water, electric, telephone and fiber-optic lines) that crossed the project area (Figure 4.38).

One of the first instances of ground disturbance investigation at Cemetery 2 focused on locating a buried Milwaukee County fiber-optic communication line and an AT&T fiber-optic telephone line that paralleled Doyne Avenue. Crews from Uihlein Electric utilized a hydro-vacuum to remove the topsoil, cutting through the overburden atop the cemetery to locate the utility lines. Figure 4.39 provides an image of ground hydro-vaccing. The same crew returned to the site during the 2013 UWM-CRM open-air excavations and utilized a narrow-bucketed backhoe to excavate down to, and temporarily remove, the fiber-optic cable from the ground (Figure 4.40). All ground disturbing activity associated with the location and removal of the fiber-optic line was monitored by UWM-CRM qualified archaeologists. During the removal process, it became evident that this line was installed via directional boring sometime in the recent past, resulting in the fiber-optic line running directly through several coffins in the southern portion of the project area.

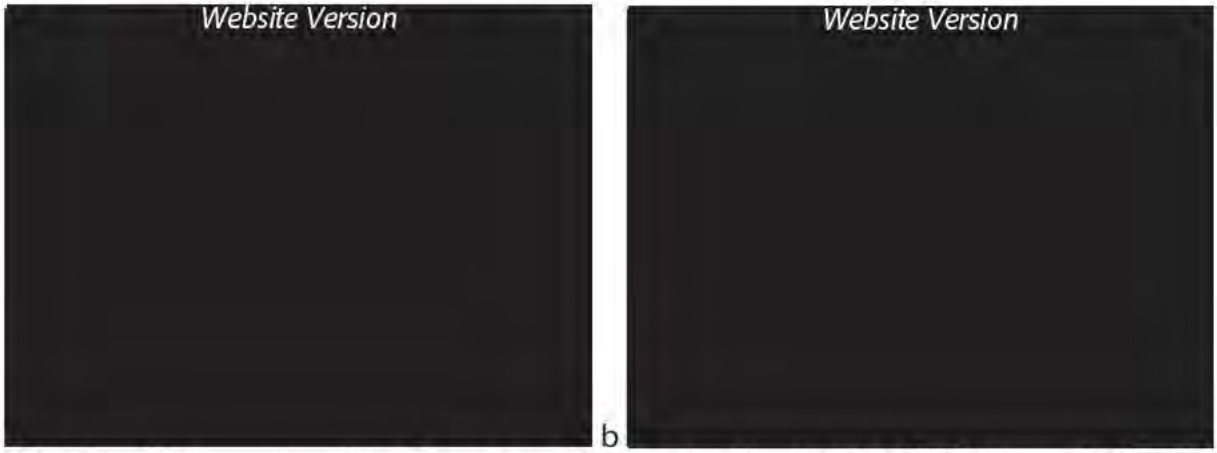


Figure 4.39. Ground hydro-vaccing within the boundaries of Cemetery 2 on May 29, 2013 (UWM photo on file, UWM-ARL).

Figure 4.40. Temporary removal of a fiber-optic cable, June 25, 2013 (UWM photo on file, UWM-ARL).

Figure 4.41. Burial lot 10632 truncated by original water main installation (UWM photo on file, UWM-ARL).

The water main crossing the central portion of the project area (see Figure 4.38) was a principal obstacle. Milwaukee County personnel wished to keep this water main active as long as possible as the line fed several adjacent fire hydrants and buildings in the southern end of the hospital complex. This necessitated the maintenance of a roughly five foot buffer on either side of the water main, restricting access to numerous burials in the central portion of the project area. The line remained active until removal of the waterline became necessary so as to not hinder progress of the project.

Original project plans called for the water line to be reinstalled no more than three feet from the northern curb of Doyne Avenue, within the southern edge of the 2013 excavation area. However, these plans were altered as UWM-CRM excavations in this area were still in progress. Additionally, installation of the new water main in this vicinity would place it within a few feet of any burials that remain intact just under Doyne Avenue. Thus, after consulting with UWM-CRM senior project staff, M.A. Mortenson Company project leaders (in conjunction with Milwaukee County) opted to relocate the water main south of Doyne Avenue, well outside the projected bounds of the Cemetery 2.

This installation work was closely monitored by qualified UWM-CRM archaeologists to ensure no burials were impacted in the event the cemetery extended further south than anticipated.

Figure 4.42. Burial lot 10719 almost completely destroyed by water main installation (UWM photo on file, UWM-ARL).

Figure 4.43. Working around the water main (top); removal of the water main (middle); checking for any remaining human remains or coffin wood (bottom) (UWM photo on file, UWM-ARL).

The eventual removal of the former water main provided access to additional graves within the 'buffer zone' of the water main, as well as graves directly impacted by the water main (including graves beneath and those truncated by the excavation of the original water main trench). The trench in which actual water main was set measured approximately 4.25 feet in width, thus in many cases almost entire coffins were destroyed. Figure 4.41 illustrates a burial truncated by the pipe installation and Figure 4.42 shows a burial almost completely destroyed by pipe installation.

Working around and under the pipe was problematic. Several burials were directly under the excavated trench and it was decided to remove them prior to removing the pipe to avoid further damage. Once the pipe was removed, UWM-CRM staff excavated through the gravel to ensure no human remains, previously disturbed by the installation of the water main, were present (Figure 4.43). This resulted in the recovery of several isolated fragments as well as truncated coffins that contained human remains.

During the course of machine stripping, two non-operational electrical conduit lines were also encountered. These lines consisted of electoral conduit encased in concrete which ranged from two to three feet in width, and roughly one and a half feet in height. The lines crossed the cemetery area in a northeast-to-southwest path, with the southernmost conduit line turning abruptly east-west just north of Doyne Avenue (see figure 4.38). In the eastern portion of the excavation area these concrete works were a few feet above the elevation at which coffins were being identified, thus the original installation of these utilities did not disturb any burials in this portion of the cemetery. The concrete embankments were removed with considerable ease via track hoe. However, in the very southwest corner of the 2013 excavation area, the southernmost electrical conduit line was installed at an elevation that coincided with the depth of several coffins. As excavations moved east, it was clear this conduit line had displaced and disturbed several coffins when it was installed; as visible by the poor condition of several grave lots in its path (e.g. 10388, 10408, and 10409). With the assistance of M.A. Mortenson Company personnel, the concrete berm was cut with a handsaw into several smaller pieces to minimize any additional damage to the graves during removal of the concrete segments. No doubt, whomever installed the electrical lines in the past would have clearly identified the presence of intact burials at this location given the large amount of observable damage sustained by the graves in this area.

Intact burials

Site Boundaries: Then and Now

The earliest map documenting the extent of Cemetery 2 was created during the efforts of the WPA (see Figure 4.25). A scale of 1"=200' indicated on the WPA map led GLARC investigators to estimate the fenced area of the cemetery encompassed 3.807 acres. However, georectification of the WPA map (utilizing ESRI's ArcGIS computer software) to the public land survey system (also marked on the map) places the total area of this cemetery as drawn on the WPA map at 3.48 acres. Currently, as of the date of this report, the archaeological site boundary, as mapped in the state archaeological site files maintained by the WHS, encompasses an area of 4.05 acres, though in the site files the site area listed (as of October 2015) is 69,975.48 sq ft, or 1.610 acres.

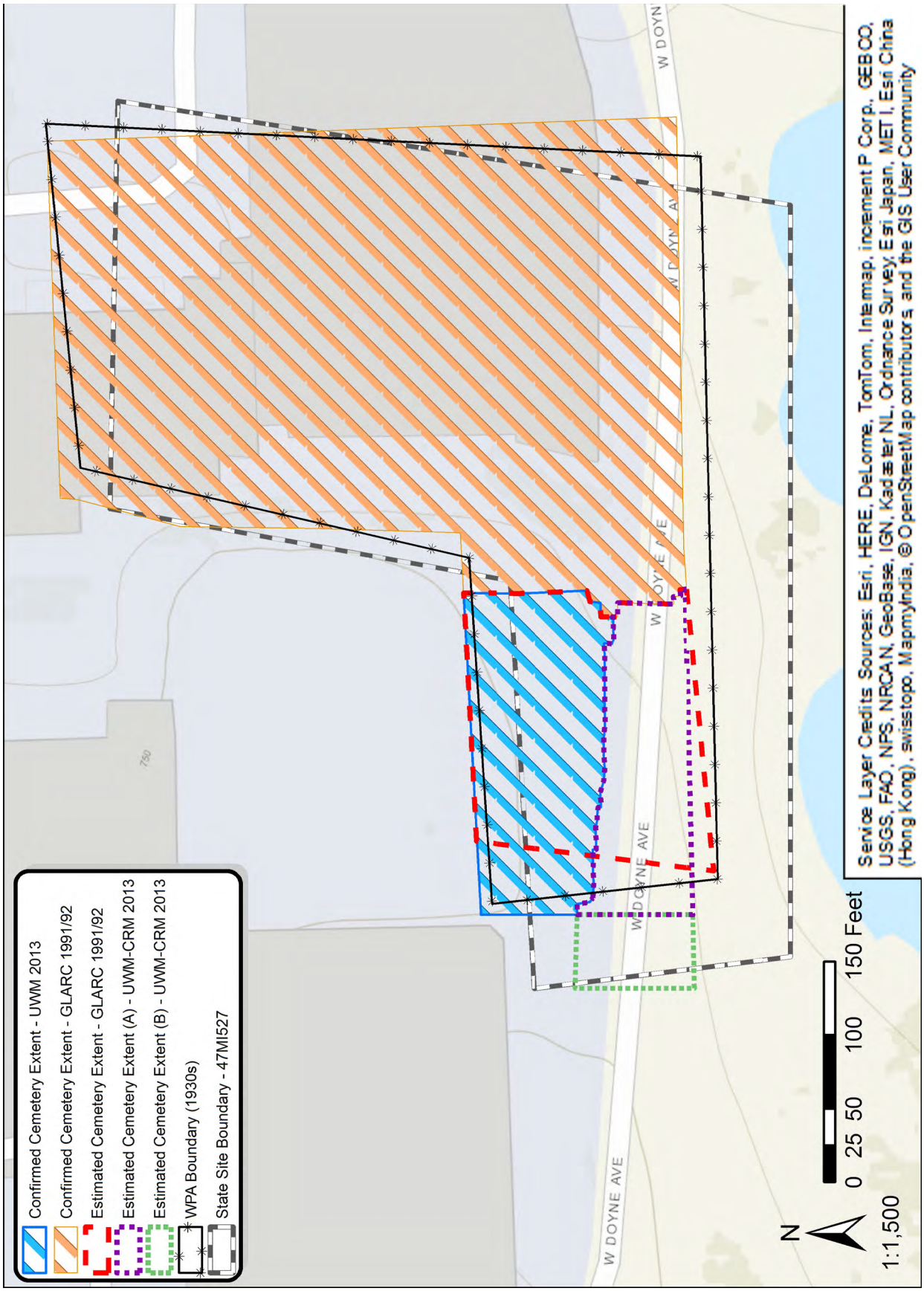


Figure 4.44. Confirmed boundaries of Milwaukee County Poor Farm Cemetery 2 to date (UWM photo on file, UWM-ARL)..

Figure 4.44 illustrates the confirmed boundaries of the cemetery to date, as well as previous and current estimates of the remaining portions of the cemetery. Early on during the 1991-1992 excavations, excavators recognized an orderly arrangement of burials in rows and columns, as well as successfully identified several post molds that were identified as the bounding fence of the former cemetery (Richards and Kastell 1993). Utilizing their identified boundaries and the limits of the cemetery illustrated in the WPA era map, GLARC investigations led investigators to estimate the site extended an additional 170 feet beyond their western excavation limits. The current UWM-CRM excavations revealed that graves extend, at minimum, an additional 45 feet beyond the GLARC estimate (see Confirmed Extent by UWM-CRM 2013 in Figure 4.44).

Excavations by GLARC clearly delimited the southern boundary of the cemetery based on the presence of wooden posts representing a fence, as well as the lack of burial beyond that fence line (Richards and Kastell 1993: Figure 11, 61). Thus, it is unlikely that burials would be found south of this line if it were extrapolated further west, which forms the southern extent of the UWM-CRM estimated cemetery illustrated in Figure 44. The GLARC estimated boundary for the remaining cemetery coincided roughly with the WPA era map's southern boundary in the southwest corner of the cemetery. While it seems unlikely that graves are to be found south of the boundary clearly identified by the GLARC excavations, the state site limits extend about another 92 feet south of the current estimated site bounds, thus vigilant monitoring of any ground disturbing activities in this portion of the cemetery is warranted. Notably, in the summer of 2014, UWM-CRM staff monitored utility installations in a location just south of the previously excavated cemetery. Fragmentary human remains were encountered during the course of the work. These remains were determined to have been previously disturbed and disbursed on the terrain just south of the site (Shillinglaw and Kubicek 2014). Historic newspaper accounts noted that it was not uncommon for some of the fill removed from the cemetery area during the construction of the former nurses' residence in the 1930s to be disbursed across the adjacent landscape (MJ, 6 April 1932:L1).

Remnant Cemetery

Results of the GLARC and UWM-CRM excavations as well as available historical documentation afford lines of evidence to present two plausible estimates for the amount of intact cemetery that remains.

The first estimate (designated Estimate A in figure 4.44 and outlined in purple) suggests an area of roughly 0.292 acres (12,721.329 sq. ft.) of Cemetery 2 remain intact, primarily beneath Doyne Avenue. This is based on a southern terminus consistent with the extent identified during the 1991-1992 GLARC excavations, and a western terminus of burials extending as far west as those identified during the 2013 UWM-CRM excavations. This is likely an accurate minimum as at least one intact, unexcavated grave was identified at the western extent of the 2013 investigations (see unexcavated grave marked on Figure 4.11).

Estimate B (outlined in green in figure 4.44) includes an additional 0.09 acres (3,920.4 sq. ft.), essentially extending Estimate A 50 additional feet to the west. This western limit coincides with the current boundaries of Cemetery 2, as per the archaeological site inventory files. Additionally this western limit coincides with a distinct field edge visible in a 1937 aerial photo of the county grounds (see Figure 4.27). Combining Estimate A and B would suggest that roughly 0.382 acres (16,639.92 sq. ft.) of intact cemetery remain, again largely under Doyne Avenue (Figure 4.45).

Calculations for grave density, utilizing data recorded in 2013, describe a density of 0.03 adult-sized graves/square foot (i.e. three graves in every 100 square feet) and a density of 0.07 juvenile/infant graves/square foot (i.e. seven graves in every 100 square feet). If the entirety of Estimate A were only juvenile/infant burials, then roughly 890 graves are present. If Estimate A contained only adult burials, roughly 382 coffins are likely present. When the areas from Estimate B are included, those numbers reach up to 1,165 if all were juvenile burials and 500 if all were adult. Thus, a conservative estimate for the number of intact burials that remain, primarily under Doyne Avenue ranges from 382 to 1,165 individual graves.

If the pattern of adult and juvenile/infant burials observed in the southeast corner of the former GLARC excavations is extended all the way to the western boundaries of the site limits (including both Estimates A & B), roughly 209 adult-sized graves and

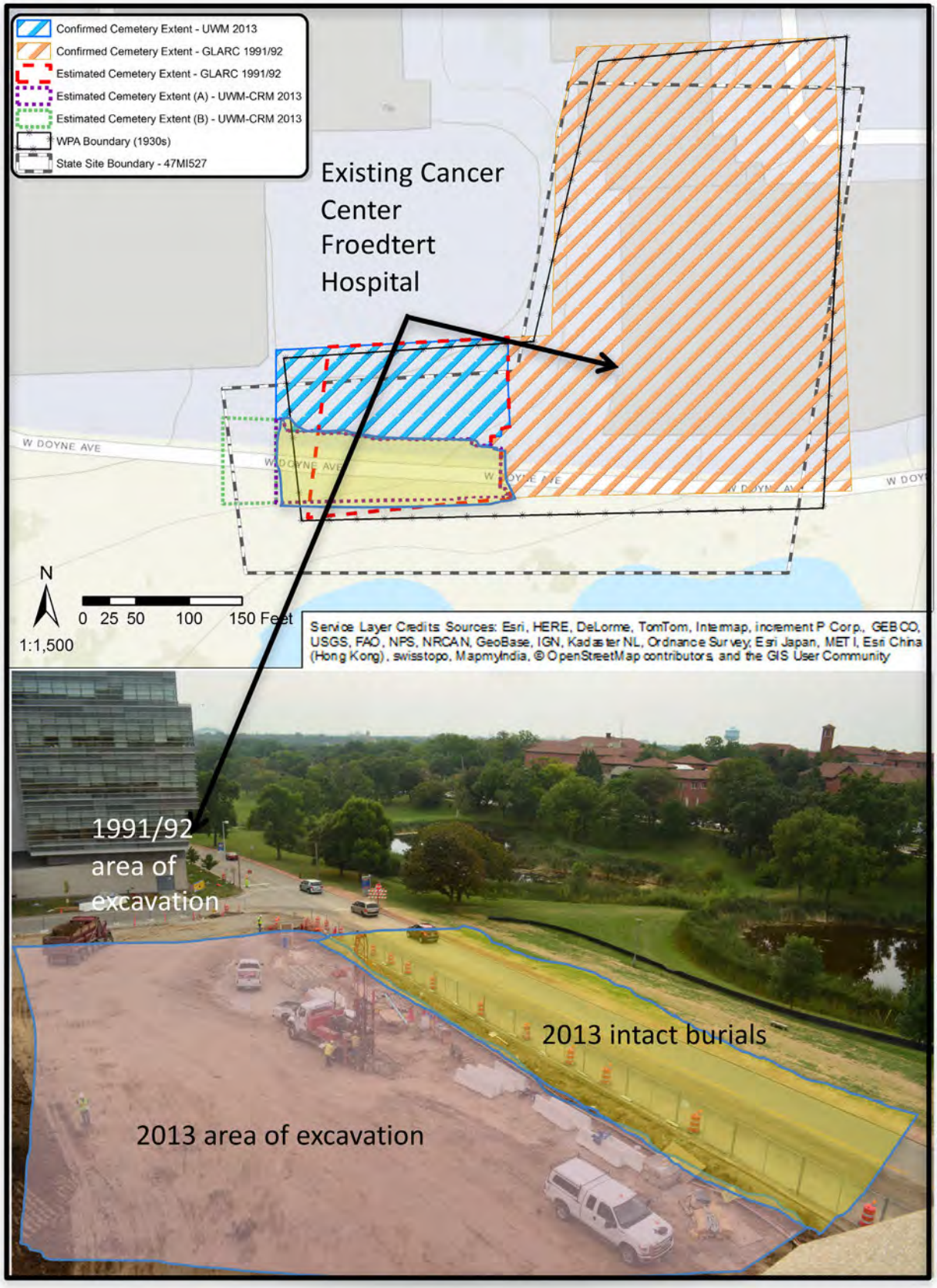


Figure 4.45. Excavation areas and intact cemetery under Doyne Avenue (UWM photo on file, UWM-ARL).

671 juvenile/infant sized graves, or 880 graves could be expected.

Cemetery Organization and Land Use

Richards (1997) defined seven separate use areas for the Milwaukee County Poor Farm Cemetery 2 (Figure 4.46). Area I is the largest area, the earliest utilized, and is comprised of distinctly demarcated areas for adult and juvenile interments. Area I is also the most significantly disturbed area of the cemetery. Approximately 80 percent of the burials in Area I were disturbed prior to the 1991-1992 archaeological investigations. Three other sections - Area II, Area III and Area VII - are adult interments. Areas IV, V, and VI are juvenile interments. Based on recovered burial number tags and associated spatial patterning, Richards concluded that Areas II and III may have been used simultaneously and Area VII may have been utilized later. Similarly, Richards argued that juvenile areas IV and V appear to have been utilized simultaneously; Area VI was likely used a little later in time (Richards 1997).

Reconstructing land use based on the 2013 excavation data results in a slightly different interpretation of use areas. There are several things to consider when looking at the distribution of interments. First, as noted above, the WPA era map (Figure 4.25) has been georectified (utilizing ESRI's ArcGIS computer software) to the public land survey system (also marked on the map) and places the total area of this cemetery as 3.48 acres. This is the boundary depicted as fenced sometime before 1930. The actual boundary of the cemetery based on excavation includes a slightly larger area of 4.05 acres. This may very likely be the result of the vagaries of mapping 85 years apart but it might also suggest that the WPA mapped boundary does not include the entire area of the cemetery.

It is important to point out that a discussion of spatial organization must be tempered by the following: according to archival research presented in Chapter 2, 7,222 individuals were buried in Cemetery 2 between 1882 and 1925. Of these, 5,363 are actually listed in the *Register of Burial at Milwaukee County Poor Farm*. The number of coffin burials represented by the 1991, 1992 and 2013 excavations is 2,281. This

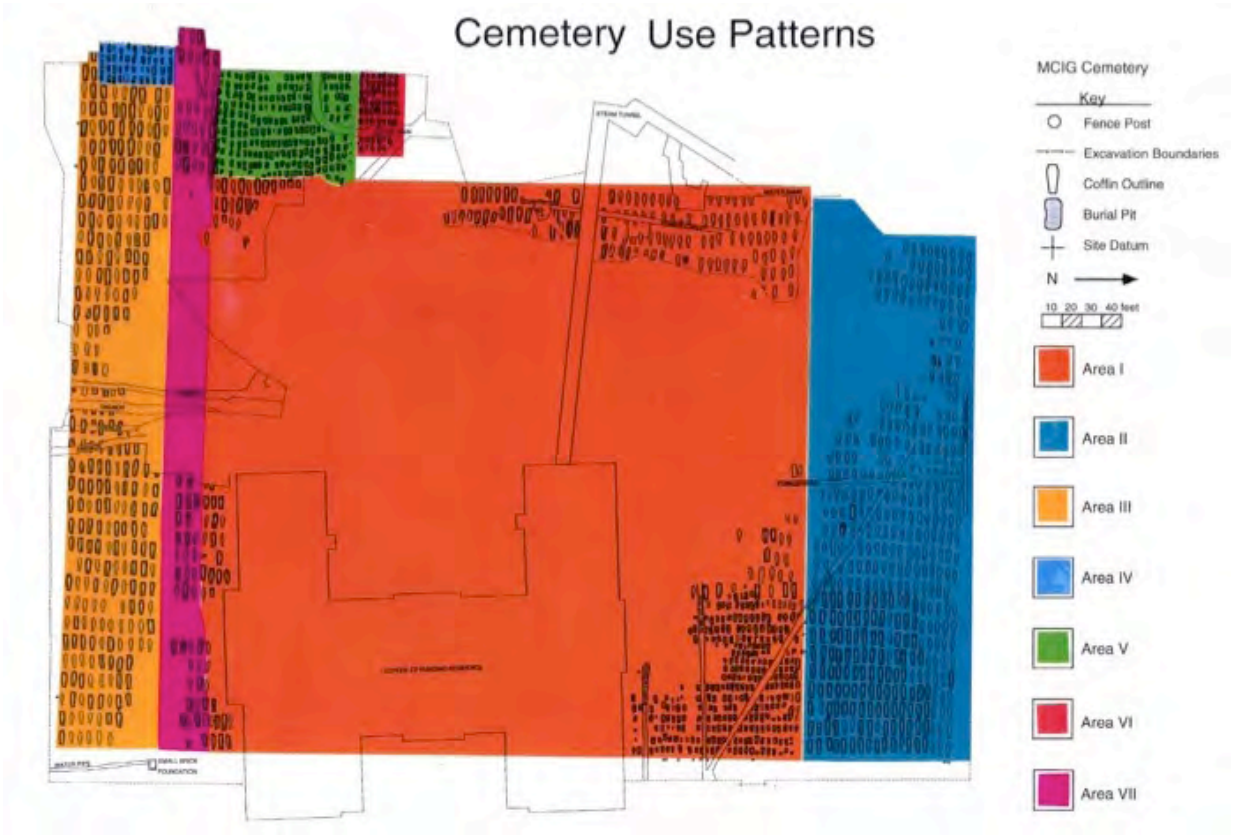


Figure 4.46. Cemetery 2 use patterns (after Richards 1997:108).

number represents only 32 percent of the people buried in the cemetery.

Figure 4.47 depicts both cemetery use areas and the 2013 excavated burials. Area I remains the earliest used portion of the cemetery. This is based on the spatial layout of the cemetery and the fact that only the earlier Type I and Type II handles are present in Area I (Richards 1997). Similarly, only Type I and Type II handles were recovered in 2013 with the exception of only six decorative handles that represent the 2013 Types II and IV.

Based on identified individuals dating to 1918 and 1924, Area II is the most recently used portion of Cemetery 2 (Richards 1997). This may be true of Area III as well. The 2013 excavations extended the cemetery distribution to the west in the L-shape predicted by the WPA era map, however, those excavations also suggest that Area VII may not be a later addition but instead a part of Area I that has been badly disturbed. The western part of what was called by Richards in 1997 Area VII may be the first western expansion of adults from the original cemetery boundaries.

Areas IV, V, and VI as defined by Richards in 1997 are juvenile burial areas and are clearly distinct from one another. The western boundary of Area V was identified in 2013 and curiously, the configuration of this juvenile cemetery area mimics the larger cemetery configuration in its L-shape. The adult burials recovered from Area VII in 1992 continue to the west and eventually to the north to surround the entire juvenile Area V. As mentioned above, this area must postdate 1903 based on the coins recovered.

At this point, a reasonable scenario for land use is as follows. Area I, VII and the 2013 adults represent the fenced area depicted by the WPA era map. The overall L-shape makes sense based on the location of the power plant, the hospital and the railroad tracks (see Figure 4.26). The juvenile burials within Area I and those that make up Area V may be contemporary although it makes sense that those in Area I are earlier. It can be demonstrated that Area II is later and may actually exist outside the originally depicted fenced area. This may also be true of the Area VI juvenile burials. Based on both the 1991-1992 and 2013 excavations this area is spatially distinct from the cemetery areas to the south. A road or other barrier separated Area VI and, like Area I, it may also be a later addition that falls outside the fenced area.

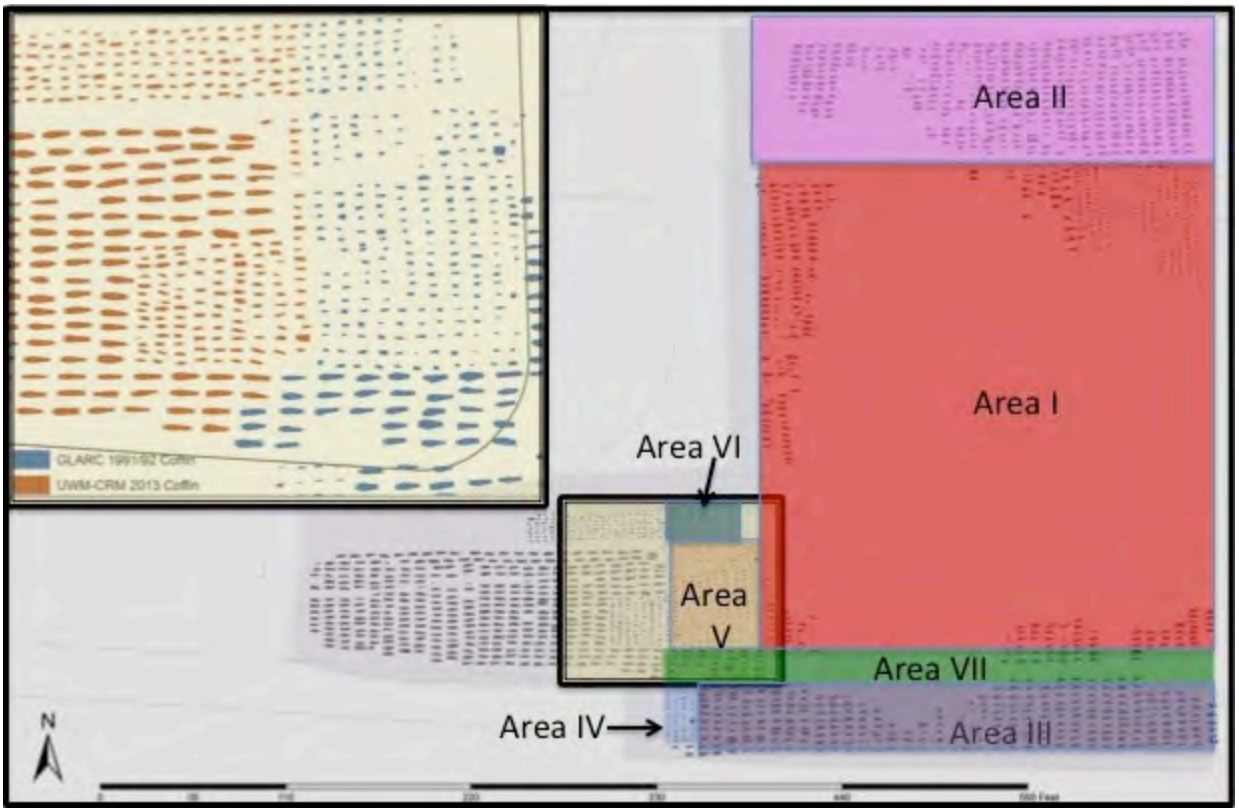


Figure 4.47. Cemetery 2 use areas in relation to the 2013 excavated burials (UWM photo on file, UWM-ARL).

It should be noted that anomalous burials such as the metal coffin and the dog burial occur in this portion of the cemetery.

Interpretation of Area III and Area IV is more problematic. Again, handle distributions suggests it may have been utilized a little later in time. The relationship of the adults in Area II and those excavated in 2013 is unknown and it is not clear what the configuration of juvenile graves to the west may be.

Richards and Kastell (1993) identified an east-to-west pattern of interment in Area II. Individuals were buried from west-to-east in one row of burials and then from east-to-west in the adjacent row. Due to massive disturbance in Area I and no identified individuals in Area II, no similar pattern could be identified for these areas. Similarly, no pattern is clear for the burials excavated in 2013 and it does not make sense to extrapolate a pattern from Area II to the larger cemetery as a whole.

The orderly layout as well as the realization that this section may have more individuals that have been anatomized and not listed in the Register makes the layout of rows difficult to discern. There is no evidence that burials run east-west or north-south, and the different areas may have used different patterns of burial.

OTHER ARCHAEOLOGY

pXRF Investigations

During the course of the Milwaukee County Poor Farm Cemetery project, a pXRF analyzer was used in the field to test soils containing potentially contaminated deposits. Laboratory use of this analyzer included analysis of soils and a denture.

The artifact analysis reported here used a Niton XLT analyzer utilizing factory calibrations and operated in bulk soil mode. A computer controlled the instrument and three readings of 180-second duration were recorded for each artifact. The Niton analyzer returns elemental values in parts per million.

Soils were analyzed using a Bruker Tracer IIIv+ analyzer. The instrument was operated at settings of 40Kv and 30 micro-amps with Bruker's "green" beam filter (6 mil Cu/1 mil Ti/12 mil Al) installed. Three readings of 180-seconds each were recorded for each sample. The instrument was operated by hand in the field but was controlled by a laptop computer in the laboratory. All soils were analyzed wet and unprocessed.

A benefit of pXRF analysis is the ability to conduct rapid field examinations of soils and sediments as a component of field investigations. As a result, pXRF units have been used by geologists as well as archaeologists in order to aid stratigraphic interpretation (Colombo et al. 2011), assist in site survey (Hayes 2013), provide a first approximation of soil composition (McLaren et al. 2012; Zhu et al. 2011), or as an initial test to screen for the presence of heavy metals or toxic compounds (Radu and Diamond 2009). During the 2013 Milwaukee County Poor Farm Cemetery excavations, an exposed coffin was observed associated with a bright blue soil deposit. Since blue soils do not occur naturally in southeastern Wisconsin, excavators were reasonably concerned that they had encountered a pocket of contaminated soil. Excavators at Dubuque's Third Street Cemetery (Lillie and Mack 2015) also noted the presence of bluish soils but considered the coloration the result of particular kinds of molds. However, at in this case, the immediate area was cordoned off and excavation of the associated burial was halted until the pXRF unit could be brought to the site (Figure 4.48).

Tests produced a spectrogram of elemental content (Figure 4.49) and both the crew and Principal Investigator breathed a sigh of relief to see that the deposit was not radioactive or worse. However, it was clear that the deposit did contain elevated levels of arsenic, so excavators took special care when removing the nearby burial (Lot 10569).

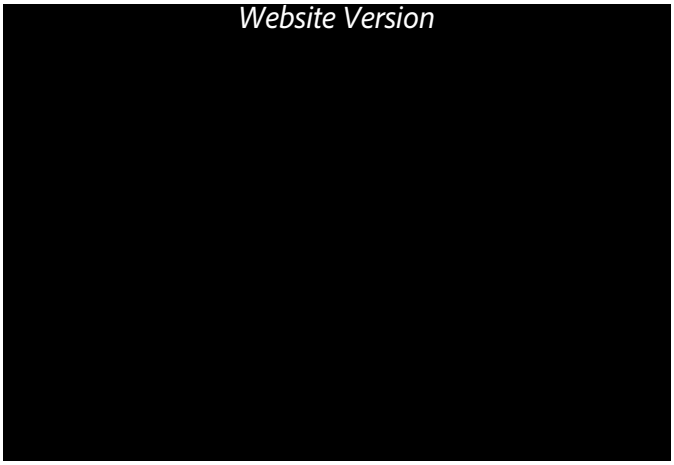


Figure 4.48. pXRF field analysis of soils, (UWM photo on file, UWM-ARL).

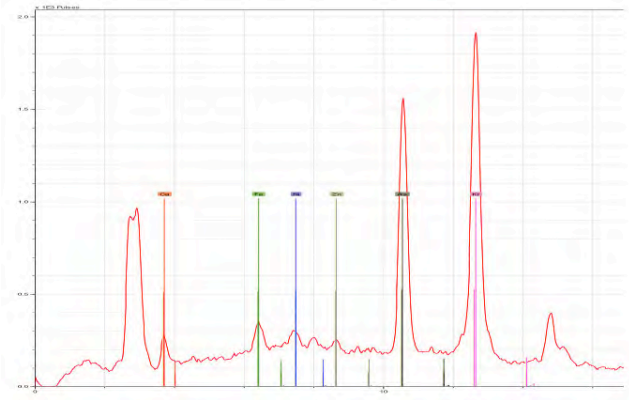


Figure 4.49. Elemental spectra of contaminated soil deposit (UWM photo on file, UWM-ARL).

Subsequent comparisons to adjacent soils as well as soils from other parts of the cemetery suggests that low levels of arsenic are typical of many locations in the cemetery but the 10569 deposit did not appear to have spread too far from its point of origin (Figure 4.50).

The genesis of this deposit remains unknown. It should be noted that the four soil samples analyzed were coffin fill collected from the pelvic region of burials. Consequently, arsenic levels in these deposits may not be typical of undisturbed cemetery soils. Dentures were analyzed in the laboratory as an aid to preliminary artifact analysis. Items included an upper denture and a partial denture. All were recovered from within excavated coffins.

Late nineteenth century and early twentieth century dentures were manufactured from a compound patented as Vulcanite by Charles Goodyear. Basically a mixture of natural rubber and sulfur, Vulcanite revolutionized denture production. When the Goodyear Dental Vulcanite Company (the same firm still manufacturing tires) chose to no longer enforce its patent, dentures became commonly available at affordable prices (Wynbrant 2000). The 2013 specimens appear to be typical examples of Vulcanite dentures with an elemental composition including high relative levels of sulfur. Mercury present in the dentures is likely the result of the use of vermilion to color the naturally black Vulcanite a reddish pink.

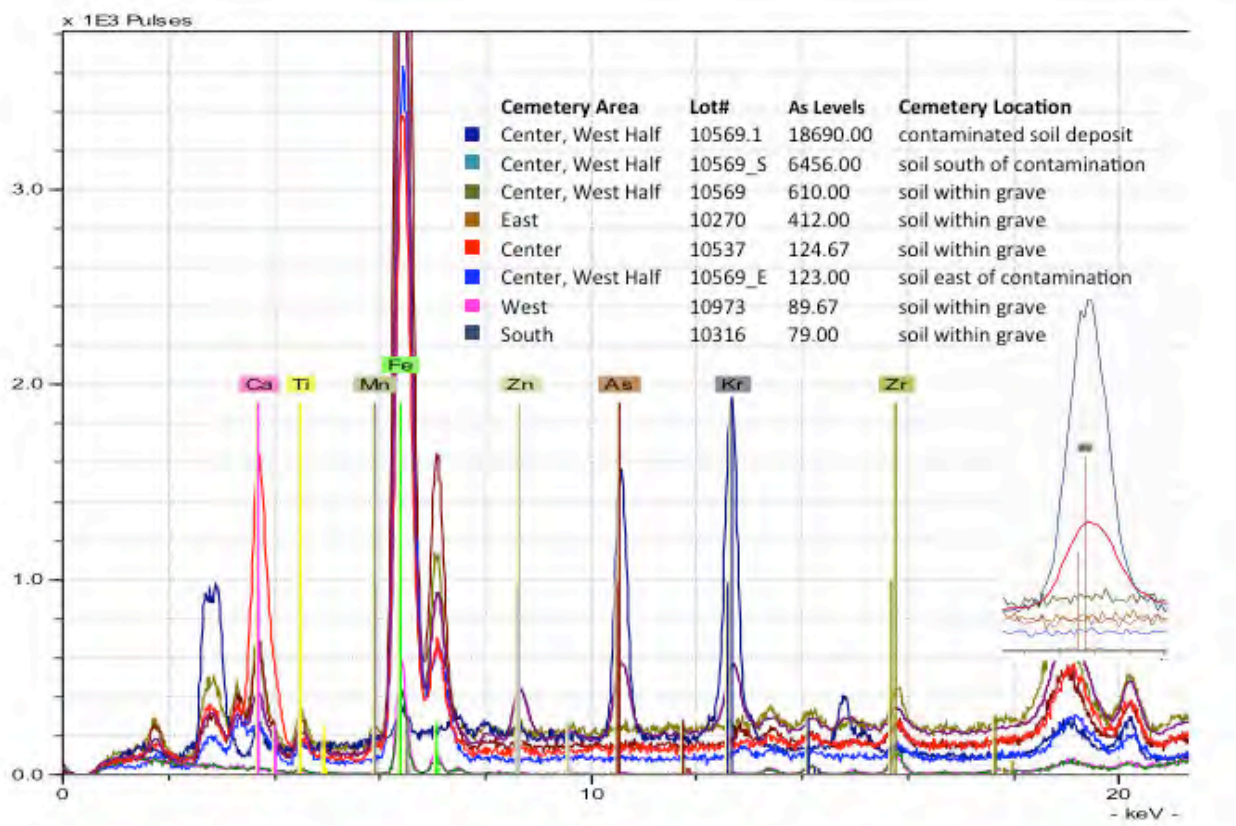


Figure 4.50. Elemental spectra of selected soil samples (UWM photo on file, UWM-ARL).

Burial Lot: 10088

Lot 10088 was discovered when mechanical stripping disturbed the head of a vertically-oriented adult femur, encountered at a far shallower than expected depth based on previously exposed coffins. Initial investigation revealed the ends of several long bones sticking vertically out of the soil at indiscriminate angles; visible duplication of elements indicated immediately that these were the remains of multiple individuals. Further excavation and analysis revealed that the disturbed femur marked the center of a burial pit 55 inches long, 27 inches wide, and 30 inches deep, representing an MNI of 26 individuals (see Appendix G for a further demographic breakdown). No coffin was located in this burial and the excavation was widened beyond the identified burial shaft to ensure that no remains were missed. With careful observation of the stratigraphic sequence, the remains were excavated, photographed, and removed. This was complicated somewhat by taphonomic processes which had settled the bones in different directions, causing them to interlock and requiring the full excavation of large sections of the burial in order to recover the remove the bones safely (Figure 4.51).

Several long bones of the uppermost layer had been pressure-fractured from activity on the overlying soil, which also compressed the remains in lower stratigraphic levels. Despite these circumstances, preservation in the burial pit was remarkably good. The interlocked taphonomic settling of the long bones created a weight-bearing structure that protected the more fragile bones at deeper levels from fracture; an unbroken cranium was recovered with styloid processes intact from a depth of 20 inches. No formal organization was observed in the burial pit and no depositional separation was present between the types of bone recovered. The recovered bone consisted primarily of femora, humeri, tibiae, crania, innominates, and fibulae; very few ribs and vertebrae and no clavicles, sternebrae, or hand and foot bones were recovered. No direct association was observed between the remains, except in the case of two sets of tibia and fibula that were also associated with two men's shoes. This rate of recovery combined with the lack of formal organization or material culture suggests that this assemblage represents a secondary burial. The *Register of Burial at Milwaukee County Poor Farm* lists three earlier entries when bones were removed from graves for reburial in another location on the grounds, and Lot 10088 may represent a similar relocation of remains.

Burial Lot: 10508

One of the most unusual burial features encountered during the 2013 investigations was that of a canine in a human coffin. The canine was recovered from the

Figure 4.51. Burial lot 10088 (UWM photo on file, UWM-ARL).

northwestern portion of the cemetery. The canine was interred in a coffin clearly designed and built for a human (Figure 4.52). The canine's head was oriented to the east, placed at the foot end of the coffin, and facing north. Like several other burials recovered from the cemetery, shifting of the skeleton suggested that the coffin had been dropped into the burial shaft.

The canine's remains are in good condition, though limited water damage is evident on the anterior hind limb bones. Morphology and characteristics indicative of *Canis familiaris* versus other *Canis* species includes the diagonal arrangement of the second and third mandibular premolars relative to the length of the mandible, the curved caudal portion of the ascending ramus, the straight zygomaxillary suture, and the extension of the palate beyond the second molar (Gilbert 1990). A baculum identified among the recovered specimens indicates the dog's sex is male; the cranium also exhibits sexually dimorphic characteristics indicative of a male dog, including a straight sagittal crest and post-orbital swelling (Crockford 2009). Estimated dental age is one year and estimated developmental stage based on open sutures is subadult (Hilson 2005; Newton and Nunamaker (1985). Estimated shoulder height is 63.5 cm (Harcourt 1974).

The dog's limb measurements are slightly smaller than those typical of Malamutes and are much larger than a coyote's average limb measurements (Crockford 2009) (see Appendix G).

In 1913, Louis M. Warfield, resident Pathologist and Assistant Superintendent of the Milwaukee County Hospital, noted that a scientist named J.L. Yates was "experimenting on dogs" in the Annual Report of the Milwaukee County Hospital to the Milwaukee County Board of Supervisors. The next year, Yates et al. (1914) published research with references to experimental inoculations carried out on dogs.

Analysis of Non-Human Taxa

A total of 155 non-human taxa specimens were recovered during the 2013 excavations. About 73 percent of the faunal specimens were recovered from juvenile burial contexts and represent fish, bird, mammal, reptile, and bivalve taxa. Intrusive fauna accounts for 17 percent of the identified specimens and was recovered exclusively from juvenile coffin lots. Faunal specimens exhibiting perimortem saw marks were recovered from adult single and mixed burial contexts. The following sections describe the these specimens.

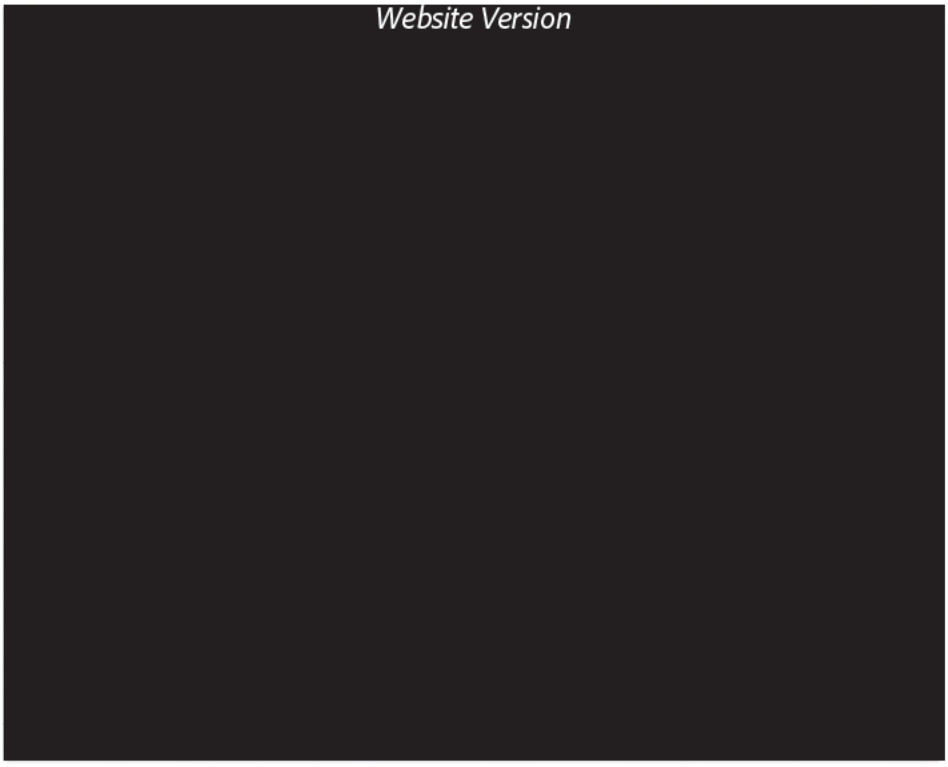


Figure 4.52. Lot 10508 burial of a canine on first excavation (top) and fully exposed (bottom) (UWM photo on file, UWM-ARL).

Bone and bone fragments identified by excavators and analysts as non-human fauna were removed from burial lots and placed into bags separate from the human remains and material culture. Specimens were identified with reference to the UWM-ARL Osteological Comparative Collection. Identification was conservative and occurred with respect for taxa's morphology and osteological landmarks. For example, the presence of hypsodont incisors did not constitute adequate evidence for a species-level identification.

Specimens representing a mammalian taxon were, if possible, differentiated to a size class (Table 4.4). The mammalian size-class categorization schema is useful for specimens that cannot be identified as representing a specific taxonomic Order. For example, fractured rib specimens representing the angle landmark but lacking the articular facets may be of such substantial size (e.g., cattle or horse) that one can clearly identify the specimen as representing a very large mammal. Such size-classed data allows legitimate data to usefully complement identifications to finer taxonomic categories.

Identification of non-dental pathological lesions on mammals was constrained to descriptive accounts of osteoblastic or osteolytic lesion locations. Lyman's (1977) guide to nineteenth century butchery of domesticated fauna was useful when identifying meat cuts represented by sawed faunal material.

Table 4.4. Mammalian Taxon Differentiated to a Size Class

Size Class	Example Taxa	Max Kg
VI	Cattle, Moose, Elk	1100+
V	Deer, Sheep/Goat, Wolf, Bear	226
IV	Coyote, Dog, Beaver, Porcupine, Raccoon, Badger	50
III	Eastern cotton-tail rabbit, Groundhog, Pine martin, Mink, Muskrat	13
II	Ground squirrel	0.7
I	Mouse, Mole	<0.5

Quantification, Taxonomic Diversity, and Faunal MNI

The total zooarchaeological sample recovered during the 2013 excavation of burials and general fill contexts totals 155 (Table 4.5). Specimens recovered from 42 specific burial contexts total 145 and represent 91.8% percent of the total recovered sample. Specimens recovered from the cemetery's general, or non-burial, matrix total 10 and represent the remaining 8.2 percent of the total.

Five identified taxonomic classes and seven identified orders represent the diversity present at the site. Among the vertebrates recovered, mammals dominate the sample contributing 123 specimens (77.8%) of the sample. Following mammals in rank order is fish (19 specimens, 12%); bird (5 specimens, 3.2%); reptiles and mollusks each contributed one specimen.

Sixteen faunal specimens were recovered from 10 single adult burials, 13 faunal specimens were recovered from seven mixed adult burials, and 116 faunal specimens were recovered from 24 juvenile burials. Juvenile burial contexts contained more faunal specimens than adult burial contexts.

Taxonomic diversity was greatest among juvenile burials; fish, mammal, bird, bivalve, and reptile specimens were all recovered from these contexts. Two taxonomic classes, mammals and birds, were recovered from single adult burials, and only mammals were recovered from burials containing more than one adult.

The MNI for specimens representing taxa at the species level total 9 (see Table 4.5). The MNI is represented by the following species: one raccoon (*Procyon lotor*), two goats or sheep (*Caprinae*), two pigs (*Sus scrofa*), one cow or bull (*Bos taurus*), one chicken (*Gallus gallus*), one fresh water mussel, and one snake.

Faunal Pathology, Trauma, Perimortem Modification, and Taphonomy

Twenty specimens exhibit pathological lesions, evidence for trauma, or perimortem modifications.

Table 4.5. Non-Human Fauna Number of Identified Specimens (NISP) and MNI

Order	Family (or suborder)	Genus (or subfamily) and Species	Common Name	NISP	MNI
			Fish	18	
Cypriniformes or Salmoni-formes			Carp or Salmon	1	
Anseriformes	Anatidae		Waterfowl	2	
Galliformes	Phasianidaer	c.f. *Gallus gallus*	c.f., chicken	1	
					1
			Bird	2	
Rodentia			Rodent	29	
			Small Mammal	1	
		c.f. *Prycon lotor*	c.f. raccoon	1	1
			Medium Mammal	5	
Artiodactyl	Bovidae	Caprinae (subfamily)	Goat/sheep	2	2
Artiodactyl	Cervidae	Unknown	Deer	7	
Artiodactyl	Suidae	*Sus scrofa*	Pig	9	2
			Large Mammal	34	
Artiodactyl	Bovidae	*Bos taurus*	Cattle	8	1
Artiodactyl	Bovidae	*Bos taurus*	c.f. Catttle	1	1
Artiodactyl	Unknown	Unknown	Largest Mammal	2	
			Mammals of un-identified size	21	
Bivalvia	Unionoida		Freshwater bivalve	1	1
Squamata	Serpentes (suborder)		Snake	1	1
			Unidentified	9	
Total NISP				155	9

Six specimens exhibit saw marks consistent with butchery practices Two specimens represent pork (*Sus scrofa*) top sirloin cuts recovered from burial lot 10270, a single adult burial.

Two specimens exhibit cuts that likely represent practice saw marks created by physicians training at the medical college. The first specimen represents the metapodial of a Class V mammal and was recovered from burial lot 10409, a single adult burial. The metapodial exhibits three distinct perimortem saw cuts. Only the proximal half of the element remains following a transverse cut; a paralateral cut removed the medial portion so that only the lateral side of the specimen remains. A third saw mark two millimeters in length on the paralateral portion of the metapodial may represent a false start before completing the cut that separated the medial from the lateral portion. Another specimen represents the left fore metapodial of a juvenile pig (*Sus scrofa*) recovered from coffin lot 10983, a mixed adult burial. Only the distal half of the metapodial remains following a transverse cut to the diaphysis. A second cut four millimeters in length is perpendicular to the transverse cut and was made lateral to the specimen's midline. This longitudinal cut may represent the work of a physician practicing with a bone saw.

The right ilium and a scapula fragment of a pig (*Sus scrofa*) recovered from burial lot 10580 exhibit carnivore and rodent gnaw marks, respectively. A large mammal rib fragment recovered from burial lot 10745 also exhibits carnivore gnaw marks. Burial lots 10580 and 10745 are both mixed burials.

Specimens representing intrusive taxa total 27. These specimens represent 17 percent of the non-human fauna and were recovered from four juvenile burial lots (10226, 10497, 10505, and 10596). The atlas vertebra of a snake was recovered from juvenile burial lot 10226. Since burrowing snakes exist in southeastern Wisconsin, the atlas seems more likely to represent an intrusive inclusion rather than intentional human behavior. Squirrel-sized rodent remains total 26 and were recovered from three juvenile burial lots (10497, 10505, and 10596). Since rodents burrowed on the Milwaukee County Grounds during the period of human interment and continue to do so today, the squirrel-sized rodents recovered from juvenile burial contexts are most likely intrusive and do not represent intentional human behavior.

A total of 155 specimens were recovered. The inclusion of faunal specimens within two adult coffin lots appears to represent the bone saw practice of medical students (n = 2). Large mammal specimens are most frequently associated with juvenile burials. Two specimens representing top sirloin pork cuts were identified in association with the single adult burial lot 10270. Intrusive faunal remains are more likely associated with juvenile burial contexts.

DISCUSSION

The 2013 excavations resulted in the recovery of 632 coffin locations and a single lot (10088) believed to represent a bone dump from previously disturbed graves. Of these, 368 were adult-sized coffins and 264 were juvenile-sized. Of the 264 mapped juvenile locations, seven did not contain human remains. Ten adult coffins contained the remains of juveniles of adolescent or late childhood age.

All burial at the Milwaukee County Poor Farm Cemetery occurred in coffins with the exception of burial lot 10088. Burial with head to the west orientation is the predominant form of burial for both adults and juveniles. Treatment of the body suggests little care taken with the mortuary ritual based on poor nature of the grave good and evidence for the dropping of coffins into the burial shaft. Evidence for postmortem investigation of individuals either through autopsy or use as medical cadavers is also present in the treatment of the bodies interred.

Land use during and after the use of Cemetery 2 suggests a pattern of haphazard filling of a loosely defined cemetery area, as well as repeated disturbances following the abandonment of the cemetery.

If the pattern of adult and juvenile/infant burials observed in the southeast corner of the 1991-1992 excavations is extended all the way to the western boundaries of the site limits, roughly 209 adult-sized graves and 671 juvenile/infant sized graves, or 880 graves can be expected to be present.

Finally, the presence of steps within the cemetery area as well as significant amount of non-human faunal material corroborates the historical documentation evidence for repeated disturbance during and after the use of Cemetery 2.

CHAPTER 5. MATERIAL CULTURE ANALYSIS

by Patricia B. Richards and Eric E. Burant

Introduction

An understanding of grave good versus grave inclusion is blurred at the Milwaukee County Poor Farm Cemetery (MCPFC) as a result of the mortuary ritual, or lack thereof, practiced. Determining whether something was placed or left as part of mortuary ritual practice by the living or whether an item found its way into a grave as part of disposal practices is problematic in burials of this cemetery. Items of clothing could represent things left on an unclaimed and un-autopsied individual, or they could represent something left by the family or even county officials as part of a mortuary ritual. Nonetheless, both context and osteological analysis provide some clarity regarding an understanding of the treatment of individuals from death through burial, particularly through the lens of material culture found buried with them.

In a Chapter entitled "Mortuary Synthesis" in *Uncovering Identity in Mortuary Analysis*, it is argued that a burial, particularly a historic burial, may represent the "attributes and identities" of the mourner rather than those of the individual buried (Heilen 2012). Those interred at the MCPFC are unlikely, for the most part, to have had mourners. Therefore it is reasonable to attribute what can be said of identity based on material culture to the individual interred. This leaves us perplexed as to the identities to be constructed through the presence of bandages, rakes, forks, glass, or autopsy tools. However, as Goldstein et al. have noted, identity in a mortuary context is likely constructed or negotiated by the community rather than the individual, therefore a deceased person's identity may be "at least in part, constructed for them, and with respect to new social roles played in death (2012: 208)."

The disparate social roles or identities assigned to those buried in the MCPFC are exemplified in five newspaper articles dating from 1882 to 1930:

> "Poor Blind Bob," the ambulant advertising sign, who froze to death in gutter of the alley back of Fueldner's planing mill, is here "bedded warm in Mother Earth," and the last one, the baby of Mary Anne Sandrock, the young woman who was "married in distress" by her betrayer and then deserted to fight life's battle, doubly hard for a disgraced girl to a Christian community. These are a few of the "Coroner's cases" of the last three months, and the list could be stretched threefold. Then there comes the contingent of paupers, who die in county institutions and whose remains are not claimed by relatives. They all rest here, "buried at the County's expense," as it reads in the records, and these records and a small wooden shingle are the only "monuments" of many a checkered career. It is a sad and touching walk in these bright and joyous Christmas days, among the rows of little hills in Potter's Field (The Daily Republican-Sentinel, (Milwaukee) 24 December 1882).

> The special committee which has been investigating Undertaker Judson's method of burying paupers held another session this morning. Evidence tending to show that the Wisconsin Medical hospital had employed more than one means to get bodies was presented.
>
> The object of the meeting was to secure possession of the bodies held by Wisconsin Medical College. Last week the committee ordered the college authorities to turn over the bodies in their possession to Undertaker Schroth, but when the undertaker appeared at the college the medical men refused to give him the bodies except one….
>
> Dr. Burgess was next put on the witness stand. The doctor answered some of the questions and positively refused to answer others. He defied the authority of the committee to compel him to answer and only answered such questions as suited him. He admitted that a portion of the body of Maria Lammens, whose remains were found buried at Calvary Cemetery under the name of Albert Schnettner, had been taken to the college….
>
> Dr. Burgess declared that it would be an injustice to the institution and to the students to require them to give up the bodies undergoing dissection. "Besides," continued the doctor, "you couldn't identify the bodies if you wanted to, they are so mutilated and disfigured."
>
> "Yes," said Dr. Sifton, "you couldn't identify your grandmother if she were in that party. After those bodies have been pickled and cut up and operated on by a class of students, you can't tell one from the other."

Attorney Eschweiler replied that if that was the manner in which the medical men handled the bodies it was time the county called a halt. "When you get those bodies from the county," he said, "you bind yourselves to bury each one of them in a proper way and under its proper way and by your own admissions you have violated the law."(MJ, 16 February 1884)

Potter's field is located on the county poor farm, and its population receives its accessions mainly from the several charitable institutions that surround it—the hospital, almshouse, and insane asylum, although occasionally some unfortunate from the morgue is "planted" there (Milwaukee Sentinel [MS], 11 May 1888).

COUNTY CHARGE PASSES AWAY. MRS. LIZZIE HERMAN, 60, BROODED OVER POSSIBILITY OF HER BEING BURIED IN POTTER'S FIELD-NO CLEW TO RELATIVES.

Fifteen years an inmate of county poor farm, apparently forgotten by relatives and friends, and without a visitor within the memory of the oldest attached of the institution, Mrs. Lizzie Herman, 60, a cripple, died, Sunday night, of paralysis and injuries suffered in fall, Oct. 15.

She probably will be buried in the potters' field as county employees have been unable to find friends or relatives and there are no funds to pay for a burial elsewhere. For years the woman had lived in the fear that she would be buried a pauper, seemingly unmindful of the fact that she has been living as a county charge. To officials of the institution she seldom, if ever, mentioned it. To other inmates she confided her fears and hopes.

To prevent a county burial she began years ago, to "save" odds and ends that came into her possession. Seldom, if ever, she got hold of any money, but when the effects were searched in an effort to find a clew to friends or relatives, an odd collection of articles that she hoped to sell were found. The articles were worthless.

Of late years the woman became morose and refused to talk much even to the inmates of the poor farm. Each day she would sit alone in one corner of the room brooding. She was walking across her room, Oct. 15, when she fell to the floor and fractured her collar bone.

When the dusty records at the institution were searched it was learned that Mrs. Herman was committed to the institution when 45, and she was divorced. Her home at that time was in South Milwaukee. No record of any children was found. Two sisters lived in Milwaukee at the time she was sent to the institution. The authorities have been unable to find them.

The law requires that the body be held forty-eight hours after death. The time has expired, but it will be held an additional day in the hope that someone will claim it (MJ, 27 October 1914).

FATHER CAN NOT BURY HIS CHILD

Part time work barely keeps family; Appeals to police for aid after her death.

Unless aid is offered from outside sources, 3 year old Ester Lopez, who died Sunday at her home, 544 Clinton street, will be buried in potter's field.

Joseph Lopez, the girl's father, came to the south side precinct station shortly after the girl had succumbed to pneumonia and told Lieut. Edward Joachimi he had no funds with which to finance the funeral.

He is employed three days a week at a foundry, earning barely enough to support his wife and five other children.

The body of Ester was turned over to coroner Henry Grundman as an indigent (MS, 7 April 1930).

The goal of this analysis is to interpret material culture remains from the MCPFC through the lenses of identity constructed by the interred individual as well as that ascribed to the individual by the community from which the interred came. These identities include, among others, the residents of Milwaukee County's "charitable" institutions, unfortunates from the morgue, unwanted infants, and individuals from the medical colleges.

Material Culture Classes

All material culture recovered during the 2013 excavation at the Milwaukee County Poor Farm Cemetery is separated into two distinct classes: grave goods and grave inclusions. These two broad categories are meant to assist in the interpretation of four potential classes of burial: those who died at one of the various county institutions on the grounds; those unclaimed and/or unidentified from the Milwaukee County morgue (often victims of accidents, homicides, or suicides); those who had relatives involved in the burial, but without financial

means to arrange for burial elsewhere (Richards 2014); and those buried subsequent to use as medical cadavers.

Grave *goods* refer to cultural items directly associated and purposefully buried with the deceased. Alternatively, grave *inclusions* indirectly relate to the interred, but are associated with some aspect or behavior of the Milwaukee County Institutions, the Milwaukee County Coroner's Office, or one of the Milwaukee area medical schools. These two classes are further refined. Materials assigned as grave goods include clothing and personal items, while grave inclusions include medical, hospital, and miscellaneous items. A class of "utilitarian" is used to group artifacts that can't be confidently assigned to either grave goods or grave inclusions. Figure 5.1 illustrates the recovery ratio for each category of material culture. Clothing is the most commonly recovered material culture class (274 burial locations), followed by medical and hospital (114 burial locations), personal (80 burial locations) and utilitarian (28 burial locations). Table 5.1 illustrates the potential origin or class(es) of burial associated with the various artifact categories discussed above.

Grave Goods

Material culture directly associated with an individual's burial may include items that have been purposefully associated or buried with an individual, or that may have simply been on the person at the time of death and subsequent burial. Items considered grave goods can be placed into one of two major categories: clothing and personal items. The clothing category includes fasteners (non-belt buckles, buttons, snaps, hook and eyes sets, sock garters, suspenders, and toggles), buttons, safety pins, fabric, footwear, and belts. Items included in the personal category are items of adornment (beads, bows, metal links, cuff links, earing, rings, tie chains), pocket tools, indulgences, medical and health items, ritual items, and coins.

Grave Inclusions

Material culture indirectly associated with an individual's burial may be related to discard practices or represent accidental inclusions. Such material culture potentially relates to an identity generally, but not necessarily individually. Generally, the items included in this category are understood as relating to the pathology department on the Milwaukee County Grounds, the regional medical schools, or the Milwaukee County Coroner's office. These items of material culture are grouped under the heading Medical and Hospital and includes autopsy tools, research items, and medical waste.

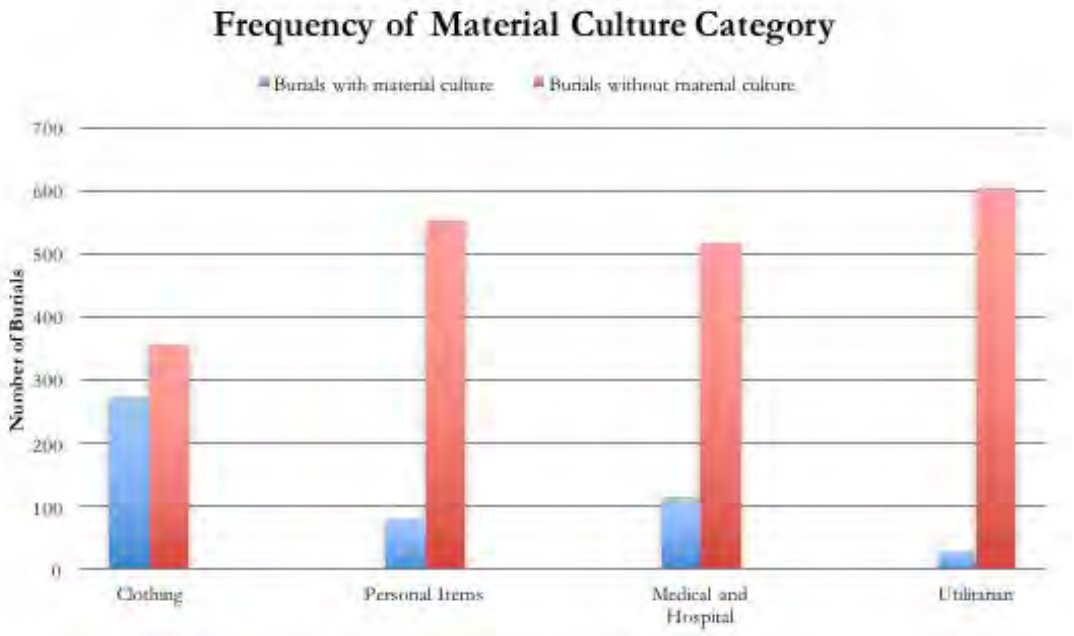


Figure 5.1. Frequency of material culture recovery by artifact category.

Table 5.1. Artifacts Association with Possible Burial Classes.

		Institution Resident	Coroner's Office	Community Poor	Medical Cadaver
GRAVE GOODS	Clothing				
	Fasteners	yes	yes	yes	no
	Buttons	no	yes	yes	no
	Safety pins	yes	no	yes	no
	Fabric	yes	yes	yes	yes
	Footwear	no	yes	yes	possibly
	Belts	no	yes	yes	possibly
	Personal Items				
	Adornment	no	yes	yes	no
	Pocket tools	no	yes	yes	no
	Indulgences	no	yes	yes	no
	Health	yes	yes	yes	yes
	Ritual	no	yes	yes	no
	Coins	no	yes	yes	no
GRAVE INCLUSIONS	Medical and Hospital				
	Autopsy Tools	yes	no	no	yes
	Research Items	yes	no	no	yes
	Medical waste	yes	no	no	yes
UTILITARIAN	Bowl	no	yes	no	yes
	Vase	no	yes	no	no
	Bottle	no	yes	yes	yes
	Crock	no	yes	no	yes
	Clothes pin	yes	yes	no	yes
	Fork	yes	yes	no	no
	Grommet	yes	yes	no	yes
	Garden rake	?	?	?	?
	Tire iron	?	?	?	?

Utilitarian

A third class of artifacts, denoted as utilitarian, includes items that do not fit exclusively into either grave goods or grave inclusions. The behavior associated with these items of material culture is not easily assignable to either mortuary ritual or disposal, neither are the items themselves easily assigned to identities. Some items may have been found on the body of the deceased and thus placed in the individual's burial (perhaps bowls, some bottles, clothes pins, vases, possibly a fork). Other items of material culture may have been placed in a coffin inadvertently as a result of the behavior of the undertaker or other individual responsible for conducting the burial (crock, possibly some bottles, possibly a fork). And finally, some items are difficult to explain at all (tire iron, garden rake).

Distribution of Material Culture

Of the 632 mapped coffin locations, 7,084 whole and fragmented artifacts were recovered from 362 mapped coffin locations. Conversely, 270 coffin locations did not contain any associated material culture remains (Figure 5.2). Material culture was also recovered from Lot 10088, a large pit that produced the remains of multiple individuals and representing the reburial of various previously disturbed interments. The following discussion of graves goods is based on mapped coffin locations and does not try to associate individual items of material culture with specific individuals within "mixed" lot coffin locations. (See Chapter 6 for a discussion of the single, mixed, and commingled contexts found in the MCPFC). This analysis of material culture

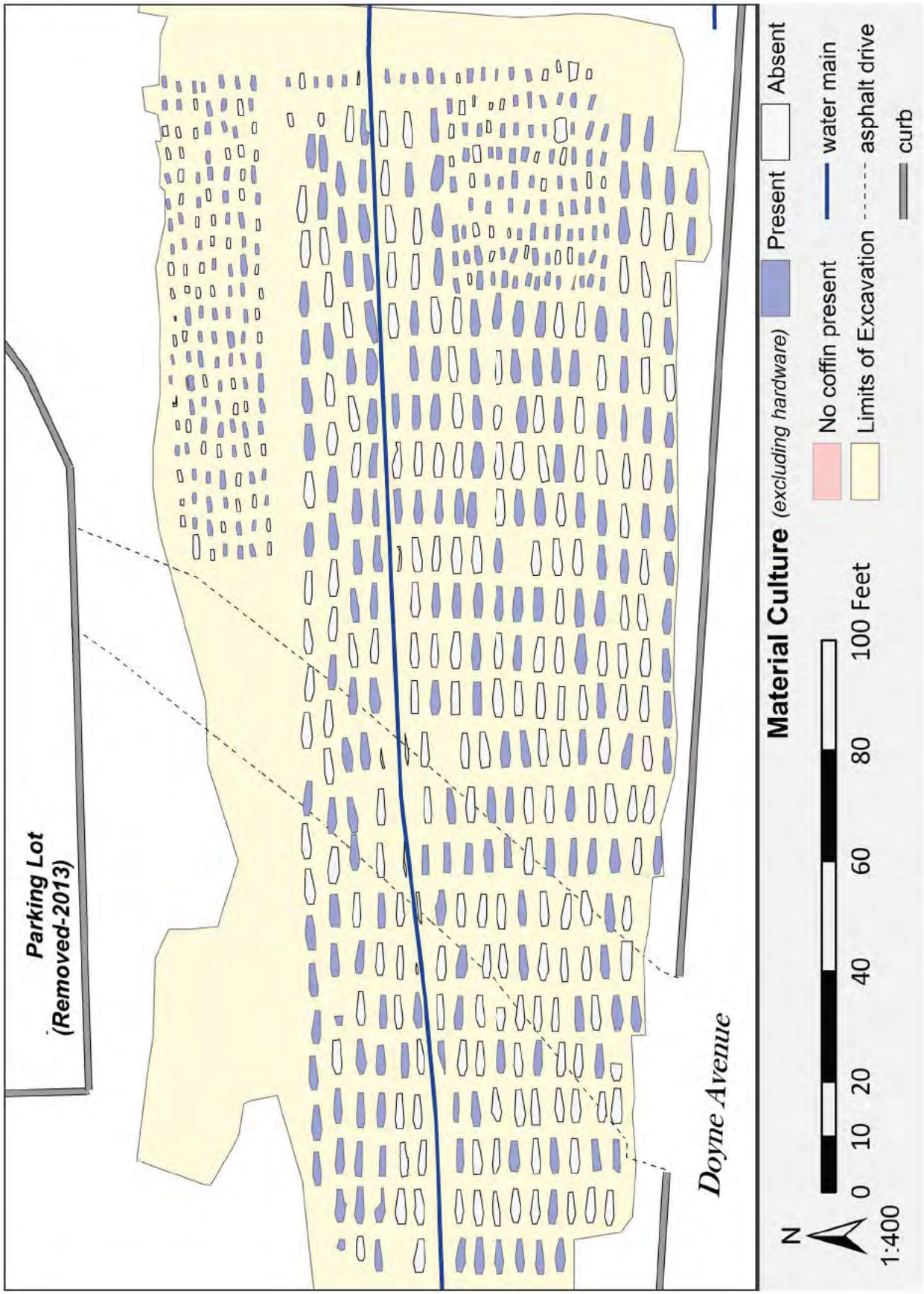


Figure 5.2. Presence and absence of material culture throughout the cemetery

uses the coffin as the unique identifier with the understanding that adult coffin lots include 294 single adult locations; 57 mixed adult-only locations; seven mixed adult and juvenile locations; and 10 juveniles found in adult sized coffins. Conversely, juvenile coffin lots include 245 single juvenile locations, nine mixed juvenile locations, one mixed juvenile and adult location, seven empty lot locations, and one canine burial location. The 368 adult coffin locations and 264 juvenile coffin locations produce a total of 632 mapped coffin locations.

Of the 264 mapped juvenile coffin locations, more than twice as many had material culture represented (n=177) as locations that did not (n=87). Of the 368 adult coffin locations, a roughly equal number of locations contained material culture (n=185) as did not (n=183) (Figure 5.2).

Examination of the presence or absence of material culture according to more specific age categories reveals that across all juvenile age categories (with the exception of indeterminate and adolescent) juvenile burials were more likely than not to have material culture present (Figure 5.3). Conversely, adult burials were equally as likely to have material present as to not (Figure 5.4).

This trend in adult burials carries through to each of the adult age categories. Young adults, middle adults, and old adults, as well as those for whom age was indeterminate, all exhibited a similar proportion of burials with and without material culture (Figure 5.5).

Similarly, looking at presence or absence of material culture on the basis of sex suggests that those burials categorized as male, female, or indeterminate had equal chances of producing material culture as not (Figure 5.6). However, when looking at both adult age and sex, it is clear that middle age female burials were less likely to contain material culture (Figure 5.7) while middle aged male burials were slightly more likely to contain material culture (Figure 5.8).

The material culture represents a wide array of items that allow interpretations of site use and burial practices on the Milwaukee County Institution Grounds. However, it is in the individual categories where pattering is more easily observed and interpreted.

The largest represented category is clothing. Clothing and related materials were most common, both in terms of individual burials and in total artifact counts.

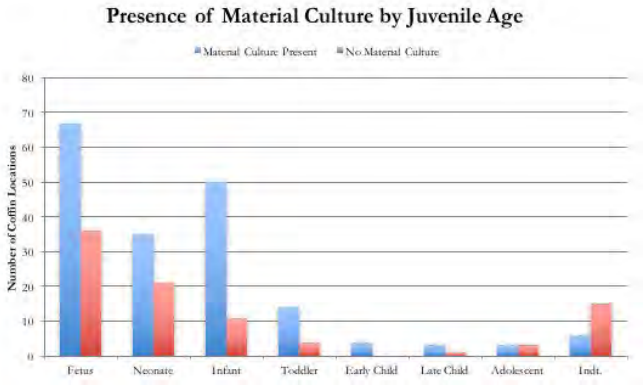


Figure 5.3. Presence of material culture recovered from coffin locations of all juvenile age categories.

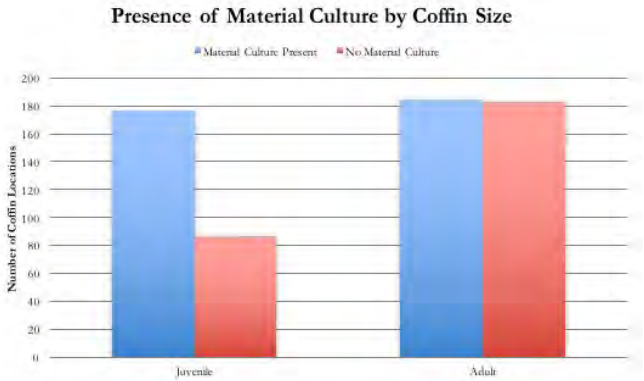


Figure 5.4. Presence of material culture recovered from juvenile and adult sized coffins..

A total of 3,441 total associated clothing artifacts were produced by 274 burial locations.

Specific Discussion of Material Culture

Grave Goods

Clothing

The category of clothing is composed of all items related to personal wardrobe, institutional attire, and medical practice dressings for both adult and juvenile burials. Clothing subcategories include items worn by the individual (presumably at the time of death) in the form of fabric and all associated clothing fasteners. The presence of institutional attire and medical dressings are inferred by some fabrics that do not exhibit clothing construction or variability of fabric, and which were also found associated with safety pins and straight pins. Fabric also includes the category of

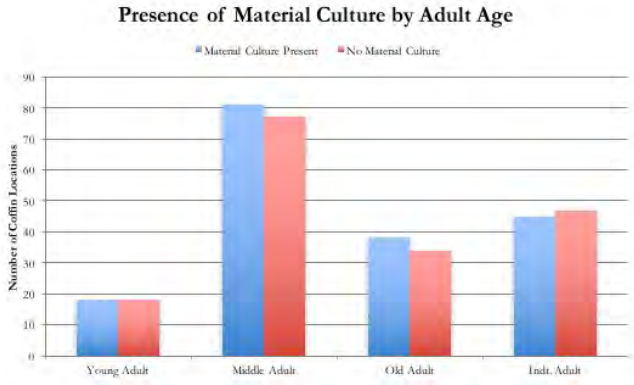


Figure 5.5. Presence of material culture recovered from coffin locations of all adult age categories.

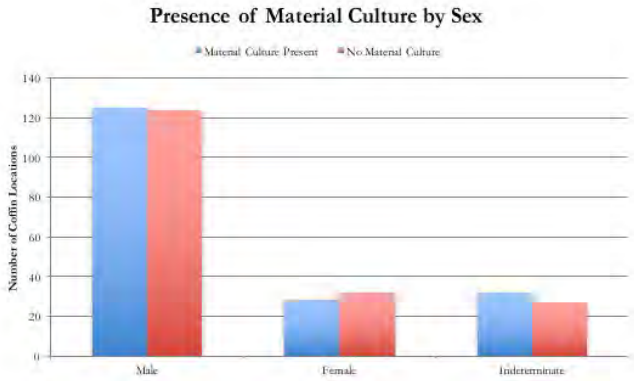


Figure 5.6. Presence of material culture by adult sex categories.

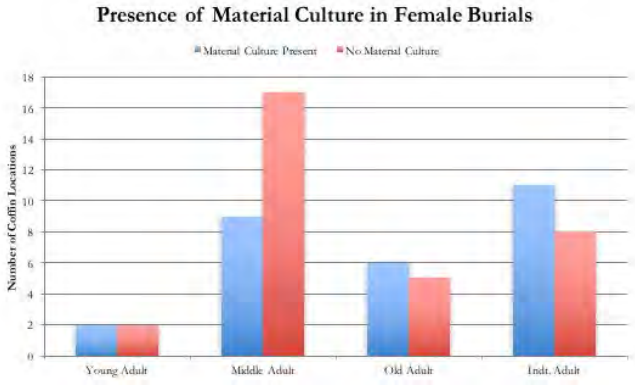


Figure 5.7. Presence of material culture in adult female burials by age category.

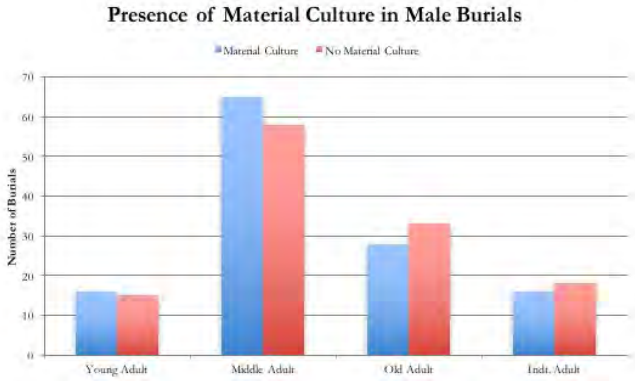


Figure 5.8. Presence of material culture in adult male burials by age category.

diapers, common in juvenile burials, which were also commonly associated with safety pins. Additional clothing categories include belts, fasteners, and footwear.

Fasteners

The most common category associated with clothing is fasteners. Fasteners were recovered from 222 burial locations. A total of 2,745 whole fasteners or fastener fragments were collected. The fasteners category includes: buckles (not associated with belts), buttons, safety pins, snaps, hook and eyes sets, toggles, and fasteners associated with sock garters and suspenders. For the purposes of this analysis, buttons and safety pins, while technically fasteners, are treated separately. Several fasteners were recovered from flotation samples, adhered to fabric fragments, or during the cleaning of remains.

Including buckles (not associated with belts), snaps, hook and eyes sets, sock garters, suspenders, toggles and straight pins, 99 fastener items were recovered from 31 burial locations. A list of all recovered fasteners by lot can be found in Table 5.2. Buckles or clasps were isolated to a single buckle style, commonly referred to as a cinch buckle. Cinch buckles are used as a fastening device for clothing. These buckles were normally worn on belts and suspenders, although they were also used on chinstraps of uniform caps (Bybee 2002). A fabric strap, attached at one end, would slide through the buckle, so that the buckle tongue (prong) would grip and hold the fabric in place. Within the MCPFC, buckles were usually associated with pants and vests. All buckles are constructed of metal. Copper (or copper-alloy) and ferrous metal are the only two observed materials for buckle manufacture. Eleven buckles were recovered from eight burial locations.

Table 5.2. Fasteners by Lot Number

Lot	Coffin Size	Buckle	Clasp	Clip	Hook and Eye	Snap	Sock Garter	Straight Pin	Suspender	Toggle	Other	UnID
10017	Juvenile	1	-	-	-	-	-	-	-	-	-	-
10039	Juvenile	-	-	-	-	-	-	22	-	-	-	-
10068	Adult	-	-	-	-	3	-	-	-	-	-	-
10087	Juvenile	1	-	-	-	-	-	-	-	-	-	-
10093	Adult	-	-	-	-	1	-	-	-	-	-	-
10095	Adult	1	-	-	-	-	-	-	-	-	-	-
10164	Juvenile	-	-	-	-	-	-	4	-	-	-	-
10298	Adult	1	-	-	-	4	-	-	-	-	-	-
10301	Adult	-	-	-	-	2	-	-	1	-	-	-
10326	Adult	1	-	-	-	6	-	-	-	-	-	-
10328	Adult	-	1	-	-	-	-	-	-	-	-	-
10385	Juvenile	-	-	-	-	1	-	-	-	-	-	-
10466	Adult	-	-	-	-	2	-	-	-	-	-	-
10497	Juvenile	-	-	-	-	-	-	8	-	-	-	-
10516	Adult	1	-	-	-	-	-	1	-	-	-	-
10520	Adult	-	-	-	-	-	-	2	-	-	-	-
10534	Adult	-	-	-	-	-	-	-	-	-	-	1
10539	Adult	-	-	-	-	1	-	-	-	-	-	-
10622	Adult	1	-	-	-	-	-	-	-	-	-	-
10650	Adult	-	-	-	-	-	-	-	-	-	-	1
10655	Adult	-	-	-	-	1	-	-	-	-	-	1
10662	Adult	-	-	2	-	-	-	-	-	-	-	-
10664	Adult	-	-	-	-	-	-	-	-	-	-	1
10690	Adult	-	-	-	-	12	-	-	-	-	-	-
10746	Adult	-	-	-	7	-	-	-	3	-	-	-
10770	Adult	-	-	-	-	1	-	-	-	-	-	-
10773	Adult	-	-	-	-	-	2	-	-	-	-	-
10795	Adult	4	-	-	-	-	-	-	-	-	-	-
10804	Adult	-	-	-	-	1	-	-	-	2	-	-
10813	Adult	-	-	-	-	5	-	-	-	-	-	-
10976	Adult	-	-	-	-	-	-	-	4	-	1	-
Total		11	1	2	7	40	2	37	8	2	1	4

Snaps, commonly referred to as snap buttons, are a type of fastener that consist of two interlocking disc-shaped halves riveted through opposite sides of fabric. The top half (male) has a groove that 'snaps' when pressed into the lip of the bottom half (female), ultimately, connecting the two sides of the garment. Both copper and ferrous metal snaps were observed in equal proportions. Forty snaps were recovered from 13 burial locations.

Hook and eye closures are a type of non-button fastener. Most commonly, hook and eye sets were constructed from copper or brass. The hook and loop ('eye') are stitched to opposite sides of the fabric to secure the garment when connected. Historically, hook and eye sets have been associated with female garments, such as brassieres or back fastening gowns (Lillie and Mack 2013). In one case, seven hook and eye closures were recovered from one burial location.

Sock garters are a type of clip fastener and are constructed of a loop connecting to a fixture. The garter is secured by an elastic band and, once connected, the desired fabric will be held in place. Two sock garters (right and left) were recovered from one burial location. Suspenders are used in much the same way as the sock garter. A strap connected to the front and back of a pair of pants at the waist would be supported by the shoulders. This fastener is comprised of a single loop, usually constructed of leather. This leather loop would likely have button slits for attachment to pants and a single fastener atop the loop. These fasteners, most commonly snaps, may be attached to a fabric suspender strap. Eight suspender loops were recovered from three burial locations.

Toggles are fasteners constructed of a small piece of wood, plastic, or metal that is pushed through a loop or hole to fasten one part of something to another part. These are most commonly used to conjoin two articles of clothing. Only copper-constructed toggles were recovered during excavation. No loop and bar pairs were recovered together. Two toggle bars were recovered from one burial location.

Straight pins have historically been associated as fasteners for diapers and swaddling blankets in juvenile contexts (Beaudry 2006). Though copper is the more common construction material, both copper and ferrous metal straight pins were observed during excavation. Within the MCPFC context, straight pins were associated with both juvenile and adult burials. Shroud or diaper fragments were associated with all recovered straight pins. Thirty-seven whole and fragmented straight pins were recovered from five burial locations. Finally, five unidentified fasteners were recovered from five locations. Figure 5.9 provides an illustration of selected fastener types.

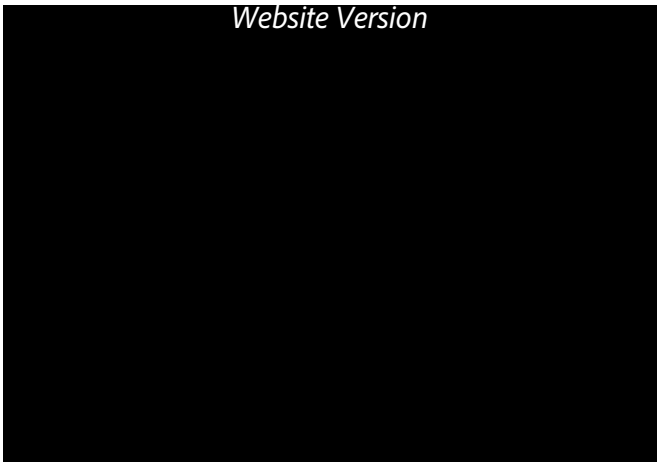


Figure 5.9. Selected fasteners: (a) Burial Lot 10326 vest buckle; (b) Burial Lot 10773 sock garter; (c) Burial Lot 10326 buckle.

Buttons

Buttons were classified by a number of defining categories in accordance with Aultman and Grillo (2003). Since the temporal span of the MCPFC is established (1882–1925), buttons were not catalogued for dating descriptors. Rather, buttons were recorded to aid in identification of clothing type or relative complexity of garment and provide gender associations. The number of holes and material type were used as primary identifiers. Size, color, and any observable decoration, design, or patterning were also recorded. Luscomb (1971) provides estimated button sizes for common types of clothing as follows:

> Certain sizes have become recognized for specific purposes on men's wear garments, etc. Umbrella buttons are normally 14 lines. Shirt buttons 18 lines. Pajama buttons (jackets) are 30 lines. Trouser buttons are 23 lines on the fly with 27 lines on the brace [suspender attachment]. Men's jackets are normally secured by 30 line buttons, with 22 lines on the sleeves and on the waistcoat. Men's overcoats are normally fastened by 45 line buttons. Warehouse coats and overalls usually call for 30 line buttons. (1971:129)

Following Mainfort and Davidson's (2006) recommendations for button measurement, the button size is expressed in the standard measure, the line (or French "linges"), where forty lines equal one inch diameter. Spatial information on button location was recorded from excavation documentation. The most common pattern for button recovery was from the neck to the pelvis, in the area of the torso. Less commonly, buttons were observed around the wrists. Besides the common multi-hole dish-shape buttons, shank buttons and collar buttons were also recovered. A total of 282 buttons were recovered from 95 burial locations; Table 5.3 shows the recovered buttons by type, burial lot, and material. Buttons were recovered from 17 percent (n=39) of the mapped juvenile coffin locations and from 18 percent (n=56) of the mapped adult coffin locations (Figure 5.10). With regard to sex, buttons were recovered from 14 percent (n=35) of the mapped male burial lots, 15 percent (n=9) of the mapped female burial lots, and 20 percent (n=12) of the mapped burial lots of indeterminate sex (Figure 5.11).

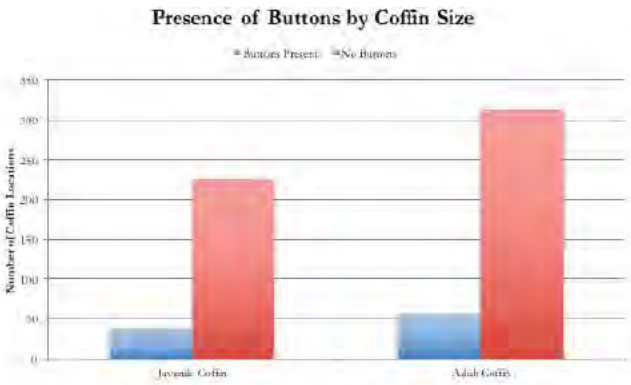


Figure 5.10. Presence of buttons by juvenile- and adult-sized coffins.

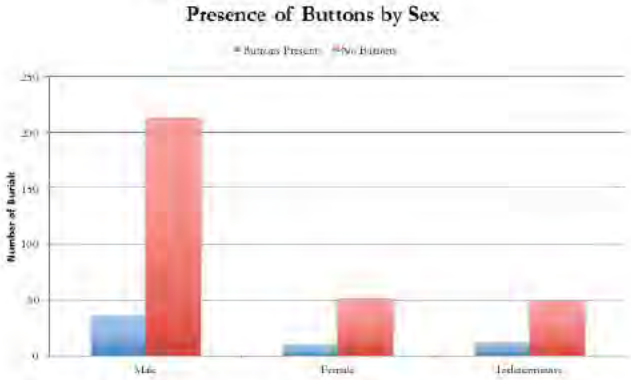


Figure 5.11. Presence of buttons by adult sex categories.

The majority of buttons recovered from the MCPFC were identified as Prosser buttons. Originally patented in England in 1840, Prosser buttons date from 1849 through the mid-twentieth century in the United States (Sprague 2002). Prosser buttons are a type of molded ceramic button. These buttons are fired at high temperatures, which cause the ceramic to become vitrified. Prosser buttons are identified by their orange-peel textured exterior, a characteristic not typical of glass buttons (Sprague 2002). Prosser button varieties include types known as calicoes, ginghams, igloos, bird cage, panty waist, fisheye, and pie crust (Sprague 2002). The vast majority of Prosser type buttons recovered from the MCPFC are white, plain, and 4-hole dished. A few Prosser type buttons recovered display the variant known as pie-crust, a radiating-line rim design. The accessibility of the Prosser button as a result of mass production and low cost likely accounts for the predominance of the button type in the assemblage from the MCPFC. A total of 57 of the 95 (60%) mapped burial locations from which buttons were recovered produced Prosser buttons. Of the 282 buttons that make up the button assemblage, 55 percent (n=155) are Prosser buttons. Figure 5.12 illustrates a Prosser button recovered from Lot 10034, a juvenile burial estimated at 40 fetal weeks of age. A crucifix and newspaper fragments were also recovered with this individual.

Thirty-two of the total 39 mapped juvenile burial locations (82 percent) produced Prosser buttons while only 25 of the mapped adult burial locations (45 percent) produced Prosser buttons. The remaining 55 percent of the buttons from mapped adult burial locations are manufactured of a variety of other materials. Of the 25 mapped adult locations, 14 were identified as male, four as female and seven were considered of indeterminate sex. The adult button assemblage is more diverse than the juvenile button assemblage. Figure 5.13 illustrates button material by coffin size.

Figure 5.12. Illustration of recovered Prosser button.

Table 5.3. Buttons by Lot Number and Type

Lot	Coffin Size	Number of Button Holes				Flat Concave	Other	UnID
		One	Two	Three	Four			
10006	Juvenile	-	-	-	1 ceramic	-	-	-
10015	Juvenile	-	-	-	4 ceramic	-	-	-
10019	Juvenile	-	-	-	4 ceramic	-	-	-
10027	Juvenile	-	-	-	4 ceramic	-	-	-
10028	Juvenile	-	-	-	4 ceramic, 2 bone	-	-	-
10033	Juvenile	-	-	-	1 ceramic	-	-	-
10034	Juvenile	-	-	-	1 ceramic	-	-	-
10047	Juvenile	-	-	7 shell	-	-	-	-
10051	Juvenile	-	-	-	1 ceramic, 1 glass	-	-	-
10052	Juvenile	-	-	-	1 ceramic	-	-	-
10055	Juvenile	-	-	-	1 ceramic, 2 shell	-	-	-
10059	Juvenile	-	-	-	4 ceramic	-	-	-
10062	Juvenile	-	-	-	6 ceramic	-	-	-
10067	Adult	-	-	-	-	-	-	1 shell
10069	Juvenile	-	-	-	2 ceramic	-	-	-
10072	Juvenile	-	-	-	1 ceramic	-	-	-
10078	Juvenile	-	2 stone	-	2 shell	-	-	-
10080	Juvenile	-	-	-	4 ceramic	-	-	-
10081	Adult	-	-	-	1 rubber	-	-	-
10086	Juvenile	-	-	-	2 ceramic, 2 bone	-	-	-
10087	Juvenile	-	-	-	-	-	2 shell	-
10091	Adult	-	-	-	1 rubber	-	-	-
10095	Adult	-	-	-	3 shell	-	-	-
10097	Adult	1 leather	-	-	1 stone, 1 bone	-	-	-
10124	Juvenile	-	4 shell	-	-	-	-	-
10217	Juvenile	-	-	-	1 shell, 2 ceramic, 2 bone	-	-	-
10218	Juvenile	-	-	-	2 ceramic	-	-	-
10230	Juvenile	-	2 shell	-	-	-	-	-
10245	Juvenile	-	1 ceramic	-	-	-	-	-
10263	Juvenile	-	-	-	1 ceramic	-	-	-
10265	Juvenile	-	-	-	4 ceramic	-	-	-
10266	Juvenile	-	-	-	2 ceramic	-	-	-
10267	Juvenile	-	-	-	2 ceramic	-	-	-
10271	Juvenile	-	-	-	5 ceramic	-	-	-
10272	Juvenile	-	-	-	2 ceramic	-	-	-
10275	Juvenile	-	-	-	9 ceramic	-	-	-
10277	Juvenile	-	1 shell	-	-	-	-	-

Table 5.3. Buttons by Lot Number and Type (cont.)

Lot	Coffin Size	Number of Button Holes				Flat Concave	Other	UnID
		One	Two	Three	Four			
10296	Adult	-	-	-	2 ceramic	-	-	-
10300	Adult	-	-	-	1 ceramic	-	-	-
10301	Adult	-	-	-	4 metal	-	-	-
10320	Adult	-	-	-	1 ceramic, 1 bone	-	-	1 shell
10326	Adult	-	-	-	1 bone	-	-	-
10335	Adult	-	-	-	1 ceramic	-	-	-
10338	Adult	-	-	-	2 bone	-	-	-
10342	Adult	-	-	-	1 ceramic	-	-	-
10343	Adult	-	-	-	1 cearmic	-	-	-
10362	Adult	-	-	-	-	1 plastic	-	-
10363	Adult	-	-	-	2 ceramic	-	-	-
10379	Adult	-	-	-	1 bone	-	-	-
10383	Adult	-	-	-	1 bone	-	-	-
10403	Juvenile	-	-	-	2 shell	-	-	-
10405	Juvenile	-	-	-	3 ceramic	-	-	-
10424	Juvenile	-	-	-	1 ceramic	-	-	-
10466	Adult	-	-	-	3 rubber	-	-	-
10519	Adult	-	1 shell	-	1 bone, 1 shell	-	-	-
10520	Adult	1 leather	-	-	-	-	-	-
10527	Adult	-	-	-	1 bone	-	-	-
10545	Juvenile	-	-	-	1 ceramic	-	-	-
10570	Adult	-	-	-	2 ceramic	-	-	-
10571	Adult	-	-	-	1 ceramic	-	-	-
10592	Juvenile	-	-	-	-	-	3 shell	-
10615	Juvenile	-	-	-	5 ceramic	-	-	-
10621	Adult	-	3 ceramic	-	1 ceramic	-	-	-
10622	Adult	-	-	-	1 rubber, 1 stone	-	-	-
10625	Adult	-	-	-	5 wood	-	-	-
10639	Adult	-	-	-	2 wood	-	-	-
10655	Adult	-	-	-	3 ceramic	-	-	-
10656	Adult	-	-	-	7 ceramic	-	-	-
10659	Adult	-	-	-	1 ceramic	-	-	-
10664	Adult	-	-	-	1 ceramic	-	-	-
10672	Adult	-	-	-	-	-	-	1 shell
10690	Adult	-	-	-	2 metal, 13 rubber, 3 shell	3 bone	-	-
10695	Adult	-	-	-	3 glass	-	-	-
10697	Adult	-	2 shell	-	3 shell, 1 glass	-	-	-

Table 5.3. Buttons by Lot Number and Type (cont.)

Lot	Coffin Size	Number of Button Holes				Flat Concave	Other	UnID
		One	Two	Three	Four			
10717	Juvenile	-	-	-	2 ceramic	-	-	-
10721	Adult	-	-	-	2 ceramic	-	-	-
10730	Adult	-	-	-	3 ceramic, 1 bone	-	-	-
10738	Adult	-	-	-	2 ceramic	-	-	-
10739	Adult	-	-	-	3 ceramic	-	-	-
10746	Adult	-	-	-	5 ceramic	-	-	-
10762	Adult	-	-	-	2 ceramic	-	-	-
10763	Adult	-	-	-	1 shell	-	-	-
10777	Adult	-	-	-	-	-	-	1 shell
10793	Adult	-	-	-	4 ceramic	-	-	-
10794	Adult	-	-	-	1 ceramic	-	-	-
10795	Adult	-	-	-	-	-	-	1 shell
10803	Adult	-	1 shell	-	2 bone	-	-	-
10810	Adult	-	-	-	2 bone	-	-	-
10812	Adult	-	-	-	3 ceramic, 3 bone, 1 glass	-	-	-
10813	Adult	-	-	-	1 ceramic	-	-	-
10969	Adult	-	-	-	3 bone	-	-	-
10970	Adult	-	-	-	-	-	-	-
10971	Adult	-	-	-	1 glass, 6 bone	-	-	-
10973	Adult	-	-	-	7 ceramic	-	1 ceramic	-
10976	Adult	-	-	-	1 ceramic, 4 bone	2 ceramic	-	-

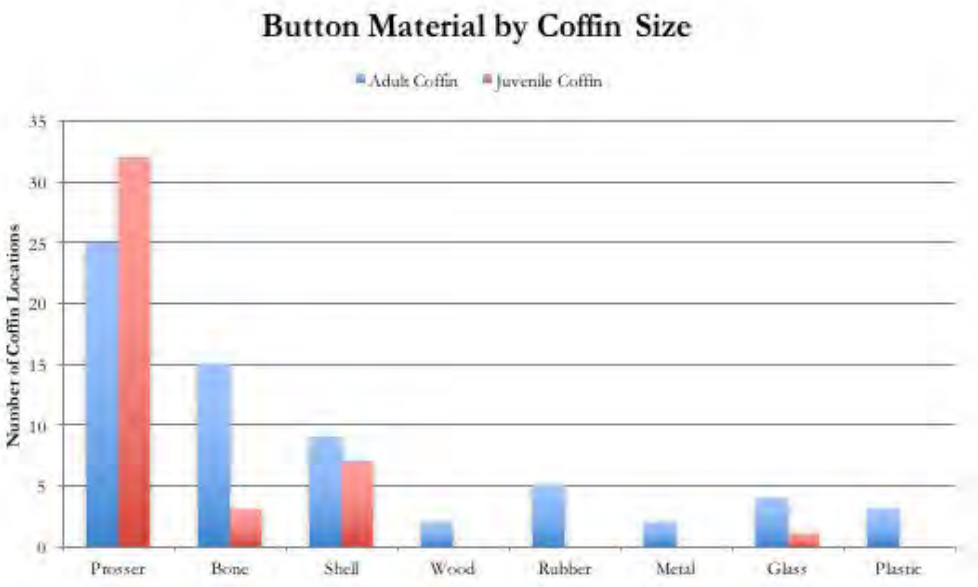


Figure 5.13. Button material type by coffin size.

Other recovered material types for button manufacture include bone, shell, wood, rubber, leather, glass, metal, and plastic (Bakelite). Figure 5.14 illustrates selected button types. Excavations produced a total of 39 bone buttons recovered from 18 burial locations. All bone buttons exhibit heavy wear patterns and polished exterior surfaces, and each is machine cut and drilled. Three juvenile mapped coffin locations produced bone buttons. Of the 15 mapped adult locations from which bone buttons were recovered, nine were identified as male and six were considered of indeterminate sex.

Forty-seven shell buttons were recovered from 16 burial locations. Shell buttons exhibit wear and poor preservation and were recorded if the center of the button was intact. Size was estimated only if the majority of the exterior/edge was undamaged. Seven juvenile and nine adult coffin locations produced shell buttons. Of the nine mapped adult locations from which shell buttons were recovered, seven were identified as male and three were considered of indeterminate sex.

Figure 5.14. Button examples. Top row: Burial Lot 10028, Prosser (2), shell (1), bone (2); Middle row: Burial Lot 10973, decorated glass (4), Prosser buttons (4); Bottom row: Burial Lot 10217, Prosser buttons (4), bone buttons (2).

Figure 5.15. Illustration of a collar button from Lot 10362.

Two mapped adult burial locations produced seven wood buttons. Wood buttons show similar wear patterns to bone buttons. Of the mapped adult burial locations from which wood buttons were recovered one was identified as male and one as female. Five mapped adult burial locations produced 19 rubber buttons. Of the mapped adult burial locations from which rubber buttons were recovered three were identified as male and two as female. Two leather buttons were recovered from two mapped adult burial locations; both identified as male. Six metal buttons were recovered from two mapped adult burial locations; both identified as male. Seven glass buttons were recovered from five burial locations. One juvenile and four adult coffin locations produced glass buttons. Of the four mapped adult locations from which glass buttons were recovered, one was identified as male and three were considered of indeterminate sex.

Collar buttons are defined by Aultman and Grillo (2003) as flat disc buttons, steamed, with concave backs. These specific use buttons would fasten the collar of men's shirts. Six collar buttons were recovered from three burial locations, each identified as probable male. This gendered artifact supports the sex determination. Figure 5.15 illustrates a collar button recovered from Burial Lot 10362, a middle adult male buried with a belt, pants, and other fabric fragments in addition to the shirt collar.

Safety Pins

Safety pins are commonly used to fasten clothing. As an adaptation to the straight pin, the closed clasp end provides a secure locking mechanism intended to provide security from accidental injury. A total of 2,807 whole and safety pin fragments were recovered from 166 burial locations. All of the safety pins recovered from the MCPFC excavations are manufactured of copper. When oxidation occurs, green corrosion appears on the exterior of the pins. This corrosion assisted in the identification of small fragments and fragmentary pins. Safety pins were sorted by size into three distinct groups: large, medium, and small (Table 5.4). These size categories are based on observable

Table 5.4. Lots with Safety Pins

	Small	Medium	Large	UnID Size
Adult	0	4	11	29
Juvenile	27	42	29	105
Total	27	46	40	134

measurements. When present, clasp ends of the pin were measured for width. Total length was also measured when possible. The size designations are as follows: small pins measured head width (clip end) greater than or equal to .27-inch to .31-inch (7mm-8mm) and length unknown (estimated one-inch); medium pins measured head width (clip end) greater than or equal to .31-inch to .39-inch (8mm-10mm) and length 1.5-inch (38mm); large pins measured head width (clip end) greater than or equal to .39-inch to .43-inch+(10mm-11+mm) and length 2-inches (51.5mm). Of the 105 burial locations that produced safety pins for which measurements could be made, 34 percent (n=36) produced small safety pins, 39 percent (n=41) produced medium safety pins, and 27 percent (n=28) produced large safety pins. Figure 5.16 provides size categories for safety pin measurement.

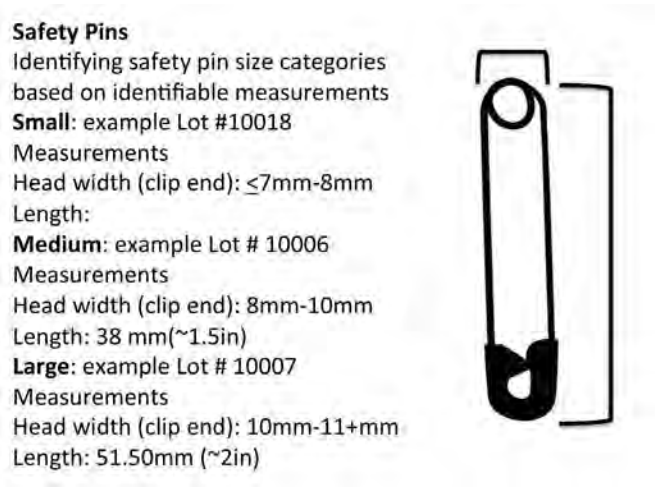


Figure 5.16. Safety pin size guide.

Of the 166 mapped coffin locations that produced evidence for safety pins, 77 percent (n=128) are of juvenile size and 22 percent (n=38) are of adult size (table 5.4). Safety pins represent 72 percent (n=128) of the material culture recovered from juvenile burials. It is assumed that the safety pins recovered from juvenile burials represent diaper pins and the recovery of the pins and adhering fabric in the area of the innominate supports this interpretation. A safety pin and a button found in juvenile Lot 10047 are illustrated in Figure 5.17. Figure 5.18 depicts both fabric and a pin recovered from Lot 10160.

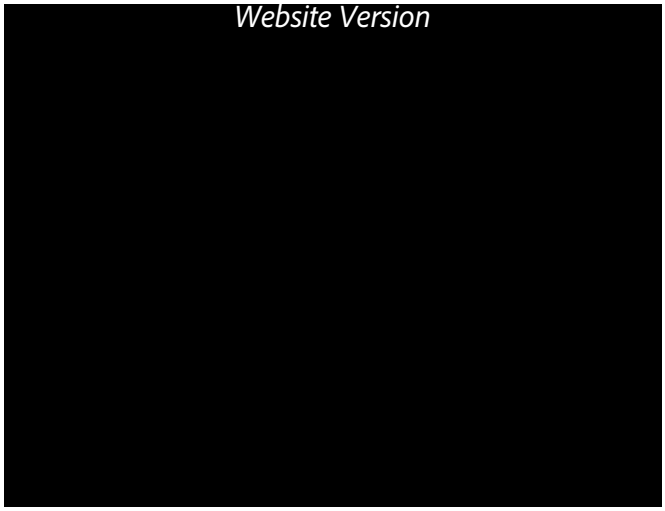


Figure 5.17. Safety pin and button in situ, Burial Lot 10047.

In the adult burial lots from which safety pins were recovered, their use is likely associated with the use of burial shrouds. Safety pins represent only 21 percent (n=38) of the material culture recovered from adult burials. Figure 5.19 illustrates a safety pin recovered from adult Lot 10100.

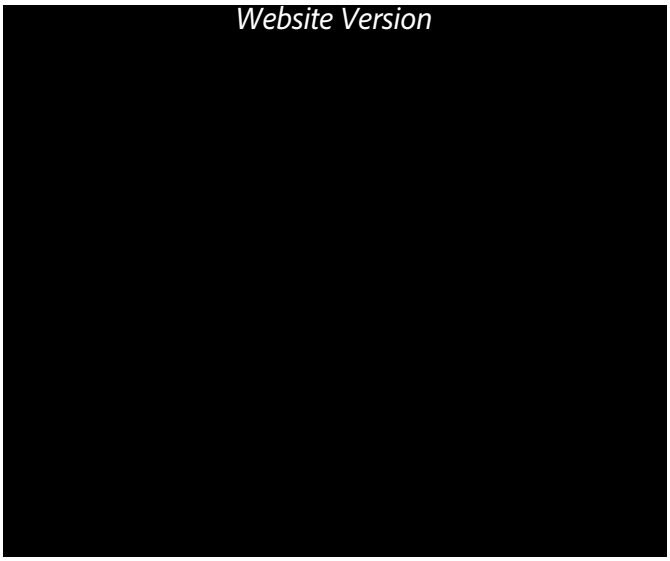


Figure 5.18. Safety pin and fabric in situ, Burial Lot 10160.

Distribution of safety pins by juvenile age categories is discussed later in this chapter in a discussion of evidence for all types of clothing in juvenile burials. With regard to adults, Figure 5.20 provides the breakdown of safety pins recovered from adult burials by age and sex. As presented in Figure 5.6, of the 185 locations from which material culture was recovered, 125 represented male burial locations, 28 female burial locations, and 32 were from locations for which sex was indeterminate. Further as presented in Figure 5.7-Figure 5.8, two young adult female burials, nine middle adult female burials, and 6 old adult female burials produced material culture, whereas 16 young adult male burials, 65 middle adult male burials, and 28 old adult male burials produced material culture.

Figure 5.19. Illustration of safety pin from Burial Lot 10100.

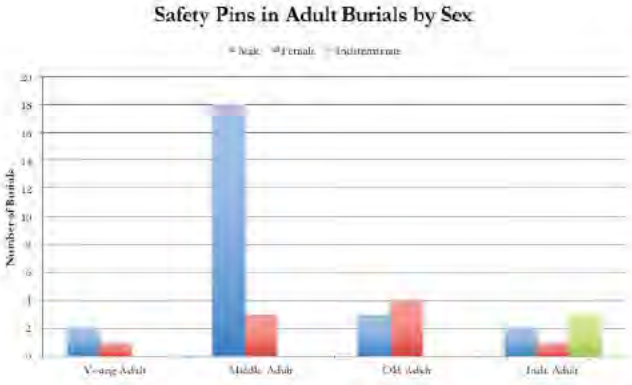


Figure 5.20. Presence of safety pins in adult burials by age and sex.

Safety pins represent a greater percentage of the material culture assemblage of female burial locations than of male burial locations. For example, safety pins are 50 percent (n=1) of the material culture assemblage of young adult female burials, 33 percent (n=3) of the material culture assemblage of middle age female burials, and 50 percent (n=3) of the material culture assemblage of old adult female burials. Conversely safety pins recovered from adult male burials represent 13 percent (n=2) of the material culture assemblage of young adult male burials; 28 percent (n=18) of the material culture assemblage of middle age male burials, and 14 percent (n=4) of the material culture assemblage of old adult male burials. This may suggest that women, regardless of age, were more likely than men to be buried in shrouds.

Fabric

Along with buttons, safety pins, and other fasteners discussed previously, fabric recovered from the 2013 excavations at the MCPFC is evidence for clothing and burial attire. Fabric recovered includes articles of clothing or "street attire," diapers, shrouds, and unidentifiable items or "other." It should be noted that fabric recovered and identified as bandages is discussed elsewhere with other Medical and Hospital items. Fabric was recovered from 128 burial locations (Table 5.5). A total of 727 identified articles of clothing, diapers or fabric fragments were collected.

Items of Apparel

Items of clothing include recognizable pieces such as pants, shirts, coats, and vests. Clothing could be identified from context within the burial, or by characteristics of weave, stitching, and identification of seams and buttons holes. Clothing recovered is assumed to be associated with individuals of community poor that were buried in the MCPFC by way of the Milwaukee County Coroner's Office and who may or may not have been subjected to autopsy procedures. Coroner's inquests could range from simply taking testimony to formal autopsy (Drew, personal communication 2015). The variable treatment of the deceased prior to and leading up to interment accounts for the variety of personal items of clothing recovered from the burials (table 5.5).

The industry of ready-made clothing began in the 1830s along the eastern seaboard. This industry evolved from earlier shops that made shore clothes for American sailors and from tailors' shops eager to expand their establishments in increasingly larger urban markets (Walsh 1974). The ready-made clothing manufacturers quickly looked to the newly open western markets after the 1840s. However, while the eastern firms could manufacture ready-made clothing more cheaply and could use their connections with the dry-good trade for retailing, the more recently established and, for the most part, smaller rivals in the west (for example in Milwaukee) could take advantage of both proximity to market and the ability to cater to local demand (Walsh 1974). The ready-made clothing industry expanded rapidly in Milwaukee both in terms of those purveyors who manufactured solely for wholesale or those that manufactured for both wholesale and retail and had involvement in the dry goods stores. By 1870 in Milwaukee, capital investment in men's ready-made clothing increased by 283 percent, and an increase of investment of 75 percent characterized women's ready-made clothing.

A profitable market for mass-produced ready-made products characterized the turn of the century. Nonetheless, a suit of clothing represented a considerable investment. At the turn of the nineteenth century, a man's coat could cost between $8 and $32, pants from $4–$13 and vests $2–$7. Given current labor values using the production worker compensation for unskilled workers index, a cheap suit of clothing would have cost the equivalent of $1,780.00 in modern currency.

Coats recovered from the 2013 MCPFC excavations total three items recovered from three burial locations. In each case, the coats were gender specific in construction and fabric, and associated with men's apparel. Evidence for a coat from Burial Lot 10804 includes textile recovered that was adhered to the T9 vertebra and to the left distal ulna. Dark textile was recovered from below the cranium, cervical vertebrae, torso, and pelvis. Two metal clasps were recovered from below the torso. One metal button was recovered from within the coffin (Figure 5.21).

During the late nineteenth and early twentieth centuries, pants were a male wardrobe item. Evidence for pants recovered from the 2013 MCPFC excavations includes fabric fragments with innominates and lower limbs. Seven fabric fragments from seven burial locations indicate the presence of pants associated with a burial. Evidence for shirts was recovered from five burial locations. Neither the fabric recovered nor the osteological assessment indicate any of these fabric fragments were blouses. Figure 5.22 illustrates shirt and pants *in situ* recovered from Burial Lot 10736 and depicts the burial before and after the removal of the fabric. This individual was recovered with a shirt, pants, a left and right shoe, two pipes, and a graphite pencil. Unhealed perimortem fractures of the left and right femur were observed.

Figure 5.21. Coat in situ, Burial Lot 10804.

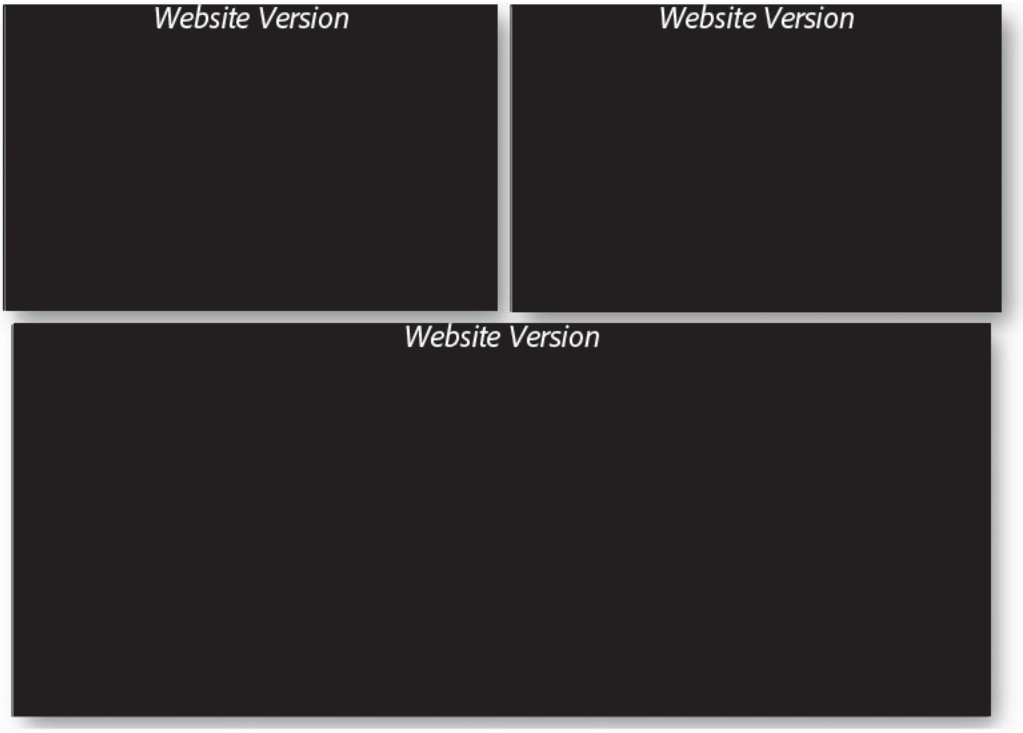


Figure 5.22. Shirt and pants in situ before and after excavation of fabric fragments, Burial Lot 10736.

Table 5.5. Items of Apparel by Lot Number

	Coat		Pants		Shirt		Vest	
Lot	Count	Comment	Count	Comment	Count	Comment	Count	Comment
10096	-		1		-		-	
10283	-		1		1	Possible jacket	-	
10283	-		1		1	Possible jacket	-	
10298	-		-		1		-	
10301	1		-		-		-	
10328	-		1		-		-	
10362	-		1		-		-	
10466	-		1		1		-	
10466	-		1		1		-	
10621	1	Coarse; woven. Two seams visible on a larger fragment.	1	Appears woven.	-		-	
10621	1	Coarse; woven. Two seams visible on a larger fragment.	1	Appears woven.	-		-	
10690	-		-		1	Two types of material observed: inner material hand-woven and loose, outer material machine-made and tight woven	-	
10736	-		1		1	Seam and stitch observed	-	
10736	-		1		1	Seam and stitch observed	-	
10746	-		-		-		-	'Button' and 'button hole' present; gold-colored residue on some fragments
10804	1	Rough-woven. Copper oxidation visible on some fragments where toggles may have attached.	-		-		-	

Burial Lot 10746 produced one of the best preserved and most interesting pieces of clothing: a vest (Figure 5.23). Burial Lot 10746 consists of an adult six-sided coffin in excellent condition filled with what is interpreted as medical waste. Only the left side of the vest was recovered. The garment is manufactured of wool or tweed twill. This particular twill weave is accomplished by passing the weft thread over one warp thread and then under two warp threads and is considered a ½ weave. Sturdy inexpensive work clothes manufactured of this fabric were widely available. Interpretation of this burial feature is difficult and association of the material culture with any one set of elements is not possible. It is likely the purpose of this coffin burial was to dispose of "medical waste." The presence of clothing might suggest at least some of that waste was related to individuals who had been unidentified at the coroner's office and sent to the county grounds where they were subjected to additional medical investigation.

A single pair of gloves was recovered from one burial location. These gloves are of a rubber or latex substance. The gloves are likely associated with medical or hospital activity.

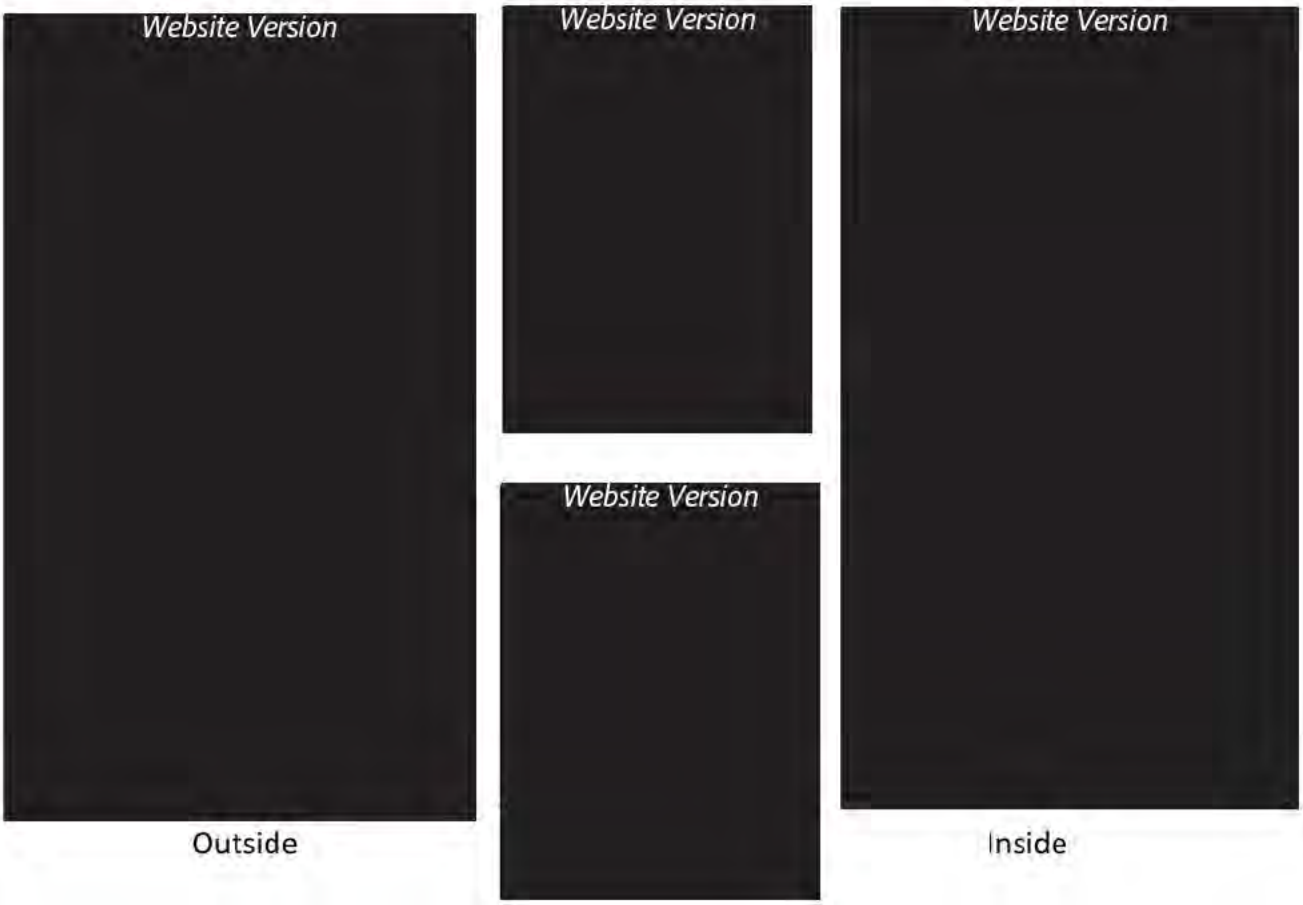


Figure 5.23. Vest recovered from Burial Lot 10746.

Figure 5.24. Illustration of a burial shroud, Burial Lot 10007.

Figure 5.25. Fabric burial shroud in situ, Burial Lot 10056.

Burial Shrouds

That individuals with no evidence of clothing are likely to have died in one of the county institutions is supported by a rule from Rules and Regulations for the County Farm and Alms House (1894) as follows:

> Rule 2: The clothing and personal effects of inmates shall, in the discretion of the superintendent, be taken charge of by him or his assistants, properly cleansed, repaired, checked, and put away, and returned to the owner or his or her relatives on death, or on leaving the institution.

Burial shrouds are manufactured of tightly woven, probably machine-made linen. The most commonly observed color was white to light gray. Shroud fabric weave is illustrated in Figure 5.24.

Locations within the burial from which shroud fabric was recovered include from the left of the cranium (Lot 10516), at the west end of the coffin (Lot 10520), from the cranium to the pelvis (Lot 10370), and around vertebrae and ribs (10740). Figure 5.25-Figure 5.26 illustrate fabric *in situ* in Lots 10056 and 10740, respectively. Thirty-four fragmentary burial shrouds were recovered from 34 burial locations.

Juvenile coffin lots accounted for 16 of the shroud fragments recovered. Fabric recovered from juvenile coffin lots was not interpreted as diaper either on the basis of the fabric type or the location from which the

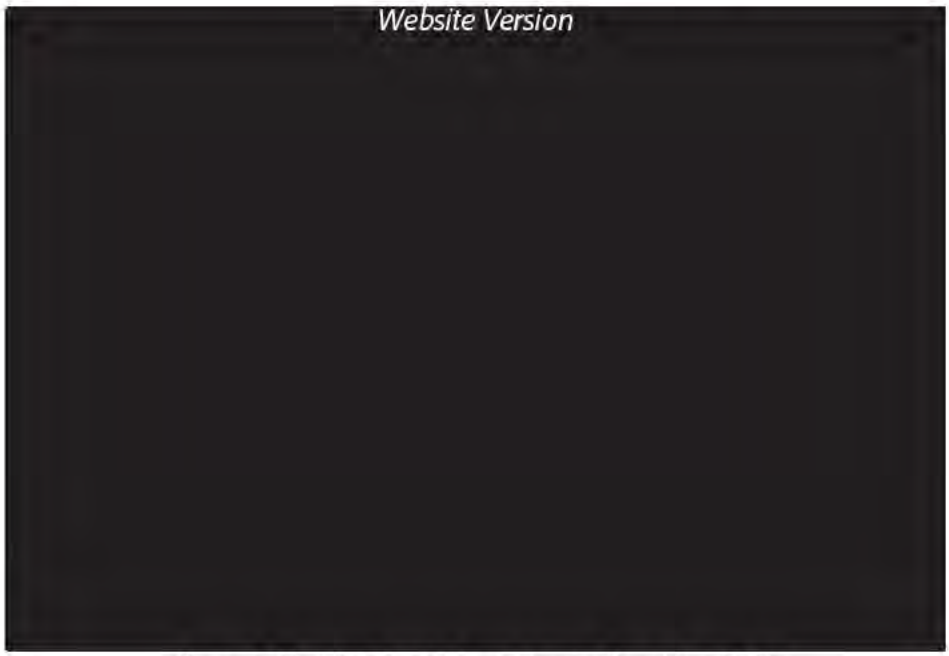


Figure 5.26. Fabric burial shroud in situ, Burial Lot 10740.

fabric was recovered. If fabric was recovered from outside the pelvic region and was manufactured of tightly woven linen it was considered a shroud. Adult coffin lots accounted for 18 of the shroud fragments recovered.

The trend observed for safety pins is seen with shrouds as well (Figure 5.27). Safety pins represent a greater percentage of the material culture assemblage of female burial locations with the exception of old adult females. For example, shrouds represent 50 percent (n=1) of the material culture assemblage for young adult female burials; 22 percent (n=2) for middle adult female burials; and zero percent (n=0) for old adult female burials.

Conversely, shrouds recovered from adult male burials represent 13 percent (n=2) of the material culture assemblage for young adult male burials; 10 percent (n=6) for middle adult male burials; and four percent (n=1) for old adult male burials. This may suggest that young and middle age women were more likely than men to be buried in shrouds.

Diapers

Maria Allen introduced the first mass-produced cloth diapers in the United States in 1887 (Leverich 2008) These diapers consisted of a square or rectangle of linen or cotton flannel folded into a rectangular shape and held in place with safety pins. "Diaper" was originally the term for an overall pattern of small repeated geometric shapes, and then later a white cotton or linen fabric with such a pattern. The first babies' diapers were made from diaper fabric, a fabric with a repetitive pattern.

Safety pins, patented in 1849, were not widely used and did not replace straight pins until the availability of mass-produced diapers in the late 1800s (Wulffson 1981). Similarly, rubberized pants used to cover diapers did not replace the absorbent pant called a "soaker" or "pilch," made of tightly knitted wool, until the 1890s (Leverich 2008). By the turn of the nineteenth century, infants in America were wearing "modern diapers." In 1900 the Sears Roebuck catalog advertised diapers ranging in price from $0.44 per dozen to $0.62 per half-dozen. Rubber diaper covers ranged from 2 for $0.35 up to $0.45 per diaper.

Diapers recovered during the 2013 MCPFC excavation are likely constructed from a cotton cloth. The uniformity of the weave suggests machine manufacture. Often fabric interpreted as a diaper was accompanied by safety pins or safety pin fragments. Diapers were recovered exclusively from juvenile burial lots. Seventy fragments of fabric interpreted as diaper were recovered from 34 juvenile burial lots. Figure 5.28 illustrates a safety pin and diaper *in situ* from Burial Lot 10047.

Diapers represent 19 percent (n=34) of the material culture recovered from juvenile burial lots. However, as safety pins represent 72 percent (n=128) of the material culture recovered from juvenile burials, it is likely that lack of fabric preservation played a role in the small number of recovered diaper fragments, and that therefore the recovery of safety pins is likely a better reflection of the prevalence of diapers originally buried with juveniles in the MCPFC.

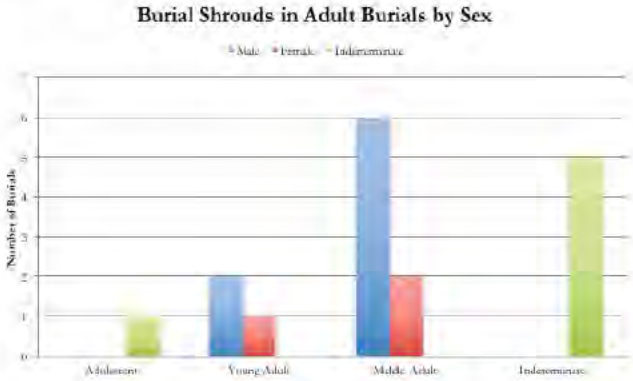


Figure 5.27. Presence of shrouds in adult burials by age and sex.

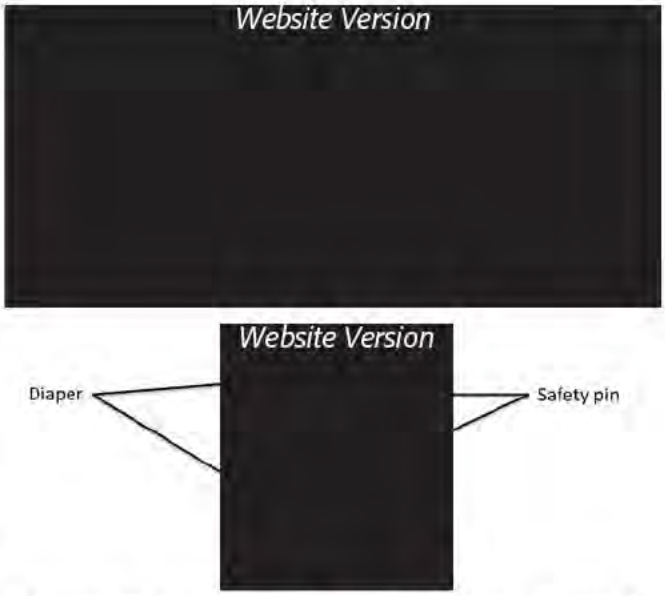


Figure 5.28. Safety pin and diaper in situ, Burial Lot 10047.

Footwear

Footwear recovered from the MCPFC is categorized by manufacturing technique (turned or welted), construction (nailed, sewn or cemented), and whether the shoe is hand made or machine made (Anderson 1968, Stevens and Ordonez 2005). The footwear category includes all shoes, boots, and related hardware. Hardware associated with footwear includes metal eyelets and metal hooks.

Sixteen locations produced a total of 255 whole shoe and footwear fragments, including 15 burial locations and a reburial pit, Burial Lot 10088 (Table 5.6). This includes three juvenile lots and 12 adult lots. Two juvenile burial lots produced recognizable shoe parts; these are both of turned manufacture and nailed construction, and are machine made (Figure 5.29). An additional juvenile burial lot produced leather fragments interpreted as shoe material.

Adult burial lots produced four examples of turned manufacture, six of welted manufacture, and three shoes of unknown manufacture. Shoes of turned manufacture include two that are nailed and hand made, and two that are nailed and machine made. The six welted examples include two that are stitched, exhibiting "Goodyear welt" construction (Figure 5.30). One welted shoe is cemented and machine made. One welted pair of shoes is both stitched and cemented (Figure 5.31). Two examples of welted manufacture are stitched and machine made but do not exhibit the "Goodyear welt" (Figure 5.32).

Seventeen men's shoes were recovered from nine burial lots, each with estimates of sex as either male or indeterminate. An additional two men's shoes were recovered from the rebuial pit, Burial Lot 10088. Two women's shoes were recovered: one from a burial lot determined to be male, and one from a burial lot of indeterminate sex. The woman's shoe was recovered from near the cranium of the interred individual and may represent a discarded item.

Figure 5.29. Turned, nailed, machine made infant shoe, Burial Lot 10018.

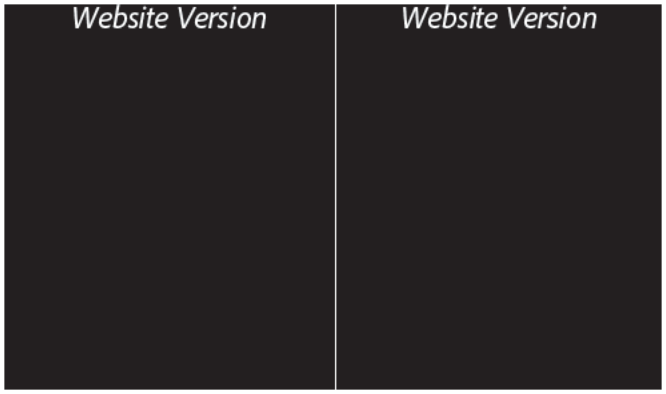


Figure 5.30. Left: stitched, machine made shoes of "Goodyear welt" construction. Right: illustration of top and side of same, Burial Lot 10283.

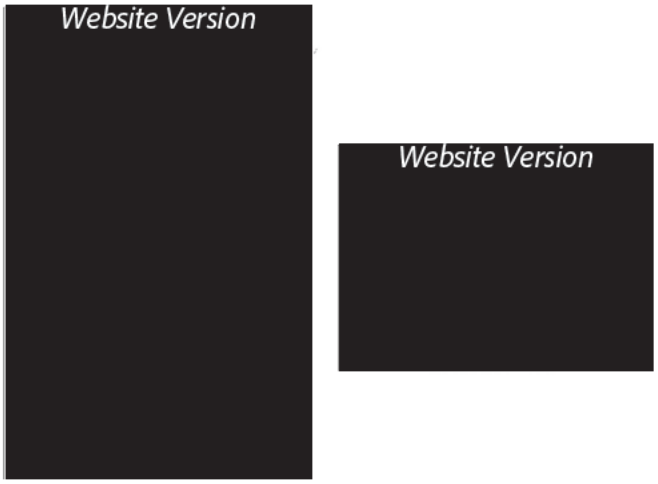


Figure 5.31. Stitched and cemented machine made shoes of welted construction, Burial Lot 10466.

Figure 5.32. Stitched, machine made shoes of welted construction, Burial Lot 10621.

Table 5.6. Footwear by Lot Number

Lot	Coffin Size	Shoe Type	Shoe Count	Manufacture	Construction	Make	Hardware
10007	Juvenile	Child	(9 frags)				brass eyelets
10018	Juvenile	Child	1	Turned	Nailed	Machine	brass/copper nails
10045	Juvenile	Child	1	Turned	Nailed	Hand	-
10088	No coffin	Male	2	Turned	Nailed	Machine	metal loop
10093	Adult	Female	1	Turned	Nailed	Hand	eyelets, hardware
10283	Adult	Male	2	Welted	Stitched	Machine	-
10298	Adult	Male	2	Turned	Nailed	Machine	leather eyelets
10410	Adult	Male	1	Welted	Cemented	Machine	-
10466	Adult	Male	2	Welted	Stitched, Cemented	Machine	-
10621	Adult	Male	2	Welted	Stitched	Machine	metal eyelets
10682	Adult	Male	2	Turned	Nailed	Machine	-
10736	Adult	Male	2	Turned	Nailed	Hand	-
10753	Adult	Female	1				eyelet and hook studs
10769	Adult	Male	2	Welted	Stitched	Machine	copper eyelet
10808	Adult	Indt.	(1 frag)				iron tacks
10976	Adult	Male	2	Welted	Stitched	Machine	metal eyelets, tacks, hooks

Belts

Belts recovered from the MCPFC are made of two parts: the buckle and the strap. All belts recovered include at least one of these elements. Buckles are usually constructed of metal and were attached to a whole or fragmented strap. All belt straps are manufactured out of leather. The belt strap displays rivets for prong holes where the tongue of the belt buckle would be inserted (Figure 5.33).

All recovered belts were associated with the waist of the interred individual. Six whole belt or belt fragments were recovered from five burial locations and one reburial pit. Evidence for belts was recovered from an old adult female, an old adult male, and 3 middle adult male burials (Table 5.7).

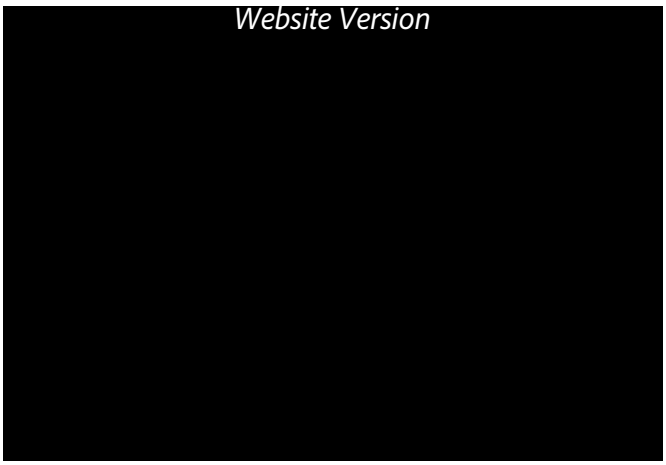


Figure 5.33. Illustration of a belt, Burial Lot 10362.

Table 5.7. Belts by Lot Number.

Lot	Sex	Buckle Count	Buckle Type	Strap Count	Strap Type
10088	Multiple	1	Ferrous metal	1	Leather
10362	Male	-	-	1	Leather, 7 prong holes
10466	Male	-	-	1	Leather, 8 prong holes
10621	Male	-	-	1	Leather, 5 copper grommets
10622	Female	1	Likely iron, rectangular	-	-
10736	Male	-	-	1	Woven fabric

Personal Items

Material culture classified as "personal" includes non-clothing items that are reliably associated with an individual. These may reflect items specifically included as part of a mortuary ritual, or at the least items that reflect the identity of the interred. Included in the category of personal items are jewelry, ornamental decorations, and other personal effects.

Seven subcategories were devised to adequately represent all recovered material culture characterized as personal items. These are: Adornment, Pocket Tools, Indulgences, Medical and Health, Ritual, and Coins. A total of 198 whole or fragmentary personal items were recovered from 80 burial locations.

Adornment

Adornment is the most common subcategory of personal items. This includes beads (not rosary), bows, chains or links, cuff links, earrings, hair clips, rings, and tie chains. A list of all recovered adornment artifacts by lot can be found in Table 5.8. A total of 81 whole or fragmented adornment items were recovered from 20 burial locations. Adornment items were recovered from two percent (n=4) of the mapped juvenile coffin locations and from nine percent (n=16) of the mapped adult coffin locations. With regard to sex, adornment items were recovered from six percent (n=8) of the mapped male burial lots, 14 percent (n=4) of the mapped female burial lots, and 13 percent (n=4) of the mapped burial lots of indeterminate sex.

Table 5.8. Adornment Items by Lot Number

Lot	Coffin Size	Bead	Bow	Chain/Link	Cufflink	Earring	Hair Clip	Ring	Tie Chain
10043	Juvenile	57 ceramic	-	-	-	-	-	-	-
10068	Adult	-	-	-	-	-	-	1 copper fragment	-
10360	Adult	-	-	-	-	-	-	1 red stone	-
10489	Juvenile	1 metal	-	-	-	-	-	-	-
10592	Juvenile	-	2 woven cloth	-	-	-	-	-	-
10621	Adult	-	-	-	-	-	-	1 possibly copper	-
10641	Adult	-	-	-	-	-	-	1 clear stone	-
10730	Adult	-	-	1	-	-	-	-	-
10738	Adult	-	-	-	-	-	-	1 gold	-
10739	Adult	-	-	-	1 copper, ball end	-	-	-	-
10758	Adult	-	-	-	-	-	-	1 copper	-
10762	Adult	-	-	-	-	-	-	1 gold, engraved	-
10770	Adult	-	-	-	-	-	1 copper	-	-
10785	Adult	-	-	-	-	2 clips only	-	-	-
10806	Adult	-	-	-	-	-	-	1 gold	-
10810	Adult	-	-	-	-	-	-	1 gold, emblem	-
10813	Adult	-	-	-	1 copper	-	-	-	-
10976	Adult	-	-	-	-	-	-	-	1 copper, 2 clasps
10982	Adult	-	-	2 links, likely copper	-	-	-	-	-
10983	Adult	-	-	2 chains (6 and 10 links)	-	-	-	-	-

Beads identified as ornamentation, perhaps for use in a necklace, head band, or garment decoration, were recovered from two juvenile burial locations. A total of 58 beads were recovered, 57 of which were white glass beads recovered from Burial Lot 10043 (Figure 5.34). A single metal bead was recovered from juvenile Burial Lot 10489.

Two woven cloth bows were recovered from a single juvenile burial. Both bows were found near the individual's left wrist. These bows may have been attached to a garment, unpreserved cloth, or elastic band.

Three adult burial locations produced fragments of linked metal chains. These links are constructed from either copper or ferrous metals. All linked chains were highly fragmented and none could be confidently associated with a necklace or bracelet based on context. Burial Lot 10983 produced two sets of chain, one of six links, the other of 10 links.

Cufflinks are used to secure the cuffs of a man's shirt. Two cufflinks each were recovered from two burial locations. Each cufflink is manufactured with a single ball-shaped end, with a swivel bar extending from the base. Both cufflinks are made of copper. One cufflink was recovered from an adult Burial Lot 10813 along with a 4-hole 28-line white ceramic Prosser button and five copper snaps. The other cufflink was recovered from Burial Lot 10739, a juvenile aged 7–10 years (Figure 5.35). In addition, adherent textile was noted on the right distal femur and throughout the torso and leg area of this burial, and buttons were recovered from the torso area.

Two fragments of earrings were recovered from a single female burial. These earrings appear to be made of bronze. While it is likely that the earrings would have included a semi-precious or precious stone, only the metal loop was recovered. A single potential hair clip was recovered from one burial. The fragmentary copper item was recovered from the top of the cranium in a single adult male burial.

A tie chain is composed of a chain and a clip used to secure a tie in place. The clip is attached to a shirt or button-hole and the chain rests across the front of the tie. One tie chain was recovered from an adult burial of indeterminate sex (Figure 5.36). The chain is made of copper or copper alloy. Both the chain and two clasps are preserved, although the chain is fragmented. A small amount of fabric is preserved in clasp-ends.

Figure 5.34. White glass beads, Burial Lot 10043.

Figure 5.35. Copper cufflink, Burial Lot 10739.

Figure 5.36. Copper tie chain, Burial Lot 10976.

The most frequent adornment artifact recovered from the MCPFC is the ring. The most common ring material is copper (n=6), followed by gold (n=3). All recovered rings were associated with the hands of an individual and all were recovered from adult burials. Nine rings were recovered from nine burial locations. With regard to sex, five rings were recovered from male burial locations, three from female, and one from the burial of an individual of indeterminate sex. With regard to age, no burial location of young adult age produced rings; seven rings were recovered from burials estimated to be of middle adult age, and two from burials of old aged individuals. Two of these rings have stones: one clear and one red. Three rings are men's plain copper bands. One copper ring appears to be a man's copper ring with an insignia, and three rings are women's plain gold bands (Figure 5.37).

Pocket Tools

Pocket tools include hand-held items typically carried on the person of an individual and used to perform everyday tasks. Artifacts thusly classified include pencils, a coin purse, a hardware container, a key, and unidentified pocket tools. A list of all recovered pocket tool artifacts by lot can be found in Table 5.9. Pocket tool artifacts were recovered from 14 burial locations. A total of 15 whole or fragmented pocket tool artifacts were recovered. Pocket tools were recovered from one percent (n=1) of the mapped juvenile coffin locations and from seven percent (n=14) of the mapped adult coffin locations. With regard to sex, pocket tools were recovered from four percent (n=7) of the mapped male burial lots, zero percent (n=0) of the mapped female burial lots, and two percent (n=6) of the mapped burial lots of indeterminate sex.

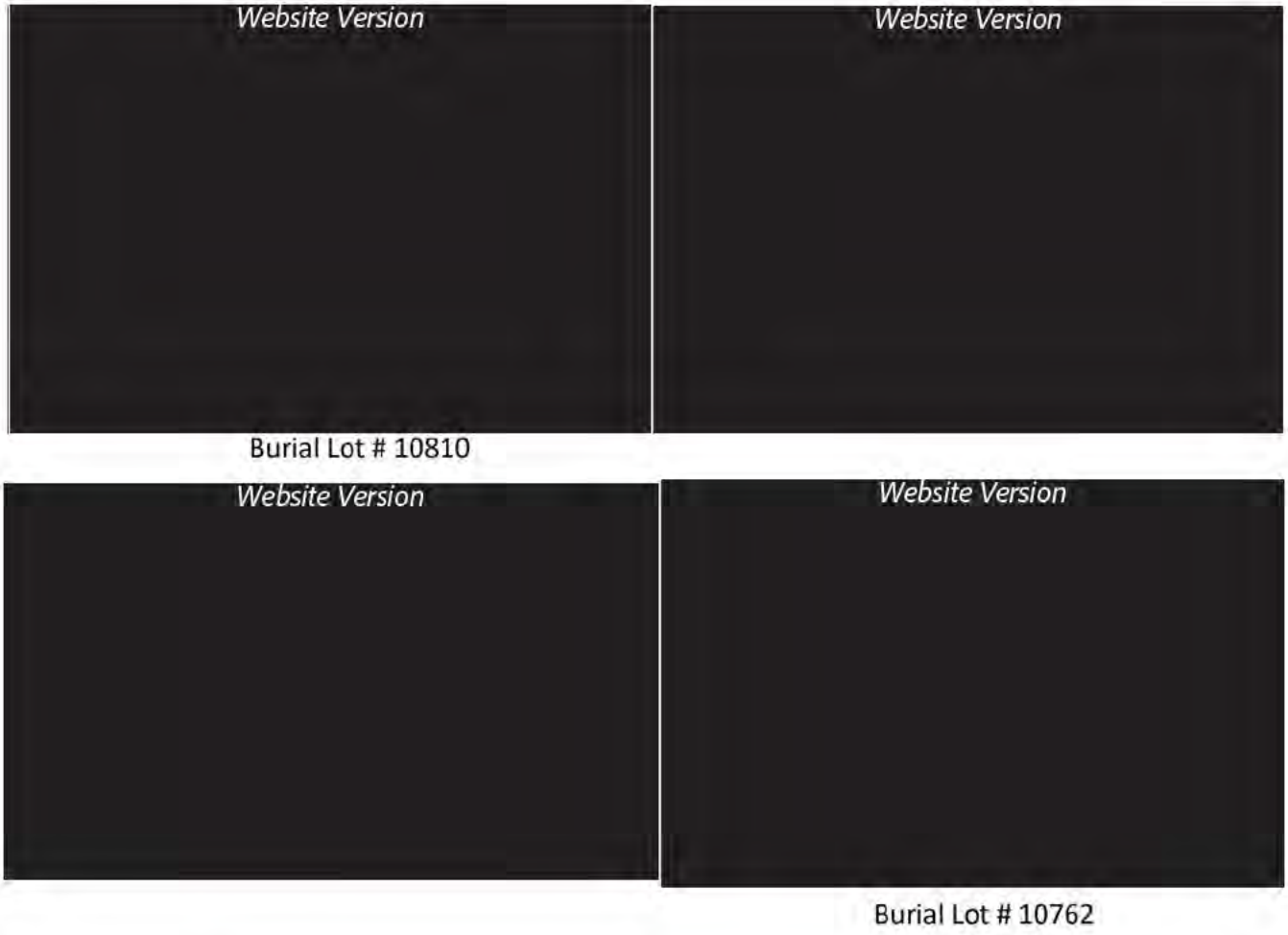


Figure 5.37. Selected rings in situ: top row, Burial Lot 10810: bottom row, Burial Lot 10762.

Table 5.9. Pocket Tools by Lot Number.

Lot	Age	Coin Purse	Pencil	Other Pocket Tool	UnID Pocket Tool
10305	Adult	0	1	0	0
10410	Adult	0	0	0	1 copper with screw cap, possible element of pen
10466	Adult	1 with snap closure	0	0	0
10528	Adult	0	1 in 2 frags, threaded wood shaft	0	0
10539	Adult	0	1 frag, lead only	0	0
10569	Adult	0	1 frag, ferrule end	0	0
10622	Adult	0	0	1 circular tin with nails, tacks, screws	0
10715	Adult	0	1 in 8 frags, blue colored, wood shaft	0	0
10736	Adult	0	1 in 4 frags, tip and ferrule	0	0
10763	Adult	0	1 base frag with no ferrule	0	0
10536	Adult	0	1 in 7 frags, wood, lead/ graphite, metal, rubber, yellow paint	0	0
10881	Juvenile	0	0	1 possible iron skeleton key	0
10981	Adult	0	0	1	1 frag, non-metal material, probable writing utencil/pen

Pencils are writing utensils constructed of wood with a core of lead, graphite, or other pigment. Pencils represent 57 percent of the pocket tools recovered (n=8). Figure 5.38 illustrates a pencil recovered from the 2013 MCPFC excavations. Eight fragmentary pencils were recovered from eight adult burials. Seven pencils contained what is likely a graphite core. One pencil has a core manufactured of a blue pigmented wax-based solid. Five burial lots containing pencils are estimated as male and three are of indeterminate sex. Four burial lots that produced pencils were estimated as middle age, one as old age and three are of indeterminate age.

Coin purses are small carrying bags constructed of fabric and a metal closure device, usually used to carry coins or other small trinkets. One fragmented coin purse was recovered from Burial Lot 10466, an old adult male. The purse consisted of a metal rim closure with a locking ball frame. No coins or other items directly associated with the purse were recovered from the burial.

Figure 5.38. Pencil, Burial Lot 10848.

One circular tin constructed of a ferrous metal and containing nails was recovered from Burial Lot 10622, an old adult of indeterminate sex (Figure 5.39). Additionally, a buckle, one 4-hole 24-line rubber button, one 4-hole fragmentary stone button, one fragmentary copper cinch buckle, one unidentified safety pin fragment, and one wooden pipe stem were recovered from this burial.

One key constructed of a ferrous metal and exhibiting a circular shaft and a single loop at the head was recovered from Burial Lot 10707, a mixed adult and juvenile burial. The key is associated with the secondary juvenile individual in this burial, Burial Lot 10881. A single unidentified pocket tool constructed of an unknown material was recovered from mixed Burial Lot 10981. This tool displays lateral striations on a cylindrical shaft, suggesting machine manufacture. One end was hand-sharpened to create a point.

Figure 5.39. Metal tin, Burial Lot 10622.

Medical and Health

Medical and health items are personal devices associated with dental or physical health. Some items in this category are intended to provide treatment of illness and injuries and others may serve to maintain health. Medical and health items include dentures, dental bridges, dental crowns, tonic bottles, and a birth control device. Seventeen medical and health items were recovered from twelve burial locations.

Material culture classified as medical and health items was recovered exclusively from adult coffin locations. A list of all recovered medical and health artifacts by lot can be found in Table 5.10-Table 5.11. With regard to sex, medical and health artifacts items were recovered from four percent (n=5) of the mapped male burial lots, 11 percent (n=3) of the mapped female burial lots, and 13 percent (n=4) of the mapped burial lots of indeterminate sex. Within the categories of medical and health artifacts, dental devices are found predominantly in single burials of male and female sex determination. Conversely, medicine bottles are found exclusively in male burials and primarily in mixed contexts (Figure 5.40).

Late nineteenth and early twentieth century dentures were manufactured from a compound patented as Vulcanite by Charles Goodyear. Vulcanite, a mixture of natural rubber and sulfite, revolutionized denture production. When Goodyear Dental Vulcanite chose to no longer enforce its patent, dentures became commonly available at affordable prices (Wynbrant

Table 5.10. Medical and Health Items by Lot Number

Lot	Dentures	Dental Bridge	Dental Crown	Birth Control Device
10323	-	1 gold with 3 teeth	-	-
10400	-	-	-	1 pessary, handmade ceramic
10522	1 upper; made of rubber	-	-	-
10689	-	-	3 upper incisors	-
10763	-	-	-	-
10809	-	-	-	-
10810	1 upper; made of plastic and rubber	-	-	-
10967	1 upper; made of plastic and metal	-	-	-
10971	1 upper half; made of plastic and rubber	-	-	-
10976	1 lower; made of plastic and metal	-	-	-
10982	-	-	-	-
10983	-	-	-	-

Note: see Table 4.11 for recovered medical bottles

Table 5.11. Medical Bottles by Lot Number

Lot	Count	Bottle Description
10763	2	Medicine bottles. Raised embossing on body reads: "LOUIS SCHMIT PHARMACIST MILWAUKEE, WIS". Raised embossing on base reads: "USA WTCO PAT DEC 11 94 ★★★".
10809	1	Intact. Rectangular base and restricted orifice with flaring lip, likely stoppered with a cork. Just over 4.33" tall and 1" deep; 1.7" long. Machine molded. Embossed with "Milwaukee" and "Herman L. Emmerich Ph.G".
10982	2	Nearly identical medicine bottles. Clear glass. Rectangular base and body with rounded corners and restricted orifice. One bottle is embossed with: "Hugo E. Bauch North Ave. & 3rd ST. Milwaukee".
10983	2	First is likely a medicine bottle. Clear glass. Rectangular base with rounded corners and restricted orifice with flat lip. Includes a bulbous glass stopper with pipette extension. Measures 4.22" tall. Embossing on bottom reads: "3".
		Second is likely medicine bottle. Clear glass. Retangualr base with rounded corners and restricted orifice with flat lip. Measures 5.27" tall. Embossing on side reads: "Roemer Drug Co. 415 Grand Ave. Milwaukee, WIS.". Embossing on bottom reads: "DF & Co". Embossed logo also visible.

2000). The MCPFC specimens appear to be typical examples of Vulcanite dentures. Five sets of dentures were recovered from five adult burials (Figure 5.41).

Upper dentures were recovered from four burial lots and a set of lower dentures from one burial lot. Most teeth exhibit wear. Dentures were recovered from two single adult female burials, one single adult male burial, and two mixed burial lots of indeterminate sex.

Dental bridges are a fixed dental replacement, joining multiple teeth, and artificially replacing a missing tooth. A single gold dental bridge covering three teeth was recovered from a single adult male burial of middle age. Dental crowns are another type of dental restoration and are typically used to fill or repair a tooth with a cavity. Three gold dental crowns on the left upper two incisors and right 2nd incisor were recovered from a single adult male burial of middle age. The crowns display a wear pattern on the lingual side of both left incisors. Figure 5.42 illustrates a dental bridge.

Tonic bottles are a specialized glass bottle category. The tonic bottle refers to smaller, personal use bottles that would have contained up to six fluid ounces of medicine or other substance. Tonic bottles could exhibit the name of a pharmacist embossed on the bottle. Seven tonic bottles were recovered from four burial locations. These locations include three mixed adult contexts and one single adult context. The single adult Burial Lot 10982, an old adult male, produced two medicine bottles that were likely personal medicine bottles. Both bottles are clear glass and nearly identical with rectangular bases and body, but with rounded corners. Figure 5.43 provides a drawing of an embossed medicine bottle.

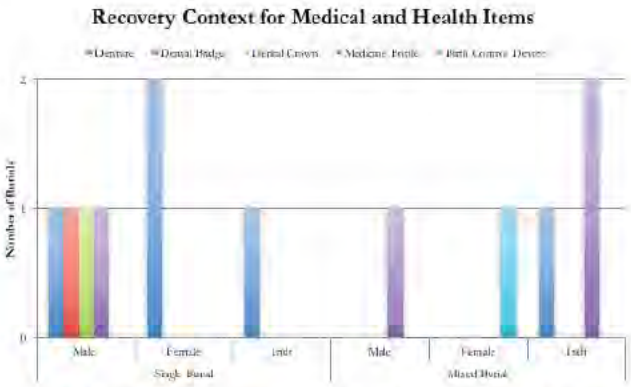


Figure 5.40. Recovery context of medical and health items.

Figure 5.41. Mandibular dentures, Burial Lot 10810.

Figure 5.42. Maxillary dental bridge, Burial Lot 10323.

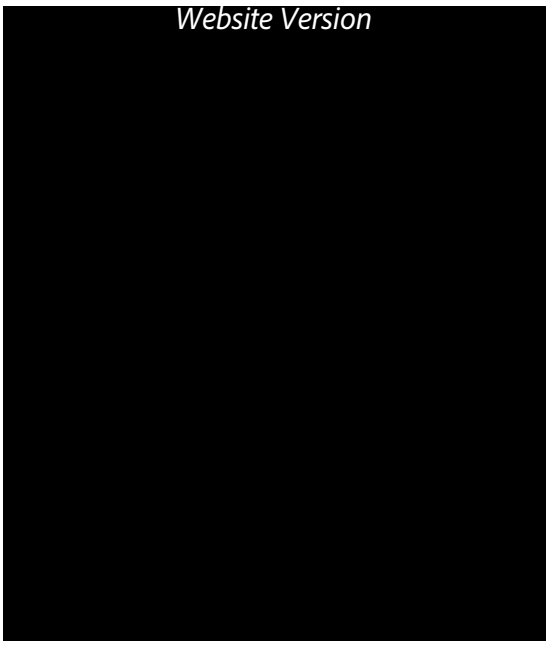


Figure 5.43. Illustration of medicine bottle, Burial Lot 10809.

A pessary is commonly used to treat prolapse of the uterus, but may also be used as a contraceptive device (Meyer 2005). A single pessary was recovered from the mixed burial of Coffin Lot 10328. The primary individual associated with this lot is an adult male with evidence for a planar craniotomy. The secondary individual, Burial Lot 10400, is a young adult female with a severing cut mark to the sternum. The craniotomy and the sternal cut suggest both individuals were subject to postmortem intervention. The pessary is likely associated with Burial Lot 10400.

Indulgences

Indulgence items include beverage bottles, bottle stoppers, smoking pipes, and other. A list of all recovered indulgence artifacts by lot can be found in Table 5.12. Indulgence artifacts were recovered from 12 burial locations. A total of 16 whole or fragmented indulgence items were collected. Material culture classified as indulgence items was recovered from one percent (n=2) of the mapped juvenile coffin locations and from five percent (n=10) of the mapped adult coffin locations. With regard to sex, indulgence items were recovered from four percent (n=5) of the mapped male burial lots, four percent (n=1) of the mapped female burial lots, and 13 percent (n=4) of the mapped burial lots of indeterminate sex.

Smoking pipes are the most common indulgence artifact recovered. Six smoking pipes were recovered from four adult burial locations and one juvenile burial location. The juvenile, Burial Lot 10501, is a neonate recovered with fragmented diaper pins. The inclusion of the fragmented kaolin pipe bowl in a juvenile burial is aberrant. Two other kaolin pipes were recovered from a commingled adult context and from a single adult male burial lot. A wooden pipe stem was recovered from an adult female burial of old age. The stem exhibits a threaded extension (to attach stem to bowl) that protrudes from one end. The stem is square on the end that would connect to the bowl; the mouthpiece is tapered flat. The other two wooden pipes are relatively complete and recovered from a single adult male burial lot of middle age. Figure 5.44 illustrates a pipe from Burial Lot 10736.

Table 5.12. Indulgence Items by Lot Number

Lot	Coffin Size	Item
10221	Juvenile	1 glass bottle stopper
10501	Juvenile	1 clay/kaolin/ceramic pipe bowl fragment
10525	Adult	1 ceramic/kaolin pipe bowl and shank
10622	Adult	1 wood pipe stem
10657	Adult	3 fragments of a drinking glass
10671	Adult	1 ceramic pipe bowl
10730	Adult	1 clear glass bottle stopper
10736	Adult	2 wooden pipes
10803	Adult	1 clear decorative glass bottle, 1 amber glass bottle
10812	Adult	1 clear glass perfume bottle with pipette embossed "WT & CO 404", unknown purple liquid inside
10970	Adult	1 green glass bottle
10971	Adult	1 clear glass bottle with 1 clear and frosted glass stopper 1 green glass bottle embossed with "Franz Joesf Bitterquelle"

Figure 5.44. Illustration of a pipe, Burial Lot 10736.

Figure 5.45. Perfume bottle, Burial Lot 10812.

Five whole and fragmentary beverage bottles were recovered from three adult burial locations. Nineteenth and early twentieth century beverage bottles are commonly tinted an amber or green color to prevent spoilage (Lindsey 2015). Use as a liquor container is proposed for two of the five bottles, one is likely a beer bottle, and one is a green mineral water bottle that is embossed "Franz Josef Bitterquelle."

Three whole and fragmentary glass bottle stoppers were recovered from three adult burial locations. According to the Society for Historical Archaeology, glass stoppers were generally used with bottles that were intended to be reused or in bottles that contained something not intended to be consumed at one time (Lindsey 2015). This includes, among other things, liquor and wine bottles and decanters (Lindsey 2015).

Two other artifacts were considered to be indulgence items but are classified as "other" since they do not fit into the previously discussed categories. A single fragmented drinking glass was recovered from a single juvenile burial. The glass is in three fragments, the largest of which appears to be part of the base.

A single perfume bottle was recovered from a mixed burial. This clear glass also contains a bulbous headed glass pipette. The bottle contains an unknown purple liquid. The bottle has a restricted orifice, a squared rim, 1.20 inch body diameter, a 90 degree shoulder, and a cylindrical body (Figure 5.45). The bottom of the bottle is embossed with "WT & CO 404". This bottle type was identified in a Whitall and Tatum & Co. 1880 catalogue.

Table 5.13. Ritual Items by Lot Number

Lot	Coffin Size	Item
10007	Juvenile	1 angel trinket
10034	Juvenile	1 copper crucifix with ferrous metal attachments on front
10038	Juvenile	50 small and 6 large pink rosary beads, 10 rosary chain fragments, 1 rosary crucifix
10068	Adult	1 prayer book in fragments, text visible, possible metal binding
10096	Adult	1 prayer book with fabric attached
10113	Juvenile	fragmented wooden rosary beads, fragmented rosary chain, 1 rosary crucifix
10293	Adult	1 prayer book cover and paper pages, no binding present
10322	Adult	2 wooden rosary beads, 1 copper rosary cross inlaid with wood
10517	Adult	1 pendant with cityscape scene on front, depiction of Mary and child on back
10743	Adult	1 copper crucifix with image of Jesus corroded but outline present
10820	Adult	1 copper crucifix with wood inlay and Jesus image attached; top has a loop for attachment

Ritual

Ritual items include prayer books, crosses and crucifixes, rosaries, and pendants. A list of all recovered ritual artifacts can be found in Table 5.13. Ritual-related artifacts were recovered from 11 burial locations. Material culture classified as ritual items was recovered from two percent (n=4) of the mapped juvenile coffin locations and from four percent (n=7) of the mapped adult coffin locations. With regard to sex, ritual items were recovered from five percent (n=6) of the mapped male burial lots and four percent (n=1) of the mapped female burial lots.

Three prayer books were recovered from three adult male burials. Prayer books are bound books containing devotional prayers and readings. All prayer books were directly associated with an individual. In Burial Lot 10096 the book was found in the pocket of a coat. All prayer books recovered as a result of the 2013 MCPFC excavations exhibit a front and back cover. No text is visible on outer covers, and due to their fragile nature the books were not opened. Prayer book thickness varies, but no book is thicker than 0.125-inches. Figure 5.46 illustrates a prayer book.

Three crucifixes were recovered from three burial locations. Adult burial lots account for two crucifixes and a single juvenile lot produced a crucifix. Crucifixes here are defined as religious items portraying Jesus Christ on the cross that are not or cannot be associated with a rosary. All recovered crucifixes are constructed of copper or copper-alloy. One crucifix consists of a riveted wooden inlay on a copper cross with a copper representation of Jesus Christ (Figure 5.47).

Rosaries are a stringed set of beads used to count prayers recited in honor of the Virgin Mary (Miller 2001). The most common rosary, known as the Dominican five-decade rosary, is composed of 59 beads. 50 ave beads are compiled into sets of 10 (decades) and separated by four pater beads. A pendant portion consisting of five beads is attached to a center medal. Lastly, the entire set is connected to a cross or crucifix. Each decade represents one of the fifteen "Mysteries of Salvation," thus, completion of a Dominican rosary requires three reiterations (Miller 2001). Three partial rosaries were recovered from three burial locations. Juvenile burial lots account for two rosaries, including one relatively complete rosary of 56 pink glass beads, ten copper links, and one copper crucifix (Figure 5.48). A single male adult burial lot produced evidence for a rosary in the form of a cross inlaid with wood and two wooden beads.

Figure 5.46. Prayer book, Burial Lot 10293.

Figure 5.47. Illustration of crucifix, Burial Lot 10820.

Figure 5.48. Rosary, Burial Lot 10038.

Pendants are religious flat metal objects worn around the neck that commemorate Jesus Christ, the Virgin Mary, or a saint. The images of shrines, miracles, pilgrimages, or historical events tend to serve as a reminder of, or serve to honor, the subject illustrated (Lillie and Mack 2013). A single copper pendant was recovered from a single adult male burial. This pendant depicts a cityscape scene and open hands cradling a cross on the front, and an image of Mary and child on the back (Figure 5.49). A single ceramic angel trinket was recovered from a single juvenile burial. The angel was found near the left shoulder and could have possibly been attached as a pin to exterior fabric.

Figure 5.49. Illustration of religious pendant, Burial Lot 10517.

Coins

Five coins were recovered from four adult burials. One dime, two pennies, and two nickels were recovered (Table 5.14). The coins and associated minted dates are as follows: "Liberty Head" nickel, 1900; "Barber" dime, 1903; "Indian Head" penny, 1905; "Liberty Head" nickel, 1906; and "Indian Head" penny, 1908. Figure 5.50 illustrates selected coins.

Table 5.14. Recovered Coins by Lot Number

Lot	Date	Coin
10298	1906	1 nickel
10480	1905	1 penny
10709	1903	1 'Barber' Dime
10746	1900	1 nickel, 'V' print on back
	1908	1 'Indian head cent' penny

Medical and Hospital

Material culture classified as "medical and hospital" includes items that are reliably associated with medical institutions of the Milwaukee County Institution Grounds, the Milwaukee County Coroner's Office, or local medical schools. Artifacts in this category may reflect behaviors of medical practitioners and use of the individual interred for medical training or research. Artifacts in the category of medical and hospital items include petri dishes, microscope parts, specimen jars, test tubes, scalpel holders, bandages, jars, flat glass, and other items that appear to have been disposed of in coffins.

Further, three major subcategories were devised to adequately represent all recovered material culture characterized as medical and hospital items. These subcategories are medical waste, research items, and autopsy tools. A total of 1,804 whole or fragmentary personal items were recovered from 114 burial locations.

Figure 5.50. Illustration of selected coins.

Medical Waste

Medical waste may be directly related to the body of the individual(s) interred in a coffin. Conversely, medical waste may be more general items that are considered hazardous or otherwise in need of disposal and that have been placed in a coffin. While the

practice of disposal of unwanted items in coffins is identified in other contexts at the MCPFC, the items included here can be associated with some aspect of the medical mission of the institutions themselves. The medical waste subcategory includes, from most common to least common, flat glass, bandage material, newspaper, jars, bottles, rubber items, tiling, cut wood fragments, electrical insulators, tubing, a light bulb, medical apparatus materials, and plaster. A list of all recovered medical waste artifacts by lot can be found in Table 5.15 (see burial descriptions in Appendix G for further description).

A total of 1,684 whole or fragmented medical waste items were recovered from 101 burial locations. Material culture classified as medical waste items was recovered from 19 percent (n=34) of the mapped juvenile coffin locations and from 36 percent (n=67) of the mapped adult coffin locations. There is a great variety of medical waste artifacts from adult burials, including bandage material, cut wood, electrical insulators, flat glass, a light bulb, bottles, jars, newspaper, plastic, tile, tubing, wood shavings, and x-ray materials. Juvenile burial lots produced less variety and include bandage material, flat glass, newspaper, rubber, tubing, and wood shavings. With regard to sex, medical waste items were recovered from six percent (n=7) of the mapped male burial lots, seven percent (n=2) of the mapped female burial lots, and 34 percent (n=11) of the mapped burial lots of indeterminate sex. The large number of burial lots of indeterminate sex reflects mixed burials.

Flat glass is the most common artifact recovered in the medical waste subcategory, and includes windowpane glass as well as medical apparatus glass. The assemblage include a variety of glass tints, exterior treatments, and thicknesses. A total of 151 flat glass fragments were recovered from 45 burial locations. Material culture classified as flat glass was recovered from 11 percent (n=20) of the mapped juvenile coffin locations and from 11 percent (n=20) of the mapped adult coffin locations. With regard to sex, flat glass was recovered from 10 percent (n=13) of the mapped male burial lots, 14 percent (n=4) of the mapped female burial lots, and 25 percent (n=8) of the mapped burial lots of indeterminate sex.

During excavation it was noted that several burial locations contained limbs individually wrapped in fabric. This observation called into question the interpretation of such fabric as shroud material. A medical account from *Anatomical Material – Its Collection and Its Preservation* states:

> It was also found that the hands, feet and face dried easily in the dissecting-room, and especially in cold-storage, and to prevent this the body was carefully wrapped immediately after the embalming process was ended. First the hands, feet and face were smeared with Vaseline and wrapped with bandages of tissue paper which is ordered from the mills in rolls 5 inches wide and 3 inches in diameter. Then these bandages and the rest of the body were smeared with Vaseline and the whole carefully wrapped with bandages of cheesecloth about a foot wide. It is well to wrap the legs and arms separately in order that they may be exposed easily for dissection, the rest of the body remaining wrapped, for the covering is an additional protection in the dissecting-room. Such bodies may be retained in cold-storage indefinitely without drying, although the thorax and abdomen gradually lose much of their moisture (Mall 1905:40).

Both the presence of individually wrapped limbs along with the association of Vaseline jars in certain burial lots support the interpretation of bandage use consistent with preservation of a cadaver (Figure 5.51). Twenty-three fragmentary fabric bandages were recovered from 20 adult burial locations. Eighteen of the 20 burial locations were mixed lot burials. Material culture classified as bandage was not recovered from any of the mapped juvenile coffin locations. Material culture classified as bandage was recovered from 11 percent (n=20) of the mapped adult coffin locations. With regard to sex, medical waste items were recovered from six percent (n=7) of the mapped male burial lots, four percent (n=2) of the mapped female burial lots, and 34 percent (n=11) of the mapped burial lots of indeterminate sex.

The context of newspaper within the burial supports inclusion in the medical waste category. Rather than representing general disposal within a coffin, newspaper recovered during the 2013 MCPFC excavations is associated with specific aspects of the individual interred. For example, newspaper was recovered from under the cranium in three of five adult burial lots, and this newspaper may have been used to absorb bodily fluids during autopsy or cadaver examination. Presence of newspaper around and under the skeleton in two of the ten juvenile burial lots suggests the use of newspaper as a wrapping for the interred.

Table 5.15. Medical Waste by Lot Number

Lot	Coffin Size	Bandage, Gauze	Cut Wood	Electric, Wiring	Glass	Jars/ Lids	Bottle, Vessel	Light Bulb	Newspaper	Plaster	Rubber	Tile	Tubing	Wood Shaving	X-ray
10014	Juvenile	-	-	-	11	-	-	-	-	-	-	-	-	-	-
10015	Juvenile	-	-	-	3	-	-	-	-	-	-	-	-	-	-
10017	Juvenile	-	-	-	3	-	-	-	-	-	-	-	-	-	-
10020	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10034	Juvenile	-	-	-	-	-	-	-	50	-	-	-	-	-	-
10035	Juvenile	-	-	-	-	-	-	-	11	-	-	-	-	-	-
10045	Juvenile	-	-	-	-	-	-	-	-	-	2	-	-	-	-
10048	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10055	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10065	Juvenile	-	-	-	-	-	-	-	-	-	-	-	-	100	-
10075	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10096	Adult	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10128	Juvenile	-	-	-	2	-	-	-	-	-	-	-	-	-	-
10130	Juvenile	-	-	-	2	-	-	-	-	-	-	-	-	-	-
10131	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10149	Juvenile	-	-	-	5	-	-	-	-	-	-	-	-	-	-
10150	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10153	Juvenile	-	-	-	3	-	-	-	-	-	-	-	-	-	-
10155	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10167	Juvenile	-	-	-	-	-	-	-	1	-	-	-	-	-	-
10171	Juvenile	-	-	-	-	-	-	-	39	-	-	-	-	-	-
10184	Juvenile	-	-	-	4	-	-	-	-	-	-	-	-	-	-
10202	Juvenile	-	-	-	-	-	-	-	1	-	-	-	-	-	-
10230	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10244	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10246	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10268	Juvenile	-	-	-	-	-	-	-	3	-	-	-	-	-	-
10269	Juvenile	-	-	-	-	-	-	-	-	-	-	-	1	-	-
10271	Juvenile	3	-	-	-	-	-	-	-	-	-	-	-	10	-
10276	Juvenile	-	-	-	-	-	-	-	5	-	-	-	-	-	-
10282	Adult	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10297	Adult	-	-	-	1	-	-	-	-	-	-	-	-	100	-
10300	Adult	-	-	-	-	-	-	-	50	-	-	-	-	-	-
10302	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-

Table 5.15. Medical Waste by Lot Number

Lot	Coffin Size	Bandage, Gauze	Cut Wood	Electric, Wiring	Glass	Jars/ Lids	Bottle, Vessel	Light Bulb	Newspaper	Plaster	Rubber	Tile	Tubing	Wood Shaving	X-ray
10312	Adult	-	-	-	3	-	-	-	-	-	-	-	-	-	-
10318	Adult	-	-	-	-	-	1	-	-	-	-	-	-	-	2
10350	Adult	-	-	-	-	-	-	-	-	-	-	-	-	2	-
10354	Adult	-	-	-	-	-	-	-	-	-	-	-	-	50	-
10352	Adult	-	-	-	-	-	-	-	50	-	-	-	-	-	-
10360	Adult	-	-	-	-	-	-	-	-	-	-	-	1	100	-
10364	Adult	-	-	-	-	-	-	-	-	-	-	-	1	100	-
10381	Adult	-	-	-	2	-	-	-	-	-	-	-	-	-	-
10383	Adult	-	-	-	-	-	-	-	-	-	-	-	-	100	-
10409	Adult	-	-	-	-	-	-	-	-	-	-	29	-	-	-
10410	Adult	-	-	-	-	-	-	-	-	-	-	64	-	-	-
10431	Juvenile	-	-	-	-	-	-	-	50	-	-	-	-	-	-
10432	Juvenile	-	-	-	-	-	-	-	3	-	-	-	-	-	-
10442	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10525	Adult	-	-	-	-	-	1	-	-	-	50	-	-	-	-
10526	Adult	-	-	-	14	-	-	-	-	-	-	-	1	-	-
10527	Adult	-	-	3	-	-	-	-	-	-	-	-	-	-	-
10529	Adult	-	-	-	-	-	-	-	-	-	-	-	-	1	-
10534	Adult	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10539	Adult	2	-	1	1	1	-	-	-	-	-	52	1	-	-
10548	Juvenile	-	-	-	1	-	-	-	-	-	-	-	-	100	-
10562	Adult	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10563	Adult	-	-	-	-	-	-	-	-	-	-	-	-	8	-
10569	Adult	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10570	Adult	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10571	Adult	-	-	-	-	-	-	-	-	-	-	-	1	-	-
10572	Adult	-	-	-	2	-	-	-	-	-	-	-	-	-	-
10573	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10622	Adult	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10625	Adult	-	-	-	-	-	-	-	-	-	-	-	-	25	-
10655	Adult	2	-	-	1	-	1	-	-	1	2	-	1	-	-
10656	Adult	-	-	-	-	-	-	-	-	-	-	-	1	-	-
10662	Adult	2	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5.15. Medical Waste by Lot Number

Lot	Coffin Size	Bandage, Gauze	Cut Wood	Electric, Wiring	Glass	Jars/ Lids	Bottle, Vessel	Light Bulb	Newspaper	Plaster	Rubber	Tile	Tubing	Wood Shaving	X-ray
10664	Adult	2	-	-	-	-	-	1	-	-	-	-	-	-	-
10665	Adult	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10667	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10669	Adult	-	1	-	-	-	6	-	-	-	-	-	1	-	-
10672	Adult	-	-	-	-	-	-	-	-	-	1	-	-	-	-
10683	Adult	-	-	-	-	-	-	-	50	-	-	-	-	-	-
10686	Adult	-	-	-	-	-	-	-	1	-	-	-	-	-	-
10690	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10695	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10705	Adult	-	-	-	-	-	-	-	-	-	-	-	-	5	-
10714	Adult	2	-	-	-	-	-	-	-	-	-	-	-	100	-
10723	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10730	Adult	1	1	1	-	-	-	-	1	-	-	-	-	-	-
10740	Adult	-	-	-	-	-	-	-	-	-	-	-	-	100	-
10746	Adult	-	-	-	28	108	-	-	-	-	-	-	-	-	-
10751	Adult	1	-	-	1	-	-	-	-	-	-	-	-	-	-
10754	Adult	-	-	-	-	-	-	-	-	-	-	-	-	12	-
10762	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10763	Adult	-	-	-	3	-	3	-	-	-	-	1	-	-	-
10777	Adult	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10809	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10811	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10812	Adult	-	-	-	4	1	-	-	-	-	1	1	-	-	-
10819	Adult	1	-	-	-	-	-	-	-	-	-	-	-	-	-
10967	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10968	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10970	Adult	-	-	-	25	1	-	-	-	-	-	-	-	-	-
10971	Adult	1	-	-	1	2	-	-	-	-	-	-	-	-	7
10973	Adult	-	-	-	-	-	1	-	-	-	-	-	-	-	-
10977	Adult	-	-	-	1	-	-	-	-	-	-	-	-	-	-
10981	Adult	-	-	-	2	2	-	-	-	-	-	-	-	-	-
10983	Adult	1	-	-	-	1	-	-	-	-	-	1	-	2	-
11003	Adult	-	3	-	1	-	-	-	-	-	-	-	-	-	-

Figure 5.51. Gauze and Vaseline jar, Burial Lot 10665.

Over 200 fragments of newspaper were recovered from 15 burial locations. Newspaper was recovered from six percent (n=10) of the mapped juvenile coffin locations and from three percent (n=5) of the mapped adult coffin locations. With regard to sex, newspaper was recovered from three percent (n=4) of the mapped male burial lots and three percent (n=1) of the mapped burial lots of indeterminate sex.

Jars classified here as medical waste are general-use medical glassware. All jars are constructed of clear glass with a flat base and vertical wall. One glass jar is associated with a glass lid, and two glass jars are represented solely by lids. A single burial lot produced two glass lids of two sizes both embossed with "Whitall-Tatum & Co., New York, Philadelphia". The small lid had an additional embossed marking: "Pat June 11th 1885." A second location also produced a glass lid embossed with "Whitall-Tatum & Co., New York, Philadelphia Pat June 11th 1885," suggesting that the institutions on the Milwaukee County Grounds may have purchased glassware from a single supplier. Nine fragmentary jars were recovered from seven adult burial locations. All burial lots were mixed and consequently considered indeterminate with regard to age and sex.

Certain bottles recovered during the 2013 MCPFC excavations represent another type of medical glassware. Five bottles were recovered from a mixed Burial Lot 10669, a mixed burial with evidence for postmortem intervention in the form of multiple individuals who exhibited severing cut marks to long bones. Two bottles recovered from this burial lot are embossed with "CHESEBROUGH MFG CO VASELINE" on the vessel body. One fragmentary vessel exhibits the embossing "D.F. & CO." on the base and one fragmentary bottle has "U.S.A. PAT DEC 11 1894" embossed on the base. Twelve whole and fragmentary bottles were recovered from six adult mixed burials.

Rubber medical items are identified by material but not function. Color and thickness of the rubber varies. All rubber items were highly fragmented. Fifty-six rubber fragments were recovered from five burial locations. Material culture classified as rubber was recovered from one percent (n=1) of the mapped juvenile coffin locations and from two percent (n=4) of the mapped adult coffin locations. All adult burial lots were mixed and consequently considered indeterminate with regard to age and sex.

Tile is an item of refuse recovered from some adult coffins. The highly fragmented nature of the recovered tile provided little evidence of shape and constructional features. Some tile may be ceramic; some of it appears to be stone. Five adult burial locations produced 147 tile fragments. All adult burial lots were mixed, and consequently considered indeterminate with regard to age and sex. Cut wood fragments are not associated with coffin construction and, like tile, were likely placed into coffins as waste items. Four cut pieces of wood were recovered from two adult burials. Tubing was identified on the basis of shape. Tubing materials include rubber, plastic, and metal. Four tubing fragments were recovered from two adult burials. Four fragmentary electrical insulators were recovered from two adult burials. Electrical insulators were identified by shape and manufactured of non-conductive materials.

A single fragmented light bulb was recovered from a single adult burial. This light bulb consists of the filament and metal screw end only. Plaster was recovered from a single adult burial location. This plaster was highly fragmentary and consists of a lime and sand paste. Cylindrical carbon fragments recovered from a single mixed adult burial may be associated with X-ray apparatus. These appear to be fragments of battery rods from a lead-acid battery. Figure 5.52 illustrates selected general items disposed of in a coffin.

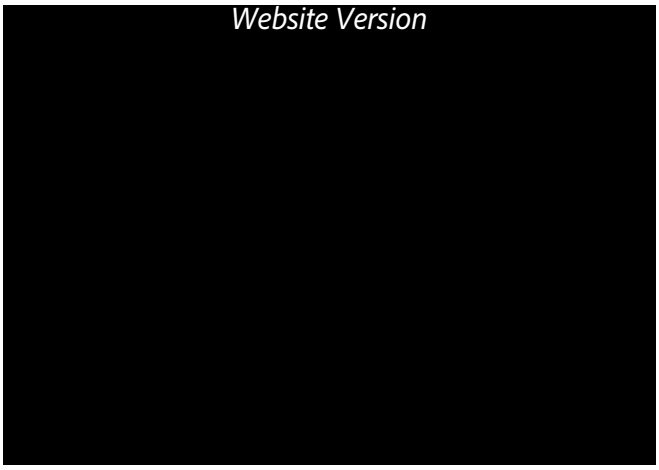


Figure 5.52. General items: above, battery rods, Burial Lot 10971; below: light bulb, Burial Lot 10664.

Research Items

Research items include laboratory equipment that can be directly associated with medical or hospital activity. The research items subcategory includes, from most common to least common, supply bottles, pipettes, test tubes, microscope slides, Petri dishes, and a specimen jar. A list of all recovered research items by lot can be found in Table 5.16. A total of 115 whole or fragmented research items were recovered from 22 burial locations.

Material culture classified as research items was recovered from one percent (n=1) of the mapped juvenile coffin locations and from 12 percent (n=23) of the mapped adult coffin locations. With regard to sex, research items were recovered from four percent (n=5) of the mapped male burial lots and 50 percent (n=16) of the mapped burial lots of indeterminate sex. The large number of burial lots of indeterminate sex reflects mixed burials.

Supply bottles considered to be research as opposed to general medical waste include bottles holding six fluid ounces or more made of clear or amber glass. Supply bottles would have contained supply liquids for treatment, experimentation, or surgical activity. A total of 16 whole and fragmented supply bottles were recovered from 13 adult burial locations. With regard to sex, research items were recovered from four percent (n=5) of the mapped male burial lots and 25 percent (n=8) of the mapped burial lots of indeterminate sex.

A pipette is a tool used commonly in the laboratory or hospital to measure and dispense liquid. The pipette design consists of a single glass cylinder, tube-like, with a tapered end. A total of 16 fragmentary pipettes were recovered from nine adult burial locations.

All adult burial lots were mixed and consequently considered indeterminate with regard to age and sex. Test tubes are another common laboratory tool. Test tubes recovered from the 2013 MCPFC excavations are constructed of glass or plastic, and are characterized by a typical u-shaped based, cylindrical body, and flared lip. A total of 30 fragments of test tubes were recovered from five adult burial locations. Three adult burial lots were mixed and consequently considered indeterminate with regard to age and sex. Two adult male burial lots produced fragments of test tubes. Figure 5.53 illustrates selected test tubes.

Microscope slides are clear, rectangular glass objects designed for use in preparing specimens for use with a microscope. Many recovered slides were fragmented. A total of 54 whole and fragmented microscope slides were recovered from four burial locations. Material

Figure 5.53. Test tubes, Burial Lot 10922.

culture classified as microscope slides was recovered from one percent (n=1) of the mapped juvenile coffin locations and from two percent (n=3) of the mapped adult coffin locations. With regard to sex, flat glass was recovered from three percent (n=1) of the mapped male burial lots and 25 percent (n=3) of the mapped burial lots of indeterminate sex.

Petri dishes are another clear glass research item that is characterized by a shallow cylindrical flat base design. A total of 39 Petri dish fragments were recovered from a single adult male burial location.

A specimen jar was recovered from a single mixed burial. The jar contained the remains of two fetuses of different ages. The jar exhibits horizontal rows of "S" patterns on the upper body (near shoulder) of the jar and near the base. The center of the jar body is flat and may have had a paper label. The jar rim is threaded for a screw–on cap (Figure 5.54).

Table 5.16. Research Items by Lot Number

Coffin Lot	Coffin Size	Microscope Slide	Petri Dish	Pipette	Specimen Jar	Supply Bottle	Test Tube	Other
10204	Juvenile	1	-	-	-	-	-	-
10318	Adult	-	-	-	-	1	1	-
10409	Adult	-	-	1	-	-	-	-
10539	Adult	-	-	1	-	1	-	-
10569	Adult	-	-	-	-	1	-	1
10571	Adult	-	-	-	-	-	-	1
10529	Adult	-	-	-	-	-	1	-
10664	Adult	-	-	-	-	2	-	-
10670	Adult	-	-	-	-	-	1	-
10695	Adult	-	-	-	-	1	-	-
10730	Adult	-	-	-	-	1	-	-
10746	Adult	-	-	7	-	-	-	-
10763	Adult	1	-	1	-	-	-	-
10803	Adult	-	-	-	-	1	-	-
10804	Adult	-	-	-	-	1	-	-
10808	Adult	-	-	1	-	1	-	-
10812	Adult	-	-	1	-	2	-	-
10536	Adult	-	-	-	-	-	-	1
10981	Adult	2	-	2	-	2	2	-
10982	Adult	4	36	1	-	1	9	-
10983	Adult	-	-	1	-	1	-	2
10971	Adult	-	-	-	1	-	-	-

Autopsy Tools

Six whole or fragmented autopsy tools were recovered from six burial locations (Table 5.17). Autopsy tools are identified medical instruments used in medicolegal investigations or during dissection. Very few medical tools were recovered. A single pair of fragmented tweezers was recovered from a single adult burial. These tweezers are constructed of a ferrous metal and contained two fused blades held together by a rivet (Figure 5.55).

The most common autopsy tool recovered was the scalpel blade holder. The scalpel blade holder is constructed of ceramic mold, with a tapering cylindrical body. Machine cut grooves line the tapered end. There is a slit, where the blade would be inserted, in the domed top (Figure 5.56). Five scalpel blade holders were recovered from four adult mixed burials, all burials exhibited osteological evidence for autopsy or dissection.

Table 5.17. Autopsy Tools by Lot Number

Lot	Item
10409	1 probable scalpel/blade holder, made of ceramic
10410	1 probable scalpel/blade holder, made of ceramic
10525	1 probable scalpel/blade holder, made of ceramic
10539	1 probable scalpel/blade holder, made of ceramic
10820	1 tweezer in 5 fragments, probably made of iron
10971	1 probable scalpel/blade holder, made of ceramic

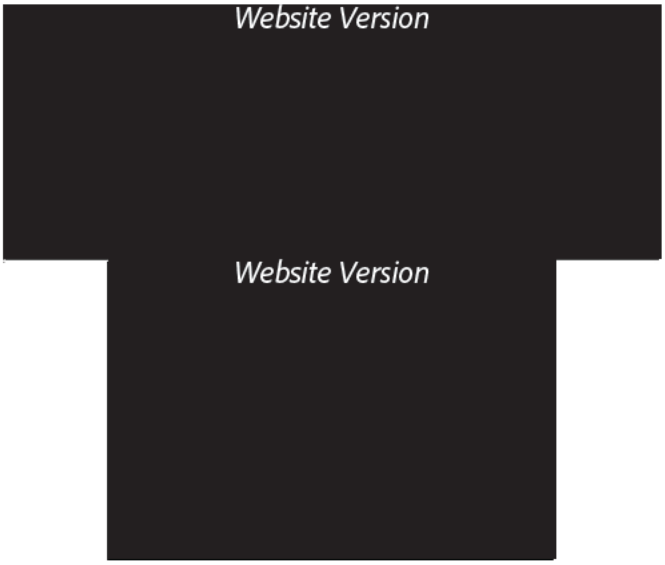


Figure 5.54. Specimen jar in Burial Lot 10996: above, jar in situ; below, fetal remains visible in jar.

Figure 5.55. Tweezers, Burial Lot 10820.

Figure 5.56. Illustration of scalpel holder, Burial Lot 10410.

Utilitarian

The category of utilitarian consists of artifacts that do not fit exclusively into either grave goods or grave inclusions. The behavior associated with these items of material culture is not easily assignable to either mortuary ritual or disposal, neither are the items themselves easily assigned to identities. Fifty-four whole or fragmented utilitarian items were recovered from 26 burial locations. Utilitarian items include bowls, a vase, bottles, crocks, a clothespin, fork, grommets, a garden rake, a tire iron, or unidentified porcelain fragments. A list of recovered utilitarian artifacts by lot can be found in Table 5.18. Utilitarian artifacts were recovered from 20 adult burial locations and five locations of juvenile coffin size. With regard to sex, utilitarian artifacts were recovered from eight mapped male burial lots, two mapped female burial lots and 10 mapped burial lots of indeterminate sex.

Bowls are characterized by a rimmed, flat base and unrestricted orifice. Bowls are made of either glass or porcelain. Three fragmentary bowls were recovered from two burial locations. Only one vessel exhibits a partial maker's mark, which reads, "COLONIAL". Vases are similar in vessel structure to bowls, but exhibit a constricted neck.

Three fragmentary white glass vases were recovered from one adult female burial. Utilitarian bottles are categorized by shape, and most are supplemented by manufacture embossing. The most common utilitarian bottle is the ink well. Other types of utilitarian bottles include milk and ketchup bottles. Seven whole and fragmented glass bottles were recovered from five burial locations. A crock is defined as an earthenware jar or pot. The vessel has a flat base and vertically walled sides.

Table 5.18. Utilitarian Items by Lot Numbers

Coffin Lot	Coffin Size	Items
10096	Adult	4 copper grommets
10131	Juvenile	1 porcelain bowl fragment; 2 brown ceramic fragments
10164	Juvenile	1 porcelain fragment with red floral print
10167	Juvenile	1 porcelain fragment, possible plate/saucer, with floral print
10207	Juvenile	1 porcelain fragment with black print; 1 jar/mug fragment with partial embossing "NE" and "BO"
10409	Adult	1 broken fork
10410	Adult	1 clothes pin in 3 fragments
10516	Adult	2 metal grommet fragments
10526	Adult	1 3-pronged metal garden rake
10536	Adult	1 clear glass decorated bottle fragment; 1 metal tire iron
10543	Juvenile	1 metal grommet; 3 white glass vase fragments
10655	Adult	1 grommet
10664	Adult	1 clear glass milk bottle stamped with "Horlick's malted milk"
10669	Adult	1 stoneware crock with interior brown glaze and exterior white glaze
10698	Adult	1 white porcelain fragment, likely from a mug
10746	Adult	1 white glass bowl with chevron pattern on lip edge
10763	Adult	1 porcelain bowl with partial maker's mark; 9 porcelain fragments with "T.P.C. CO" marker's mark
10803	Adult	10 white porcelain fragments with partial maker's mark
10807	Adult	1 white porcelain fragment
10812	Adult	4 grommets
10968	Adult	1 white porcelain fragment with apparent melting of vitrified exterior surface.
10971	Adult	1 white porcelain fragment; 1 stoneware ceramic fragment
10981	Adult	1 clear glass ink vial composed of clear glass, base embossed with "Higgins Inks 9 Brooklyn, NY"
10982	Adult	1 clear glass bottle embossed with "The T.A. Snider Preserve Co. Cincinnati. O."; 1 squat clear glass bottle

A single crock was recovered from a single adult burial. This intact vessel displays a brown glaze on the interior and a white glaze on exterior. No marker's mark was recorded on the crock. Clothes pins are identified by a wooden construction from a single piece of wood. A single fragmentary clothes pin was recovered from a single adult burial. One fragmentary fork, made of a ferrous metal, was recovered from a single adult burial. Grommets are circular rivets used to prevent tearing of the pierced fabric. Most grommets recovered are made of copper or ferrous metals. Other manufacturing materials consist of rubber and plastic. Some grommets contain affixed fabric. Twelve grommets were recovered from five adult burials.

A garden rake and tire iron were recovered from the same adult burial. Both the rake and the tire iron are constructed of a ferrous metal. The garden rake is three pronged and may have been attached to a wooden handle. The tire iron has bent and tapered ends and a square shaft. Unidentified porcelain fragments, presumed to be part of a utilitarian vessel, were included in the total utilitarian count. Fourteen porcelain fragments were recovered from 10 burial locations. Figure 5.57 illustrates selected utilitarian artifacts.

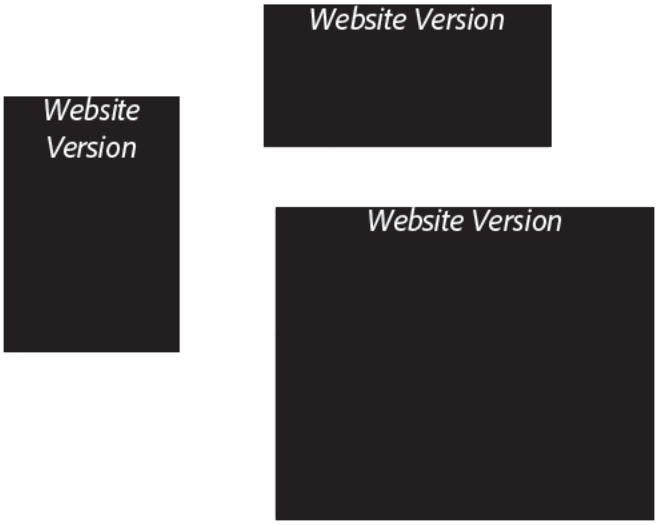


Figure 5.57. Selected utilitarian items: clothes pin, Burial Lot 10410; fork, Burial Lot 10409; rake, Burial Lot 10526.

Table 5.19. Recovered Bullets by Lot Number

Lot	Coffin Size	Sex	#	Cal	Features
10002	Juvenile	-	1	24	base fragment
10651	Adult	M	1	45	possibly lead; fired
10751	Adult	F	2	357	possibly lead; unfired
10763	Adult	M	1	32	casing only
10781	Adult	M	1	32	possibly lead; fired
10808	Adult	M	1	357	possibly lead; fired

Projectiles

The artifacts discussed under this heading do not fit clearly into the larger analytic categories discussed above. While they are broadly classified as projectiles they can be further broken down into two very different categories. The first category includes bullets and shell casings. The second category includes a prehistoric projectile point. The projectile point was recovered from a single burial. A total of seven whole or fragmented bullets were recovered from six burial locations. Material culture classified as projectiles were recovered from less than one percent (n=1) of the mapped juvenile coffin locations and from three percent (n=6) of the mapped adult coffin locations. With regard to sex, projectiles were recovered from three percent (n=4) of the mapped male burial lots, and six percent (n=1) of the mapped female burial lots. Table 5.19 provides a list of bullets by lot number.

Bullets are the most common type of projectile recovered. The simplicity of the recovered bullets' cast, as well as their weight, indicates they are made of lead or a heavy lead-based alloy. Bullet caliber (cal) is determined by the diameter of the bullet, or casing. The caliber types recovered include one .24 cal (0.243 in), two .32 cal (0.323 in), three .357 cal (0.355-0.357in), and one .45 cal (0.450 in). Bullets were further classified as fired or unfired. The nose of a fired bullet is deformed, flatted, or mushroomed. By comparison, the nose of an unfired bullet is intact and appears rounded or relatively pointed. The fragment of a 24 caliber bullet recovered from a juvenile burial may be unfired. The two .357 caliber bullets recovered from Burial Lot 10751 were unfired. The primary individual in Burial Lot 10751 is a female but additional individuals are male. The remaining fired bullets are associated with male burials.

A single prehistoric projectile point was recovered from Burial Lot 10666. This projectile point is associated with the Dickson Cluster or the Adena Culture. Adena Stemmed (Waubesa) points are diagnostic of the Early Woodland (500-100 B.C.)

period (Justice 1987). Adena points are found throughout the Midwest and portions of the Southeast. Characteristics of the Adena point form include an overall lanceolate shape and a "beavertail" ovate haft element (Justice 1987:191). The Waubesa type conforms to essential Adena elements, but lacks a weak indentation at the shoulder (Ritzenthaler 1967). Burial Lot 10666 contains the remains of one probable female. No other grave goods were recovered from this lot. Perhaps this artifact was an heirloom or keepsake of the interred individual, or perhaps the artifact was lost or disposed of in the coffin.

Miscellaneous and Other

A total of 1,632 fragmented miscellaneous items were recovered from 141 burial locations. Miscellaneous items include highly fragmented, unidentifiable, or unassociated material culture remains. Miscellaneous items include naturally occurring charcoal and coal or slag, a door knob, foam, grease, foil, hair clippings, melted glass, unidentified glass, unidentified metal, peanut shells, unidentified rubber, unidentified tubing, vinyl fragments, and rough rock.

Coffins and Coffin Hardware

Coffin Manufacture

Along with other aspects of the mortuary ritual, burial containers provide an essential understanding of the cultural expression and treatment of the dead (LeeDecker 2001). The use of burial containers reflects a conscious and unconscious desire on the part of the living to protect the dead (Pye 2010). Burial in containers can also reflect a physical and spiritual desire to safely protect the living from the dead.

Up through the mid-nineteenth century, coffins in the United States were often made by local furniture or cabinetmakers who may have also served as undertakers (Bell 1991). These coffins were made on an as-needed basis. Mass production of coffins began during the Civil War when hundreds of thousands of coffins were needed to transport and inter the bodies of dead soldiers.

The "beautification of death" movement began in the late eighteenth century and lasted until the beginning of the twentieth century. Park-like cemeteries, embalming, undertaking, elaborate mourning rituals, and the mass-production and wide availability of burial receptacles and associated decorative hardware are indicative of this movement (Bell 1987, 1990, 1991). Further, the use of a burial container changed from concealment to presentation (Lang 1984).

In contrast to the elaborate funerary ritual associated with the beautification of death movement, burial in the MCPFC was unelaborated. Local undertaking businesses were common and successful during the late nineteenth and early twentieth centuries in Milwaukee. *Memoirs of Milwaukee County from the Earliest Historical Times Down to the Present* lists a number of individuals whose businesses provided funeral directing, embalming and livery services (Watrous 1909). Citizens of Milwaukee had access to and took advantage of the industry that allowed them to beautify the deaths of their relatives.

For the poor and indigent, however, it was the Board of Supervisors of Milwaukee County who, by the late 1800s, contracted local undertakers to supply the MCPFC with burial containers. These contracted suppliers were hired based on the lowest proposed bid for manufacturing costs. This budgeting strategy furthered the institution's self-sufficiency. All individual contracts expired, or were renewed, annually. The month of March officially ended the contractual employment timeline. The *First Annual Report of the Superintendent of the Poor of Milwaukee County*, published in 1881, states:

> Coffins and use of conveyance were furnished by Fred Zander, up to March 27th, per contract with the county at $1.87 each, for coffins four feet long, and over; 87 cents each, for those less than four feet, and $1 for conveyance; to the amount of $37.05. From March 27th, to end of year, coffins and conveyance were furnished by W.F. Otto, at $1.70 each, for coffins four feet long and over; 70 cents for those less than four feet, and $1.00 for use of conveyance; to amount of $134.70; making a total cost of $171.75.

The practice of contracting for construction of coffins to be used at the Poor Farm continued until the turn of the last century when coffin construction was undertaken by inmates of the Almshouse and the Insane Asylum. The genesis of this switch can be found in a series of newspaper reports that document irregularities in the contract system of burying indigent residents of Milwaukee County.

From February through March of 1894, the Milwaukee Journal published a serious of articles focused on an investigation into the activities of Undertaker Charles Judson. Judson & Co. had a contract to provide coffins and burial services for the Milwaukee County Board of Supervisors at the Milwaukee County Poor Farm. The articles are written in the flowery and alarmist tone of the times, noting that exhumations had revealed incorrect identification of buried individuals, an alleged financial relationship between Judson and the medical colleges, and several instances where Judson took county payment for burials that never took place. There is a dramatic description of Judson hiding from authorities. Ultimately Judson is tried and convicted of perjury. Among other recommendations, the investigative committee recommends that "the contract system of burying paupers be abolished. That bodies be buried by the superintendent of the county farm, who shall furnish all coffins (MJ 13 February 1884)".

The first instance documenting construction of coffins by residents is found in the *1906 Annual Report of the Milwaukee County Poor Farm/Almshouse*, which mentions the use of institutionalized residents for labor activities. A reported 22 coffins were made by inmates and furnished to the poor of Milwaukee County between October 1, 1905 and September 30, 1906 (Annual Report 1906).

Coffin Morphology

All burial at the MCPFC occurred in coffins. In those cases where the coffin wood had completely disintegrated, it was possible to recognize outlines by the discoloration of the soil, or to identify the former existence of a coffin by the presence of hardware. Each grave was originally marked with a wooden cross to which a brass tag was attached. This tag referred to a line in the *Register of Burial at Milwaukee County Poor Farm*. While no numerical brass tags were recovered in 2013, in some instances the remnant of a wooden post was preserved at the head of a burial. Several of these posts exhibited white paint.

The most common woods utilized for the purpose of burial containers during the time the MCPFC was in use were pine and elm (Hasluck 1905). Wood recovered from the 1992 and 1993 excavations at the cemetery were identified by Mr. Harry Alden of the Center for Wood Anatomy Research as part the white pine group (Richards 1997).

Shape

In order to contain costs, both private undertakers and county craftsmen used the least expensive coffin material and hardware, and variability occurred only in shape and size. Two different coffin shapes were identified from the 2013 excavations at the MCPFC: rectangular and hexagonal.

The rectangular coffin, sometimes referred to as "parallel-sided" (Pye 2010:4), consists of two side panels of equal length squared off by a pair of perpendicular panels at the head and foot of the coffin in simple carpentry manner. In total, six boards are used in construction and were connected by butted joints. While the rectangular coffin type was primarily used for infant and juvenile burials, this type does occur infrequently in adult burials (Richards 1997). The hexagonal coffin, also known as the "toe-pincher" (Burnston and Thomas 1981:II-5; Parrington et al. 1989:144; Trinkley and Hacker-Norton 1984:4), "truncated diamond coffin" (McReynolds 1981:15), or "shouldered coffin" (LeeDecker et al. 1995:50), is the most commonly recovered coffin shape identified as a result of the 2013 excavations. Hexagonal coffins are generally narrow towards the head, extending to the widest point at the shoulder before tapering to the foot, mimicking the outline of a person laid in the supine position. Both sides were squared off by parallel panels marking the head and foot of the coffin. Most hexagonal coffins consisted of six pieces of wood, including the lid. In these cases, each coffin side was constructed with a single piece of wood. The side panels were kerfed to achieve the six-sided likeness. Saw kerfing consists of narrowly cutting one or a series of slits on the interior at the shoulder of the coffin. Boiling water was used to dampen the wood and facilitate bending. When kerfing was observed, a total of a five saw kerfs at ½ inch intervals were cut to within 3/16 inch of the exterior of the side panel (Hasluck 1905). These examples of bent-shouldered, six-sided coffins required a higher level of carpentry skill than did the rectangular coffins (Pye 2010).

A total of 632 coffin locations were recorded. Of these, the hexagonal coffin was the most commonly found burial container within the MCPFC. Five hundred forty-one of these containers were recovered during the 2013 excavations. Sixty-six graves contained rectangular coffins. The shape of 23 coffins could not be identified as a result of previous disturbance or poor preservation. Two mapped locations with discernible burial shafts did not contain coffins or human remains.

With regard to adult size coffins, 349 are hexagonal, 12 are rectangular, and seven were of indeterminate shape. Table 5.20 lists coffin shapes for adult burials. Juvenile burials at the MCPFC included 192 hexagonal and 54 rectangular coffins. Figure 5.58-Figure 5.60 provide views of a typical hexagonal juvenile coffin from Burial Lot 10030. The shape of 16 juvenile coffins could not be identified, and two locations did not contain a coffin. Table 5.21 lists coffin shapes associated with juvenile burials. Figure 5.61 illustrates the spatial distribution of coffin shapes.

Table 5.20. Coffin Shape Distribution for Adult Burials

Coffin Shape	Number	Percent of Total
Rectangular	12	0.03
Hexagonal	349	0.95
Indeterminate	7	0.02
Total	368	100

Table 5.21. Coffin Shape Distribution for Juvenile Burials

Coffin Shape	Number	Percent of Total
Rectangular	54	0.20
Hexagonal	192	0.73
Indeterminate	16	0.06
No Coffin	2	0.01
Total	264	100

Figure 5.58. Hexagonal juvenile coffin, planview.

Figure 5.59. Lid of hexagonal juvenile coffin.

Figure 5.60. Hexagonal juvenile coffin, oblique view; note five kerf marks on interior side walls.

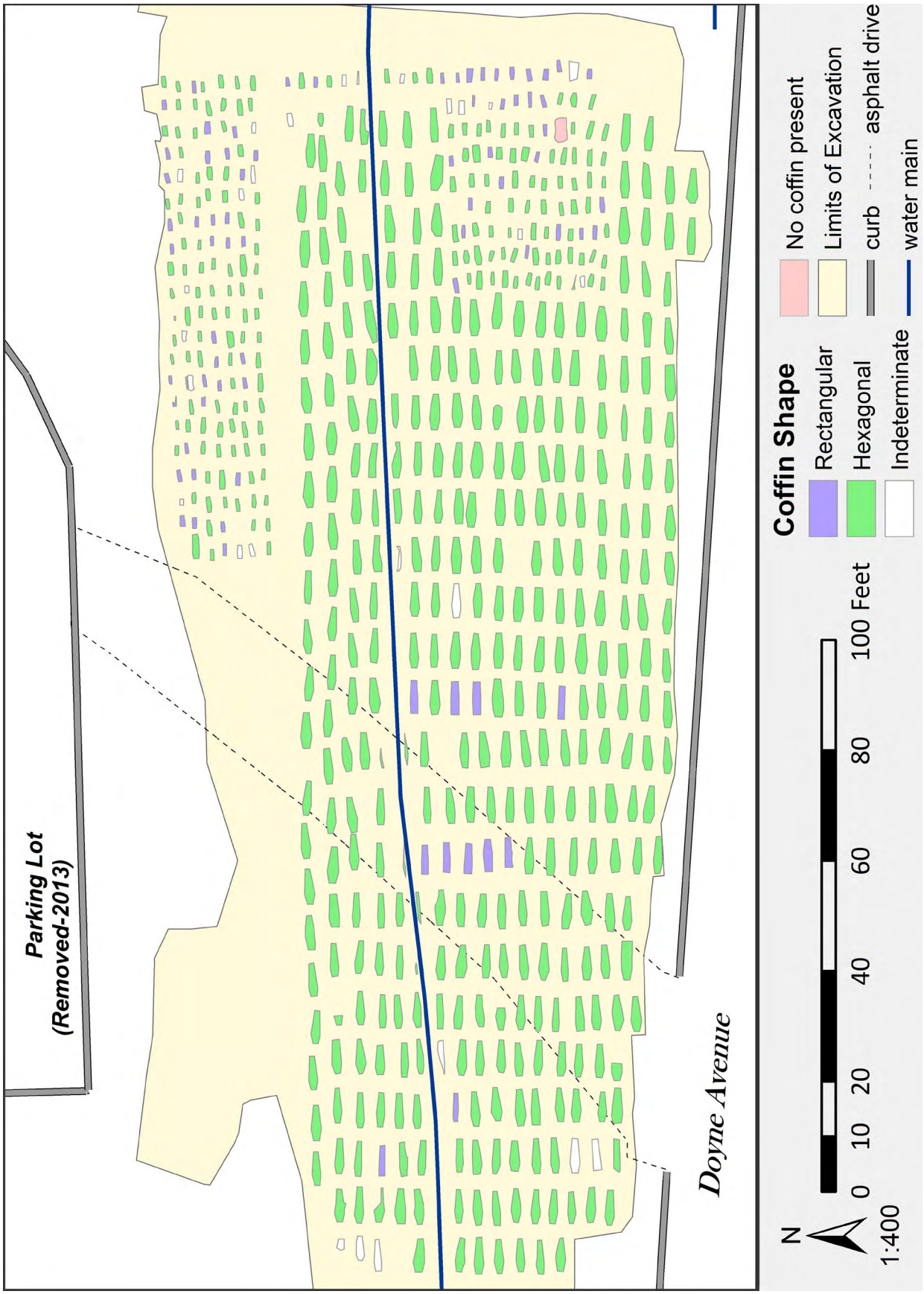


Figure 5.61. Spatial distribution of coffin shapes throughout the site.

Dimensions

Coffin dimensions sort on the basis of adult and juvenile length and width. Length of adult coffins generally falls between 63 and 88 inches while juvenile coffin length ranges from 15 to 42 inches. Coffin width for adult coffins ranges from 13 to 23 inches; juvenile coffin width ranges from 6 to 15.5 inches. Coffin width seems to vary more than coffin length.

The practice of using more than one board in constructing the top and bottom of a coffin might account for a slightly greater degree of variability in the width. Figure 5.62 provides length data for all coffins. Figure 5.63 provides width data for all coffins. The difference in both length and width of adult and juvenile coffins is clear, but a t-Test was performed to determine if there is a significant difference in the size of male and female coffins.

Figure 5.64 illustrates that there is no difference between the coffins lengths of males versus females.

Surprisingly, there is a difference between the width of coffins of females and those of males (Figure 5.65).

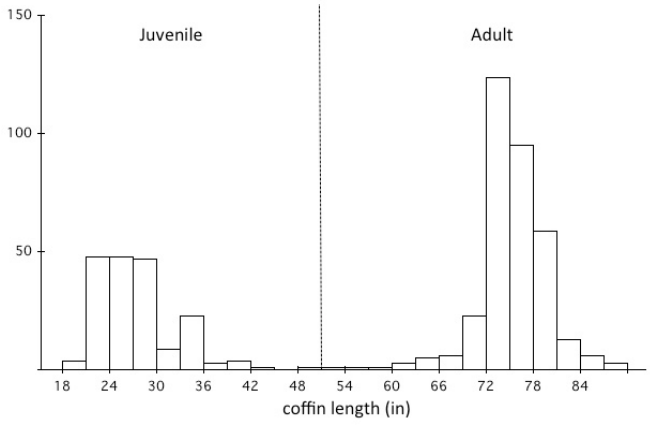


Figure 5.62. Coffin lengths, juvenile and adult coffins.

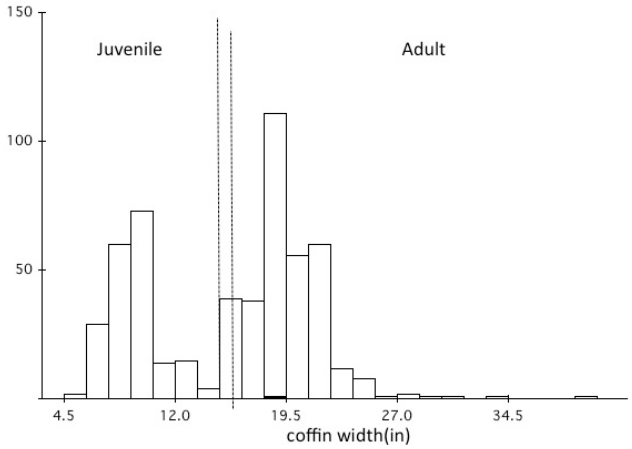
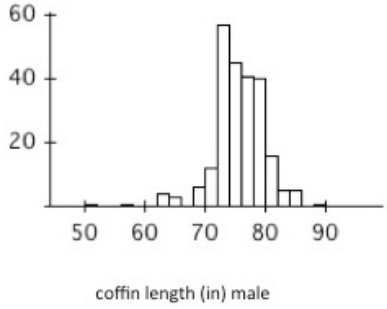
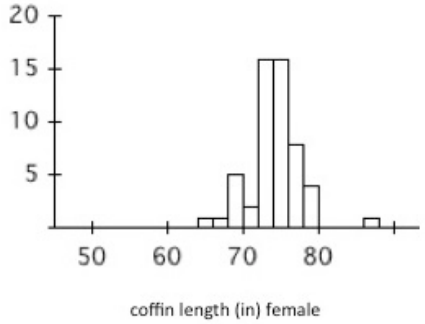


Figure 5.63. Coffin width, juvenile and adult coffins.





Frequency breakdown of **sex**
No Selector
529 total cases of which 204 are missing

Total Cases	325
Number of Categories	3

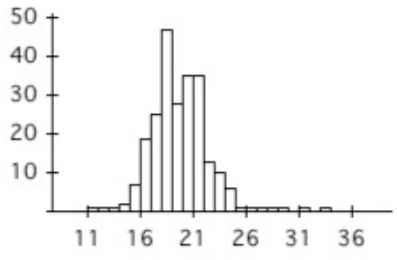
Group	**Count**	**%**
m	237	72.923
f	54	16.615
i	34	10.462

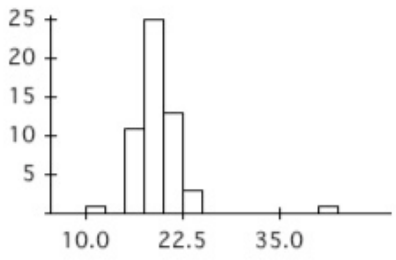
2-Sample t-Test of μ1-μ2
No Selector

Individual Alpha Level 0.05
Ho: μ1-μ2 = 0 Ha: μ1-μ2 ≠ 0
Hide Results

f:coffin length (in) - m:coffin length (in) :
Test Ho: μ(f:coffin length (in))-μ(m:coffin length (in)) = 0 vs Ha: μ(f:coffin length (in))-μ(m:coffin length (in)) ≠ 0
Difference Between Means -1.2896976 t-Statistic = -2.321 w/96 df
Reject Ho at Alpha = 0.05
p = 0.0224

Figure 5.64. Statistical t-Test results for male versus female coffin length.





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2-Sample t-Test of μ1-μ2
No Selector

Individual Alpha Level 0.05
Ho: μ1-μ2 = 0 Ha: μ1-μ2 ≠ 0
Hide Results

f:coffin length (in) - m:coffin length (in) :
Test Ho: μ(f:coffin length (in))-μ(m:coffin length (in)) = 0 vs Ha:
μ(f:coffin length (in))-μ(m:coffin length (in)) ≠ 0
Difference Between Means -0.42926629 t-Statistic = -0.8011 w/67 df
Fail to reject Ho at Alpha = 0.05
p = 0.4259

Figure 5.65. Statistical t-Test results for male versus female coffin width.

Coffin Exterior and Interior Treatment

According to a Milwaukee Sentinel article published December 24, 1882, "The body is laid out in a shroud with the head resting on a pillow: the coffin is from smooth boards, with a coat of varnish."

While historical accounts suggest that the exterior of coffins were stained and varnished, several coffins exhibited evidence for exterior paint. Most paint remnants suggest white or gray paint, although a few appeared to red, pink, or orange. These later examples may be a result of paint primer (Heilen et al. 2010). Of the seven juvenile coffins with paint remnants, all were white. Adult coffins with paint remnants included white, gray, red, pink or orange.

Evidence for interior coffin treatment is confined to the burial containers of juvenile or infant coffins. The most common form of interior treatment was the presence of a coffin lining inferred from the presence of small coffin tacks. As those supplying the coffins to the county were doing so on a competitive bid basis, the lining of these coffins was presumably made of loose woven cotton, linen, muslin, or other inexpensive and readily available cloth. Examples of formal interior coffin lining can be found in related coffin and casket furnishing catalogues. The listed price by the yard for "fine white satin" ranges from a few cents to a few dollars (Hamilton, Lemmon, Arnold & Co 1882:11, 25-26). Marketed fabric options in most catalogues included finer fabrics such as lawn, sateen, cashmere, brocade, and silk (Harrison Burial Case Company 1885).

Although fabric was rarely preserved, the tacks used to secure the fabric lining to the interior of the coffin box were often preserved. The annual contracts for supply of coffins and conveyance do not mention lining for either adults or juveniles. Nonetheless, 108 juvenile coffins contained tacks. The number of tacks recovered from a single juvenile coffin ranges from one to as many as 46. Tacks were recovered from only three adult coffins. This suggests that lining may have been almost exclusively used for juvenile burials.

Evidence for the alteration of the interior of the coffin is present in a few adult burials. In these instances, an inserted section of wood at either the head or foot of the coffin was present. This horizontal board is placed between the two sideboards, parallel to the head and foot panels. This may have served to shorten the available space within the coffin or more likely served as a support. These supports do not represent traditional coffin manufacture, and these coffins may have been containers manufactured specifically for the disposal of anatomized human remains. Seven burial lots contained this interior modification. Each coffin was rectangular, three burial lots were mixed

Table 5.22. Coffins with Interior Support by Lot Number

Lot	Burial Type	Coffin Length	Coffin Width	Coffin Shape	Placement of Support
10409	Commingled	69 in	16 in	Rectangular	Both ends
10410	Commingled	71 in	13 in	Rectangular	West end
10539	Commingled	74 in	18 in	Rectangular	West end
10569	Commingled	64 in	14 in	Rectangular	Both ends
10570	Mixed	66 in	16 in	Rectangular	Both ends
10571	Mixed	63 in	15 in	Rectangular	Both ends
10708	Mixed	67 in	16 in	Rectangular	Both ends

burials, and four were commingled burial lots. Five of these burial lots contained supports at both ends and two had a single support. Table 5.22 illustrates the burial lots with supports.

Another unusual finding consisted of wood shavings within coffins:

> Traditionally, old-time carpenters brushed together all of the sawdust and shavings accumulated from making a coffin and placed these scraps inside it. Superstition taught that if these bits of leftover wood were tracked into a house or carelessly shaken from clothing, they would endanger whomever they touched, and that person might become death's next victim (Coffin 1976: 101-102).

While superstition on the part of the coffin maker may explain the presence of wood shavings in several coffins recovered during the 2013 excavations, wood shavings may also provide absorption of bodily fluids during decomposition (Janaway 1998). Adherent sawdust or wood shavings associated with a dissected individual might also explain the presence of these wood products in a coffin. Wood shavings were recovered from 16 coffins.

Coffin Hardware

Nails

Three varieties of nails (cut nails, wire nails, and finishing nails) were recovered from the 2013 excavations at the MCPFC. Nail types are identified by the design of the nail head, as well as the shape and length of the shank or shaft. Due to poor preservation, nail head widths were not measured. All nails are made of iron. Figure 5.66 illustrates examples of the three nail varieties.

Cut nails are machine-made square nails. Manufacture of the cut nail began as early as 1775. Nails produced this way have variable handmade heads but exhibit relative uniformity in the shank (Adams 2002). Use of machine cut-and-headed nails began around 1815. Until 1830, the degree of inconsistency in head shape led to irregularities. From the late 1830s to the present, standardization in manufacturing techniques has refined the machine cut nail to exhibit a uniform head, two tapered and two parallel-sided shafts, and a square or sheared end. The cut nails recovered from the 2013 excavations were of the more recent and uniform variety. Cut nails were recovered from three burial locations. Figure 5.67 illustrates machine cut nails from the 1912 Pritzlaff Hardware Catalog.

Figure 5.66. Examples of the three nail types recovered: a) Cut nails; b) Finishing nails; and c) Wire nail.

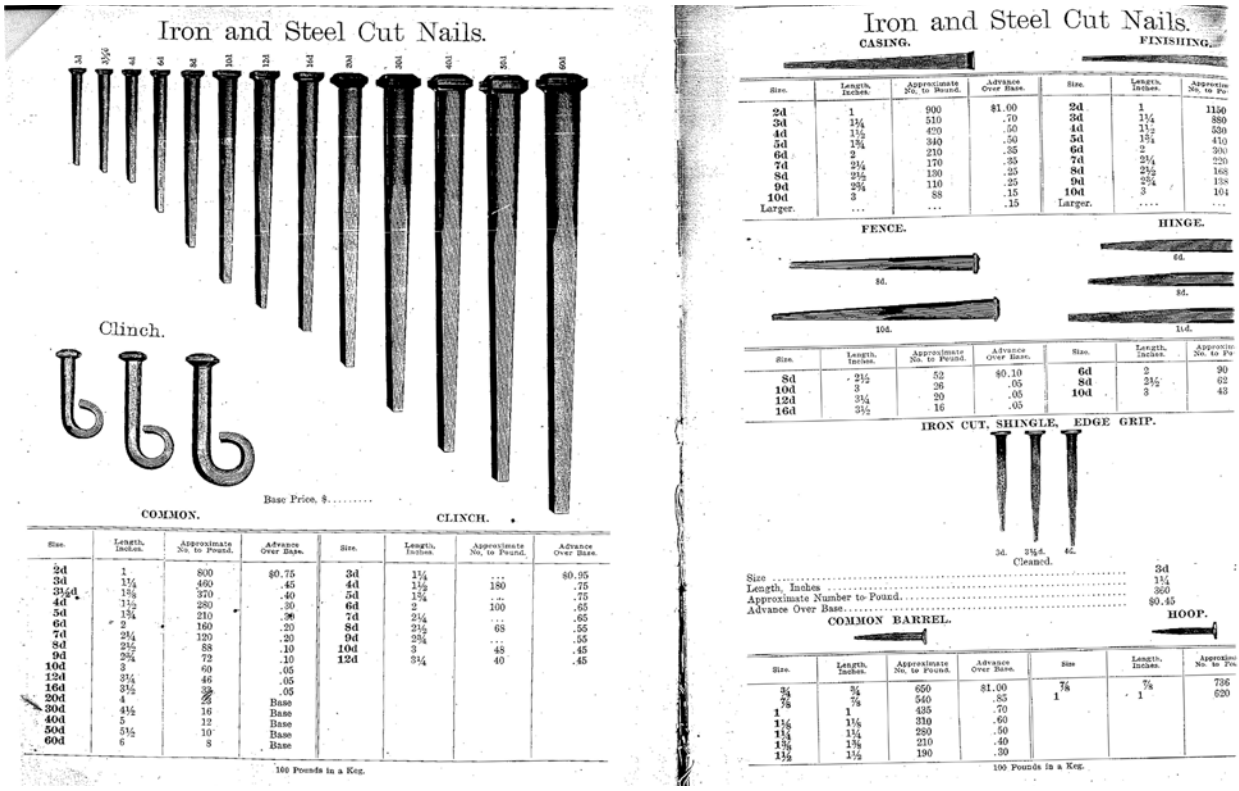


Figure 5.67. Pages from the 1907 Pritzlaff Hardware Catalog showing machine cut nails for purchase.

Wire nails have a disk-shaped head that is typically two to three times the diameter of the shaft (Figure 5.68). The shaft is thin and cylindrical, and tapers to a point at the end. The earliest US patent date for wire nails is 1877 (Priess and Shaugnessy 1972). Nevertheless, it was not until the late 1890s that wire nails were produced in large quantities. By 1913, 95 percent of the nails produced in America were wire nails (Clark 1929). Figure 5.69 illustrates wire nails from the 1907 Pritzlaff Hardware Catalog. Wire nail types represent the most common coffin hardware type recovered from the Milwaukee County Institution Cemetery. Wire nails were recovered from 352 burial locations.

Figure 5.68. Illustration of a wire nail, Burial Lot 10136.

Finishing nails, sometimes referred to as bullet head nails, have a head that is slightly larger than the diameter of the shaft. These nails are typically used for their minimal visibility. Finishing nails can be completely concealed by being set below the exterior of the finished wood surface. The finishing nail is a variant of the wire nail, but for typological purposes was given a separate category. Finishing nails are the rarest of all coffin nail types recovered from the Milwaukee County Institution Cemetery. Finishing nails were recovered from six burial locations. Table 5.23 provides a list of nail types by coffin size.

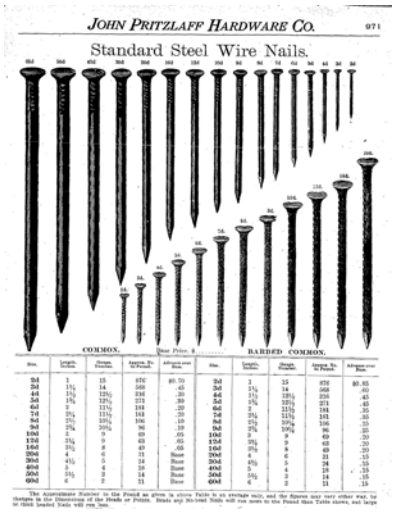


Figure 5.69. Page from the 1907 Pritzlaff Hardware Catalog showing wire nails for purchase.

Table 5.23. Nail Types by Coffin Size

Coffin Size	Cut	Finishing	Wire
Juvenile	1	6	181
Adult	2	0	171
Total	3	6	352

Table 5.24. Screw Types by Coffin Size

Coffin Size	Wood	Handle	Thumb
Juvenile	122	0	1
Adult	44	2	1
Total	166	2	2

Screws

Three types of screws were identified during stabilization and analysis for use during coffin construction (Table 5.24). All screws are machine made of iron. Screw types are identified by the design of the screw head, shaft threading, and length of the shaft. Due to poor preservation, screw head widths were not measured. Figure 5.70 illustrates assorted screws from the 1907 Pritzlaff Hardware Catalog. Most early machine made screws were threaded shafts with blunt ends (Mainfort and Davidson 2006). An 1846 patent for pointed, machine made screws increased production, and thus rapidly increased the use of the screw in construction (Howard 1989).

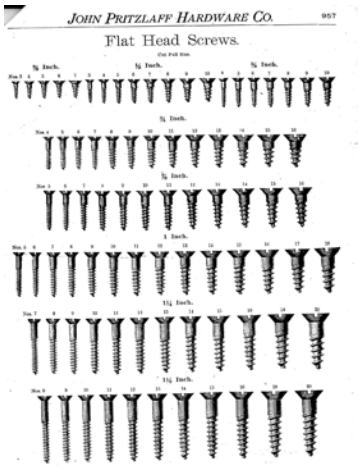

JOHN PRITZLAFF HARDWARE CO. 957
Flat Head Screws.

Figure 5.70. Page from the 1907 Pritzlaff Hardware Catalog showing screws for purchase.

Wood screws have a tapered shaft with a sharp pointed end. The most commonly observed type is a slotted countersink head atop a gimlet screw. Wood screws have a partially unthreaded shaft below the head. The wood screws recovered in 2013 were likely used to secure the coffin lid to the coffin itself or in primary construction of the coffin. Wood screws were recovered from 166 burial locations. Figure 5.71 illustrates a wood screw recovered from Burial Lot 10136.

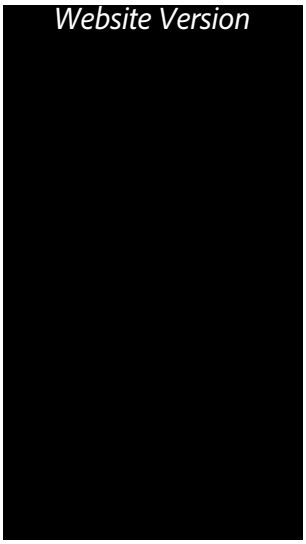


Figure 5.71. Illustration of a wood screw, Burial Lot 10136.

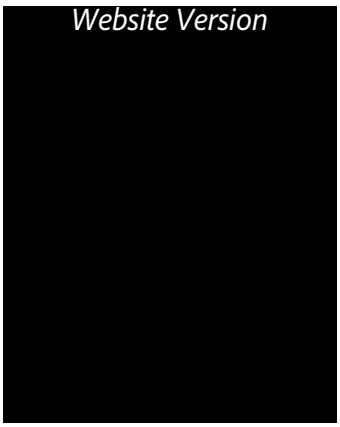


Figure 5.72. Thumbscrews, Burial Lot 10690.

Coffin handle screws are also machine made screws, which have a tapered shaft with a sharp pointed end. Coffin handle screws exhibit threading beginning directly below the head to the tip. The most commonly observed type is a slotted countersink head atop a gimlet screw, and the most commonly observed length is one inch. Coffin handle screws were solely for attachment and were not used in primary coffin construction. Coffin handle screws were recovered in absence of coffin handles from two burial locations.

Thumbscrews are designed for the purpose of finger-tightening multiple wood planks. In the funerary industry, thumbscrews were used as a decorative or ornamental coffin lid closure (Mainfort and Davidson 2006). Unlike decorative types of thumb screws that would be used with a matching escutcheon, examples recovered from the MCPFC consist of simple iron designs with large circular or triangular shaped heads with no observable decoration or knurling. All recovered thumbscrews had a partially unthreaded shaft below the head. The lack of decoration or stylistic reference did not allow for identification of thumbscrew styles in catalogs. Thumbscrews were recovered from two burial locations. Figure 5.72 illustrates a thumbscrew recovered from Burial Lot 10690.

Tacks

Single and double tacks were recovered from coffins. All tacks are non-decorative and were likely used to attach fabric or upholstery lining to the interior of the coffin. The recovered flat headed tacks are made of iron. Tacks vary in length with shank lengths ranging from ¼ inch to 11/16 of an inch. The shanks are cylindrical and taper to a pointed end. Due to poor preservation, tack head widths were not measured. Single tacks consisted of only a head atop a pointed shank. Dual tacks consisted of two connected heads atop two pointed shanks. Figure 5.73-Figure 5.74 illustrate typical tacks. The dual tacks may be part of a fragmentary tack strip intended to affix lining, lengthwise, to the coffin walls. Tacks were recovered from 149 burial locations.

Figure 5.73. Illustration of selected tacks

Figure 5.74. Selected tacks.

Coffin Handles

As Robin Lillie and Jennifer Mack have pointed out, coffin handles serve both decorative and functional purposes and are one of the most common types of mortuary hardware recovered from nineteenth and early twentieth century cemeteries (2013). This discussion of coffin handles recovered from the 2013 excavations at the MCPFC draws on coffin types defined by Richards (1997).

Given the relative homogeneous socio-economic status and the uniformity in coffin construction, Richards' study attempted to use coffin handle variability to define spatial patterning within the portion of the cemetery excavated in 1991 and 1992. However, distribution of handle varieties was not temporally informative. Since many of the handles have overlapping time spans, clusters of their use do not provide temporal indicators so much as they do indicators that differing portions of the cemetery were serviced by different coffin manufacturers. (Richards 1997). The 14 handle types recovered from the 1991 and 1992 excavations were distinguished from one another on the basis of a number of characteristics including: shape and size of the plate, number of screw holes, shape and size of the swing or pull bar, decoration (if present), and the metal from which the handle was manufactured. Figure 5.75 provides an in illustration of coffin handle morphology used in defining the coffin handle types observed.

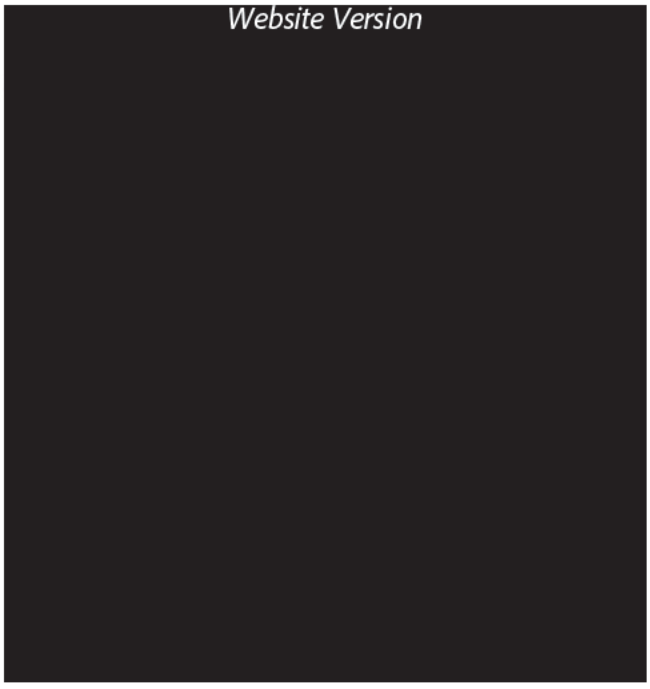


Figure 5.75. Coffin handle morphology.

Handles recovered from the MCPFC can be grouped into ten separate types using the same characteristics employed by Richards (1997). A total of 463 handles were recovered from 334 burial coffin lots (53 percent), while 298 (47 percent) burial coffin lots did not produce handles. The number of coffin handles recovered per burial lot varies from one to five. The number actually affixed to the original coffin was likely four, based on the number of coffins (66) for which all four handles were recovered still attached to the coffin wood. When considering exclusively juvenile or exclusively adult coffin size, a remarkable difference in recovered handles exists. Only 10 juvenile size coffins produced handles, representing only three percent of the total 264 juvenile lots. Conversely, 324 (88 percent) of the 368 adult sized coffins produced handles (Figure 5.76).

A sample of 196 of the total 463 recovered handles was subjected to electrolysis. In most cases, a single handle was cleaned by electrolysis, although when the handle types appeared to differ in a single burial, more than one handle was cleaned.

The sample cleaned represents 163 of the 334 (48 percent) burial lots that produced handles. The majority of handles recovered in 2013 fall within the parameters defined in 1997 for Type I and Type II handles. Table 5.25 provides a summary of the characteristics of coffin handles. Figure 5.77 illustrates the number of recovered coffin handles by type and Figure 5.78-Figure 5.82 provide illustrations and descriptions of the various types.

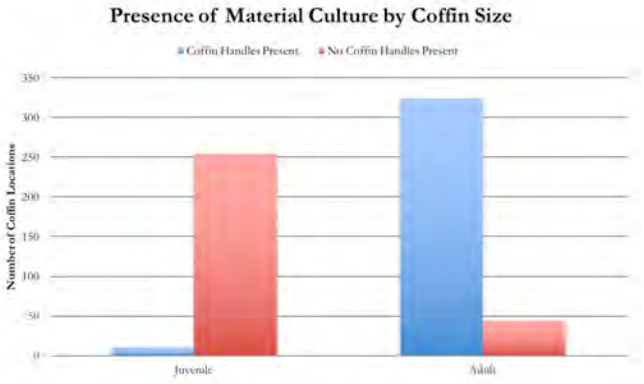


Figure 5.76. Presence of coffin handles in burials by coffin size.

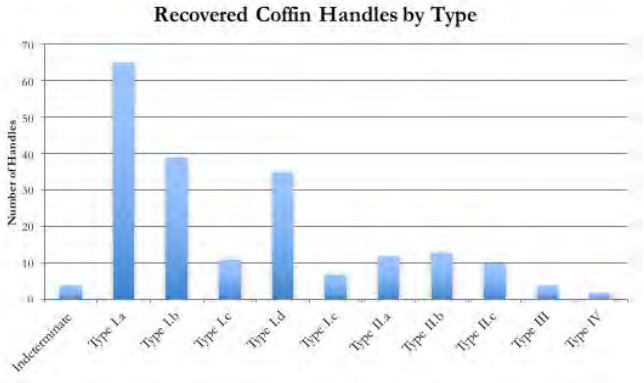


Figure 5.77. Recovered coffin handles by coffin handle type.

Table 5.25. Characteristics of Coffin Handle Types

Type	Construction	Shape	Attachment	Maker's Mark
I.a	Cast iron, japanned finish	Top semicircular, base convex	5 screws	None
I.b	Cast iron, japanned finish	Top semicircular, base convex	5 screws	None
I.c	Cast iron, japanned finish	Top semicircular, base convex	5 screws	E.C. STEARNS & CO SYRACUSE N.Y.
I.d	Cast iron, japanned finish	Top semicircular, base convex	5 screws	313
I.e	Cast iron, japanned finish	Top semicircular, base convex	5 screws	Illegible stamp
II.a	Cast iron, japanned finish	Top semicircular, base convex	4 screws	None
II.b	Cast iron, japanned finish	Top semicircular, base convex	4 screws	312
II.c	Cast iron, japanned finish	Top semicircular, base convex	4 screws	None
III	Cast iron	"T" shaped lug, decorated swing	2 bolts	None
IV	Lead	Two lugs, decorated swing	4 screws	None

Type 1.a

Type I.a handles are manufactured of cast iron with japanned finish. The bail consists of two solid pieces, a plate and a swing bar. The top of the plate is semicircular, while the base is convex. The plate has a height of 3.47 inches and a width of 4.09 inches. The average thickness of the plate is 0.13 inches. The bar has a height of 2.23 inches and a width of 4.46 inches. The maximum thickness of the bar is 0.34 inches at the base and 0.59 at the top. The plate was attached to the coffin exterior by five screws, three on the top half and two on the bottom half of the plate. The screws had an average diameter of 0.47 inches and an average length of 0.78 inches. In cross section the center of the plate displays a semicircular bulge with a diameter of 0.62 inches. A flange on each side of the bulge allows the bar to be pulled up only half way between the top and the bottom of the bail. This handle is very similar to Type I defined in Richards (1997) but varies slightly in size.

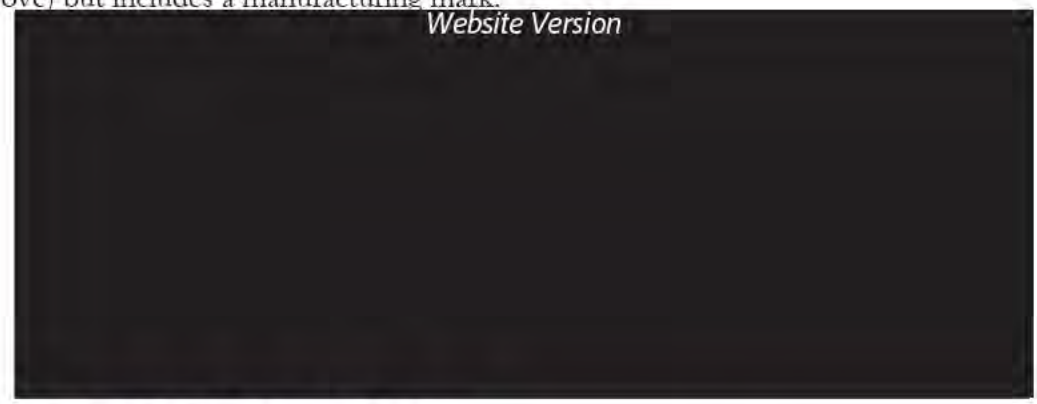
Type I.b

Type I.b handles are manufactured of cast iron with japanned finish. The bail consists of two solid pieces, a plate and a swing bar. The top of the plate is semicircular, while the base is convex. The back of the plate is beveled vertically through the center and around the edge of the plate, creating a semi-hollow back. The plate has a height of 4.05 inches and a width of 4.40 inches. The average thickness of the plate is 0.19 inches. The bar has a height of 2.38 inches and a width of 4.86 inches. The maximum thickness of the bar is 0.39 inches at the base and 0.59 at the top. The plate was attached to the coffin exterior by five screws, three on the top half and two on the bottom half of the plate. The screws had an average diameter of 0.47 inches and an average length of 0.78 inches. In cross section the center of the plate displays a semicircular bulge with a diameter of 0.66 inches. A flange on each side of the bulge allows the bar to be pulled up only half way between the top and the bottom of the bail. This handle is very similar to Type I defined in Richards (1997), and to Type 1.a (above), but differs slightly in size.

Figure 5.78. Coffin handle types: above, Type I.a; below, Type I.b.

Type I.c

Type I.c handles are manufactured of cast iron with japanned finish. The bail consists of two solid pieces, a plate and a swing bar. The top of the plate is semicircular, while the base is convex. There is a lipped edge around the outer edge on the front of the plate and screw holes. There is a manufacturer's stamp "E.C. STEARNS & CO SYRACUSE N.Y" located on the front top half of the plate, as well as, a "130" stamp located on the backside of the bottom half of the plate. The plate has a height of 3.32 inches and a width of 3.95 inches. The average thickness of the plate is 0.13 inches. The bar has a height of 2.20 inches and a width of 4.33 inches. The maximum thickness of the bar is 0.34 inches at the base and 0.68 at the top. The plate was attached to the coffin exterior by five screws, three on the top half and two on the bottom half of the plate. The screws had an average diameter of 0.43 inches and an average length of 0.82 inches. In cross section the center of the plate displays a semicircular bulge with a diameter of 0.59 inches. A flange on each side of the bulge allows the bar to be pulled up only half way between the top and the bottom of the bail. A Type I.c handle falls within the variation defined for Type 1.a (above) but includes a manufacturing mark.



Type I.d

Type I.d handles are manufactured of cast iron with japanned finish. The bail consists of two solid pieces, a plate and a swing bar. The top of the plate is semicircular, while the base is convex. There is a manufacture's stamp "313" located on the backside of the bottom half of the plate. The plate has a height of 3.47 inches and a width of 4.09 inches. The average thickness of the plate is 0.13 inches. The bar has a height of 2.23 inches and a width of 4.46 inches. The maximum thickness of the bar is 0.34 inches at the base and 0.59 at the top. The plate was attached to the coffin exterior by five screws, three on the top half and two on the bottom half of the plate. The screws had an average diameter of 0.47 inches and an average length of 0.78 inches. In cross section the center of the plate displays a semicircular bulge with a diameter of 0.62 inches. A flange on each side of the bulge allows the bar to be pulled up only half way between the top and the bottom of the bail. A Type I.d handle falls within the variation defined for Type 1.d (above) but includes a manufacturing mark.

Figure 5.79. Coffin handle types: above, Type I.c; below, Type I.d.

Type I.e

Type I.e handles are manufactured of cast iron with japanned finish. The bail consists of two solid pieces, a plate and a swing bar. The top of the plate is semicircular, while the base is convex. There is an unknown manufacture's stamp located on the backside of the bottom half of the plate. The plate has a height of 3.72 inches and a width of 4.52 inches. The average thickness of the plate is 0.14 inches. The bar has a height of 2.24 inches and a width of 4.46 inches. The maximum thickness of the bar is 0.35 inches at the base and 0.59 at the top. The plate was attached to the coffin exterior by five screws, three on the top half and two on the bottom half of the plate. The screws had an average diameter of 0.47 inches and an average length of 0.78 inches. In cross section the center of the plate displays a semicircular bulge with a diameter of 0.68 inches. A flange on each side of the bulge allows the bar to be pulled up only half way between the top and the bottom of the bail. A Type I.e handle falls within the variation defined for Type 1.a (above) but includes a manufacturing mark.

Type II.a

Type II.a handles are manufactured of cast iron with japanned finish. The bail consists of two solid pieces, a plate and a swing bar. The top of the plate is semicircular, while the base is convex. The back of the plate is beveled vertically through the center and around the edge of the plate. The plate has a height of 2.95 inches and a width of 3.54 inches. The average thickness of the plate is 0.12 inches. The bar has a height of 2.04 inches and a width of 3.83 inches. The maximum thickness of the bar is 0.32 inches at the base and 0.47 at the top. The plate was attached to the coffin exterior by four screws, two on the top half and two on the bottom half of the plate. The screws had an average diameter of 0.47 inches and an average length of 0.77 inches. In cross section the center of the plate displays a semicircular bulge with a diameter of 0.59 inches. A flange on each side of the bulge allows the bar to be pulled up only half way between the top and the bottom of the bail. The flange extends past the bulge and has a diameter of 0.70 inches. Type II.a handles are very similar to Richards (1997) Type II handle type with variations in measurements.

Figure 5.80. Coffin handle types: above, Type I.e; below, Type II.a.

Type II.b

Type V handles are manufactured of cast iron with japanned finish. The bail consists of two solid pieces, a plate and a swing bar. The top of the plate is semicircular, while the base is convex. There is a manufacturer's stamp "312" located on the backside of the bottom half of the plate. The plate has a height of 2.96 inches and a width of 3.48 inches. The average thickness of the plate is 0.13 inches. The bar has a height of 2.02 inches and a width of 3.81 inches. The maximum thickness of the bar is 0.31 inches at the base and 0.47 at the top. The plate was attached to the coffin exterior by four screws, two on the top half and two on the bottom half of the plate. No screws could be measured, due to fragmentation. In cross section the center of the plate displays a semicircular bulge with a diameter of 0.59 inches. A flange on each side of the bulge allows the bar to be pulled up only half way between the top and the bottom of the bail. The flange extends past the bulge and has a diameter of 0.70 inches. Type II.b handles falls within the variation of Type II (above) but include a manufacturing mark.

Type II.c

Type II.c handles are manufactured of cast iron with japanned finish. The bail consists of two solid pieces, a plate and a swing bar. The top of the plate is semicircular, while the base is convex. The back of the plate is beveled vertically through the center and around the edge of the plate, creating a semi-hollow back. The plate has a height of 3.01 inches and a width of 3.29 inches. The average thickness of the plate is 0.18 inches. The bar has a height of 2.02 inches and a width of 3.83 inches. The maximum thickness of the bar is 0.32 inches at the base and 0.55 at the top. The plate was attached to the coffin exterior by four screws, two on the top half and two on the bottom half of the plate. No screws could be measured, due to fragmentation. In cross section the center of the plate displays a semicircular bulge with a diameter of 0.61 inches. A flange on each side of the bulge allows the bar to be pulled up only half way between the top and the bottom of the bail. This handle is very similar to Type II defined in Richards (1997) and to Type II.a (above) but differs slightly in size.

Figure 5.81. Coffin handle types: above, Type II.b; below, Type II.c.

Type III

Type III handles are manufactured of cast iron. The bail consists of two solid pieces, a single lug and a swing bar. The lug is cross-shaped, a single piece with both vertical and horizontal extensions. This coffin handle showed heavy corrosion, however, elements were clear enough to discern stylistic motifs. Both the lug and the bail displayed floral patterns. The lug has a height of 2.75 inches and a width of 2.75 inches. The average thickness of the lug is 0.19 inches. The bar has a height of 2.75 inches and a width of 4.25 inches. The maximum thickness of the bar is 0.31 inches at the base and 0.94 at the top. The lug was attached to the coffin exterior by two bolts, one on the top half and one on the bottom half. The bolts had an average diameter of 0.31 inches at the shaft and 0.59 inches at the head. The average length of the bolts was 0.82 inches. In cross section the center of the lug displays a semicircular bulge with a diameter of 0.82 inches. A flange on each side of the bulge allows the bar to be pulled up over half way between the top and the bottom of the bail, a rotation greater than 75 degrees.

Type IV

Type IV handles are manufactured of a non-ferrous white metal, probably lead. The bail consists of three solid pieces, two lugs and a swing bar. The lug is diamond shaped with recessed trapezoidal depressions along each side. Decorative elements were clear enough to discern stylistic motifs. Both the lug and the bail displayed floral or wave-like design. The lug also included a linear pattern separating floral designs diagonally. Depicted in the center of the swing bar are two hands embracing in a handshake. The back of the lug is beveled around the edge of the lug, and recessed at the bulge, creating a hollow back design. The lug has an estimated height of 3.62 inches and a width of 3.77 inches. The average thickness of the lug is 0.15 inches. The bar has a height of 2.12 inches and an estimated width of 4.25 inches. The maximum thickness of the bar is 0.66 inches at the base and 0.70 at the top. The lug was attached to the coffin exterior by two screws, one on the top half and one on the bottom half of the lug. No screws were recovered with this handle type. In cross section the center of the lug displays a rectangular bulge with a diameter of 0.66 inches. The bulge allows the bar to be pulled only half way between the top and the bottom of the bail.

Figure 5.82. Coffin handle types: above, Type III; below, Type IV.

The coffin handles recovered from the 2103 MCPFC excavations exhibit far less variability than those recovered in 1991 and 1992. Most of the 2013 assemblage fits comfortably within the Richards 1997 Type I and Type II handle types. The Richards 1997 Types X, XI, XII, XIII and IX represent decorative coffin handles and these types compare favorably, but not exactly, to the 2013 defined Types II and IV. No examples of the Richards 1997 Types III, IV, V, VI, VII or IX have been identified from the 2013 handle assemblage. These 1997 types represent a wider range of box handle types. These types likely represent the range of different service providers manufacturing coffins, and are not temporal indicators.

The coffin handle assemblage from the 2013 excavations might provide a little more temporal information albeit of an indirect nature. As mentioned earlier, the construction of coffins to be used at the Poor Farm was provided by contract with private undertakers. This was the case until the turn of the last century when coffin construction was undertaken by inmates of the Almshouse and the Insane Asylum. This was the result of recommendations that "the contract system of burying paupers be abolished. That bodies be buried by the superintendent of the county farm, who shall furnish all coffins (MJ 13 February 1884)". The first instance documenting construction of coffins by residents is found in the 1906 Annual Report of the Milwaukee County Poor Farm/Almshouse which mentions the use of institutionalized residents for labor activities. A reported 22 coffins were made by inmates and furnished to the poor of Milwaukee County between October 1, 1905 and September 30, 1906 (Annual Report 1906). Whether it took 11 years to implement the 1884 recommendations or whether the recommendations went into effect immediately is not known. Nonetheless, the lack of variability in coffin handles suggests that perhaps a single entity, Milwaukee County, was responsible for coffin manufacture. That would suggest that the portion of the cemetery excavated in 2013 postdates February of 1884.

While the vast majority of coffins and coffin hardware represents the desire on the part of Milwaukee County officials to be fiscally frugal as well as the competitive efforts of those bidding on the contracts to supply the county with burial containers and conveyance, there are a few exceptions to the stark nature of the material culture. The thumbscrews illustrated in recovered from Burial Lot 10690 and illustrated in Figure 5.83 are likely Eastlake Victorian cast iron thumb screws dating to the later (1860-1901) Victorian

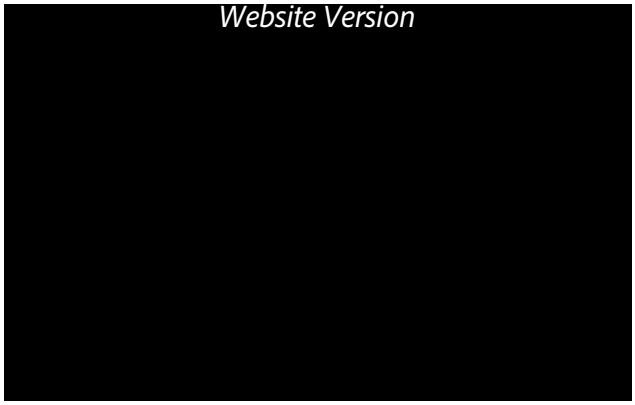


Figure 5.83. Victorian period thumbscrews.

period and represent the very few instances of actual coffin hardware (Hacker-Norton and Trinkley 1984). Similarly, the lead coffin handle recovered from Burial Lot 10759 represents decorative mortuary hardware and is not typical of the hardware associated with MCPFC coffins.

The most unique outlier, however, is the metal coffin recovered from Burial lot 10143. When exposed during excavation, the coffin, oriented east west, was tilted on a 15 percent angle to the north. The lid, intended to cover the glass viewing plate, was found vertical approximately five inches north of the coffin. A glass viewing pane from the lid had fallen into the interior of the coffin. Soil and roots were observed inside the coffin.

The individual's head was to the east, an orientation unusual for this cemetery. No additional material culture was recovered from this burial.

The individual is estimated to be between six and eight postnatal months based on dental age. Poor health is suspected on the basis of lytic lesions on the right and left temporals. Additionally there is evidence for a craniotomy based on cut marks on both parietals along the sagittal suture, a parasagittal saw mark on the right anterior frontal, and a transverse saw mark superior to the supra-orbital tori. This was a sick child who was the subject of postmortem investigation.

The coffin itself is made from several pieces of cast iron including a bottom, a top, and a lid meant to be placed over the glass viewing plate. The coffin is "bathtub" shaped and the viewing plate is rectangular. The coffin measures 30 inches long by 11 inches wide. The bottom is 6.5 inches high and the total height with the top affixed is 7.5 inches. The opening for the viewing plate is 24 inches long by 5.75 inches wide. The glass itself is 7 inches by 25 inches and

fits into the lid along the metal ledge on the top. There are four decorative handles, two of which remain attached. Figure 5.84 illustrates a decorative handle from the coffin while Figure 5.85-Figure 5.88 illustrate different views of this coffin.

Figure 5.84. Coffin handle detail, Burial Lot 10143.

Figure 5.85. Metal coffin, superior oblique view, Burial Lot 10143.

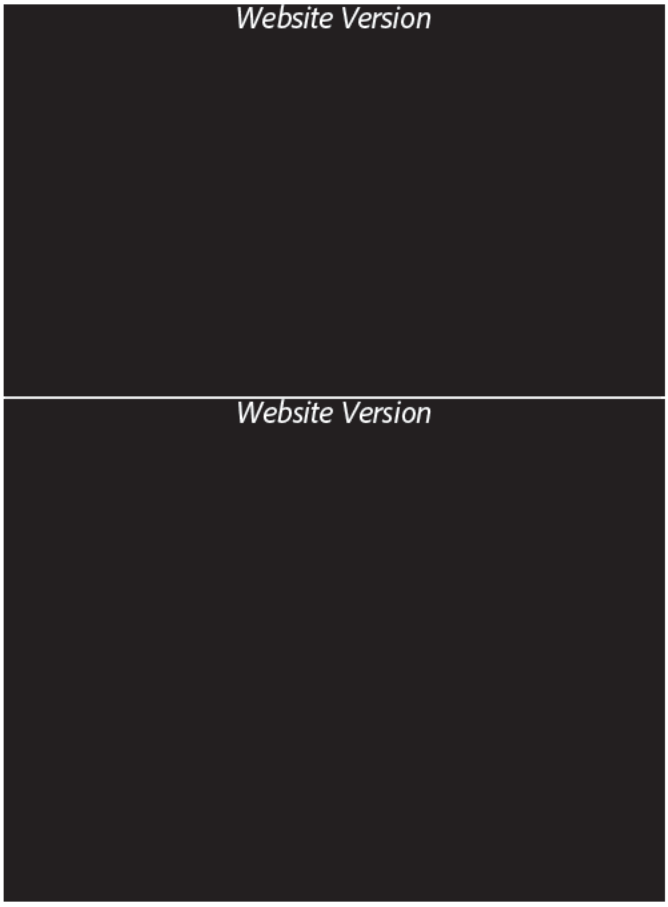


Figure 5.86. Planview of metal coffin before and after removal of glass viewing plate, Burial Lot 10143.

Figure 5.87. Metal coffin and lid, Burial Lot 10143

Figure 5.88. Metal coffin, oblique view, Burial Lot 10143.

A cast iron coffin was first patented 1848. The design changed from elaborately decorated sarcophagus shaped containers to a more plainly decorated torpedo shape (Bybee 2003). In comparison to wood coffins, these containers were very expensive. Mass production of these coffins began by the 1860s, and in his May 5, 1863, patent application, Martin H. Crane of Cincinnati, Ohio, states, " My invention has for its object, first, the portability of metallic burial cases, so that the same may be compactly packed for transportation, and thereby facilitate their general introduction" (Letters of Patent No. 38,433, dated May 5, 1863). Similarly, dealers from other cities began also to obtain patents on their modifications to metal coffins.

However, Crane, Breed and Company, with offices in both Cincinnati and New Orleans, were a major distributor of these metal coffins (Allen 2002).

An 1858 Crane, Breed and Company description is similar in design to the coffin recovered from Burial Lot 10143. The coffin is described as "two parts, the upper and the lower. These are fastened together by screws passing through the flanges, which border the line of intersection. Between them is deposited cement, in a groove, which runs around the lower flange" (Crane, Breed and Company catalog 1858:9). Figure 5.89 illustrates this method of construction as exhibited by Burial Lot 10143.

An 1865 Crane, Breed and Company catalog lists a similarly sized coffin (No.1) available with or without ornamentation (Figure 5.90). The Lot 10143 coffin does not appear in any of the Crane, Breed and Company catalogs available to the authors. Perhaps more of a mystery than that of its manufacture is the presence of such an elaborate coffin in this cemetery. Burial Lot 10143 was recovered from the northern juvenile section of the cemetery towards the western end. It was surrounded by the simple wooden coffins that are characteristic of the rest of the interments in the cemetery. Exactly how a child whose family could not provide a traditional cemetery interment ended up in a metal coffin will likely never be known.

The coffin itself, while probably out of style and common use during the period of the interments in this area of the cemetery, nonetheless represented a considerable investment. The displacement of the lid meant to protect the viewing glass suggests either the top was never affixed or it was removed prior

Figure 5.89. Construction method, Burial Lot 10143..

Figure 5.90. Pages from a Crane, Breed and Company coffin catalog.

to burial and tossed in the burial shaft. The slightly skewed orientation of the coffin in the burial shaft also suggests a haphazard placement. The little attention to burial contrasts with the substantial investment of the coffin and leads to speculation that someone was thoughtful enough to provide the coffin, but did not attend the actual interment.

Discussion

The 2013 excavations identified two broad categories of material culture as follows:

1. Material culture directly associated with an individual's burial may include items that have been purposefully associated/buried with an individual or may have just been on the person at the time of death and subsequent burial. Items considered grave goods can be placed into one of two major categories: clothing or personal items.

2. Material culture indirectly associated with an individual's burial may be related to discard or may indicate accidental inclusions. Such material culture potentially relates to an identity generally but not necessarily individually. Generally, the items included in this category are understood as relating to the pathology department on the Milwaukee County Grounds, the regional medical schools, or the Milwaukee County Coroner's office. These items of material culture are grouped under the heading Medical and Hospital that includes autopsy tools, research items, and medical waste.

Finally, a third class of artifacts that includes items that don't fit exclusively into either grave goods or grave inclusions is denoted as utilitarian. The behavior associated with these items of material culture is not easily assignable to either mortuary ritual or disposal, neither are the items themselves easily assigned to identities. Some items may have been found on the body of the deceased and thus included in the individual's burial. Other items of material culture may have been placed in a coffin inadvertently as a result of behavior of the undertaker or other individual responsible for conducting the burial.

Figure 5.91 provides a map of the categories of material culture by burial location. Clothing is the most common material culture class (274 burial locations), followed by medical and hospital (114 burial locations), personal (80 burial locations), and utilitarian (28 burial locations).

This study of material culture from the 2013 excavation partially supports the findings of the material culture study of the 1991 and 1992 (Richards 1997) excavations that determined three categories of adults (institutional residents, those from the coroner's office, and community poor) buried in the MCPFC. While this study utilizes a more complex set of classifications, two of the three 1997 classes

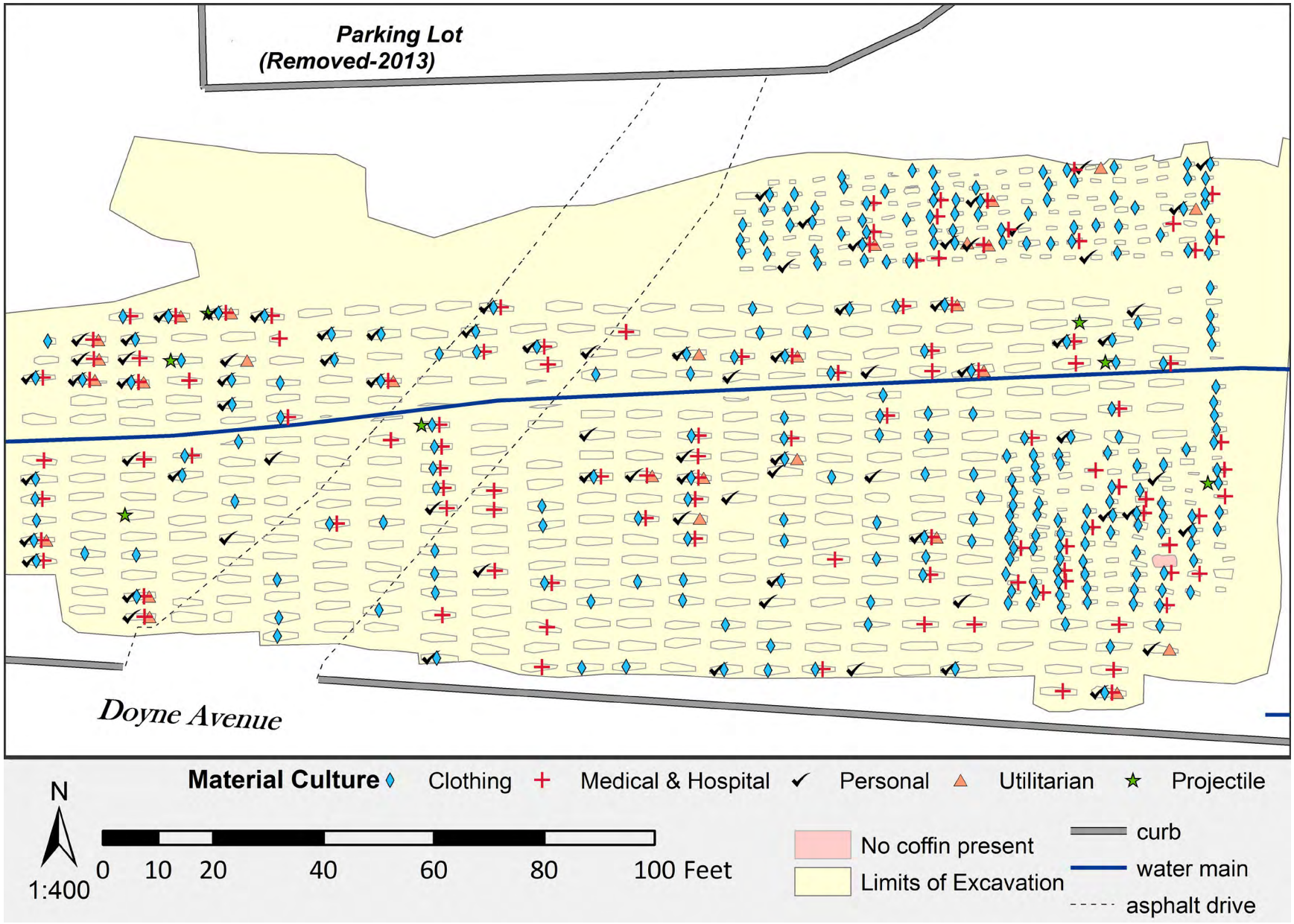


Figure 5.91. Material culture categories by burial location.

of residents can be correlated with the large material culture classes used here. Category II, those that were sent from the Coroner's office and Category III, the community poor, are roughly commensurate with the clothing and personal items categories respectively. The 1997 Category I, those who died while institutional residents, may be represented by the Medical and Hospital category or by the absence of material culture altogether. Figure 5.92 compares the 1997 categories to the results of the 2013 analysis.

Another category was identified as a result of this study: individuals who may have either died as residents or been sent from the Coroner's office BUT who were used as cadavers by either the Milwaukee County Hospital or the medical college associated with the hospital. The material culture associated with these individuals includes bandages as well as other medical waste. The four categories can be summarized as follows:

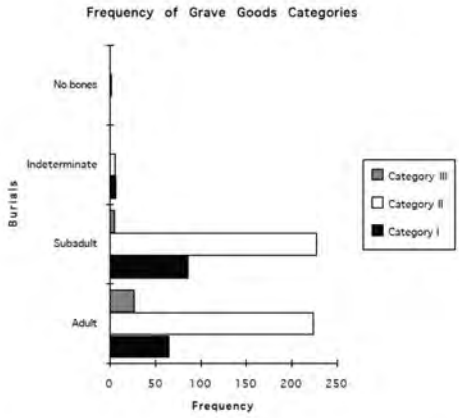


Figure 116: Frequency of Category I, Category II and Category III interments

*From Richards 1997 p. 273

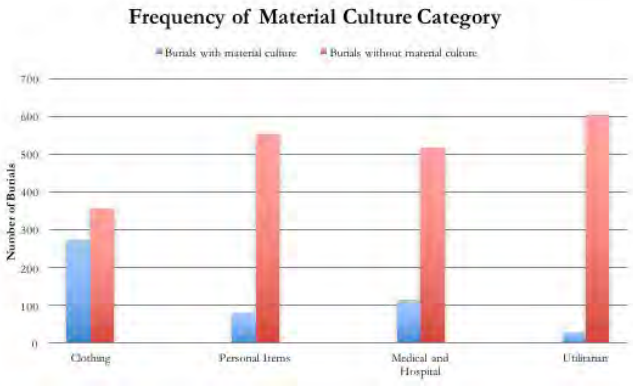


Figure 5.92. Comparison of grave good categories at the MCPFC: above, 1997; below, 2013.

1. Those who died as residents likely to be buried in shrouds secured by pins.

2. Those who may have died as residents or elsewhere but who were used for medical purposes either by local medical colleges or by the Milwaukee County Hospital. These individuals may be buried with Medical and Hospital Items as well as miscellaneous items disposed of along with the body (utilitarian items).

3. Those buried in the cemetery via the coroner's office as unclaimed or unidentified individuals who were NOT used for medical purposes – these individuals may be buried in clothing with a variety of modest personal items.

4. Community Poor who could not afford a burial but for whom family was a part of the burial ritual and whose family may have continued to visit the gravesite. These individuals may be buried with more personal items.

It is clear that these artifact categories are not mutually exclusive. Residents who died of old age or who were of little medical interest are likely identifiable through minimal material culture while those who are community poor may be the most elaborate (on a very modest scale) with regard to material culture. Exactly who may have been of interest to the medical schools or the County Pathology department and who may have been subject to a simple coroner's inquest and buried as unknown or unclaimed is unclear and the two populations obviously overlapped.

These burials were carried out by Milwaukee County officials as part of a county mandated and county funded program. Certainly the identity of the individuals can be understood at least in part as being constructed or negotiated by the community rather than the individual. The "new social roles played in death" (Goldstein et all 2012) that the deceased buried in the MCPFC had negotiated for them by the community can be understood through the material culture found buried with and along side them.

Institutional deceased, community poor or unidentified, or medical cadavers are understood and negotiated by the philanthropic community, the legal community, or the medical community and reflected in the stories of Lizzie Herman, poor blind Bob, Ester Lopez, or Maria Lammens.

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CHAPTER 6. OSTEOLOGICAL ANALYSIS

by Catherine R. Jones, Emily Epstein, and Patricia B. Richards

This chapter presents the results of the osteological analyses completed for the individuals recovered from the 2013 excavations of the Milwaukee County Poor Farm Cemetery, Milwaukee, Wisconsin. The study has two goals. The first is to document the demographic parameters, stature, pathologies, and other physical conditions of these individuals. Our second goal is to provide the data necessary to preserve and/or recover the individuality of as many people recovered as a result of the 2013 excavations as is possible. While we may not tell each story here, and there are surely some for whom the story can never be told, it is hoped that conducting this analysis is the first step toward such a storytelling. This chapter presents the osteological analysis of the adults (aged 20 and older) recovered from the Milwaukee County Poor Farm Cemetery during the 2013 excavations, followed by the osteological analysis of juveniles (those under the age of 20).

Adult Osteology

During the 2013 excavations at the Milwaukee County Poor Farm Cemetery, adult and juvenile coffins were recovered containing single and multiple burials. When more than one individual or more than one set of non-individualized human remains were present in a single coffin, individuals were, when possible, assigned individual lot numbers. This resulted in three recovery contexts: a single individual in a single coffin assigned a unique lot number regardless of the completeness of the individual; a mixed context where at least one individual was more than 50 percent complete but where other remains could be individualized and assigned multiple lot numbers and a commingled context. Commingled lots refer to those skeletal assemblages that contain the remains of more than one individual – established through the presence of element duplication or robust morphological disparity – but not more than 50 percent of any one individual. "Mixed burial" includes a variety of combinations of individual and commingled lots in a single coffin. Used in practice, for example, the mixed burial of Lots 10733, 10909, and 10910, all contained in a single coffin, represents two individual lots and one commingled lot (see Figure 6.1).

Except in the case of disturbance from earlier construction, single adult burials were largely complete. The sternum was the most frequently absent element. Most of the individuals recovered from mixed burials exhibited 60-100 percent skeletal completeness. However, this was largely dependent

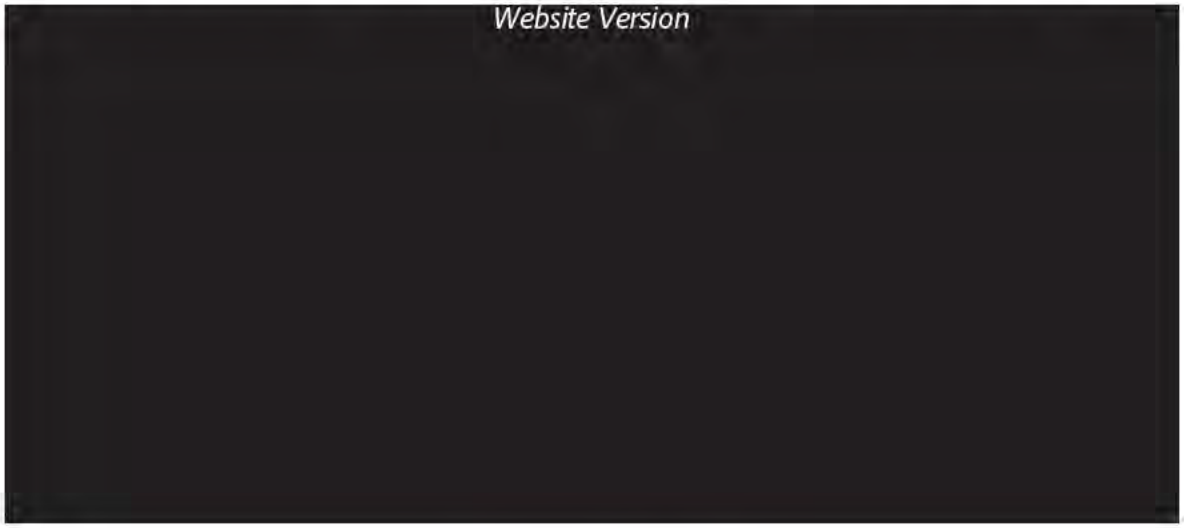

Figure 6.1. Mixed burial context: the Coffin Lot 10733 contains the mixed burial of individual Lots 10733 (purple) and 10909 (red), as well as the commingled Lot 10910 (green).

on burial order. Burial order refers to the temporal sequence in which individuals were placed in a shared coffin. The primary individual in a coffin is the one who was placed in the coffin first. In most instances this was evident from context. With regard to completeness, for example, secondary (placed second in the coffin) and tertiary (placed third in the coffin) individuals were much more likely to present partial skeletal completeness than were primary individuals. Secondary and tertiary individuals were also more likely to have been disarticulated when interred. Individuals interred in mixed burials exhibited a notable lack of associated crania. In some cases, vertebrae abutting one end of the coffin indicated the head was removed prior to placement in the coffin (as in the mixed burial of Lots 10542, 10587, and 11047). In other cases, a distinct space was identified between the cervical vertebrae and the coffin wall (as in the mixed burial of Lots 10219 and 10515). In these cases, it's not possible to know when the head was removed from the skeleton. The mixed burial containing Lots 10322 and 10451 was notable among mixed burials. This coffin included two skulls, one associated with each of the individuals interred, as well as the remains of a complete adolescent (Lot 10322) placed below the remains of an adult.

The commingled lots are represented by a variety of skeletal elements, ranging from relatively complete disassociated limbs to cut and fragmented sections of bone. Most commonly represented are partial body segments (i.e., the articulated vertebrae and ribs of a torso) and limbs as in Lot 10295. A few cases, such as Lot 11031, almost overfilled the coffin with discrete bone assemblages. Several commingled lots contain related element categories such as calvaria (Lot 10410), arms (Lot 10905), or joints (Lot 10971). In other commingled lots the human remains are unrelated, as in Lot 10409, which contains segmented leg bones and a fragmented mandible. Twelve commingled lots contain no individuals at all, although at least one human bone was recovered from each of these twelve burials. These burials also contained a wide range of grave inclusions in the form of medical tools, containers, and trash. The majority of commingled lots contain bone from adults with the exception of Lot 10836, which contains, among other remains, a pair-matched set of saw-cut adolescent femora. Through analysis these were re-associated with Lot 10881, an adolescent interred in a mixed burial and recovered with a metal key in the chest area. This case suggests that remains from single individuals may be interred in multiple locations in this section of the cemetery.

Numerical Summary of Excavated Lots

Of the 715 recovered lots containing human remains, 550 lots contain the remains of single individuals. The remaining 165 lots were recovered as part of 74 mixed burial locations and include 115 individual lots and 50 commingled lots. Nine of the mixed burial locations contain the remains of multiple juveniles (19 individuals in all) while eight mixed burial locations contain the combined remains of adults and juveniles (20 individuals); the remaining 57 mixed burial locations contain the remains of 76 adult individuals. MNI calculations show that the commingled lots contain remains representing a minimum of 166 additional adults. Six hundred sixty-five individuals were identified in the field and laboratory.

Methods

A complete discussion of methods can be found in Chapter 3. This discussion is a summary of methods specific to adult burials. Following excavation, human remains recovered from each burial were placed into labeled paper bags and boxes and transported to the University of Wisconsin-Milwaukee's Archaeological Research Laboratory (UWM-ARL). Before osteological analysis, all remains were cleaned and stabilized. All lots were processed individually, and field labels accompanied the elements through each stage of stabilization to maintain provenience and avoid intermixing. Technicians carefully removed adherent soil and material from the remains with wooden skewers, toothbrushes, and water, taking care to avoid submerging the bone. Remains were then placed into trays and allowed to air dry in a temperature-controlled room. Following stabilization, all remains were placed into labeled curatorially-stable packaging, and housed in the UWM-ARL curation facility to await analysis. When several skeletons were recovered from a mixed context, the remains were first separated into individuals and then fully analyzed. Osteological analysis was conducted by the Principal Investigator as well as staff and trained students with a strong background in human osteology.

The adult osteological analysis followed several well-established methods. An osteological and dental inventory was completed for each skeletal lot. Sex determination was performed for cranial non-metric traits as well as postcranial metric and non-metric traits. Cranial nonmetric traits were scored based on definitions in Acsádi and Nemeskéri (1970) and Drew (2013). Postcranial metrics were taken following

Steele (1976) and Stewart (1979). Postcranial nonmetric traits were scored based on definitions in Phenice (1969), Walker (2005), Milner (1992), and Drew (2013). Age estimates were based on one or more of the following methods: cranial suture closure (Meindl and Lovejoy 1985); morphology of the pubic symphysis (Brooks and Suchey 1990; Todd 1920; Todd 1921); and morphology of the auricular surface of the innominate (Lovejoy et al. 1985; Osborne et al. 2004). Final age estimates were determined based on definitions in Drew (2013). Stature was estimated using formulae applicable to long bone lengths according to definitions in Ousley (1995).

Preservation and Burial Context

All excavated remains were skeletonized. Adipocere and decomposed soft tissue, principally brain tissue, were recovered in 61 lots. Though this brain tissue was often recovered inside intact crania, it does not appear to have had a detrimental effect on the surrounding bone. Hair was recovered in seven single adult lots. Though some of this hair was recovered in association with a cranium, none was recovered in quantity enough to observe length or intentional style. Small clumps of hair were recovered in six commingled lots and may have originated from utilitarian sources such as the stuffing of pillows.

Bone preservation ranged from poor to very good, with postmortem fracturing particularly prevalent in areas of the skeleton with high trabecular content. Several burials had been disturbed by previous construction at the cemetery. The installation of a water pipe bisected the northern half of the site and several pipe and cable installations had disturbed burials along the southern extent. Figure 6.2 shows the range of burial context and preservation present at the site, from completely waterlogged (Lot 10353) to disturbed (Lot 10752) to well preserved (Lot 10704).

Repetitive incursions of ground water had a significant effect on 204 adult burials; this was particularly damaging to the cortex of long bones, which showed a good deal of lamellar exfoliation and degeneration of the epiphyseal ends. Most of the skeletal and dental remains showed stains ranging in color from the common brown, red, black, and gray that are a result of iron-rich soils and natural decomposition, to the rarer blue and green stains produced by long-term exposure to metal (such as safety pins or coffin hardware). In 51 adult cases, this long-term contact with metal produced a circular or ovoid area of corrosion on the periosteum. The remains of one old adult male (Lot 10301) provided an unusual case of striped purple-red stains on the tibiae (Figure 6.3),

Figure 6.2. Range of burial preservation: a, Lot 10353, the burial of a male of indeterminate age was highly inundated by water bailed continually throughout excavation; b, Lot 10752, the burial of an indeterminate adult truncated on the north side by water pipe construction, removing the left half of the skeleton and coffin; c, Lot 10704, the well-preserved burial of a middle adult male.

Figure 6.3. The stained tibiae from Lot 10301, an old adult male. This may be the result of textile dye (medial view).

which are of unknown etiology but may be the result of prolonged exposure to pigmented clothing or textiles.

Age Determination

Determination of adult age category was based on systematic examination of the condition of the pubic symphysis and auricular surface, as well as a rating of cranial suture closure. The completed analysis determined that the excavated sample from the Milwaukee County Poor Farm Cemetery comprises 381 (57.3%) adults (over the age of 18) and 284 (42.7%) juveniles. Table 6.1 illustrates the varied single and mixed recovery contexts for adult and juvenile burials.

Age categories for adults include the following: 40 young adults (18-34.9 years); 174 middle adults (35-49.9 years); 84 old adult (50 years or older); and 83 of indeterminate age. The mean age for adults (age 20 or older) is 44.36 years.

Table 6.1. Recovered Lots by Burial Type.

Lot Designation		Number
Single Individuals (550/77%)		
	Single Adult Lots	294
	Single Juvenile Lots	256
Mixed Burials (115/16%)		
	Adults in Mixed Burials	87
	Juveniles in Mixed Burials	28
Commingled Remains (50/7%)		
	Discrete Commingled Lots	12
	Commingled Lots in Mixed Burials	38
Total		715

Sex Determination

The attribution of sex for adult individuals was based on systematic examination of non-metric characteristics of the cranium and pelvis, and metric characteristics of the humerus, femur, and talus. As sexually dimorphic characteristics are not fully formed until well after the onset of puberty, sex was not assigned for juveniles. Sex was estimated for 381 recovered single individuals over the age of 20 and these included: 267 males (70 %), 57 females (15 %), and 57 individuals of indeterminate sex (15 %). Of the adults for whom sex could be determined, 82 percent are males and 18 percent are females.

Males and females in the sample share the same average life span; male ages at death range from 20.25 to 60 years with a mean of 44.62 years and female ages range from 21.7 to 57.85 years with a mean age of 44.13 years. Sixty percent of the males died by the time they were middle-aged adults, while 53 percent of the females died by the same age. Table 6.2 illustrates the distribution of age at death in relation to sex in the sample.

Age and Sex in Mixed Burials

Determining age for the remains in the commingled lots was made difficult due to the lack of complete crania and innominates. Six commingled lots (Lots 10378, 10610, 10872, 11035, 11043, and 11052) contain bone with age markers complete enough to analyze and each adult age category was represented. Sex determination for the remains in the commingled lots was not as difficult as age, but was complicated by the same factors. Nineteen commingled lots contain the remains of more than one sex, while 10 contain remains with only male markers and none exhibit only female markers. Figure 6.4 illustrates the

Table 6.2. Distribution of Adult Age at Death.

Sex/Age Group		Number
Adult Females (57/15%)		
	Young Adult (18-34.9 years)	5
	Middle Adult (35-49.9 years)	25
	Old Adult (50+ years)	12
	Indeterminate Age	15
Adult Males (267/70%)		
	Young Adult (18-34.9 years)	31
	Middle Adult (35-49.9 years)	130
	Old Adult (50+ years)	67
	Indeterminate Age	39
Adult Indeterminate Sex (57/15%)		
	Young Adult (18-34.9 years)	4
	Middle Adult (35-49.9 years)	17
	Old Adult (50+ years)	7
	Indeterminate Age	29
Total		**381**

distribution of age and sex in both single and mixed burials.

Stature and Ancestry

Living stature was estimated using osteometric measurements of the left femur and tibia; when the left was not suitable for measurement, the right was substituted. Ousley's regression equations were utilized; these are derived from comparative populations of white males and females from the Terry Collection and males from World War II (Ousley 1995).

The average height for 138 male adults (derived from 57 measurements of femur and tibia and 81 measurements of one or the other) is 67.48 in. The tallest male is estimated at 76.63 ± 2.5 in (Lot 10712), and the shortest male is estimated at 62.55 ± 2.5 in (Lot 10760). The average height for 17 female adults (derived from 6 measurements of femur and tibia and 11 measurements of one or the other) is estimated at 65.79 in. The tallest female is estimated at 66.79 ± 2.4 in (Lot 10329), and the shortest female is estimated at 54.45 ± 2.4 in (Lot 10297).

Much debate accompanies the estimation of ancestry from skeletal remains in contexts outside of modern forensic investigation. For decades, anthropologists have attempted to establish sets of skeletal traits distinctive to one group or another. However these traits are not exclusive, and the expression of the associated characteristics becomes significantly more diffuse in intermixed immigrant populations. Morphological data can be gathered from various

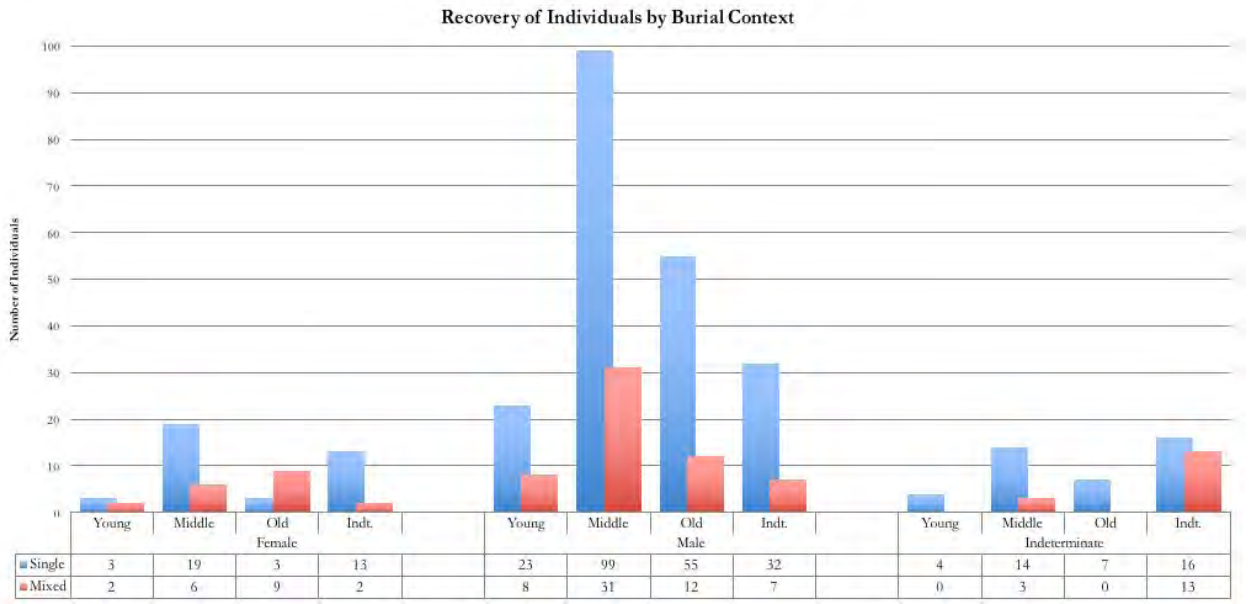

Figure 6.4. Recovery of individuals by burial context. Note the old adult female category, where mixed contexts outnumber single contexts.

measurements of crania and long bones but in the current case, there is a marked lack of temporally and culturally relevant collections for use as comparative population. An analysis of historic documents including death certificates, coroner's inquests and the *Register of Burial at Milwaukee County Poor Farm Cemetery* allows a categorization of the individuals buried in the cemetery. Information regarding place of birth serves as a proxy for ancestry. Individual ancestry determinations were not undertaken. In this approach we echo the sentiments of Michael L. Blakely who writes of the skeletal biology of individuals buried in New York's African Burial Ground, "Studies that substitute racial identification for culture and pathological assessments for history remain antithetical to these approaches. Their narrowness of scope appears to be consistent with the European Enlightenment's reductionist notions of objectivity in which 'parts' (especially biological parts) become important to understand as abstractly separable from the larger 'whole' of their interaction" (Blakely 2009:40. Blakely further argues, "The experiences of the people buried at these sites were dehumanized by the ostensible objectification of racial classification and ahistorical pathology assessments" (Blakely 2009:40).

As researchers, we too acknowledge the lessons to be learned by "moving away from racist and inhumane anthropological practices of the past" (Blakely 2009:271). This research substitutes racial classification for a focus on the social, cultural, and physical characteristics of each individual within the historical context of a Midwestern social institution. For a more in-depth discussion of demography see Chapter 2. Within the adult population, 20 percent (n=947) are listed as being born in the United States, while 58 percent (n=2734) were foreign born. Unfortunately the remaining 22 percent (n=1018) do not have place of birth listed. The bulk of the native population was born in the Midwest, with a number of transplants from New York State. Parental place of birth is provided on some death certificates, indicating that most native-born adults were children of German or Irish immigrants. This is consistent with the non-native adult population, who were predominately German (n=1474; 53.9%), Austrian (n=273; 10.0%), Irish (n=180; 6.6%) or Polish (n=136; 5.0%). The remainder represent small groups from places as varied as Peru, Hungary, Iceland, and Turkey.

Dental Pathology and Observations

Overall, the dentition was fairly well preserved for the majority of the recovered single adults in the Milwaukee County Poor Farm Cemetery. Teeth were recovered in several of the commingled burials, but as several of these were present without an associated cranium or mandible, they were likely included in the burial as a method of disposal and shed little light on the health or condition of the other bones in the lot.

Table 6.3. Distribution of Adult Conditions by Burial Context and Frequency.

Condition		Burial Context			Total
Pathologies		Single	Mixed	Cm.	
	Caries	216	17	22	255
	Linear Enamel Hypoplasia	80	1	2	83
	Calculus	232	19	17	268
	Abscess	54	2	4	60
Anomalies					
	Peg Tooth	7	1	0	8
	Supernumerary Tooth	7	0	0	7
	Extra Cusps	4	0	0	4
	Irregular Growth Patterns	7	1	0	8
Modifications					
	Filling	11	0	0	11
	Pipe Stem Grooves	5	0	0	5
	Unknown	10	0	0	10
	Bridges / Dentures / Crowns	8	0	1	9

Figure 6.5. Lot 10091, a young adult female with a pegged left maxillary M^3 (inferior view).

Figure 6.6. Lot 10735, a middle adult male with seven cusps on the left maxillary M^2 (inferior view).

Of the 381 excavated adults, 254 (66.7%) had teeth that were erupted and complete enough for evaluation; 235 of these were single individuals and 19 were individuals from mixed burials. The paucity of teeth from mixed burials is not due to a lack of preservation but instead is the result of the lack of crania and mandibles in these coffins. Analysis of the dentition of recovered individuals documented the presence of dental caries, linear enamel hypoplasia, calculus, and abscesses. Dental anomalies noted include forms of irregular growth, such as pegged teeth and hyperdontia. Dental modifications include cultural modifications such as pipe stem grooves, and forms of medical intervention such as fillings, bridges, and dentures. Table 6.3 illustrates the distribution of dental pathologies, anomalies, and modifications in single burials, mixed burials, and commingled lots.

Dental Pathologies

Among the individual adults, 233 (61.2%) have teeth containing carious lesions. Carious lesions, or caries, are a product of the progressive demineralization of enamel by bacterial activity on the tooth's surface. They are especially predominant in individuals with diets high in sugar and starch. The combination of bacteria, acid, and fermentable carbohydrates (especially sugars) create localized lytic pits in the enamel that can eventually reach the underlying dentin if not treated (Lillie and Mack 2013; Lukacs 2012; Ortner 2003; Waldron 2009). Lesions occurred with primary frequency on the occlusal surface of the teeth, but were regularly observed mesially where two teeth came into contact. Linear enamel hypoplasia is caused by disrupted amelogenesis resulting from a variety of factors including metabolic disorder, periodontal disease, trauma, infection, and endocrine dysfunction. The presence of multiple hypoplastic lines can be indicative of chronic health problems (Lillie and Mack 2013; Lukacs 2012; Mann & Hunt 2005). If present, the tooth will be marked by grooves varying from subtle lines to deep transverse scoring that encircles the tooth crown. Enamel hypoplastic defects are present in the teeth of 81 adult individuals, or 21.3 percent of the excavated adults in this sample. Calculus forms from mineralized deposits of plaque that accumulate predominantly on the basal lingual surface of the tooth (Lukacs 2012). Calculus was observed on 251 (65.9%) of the adult individuals. Abscesses form smooth-walled lytic cavities near the tooth root and are caused by cariogenic infection of the dental pulp (Lukacs 2012). Fifty-six adults (14.7%) exhibit at least one abscess in the maxilla or mandible.

Dental Anomalies

Dental anomalies were noted in the teeth of several individuals. Pegged teeth, a localized form of microdontia, represent the most commonly observed dental anomaly. Eight adults exhibit pegged teeth (Figure 6.5). This anomaly is often associated with significant conditions such as heart disease, Down's syndrome, and cleft palate, but none of these conditions were observed in this collection (Ortner 2003). Hyperdontia is also present in seven adults in the form of normotopic supernumerary teeth. The presence of extra cusps is a fairly common

dental anomaly that is present in only four adult individuals in this sample. Of particular interest is Lot 10735, a middle adult male with seven cusps on the left maxillary M^2; this individual also shows slight shoveling on both maxillary I^2 (Figure 6.6).

Figure 6.7. Lot 10804, a middle adult male with bilateral impacted maxillary M^4 (inferior view).

Figure 6.8. Lot 10528, a middle adult male with a rotated mandibular canine (anterior view).

Several forms of irregular dental growth were noted. Six adults exhibit impacted teeth, including Lot 10804, which exhibits bilateral impacted maxillary fourth molars (Figure 6.7). Also, one adult (Lot 10528) exhibits a mandibular canine rotated 90° medially (Figure 6.8).

Dental Modifications

Several individuals show evidence of dental treatment and intervention. Fillings were introduced at the turn of the century. These were often made of soft, malleable metal amalgams of tin, lead, and mercury (Waldron 2009). Eleven adults show evidence for dental fillings. However, because the bonding materials often degraded over time, it is possible that some fillings were lost and their frequency underreported here. Another cultural modification is the curved depressions in the mesial-occlusal dental surface developed through long-term use of the teeth to clench the stem of a pipe. These were observed in five male adults in the sample. Ten individuals exhibit dental modifications of unknown etiology, the most unique of which is shown by Lot 10817, a young adult male with a line of round pits 3-5mm from the edge of the maxillary incisors and canines; this individual also possesses only three congenital mandibular incisors (Figure 6.9).

A number of individuals possess more elaborate dental prostheses in the form of gold teeth, bridges, and partial and full dentures. See the section on Medical and Health under Personal Items in Chapter 5 for further discussion.

Figure 6.9. Lot 10817, a young adult male with an unusual cultural modification on four maxillary teeth (labial view).

Cranial and Postcranial Pathology

Given the variety of difficulties inherent in examining pathology in near-modern populations, this examination of skeletal pathology is confined to the higher orders of disease classification. Furthermore, it forgoes the challenge of attempting specific diagnoses. This strategy allowed analysts to consider the great variety of etiological factors at work (Ortner 2003; Waldron 2009). Given our contractual obligations, this analysis was limited to the identification of presence or absence of pathological lesions. This identification can easily facilitate additional research into the paleopathology of the collection. The full distribution of pathological change observed in this sample by order of frequency in single burials, mixed burials, and commingled lots is illustrated in Table 6.4.

Table 6.4. Distribution of Adult Skeletal Pathologies and Conditions by Burial Context and Frequency.

Pathology / Condition	Burial Context			Total
	Single	Mixed	Cm.	
Osteophytic Lipping	276	19	28	323
Schmorl's Nodes	183	56	14	253
Generalized Bone Hypertrophy	150	49	30	229
Generalized Osteolysis	142	41	26	209
Periostitis	135	31	26	192
Eburnation	67	29	15	111
Ankylosis	63	17	11	91
Porotic Hyperostosis	56	0	4	60
Degenerative Joint Disease	27	6	7	40
Cribra Orbitalia	27	4	2	33
Incomplete Fusion	21	4	1	26
Osteomyelitis	16	3	4	23
Irregular Fusion	10	7	2	19
Osteoma	17	0	0	17
Neoplastic Growth	10	2	2	14
Collapsed Bone	10	3	0	13
Healed Amputation	8	2	0	10
Remodeling	5	3	2	10
Mastoid Abscess	5	3	2	10
Bowing	6	2	0	8
Unhealed Trepanation	2	1	5	8
Spina Bifida Occulta	5	2	0	7
Temporomandibular Joint Wear	4	1	0	5
Os Acromiale	2	2	1	5
Spondylolysis	4	0	0	4
Palatine Torus	2	0	0	2
Supratrochlear Spurs	2	0	0	2
Unknown Osseous Material	2	0	0	2
Club Foot	1	0	0	1
Treponematosis	1	0	0	1
Metastatic Carcinoma	1	0	0	1
Healed Trepanation	1	0	0	1
Medical Staples	1	0	0	1

Three hundred seventy-five adult individuals (98.4%) exhibit some form of skeletal pathology; the six that do not were too damaged by the burial environment or by previous construction to make analysis possible. This abnormally high rate of pathology is likely a result of several factors endemic to the lives of the lowest classes in late nineteenth century Milwaukee, including poor nutrition, dangerous working conditions, and restricted access to medical care. Among the commingled burials, only three show no signs of pathology; after disregarding the prevalence of cut bone, there are still 43 (86%; n=50) commingled lots showing some form of pathology.

Degenerative changes are the most common pathology affecting the human skeleton. The two most prevalent pathological conditions among adults in this sample are osteophytic lipping and Schmorl's nodes. This is a degenerative combination common among middle and old adult individuals and often associated with manual labor (Figure 6.10).

Osteophytes are bony protrusions that grow at the margins of joints and ligament attachment sites, formed as a reaction to repetitive use and stress over time (Ortner 2003). Osteophytes are present in 295 individuals in the collection (77%), including 215 males (56.4%) and 41 females (10.8%), and were observed across young, middle, and old adult categories. Schmorl's nodes are observed in 239 individuals (62.7%), primarily among middle and old adults. Schmorl's nodes are also formed in reaction to stress; repetitive strain on the intervertebral discs of the spinal column puts pressure on the vertebral bodies, creating small round lytic defects in the articular surfaces of the bone. In 33 individuals (8.7%), the strain and deterioration at articulations was so severe as to advance into degenerative joint disease. The joints involved show a combination of two distinct changes: a degenerative porotic change in the subchondral bone surface and the formation of osteophytes at the margins of the articular surfaces. In the most severe cases this is often accompanied by eburnation of the subchondral surface. Degenerative joint disease was observed in several joints, most commonly in the spinal column (particularly the cervical vertebrae), followed by the elbow, wrist, and knee; the hip and shoulder were rarely involved in this sample. Five individuals exhibit extreme wear at the temporomandibular joint (Figure 6.11), a relatively common archaeological finding. This type of wear can significantly impact the use and mobility of the mouth and mandible (Mann & Hunt 2005; Lukacs 2012). Eburnation, another result of prolonged abnormal abrasion from bone-on-bone contact, is present in 96 individuals (25.2%). This appears as a shiny smooth patina on the subchondral surface of a joint. In the more severe cases, the rubbing bone produced grooves in the opposing bone at the site of contact (Ortner 2003).

Growth-related pathologies were significant in the sample (Figure 6.12). General hypertrophic growth and indeterminate periostosis without a clear causal mechanism is present in 199 individuals, or 52.2 percent of the excavated adults. This abnormal periosteal bone formation was mild and varied in form and was observed on every bone of the skeleton (Ortner 2003).

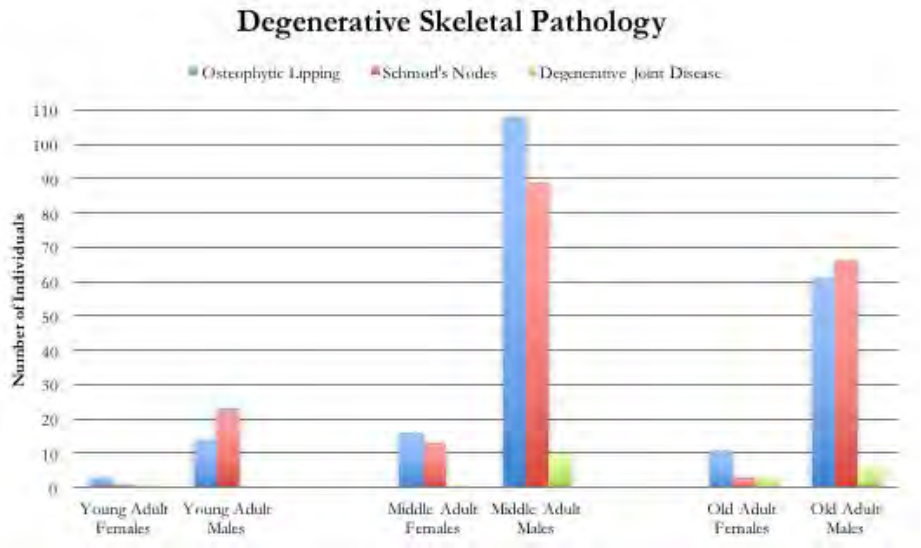

Figure 6.10. Distribution of the primary degenerative pathologies observed in the adult sample by age and sex.

Figure 6.11. Lot 10102, a middle adult male with advanced wear in the left temporomandibular joint (inferior view).

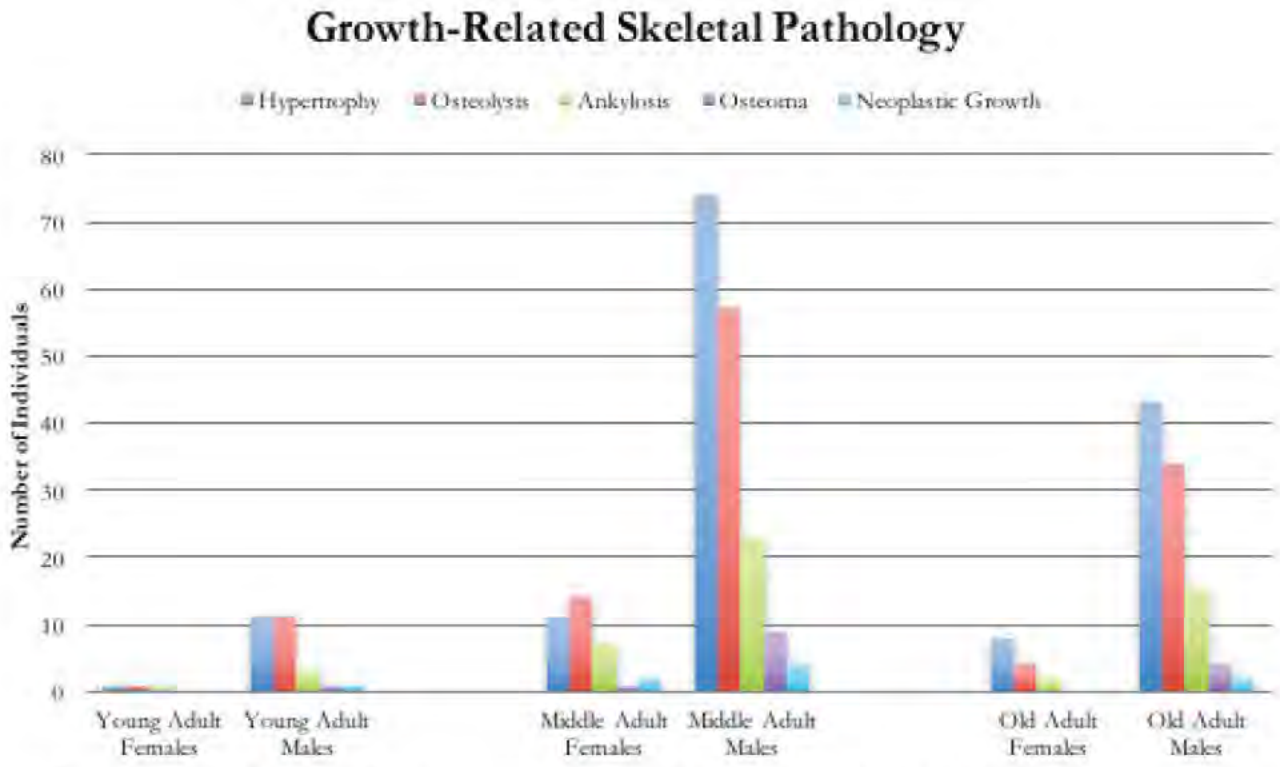

Figure 6.12. Distribution of the primary growth-related pathologies observed in the adult sample by age and sex.

Figure 6.13. Lot 10091, bone spur in the orbit of a young adult female (anteriolateral-inferior view).

Lot 10091 is one example of this varied presentation, a young adult female with a small bone spur in the superior wall of the right orbit (Figure 6.13). Osteolysis also affects nearly half of the sample, with 183 adults (48%) showing some form of general localized destruction or resorption of bone. Etiology in these cases was unknown.

Figure 6.14. Lot 10686, ankylosed thoracic vertebrae of an old adult male, a possible case of DISH (anterior view).

Through various processes of excessive bone growth, trauma, and disease, two or more bones in a joint may become fused in a process known as ankylosis. Eighty individuals (21%) exhibit some form of bone fusion; this is often observed at or near the site of healed trauma. In several cases, extreme osteophytic growth in the spinal column caused several vertebrae to ankylose, usually among the thoracic or cervical vertebrae [see Figure 6.14, Lot 10686, which may represent a case of diffuse idiopathic skeletal hyperostosis (DISH)].

Other forms of excessive bone growth were observed in the sample. Two individuals display palatine tori (Figure 6.15), rounded bony hyperplasic growths along the palatal suture. This type of growth tends to develop in infancy or early childhood and thicken as the individual grows (Barnes 2012). Two additional individuals exhibit bilateral supratrochlear spurs (also known as supracondylar processes), small bony projections located 5-7cm proximal to the medial epicondyle of the humerus (see Figure 6.16). This congenital trait shows a high degree of heritability and is thought to be present in an estimated one percent of individuals of European ancestry (Barnes 2012; Mann & Hunt 2008; White et al 2012).

Benign neoplastic button osteomas were observed on the crania of 17 individuals (4.5%). Twelve individuals (3.1%) exhibit general neoplastic growth (Figure 6.17); these disordered growths of mesenchymic tissue are the result of benign or malignant tumors.

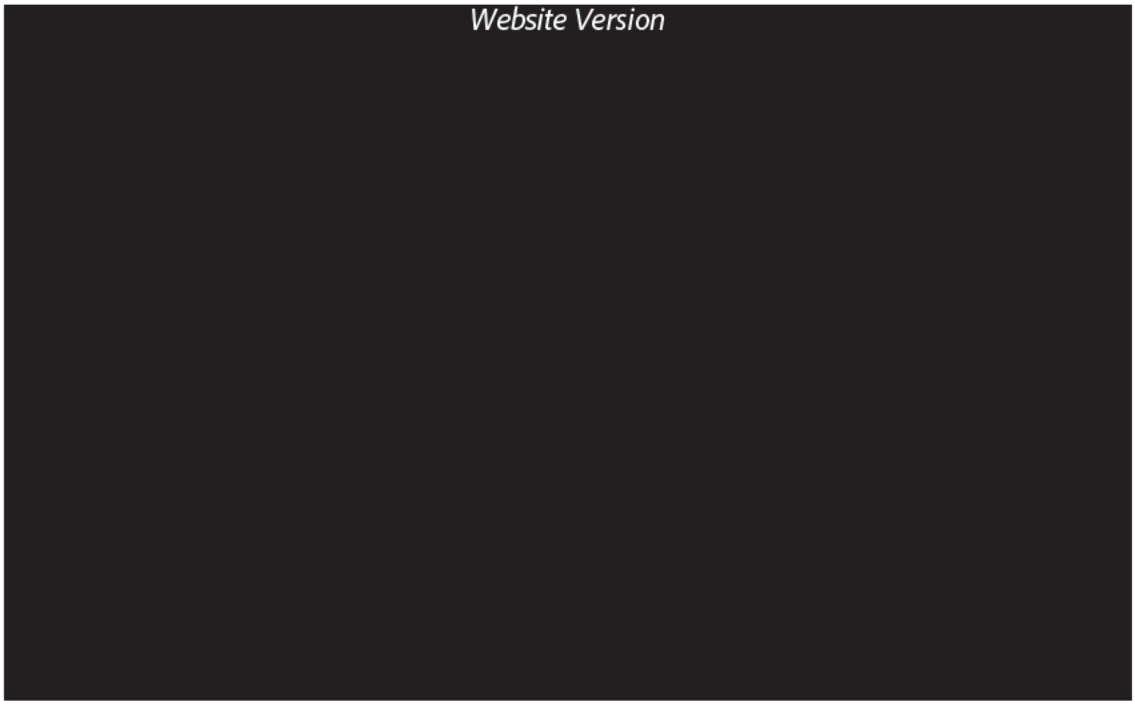

Figure 6.15. Lot 10576, a middle adult female exhibiting a palatine torus (inferior view).

Figure 6.16. Lot 10643, a young adult of indeterminate sex with bilateral supratrochlear spurs (anterior view).

Figure 6.17. Lot 10805, neoplastic growth on the left femur of a middle adult female, likely an osteochondroma (medial view).

No attempt was made here to distinguish between the two. Additionally, two adults were recovered in association with unknown osseous material (Figure 6.18). These small sclerotic masses of ossified tissue are likely indicative of a morbid condition, the etiology of which is undetermined.

Infectious diseases afflicting a population can be observed in the skeleton in several forms (Figure 6.19). Inflammatory periosteal reactive growth–commonly called periostitis–can be caused by a wide variety of trauma and disease (Ortner 2003). The characteristic uneven woven bone is present in 166 adults (43.6%), in cases ranging from mild to severe. Osteomyelitis, an inflammatory reactive growth resulting from infection of the bone marrow, is present in 19 individuals (5%) and most commonly affects the tibiae. Eight individuals exhibit a lytic resorption of the lamellar bone of the mastoid process (Figure 6.20); this is likely a result of inflammation and infection associated with otitis media leading to mastoiditis (Mann & Hunt 2005).

One male of indeterminate age (Lot 10325) exhibits a case of probable treponemal disease, most likely early tertiary syphilis. Poor preservation prohibited a full examination of the remains, but the large osteolytic lesions and small hypertrophic lesions affecting the tibiae, femora, spine, cranium, and scapulae are indicative of the disease. Osteoperiostitic lesions (caries sicca) on the cranial vault accompanied by localized destructive remodeling of the outer table are also present (Ortner 2003).

One old adult male presents a case of probable metastatic carcinoma with primary involvement of the spine, pelvis, femora, ribs, sternum, skull, and scapulae. The systemic lesions are primarily hypertrophic, though significant osteolytic lesions are present as well, especially in the innominates (Figure 6.21). Markers of metabolic insufficiency

Figure 6.18. Lot 10303, unidentified osseous growth recovered from the torso of an old adult female.

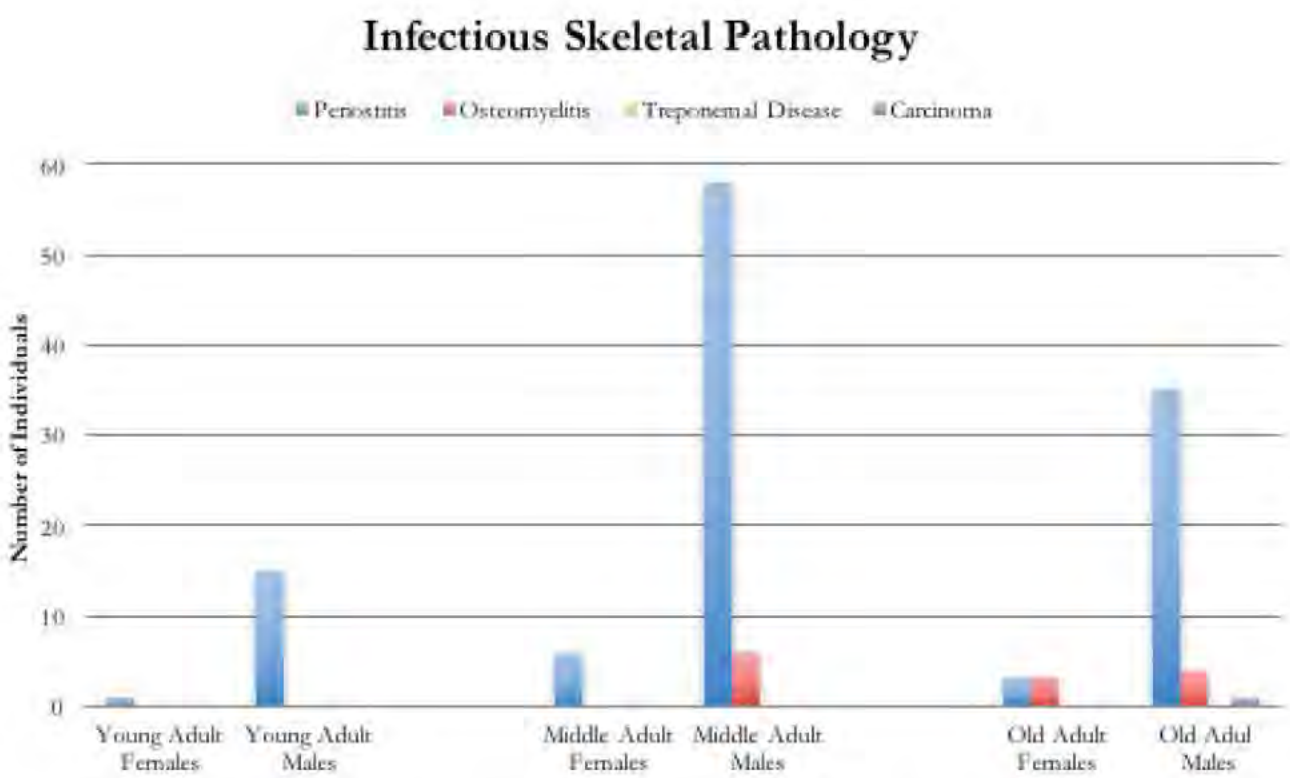

Figure 6.19. Distribution of the primary infectious pathologies observed in the adult sample by age and sex.

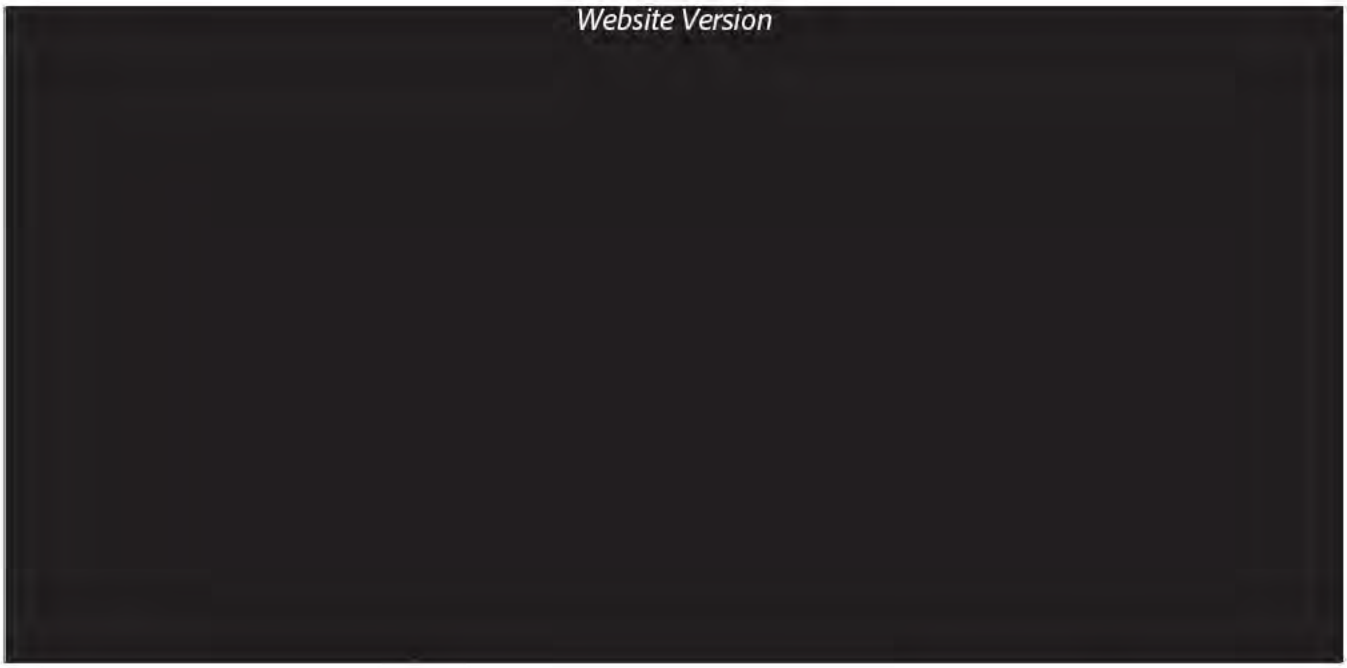

Figure 6.20. Lot 10982, bilateral mastoid abscesses in a craniotomied male of indeterminate age (lateral view).

Figure 6.21. Lot 10760, innominates of an old adult male with probable metastatic carcinoma (anterior view).

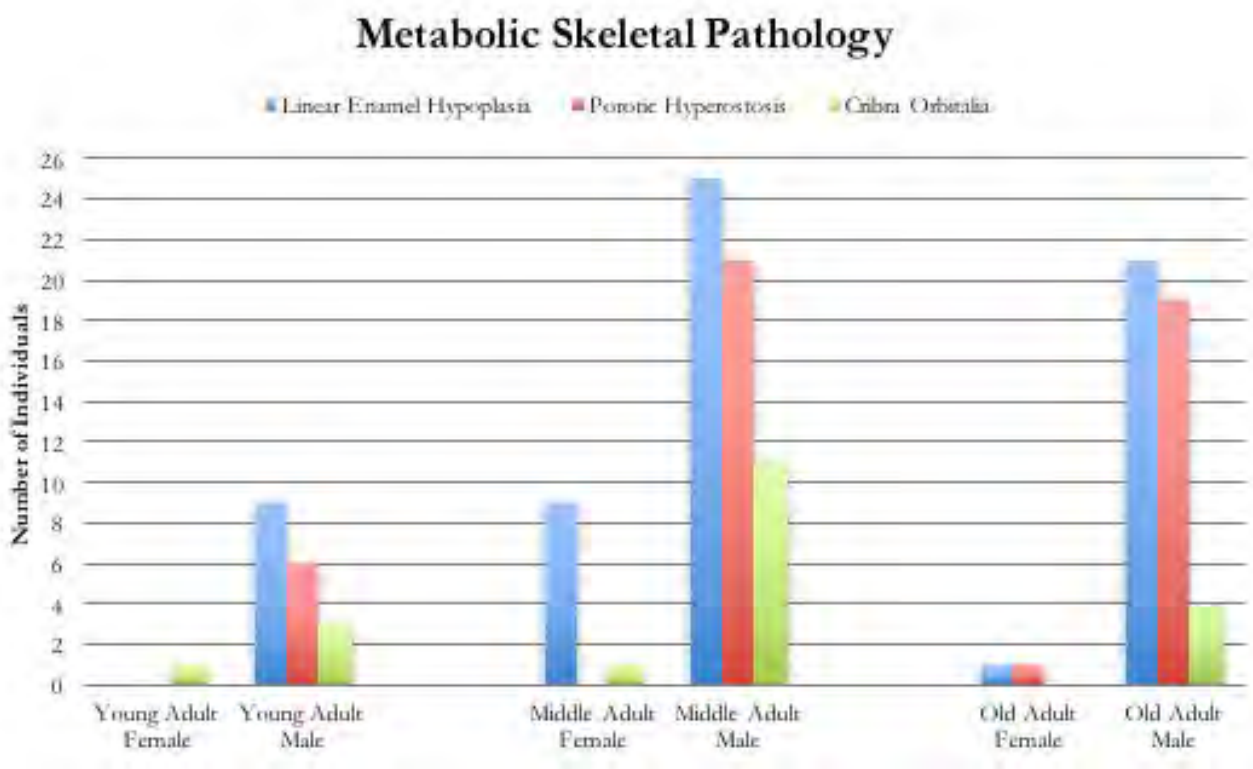

Figure 6.22. Distribution of the primary metabolic pathologies observed in the adult sample by age and sex.

were also observed (Figure 6.22). Fifty-six individuals (14.7%) exhibit porotic hyperostosis, a thinning of the cranial vault that creates porosity in the parietals and occasionally the occipital (Ortner 2003). Cribra orbitalia, a similar pitting of the orbital roof, is present in 31 individuals (8.1%). The presence of these conditions can be indicators of malnutrition, metabolic disorder, anemia, or immune defense against pathogens (Ortner 2003; Stuart-Macadam 1992).

Several variations of incomplete fusion were evident in the adult sample. Incomplete fusion of the S1-S5 neural arches results in spina bifida occulta, a condition exhibited by seven individuals in the sample (Figure 6.23). This is considered a "clinically insignificant" condition, not to be confused with the neurologically significant spina bifida in which the lumbar neural arches are similarly unfused, exposing the nerves of the spinal column (Waldron 2009: 219; White et al. 2012). Twenty-five additional instances of general incomplete fusion were observed (6.6%); these include any presentation of bone fusion that had not reached its complete adult stage, whether due to young age or through developmental delay or insufficiency.

Seventeen individuals (4.5%) express some form of irregular skeletal fusion. This is a broad category encompassing a number of developmental skeletal variations (pathological and congenital) that primarily originate during embryonic morphogenesis. These

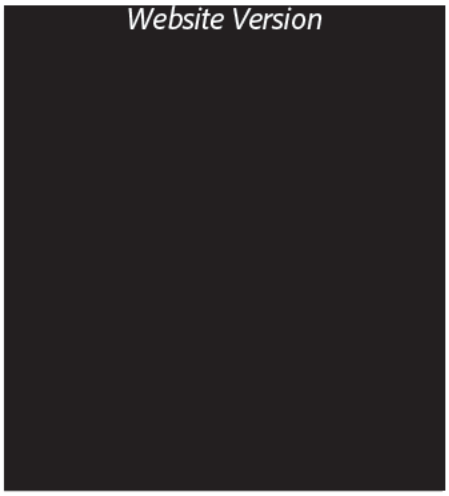

Figure 6.24. Lot 10980, a male of indeterminate age with irregular fusion of the right patella (posterior view).

were observed predominantly in the vertebrae, though other bones were affected. Lot 10980 exhibits a vastus notch in the right patella (Figure 6.24), a failure of fusion in which a notch is absent from the supralateral edge of the bone. This form of bipartite patella is of unknown etiology and is more common in males than females (Mann and Hunt 2005).

Four individuals present scapular os acromiale, marked by presence of the unfused lateral acromial epiphysis (Figure 6.25). This is a nonmetric trait with a possible hereditary component showing a higher incidence in American Blacks than American Whites

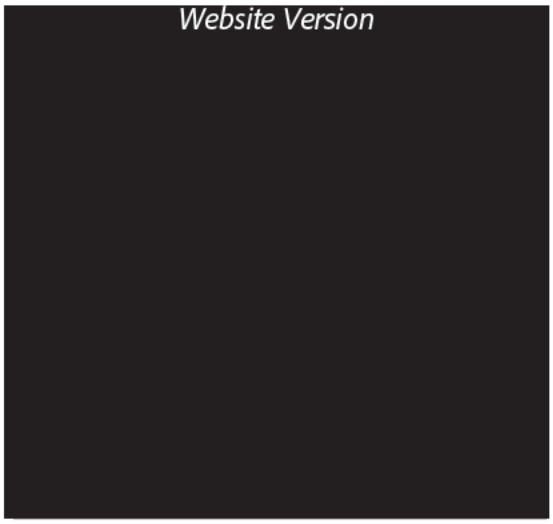

Figure 6.23. Lot 10099, a middle adult male with spina bifida occulta (posterior view).

Figure 6.25. Lot 10525, an indeterminate adult with os acromiale of the left scapula (posterior view).

(Mann and Hunt 2005). As the most common minor scapular anomaly found in archaeological collections, care was taken to only evaluate the trait in individuals over age 25, after the acromion reaches full fusion (Barnes 2008).

One individual displaying a clubbed left foot was recovered (talipes equinovarus; see Figure 6.26). This condition – which is of unknown etiology but may result from a disturbance in the embryonic development of the talus – occurs once in every 1000 modern births and affects males at a 2:1 ratio. This case, an adult male of indeterminate age, presents unilaterally and is not accompanied by malformation of the spine, evidence of poliomyelitis, or evidence of leg atrophy resulting from paralysis, conditions often associated with this congenital trait (Mann & Hunt 2005; Barnes 2008, 2012).

Trauma and Postmortem Investigation

Fractures and gunshot wounds make up the majority of traumatic changes in this sample. These are followed in frequency by the practice of postmortem modification of the body, here represented primarily by cut bone and marks of craniotomy. Table 6.5 illustrates the distribution of trauma and postmortem intervention indicators in single, mixed, and commingled lots.

Healed fractures are present in 103 individuals (27%) and represent both incomplete and complete breaks. The majority of these injuries are observed in males (84 individuals), with only nine females exhibiting healed fractures to the ribs, arm, vertebra, hand, and foot. As can be seen in Table 6.6, cranial healed trauma is exclusively observed in males. The nasals are the most

Figure 6.26. Lot 10620, clubbed left foot of a male of indeterminate age (anterior view).

Table 6.5. Distribution of Trauma and Postmortem Investigation Observed in Adults.

Condition		Burial Context			Total
Trauma		Single	Mixed	Cm.	
	Healed Fracture	82	21	14	117
	Unhealed Fracture	25	11	5	41
	Gunshot Wound	3	0	0	3
Postmortem Investigation		Single	Mixed	Cm.	
	Cut Bone	27	68	43	138
	Craniotomy	50	17	13	80

commonly affected cranial bones, followed by the maxilla, frontal, and parietal. These bones are most frequently targeted during interpersonal violence (Brink et al 1998). No patterning was observed between those fractures which were properly set and those that healed misaligned, suggesting a varied access to or concern for medical care. Those that healed misaligned are occasionally associated with remodeling of an adjacent joint. Healed fractures are marked by the presence of a fibrous callus. Lamellar bone had replaced the healing callus in all cases in this sample, and in several cases of misalignment, a compensatory thickened cortical layer strengthened the bone (Ortner 2003). Figure 6.27 shows the misaligned healed fracture of the right tibia and fibula of a middle-aged male. A more detailed catalog of postcranial healed fractures present in the sample can be seen in Table 6.7.

Table 6.6. Cranial Healed Trauma Observed in Adults.

Lot #	Sex	Bone Affected
10066	Male	mandible
10099	Male	mandible
10270	Male	maxilla
10295	Male	nasals
10339	Male	left parietal
10360	Male	palate
10371	Male	right parietal
10653	Male	nasals, left zygomatic
10683	Male	frontal
10704	Male	maxilla
10740	Male	nasals, maxilla
10757	Male	maxilla, left zygomatic
10768	Male	frontal
10790	Male	frontal
10794	Male	nasals
10803	Male	nasals, vomer
10813	Male	right parietal
10815	Male	nasals, vomer

Figure 6.27. Lot 10671, misaligned healed fractures to the right tibia and fibula of a middle adult male. Note the two areas of posterior and anterior displacement on each bone (anteriolateral view).

Table 6.7. Cases of Postcranial Healed Trauma Observed in Adults.

Lot #	Sex	Bone Affected	Lot #	Sex	Bone Affected
10066	male	left humerus	10587	indt.	right radius, left tibia
10073	male	three ribs, right talus	10623	male	right ribs
10081	male	right clavicle, right scapula, right foot phalanx	10626	male	left ribs
10097	male	three ribs, right tibia, left fibula	10639	male	right ribs, right radius, left hand phalanx
10099	male	two ribs, right metacarpal, left fibula	10653	male	right metacarpal, right femur, left fibula
10102	male	left radius	10657	male	left metatarsal
10219	male	two left ribs	10665	male	left ribs, left fibula
10253	male	left clavicle	10670	male	right ribs
10280	male	left femur	10671	male	right tibia, right fibula
10285	male	right and left calcanei	10676	male	left ribs
10292	male	right rib	10677	indt.	left humerus
10299	male	left radius, left ulna, unsided metatarsal	10683	male	right and left ribs, unsided foot phalanx
10305	male	right tibia	10684	male	right rib
10307	female	third lumbar vertebra	10689	male	right femur
10310	male	unsided rib fragments	10703	indt.	unsided rib
10315	male	right and left ribs	10710	male	right foot phalanx
10323	male	hyoid, left ribs	10711	male	right metacarpal
10326	male	unsided rib fragments	10721	male	left metacarpal
10327	male	right clavicle	10740	male	left rib, right hand phalanx
10333	male	left metatarsal	10748	female	left hand phalanx
10337	male	foot phalanx	10750	male	left rib, left tibia
10339	male	right innominate, right humerus	10752	Indt.	thoracic vertebrae
10345	indt.	left ribs	10754	male	left ulna, left metacarpal
10348	male	left ribs	10755	male	right radius
10349	male	right fibula	10759	male	right and left ribs
10351	male	right ulna	10763	male	left rib
10357	male	right scapula, right radius, right ulna, left ribs	10765	male	right clavicle, left radius, left ulna
10358	male	left first rib	10767	female	unsided rib
10361	male	right fibula	10770	male	right femur
10365	male	left metatarsal	10771	male	right rib

Table 6.7. Cases of Postcranial Healed Trauma Observed in Adults.

Lot #	Sex	Bone Affected	Lot #	Sex	Bone Affected
10371	male	right patella, left femur	10774	male	right tibia, right fibula
10372	female	left ribs, left humerus, left radius	10789	female	right rib
10381	male	left humerus	10810	male	right ribs
10382	male	unsided metacarpal	10813	male	right and left femora
10387	male	left clavicle	10814	male	left metatarsal
10413	male	left ribs	10815	male	right scaphoid
10414	male	right ribs, right femur	10855	male	left rib
10467	male	left femur	10885	male	right rib
10477	male	left tibia, left fibula	10909	male	left ribs
10523	male	left clavicle, right rib	10967	female	right and left ribs
10525	Indt.	right and left ribs	10968	male	right rib
10534	female	left ribs	10970	male	lumbar vertebra
10536	female	right ribs	10976	indt.	right ulna
10542	indt.	lumbar vertebra, left metatarsal	10981	indt.	left hand phalanx
10554	male	right and left ribs	10987	male	left ribs
10564	male	right clavicle	11050	male	right rib, right tibia
10568	female	right metatarsal			

Unhealed fractures were present in 36 individuals (9.4%) (Table 6.8). These fractures occurred at or near the time of death and thus are more likely to be related to the cause of death than healed fractures (Symes et al 2012). Directly related to cause of death, indeed likely a primary cause, are the three individuals exhibiting unhealed cranial gunshot wounds (Lots 10651, 10781, and 10808). All three individuals are male; one is a middle adult while two are young adults (Figure 6.28).

Table 6.8. Cases of Cranial and Postcranial Unhealed Trauma Observed in Adults.

Cranial			Postcranial		
Lot #	Sex	Bone Affected	Lot #	Sex	Bone Affected
10291	male	all cranial bones except mandible	10097	male	left tibia
10333	male	mandible	10333	male	cervical vertebrae
10336	male	frontal, right parietal, left mandible	10336	male	left clavicle, left scapula, left humerus, right radius, ribs, right innominate, right femur, both tibiae, left fibula
10387	male	right zygomatic, anterior mandible			
10742	male	left temporal			
10758	male	occipital	10380	male	both tibiae, both fibulae
10781	male	right parietal, right temporal, occipital	10387	male	right ulna
10785	female	left parietal, occipital, mandible	10525	indt.	ribs
10808	male	frontal, left parietal	10528	male	both humeri, right radius, right ulna, left femur
10909	male	right parietal, occipital, sphenoid			
			10529	male	both tibiae, both fibulae
			10535	male	ribs
			10558	male	right femur
			10561	male	left femur, left tibia, left fibula
			10643	indt.	left femur
			10650	male	right femur
			10657	male	right femur
			10684	male	both scapulae, right humerus, right radius, right ulna, both innominates, right femur, both tibiae, both fibulae
			10689	male	right femur
			10707	male	ribs
			10715	male	both innominates, sacrum
			10732	male	right humerus, right hand phalanx
			10736	male	both femora
			10770	male	right tibia, right fibula
			10782	female	right radius, right ulna
			10795	male	both scapulae, right humerus, right ulna, ribs, both femora, left tibia
			10807	male	both ulnae, left tibia, left fibula
			10851	male	both clavicles
			10855	male	left humerus
			10968	male	both femora
			11039	male	left femur
			11050	male	ribs

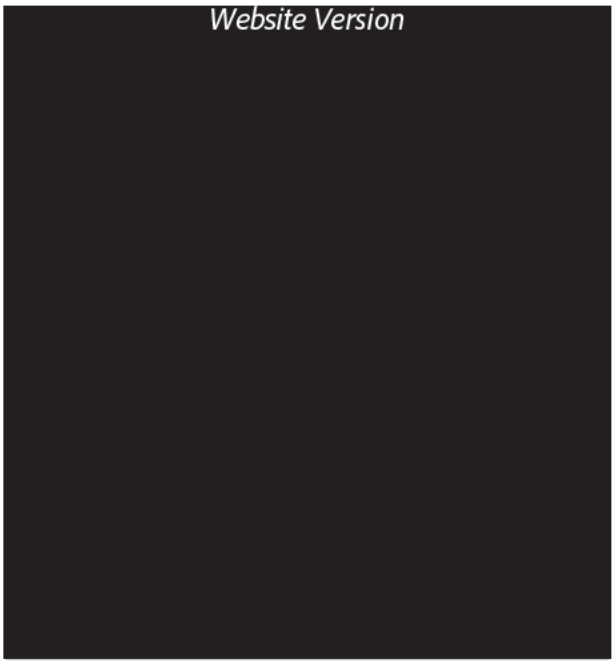

Figure 6.28. Lot 10808, gunshot wound in the frontal bone of a young adult male (anteriolateral view).

The cemetery's burial register lists a number of individuals who were victims of accidents involving railcars, streetcars, and other vehicular trauma. One possible victim of such an accident is Lot 10795, a male of indeterminate age exhibiting unhealed fractures not only throughout the legs (Figure 6.29) but throughout the scapulae, ribs, and right arm as well.

Medical intervention during life was visible in several forms. Healed limb amputations exhibiting remodeled bone at the incision site (Figure 6.30) are present in ten individuals, including eight males, one indeterminate adult, and one female with a partially healed amputation of the left femur. Amputations are evenly split between sides of the body and affect long bones (humerus, radius, ulna, femur, and tibia) and one hand phalanx.

Peri- or postmortem trepanations are noted in three individuals where a surgically incised hole in the cranium shows no evidence of regrowth at the edges. These were most often observed in the form of burr hole trepanations, in which a mechanical drill is utilized to remove a small circular plug of bone from the cranium (Ortner 2003). Lot 10811, a young adult male (Figure 6.31), is an extreme example of this practice, exhibiting four separate trepanation sites, two of which show multiple atypical incisions.

Figure 6.29. Lot 10795, unhealed fractures to the right leg of a male of indeterminate age (fibula and femur, posterior view; tibia and patella, anterior view).

Figure 6.30. Lot 10102, a middle adult male exhibiting healed amputation of the right humerus (anteriomedial view).

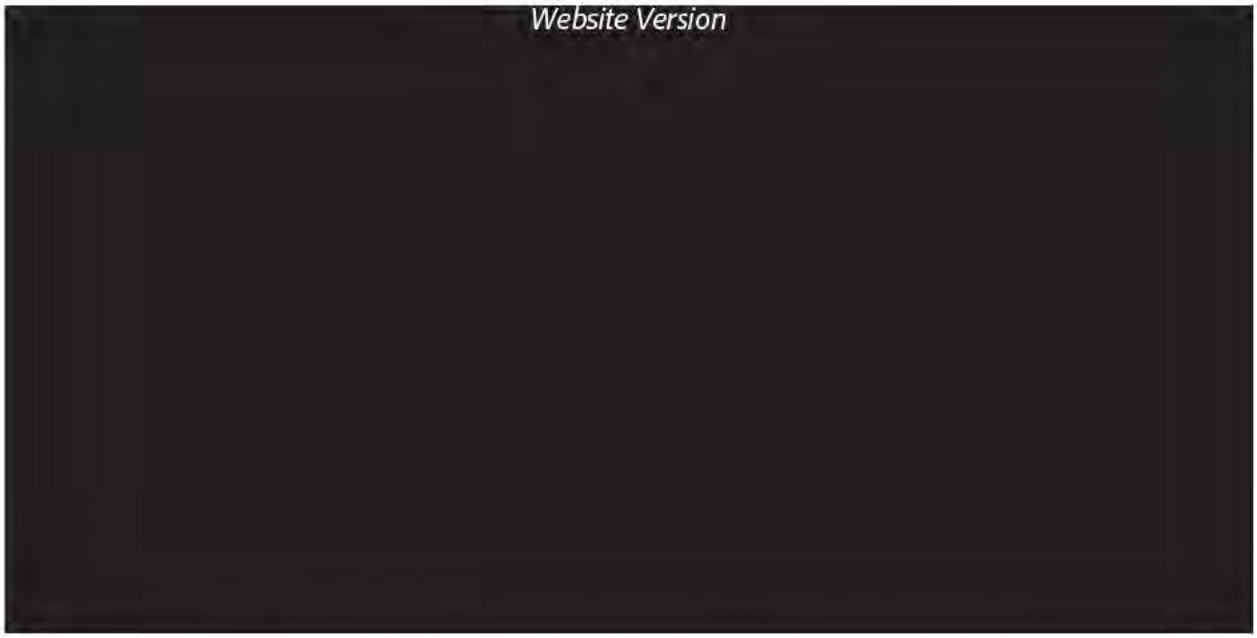

Figure 6.31. Lot 10811, multiple unhealed trepanations in the cranium of a young adult male (left, anterior view; right, lateral view).

One individual displays a healed trepanation in the posterior parietal (Figure 6.32). This is a larger hole than the unhealed trepanations, and regrowth of bone can be observed on the rim of the incision. No marks of previous cranial trauma in the area are evident.

One middle adult male (Lot 10371) displays the remains of two medical staples embedded in the right patella (Figure 6.33). The associated femur and tibia are unmarked and show no evidence of trauma. The patella itself may have a healed fracture, suggesting that the staples possibly anchored the patella to the patellar ligament instead of to a particular bone.

Several pathologic and taphonomic markers were observed in regards to postmortem treatment of the body, including the presence of several varieties of cut mark and a variety of craniotomy incisions. Cut bone was observed on the remains of 95 adults (24.9%),

Figure 6.32. Lot 10527, a middle adult male with a healed trepanation (posteriolateral view).

Figure 6.33. Lot 10371, medical staples embedded in the right patella of a middle adult male (anterior view).

and in 43 commingled lots (86%; n=50), making it the only pathologic trait that was observed more often in mixed and commingled burials than in single burials. This included full cross-section cuts to one or more of the bones of the post-cranial skeleton, superficial false start scratches, kerf cuts, and occasional sectioned bone cuts, as well as breakaway spurs and wastage (Figure 6.34). Severing the whole bone with a saw served multiple purposes for the postmortem investigator, ranging from medicolegal investigation to dismemberment for use as a teaching cadaver. Cuts were not reserved for the long bones and limbs but affected nearly every bone in the body, including the scapulae, innominates, phalanges, and patellae. Clavicles were the most numerous cut bone, with severing cuts present in forty percent of lots with cut bone (38 lots); this was followed in prevalence by the cervical vertebrae, femora, and ribs. Overall, surface cuts and false start scratches were minimal outside of craniotomy cuts. This suggests the bones were not defleshed prior to cutting.

Craniotomies were used as a standard form of postmortem investigation in the early 19th century and were observed in 67 adults (17.6%) and 13 commingled lots (26%; n=50). Cuts matching the descriptions enumerated in several contemporary medical manuals (Delafield 1872; Delafield and Prudden 1904; Hektoen 1894), as well as several other incidental cuts to the cranial vault were considered marks of a craniotomy. The most common of these shows a horizontal cut through the frontal bone. In most cases this cut misses, by some distance, the stated aim of "three and a half inches above the root of the nose (Delafield 1872)". A wide scope of expertise is noticeable in these incisions and four primary categories were established – planar, biplanar, irregular, and other (see Figure 6.35).

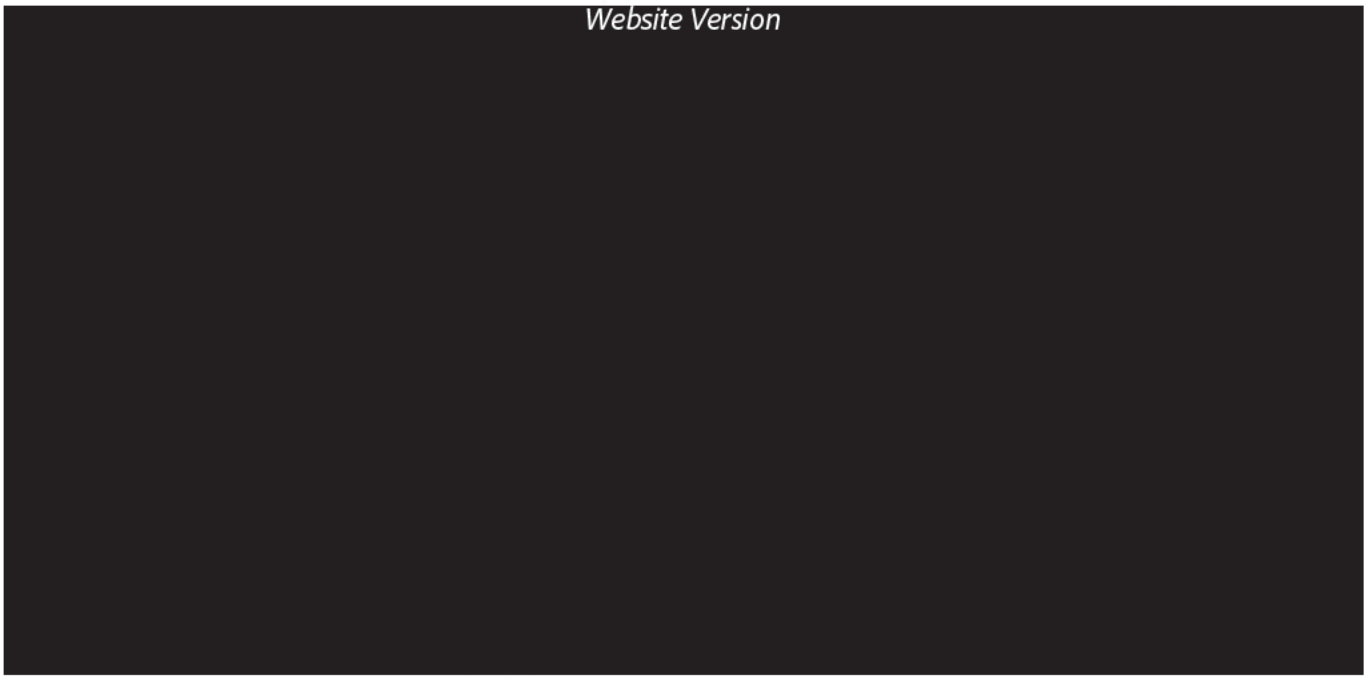

Figure 6.34. Lot 11038, the proximal femora of a male of indeterminate age showing multiple cut marks (anterior view).

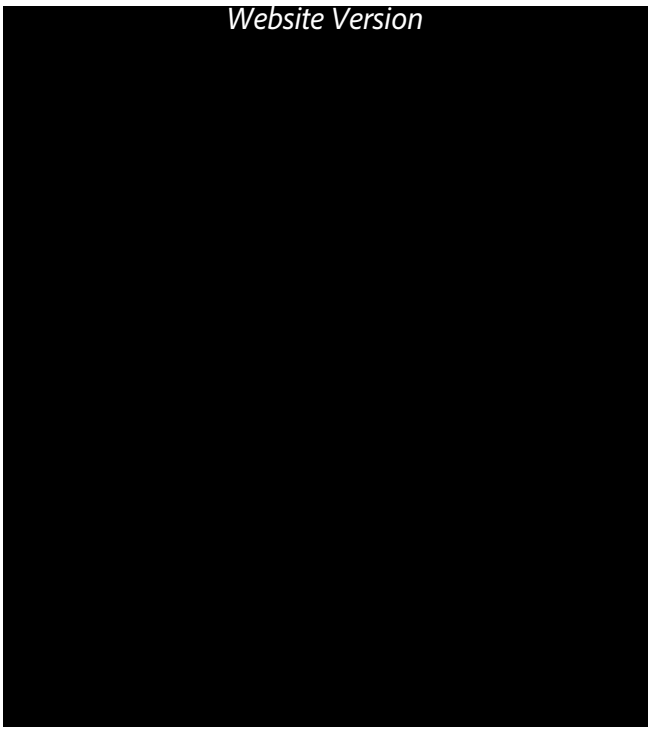

Figure 6.35. Lot 10657, biplanar craniotomy in the cranium of a middle adult male (anteriolateral view). Note the half-circle cut in the left temporal, likely the insertion point of an autopsy tool.

Summary of Adult Osteological Analysis

Based on observable skeletal pathology, the individuals recovered from the 2013 excavations of the Milwaukee County Poor Farm Cemetery appear to be in poor health (Figure 6.36). Significantly, while males were more affected by the degenerative changes of Schmorl's nodes (67% of males compared to 30% of females) and osteophytic lipping (69% of males compared to 53% of females), women were afflicted by severe degenerative joint disease at a higher rate than men (9% of females compared to 6% of males). In particular, twenty-five percent of older women in this sample exhibit the condition. Ankylosis also affected women differentially, with young- and middle-aged women showing higher rates than their male counterparts. These women exhibit multiple fused vertebrae and pelvic joints at an earlier age than the men in the sample. These severe skeletal markers are indicative of chronic stress throughout life, suggesting that the women interred in this section of the cemetery led lives of hardship and exertion comparable to the male laborers of late 19th and early 20th century Milwaukee.

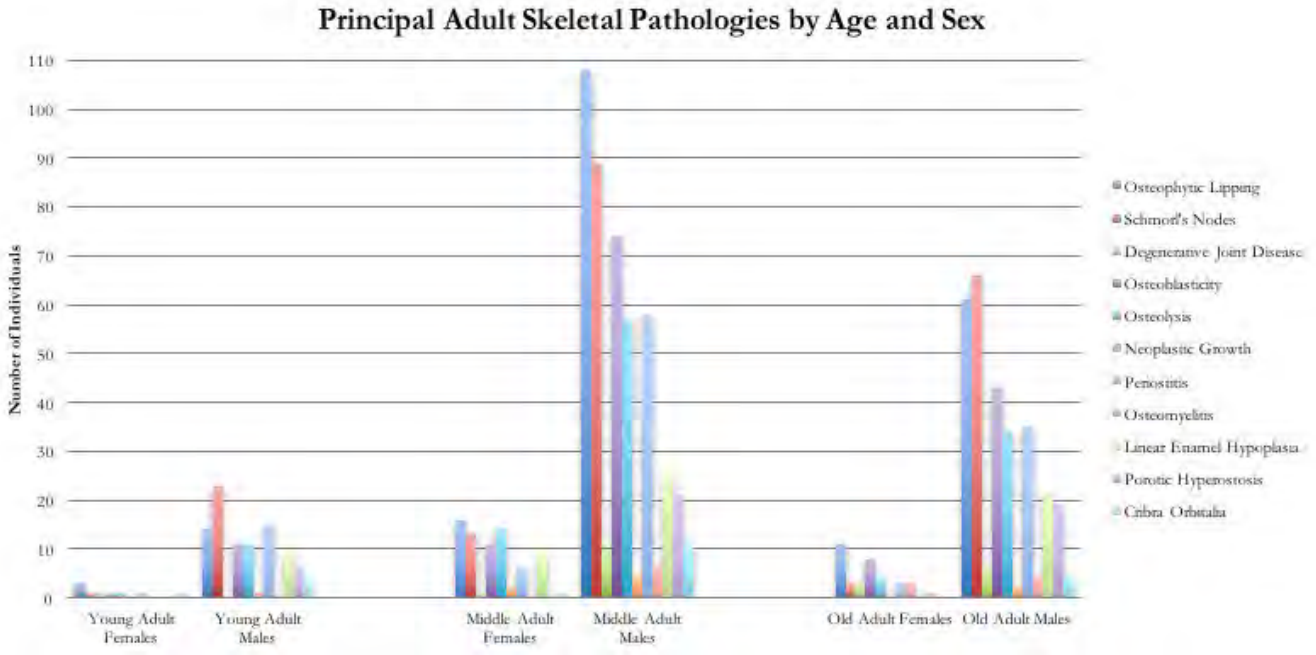

Figure 6.36. Distribution of the primary skeletal pathologies affecting adults in the sample by age and sex.

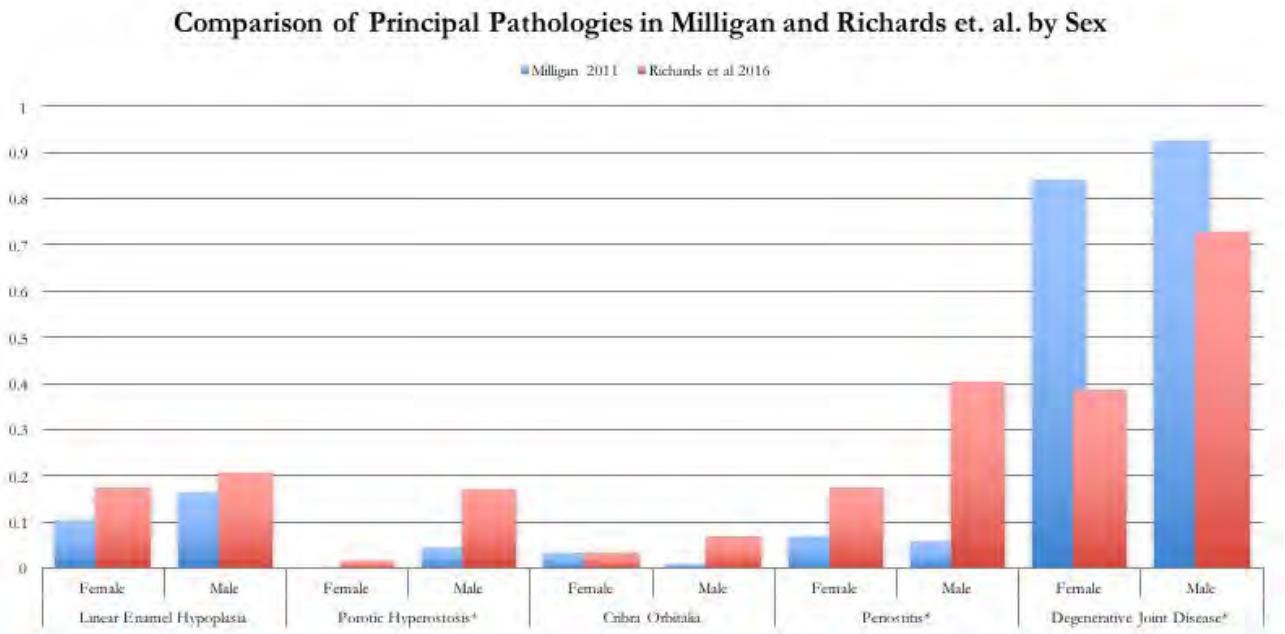

Figure 6.37. Prevalence of adult health indicators by sex in the Milwaukee County Poor Farm Cemetery as examined by Richards et al 2016 (2013 excavation) and Milligan 2011 (1991-92 excavation).

A wide range of pathological conditions affected the males in this sample at much higher rates than females. Inflammation and remodeling of the periosteum throughout the skeleton is more than twice as common among males as females – forty percent of males exhibit this condition compared with only eighteen percent of females. This condition may be correlated to the much higher rates of healed trauma among males. Alternatively, socio-cultural factors, including male mobility and immigration, may have exposed males to unfamiliar pathogens. Porotic hyperostosis, linear enamel hypoplasia, and cribra orbitalia also overwhelmingly affect males. This could result from a number of societal pressures during development, including parasitic disease, anemia, thalassemia, and chronic malnutrition. Osteomyelitis, however, is particularly evident in older females, with twenty-five percent exhibiting the condition; this suggests that this segment of the population was particularly susceptible to bacterial, fungal, or parasitic infection from such sources as soft tissue wounds or medical intervention.

For some individuals in the sample, cause of death is clear. The burial register lists cases of interpersonal violence, transportation accidents, and bouts of morbid disease, which are substantiated in this sample by the presence of gunshot wounds, severe unhealed fracturing of the skeleton, and systemic infectious processes. Bone fractures at or near the time of death occurred almost exclusively in males, with only two females in the sample showing signs of unhealed trauma. This suggests that the majority of females in this sample did not die from sudden violent trauma or accidents but instead were subject to longer acting, debilitating conditions. Cause of death is much more difficult to identify in individuals who likely succumbed to acute conditions, whose remains show no skeletal evidence of such conditions. For example, very few individuals were identified in the 2013 sample with evident symptoms of tuberculosis or treponemal disease. However, these diseases are among the most commonly listed causes of death in the burial register (see Chapter Three). Individuals who contracted these diseases likely died before the sickness advanced to a stage of skeletal involvement.

Studies by Milligan (2011) and Dougherty (2011) focus on the health and trauma of the individuals represented by the burials recovered from the 1991 and 1992 excavations at the Milwaukee County Poor Farm Cemetery. Milligan examined the frequency and prevalence of five indicators of health among 531 adults, including 406 males and 57 females. The results of Milligan's study of males and females with regard to health indicators can be compared to the sample of individuals represented by the 2013 excavations (figures Figure 6.37 and Figure 6.38). There is a slightly higher prevalence of each indicator in the 2013 sample when compared to Milligan's results with the exception of degenerative joint disease. This may be the result of tracking different

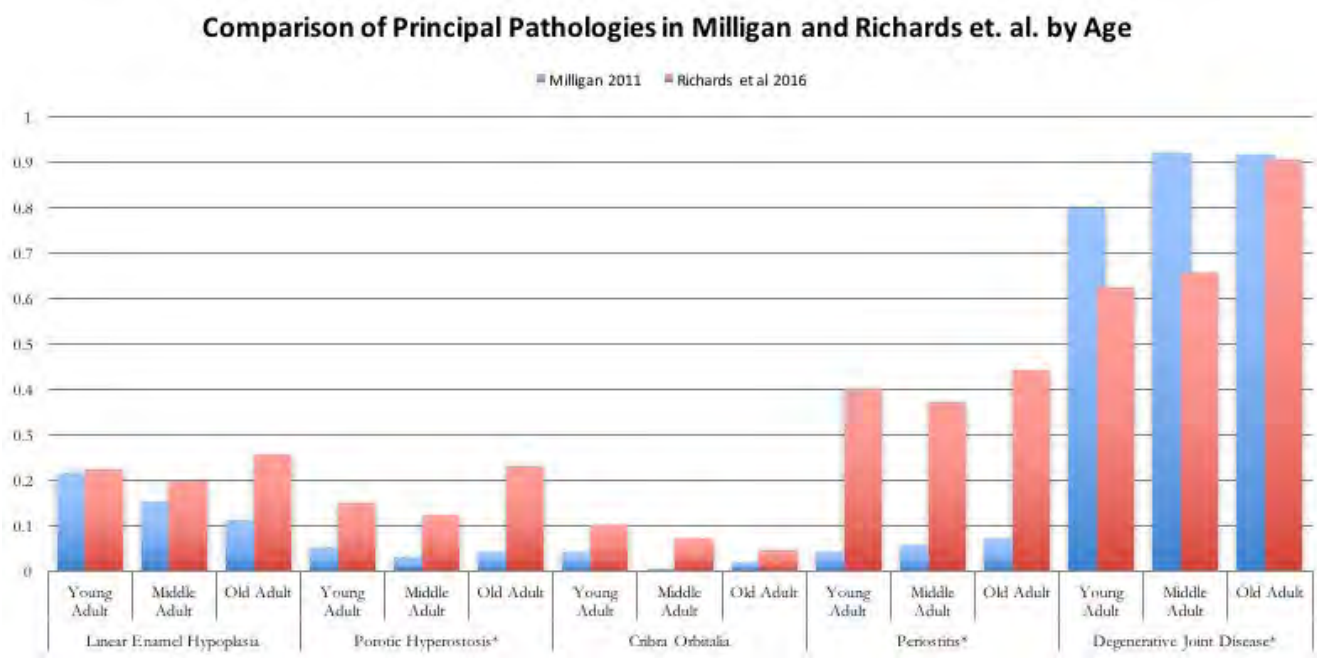

Figure 6.38. Prevalence of adult health indicators by age in the Milwaukee County Poor Farm Cemetery as examined by Richards et al 2016 (2013 excavation) and Milligan 2011 (1991-92 excavation).

traits representative of degenerative joint disease in each study. Milligan's study of degenerative change assessed severity of expression for osteophytic lipping, Schmorl's nodes, surface porosity, and eburnation; the 2013 study observed each of these under a separate classification, noting the presence of degenerative joint disease only when all four were present in concert. Similarly, the results of Milligan's comparison of age categories with regard to health indicators can be compared to the sample of individuals represented by the 2013 excavations. Milligan's sample exhibits the highest incidence of linear enamel hypoplasia and porotic hyperostosis in the young adult age category. Conversely, linear enamel hypoplasia and porotic hyperostosis are most frequent in old adults in the 2013 sample. Additional analysis is necessary to explain this. If, however, the portion of the cemetery excavated in 1991 and 1992 is earlier than the portion of the cemetery excavated in 2013 it is reasonable to assume that the observed differences are a result of changing nutritional stresses that occurred from the mid 19th through the early 20th century.

With regard to trauma, results documented by Dougherty (2011) are largely in concordance with the results of the analysis of the 2013 sample (figure Figure 6.39). Dougherty examines the incidence of trauma in 985 adult individuals, and identifies 247 individuals exhibiting fractures. Dougherty's study concludes that the male, working poor of Milwaukee were at an elevated risk of bodily harm, whether it be through interpersonal violence or as a result of dangerous working conditions. The 2013 analysis confirms this conclusion. An interesting disparity, however, between these two studies is that evidence for trauma in females in the form of healed fractures can be found in 25 percent (as opposed to the 16 percent noted by Dougherty) of the old adult category in the 2013 sample. Further analysis is necessary to explain this difference.

Postmortem trauma as evidenced by cut bone is documented in nearly twenty-five percent of the individuals represented by the 2013 excavated burial lots. Further, ten percent of the excavated burial lots were multiple or commingled. Most of the individuals exhibiting postmortem modification were recovered from mixed burial context. Within those mixed burial lots (Figure 6.40) the proportion of females is higher than the proportion of males, particularly in the young and old adult age categories.

Three lines of evidence suggest that the Milwaukee County Poor Farm Cemetery was not used exclusively as a place to bury indigent residents of Milwaukee County. The presence of cut bone, mixed burials, and burials containing an odd assortment of material culture suggest that the section of the cemetery excavated in 2013 was also used to bury anatomized human remains and medical waste.

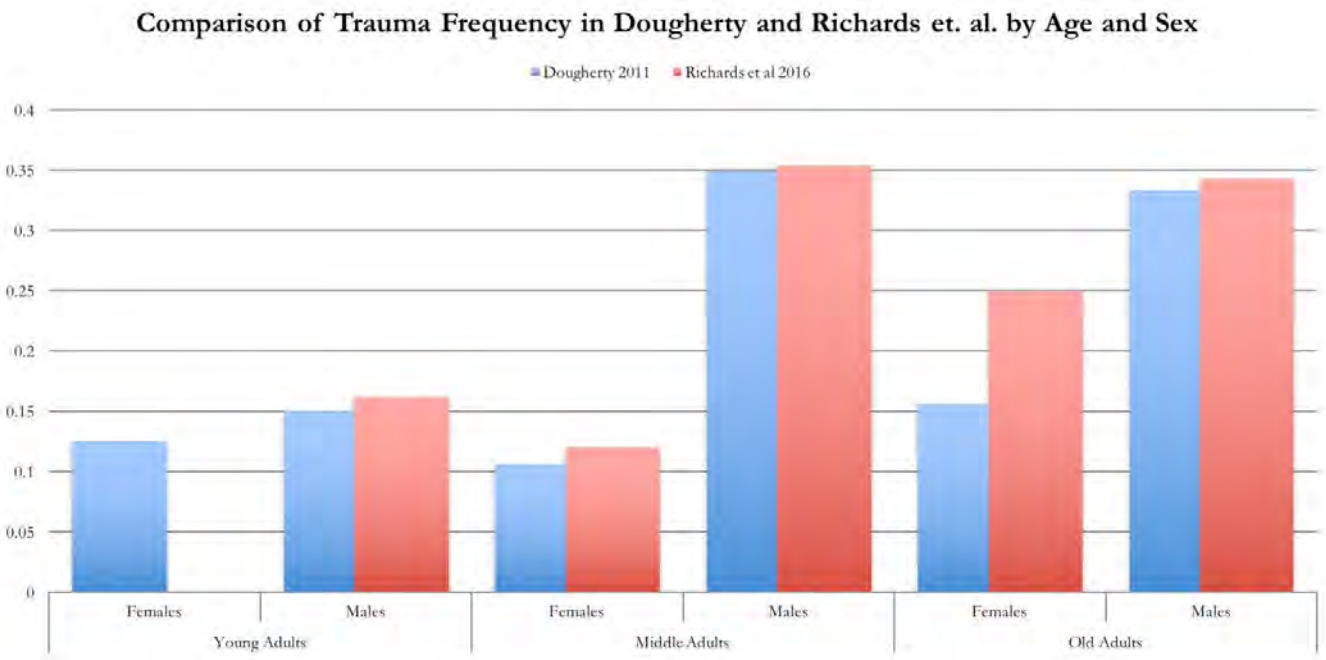

Figure 6.39. Prevalence of adult trauma frequency by age and sex in the Milwaukee County Poor Farm Cemetery as examined by Richards et al 2016 (2013 excavation) and Dougherty 2011 (1991-92 excavation).

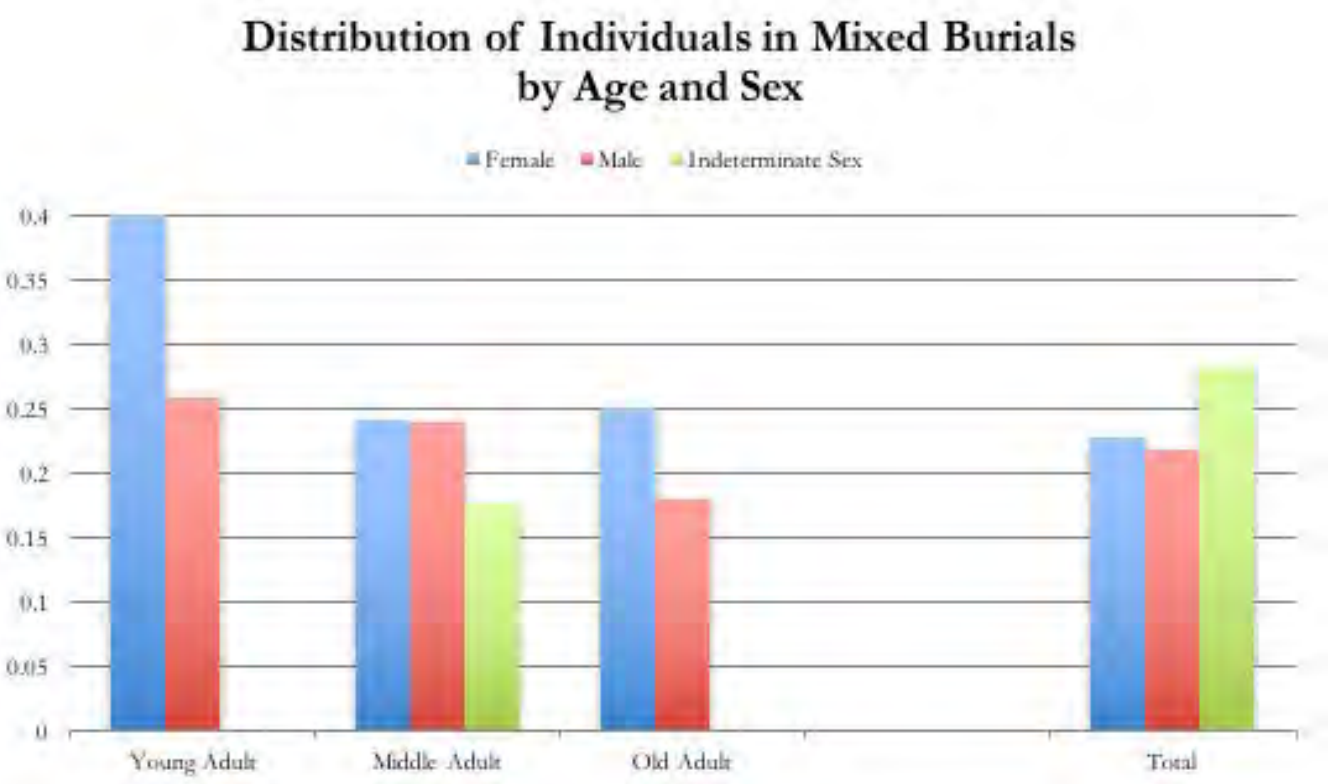

Figure 6.40. Distribution of adult individuals recovered from mixed burial contexts by age and sex.

Juvenile Osteology

In total, 284 juveniles were recovered during the 2013 excavation (Figure 6.41), a sample of the juveniles interred in the entire cemetery. Infants, neonates, and fetuses are most frequently represented in the sample. Analyses indicate that the youngest individuals suffered the highest rates of infection prior to death. Adolescent individuals exhibited evidence for dental disease in addition to post-cranial joint pathologies associated with hard labor. The presence of saw and craniotomy marks suggests postmortem investigations were conducted on some juvenile patients at the county hospital or neighboring medical college. Many conditions attributable to juvenile mortality do not result in skeletal lesions or progress too rapidly for lesions to develop, and future analyses of the recovered juveniles may shed more light on conditions not visible in the skeleton.

Burial Context

Juvenile individuals were recovered from 273 coffins. Single juveniles recovered from single juvenile-sized coffins total 246. The remaining individuals were recovered in varied contexts: 10 adult-sized coffins each containing the remains of a single juvenile; nine juvenile-sized coffins containing the remains of 16 juvenile individuals each and one additional coffin containing the remains of three juveniles; seven adult-sized coffins each containing the remains of a single juvenile and one or more adults; and one juvenile-sized coffin containing the remains of one adult and one juvenile. Each had been exposed to a wide range of taphonomic processes, including adherent matrix and staining resulting from exposure to coffin hardware and soils of varying mineral content.

Stabilization and Analysis

Juvenile human skeletal remains were recovered *in situ* and from water-screened coffin matrix. Osteological specimens were separated from dried matrix with tweezers and the aid of light and magnification. Unlike the adult remains, juvenile skeletal material recovered *in situ* was too fragile to wash. All juvenile remains were removed from field bags and stabilized prior to completing the analytical and inventory procedures.

Prior to analysis, all material representing a complete burial lot was laid out on trays padded with vinyl-covered utility cloth. An analyst worked only with one lot at a time. Remains were placed in glassine bags following inventory.

Skeletal analyses involved assessments of age at death, presence of pathological lesions, evidence of skeletal trauma and postmortem medical intervention, and taphonomy for each burial. The analytical procedure did not include biological sex assessments given the problematic nature of applying such methods to juveniles (Scheuer and Black 2000).

Age Estimation

The juvenile age estimation process included three distinct assessments, beginning with an evaluation of primary element development and epiphyseal fusion (Scheuer and Black 2000; Schaefer et al. 2009). The second and third age assessments focused on dental development (Lysell et al. 1962 as described in Scheuer and Black 2000; Moorrees et al. 1963a,1963b; Sunderland et al. 1987; Ubelaker 1989) and overall growth (Fazekas and Kósa 1978; Maresh 1970). The first assessment provides the most general results while the other assessments result in grouping those younger than 2.5 years into finer–grained developmental categories.

Fusion

The first assessment includes evaluation of primary element development and fusion as well as epiphyseal fusion (Scheuer and Black 2000; Schaefer et al. 2009). Analysts selected one of two forms (see Appendix B) after deciding if the remains more closely represented one of the two gross categories of younger/smaller (for example, fetal) versus older/bigger (for example, late childhood). Separating the first set of assessments across two forms reduced the number of required observations per burials (Figure 6.46). Age gaps were eliminated by including assessments for individuals ranging between 6 and 12.9 years of age on both forms. Regardless of the form used, assessment results include an estimated age range, the average of which dictated selection of an estimated developmental age category.

The juvenile remains, though often fragmented, showed a remarkably good rate of preservation throughout the cemetery. This preservation allowed analysts to assign the remains to four distinct categories of element developmental age. Below are images of recovered juveniles showing both the rate of preservation and range of developmental age encountered in the sample (Figure 6.42-Figure 6.45).

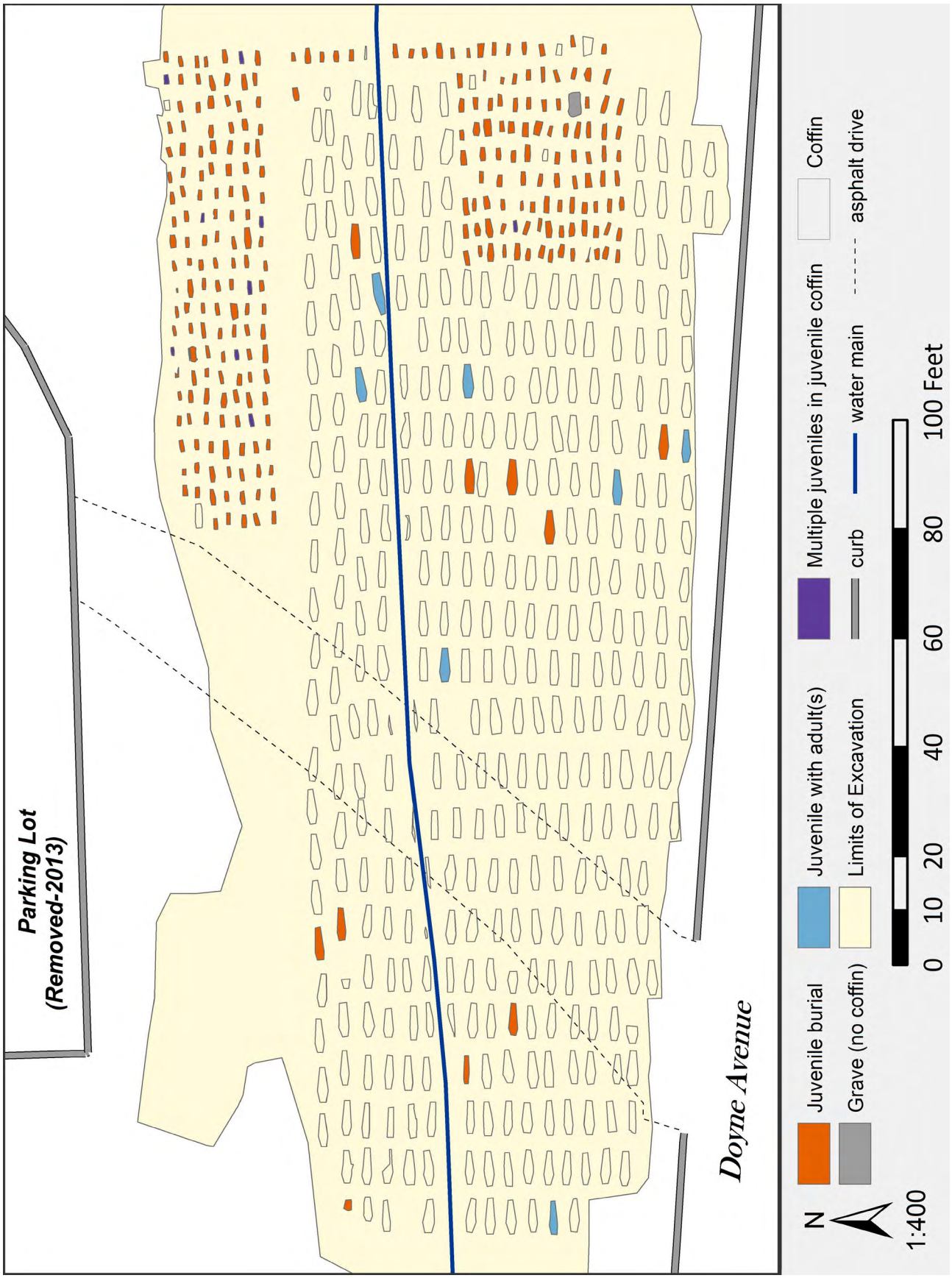

Figure 6.41. Juvenile burial locations. 284 juveniles were recovered from 273 coffins.

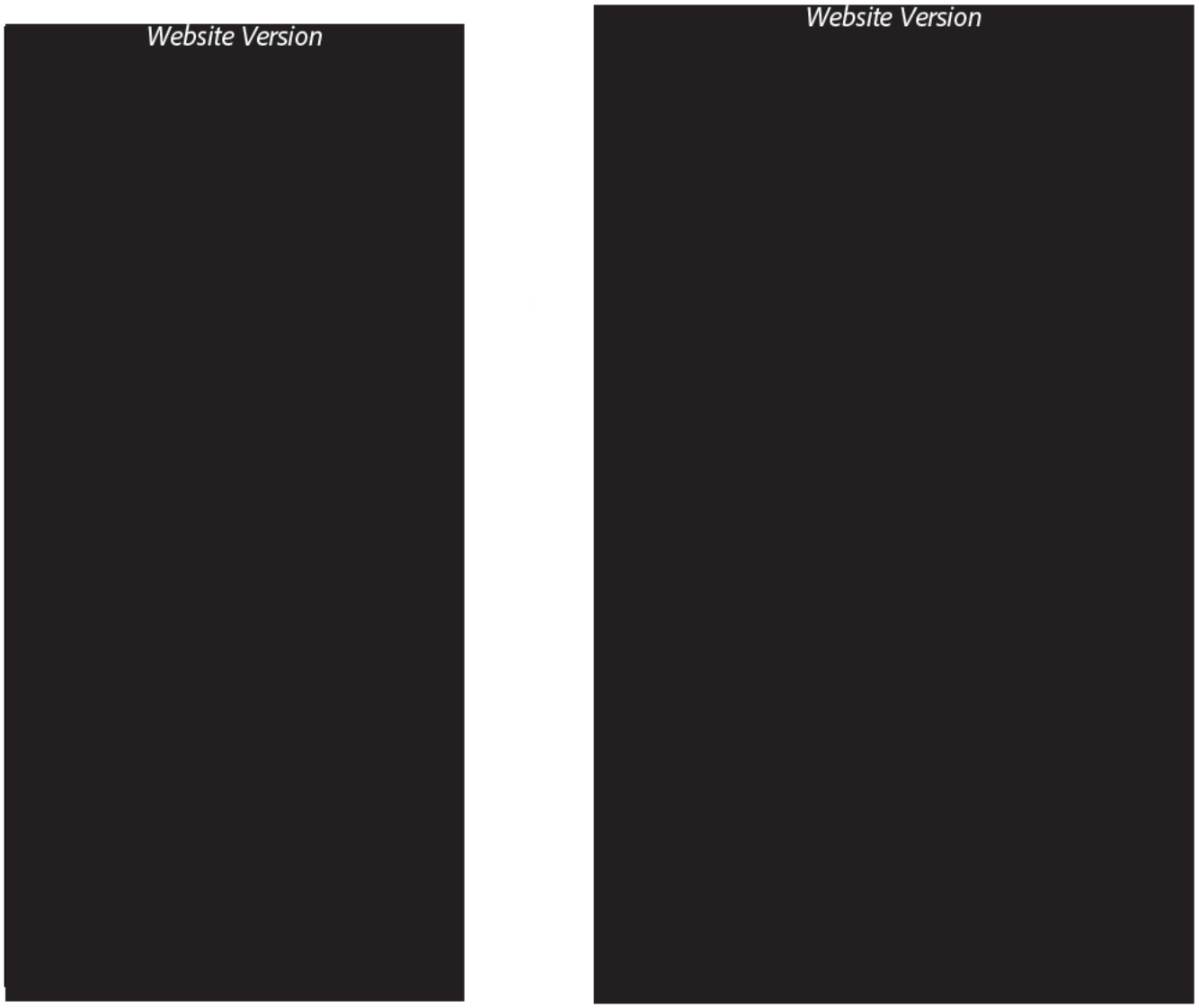

Figure 6.42. Fetal. Lot 10185 (left) represents the lower end of this age category at an estimated 12-36 fetal weeks old. Lot 10123 (right) represents the higher end of this age category at an estimated 13 fetal weeks - 6 months old.

Figure 6.43. Early Childhood. Lot 10131 is estimated to be 1-5 years of age.

Figure 6.44. Late Childhood. Lot 10739 is estimated to be 5-9 years of age.

Figure 6.45. Adolescent. Lot 10516 is estimated to be 12-21 years of age.

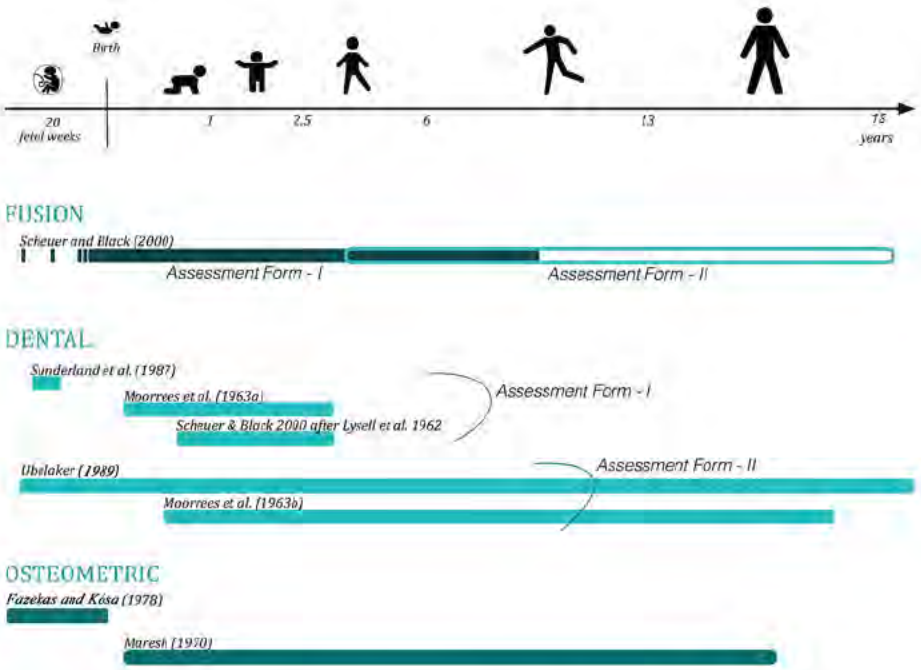

Figure 6.46. Age ranges covered by analytical methods.

Individuals with estimated ages based on skeletal development and epiphyseal closure total 236 and represent 83.1 percent of the recovered juveniles (Figure 6.47). These include: 212 individuals estimated to be of fetal age, 0-2.49 years (74.6%); 10 individuals estimated to be of early childhood age, 2.5-5.9 years (3.5%); 3 individuals estimated to be of late childhood age, 6–12.9 years (1.1%); and 12 individuals estimated to be of adolescent age, 13–18 years (4.2%).

Individuals primary element development and fusion as well as epiphyseal fusion lacking elements required to complete the assessment procedure resulting in an indeterminate age estimate totaled 47 (16.5%). The estimated age category based on fusion was used to select the appropriate series of dental age assessments depending on whether the individual was younger or older than 2.49 years.

Non-Metric Dental Age Assessment

Dental development is considered the most accurate means of estimating juvenile age at death for a variety of reasons, most notably because the dentition is less susceptible to environmentally-based variability than other skeletal parts (White et al 2012). Estimated dental age is based on enamel mineralization, dental formation, and eruption (Lysell et al. 1962 as described in Scheuer and Black 2000; Moorrees et al. 1963a,b; Sunderland et al. 1987; Ubelaker 1989). Not all of the assessments will yield results depending upon data requirements and the individual's development.

Sunderland et al (1987) developed a method to assess the dental age of fetuses based on the presence of mineralized teeth. Mineralized fetal teeth exhibit incomplete crown formation. Sunderland et al. examined the dentition of 121 fetuses ranging in age from 10 to 26 weeks.

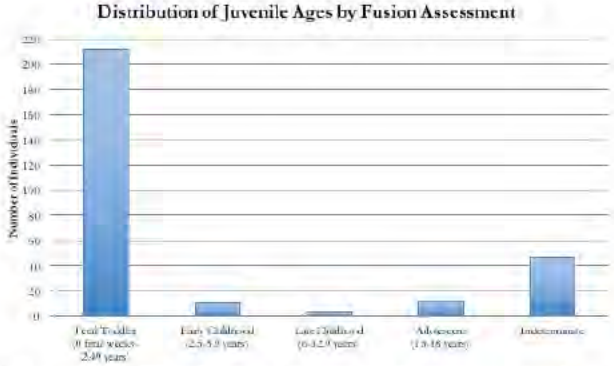

Figure 6.47. Distribution of juveniles by age category based on primary element development and epiphyseal fusion.

Moorrees et al. (1963a) conducted a longitudinal study in which 246 Euroamerican female and male children from the immediate Yellow Spring, Ohio, area were radiographed at regular intervals beginning in the second month of life. Root and crown formation for the deciduous mandibular canine, first molar, and second molar are described, illustrated, and coded with an association to chronometric ages. A skeletal analyst must then compare loose subject teeth to the Moorrees et al. illustrated guide to generate an estimated dental age for the subject. The method may only be applied to teeth where the full length of the tooth (crown to root) is visible. In a similar study, Moorrees et al (1963b) evaluated the formation of ten permanent teeth, including the preceding period deciduous tooth root resorption. As with the previous method, the complete length of the tooth must be visible to apply the Moorrees et al. (1963b) age assessment.

The formation and eruption sequence presented by Ubelaker (1989) is based on a compilation of data collected from a number of disparate groups, ranging in age from 12 fetal weeks to 35 years. Tooth eruption is evident when the tooth crown emerges from the crypt, breaks through, and extends beyond the occlusal plane of the alveolar bone. Articulated and loose teeth are compared to an illustration of developmental stages associated with chronological ages.

The final dental-based method for estimating age concerns comparison of a subject individual's dentition to deciduous eruption times following Lysell et al. (1962) (as presented in Scheuer and Black 2000). Lysell et al. collected deciduous dentition eruption times from European juveniles, making it well-suited for estimating Milwaukee County Poor Farm Cemetery juvenile dental age. Depending upon the tooth, eruption times ranged between two postnatal months and 2.75 years. To apply the Lysell et al. method, Milwaukee County Poor Farm Cemetery juveniles needed to exhibit articulated deciduous teeth that had erupted through the alveolar bone.

Once the non-metric dental assessments are complete, the lowest and highest ages returned from any of the four methods form the combined estimated age range, and the average of those two ages is used to assign the individual to a developmental category. Total numbers for each category are as follows: 57 fetuses, 0-40 fetal weeks (20.1%); 63 neonates, birth-28 days, (22.2%); 66 infants, 29 days-11.9 months (23.2%); 21 toddlers, 1-2.49 years (7.4%); three early childhood age, 2.5-5.9 years (1.1%); four late childhood age, 6-12.9 years (1.4%), and six adolescents, 13-18 years (2.1%) (Figure 6.48). Edentulous individuals or those with dentition in a condition inappropriate for assessment received an indeterminate estimated dental age and totaled 64 (22.5%).

Osteometric Age Assessment

Estimating age with skeletal measurements requires the comparison of the subject individual's measurements to those collected from individuals of known age. Skeletal measurements collected in this study follow Fazekas and Kósa (1978) and Maresh (1970). Fazekas and Kósa collected osteometric measurements from 138 fetuses of known age during the mid-twentieth century in Hungary. The oldest age returned from the Fazekas and Kósa method is "> 40 fetal weeks". Maresh conducted a longitudinal study in which 178 Euroamerican female and male children were radiographed at regular intervals beginning in infancy and continuing through adolescence. Maresh collected limb measurements from these radiographs that skeletal analysts compare to osteometric data in order to estimate age. The youngest estimated age results following Maresh is "1.5 postnatal months," which leaves a six-week gap between that and the oldest estimated age result based on Fazekas and Kósa. Given the susceptibility of limb bone length to nutritional and environmental variables, individuals with an estimated dental age of Infant may yield a Neonate or even Fetal estimated osteometric age category.

The youngest and oldest estimated osteometric ages form the estimated age range, the mean of which was used to assign the individual to a developmental age category. Total numbers of individuals assessed to each category are as follows: 135 fetuses, 0-40 fetal weeks (47.5%); 55 neonates, birth-28 days (19.4%); 20 infants, 29 days-11.9 months (7.0%); three toddlers, 1-2.49 years (1.1%); one early child, 2.5-5.9 years (0.4%); three late children, 6-12.9 years (1.1%), and five adolescents, 13-18 years (1.8%) (Figure 6.49). Assessments resulting in individuals assigned to the indeterminate age category total 62 (21.8%). Nearly all the juveniles were assigned to an estimated age category because the analytical procedure included a variety of methods for estimating age. Only 16 individuals (5.6%) were so fragmentary as to prevent assignment to an age category following any age estimation method.

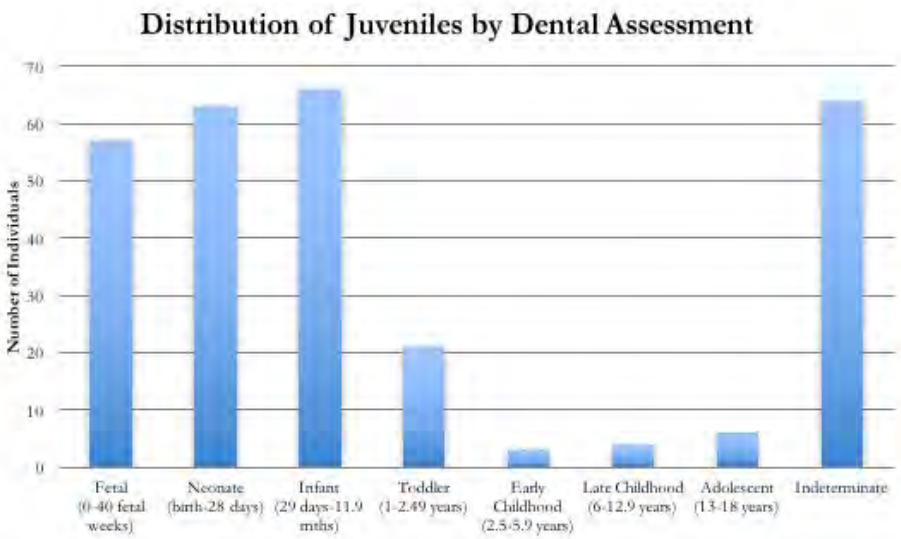

Figure 6.48. Distribution of juveniles by age category based on dental development.

Application of all assessment methods requires relatively complete skeletal remains and decent preservation. Disparate results may highlight developmental anomalies when all three methods are applied. For example, an individual missing dental material was assigned to an estimated age category based on osteometric data while, in other cases, the reverse was true.

The distribution of individuals assigned to age categories resulting from osteometric and dental assessments exhibits variation. Osteometric assessments resulted in an uneven distribution of individuals representing the first three age categories, with individuals most frequently assigned to the fetal category. Following dental assessments, individuals were relatively evenly assigned to one of the first three age categories. A relatively even distribution is also observed among all three estimated age assessments when the first three age categories resulting from dental and osteometric methods are aggregated to facilitate comparison (Figure 6.50). Results presented in the following sections refer to estimated age categories based on dental assessments.

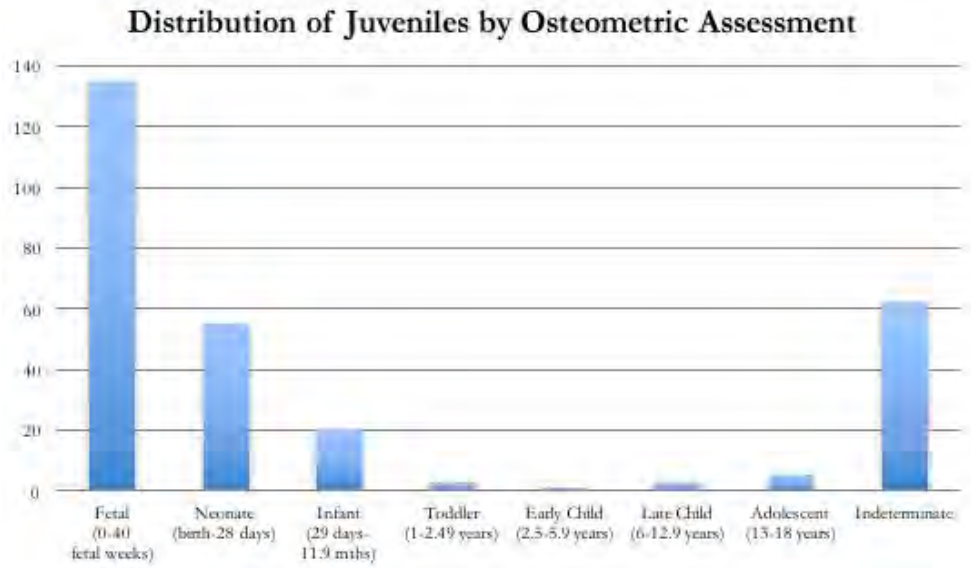

Figure 6.49. Distribution of juveniles by age category based on osteometric measurement.

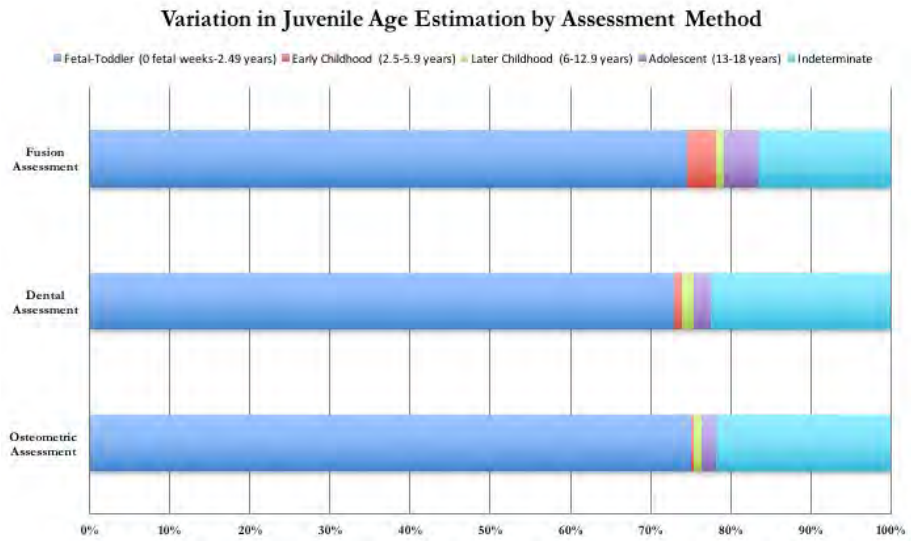

Figure 6.50. Variation in juvenile age estimation by each of the three assessment methods. Note that the Fetal, Neonate, Infant, and Toddler categories have been aggregated to facilitate comparison with the Fusion Assessment categories.

Skeletal and Dental Pathology

Juvenile individuals were evaluated for the presence of abnormal skeletal and dental tissue (Figure 6.51). Given the equifinality of various conditions and diseases affecting the human skeleton, analysts focused on the identification of morphological symptoms rather than diagnosis or etiological assignments. Never the less, the pathological lesions described below clearly result from a variety of stressors, including inadequate nutrition during development, congenital abnormalities, infection, trauma, and injury. The total number of juveniles exhibiting lesions indicative of trauma and pathology is 209 and represents 73.6 percent of the juvenile sample. While the spatial distribution of these juvenile burials is wide, there is a significant cluster of individuals that lack evidence for abnormal skeletal tissues or trauma (see Figure 6.52).

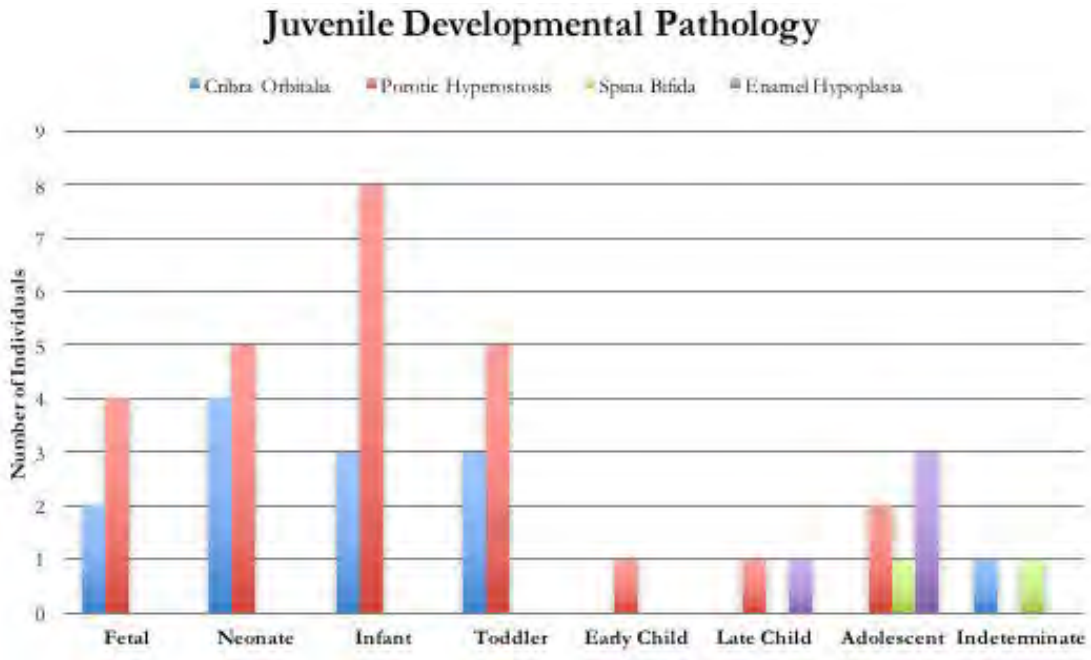

Figure 6.51. Distribution of juvenile developmental pathologies by age category.

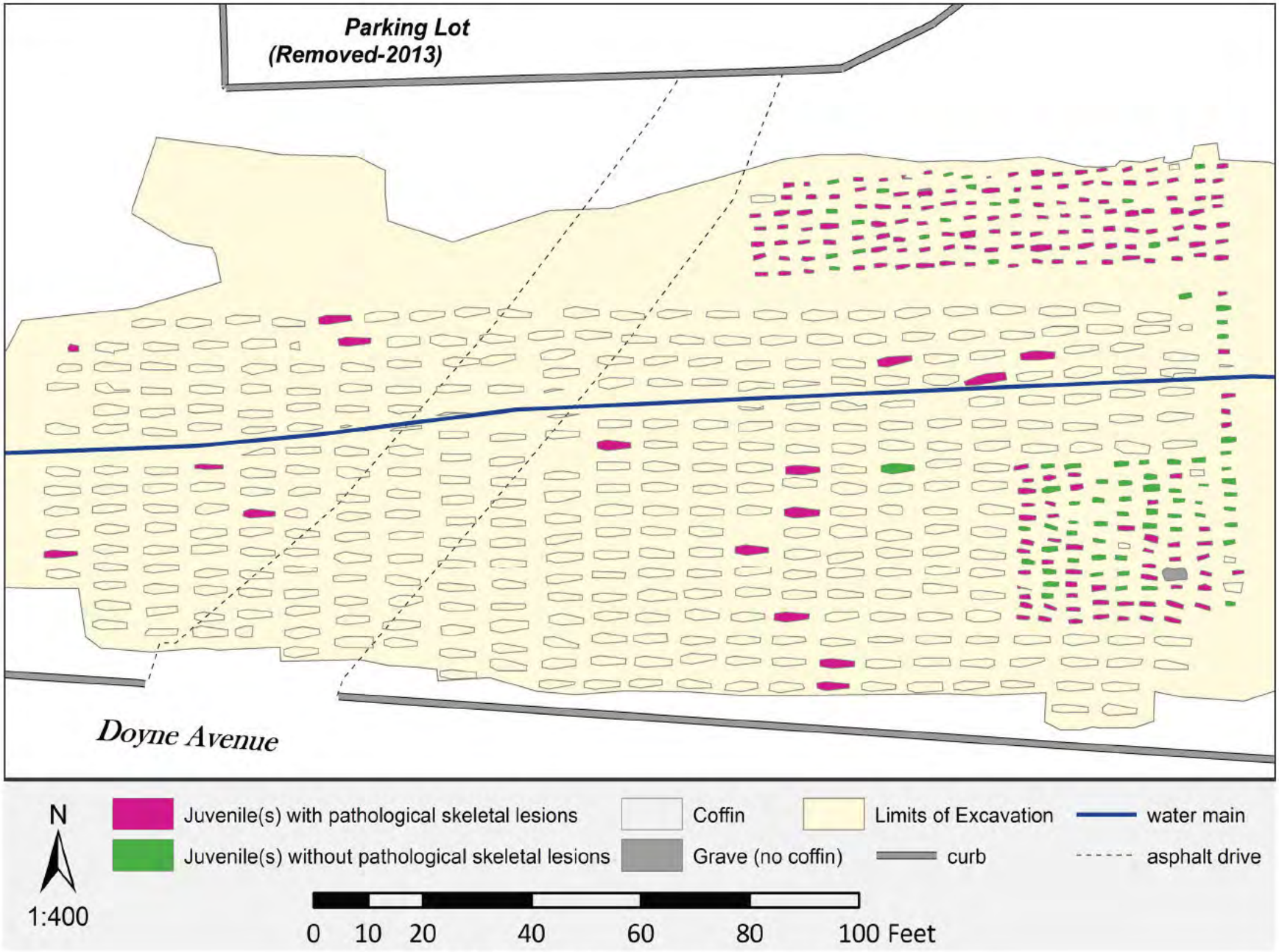

Figure 6.52. Spatial distribution of juveniles exhibiting pathology.

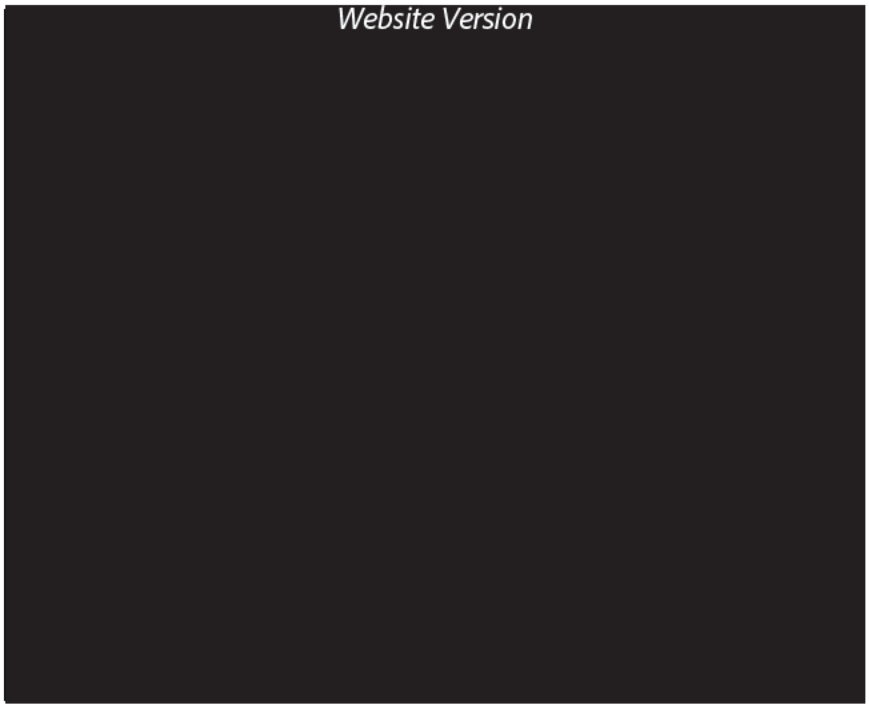

Figure 6.53. Lot 10516, an adolescent exhibiting linear enamel hypoplasia on several mandibular teeth (anterior view).

Developmental Stress

Analysts examined juveniles for the following lesions indicative of developmental stress: linear enamel hypoplasia, porotic hyperostosis, cribra orbitalia, and spina bifida. Linear enamel hypoplasia is identified as bands of interrupted enamel matrix secretion during the development of the crown due to inadequate nutrition, infection, or metabolic disorder (Hillson 1996). Four individuals exhibited linear enamel hypoplasia: one late child and three adolescents (Figure 6.53). Porotic hyperostosis and cribra orbitalia refer to lesions characterized by thinned compact bone accompanied by diplöic bone growth found on the cranial surface and within the orbits, respectively (Figure 6.54 and Figure 6.55).

Possible causes of porotic hyperostosis and cribra orbitalia include inflammatory and hemorrhagic processes, tumors, dietary deficiencies, parasites, and congenital conditions (Ortner 2003:89). The rank order of age groups exhibiting cribra orbitalia varies

Figure 6.54. Lot 10203, a fetus exhibiting porotic hyperostosis on a cranial fragment (exocranial view).

Figure 6.55. Lot 10062, an infant exhibiting cribra orbitalia in both orbits (inferior view).

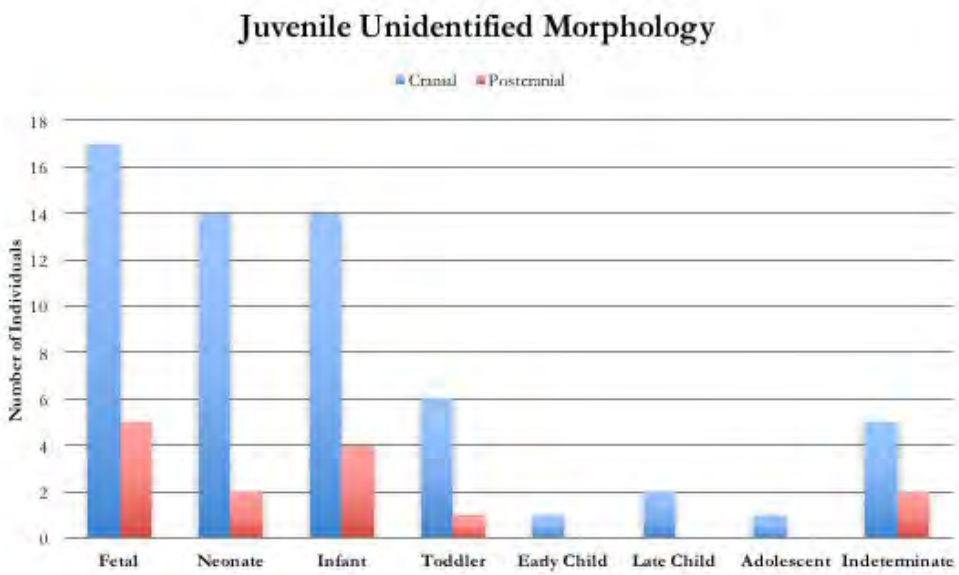

Figure 6.56. Distribution of juvenile unidentified cranial and post-cranial morphology by age category.

from that observed for porotic hyperostosis (see Figure 6.51).

Juveniles exhibiting porotic hyperostosis total 26, consisting of four fetuses (1.4%), five neonates (1.8%), eight infants (2.8%), five toddlers (1.8%), one early child (0.4%), one late child (0.4%), and two adolescents (0.7%). Juvenile exhibiting cribra orbitalia total 13, consisting of two fetuses (0.7%), four neonates (1.4%), three infants (1.1%), three toddlers (1.1%), and one juvenile (0.4%) with an indeterminate dental age.

Spina bifida is identified as incomplete development of neural arches in one or more vertebrae (Ortner 2003). Spina bifida is readily identifiable among adults as unfused neural arches while the presence of multiple primary elements per vertebrae complicates identification among the youngest juveniles. No distinction was made between spina bifida and spina bifida occulta due to the incomplete developmental stages observed. Thus, analysts conservatively identified spina bifida in cases where it was clear that neural arches failed to fuse. Individuals identified as exhibiting spina bifida total two, represented by one adolescent (0.4%) and one individual of indeterminate age (0.4%). However, a number of observed unidentified cranial and post-cranial morphologies may also represent incomplete neural arch development.

Unidentified Morphology

Analysts identified individuals exhibiting morphology deviating from the expected structure of primary elements. For example, an infant with a fused subarcuate fossa, a fetal lateralis exhibiting a bifurcated condylar limb, or an individual exhibiting bifurcated vertebral centra. Individuals exhibiting unidentified cranial morphology total 60 (Figure 6.56).

By dental age category, the number of fetuses exhibiting unidentified cranial lesions total 17 (6.0%), neonates total 14 (4.9%), infants total 14 (4.9%), toddlers total six (2.1%), early children total one (0.4%), late children total two (0.7%), and adolescents total one (0.4%), while five individuals (1.8%) were of indeterminate age. Unidentified post-cranial lesions were observed in four fetuses (1.4%), two neonates (0.7%), four infants (1.4%), one toddler (0.4%), and two individuals (0.7%) of indeterminate age.

Joint Pathology

Analysts examined juveniles for the following lesions indicative of joint pathology: ankylosis, Schmorl's nodes, eburnation, and osteophytic lipping. As expected, few individuals younger than 19.9 years of age exhibit lesions associated with joint pathology (Figure 6.57). Ankylosis is abnormal fusion of elements (Ortner 2003). Six individuals exhibited ankylosis: one fetus (0.4%), one infant (0.4%), and three adolescents (1.1%) (Figure 6.58).

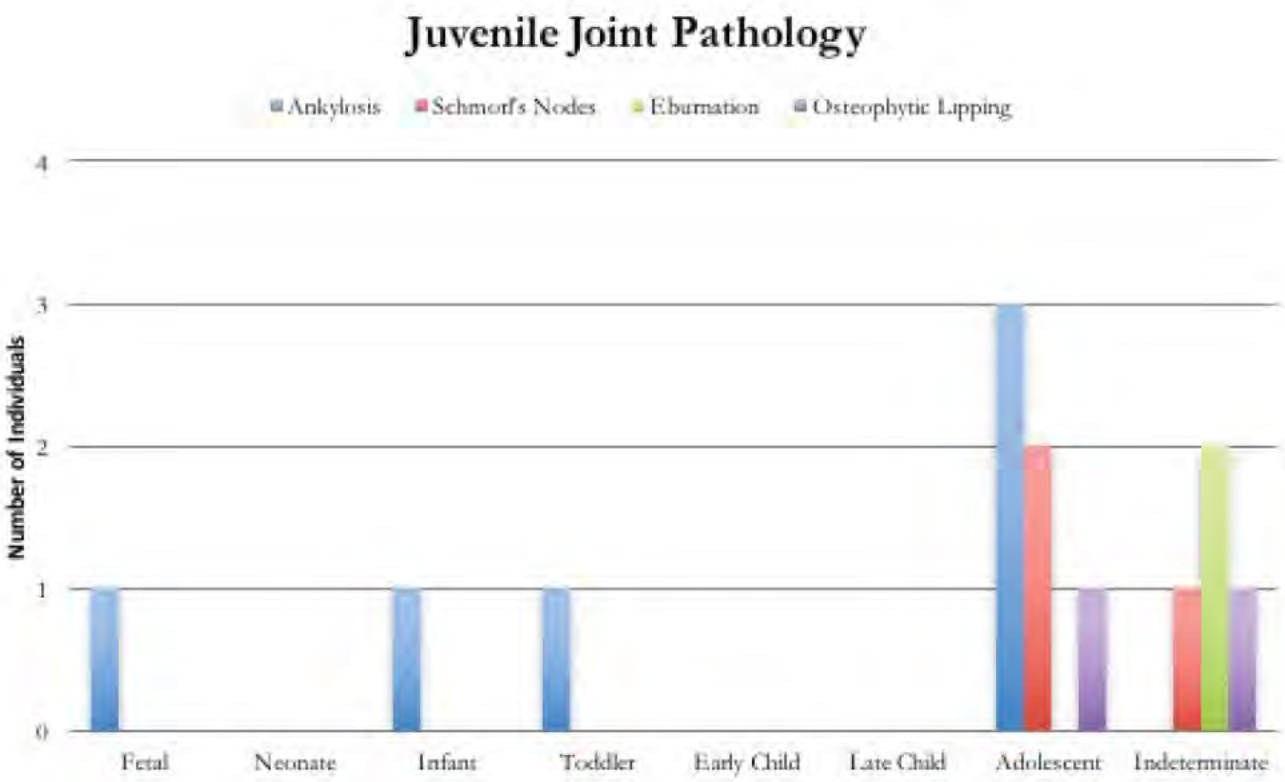

Figure 6.57. Distribution of juvenile joint pathologies by age category.

Figure 6.58. Lot 10192, a toddler exhibiting bilateral ankylosis of the proximal ulna and radius (right arm is anterior view, left arm is posterior view).

Figure 6.59. Lot 10734, a late child exhibiting Schmorl's nodes on four thoracic vertebrae (superior view).

Schmorl's nodes may be identified as porous lesions on the inferior and/or superior vertebral centra (Figure 6.59). The lesions develop because of a herniated intervertebral disc, which occurs when the nucleus pulposus ruptures through the fibrocartilage of annular rings (Roberts and Manchester 2007).

Schmorl's nodes were identified in three individuals: one late child (0.4%), one adolescent (0.4%), and one individual (0.4%) of indeterminate age.

Figure 6.60. Lot 10969, an adolescent exhibiting osteophytic lipping on a cervical vertebra (inferior view).

Eburnation is identified as high gloss lesions evident on synovial joints, such as the elbow or knee. Eburnation occurs when elements at such a joint articulate directly with one another due to the degradation of articular cartilage. Two individuals (0.7%), both of indeterminate age, exhibit eburnation.

Osteophytic lipping was identified in two individuals, one of indeterminate age (0.4%) and one adolescent (0.4%). Osteophytic lipping is a physiological response to joint stress (Figure 6.60); hypertrophic additions of osseous material allow for the distribution of stress across a larger surface area (Roberts and Manchester 2006).

Infection

Periostitis is a non-specific infection resulting in the inflammation of the periosteum. The inflammation triggers a blastic response to the periosteal region that may manifest as a porous and inflamed tissue on the compact bone (Ortner 2003). Individuals exhibiting lesions indicative of periostitis total 29 (Figure 6.61). By dental age category, five fetuses (1.8%), six neonates (2.1%), 10 infants (3.5%), three toddlers (1.1%), two late children (0.7%), two adolescents (0.7%), and one individual of indeterminate age (0.4%) exhibit skeletal lesions indicative of periostitis.

Skeletal abscesses total seven, represented by one fetus (0.4%), three neonates (1.1%), one infant (0.4%), and two adolescents (0.7%). Skeletal abscesses are identified by eroded, lytic tissue, or a lack of osseous

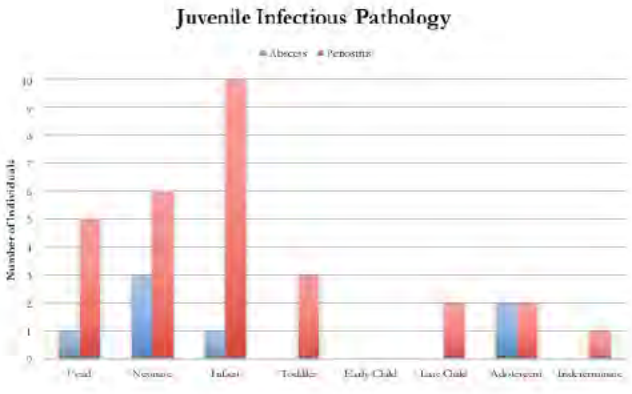

Figure 6.61. Distribution of juvenile infectious pathologies by age category.

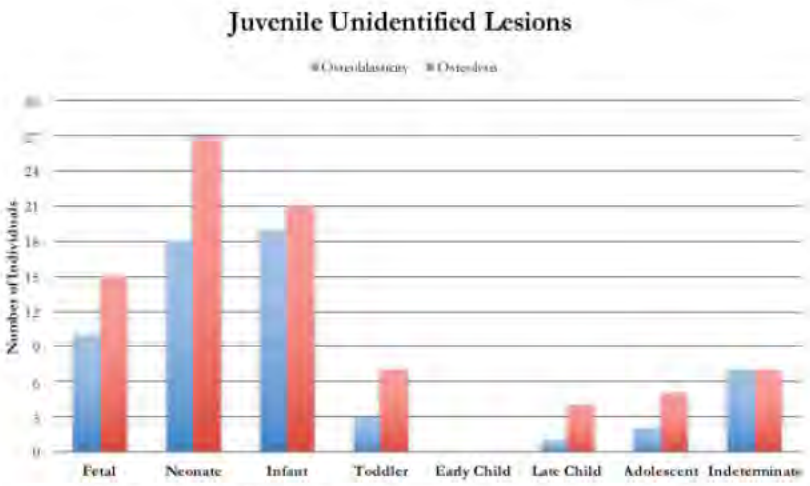

Figure 6.63. Distribution of juvenile unidentified pathological lesions by age category.

tissue at an infection site (Figure 6.62). Of the seven individuals exhibiting abscesses, two neonates (0.7%) and one infant (0.4%) exhibited abscesses on the mastoids.

Unidentified Lesions

Hypertrophic lesions are osteoblastic, evident as abnormal growth of connective tissue throughout the skeleton. Conversely, osteolytic lesions are those that exhibit abnormal tissue loss and degeneration (Ortner 2003). Individuals exhibiting hypertrophic lesions total 60 and consist of 10 fetuses (3.5%), 18 neonates (6.3%), 19 infants (6.7%), three toddlers (1.1%), one late child (0.4%), two adolescents (0.7%), and seven individuals (2.5%) of indeterminate age (Figure 6.63). Individuals exhibiting osteolytic lesions total 86 and consist of 15 fetuses (5.3%), 27 neonates (9.5%), 21 infants (7.4%), seven toddlers (2.5%), four late children (1.4%), five adolescents (1.8%), and seven individuals of indeterminate age (2.5%).

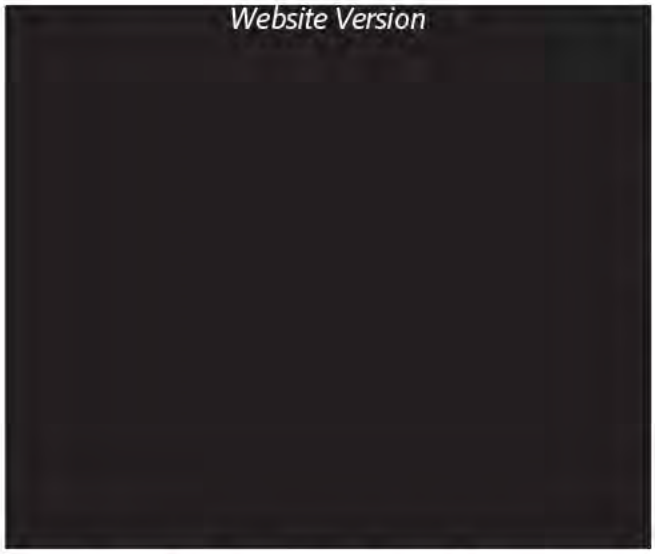

Figure 6.62. Lot 10492, a fetus exhibiting an abscess in the left mastoid (lateral view).

Dental Pathology

Dental pathologies include calculus, caries, and remodeled alveoli due to tooth loss. Frequency of linear enamel hypoplasia was presented above with other indicators of growth and developmental stress. Individuals exhibiting dental calculus total five and consist of two late children (0.7%) and three adolescents (1.1%) (Figure 6.64). Individuals exhibiting dental caries total five and consist of two late children (0.7%) and three adolescents (1.1%). Three individuals present dental arcades exhibiting remodeled alveolus, two of which were estimated to represent adolescents (0.7%) and one of indeterminate age (0.4%).

Trauma and Postmortem Investigation

Traumatic injury may be represented by healed or unhealed fractures. Healed fractures occur during life, and take at least six weeks to allow for the development of a woven bone callus at the breakage site. Unhealed fractures are perimortem fractures that do not exhibit reactive bone growth but also lack the color contrast indicative of postmortem breakage. Evidence for postmortem medical intervention includes modifications indicative of craniotomy, saw marks, or cut marks (Figure 6.65).

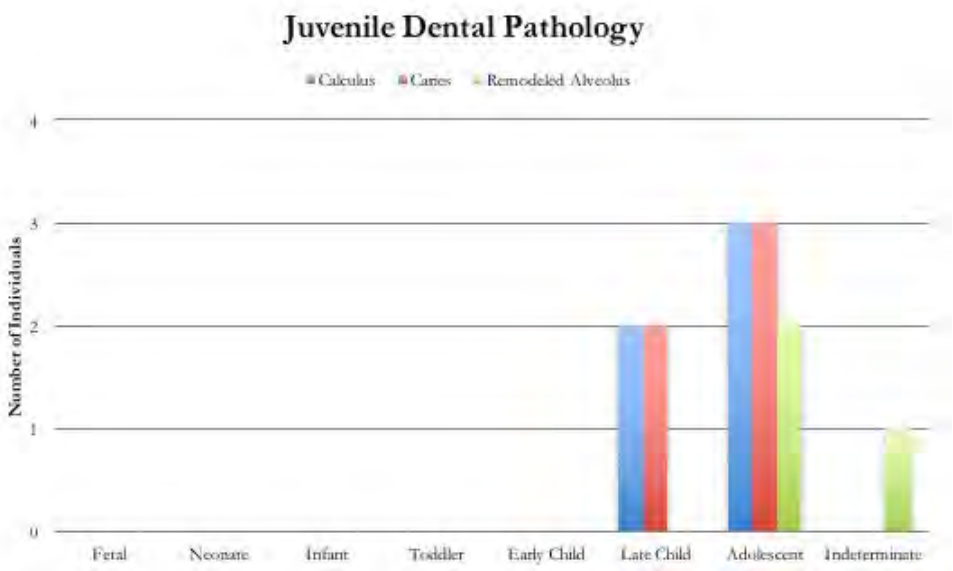

Figure 6.64. Distribution of juvenile dental pathologies by age category.

Individuals exhibiting healed fractures total six, consisting of four infants (1.4%) and two toddlers (0.7%). Unhealed fractures were identified on 12 individuals: two fetuses (0.7%), four infants (1.4%), one toddler (0.4%), two late children (0.7%), two adolescents (0.7%), and one individual of indeterminate age (0.4%). Evidence of postmortem cut bone was identified on 19 individuals according to the following distribution: three fetuses (1.1%), four neonates (1.4%), three infants (1.1%), two toddlers (0.7%), two adolescents (0.7%), and five individuals of indeterminate age (1.8%).

Fifty-three individuals exhibit evidence for craniotomy, consisting of 10 fetuses (3.5%), 18 neonates (6.3%), 15 infants (5.3%), six toddlers (2.1%), one late child (0.4%), one adolescent (0.4%), and two individuals of indeterminate age (0.7%) (Figure 6.66). In 1990 and 1991, several juvenile burials were recovered from an area east of the 2013 cemetery; several of these burials contained crania also exhibiting evidence for craniotomy. Some fetal and neonatal juveniles exhibited perimortem cranial fractures that were inconsistent with craniotomy and may instead represent skeletal evidence of a dangerous birth or destructive obstetric procedures (c.f. Hibbard 2000).

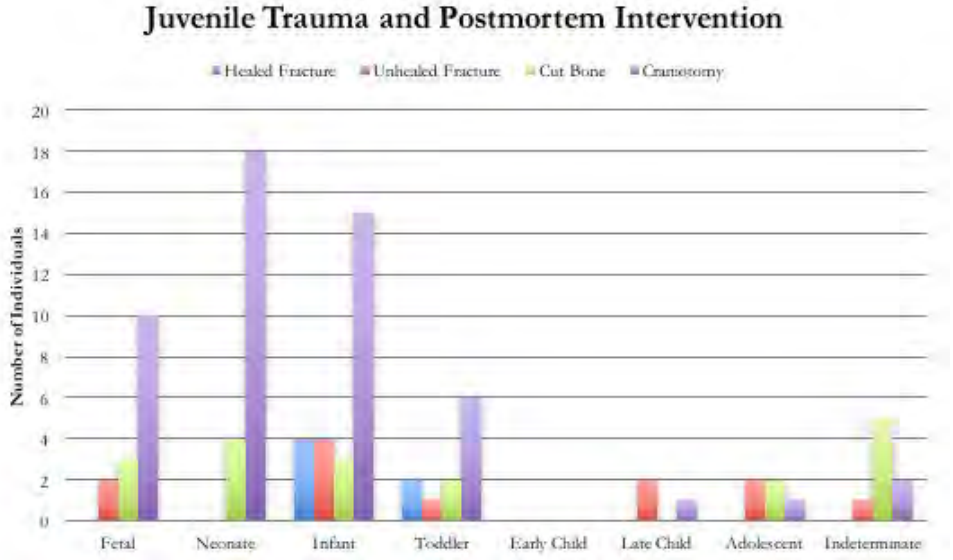

Figure 6.65. Distribution of juvenile trauma and postmortem intervention by age category.

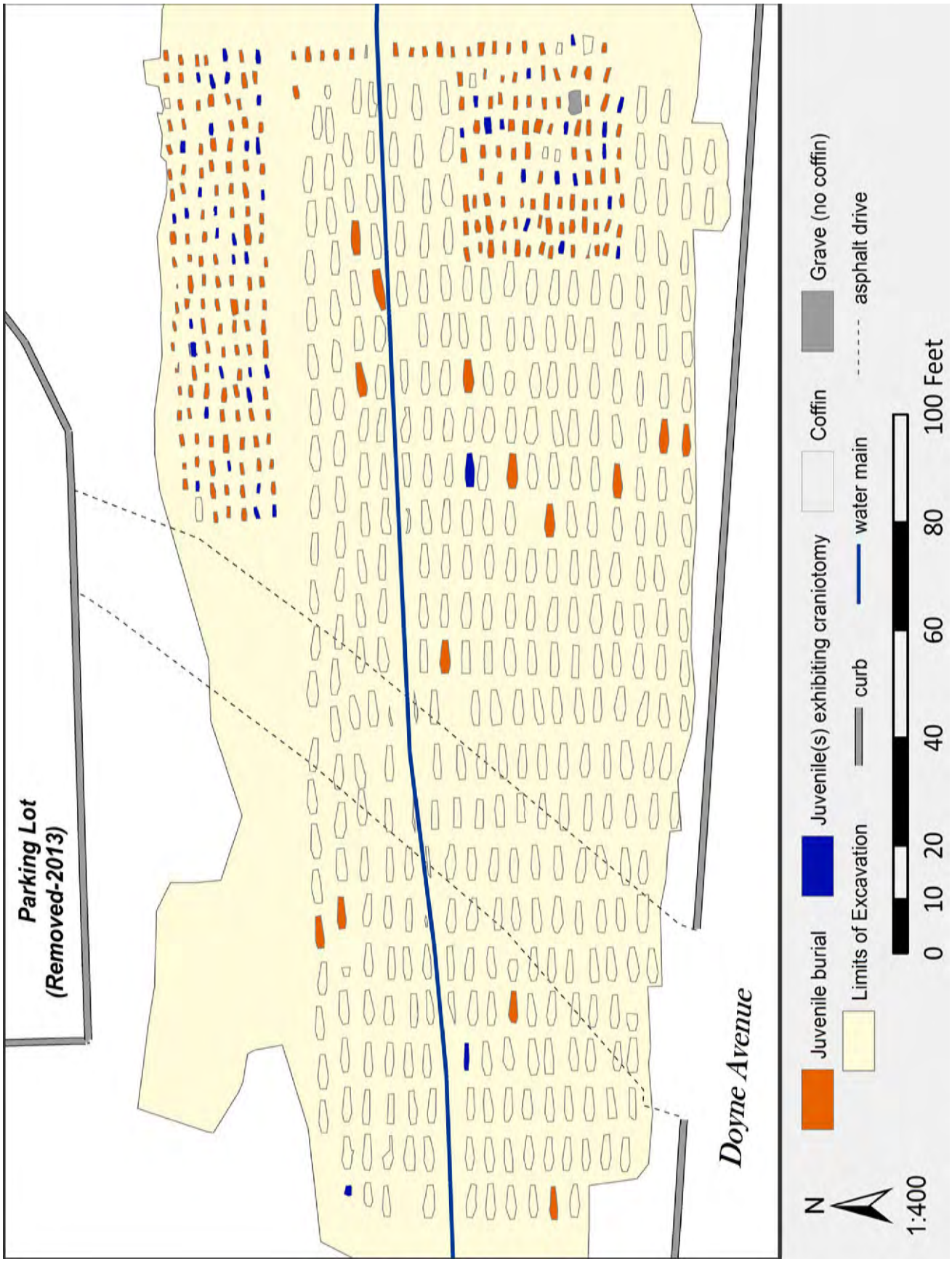

Figure 6.66. Spatial distribution of craniotomies among juvenile burials.

Summary of Juvenile Osteological Analysis

Fetuses, neonates, and infants, as a group, more frequently exhibit skeletal lesions indicative of infection, growth and developmental stress, in addition to exhibiting abnormal cranial and post-cranial morphologies. Adolescents exhibit a higher frequency of skeletal lesions associated with pathological joint wear as well as dental lesions indicative of periodontal disease and developmental stress. The juveniles estimated by dental aging assessments to represent toddlers (n=21) and early childhood age children (n=3) exhibit some of the same lesions associated with the younger age categories. The following is a discussion of results organized according to estimated dental age categories.

Fetus: 0-40 fetal weeks
The first age estimation method based on fusion aggregates fetuses, neonates, infants, and toddlers into one group, which makes comparisons of results from the dental and osteometric age assessment problematic. In addition, gaps exist in the various age assessments (Figure 6.46), most notably in fusion during the period of prenatal development. Due to these gaps, the total number of individuals from 0-40 fetal weeks of age will be underestimated in comparison to those individuals aged at birth and older. Neonatal line assessment is one method to close the pre- versus postnatal age assessment gap.

Individuals assigned to the fetal category following the dental age assessment total 57. Fetuses exhibiting unidentified cranial morphology total 17 and represent 29.8 percent of the fetal group. Cribra orbitalia was observed in two individuals of fetal age. Periostitis was observed among 5 fetuses (8.8%). The incidence rate for hypertrophic and osteolytic lesions is 17.5 percent (10 fetuses) and 26.3 percent (15 fetuses), respectively. Bone hypertrophy and osteolysis are symptoms of a variety of diseases, infections, congenital anomalies, and trauma. Unidentified cranial morphologies may also represent neural tube defects. The incidence rate for fetuses subjected to craniotomy during an assumed autopsy is 17.5 percent (10 fetuses). Autopsied fetuses exhibited lytic and blastic skeletal lesions.

Neonate: birth-28 days
Individuals assigned to the neonatal category following the dental age assessment total 63. The neonatal category suffers from the same issues associated with estimating age as those detailed for the fetuses. Neonatal line assessment may result in younger juveniles assigned to more specific age categories than the prenatal through 2.49 years of age following a fusion assessment. The percentage of neonates exhibiting unidentified cranial morphology is 22.2 percent (14 neonates), while 9.5 percent of neonates exhibit periostosis (6 neonates), 28.6 percent exhibit hypertrophic lesions (18 neonates), 42.9 percent present osteolytic lesions (27 neonates), 6.3 percent exhibited cribra orbitalia (4 neonates), and 28.6 percent present evidence for craniotomy (18 neonates). The incidence of lytic lesions among neonates is nearly double that for fetuses.

Infant: 29 days-11.9 months
Individuals assigned to the infant age category total 66. The same suite of symptoms identified among the fetal and neonatal groups affects the infants. The percentage of infants exhibiting unidentified cranial morphology is 21.2 percent (14 infants), while 12.1 percent of infants exhibit porotic hyperostosis (8 infants), 15.2 percent exhibit periostosis (10 infants), 4.5 percent exhibit cribra orbitalia (3 infants), 28.8 percent exhibit hypertrophic lesions (19 infants), 31.8 percent present osteolytic lesions (21 infants), and 22.7 percent present evidence for craniotomy (15 infants). Infants present an increased incidence of periostitis and porotic hyperostosis. The biggest difference among infants as compared to the other age categories, however, is that four of the six cases of healed fracture identified among the juveniles are infants.

Toddler: 1-2.49 years
Individuals assigned to the toddler category total 21. Toddlers exhibit some of the same skeletal lesions as the younger age categories, including the two other healed fracture cases. Porotic hyperostosis at 23.8 percent (5 toddlers), unidentified cranial morphology at 28.6 percent (6 toddlers), periostosis at 14.3 percent (3 toddlers), cribra orbitalia at 14.3 percent (3 toddlers), and osteolytic lesions at 33.3 percent (7 toddlers) were all observed at a higher rate among the toddler group than in the younger age categories. However, hypertrophic lesions at 14.3 percent (3 toddler) appeared in lower frequency in toddlers than in the infant category. It appears that individuals surviving infancy only to expire as toddlers had a longer period for physiological processes that result in observable skeletal lesions to occur.

Early Childhood: 2.5-5.9 years
Only three individuals were estimated to represent the early childhood age category. It is difficult to make comparative statements between such a small group and other age categories represented by significantly larger numbers; a relatively smaller number of lesions were identified among the early childhood group. One individual exhibited porotic hyperostosis (33.3%), while another presented unidentified cranial morphology (33.3%). Two individuals exhibit calculus (66.7%) and two individuals exhibit carious lesions to their completely formed deciduous dentition (66.7%). A profound difference between the early childhood group and those previously discussed groups is the lack of lesions indicative of infection and an absence of individuals exhibiting evidence for craniotomy during autopsy.

Late Childhood: 6-12.9 years
Those individuals assigned to the late childhood category total four. All four exhibit osteolytic lesions; two exhibit unidentified cranial morphology (50%) and two exhibit periostitis (50%), while two each exhibit calculus and caries (50%). Two late childhood children exhibit remodeled alveoli due to permanent tooth loss (50%). Two exhibit unhealed fractures (50%) and one exhibits craniotomy marks (25%). One late child (25%) exhibits Schmorl's nodes on the vertebrae, representing the youngest case of vertebral degeneration among the juvenile sample.

Adolescent: 13-18 years
Individuals assigned to the adolescent category total six and exhibit skeletal lesions more commonly associated with adult individuals. Ankylosis (3 adolescents) and Schmorl's nodes (1 adolescent) were identified in 50 percent and 16.7 percent of adolescents, respectively. Indicators of developmental stress of individuals include linear enamel hypoplasia in 50 percent (3 adolescents) and porotic hyperostosis in 33.3 percent (2 adolescents). Osteolytic lesions were observed on five (83.3%) adolescents, while abscesses and hypertrophic lesions were represented in 33.3 percent (2 adolescents each). Two individuals (33.3%) exhibit postmortem modifications including unhealed fractures and cut bone, and one individual (16.7%) exhibited craniotomy marks.

The juvenile remains recovered from the cemetery during the 2013 excavation total 284. Infant was the most numerous age category represented by dental age assessments, followed by neonatal, fetal, toddler, adolescent, late childhood, and early childhood aged individuals. Neonatal line assessments of perinatal individuals may result in more nuanced determination of the fetal and neonatal age categories when conducting fusion age assessments. Statistical investigation of osteometric and dental juvenile data may result in an expansion of the current dental age estimation methods, which would help to close the perinatal age gap that currently exists due to the lack of overlap in current dental age estimation methods.

A majority of the recovered juveniles exhibit skeletal lesions. Juveniles lacking such lesions appear to be spatially aggregated within the section of small, juvenile coffins in Block A. Younger age groups, such as fetuses, neonates, infants, and toddlers, exhibit a high frequency for infection, indicators of developmental stress, unidentified morphologies, and craniotomies. Infants and toddlers exhibit the only evidence for unhealed fractures. The early childhood category did not include any evidence for craniotomy. Individuals of late childhood age exhibited dental calculus, caries, and remodeled alveolus. Adolescents exhibit joint lesions typically associated with older adults. Future research focusing on infectious bacteria identification will result in data more useful to integrative skeletal identification efforts.

Shillinglaw (2010) analyzed the skeletal remains of 104 juveniles recovered from two different sections of the Milwaukee County Poor Farm Cemetery. 50 individuals were analyzed from an area in use between 1880-1900, and 54 individuals were analyzed from an area in use between 1900-1920. Results from this study include the following observations. 1.) Remains from the 1900-1920 section were better preserved than those from the area in use between 1880-1900. 2.) No single specific element was the best element to use for aging in all cases. However, this study determined that the pars basilaris is the most useful element for aging juvenile skeletal remains. Although not as prevalent within the analyzed sample as the femur or the temporal, the pars basilar is most often complete enough to be measured, and is thus a good indicator of age. 3.) Skeletal analysis indicates that the majority of juveniles interred in the Milwaukee County Poor Farm Cemetery are either stillborn or miscarriages; 42.3 percent of the analyzed sample were sorted into the third trimester (27-42 weeks). These observations are corroborated by the Milwaukee County Poor Farm Cemetery burial register, which indicates that the majority of individuals interred between 1887 and 1907 were stillborn or premature.

Hutchins (1998) used tooth formation to assess the accuracy of using long bone measurements to age infants recovered from the Milwaukee County Poor Farm Cemetery. Her results support the use of long bone measurements as a tool for aging juvenile collections. Analysis of long bone diaphyseal growth indicated that the majority of interred individuals in this sample were between 3-6 months of age. These results matched the comparative dental age. However, only well preserved individuals with preserved teeth were included in this analysis. As a result Hutchins aged only 46 percent of the sample, while Shillinglaw's analysis aged 73 percent of the same sample. It is of note that the individuals not included in Hutchins' study were those later identified as prenatal in Shillinglaw's analysis.

Florence (2007) analyzed the remains of 126 juveniles recovered from the Milwaukee County Poor Farm Cemetery in an attempt to better understand the health status of this population. A comparison with modern samples indicates that the individuals in the Milwaukee County Poor Farm Cemetery sample (between birth and six months of age and over the age of three) suffered from poor health based on their reduced bone lengths, most likely the result of malnutrition and infection. The skeletal profiles of cortical bone growth created for the Milwaukee County Poor Farm Cemetery humerus, femur, and tibia, on the other hand, demonstrate normal patterns of incremental increases in subperiosteal apposition, cortical thickness, and cortical and medullary areas with age. This study concludes that long bone length is a more sensitive indicator of stress for the Milwaukee County Poor Farm Cemetery population. Further, pathologies such as enamel hypoplasias, Harris lines, and dental caries in the Milwaukee County Poor Farm Cemetery subadult sample are not always associated with reduced linear and cortical bone growth. In fact, individuals without visible pathologies can demonstrate greater reduction in linear and cortical bone growth than individuals who do have pathologies.

Historic records indicate children were affected by myriad conditions during the cemetery's use (Drew 2015). Many of those conditions result in similar skeletal lesions or cause such a precipitous decline that skeletal pathologies lack the time necessary to develop. Evidence for craniotomy indicates the postmortem investigation of pediatric patients, most notably neonates exhibiting evidence for infection. Skeletal evidence suggests that neonates and the youngest juveniles suffered the highest rates of illness while those that did survive into their adolescent years enjoyed a very brief childhood, as evidence for hard labor was recorded in their bones. Future analyses focused on questions concerning specific infections and dental indicators for live birth, beyond the scope of this project will expand our understanding of pediatric health ca. 1880–1920 in Milwaukee, Wisconsin.

Discussion

The osteology of 715 individual burial lots containing human remains. Single lots number 550 lots and the remaining 165 lots were recovered as part of 74 mixed burial locations that include 115 individual lots and 50 commingled lots. Nine of the mixed burial locations contain the remains of multiple juveniles (19 individuals in all) while eight mixed burial locations contain the combined remains of adults and juveniles (20 individuals); the remaining 57 mixed burial locations contain the remains of 76 adult individuals.

In total, coffin burial locations produced a minimum of 665 individuals including 381 adults and 284 juveniles. An additional 50 commingled lots represent an MNI of 166 that brings the total of potential individuals represented to 831.

Middle adult males represent the most frequently recovered category of individuals. Fifty-seven adult females, 267 adult males and 57 adults of indeterminate sex were recovered. Adult age at death includes 40 young adult individuals, 172 middle adult individuals, 86 old adult individuals, and 83 individuals of indeterminate age.

While sex assessment was not made for juveniles age at death was assessed. Dental age estimates produced the following age at death estimates: 57 fetuses, 63 neonates, 66 infants, 21 toddlers, three individuals of early childhood age, four individuals of late childhood age, six adolescents, and 64 individuals of indeterminate estimated dental age.

Evidence for postmortem investigation is present in both the adult and juvenile samples recovered from the 2013 excavations at the Milwaukee County Poor Farm Cemetery. Cut bone was observed on the remains of 95 adults, and was the only taphonomic trait that was observed more often in mixed and commingled adult burials than in single burials. Craniotomies were used as a standard form of postmortem investigation in the early 19th century and were observed in 67 adults

and 13 commingled lots. Fifty-three juveniles exhibit evidence for craniotomy, including 10 fetuses,18 neonates, 15 infants, six toddlers, one late childhood aged individual, one adolescent, and two individuals of indeterminate age.

Finally, Leavitt (1982) argues that as a result of progressive health reforms undertaken by the officials of both the City of Milwaukee and Milwaukee County, Milwaukee could be considered "The Healthiest City. " Leavitt also observes that the changes conceived and implemented by Milwaukee health officials were most often rejected by the poorest residents, "because the burdens of the new policies in terms of cots and pressures to alter life styles seemed to fall disproportionately on the immigrants, and the poor, those Milwaukeeans often rejected the methods of reform" (Leavitt 1982:9).

The high rate of pathology observable among the individuals recovered from the 2013 excavations suggests that though health may have been a concern for them during life, there was likely little these individuals could do to effect change in their rates of trauma and disease. In addition to a lack of effective medical treatment at the turn of the century, several societal factors such as restricted access to medical care, inadequate nutrition, hazardous working conditions, and impediments to immigrant health such as a lack of local community and language barriers would have combined to create an environment in which disease, injury, and infirmity, once acquired, were retained and exacerbated.

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CHAPTER 7. THE 2013 MILWAUKEE COUNTY POOR FARM CEMETERY - FROEDTERT TRACT CEMETERY PROJECT

by Patricia B. Richards

Introduction

In the spring of 2008 the University of Wisconsin-Milwaukee Archaeological Research Laboratory applied for and was granted by the Wisconsin Historical Society final disposition of all human remains, personal artifacts, burial hardware, field notes and field images associated with the 1991 and 1992 excavations at the Milwaukee County Institutions Grounds Froedtert Tract (site # 47 MI 527). Following the 1991 and 1992 excavations, researchers determined, based on excavation results and historical mapping that approximately 1300 burials remained intact outside of the area of construction disturbance. These burials were located to the west of the 90s excavations along a slope and under the road.

Consequently, it did not come as a huge surprise when we at UWM were contacted in April of 2011. This marks the beginning of a two-year process of negotiation, permitting and contracting associated with the 2013 Milwaukee County Poor Farm Cemetery. On April 18, 2013, Rachel L Ping on behalf of the State of Wisconsin Division of Hearings and Appeals issued a decision, which concluded that the benefits to permit applicant Froedtert in disturbing the catalogued burial site outweighed the benefits to all other persons shown to have an interest in not disturbing the burial site. Consequently, The DHA ordered that Froedtert Hospital's request for a permit to disturb the burial site be granted. On May 21, 2013 Ellsworth H. Brown issued a permit to Disturb Paupers Cemetery – Froedtert Tract (MI-0527, BMI–0076). On June 10, 2013 UWM archaeologists began fieldwork.

Results

The 2013 excavations resulted in the recovery of 632 coffin locations and a single lot assigned to a bone dump from graves previously disturbed. Of these, 368 were adult-sized coffins measuring greater than five feet in length; 264 were juvenile-sized coffins measuring less than 3.5 feet in length (Figure 7.1)

Of the 264 juvenile locations, seven did not contain human remains. Ten adult coffins contained the remains of juveniles of adolescent or late childhood age.

Adult-sized coffins containing adult burials include 294 single adult burials (age 20 or older) and 57 "mixed" burials containing the remains of more than one individual. Juvenile-sized coffins include 246 single juvenile burials (age 19.9 and younger), nine "mixed" burials and one dog. Additionally there are seven adult-sized coffins that contain both adult and juvenile individuals and one juvenile-sized coffin that has juvenile and adult remains. Total number of individuals recovered includes 550 individuals exclusive to a coffin (294 adults and 256 juveniles), and 100 individuals recovered from mixed burials that are age exclusive (either adult or juvenile) (81 adults and 19 juveniles). Finally seven adult sized coffins contained the remains of both adults and juveniles (6 adults and 9 juveniles). In total, coffin burial locations produced a minimum of 665 individuals including 381 adults and 284 juveniles. An additional 50 commingled lots represent an MNI of 166, which brings the total of potential individuals represented to 831.

About Cemetery Names

As of 2014, four locations on the Milwaukee County Grounds have been identified as cemeteries representing the burial of more than 10000 individuals. A number of different names have been used to refer to all and each of the individual cemeteries. Contemporary newspaper reports refer to burial on the County Grounds as burial in the Potters' Cemetery or in the Pauper's Cemetery. County records refer to the cemetery as County Cemetery or the Cemetery in Wauwatosa. Milwaukee County Death Certificates note place of burial as Potter's Field, County Farm, or Poor Farm. The only surviving written documentation of the cemeteries is called the *Register of Burial at Milwaukee County Poor Farm* and dates from 1882 to 1974.

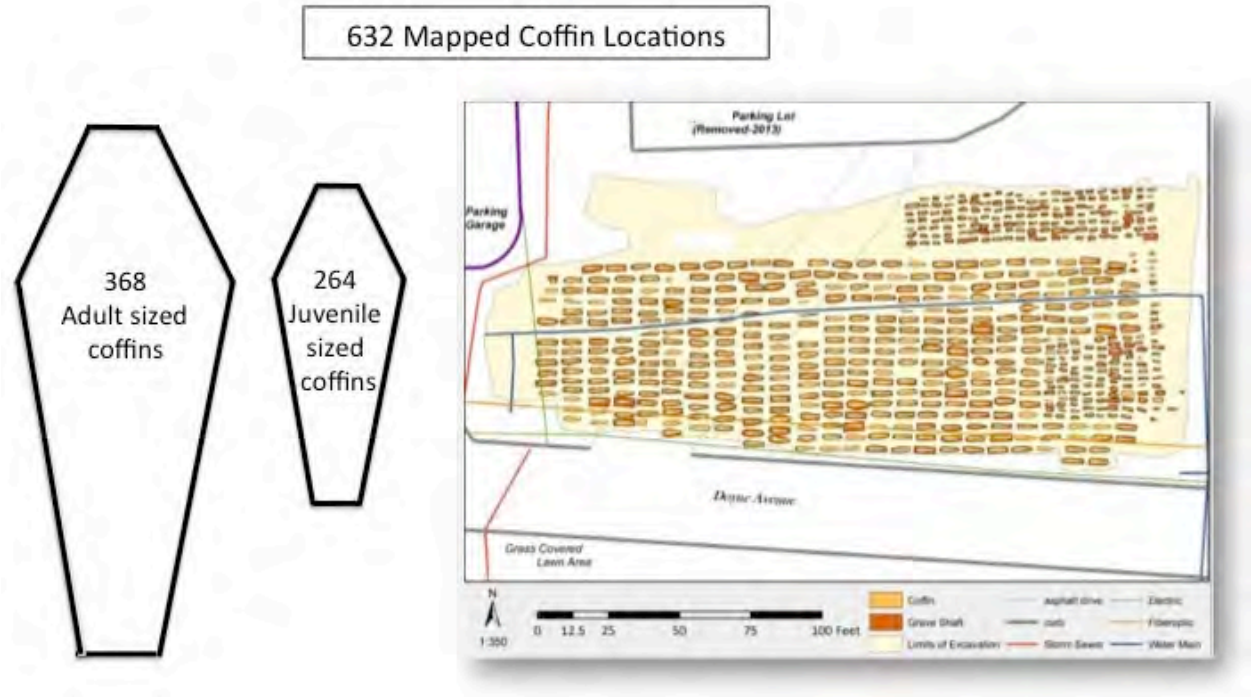

Figure 7.1. Mapped coffin locations

Three of the four cemetery locations were "lost", that is, utilized for other purposes soon after they ceased to be used for interments. The fourth cemetery is currently fenced and marked as the Milwaukee County Cemetery.

The cemeteries are also officially catalogued by the and have been assigned state site numbers. It seemed reasonable to give these cemeteries numbers that relate to their temporal sequence of use and those numbers are the ones used in this report. Cemetery 1 (MI-0528, BMI-0173) is the earliest cemetery on the Milwaukee County Grounds. The cemetery was in use in 1878 and may have been used earlier. The cemetery is located in the southeast corner of the County Farm according to the 1876 Illustrated Historical Atlas of Milwaukee County. Use of this cemetery ceased in 1882. Cemetery 2 (MI-0527, BMI-0076 - Froedtert tract) opened in 1882 and closed in 1925. It is this cemetery that was archaeologically excavated in 1991 and 1992 and again in 2013. The cemetery was developed to replace the original County Cemetery (Cemetery 1 MI-0528, BMI-0173) that had become unusable. In order to accommodate a continuing need for County sponsored burial services, a new location, Cemetery 3 (MI-0530, BMI-0175- Potters Field) was established in 1925 about three-fourths of a mile northeast of Cemetery 2. This cemetery operated from 1925 until 1974 and is today enclosed by fencing and identified by signage as the Milwaukee County Cemetery. Cemetery 4, sometimes referred to as the Asylum Cemetery (MI-0529, BMI-0174-Asylum Cemetery) is located near Cemetery 3 and has recently had a commemorative marker placed near its location. Dates are undocumented but may span 1884 - 1914. Figure 7.2 provides a map of the cemeteries in relation to one another. Table 7.1 lists the Milwaukee County Cemeteries.

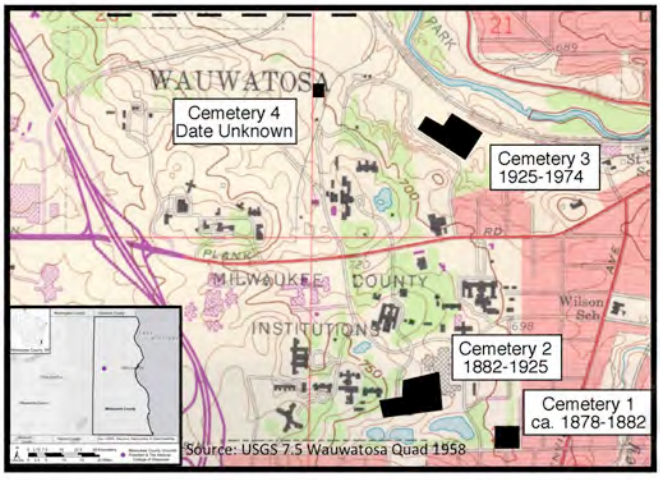

Figure 7.2. Milwaukee County Poor Farm Cemetery Locations

Table 7.1. Milwaukee County Cemeteries

Site Number	Site Burial Number	Site Name	UWM Name
47MI527	BMI076	Milwaukee County Grounds - Froedtert Tract	Milwaukee County Poor Farm Cemetery 2
47MI528	BMI173	Milwaukee County Grounds - Windsor Tract	Milwaukee County Poor Farm Cemetery 1
47MI529	BMI174	Milwaukee County Grounds - Asylum Cemetery	Milwaukee County Poor Farm Cemetery 4
47MI530	BMI175	Milwaukee County Grounds - Potters Field	Milwaukee County Poor Farm Cemetery3

Mapping

Over the course of 22 years between the 1991-1992 excavations and the 2013 excavations of the Milwaukee County Poor Farm Cemetery – Froedtert Tract (MI-0527, BMI – 0076), the hospital grounds have undergone a series of alterations, including the implosion and removal of the nurses' residence built in the center of the cemetery, construction of the new cancer center at that location, as well as the extension of Doyne Avenue that cuts across the southern edge of the cemetery. Corroboration of the 1990s and 2013 spatial data allowed for the production of a map that includes excavated burial locations from both sets of excavations.

Aligning the mapping between the two series of excavations (some 22 years apart) proved successful due to two factors: First we were able to successfully locate several of the previously excavated burial pits at the eastern end of the 2013 excavation area. Second, mapping by the 1991/92 crew plotted an assortment of buried utilities and steam tunnels. Remnants of these tunnels survived to the 2013 excavations, and subsequent mapping of these feature in 2013, allowed proper alignment of the two series of excavations (Figure 7.3).

Burial Program

All burial at the Milwaukee County Poor Farm Cemetery occurred in coffins with the exception of Burial lot 10088 that represents a disposal of disturbed burials. Burial with head to the west orientation is the predominant form of burial for both adults and juveniles. Treatment of the body suggests little care taken with the mortuary ritual based on poor nature of the grave goods, burial inclusions interpreted as disposal activity, and evidence for dropping of coffins into the burial shaft. Evidence for postmortem investigation of individuals either as a result of autopsy or use as medical cadavers is also present in the treatment of the bodies interred. Land use during and after the use of the cemetery suggests a pattern of haphazard filling of a loosely defined cemetery area as well as repeated disturbances following the abandonment of the cemetery. The presence of steps within the cemetery area as well as significant amount of non-human faunal material corroborates the historical documentation evidence for repeated disturbance during and after the use of this cemetery.

There are three orientation categories that are characteristic of the coffin burials in the Milwaukee County Poor Farm Cemetery; head to the west end of the coffin, head to the east end of the coffin and a general indeterminate orientation. Most adult were oriented with head to the west (86% n= 315) while juvenile coffin orientation was more variable (67%, n=166 head to the west; 15%, n=36 burials head to the east). All coffin burials recovered from the Milwaukee County Poor Farm Cemetery were extended and most were supine. The exceptions to the extended/supine position are found in the commingled burial where no formal positioning is observed. A total of 420 burials were placed into the supine position. Positioning could not be determined for 194 burials, most of them juvenile burials (n=121). Sixteen adult burials were prone and no juvenile burials were found in the prone position. Evidence for postmortem investigation can be understood in the context of treatment of the body. Of 381 adult individuals analyzed, 176 exhibit craniotomy or cut marks of some type. Fifty-three of the 284 juvenile lots analyzed produced evidence of postmortem investigation.

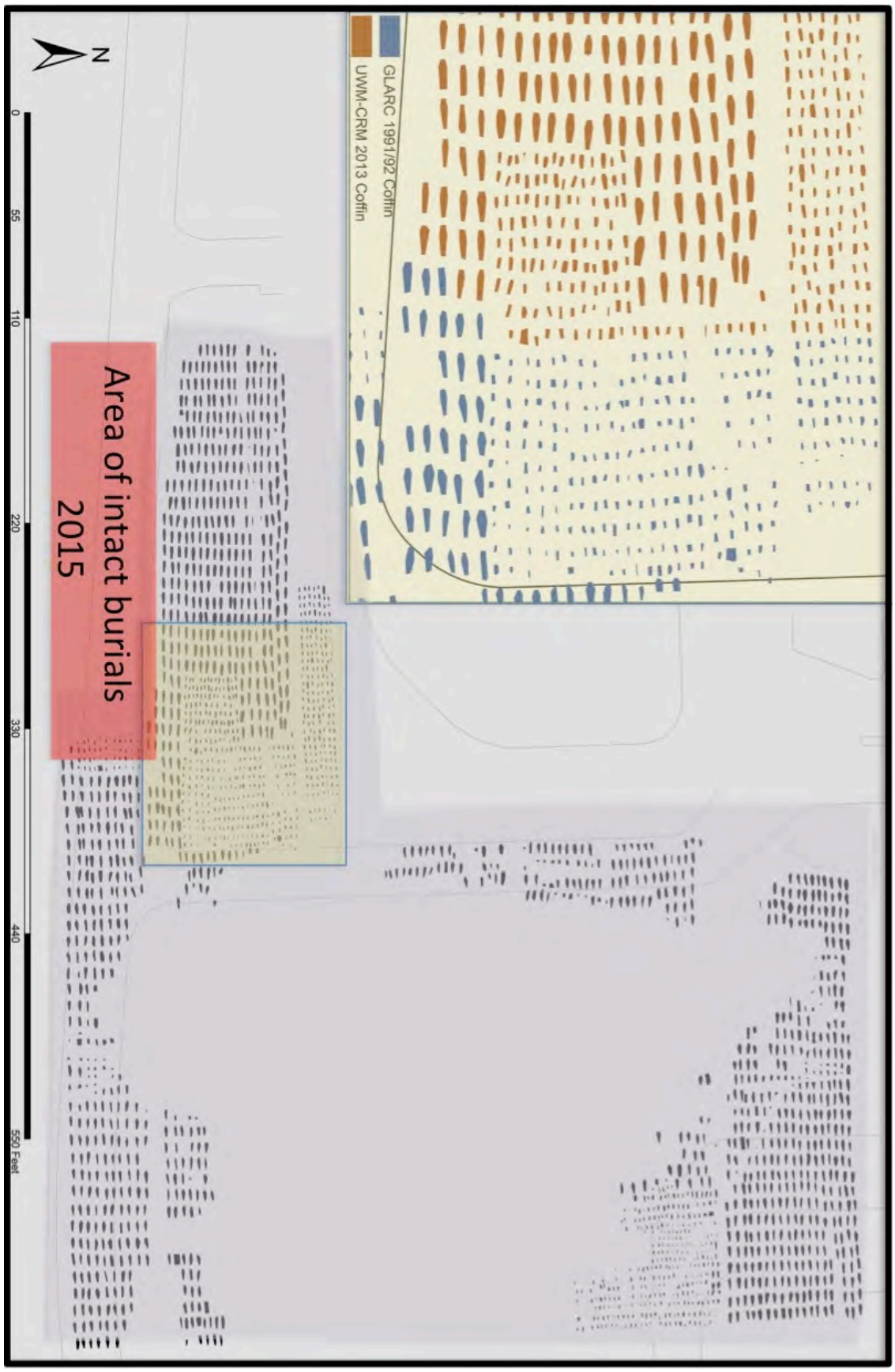

Figure 7.3. All excavated burials, 1991, 1992 and 2013 Milwaukee County Poor Farm Cemetery 2

Single, Mixed, or Commingled Burials

During the 2013 excavations at the Milwaukee County Poor Farm Cemetery, adult and juvenile coffins were recovered containing single and multiple burials.

When more than one individual or more than one set of non-individualized human remains were present in a single coffin, individuals were, when possible, assigned individual lot numbers.

This resulted in three recovery contexts:

1. A single individual in a single coffin assigned a unique lot number regardless of the completeness of the individual;

2. A "mixed" context where at least one individual was more than 50% complete but where other remains could be individualized and assigned multiple lot numbers and

3. A "commingled" context. "Commingled" lots refer to those skeletal assemblages that contain the remains of more than one individual – established through the presence of element duplication or robust morphological disparity – but not more than 50 percent of any one individual.

"Mixed burial" includes a variety of combinations of individual and commingled lots in a single coffin.

Except in the case of disturbance from earlier construction, single adult burials were largely complete. Most of the individuals recovered from mixed burials exhibited 60 percent-100 percent skeletal completeness. However, this was largely dependent on burial order. Burial order refers to the temporal sequence in which individuals were placed in a shared coffin. In practice, we considered the primary individual in a coffin as the one who was place in the coffin first. In most instances this was evident from context. With regard to completeness, for example, secondary (placed second in the coffin) and tertiary (placed third in the coffin) individuals were much more likely to present partial skeletal completeness than primary individuals. Secondary and tertiary individuals were also more likely to have been disarticulated when interred. Individuals interred in mixed burials exhibited a notable lack of associated crania. In some cases, vertebrae abutting one end of the coffin indicated the head was removed prior to placement in the coffin. In other cases, a distinct space was identified between the cervical vertebrae and the coffin. In these cases, it's not possible to know when the head was removed from the skeleton.

The commingled lots are represented by a variety of skeletal elements, ranging from relatively complete disassociated limbs to cut and fragmented sections of bone. Most commonly represented were partial body segments (i.e., the articulated vertebrae and ribs of a torso) and limbs. Several commingled lots contain related element categories such as calvaria, arms, or joints. Twelve commingled burials contained no individuals at all, although at least one human bone was recovered from each of these twelve lots. These burials also contained a wide range of grave inclusions in the form of medical tools, containers, and trash. The majority of commingled lots contain bone from adults with the exception of Lot 10836, which contains, among other remains, a pair-matched set of saw-cut adolescent femora. Through analysis, these were reassociated with Lot 10881, an adolescent interred in a mixed burial. This suggests that remains from a single individual may be interred in multiple locations in this section of the cemetery.

Material Culture

The 2013 excavations identified two broad categories of material culture as follows:

1. Material culture directly associated with an individual's burial may include items that have been purposefully associated/buried with an individual or may have just been on the person at the time of death and subsequent burial. Items considered grave goods are placed into one of two major categories: clothing or personal items.

2. Material culture indirectly associated with an individual's burial may be related to discard or may indicate accidental inclusions. Such material culture potentially relates to an identity generally but not necessarily individually. Generally, the items included in this category are understood as relating to the pathology department on the Milwaukee County Grounds, the regional medical schools, or the Milwaukee County Coroner's office. These items of material culture are grouped under the heading "Medical and Hospital" that includes autopsy tools, research items, and medical waste.

Finally, a third class of artifacts that includes items that don't fit exclusively into either grave goods or grave inclusions is denoted as utilitarian. The behavior associated with these items of material culture is not easily assignable to either mortuary ritual or disposal, neither are the items themselves easily assigned to identities. Some items may have been found on the body of the deceased and thus included in the individual's burial. Other items of material culture may have been placed in a coffin inadvertently as a result of behavior of the undertaker or other individual responsible for conducting the burial.

Figure 7.4 provides a map of the categories of material culture by burial location. Clothing is the most common material culture class (274 burial locations), followed by medical and hospital (114 burial locations), personal (80 burial locations) and utilitarian (28 burial locations). This study of material culture from the 2013 excavation partially supports the findings of the material culture study of the 1991 and 1992 (Richards1997) excavations that determined 3 categories of adults (institutional residents, those from the coroner's office and community poor) buried in the Milwaukee County Poor Farm Cemetery. While the current study utilizes a more complex set of classifications, two of the three 1997 classes of residents can be correlated with the large material culture classes used here. Category II, those that were sent from the coroner's office and Category III, the community poor are roughly commensurate with the clothing and personal items categories respectively. The 1997 Category I, those who died while institutional residents, may be represented by the Medical and Hospital category or by the absence of material culture altogether. Another category was identified as a result of this study –individuals who may have either died as residents or may have been sent from the coroner's office BUT who were used as cadavers by either the Milwaukee County Hospital or the medical colleges associated with the hospital.

The material culture associated with these individuals includes bandages as well as other medical waste.

The four categories can be summarized as follows.

1. Those who died as residents likely to be buried in shrouds secured by pins.

2. Those who may have died as residents or elsewhere but who were used for medical purposes either by local medical colleges or by the Milwaukee County Hospital. These individuals may be buried with Medical and Hospital Items as well as miscellaneous items disposed of along with the body (utilitarian items).

3. Those buried in the cemetery via the coroner's office as unclaimed or unidentified individuals who were NOT used for medical purposes – these individuals may be buried in clothing with a variety of modest personal items.

4. Community Poor who could not afford a burial but for who family was a part of the burial ritual and whose family may have continued to visit the gravesite. These individuals may be buried with more personal items.

It is clear that these artifact categories are not mutually exclusive. Residents who died of old age or who were of little medical interest are likely identifiable through minimal material culture while those who are community poor may be the most elaborate (on a very modest scale) with regard to material culture. Exactly who may have been of interest to the medical schools or the County Pathology department and who may have been subject to a simple coroner's inquest and buried as unknown or unclaimed is unclear and the two populations obviously overlapped.

Osteology

Of the 715 recovered lots containing human remains, 550 lots contain the remains of single individuals and one lot contains a secondary multiple burial without a coffin (Lot 10088). The remaining 165 lots were recovered as part of 74 mixed burial locations and include 115 individual lots and 50 commingled lots. Nine of the mixed burial locations contain the remains of multiple juveniles (19 individuals in all) while eight mixed burial locations contain the combined remains of adults and juveniles (20 individuals); the remaining 57 mixed burial locations contain the remains of 76 adult individuals. In total, coffin burial locations produced a minimum of 665 individuals including 381 adults and 284 juveniles. The 50 commingled lots represent an MNI of 166 that brings the total of potential individuals represented to 831 provides the Burial lot numbers associated with the various adult contexts.

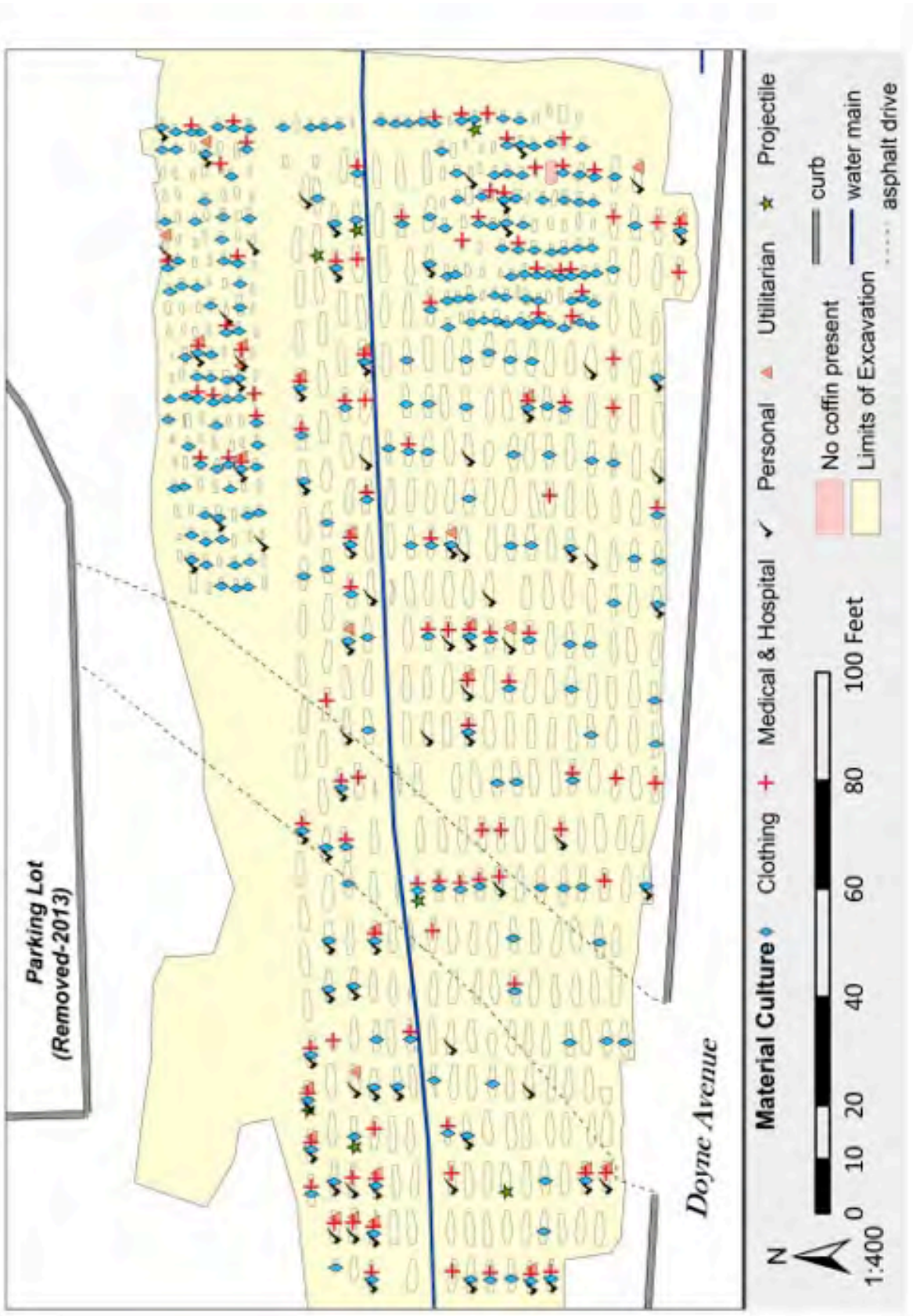

Figure 7.4. Categories of material culture by burial location

Age and Sex

Age categories for adults include the following: 40 young adults (18-34.9 years); 172 middle adults (35-49.9 years); 86 old adult (50 years or older); and 83 of indeterminate age. The mean age for adults (age 20 or older) is 44.36 years. Sex was estimated for 381 recovered single individuals over the age of 20 and these included: 267 males (70 percent), 57 females (15 percent), and 57 individuals of indeterminate sex (15 percent). Of the adults for whom sex could be determined, 82 percent are males and 18% are females. Males and females in the sample share the same average life span; male ages at death range from 20.25 to 60 years with a mean of 44.62 years and female ages range from 21.7 to 57.85 years with a mean age of 44.13 years. Sixty percent of the males died by the time they were middle-aged adults, while 53 percent of the females died by the same age. Figure 7.5 illustrates the age and sex distribution of adults.

Three methods, fusion assessment, dental assessment, and osteometric assessment were utilized to produce age at death estimates for the juveniles recovered from the Milwaukee County Poor Farm Cemetery. There is variation in the distribution of individuals assigned to age categories depending on the age assessment methods used. This may reflect highly variable developmental sequences. Osteometric assessments resulted in larger numbers of individuals assigned to the first three age categories, fetal, neonate, and infant, with individuals most frequently assigned to the fetal age category. These differences disappear among the three estimated age assessments (fusion, dental and osteometric) when the first three age categories resulting from dental and osteometric methods are aggregated to facilitate comparison among all three age assessments. The juvenile remains recovered from the cemetery during the 2013 excavation total 284. Infant was the most numerous age category represented by dental age assessments, followed by neonatal, fetal, toddler, adolescent, late childhood, and early childhood aged individuals. Dental age assessments produced the following distribution (see Figure 7.6): 57 individuals of fetal age (0 – 40 weeks); 63 individuals of neonatal age (birth – 28 days); 66 individuals of infant age (29 days – 11.9 months); 21 individuals of toddler age (1 – 2.49 years); 3 individuals of early childhood age (2.5- 5.9 years); 4 individuals of late childhood age (6-12.9 years), 6 individuals of adolescent age (13–18 years), and 64 individuals for whom age assessments could not be made.

Dental

Of the 381 excavated adults, 254 (67 percent) had teeth that were erupted and complete enough for evaluation; 235 of these were single individuals and 19 were individuals from mixed burials. The missing crania that characterizes many mixed burials accounts for the lack of teeth in these burials. Analysis of the dentition of recovered individuals documented the presence of dental caries, linear enamel hypoplasia, calculus, and abscesses. Dental anomalies observed include irregular growth such as pegged teeth and hyperdontia; cultural modifications such as pipe stem grooves; and forms of medical intervention such as fillings, bridges, and dentures. Among the individual adults, 233 (66 percent) have teeth containing carious

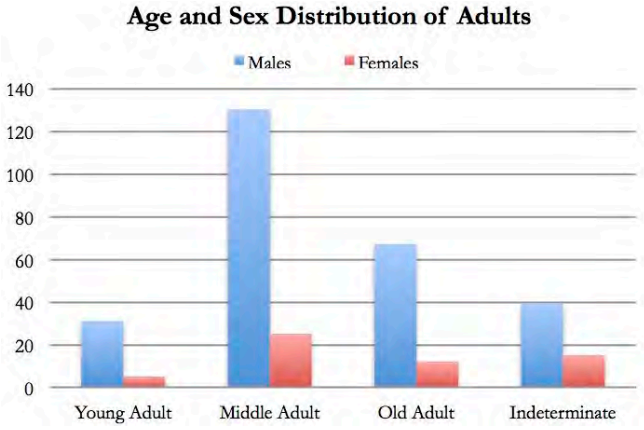

Figure 7.5. Age and Sex Distribution of Adults

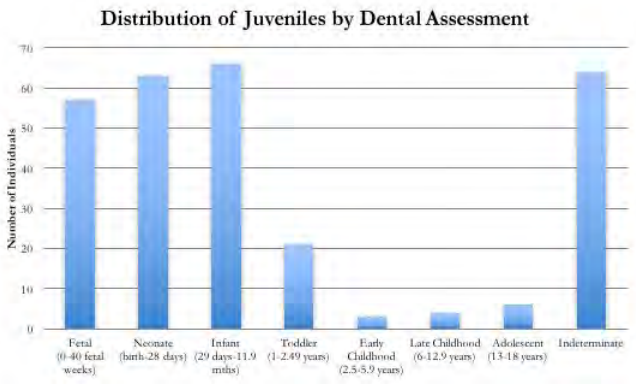

Figure 7.6. Age distribution of juveniles based on dental age assessment

lesions. Carious lesions, or caries, are a product of the progressive demineralization of enamel by bacterial activity on the tooth's surface. Enamel hypoplastic defects are present in the teeth of 81 adult individuals, or 21 percent of the excavated adults in this sample. Calculus was observed on 251 (66 percent) of the adult individuals. Fifty-six adults (15 percent) exhibit at least one abscess in the maxilla or mandible.

Dental pathologies observed among juveniles include calculus, caries, and remodeled alveoli due to tooth loss. Individuals exhibiting dental calculus total five and consist of two late childhood (0.7%) and three adolescents (1.1%). Individuals exhibiting dental caries total five and consist of two late childhood (0.7%) and three adolescents (1.1%). Three individuals present dental arcades exhibiting remodeled alveolus, two of which were estimated to represent adolescents (0.7%) and one of indeterminate age (0.4%).

Pathology - Adults

Three hundred seventy-five adult individuals (98 percent) exhibit some form of skeletal pathology. The prevalence of pathology observed among individuals recovered from this cemetery is likely a result of several factors endemic to the lives of the lowest classes in late nineteenth and early twentieth century Milwaukee, including poor nutrition, dangerous working conditions, and restricted access to medical care.

Inflammatory periosteal reactive growth (periostitis) is present in 166 adults (44 percent). Osteomyelitis, an inflammatory reactive growth resulting from infection of the bone marrow, is present in 19 individuals (five percent) and is most commonly observed on the tibiae. Eight individuals exhibit a lytic resorption of the lamellar bone of the mastoid process.

General hypertrophic growth and indeterminate periostosis without a clear causal mechanism is present in 199 individuals, or 52 percent of the excavated adults. This abnormal periosteal bone formation was mild and varied in form and example can be found on every bone of the skeleton.

Eighty individuals (21 percent) exhibit some form of bone fusion; this is often observed at or near the site of healed traumas. In several cases, extreme osteophytic growth in the spinal column caused several vertebrae to ankylose, usually among the thoracic or cervical vertebrae.

Other forms of excessive bone growth were observed. Two individuals display palatine tori. Two additional individuals exhibit bilateral supratrochlear spurs. Benign neoplastic button osteomas were observed on the crania of 17 individuals (four percent). Twelve individuals (three percent) exhibit general neoplastic growth.

Pathology - Juveniles

Juveniles were assessed for the following lesions indicative of developmental stress: linear enamel hypoplasia, porotic hyperostosis, cribra orbitalia, and spina bifida. Four individuals exhibited linear enamel hypoplasia: one late child and three adolescents. Twenty-six juveniles exhibit porotic hyperostosis as follows: four fetuses (1.4%), five neonates (1.8%), eight infants (2.8%), five toddlers (1.8%), one early childhood (0.4%), one late childhood (0.4%), and two adolescents (0.7%). Juveniles exhibiting cribra orbitalia total 13, consisting of two fetuses (0.7%), four neonates (1.4%), three infants (1.1%), three toddlers (1.1%), and one juvenile (0.4%) with an indeterminate dental age.

Individual juveniles exhibiting unidentified cranial morphology total 60. By dental age category, the number of fetuses exhibiting unidentified cranial lesions totals 17 (6.0%), neonates total 14 (4.9%), infants total 14 (4.9%), toddlers total six (2.1%), early childhood total one (0.4%), late childhood total two (0.7%), adolescents total one (0.4%), and five individuals (1.8%) were of indeterminate age. Unidentified post-cranial lesions were observed in four fetuses (1.4%), two neonates (0.7%), four infants (1.4%), one toddler (0.4%), and two individuals (0.7%) of indeterminate age.

Individuals exhibiting lesions indicative of periostitis total 29. By dental age category, five fetuses (1.8%), six neonates (2.1%), 10 infants (3.5%), three toddlers (1.1%), two late childhood (0.7%), two adolescents (0.7%), and one individual of indeterminate age (0.4%) exhibit skeletal lesions indicative of periostitis.

Individuals exhibiting hypertrophic lesions total 60: 10 fetuses (3.5%), 18 neonates (6.3%), 19 infants (6.7%), three toddlers (1.1%), one late child (0.4%), two adolescents (0.7%), and seven individuals (2.5%) of indeterminate age. Individuals exhibiting osteolytic lesions total 86: 15 fetuses (5.3%), 27 neonates (9.5%), 21 infants (7.4%), seven toddlers (2.5%), four late childhood (1.4%), five adolescents (1.8%), and seven individuals of indeterminate age.

Fetuses, neonates, and infants, as a group, more frequently exhibit skeletal lesions indicative of infection and growth and developmental stress, in addition to exhibiting abnormal cranial and postcranial morphologies. Adolescents exhibited a higher frequency of skeletal lesions associated with pathological joint wear as well as dental lesions indicative of periodontal disease and developmental stress.

Trauma

Fractures and gunshot wounds make up the majority of traumatic changes in the adult sample. These are followed in frequency by the practice of postmortem modification of the body, here represented primarily by cut bone and marks of craniotomy.

Healed fractures are present in 103 adult individuals (27%) and represent both infractions and complete breaks. The majority of these injuries are observed in males (n=84, or 82%), with only nine females exhibiting healed fractures to the ribs, arm, and hand. Unhealed fractures are present in 36 (9%) of adult individuals.

With the exception of peri- or postmortem trauma, the most common trauma among juveniles consists of healed fractures. Six juveniles exhibit evidence for healed fractures including four infants and two toddlers. Unhealed fractures, which may or may not relate to postmortem investigation, were identified on 12 individuals; including two fetuses (0.7percent), four infants (1.4%), one toddler (0.4%), two late children (0.7%), two adolescents (0.7%), and one individual of indeterminate age.

Evidence of perimortem cut or sawed bone was identified on 19 individuals according to the following distribution: 3 fetuses (1.1%), four neonates (1.4%), three infants (1.1%), two toddlers (0.7%), two adolescents (0.7%), and five individuals of indeterminate age.

Medical intervention

Evidence for medical procedures takes the form of amputations, and trepanations. Healed limb amputations exhibiting remodeled bone at the incision site are present in ten individuals, including eight males, one indeterminate adult, and one female with a partially healed amputation of the left femur. Amputations are evenly split between sides of the body and affect long bones (humerus, radius/ulna, femur, and tibia). Peri- or postmortem trepanations are noted in three individuals where a surgically incised hole in the cranium shows no evidence of regrowth at the edges.

Postmortem Intervention

Several pathologic and taphonomic markers were observed relating to postmortem treatment of the body, including the presence of several varieties of cut marks and a variety of craniotomy incisions. Cut bone was observed on the remains of 95 adults (24.93%), and in 43 commingled lots (86%), making it the only pathologic trait that was observed more often in mixed and commingled burials than in single burials. This included full cross-section cuts to one or more of the bones of the post-cranial skeleton, superficial false start scratches, kerfs cuts, and occasional sectioned bone cuts, as well as breakaway spurs and wastage. Severing the whole bone with a saw served multiple purposes for the postmortem investigator, ranging from medicolegal investigation to dismemberment for use as a teaching cadaver.

Cuts were not reserved for the long bones and limbs but affected nearly every bone in the body, including the scapulae, innominates, phalanges, and patellae. Clavicles were the most numerous represented element, with severing cuts present in 40% of lots with cut bone (n=38); this was followed in prevalence by the cervical vertebrae, femora, and ribs.

Fifty-three juveniles exhibit evidence for craniotomy, including ten fetuses (3.5%), 18 neonates (6.3%), 15 infants (5.3%), six toddlers (2.1%), one late child (0.4%), one adolescent (0.4%), and two individuals of indeterminate age (0.7%).

Discussion

Based on observable skeletal pathology, the individuals recovered from the 2013 excavations of the Milwaukee County Poor Farm Cemetery appear to be in poor health (Figure 7.7). While adult males were more affected by the degenerative changes of Schmorl's nodes (67% of males compared to 30% of females) and osteophytic lipping (69% of males compared to 53% of females), women were afflicted by severe degenerative joint disease at a higher rate than men (9% of females compared to 6% of males). In particular, 25% of older women in this sample exhibit the condition.

Ankylosis also affected women differentially, with young- and middle-aged women showing higher rates than their male counterparts. These women exhibit multiple fused vertebrae and pelvic joints at an earlier age than the men in the sample. These severe skeletal markers are indicative of chronic stress throughout life, suggesting that the women interred in this section of the cemetery led lives of hardship and exertion comparable to their male counterparts.

A majority of the recovered juveniles exhibit skeletal lesions. Younger age groups, such as fetuses, neonates, infants, and toddlers, exhibit a high frequency for infection, indicators of developmental stress, unidentified morphologies, and craniotomies. Infants and toddlers exhibit the only evidence for unhealed fractures. The early childhood category did not include any evidence for craniotomy.

Individuals of late childhood age exhibited dental calculus, caries, and remodeled alveolus. Adolescents exhibit joint lesions typically associated with older adults.

Evidence for craniotomy indicates postmortem investigation of pediatric patients, most notably neonates exhibiting evidence for infection. Skeletal evidence suggests that neonates and the youngest juveniles suffered the highest rates of illness while those that did survive into their adolescent years enjoyed a very brief childhood, based on the evidence for hard labor was recorded in their bones.

Recommendations

Calculations for grave density, utilizing data recorded in 2013, describe a density of 0.03 adult-sized graves/sq ft (i.e. three graves in every 100 square feet) and a density of 0.07 juvenile/infant graves/sq ft (i.e. seven graves per each 100 square feet). If the entirety of the first estimate were only juvenile/infant burials, then roughly 890 graves are present. If the first estimate contained only adult burials, roughly 382 coffins are likely present. When we include the areas from the second estimate, those numbers reach up to 1,165 if all were juvenile burials and 500 if all were adult. Thus a conservative estimate for the number of intact burials remaining, primarily under Doyne Avenue, ranges from 382 to 1,165 individual graves. If we extend the pattern of adult and juvenile/infant burials observed in the southeast corner of the former GLARC excavations all the way to the western boundaries of the site limits, we might expect roughly 209 adult-sized graves and 671 juvenile/infant sized graves, or 880 graves.

These burials extend from directly south of the new Froedtert building to the south side of Doyne Ave (Figure 7.8).

It is recommended that great care should be taken to monitor infrastructure development that might impact these burials. Utility lines (electric, water, telephone and fiberoptic lines) are located in and near the boundaries of Froedtert tract (MI-0527, BMI-

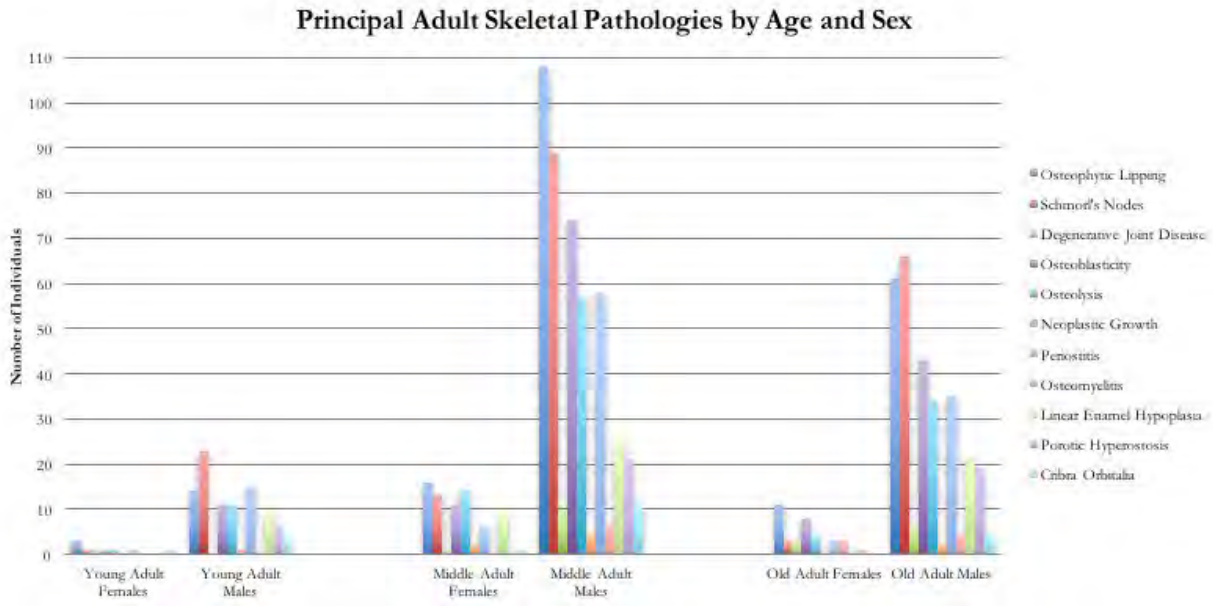

Figure 7.7. Adult skeletal pathologies by age and sex.

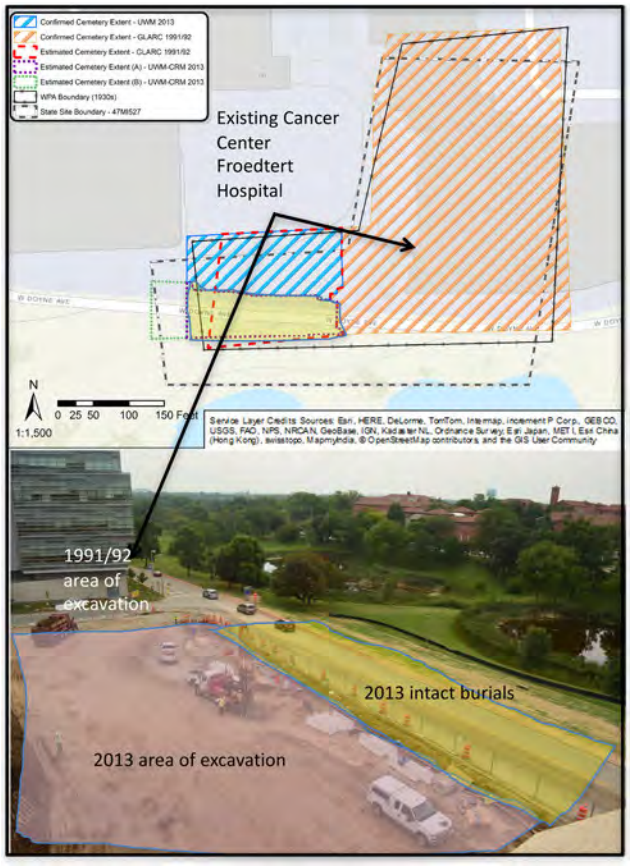

Figure 7.8. Intact burials as of 2015

0076). Any work related to these utilities should, in the best case, not be permitted, but in the worst case be carefully monitored to avoid destroying any more burials. Finally, any improvements to Doyne Ave undertaken by Milwaukee County should be carefully considered with the presence of these burials in mind.

A second recommendation relates to all of the cemeteries on the Milwaukee County Grounds in Wauwatosa. As discussed earlier, Milwaukee County began recording burials of indigent and unidentified individuals on the county grounds in 1878 and continued the practice through 1974. As of 2014, four locations (see Figure 7.2) have been identified as cemeteries. Three of these cemeteries, 1, 3, and 4 are located on the periphery of the Milwaukee County Grounds and remain undisturbed. The fourth cemetery, Cemetery 2, is located in one of the most densely used portions of the Regional Medical Center and has been disturbed multiple times since 1932. While much of the focus of archaeological work has centered on Cemetery 2 (MI-0527, BMI-0076 Froedtert Tract) it should be noted that Cemetery 1 (Cemetery 1 MI-0528, BMI-0173) is located in area that is often considered for development and through which utility work continues to occur. This cemetery location must be closely monitored to be sure that no disturbance occurs. Cemetery 3 (MI-0530BMI- - Milwaukee County Cemetery) and Cemetery 4 (MI-0529 BMI- the Asylum Cemetery) may be less threatened by development as a result of their more remote locations and prominent signage, but are more likely to be vandalized and Milwaukee County officials should provide monitoring of the condition of these cemeteries on a regular basis.

A Few Final Words

The Uxbridge Almshouse Burial Ground of Uxbridge Massachusetts was in use from 1831 to 1872 (Ella and Wesolowsky 1991) predating the 1882 – 1924 span of Cemetery 2 of the Milwaukee County Poor Farm Cemeteries. Nonetheless several parallels are noteworthy. The Uxbridge Almshouse was intended to serve as a humanitarian means of caring for the poor in an economically responsible manner (Bell 1991: 59). So too were Milwaukee County officials aware of their responsibility to the poor. The structure of support for the poor and sick in Milwaukee County, like many communities in America at the time, was guided by principles that were simultaneously complementary and contradictory. Outdoor relief in Milwaukee County provided the necessities of life to the poor who were "worthy" or deserving, and who lived among and were part of the community at large. Changing economic circumstances produced a class of "unworthy" poor whose needs were not met within a community setting. Principles of proper Christian charity were juxtaposed with principles of fiscal responsibility and resulted in policies toward the poor that were inconsistent and contradictory. As Bell argues, the establishment of poor farms

> …perhaps also embodied certain Romantic Values: the idealization of the home and the therapeutic benefits of work at a rural farm while living with other inmates and the superintendent as in a fictive family (Cook 1989:81-82). A centralized institution allowed more efficient control over the unworthy poor and their attendant expenses. Only the worthy poor continued to receive assistance away from the town farm (Cook 1988:5). The Uxbridge Almshouse, like many Massachusetts almshouses, was located away from the town center, near the town's legal boundary (Cook 1989:64; Ricardo J. Elia 1987, pers. comm.). The unworthy poor were institutionalized, kept literally at the margins of town society,

> and symbolically excluded at their death by burial in a pauper's grave (Bell 1991:60).

The Milwaukee County Poor Farm, located in far western Milwaukee County provided a distant, rural location for the care of the poor in an "indoor" setting. This setting also provided Milwaukee County officials the means to financially control expenditures as well as monitor those for whom relief was provided. Like the pauper burials at Uxbridge, the minimal funerary treatment of the poor of Milwaukee County reflected both the economic and humanitarian principles of provision of care for the poor at the lowest possible cost.

Unlike the Uxbridge Cemetery however, absent is any evidence for the "archaeological horizon, the beautification of death" as "reflected materially in the use of decorative, mass-produced coffin hardware (Bell 1991: 55) in the Milwaukee County Poor Farm Cemetery. Milwaukee County's poor were buried in coffins equipped with generalized hardware forms. The handles, nails and screws are the same as those used on furniture and shipping boxes. Few specialized handles, hinges, tack or other fittings designed specifically for use on coffins were recovered as a result of the 2013 excavations. Despite the availability of cheap, white metal decorative handles, the officials responsible for the burial program at the Milwaukee County Poor Farm Cemetery chose to provide the most utilitarian hardware and burial containers for burial of the poor.

In sharp contrast with other contemporary late 19th and early 20th cemeteries in Milwaukee, the Milwaukee County Poor Farm Cemetery has been interpreted as the disposal facility for Milwaukee's sick and poor. Conversely, Forest Home Cemetery, also in Milwaukee, is known for its often ostentatious gravesites of Milwaukee's powerful and wealthy. This wealthy upper class present at Forest Home is obviously missing from the Milwaukee County Poor Farm Cemetery. However, a look at some of the non-elite burials from Forest Home suggests an interesting comparison to individuals of the Milwaukee County Poor Farm Cemetery. The distinction between the non-elite burials from Forest Home and those from the Milwaukee County Poor Farm Cemetery is based, in part, on poverty, sickness or immigrant status. Equally important however, is a socially and temporally specific definition of "otherness."

Forest Home Cemetery is described as a "compact community of more than 100,000 people reflecting the breadth and variety of the larger city around them. Its residents include infants and octogenarians, crooks and philanthropists, the earliest Yankee settlers and the most recent Hmong refugees." (Gurda 2000). St Paul's Episcopal Church purchased land outside the boundaries of the city of Milwaukee and began operation of a cemetery in 1850. This cemetery was set aside in perpetuity and was not intended solely for Episcopalians. To this end St Paul's, in 1851, donated a cemetery lot large enough to accommodate 12 burials each for the use of the Presbyterian, Congregational, Methodist, and Baptist churches, as well as extending the offer to Milwaukee's Free Masons, the Odd Fellows, and the Sons of Temperance. These lots, provided free of charge were to be used to bury those within the previously mentioned communities who might not otherwise be able to purchase a burial lot. Additionally, St Paul's set aside an area known as Faith Hill for the burial of destitute Episcopalians (Gurda 2000: 13). Missing then, and today, from Forest Home were the two largest Christian denominations, the Catholics and Lutherans, as well the Jews. These three groups developed cemeteries of their own, each providing for the poor as well. Clearly there were places within the new and quickly growing community of Milwaukee for the poor who could be associated with a particular religious group.

In Cemeteries as Ethnic Homelands, the authors argue that

> As liminal, betwixt and between sites where geography and chronology are reshaped and history is made spatial, cemeteries are places of social, religious, and ethnic continuity and belonging. Cemeteries act as bridges between two worlds – the home of the living and the metaphorical home of the dead, the home of origin, and the home of settlement (Francis et al 2005: 195).

Furthermore the authors argue that first generation immigrants may choose to be repatriated but that subsequent generations tend to opt for burials in the newly settled area (Francis et al 2005: 185). The establishment of rural cemeteries like Forest Home marked the effort of Milwaukee residents to provide places that "both evoke the sense of origin and reflect the genesis of a new situational identity" (Francis et al 2005: 195). Cemeteries can play a significant role in creating a sense of community beyond the strictly

familial. Milwaukee's rural cemeteries clearly provide that sense of community and self in a new homeland.

The necessity of disposing of deceased individuals was certainly a factor in the creation and maintenance of the Milwaukee County Poor Farm Cemeteries. Yet the insistence, at least publicly, on the part of the Milwaukee County Board of Supervisors that the burials take place in an appropriate manner suggests that the individuals in charge of the cemetery recognized the importance of burial in a social sense as well. The argument of van Gennep (2006) that biological rites of passage, like death, are transformed into symbolic rites of passage in very specific ways is cited extensively. These rites are consistent in that they all include rites of separation, rites of transition, and rites of incorporation. Further, Hertz (2006) writes that death represents a temporary exclusion of the individual from human society that needs to be resolved and made permanent. In 19th and early 20th century Milwaukee, as elsewhere, the rite of separation would be the death of an individual, the rite of transition likely the formal funeral, and the rite of incorporation was burial in such a manner that the individual became a resurrectable entity thus incorporated into a permanent and socially affirming exclusion. This is played out again and again in the supine, head to the west, feet to the east burial position that provides the opportunity for the individual to stand and face the east or the resurrection. As in Christian cemeteries, this pattern of burial is consistently adhered to at the Milwaukee County Poor Farm Cemeteries.

In his book, The Buried Soul: How Humans Invented Death, Taylor (2002) discusses secular spaces that serve as burial places for what he calls the "troublesome dead" (Taylor 2002:120). Categories of individuals for whom separate burial is utilized include stillbirths, shipwrecked sailors, unrepentant murderers and their victims, strangers, and those with different religious beliefs as well as the mentally ill and those dying from famine or contagious disease. The Milwaukee County Poor Farm cemeteries can be viewed as socially unconsecrated ground. Excluded from other cemeteries and included in the Milwaukee County Poor Farm Cemetery are fetal or newborn individuals, particularly those abandoned on streetcars, recovered from the Milwaukee River, or tossed over the steep Lake Michigan bluffs. Also included are institutional residents who were part of the new "indoor relief" policy that took both personal possessions and identity from an individual in return for a place in the hospital, asylum, orphanage, or sanitarium. Finally included are the suicides, murder or accident victims.

The "troublesome dead" are to be expected at the Milwaukee County Poor Farm Cemetery. Curiously, similar categories are also present at Forest Home Cemetery. As noted earlier, each religious denomination (with the previously noted exceptions) was provided a lot of cemetery plots for the specified purpose of burial of indigents. Further, Forest Home is the famous burial/memorial site of a number of tragic events, including the Lady Elgin disaster and the Newhall House fire. The Lady Elgin is a steam ship that sank in Lake Michigan attempting to return to Milwaukee from Chicago on September 7, 1860. Only 160 of the estimated 700 on board survived drowning. Bodies were washed onshore for weeks after the disaster (Scanlon 1928). Many of the bodies were shipped back to Milwaukee for burial. Both Forest Home Cemetery and Calvary Cemetery donated lots for interment of those "Lost on the Lady Elgin."

The Newhall House, one of the largest hotels in Wisconsin in 1883, burned on January 10 of that year. The staff of the hotel failed to wake many of the guests and most of the employees including 50 young Irish women living and sleeping in fifth floor rooms. Approximately 71 of the estimated 300 residents died in the blaze. The trustees of Forest Home Cemetery donated a 2,500 square foot lot to the City of Milwaukee intended as a mass grave for the badly burned and thus unidentified victims of the fire. Remarkably, although provisions were made for the Irish women who died in the fire at the Catholic Calvary Cemetery, the monument erected over the grave in Forest Home enumerates all, who died in the fire, including Kate O'Connor, Lizzie Kelly, Maggie Finnegan and Nora Flanagan, (Gurda 2000:23).

So Forest Home has its poor, its shipwreck victims, and its unidentified fire victims. From the perspective of categories of individuals for whom separate burial might be appropriate, the Milwaukee County Poor Farm Cemetery and Forest Home seem to differ in number and not type of such individuals.

What then distinguishes the Milwaukee County Cemetery population from that of other contemporary cemeteries such as Forest Home? The "otherness" here represents those whose lives were not part of the social fabric and for whom separation rights could not be undertaken. Immigrant status is not what distinguishes these burial populations.

Their offense was neither poverty nor necessarily that of being an accident or suicide victim. Instead, burial in the Milwaukee County Poor Farm Cemetery resulted from the inability of the living to either provide financially or identify socially an affiliation or place for the deceased, a necessary step in identifying how to sever, transition, and reunite. The individuals buried in the Milwaukee County Poor Farm Cemetery thus were dangerous. Those either able or willing to complete the rites of transition and incorporation did not exist. These dead were a threat to the new social and political identity being forged by Milwaukee residents. The frightening experience of immigration is exemplified in a Potter's field burial.

Consider, for example, the women buried in the Milwaukee County Poor Farm Cemetery. While there are significantly more males than females interred in the Milwaukee County Poor Farm Cemetery, if you were a woman without a support system ultimately buried in the County Cemetery you were more likely than the males in your age category to be subject to postmortem intervention. Similarly, a female was more likely to exhibit skeletal pathologies than the males in her age category. Further as a female you were less likely to be buried with grave goods and more likely than males of your age category to be buried in a shroud. If you were a married female you were more likely to be buried in the Poor Farm Cemetery than married males of your age category. For the poorest residents of 19th and early 20th century Milwaukee, this was a difficult time. For poor immigrants without families it was an extremely difficult time. The significant number of fetal and neonate individuals buried in the cemetery reflects both maternal and children's health but it also reflects desperate measures by desperately poor women not to slip into the indigent category.

The horror of a Potter's Field burial is the horror of being alone in a new place. The American ideal of the individual apparently did not extend to death rituals. New landscape, new life, new experience, it is inclusion that made these experiences manageable. Clearly, the Board of Supervisors of Milwaukee County made the effort to provide more than just a disposal facility for the sick, poor, or unnamed at the Milwaukee County Cemetery. However, they could not provide the social membership necessary for the success of the rites of passage associated with death. A potter's field, bought with blood money, is a place to bury strangers, a place, according to biblical legend, where potters had dug their clay, an otherwise useless piece of spent ground. It isn't that the dialogue between the living and the dead ended with loss, reuse, or destruction of the Milwaukee County Cemeteries – it was that such otherwise necessary social negotiations were never entered into in the first place. This is what made it easy to disregard and destroy these burials.

It is therefore the responsibility of those of us who have now chosen to interact with these dangerous dead to provide the rite of incorporation denied them for so very long. It is hoped that the telling here of the stories of the people of the Milwaukee County Poor Farm Cemetery, told through the lens of their material goods and their bodies, is the first step towards the recognition and inclusion denied them in death.

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APPENDIX A: LOT BOOK

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Lot Book Part 1

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10000	Y	n/a	n/a	n/a
2013-001	10001	N	n/a	n/a	n/a
2013-001	10002	N	5220	8315	152.955
2013-001	10003	N	5205	8310	151.685
2013-001	10004	Y	5210	8310	151.225
2013-001	10005	Y	5200	8315	150.622
2013-001	10006	N	5215	8320	152.538
2013-001	10007	N	5210	8315	152.768
2013-001	10008	N	5205	8310	151.793
2013-001	10009	Y	n/a	n/a	n/a
2013-001	10010	Y	5200	8315	150.39
2013-001	10011	Y	5210	8320	151.707
2013-001	10012	Y	5210	8320	152.052
2013-001	10013	Y	5225	8320	153.659
2013-001	10014	N	5215	8315	152.725
2013-001	10015	N	5225	8315	153.595
2013-001	10016	N	5225	8315	153.642
2013-001	10017	N	5225	8315	153.733
2013-001	10018	N	5225	8315	153.522
2013-001	10019	N	5205	8310	152.03
2013-001	10020	N	5215	8310	152.423
2013-001	10021	N	5220	8310	153.137
2013-001	10022	N	5220	8310	152.947
2013-001	10023	N	5220	8310	153.016
2013-001	10024	Y	5225	8310	153.63
2013-001	10025	N	5225	8310	153.928
2013-001	10026	Y	n/a	n/a	n/a
2013-001	10027	N	5210	8300	152.05
2013-001	10028	N	5215	8300	152.175
2013-001	10029	N	5220	8310	152.547
2013-001	10030	N	5200	8295	153.062
2013-001	10031	N	5205	8290	152.199
2013-001	10032	Y	5205	8310	151.818
2013-001	10033	N	5215	8300	151.726
2013-001	10034	N	5215	8300	152.046
2013-001	10035	N	5215	8295	152.175
2013-001	10036	N	5225	8300	152.73
2013-001	10037	N	5225	8295	154.49
2013-001	10038	N	5215	8300	152.883
2013-001	10039	N	5225	8300	153.176
2013-001	10040	N	5225	8300	153.301
2013-001	10041	Y	5205	8290	152.447
2013-001	10042	Y	5215	8295	152.8

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10043	N	5215	8295	153.171
2013-001	10044	N	5220	8295	153.131
2013-001	10045	N	5220	8295	153.491
2013-001	10046	N	5220	8295	154.103
2013-001	10047	N	5225	8295	154.55
2013-001	10048	N	5215	8285	154.219
2013-001	10049	N	5215	8285	153.137
2013-001	10050	N	5215	8285	153.137
2013-001	10051	N	5205	8290	151.679
2013-001	10052	N	5205	8290	152.477
2013-001	10053	N	5205	8285	152.52
2013-001	10054	N	5205	8285	152.051
2013-001	10055	N	5205	8285	152.573
2013-001	10056	N	5205	8280	150.992
2013-001	10057	Y	n/a	n/a	n/a
2013-001	10058	N	5205	8285	151.885
2013-001	10059	N	5210	8280	152.165
2013-001	10060	N	n/a	n/a	n/a
2013-001	10061	N	5210	8280	152.041
2013-001	10062	N	5210	8285	152.405
2013-001	10063	N	5205	8280	151.003
2013-001	10064	N	5210	8275	151.404
2013-001	10065	N	5210	8280	151.805
2013-001	10066	N	5225	8300	153.895
2013-001	10067	N	5225	8295	154.135
2013-001	10068	N	5225	8290	153.327
2013-001	10069	N	5225	8285	154.128
2013-001	10070	N	5210	8280	152.546
2013-001	10071	N	5215	8280	152.943
2013-001	10072	N	5215	8280	153.199
2013-001	10073	N	5225	8275	153.577
2013-001	10074	N	n/a	n/a	n/a
2013-001	10075	N	5210	8280	151.884
2013-001	10076	N	5205	8275	151.245
2013-001	10077	N	5215	8275	153.473
2013-001	10078	N	5225	8280	159.262
2013-001	10079	N	5215	8295	153.613
2013-001	10080	N	5195	8305	150.921
2013-001	10081	N	5210	8275	152.517
2013-001	10082	N	5215	8300	512.007
2013-001	10083	N	5200	8260	132.824
2013-001	10084	N	5225	8300	153.556
2013-001	10085	N	5215	8315	152.051
2013-001	10086	N	5210	8280	151.79
2013-001	10087	N	5225	8300	153.535

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10088	N	5200	8305	153.072
2013-001	10089	Y	5215	8315	152.725
2013-001	10090	Y	n/a	n/a	n/a
2013-001	10091	N	5220	8265	153.31
2013-001	10092	N	5225	8275	153.563
2013-001	10093	N	5220	8260	153.179
2013-001	10094	N	5220	8265	154.199
2013-001	10095	N	5220	8265	154.076
2013-001	10096	N	5210	8265	153.179
2013-001	10097	N	5220	8250	154.613
2013-001	10098	N	5220	8255	155.287
2013-001	10099	N	5220	8250	155.297
2013-001	10100	N	5225	8255	155.367
2013-001	10101	N	5220	8240	155.038
2013-001	10102	N	5220	8240	155.038
2013-001	10103	N	5220	8245	154.772
2013-001	10104	N	5220	8250	155.302
2013-001	10105	N	52258	8245	155.616
2013-001	10106	N	5225	8285	153.812
2013-001	10107	N	5225	8280	154.089
2013-001	10108	N	5210	8275	152.803
2013-001	10109	N	5215	8295	153.903
2013-001	10110	N	5270	8245	160.768
2013-001	10111	N	5270	8245	160.576
2013-001	10112	N	5240	8270	160.134
2013-001	10113	N	5625	8245	160.229
2013-001	10114	N	n/a	n/a	n/a
2013-001	10115	N	5260	8235	160.075
2013-001	10116	N	5265	8245	160.106
2013-001	10117	N	5255	8240	160.455
2013-001	10118	N	5260	8250	160. 165
2013-001	10119	N	n/a	n/a	n/a
2013-001	10120	N	5260	8250	160.021
2013-001	10121	N	5260	8250	159.787
2013-001	10122	N	5265	8245	160.768
2013-001	10123	N	5270	8245	160.175
2013-001	10124	N	5270	8245	160.469
2013-001	10125	N	5275	8245	160.548
2013-001	10126	N	5270	8255	160.151
2013-001	10127	N	5270	8255	160.016
2013-001	10128	N	5270	8255	160.122
2013-001	10129	N	5265	8255	159.888
2013-001	10130	N	5260	8250	160.078
2013-001	10131	N	5260	8250	160.022
2013-001	10132	N	5200	8290	151.926

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10133	N	5260	8250	160.003
2013-001	10134	N	5260	8250	159.615
2013-001	10135	Y	5200	8315	151.058
2013-001	10136	N	5260	8250	159.754
2013-001	10137	N	5220	8250	159.613
2013-001	10138	N	5265	8255	159.95
2013-001	10139	N	5270	8255	159.429
2013-001	10140	N	5270	8255	160.03
2013-001	10141	N	5275	8255	160.122
2013-001	10142	N	5275	8255	159.724
2013-001	10143	N	5270	8260	159.931
2013-001	10144	N	5265	8255	159.613
2013-001	10145	N	5265	8255	159.488
2013-001	10146	Y	n/a	n/a	n/a
2013-001	10147	N	5265	8255	159.343
2013-001	10148	N	5260	8250	159.593
2013-001	10149	N	5260	8265	159.535
2013-001	10150	N	5260	8265	159.209
2013-001	10151	N	5260	8265	159.214
2013-001	10152	N	5265	8260	159.379
2013-001	10153	N	5265	8260	159.432
2013-001	10154	Y	5195	8310	149.616 (center point)
2013-001	10155	N	5270	8260	159.564
2013-001	10156	N	5270	8260	159.599
2013-001	10157	N	5275	8260	159.648
2013-001	10158	N	5275	8265	159.748
2013-001	10159	N	5275	8265	159.848
2013-001	10160	N	5270	8260	159.583
2013-001	10161	N	5265	8265	159.391
2013-001	10162	N	5265	8260	159.114
2013-001	10163	Y	n/a	n/a	n/a
2013-001	10164	N	5260	8265	159.267
2013-001	10165	N	5260	8265	159.291
2013-001	10166	N	5260	8270	158.916
2013-001	10167	N	5260	8270	159.381
2013-001	10168	N	5265	8270	159.094
2013-001	10169	Y	5190	8310	149.443 (center point)
2013-001	10170	N	5265	8265	159.349
2013-001	10171	N	5270	8270	159.524
2013-001	10172	N	5270	8270	159.155
2013-001	10173	N	5275	8270	159.44
2013-001	10174	N	5275	8270	158.272
2013-001	10175	N	5270	8275	159.173

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10176	N	5270	8270	159.738
2013-001	10177	N	5265	8270	159.518
2013-001	10178	N	5210	8275	159.454
2013-001	10179	N	5270	8275	159.488
2013-001	10180	N	5270	8275	159.717
2013-001	10181	N	5270	275	159.649
2013-001	10182	N	5275	8285	159.182
2013-001	10183	N	5265	8306	159.078
2013-001	10184	N	5265	8306	159.081
2013-001	10185	N	5200	8270	158.982
2013-001	10186	N	5260	8295	158.705
2013-001	10187	N	5265	8305	159.128
2013-001	10188	N	5270	8290	159.361
2013-001	10189	N	5275	8285	159.08
2013-001	10190	N	5270	8270	159.134
2013-001	10191	N	5270	8300	159.336
2013-001	10192	N	5265	8306	159.347
2013-001	10193	N	5260	8300	158.857
2013-001	10194	N	5270	8300	158.748
2013-001	10195	N	5270	830	159.366
2013-001	10196	N	5270	8300	159.263
2013-001	10197	Y	n/a	n/a	n/a
2013-001	10198	N	5270	8295	159.049
2013-001	10199	N	5270	8300	158.968
2013-001	10200	N	5270	8300	159.285
2013-001	10201	N	5270	8306	158.964
2013-001	10202	N	5265	8306	158.809
2013-001	10203	N	5265	8305	159.231
2013-001	10204	N	5260	8310	158.433
2013-001	10205	Y	n/a	n/a	n/a
2013-001	10206	N	5265	8810	159.19
2013-001	10207	N	5270	8305	159.245
2013-001	10208	N	5270	8305	158.827
2013-001	10209	N	5270	8305	159.072
2013-001	10210	Y	n/a	n/a	n/a
2013-001	10211	Y	n/a	n/a	n/a
2013-001	10212	Y	n/a	n/a	n/a
2013-001	10213	Y	n/a	n/a	n/a
2013-001	10214	Y	n/a	n/a	158.819
2013-001	10215	Y	n/a	n/a	n/a
2013-001	10216	Y	5275	8315	159.169
2013-001	10217	N	5215	8275	152.55
2013-001	10218	N	5225	8285	152.879
2013-001	10219	N	5210	8265	153.524
2013-001	10220	N	n/a	n/a	n/a

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10221	N	5270	8275	158.923
2013-001	10222	N	5270	8275	159.026
2013-001	10223	N	5270	8275	159.65
2013-001	10224	N	n/a	n/a	n/a
2013-001	10225	N	5270	8275	159.609
2013-001	10226	N	5265	8270	158.723
2013-001	10227	N	5260	8270	158.923
2013-001	10228	N	5260	8280	158
2013-001	10229	N	n/a	n/a	n/a
2013-001	10230	N	5256	8270	159.158
2013-001	10231	N	5260	8270	159.158
2013-001	10232	N	5260	8270	158.948
2013-001	10233	N	5260	8270	159.074
2013-001	10234	Y	5270	8325	159.393
2013-001	10235	N	5270	8275	159.213
2013-001	10236	Y	n/a	n/a	n/a
2013-001	10237	N	5265	8305	158.983
2013-001	10238	N	5260	8250	159.501
2013-001	10239	N	5270	8270	159.286
2013-001	10240	N	5270	8300	159.052
2013-001	10241	N	5265	8305	158.501
2013-001	10242	N	5265	8305	158.867
2013-001	10243	Y	n/a	n/a	n/a
2013-001	10244	N	5265	8310	158.668
2013-001	10245	N	5270	8310	158.857
2013-001	10246	N	5270	8310	159.262
2013-001	10247	N	5270	8310	159.284
2013-001	10248	Y	n/a	n/a	n/a
2013-001	10249	Y	n/a	n/a	n/a
2013-001	10250	Y	n/a	n/a	n/a
2013-001	10251	Y	n/a	n/a	n/a
2013-001	10252	N	n/a	n/a	n/a
2013-001	10253	N	5225	8270	153.403
2013-001	10254	N	5215	8265	152.962
2013-001	10255	N	n/a	n/a	n/a
2013-001	10256	N	5220	8265	154.076
2013-001	10257	N	n/a	n/a	n/a
2013-001	10258	N	5220	8255	155.287
2013-001	10259	N	5220	8205	154.076
2013-001	10260	N	5260	8310	158.716
2013-001	10261	N	5200	8310	151.217
2013-001	10262	N	5205	8280	152.013
2013-001	10263	N	5205	8285	151.617
2013-001	10264	N	5205	8300	151.989
2013-001	10265	N	5200	8300	151.942

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10266	N	5200	8300	151.645
2013-001	10267	N	5205	8285	151.474
2013-001	10268	N	5205	8235	151.747
2013-001	10269	N	5195	8265	151.239
2013-001	10270	N	5210	8300	152.837
2013-001	10271	N	5200	8300	151.093
2013-001	10272	N	5200	8300	151.483
2013-001	10273	N	5195	8290	151.601
2013-001	10274	N	5195	8290	151.892
2013-001	10275	N	5195	8285	151.231
2013-001	10276	N	5200	8275	151.005
2013-001	10277	N	5190	8275	150.579
2013-001	10278	N	5195	8275	150.579
2013-001	10279	N	5195	8275	150.474
2013-001	10280	N	5190	8290	150.196
2013-001	10281	N	5195	2885	150.35
2013-001	10282	N	5195	8295	150.384
2013-001	10283	N	5190	8295	150.405
2013-001	10284	N	5190	8310	149.887
2013-001	10285	N	5195	8305	150.102
2013-001	10286	Y	5195	8315	150.262
2013-001	10287	Y	5195	8310	150.602
2013-001	10288	N	5195	8285	151.184
2013-001	10289	N	5195	8275	151.101
2013-001	10290	N	5200	8275	151.33
2013-001	10291	N	5195	8275	149.434
2013-001	10292	N	5195	8270	149.802
2013-001	10293	N	5195	8265	151.768
2013-001	10294	N	5200	8265	152.314
2013-001	10295	N	5210	8265	152.978
2013-001	10296	N	5205	8265	153.126
2013-001	10297	N	5195	8265	150.542
2013-001	10298	N	5185	8265	149.643
2013-001	10299	N	5195	8260	152.26
2013-001	10300	N	5200	8265	152.561
2013-001	10301	N	5195	8255	152.042
2013-001	10302	N	5195	8260	151.035
2013-001	10303	N	5185	8245	150.645
2013-001	10304	N	5185	8265	150.341
2013-001	10305	N	5185	8245	450.679
2013-001	10306	N	5185	8245	151.674
2013-001	10307	N	5195	8245	151.365
2013-001	10308	N	5205	8245	153.363
2013-001	10309	Y	n/a	n/a	n/a
2013-001	10310	N	5210	8245	154.099

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10311	N	5220	8250	154.217
2013-001	10312	N	5205	8245	154.152
2013-001	10313	N	5205	8255	153.386
2013-001	10314	N	5220	8520	153.678
2013-001	10315	N	5195	8245	152.12
2013-001	10316	N	5190	8235	152.026
2013-001	10317	N	5190	8240	151.404
2013-001	10318	N	5785	8245	150.769
2013-001	10319	N	5185	8235	151.084
2013-001	10320	N	5190	8230	152.334
2013-001	10321	N	5190	8250	152.596
2013-001	10322	N	5190	8230	153.193
2013-001	10323	N	5190	8235	153.357
2013-001	10324	N	5190	8225	153.827
2013-001	10325	N	5190	8225	n/a
2013-001	10326	N	5190	8225	153.294
2013-001	10327	N	5190	8225	152.824
2013-001	10328	N	5185	8220	152.283
2013-001	10329	N	5190	8235	153.558
2013-001	10330	N	5140	8225	154.515
2013-001	10331	N	5185	8215	152.569
2013-001	10332	N	5190	8215	153.22
2013-001	10333	N	5190	8215	153.271
2013-001	10334	N	5190	8215	151.857
2013-001	10335	N	5190	8220	154.501
2013-001	10336	N	5190	8220	154.395
2013-001	10337	N	5190	8210	154.621
2013-001	10338	N	5190	8210	154.552
2013-001	10339	N	5190	8205	154.218
2013-001	10340	N	5190	8250	153.914
2013-001	10341	N	5120	8205	153.555
2013-001	10342	N	5185	8210	153.055
2013-001	10343	N	5185	8195	153.098
2013-001	10344	N	5190	8200	153.592
2013-001	10345	N	5190	8200	153.909
2013-001	10346	N	5200	8195	154.115
2013-001	10347	N	5200	8195	154.932
2013-001	10348	N	5200	8195	154.587
2013-001	10349	N	5200	8195	154.932
2013-001	10350	N	5200	8195	154.351
2013-001	10351	N	5195	8195	154.278
2013-001	10352	N	5190	8195	153.495
2013-001	10353	N	5185	8195	153.18
2013-001	10354	N	5185	8185	153.111
2013-001	10355	N	5185	8185	154.046

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10356	N	n/a	n/a	n/a
2013-001	10357	N	5190	8185	154.105
2013-001	10358	N	5190	8185	154.286
2013-001	10359	N	5190	8175	154.368
2013-001	10360	N	5200	8195	153.503
2013-001	10361	N	5205	8175	154.758
2013-001	10362	N	5200	8165	154.59
2013-001	10363	N	5195	8170	154.609
2013-001	10364	N	5190	8175	154.324
2013-001	10365	N	5190	8170	153.514
2013-001	10366	N	n/a	n/a	n/a
2013-001	10367	N	n/a	n/a	n/a
2013-001	10368	N	5195	8165	153.171
2013-001	10369	N	5195	8160	154.786
2013-001	10370	N	5195	8160	154.471
2013-001	10371	N	5200	8165	154.637
2013-001	10372	N	5205	8175	154.85
2013-001	10373	N	n/a	n/a	n/a
2013-001	10374	N	n/a	n/a	n/a
2013-001	10375	N	5195	8150	154.414
2013-001	10376	N	5195	8150	154.115
2013-001	10377	N	n/a	n/a	n/a
2013-001	10378	N	5195	8150	154.144
2013-001	10379	N	5190	8140	155.308
2013-001	10380	N	5195	8285	149.604
2013-001	10381	N	5195	8295	149.48
2013-001	10382	N	5190	8140	154.972
2013-001	10383	N	5190	8140	155.022
2013-001	10384	N	n/a	n/a	n/a
2013-001	10385	N	5200	8310	150.876
2013-001	10386	N	5195	8135	155.303
2013-001	10387	N	5195	8130	154.796
2013-001	10388	N	5190	8140	155.938
2013-001	10389	N	n/a	n/a	n/a
2013-001	10390	N	n/a	n/a	n/a
2013-001	10391	N	n/a	n/a	n/a
2013-001	10392	N	n/a	n/a	n/a
2013-001	10393	N	n/a	n/a	n/a
2013-001	10394	N	n/a	n/a	n/a
2013-001	10395	N	n/a	n/a	n/a
2013-001	10396	N	n/a	n/a	n/a
2013-001	10397	N	n/a	n/a	n/a
2013-001	10398	N	n/a	n/a	n/a
2013-001	10399	N	5185	8245	151.174
2013-001	10400	N	5185	8220	152.283

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10401	N	5185	8220	152.283
2013-001	10402	N	5205	8265	153.126
2013-001	10403	N	5210	8275	152.629
2013-001	10404	N	5210	8275	152.515
2013-001	10405	N	5210	8275	152.164
2013-001	10406	N	5195	8190	156.915
2013-001	10407	N	5195	8130	156.416
2013-001	10408	N	5195	8130	155.724
2013-001	10409	N	5195	8130	156.325
2013-001	10410	N	5195	8130	156.764
2013-001	10411	N	5195	8130	156.724
2013-001	10412	N	5196.089	8106.761	156.818
2013-001	10413	N	5196.089	8106.761	156.909
2013-001	10414	N	5192.965	8107.225	156.633
2013-001	10415	N	n/a	n/a	n/a
2013-001	10416	N	n/a	n/a	n/a
2013-001	10417	N	n/a	n/a	n/a
2013-001	10418	N	n/a	n/a	n/a
2013-001	10419	N	n/a	n/a	n/a
2013-001	10420	N	n/a	n/a	n/a
2013-001	10421	N	n/a	n/a	n/a
2013-001	10422	N	5205	8265	153.126
2013-001	10423	N	5205	8265	159.084
2013-001	10424	N	5270	8275	159.084
2013-001	10425	Y	5185	8220	152.283
2013-001	10426	N	n/a	n/a	n/a
2013-001	10427	Y	n/a	n/a	n/a
2013-001	10428	N	n/a	n/a	n/a
2013-001	10429	N	5185	8210	153.055
2013-001	10430	Y	5195	8150	154.144
2013-001	10431	N	5200	8310	151.386
2013-001	10432	N	5205	8310	151.576
2013-001	10433	N	n/a	n/a	n/a
2013-001	10434	N	n/a	n/a	n/a
2013-001	10435	N	n/a	n/a	n/a
2013-001	10436	N	n/a	n/a	n/a
2013-001	10437	N	n/a	n/a	n/a
2013-001	10438	N	n/a	n/a	n/a
2013-001	10439	N	n/a	n/a	n/a
2013-001	10440	N	n/a	n/a	n/a
2013-001	10441	N	n/a	n/a	n/a
2013-001	10442	N	5200	8310	151.128
2013-001	10443	N	n/a	n/a	n/a
2013-001	10444	N	n/a	n/a	n/a
2013-001	10445	N	n/a	n/a	n/a

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10446	N	n/a	n/a	n/a
2013-001	10447	N	n/a	n/a	n/a
2013-001	10448	N	n/a	n/a	n/a
2013-001	10449	N	n/a	n/a	n/a
2013-001	10450	N	n/a	n/a	n/a
2013-001	10451	N	5190	8230	153.197
2013-001	10452	N	n/a	n/a	n/a
2013-001	10453	N	n/a	n/a	n/a
2013-001	10454	N	n/a	n/a	n/a
2013-001	10455	N	n/a	n/a	n/a
2013-001	10456	N	n/a	n/a	n/a
2013-001	10457	Y	5190	8230	153.193
2013-001	10458	N	n/a	n/a	n/a
2013-001	10459	N	5205	8255	153.386
2013-001	10460	N	5205	8255	153.386
2013-001	10461	N	n/a	n/a	n/a
2013-001	10462	N	5205	8255	153.386
2013-001	10463	N	n/a	n/a	n/a
2013-001	10464	N	5190	8210	154.552
2013-001	10465	N	5190	8230	152.334
2013-001	10466	N	5190	8175	153.405
2013-001	10467	N	5200	8195	154.587
2013-001	10468	N	5190	8235	153.558
2013-001	10469	N	5190	8235	153.357
2013-001	10470	N	5220	8250	155.302
2013-001	10471	N	5220	8250	155.302
2013-001	10472	N	5220	8250	155.302
2013-001	10473	N	5220	8245	154.775
2013-001	10474	Y	5200	8195	154.587
2013-001	10475	N	n/a	n/a	n/a
2013-001	10476	N	n/a	n/a	n/a
2013-001	10477	N	1595	8245	152.12
2013-001	10478	N	5210	8245	154.097
2013-001	10479	N	5210	8265	153.179
2013-001	10480	N	5220	8250	155.297
2013-001	10481	Y	5205	8280	151.003
2013-001	10482	N	5190	8140	155.022
2013-001	10483	N	5190	8175	153.301
2013-001	10484	N	5205	8255	153.386
2013-001	10485	Y	n/a	n/a	n/a
2013-001	10486	N	n/a	n/a	n/a
2013-001	10487	N	n/a	n/a	n/a
2013-001	10488	N	5265	8305	158.932
2013-001	10489	N	5260	8235	160.303
2013-001	10490	N	5260	8235	160.436

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10491	N	5260	8235	160.31
2013-001	10492	N	5260	8235	160.335
2013-001	10493	N	5270	8240	160.361
2013-001	10494	N	5270	8240	160.4
2013-001	10495	N	5275	8230	n/a
2013-001	10496	N	5260	8235	160.569
2013-001	10497	N	5260	8230	160.831
2013-001	10498	N	5260	8230	160.649
2013-001	10499	N	5260	8230	160.436
2013-001	10500	N	5260	8230	160.96
2013-001	10501	N	5275	8230	160.692
2013-001	10502	N	5275	8230	161.1
2013-001	10503	N	5260	8230	160.6
2013-001	10504	N	5260	8230	160.873
2013-001	10505	N	5265	8225	160.752
2013-001	10506	N	5265	8225	160.63
2013-001	10507	N	5265	8225	161.185
2013-001	10508	N	5265	8225	161.185
2013-001	10509	N	n/a	n/a	n/a
2013-001	10510	N	5270	8275	159.07
2013-001	10511	N	n/a	n/a	n/a
2013-001	10512	N	n/a	n/a	n/a
2013-001	10513	N	5210	8280	152.311
2013-001	10514	N	5220	8265	154.199
2013-001	10515	N	5210	8265	153.524
2013-001	10516	N	5220	8230	156.789
2013-001	10517	N	5215	8230	155.359
2013-001	10518	N	5215	8230	155.157
2013-001	10519	N	5210	8230	154.81
2013-001	10520	N	5205	8235	154.197
2013-001	10521	N	5210	8225	154.695
2013-001	10522	N	5215	8230	155.264
2013-001	10523	N	5220	8225	155.989
2013-001	10524	N	5220	8225	156.512
2013-001	10525	N	5220	8215	156.454
2013-001	10526	N	5220	8220	156.083
2013-001	10527	N	5215	8270	155.652
2013-001	10528	N	5215	8220	155.191
2013-001	10529	N	5205	8220	154.597
2013-001	10530	Y	5210	8280	152.311
2013-001	10531	N	5260	8280	152.747
2013-001	10532	N	n/a	n/a	n/a
2013-001	10533	N	5205	8210	154.926
2013-001	10534	N	5210	8225	155.237
2013-001	10535	N	5215	8205	155.841

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10536	N	5220	8215	156.14
2013-001	10537	N	5220	8210	156.682
2013-001	10538	N	5220	8200	156.628
2013-001	10539	N	5220	8195	156.188
2013-001	10540	N	5215	8205	156.193
2013-001	10541	N	5210	8195	155.608
2013-001	10542	N	5210	8195	155.333
2013-001	10543	N	5275	8285	159.167
2013-001	10544	N	5260	8295	158.196
2013-001	10545	N	5270	8280	152.094
2013-001	10546	N	5260	8295	158.539
2013-001	10547	N	5220	8520	153.621
2013-001	10548	N	5205	8275	150.85
2013-001	10549	N	n/a	n/a	n/a
2013-001	10550	Y	n/a	n/a	n/a
2013-001	10551	N	n/a	n/a	n/a
2013-001	10552	N	n/a	n/a	n/a
2013-001	10553	N	n/a	n/a	n/a
2013-001	10554	N	5210	8165	154.752
2013-001	10555	N	5210	8195	155.491
2013-001	10556	N	5215	8195	155.789
2013-001	10557	N	5215	8195	155.881
2013-001	10558	N	5220	8195	156.942
2013-001	10559	N	n/a	n/a	n/a
2013-001	10560	N	5200	8185	154.927
2013-001	10561	N	5210	8185	155.067
2013-001	10562	N	5210	8185	155.353
2013-001	10563	N	5215	8185	155.784
2013-001	10564	N	5220	8185	156.393
2013-001	10565	N	5220	8185	156.651
2013-001	10566	N	n/a	n/a	n/a
2013-001	10567	N	n/a	n/a	n/a
2013-001	10568	N	5210	8175	155.389
2013-001	10569	N	5215	8175	155.343
2013-001	10570	N	5220	8175	156.155
2013-001	10571	N	5250	8175	156.581
2013-001	10572	N	5220	8175	156.81
2013-001	10573	N	5225	8165	156.988
2013-001	10574	N	5220	8165	155.887
2013-001	10575	N	5220	8165	156.675
2013-001	10576	N	5215	8175	155.177
2013-001	10577	N	5210	8165	155.882
2013-001	10578	N	n/a	n/a	n/a
2013-001	10579	N	n/a	n/a	n/a
2013-001	10580	N	5205	8210	154.926

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10581	N	n/a	n/a	n/a
2013-001	10582	N	n/a	n/a	n/a
2013-001	10583	N	n/a	n/a	n/a
2013-001	10584	N	n/a	n/a	n/a
2013-001	10585	N	n/a	n/a	n/a
2013-001	10586	N	n/a	n/a	n/a
2013-001	10587	N	5210	8195	155.333
2013-001	10588	N	n/a	n/a	n/a
2013-001	10589	N	n/a	n/a	n/a
2013-001	10590	N	n/a	n/a	n/a
2013-001	10591	N	n/a	n/a	n/a
2013-001	10592	N	5275	8305	158.876
2013-001	10593	N	5275	8305	159.059
2013-001	10594	Y	5275	8305	158.634
2013-001	10595	N	5275	8305	159.287
2013-001	10596	N	5275	8295	159.487
2013-001	10597	N	5270	8295	19.138
2013-001	10598	N	n/a	n/a	n/a
2013-001	10599	N	5205	8175	154.85
2013-001	10600	N	5210	8195	155.789
2013-001	10601	N	5215	8205	156.193
2013-001	10602	Y	n/a	n/a	n/a
2013-001	10603	N	521	8195	155.491
2013-001	10604	N	5210	8185	155.067
2013-001	10605	N	n/a	n/a	n/a
2013-001	10606	N	n/a	n/a	n/a
2013-001	10607	N	5250	8175	156.581
2013-001	10608	N	n/a	n/a	n/a
2013-001	10609	N	5220	8175	156.811
2013-001	10610	N	5220	8175	156.81
2013-001	10611	N	5220	8195	156.942
2013-001	10612	Y	5245	8310	155.438
2013-001	10613	Y	5245	8310	155.958
2013-001	10614	N	5230	8310	153.483
2013-001	10615	N	5235	8310	154.595
2013-001	10616	N	5245	8310	154.217
2013-001	10617	Y	5250	8310	155.7
2013-001	10618	N	5255	8310	156.82
2013-001	10619	Y	5250	8305	155.708
2013-001	10620	N	8250	8305	154.54
2013-001	10621	N	5245	8290	155.251
2013-001	10622	N	5245	8290	155.251
2013-001	10623	N	5250	8285	155.606
2013-001	10624	N	5245	8280	155.463
2013-001	10625	N	5230	8295	153.634

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10626	N	5230	8280	153.562
2013-001	10627	N	5235	8305	153.306
2013-001	10628	N	5230	8275	153.582
2013-001	10629	N	5245	8260	156.334
2013-001	10630	N	5240	8245	156.57
2013-001	10631	N	5245	8310	155.494
2013-001	10632	N	5230	8235	156.635
2013-001	10633	N	5245	8280	155.2
2013-001	10634	N	5250	8365	155.613
2013-001	10635	N	5235	8365	153.889
2013-001	10636	N	5240	8240	157.342
2013-001	10637	Y	5245	8310	154.909
2013-001	10638	N	5250	8310	155.91
2013-001	10639	N	5230	8265	154.172
2013-001	10640	N	5235	831	153.774
2013-001	10641	N	5250	8300	155.292
2013-001	10642	N	5245	8265	155.476
2013-001	10643	N	5245	8265	155.476
2013-001	10644	N	5255	8305	156.075
2013-001	10645	N	n/a	n/a	n/a
2013-001	10646	N	n/a	n/a	n/a
2013-001	10647	N	n/a	n/a	n/a
2013-001	10648	N	n/a	n/a	n/a
2013-001	10649	N	n/a	n/a	n/a
2013-001	10650	N	5250	8300	155.057
2013-001	10651	N	5245	6290	155.595
2013-001	10652	N	5245	8280	156
2013-001	10653	N	5245	8270	155.616
2013-001	10654	N	5245	8265	155.404
2013-001	10655	N	5245	8265	156.025
2013-001	10656	N	5245	8260	156.599
2013-001	10657	N	5245	8235	157.189
2013-001	10658	N	5245	8235	157.947
2013-001	10659	N	5245	8225	158.442
2013-001	10660	N	5245	8235	157.49
2013-001	10661	N	5245	8225	157.98
2013-001	10662	N	5245	8260	155.884
2013-001	10663	N	5240	8240	157.181
2013-001	10664	N	5240	8240	157.646
2013-001	10665	N	5235	8305	153.736
2013-001	10666	N	5245	8290	154.105
2013-001	10667	N	5245	8290	154.488
2013-001	10668	N	5245	8280	154.664
2013-001	10669	N	5235	8260	154.996
2013-001	10670	N	5235	8260	155.508

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10671	N	5240	8245	156.375
2013-001	10672	N	5240	8240	156.098
2013-001	10673	N	5230	8230	156.592
2013-001	10674	Y	n/a	n/a	n/a
2013-001	10675	N	5230	8290	153.828
2013-001	10676	N	5230	8290	154.085
2013-001	10677	N	5230	8280	154.283
2013-001	10678	N	5235	8265	154.63
2013-001	10679	Y	n/a	n/a	n/a
2013-001	10680	N	5235	8260	155.81
2013-001	10681	N	5230	8240	156.525
2013-001	10682	N	5230	8265	154.847
2013-001	10683	N	5230	8265	155.746
2013-001	10684	N	5230	8240	156.317
2013-001	10685	N	5230	8230	156.61
2013-001	10686	N	5225	8235	156.465
2013-001	10687	N	5225	8225	156.575
2013-001	10688	N	5230	8230	157.004
2013-001	10689	N	5230	8230	157.159
2013-001	10690	N	5240	8220	157.924
2013-001	10691	N	5245	8225	158.623
2013-001	10692	N	5245	8215	158.163
2013-001	10693	N	n/a	n/a	n/a
2013-001	10694	N	n/a	n/a	n/a
2013-001	10695	N	5225	8215	156.376
2013-001	10696	N	5225	8215	156.995
2013-001	10697	N	5240	8220	157.497
2013-001	10698	N	5240	8220	158.427
2013-001	10699	N	5245	8215	158.75
2013-001	10700	N	5245	8215	158.638
2013-001	10701	N	n/a	n/a	n/a
2013-001	10702	N	5225	8205	156.724
2013-001	10703	N	5230	8205	157.423
2013-001	10704	N	5240	8210	158.588
2013-001	10705	N	5245	8205	159.043
2013-001	10706	N	5250	8200	158.551
2013-001	10707	N	5225	8195	157.035
2013-001	10708	N	5230	8205	157.594
2013-001	10709	N	5240	8205	158.836
2013-001	10710	N	5240	8195	158.636
2013-001	10711	N	5250	8190	159.331
2013-001	10712	N	5230	8190	157.476
2013-001	10713	N	5235	8185	157.355
2013-001	10714	N	5240	8195	158.334
2013-001	10715	N	5240	8185	158.387

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10716	N	n/a	n/a	n/a
2013-001	10717	N	5225	8275	153.089
2013-001	10718	N	5230	8265	154.172
2013-001	10719	N	5230	8190	157.765
2013-001	10720	N	5235	8210	157.886
2013-001	10721	N	5235	8195	157.874
2013-001	10722	N	n/a	n/a	n/a
2013-001	10723	N	5240	8140	158.426
2013-001	10724	N	5225	8275	153.577
2013-001	10725	N	n/a	n/a	n/a
2013-001	10726	N	5225	8275	152.842
2013-001	10727	N	n/a	n/a	n/a
2013-001	10728	N	5235	8265	154.63
2013-001	10729	N	5225	8290	153.327
2013-001	10730	N	5250	8180	158.521
2013-001	10731	N	5245	8170	158.889
2013-001	10732	N	5245	8165	158.786
2013-001	10733	N	5245	8160	158.249
2013-001	10734	N	5245	8145	157.831
2013-001	10735	N	5245	8180	159.027
2013-001	10736	N	5245	8175	158.801
2013-001	10737	N	5245	8170	158.791
2013-001	10738	N	5245	8165	158.714
2013-001	10739	N	5245	8155	158.889
2013-001	10740	N	5235	8175	157.642
2013-001	10741	N	5240	8175	157.59
2013-001	10742	N	5240	8165	158.194
2013-001	10743	N	5240	8155	157.397
2013-001	10744	N	5235	8175	157.737
2013-001	10745	N	5235	8175	157.623
2013-001	10746	N	5235	8165	157.694
2013-001	10747	N	5240	8150	157137
2013-001	10748	N	5235	8165	157.31
2013-001	10749	N	5225	8155	157.087
2013-001	10750	N	5225	8180	157.011
2013-001	10751	N	5225	8170	156.936
2013-001	10752	N	5225	8165	156.385
2013-001	10753	N	5225	8155	156.163
2013-001	10754	N	5230	8145	156.186
2013-001	10755	N	5225	8155	156.436
2013-001	10756	N	5230	8145	156.791
2013-001	10757	N	5225	8155	156.493
2013-001	10758	N	5215	8145	157.733
2013-001	10759	N	5230	8145	157.244
2013-001	10760	N	5240	8140	157.468

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10761	N	5240	8140	157.564
2013-001	10762	N	5245	8135	157.876
2013-001	10763	N	5245	8130	158.634
2013-001	10764	N	5240	8155	156.019
2013-001	10765	N	5215	8155	156.019
2013-001	10766	N	5215	8140	157.239
2013-001	10767	N	5215	8130	156.837
2013-001	10768	N	5220	8130	157.295
2013-001	10769	N	5225	8130	157.87
2013-001	10770	N	5125	8125	157.473
2013-001	10771	N	5210	8150	155.414
2013-001	10772	N	5215	8140	156.799
2013-001	10773	N	5210	8130	155.629
2013-001	10774	N	5210	8130	157.518
2013-001	10775	N	5210	8120	157.599
2013-001	10776	N	5210	8105	158.263
2013-001	10777	N	5210	8150	155.77
2013-001	10778	N	5205	8140	156.315
2013-001	10779	N	5210	8135	156.113
2013-001	10780	N	5210	8130	157.331
2013-001	10781	N	5210	8120	157.583
2013-001	10782	N	5210	8105	157.543
2013-001	10783	N	5205	8145	155.443
2013-001	10784	N	5205	8140	156.101
2013-001	10785	N	5205	8130	155.855
2013-001	10786	N	5205	8130	157.301
2013-001	10787	N	5210	8120	157.375
2013-001	10788	Y	n/a	n/a	n/a
2013-001	10789	N	5205	8140	154.973
2013-001	10790	N	5205	8140	155.535
2013-001	10791	N	5200	8140	155.328
2013-001	10792	N	5205	8310	156.858
2013-001	10793	N	5210	8120	156.94
2013-001	10794	N	5200	8110	157.073
2013-001	10795	N	5200	8145	154.721
2013-001	10796	N	5245	8280	156
2013-001	10797	N	5225	8275	153.563
2013-001	10798	N	5245	8260	156.599
2013-001	10799	N	5245	8265	155.904
2013-001	10800	N	5220	8260	153.179
2013-001	10801	N	5230	8240	156.317
2013-001	10802	Y	n/a	n/a	n/a
2013-001	10803	N	5240	8120	159.147
2013-001	10804	N	5240	8120	159.412
2013-001	10805	N	5240	8130	159.156

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10806	N	5240	8120	159.577
2013-001	10807	N	5240	8130	158.19
2013-001	10808	N	5235	8120	159.076
2013-001	10809	N	5235	8115	159.146
2013-001	10810	N	5235	8130	158.648
2013-001	10811	N	5235	8115	158.652
2013-001	10812	N	5235	8115	158.522
2013-001	10813	N	5230	8130	157.454
2013-001	10814	N	5230	8130	158.26
2013-001	10815	N	5230	8120	158.509
2013-001	10816	N	5225	8130	157.278
2013-001	10817	N	5225	8130	158.092
2013-001	10818	N	5225	8120	158.353
2013-001	10819	N	5220	8130	157.928
2013-001	10820	N	5215	8120	158.304
2013-001	10821	N	5215	8120	158.034
2013-001	10822	N	5245	8290	154.488
2013-001	10823	N	5225	8275	153.563
2013-001	10824	N	5245	6290	155.595
2013-001	10825	N	5235	8260	155.81
2013-001	10826	Y	5225	8225	153.563
2013-001	10827	N	5225	8235	156.465
2013-001	10828	N	5245	8235	157.189
2013-001	10829	N	5240	8245	156.57
2013-001	10830	N	5215	8230	155.264
2013-001	10831	N	5245	8225	158.442
2013-001	10832	N	5245	8215	158.163
2013-001	10833	N	5230	8230	156.61
2013-001	10834	Y	n/a	n/a	n/a
2013-001	10835	N	5240	8245	156.57
2013-001	10836	N	5245	8280	154.664
2013-001	10837	N	5240	8220	157.924
2013-001	10838	N	5225	8245	155.616
2013-001	10839	N	5225	8225	156.575
2013-001	10840	N	5210	8225	155.237
2013-001	10841	Y	5210	8225	155.237
2013-001	10842	N	5210	8225	155.237
2013-001	10843	N	5220	8215	156.14
2013-001	10844	N	5220	8215	156.14
2013-001	10845	N	5230	8240	156.525
2013-001	10846	N	5245	8260	155.881
2013-001	10847	N	5245	8235	157.947
2013-001	10848	N	5220	8215	156.14
2013-001	10849	N	5240	8240	157.342
2013-001	10850	N	5240	8245	156.375

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10851	N	5235	8260	155.508
2013-001	10852	N	5235	8260	155.508
2013-001	10853	N	5235	8260	155.508
2013-001	10854	N	5240	8240	157.181
2013-001	10855	N	5240	8240	157.181
2013-001	10856	N	5240	8240	157.181
2013-001	10857	N	5245	8225	158.623
2013-001	10858	N	5245	8215	158.638
2013-001	10859	Y	5235	8260	155.508
2013-001	10860	N	5230	8230	157.004
2013-001	10861	N	5225	8215	156.376
2013-001	10862	N	5245	8215	158.75
2013-001	10863	N	5240	8220	157.497
2013-001	10864	N	5240	8220	158.427
2013-001	10865	N	5235	8210	157.886
2013-001	10866	N	5235	8175	157.642
2013-001	10867	N	5220	8220	156.083
2013-001	10868	N	5225	8215	156.376
2013-001	10869	N	5225	8205	156.724
2013-001	10870	N	5245	8205	159.043
2013-001	10871	N	5225	8195	157.035
2013-001	10872	N	5220	8220	156.083
2013-001	10873	N	5225	8180	157.011
2013-001	10874	N	5240	8195	158.636
2013-001	10875	N	5250	8200	158.551
2013-001	10876	N	5245	8180	159.027
2013-001	10877	N	5240	8195	158.334
2013-001	10878	N	5220	8165	156.675
2013-001	10879	N	5245	8170	158.791
2013-001	10880	N	5225	8220	156.364
2013-001	10881	N	5225	8195	157.035
2013-001	10882	N	5230	8190	157.426
2013-001	10883	N	5240	8165	158.194
2013-001	10884	N	5225	8195	157.035
2013-001	10885	N	5225	8170	156.956
2013-001	10886	N	5225	8170	156.936
2013-001	10887	N	5225	8165	156.988
2013-001	10888	N	5240	8210	158.598
2013-001	10889	N	5245	8175	158.801
2013-001	10890	N	5225	8155	156.493
2013-001	10891	N	5235	8175	157.623
2013-001	10892	N	5235	8195	157.824
2013-001	10893	N	5215	8185	155.789
2013-001	10894	N	5230	8205	157.423
2013-001	10895	N	5235	8175	157.737

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10896	N	5235	8165	157.31
2013-001	10897	N	5245	8145	157.831
2013-001	10898	N	5240	8205	158.836
2013-001	10899	N	5220	8165	155.887
2013-001	10900	N	5250	8190	159.331
2013-001	10901	N	5210	8195	155.608
2013-001	10902	N	5230	8205	157.594
2013-001	10903	N	5215	8140	157.239
2013-001	10904	N	5205	8140	154.973
2013-001	10905	N	5230	8205	157.594
2013-001	10906	N	5210	8150	155.414
2013-001	10907	N	5240	8140	157.468
2013-001	10908	N	5240	8155	157.397
2013-001	10909	N	5245	8160	158.249
2013-001	10910	N	5245	8160	158.249
2013-001	10911	N	5210	8165	155.882
2013-001	10912	N	5245	8170	158.889
2013-001	10913	N	5245	8170	158.889
2013-001	10914	N	5205	8310	n/a
2013-001	10915	N	5245	8165	158.714
2013-001	10916	N	5230	8130	157.454
2013-001	10917	N	5225	8155	157.087
2013-001	10918	N	5200	8140	155.328
2013-001	10919	N	5210	8150	157.331
2013-001	10920	N	5200	8145	154.721
2013-001	10921	N	5205	8140	156.315
2013-001	10922	N	5210	8120	157.583
2013-001	10923	N	5245	8155	158.889
2013-001	10924	N	5215	8155	156.019
2013-001	10925	N	5240	8185	158.387
2013-001	10926	N	5225	8155	156.436
2013-001	10927	N	5215	8145	157.733
2013-001	10928	N	5125	8125	157.473
2013-001	10929	N	5205	8145	155.443
2013-001	10930	N	5240	8150	157.137
2013-001	10931	N	5210	8135	156.113
2013-001	10932	N	5210	8150	155.77
2013-001	10933	N	5230	8145	156.186
2013-001	10934	N	5225	8130	158.092
2013-001	10935	N	5240	8130	158.19
2013-001	10936	N	5215	8120	158.034
2013-001	10937	N	5205	8130	157.301
2013-001	10938	N	5210	8175	155.389
2013-001	10939	N	5210	8120	156.94
2013-001	10940	N	5220	8175	156.155

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10941	N	5205	8140	155.535
2013-001	10942	N	5200	8110	157.073
2013-001	10943	N	n/a	n/a	n/a
2013-001	10944	N	5215	8130	156.837
2013-001	10945	N	n/a	n/a	n/a
2013-001	10946	N	5205	8130	155.855
2013-001	10947	N	n/a	n/a	n/a
2013-001	10948	N	n/a	n/a	n/a
2013-001	10949	N	n/a	n/a	n/a
2013-001	10950	N	n/a	n/a	n/a
2013-001	10951	N	n/a	n/a	n/a
2013-001	10952	N	5225	8130	157.278
2013-001	10953	N	5205	8140	156.101
2013-001	10954	N	5220	8130	157.295
2013-001	10955	N	5235	8120	158.652
2013-001	10956	N	5210	8130	157.518
2013-001	10957	N	5240	8120	159.412
2013-001	10958	N	5240	8120	159.147
2013-001	10959	N	5230	8130	158.26
2013-001	10960	N	5235	8130	158.648
2013-001	10961	N	5235	8120	159.076
2013-001	10962	N	5240	8140	157.564
2013-001	10963	N	5210	8135	155.629
2013-001	10964	N	5240	8120	159.577
2013-001	10965	N	5225	8120	158.353
2013-001	10966	N	5235	8170	156.334
2013-001	10967	N	5235	8105	159.079
2013-001	10968	N	5180	8290	148.311
2013-001	10969	N	5240	8105	159.461
2013-001	10970	N	5200	8105	157.184
2013-001	10971	N	5205	8095	158.118
2013-001	10972	N	5210	8095	158.449
2013-001	10973	N	5210	8105	157.202
2013-001	10974	N	5215	8105	158.344
2013-001	10975	N	5215	8110	158.617
2013-001	10976	N	5215	8095	158.494
2013-001	10977	N	5215	8100	159.335
2013-001	10978	N	5225	8100	159.553
2013-001	10979	Y	5225	8095	0
2013-001	10980	N	5225	8110	159.255
2013-001	10981	N	5240	8110	n/a
2013-001	10982	N	5235	8110	159.376
2013-001	10983	N	5235	8105	159.53
2013-001	10984	N	5225	8110	159.602
2013-001	10985	N	5225	8105	159.574

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	10986	Y	5225	8165	0
2013-001	10987	N	5215	8110	158.55
2013-001	10988	N	5225	8100	159.553
2013-001	10989	N	5225	8110	159.602
2013-001	10990	N	5235	8110	159.376
2013-001	10991	N	5225	8105	159.574
2013-001	10992	N	5210	8105	157.543
2013-001	10993	N	5200	8105	157.184
2013-001	10994	N	n/a	n/a	n/a
2013-001	10995	N	5215	8110	158.555
2013-001	10996	N	5205	8095	158.118
2013-001	10997	N	5210	8105	158.263
2013-001	10998	N	5215	8105	158.344
2013-001	10999	N	5210	8095	158.449
2013-001	11000	N	5215	8110	158.617
2013-001	11001	Y	5180	8295	148.366
2013-001	11002	Y	5180	8290	148.417
2013-001	11003	N	5180	8285	149.861
2013-001	11004	N	5210	8105	157.202
2013-001	11005	N	5215	8095	158.494
2013-001	11006	N	5180	8285	149.861
2013-001	11007	N	n/a	n/a	n/a
2013-001	11008	N	5620	8250	160.021
2013-001	11009	N	5275	8255	159.724
2013-001	11010	Y	5275	8255	159.724
2013-001	11011	N	5265	8255	159.343
2013-001	11012	Y	5265	8255	159.343
2013-001	11013	N	5260	8270	159.381
2013-001	11014	Y	5260	8270	159.381
2013-001	11015	N	5210	8265	153.179
2013-001	11016	N	5260	8280	158.959
2013-001	11017	N	5260	8280	158.959
2013-001	11018	N	5205	8265	153.126
2013-001	11019	N	5260	8270	159.094
2013-001	11020	N	5265	8310	158.668
2013-001	11021	N	5185	8210	153.056
2013-001	11022	N	5185	8215	153.569
2013-001	11023	N	5185	8215	152.569
2013-001	11024	N	5200	8195	154.514
2013-001	11025	Y	5275	8230	161.1
2013-001	11026	N	5185	8185	153.111
2013-001	11027	N	5260	8230	160.694
2013-001	11028	N	5205	8095	158.118
2013-001	11029	N	5210	8280	152.094
2013-001	11030	N	5275	8305	159.059

Project #	Lot #	Voided Lot # (Y/N)	N	E	Elev (ft)
2013-001	11031	N	5235	8115	159.146
2013-001	11032	N	5240	8110	n/a
2013-001	11033	N	5235	8115	159.146
2013-001	11034	N	5200	8105	158.118
2013-001	11035	N	5200	8105	158.118
2013-001	11036	N	5245	8130	158.634
2013-001	11037	N	5245	8130	158.634
2013-001	11038	N	5225	8170	156.936
2013-001	11039	N	5245	8165	158.786
2013-001	11040	N	5245	8165	158.786
2013-001	11041	N	5240	8185	158.387
2013-001	11042	N	5235	8260	154.996
2013-001	11043	N	5235	5260	154.996
2013-001	11044	N	5245	8280	154.664
2013-001	11045	N	5245	8260	155.884
2013-001	11046	N	5185	8245	151.174
2013-001	11047	N	5210	8195	155.333
2013-001	11048	N	5220	8200	156.628
2013-001	11049	N	5220	8200	156.628
2013-001	11050	N	5215	8205	155.871
2013-001	11051	N	5215	8205	155.871
2013-001	11052	N	5200	8215	156.454
2013-001	11053	N	5220	8175	156.155
2013-001	11054	N	5240	8240	157.646
2013-001	11055	Y	5195	8150	154.44

Lot Book Part 2

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10000	n/a	n/a	n/a	n/a	n/a	n/a
10001	n/a	n/a	n/a	n/a	n/a	n/a
10002	I	Infant/Juvenile	1	Y	N	n/a
10003	I	Infant/Juvenile	1	N	N	n/a
10004	n/a	n/a	n/a	N	Y	n/a
10005	n/a	Infant/Juvenile	n/a	n/a	Y	n/a
10006	I	Infant/Juvenile	1	Y	N	n/a
10007	I	Infant/Juvenile	1	Y	N	n/a
10008	I	Infant/Juvenile	1	N	N	n/a
10009	n/a	n/a	n/a	n/a	n/a	n/a
10010	n/a	Infant/Juvenile	n/a	n/a	Y	n/a
10011	n/a	Infant/Juvenile	n/a	n/a	Y	n/a
10012	n/a	Infant/Juvenile	n/a	n/a	Y	n/a
10013	n/a	Infant/Juvenile	n/a	n/a	Y	n/a
10014	I	Infant/Juvenile	2	Y	N	n/a
10015	I	Infant/Juvenile	1	Y	N	n/a
10016	I	Infant/Juvenile	1	N	N	n/a
10017	I	Infant/Juvenile	1	Y	N	n/a
10018	I	Infant/Juvenile	1	Y	N	n/a
10019	I	Infant/Juvenile	1	Y	N	n/a
10020	I	Infant/Juvenile	1	Y	N	n/a
10021	I	Infant/Juvenile	1	N	N	n/a
10022	I	Infant/Juvenile	1	N	N	n/a
10023	I	Infant/Juvenile	1	N	N	n/a
10024	n/a	Infant/Juvenile	1	N	Y	n/a
10025	I	Infant/Juvenile	1	N	N	n/a
10026	n/a	n/a	n/a	n/a	n/a	n/a
10027	I	Infant/Juvenile	1	Y	N	n/a
10028	I	Infant/Juvenile	1	N	N	n/a
10029	I	Infant/Juvenile	1	N	N	n/a
10030	I	Infant/Juvenile	1	Y	N	n/a
10031	I	Infant/Juvenile	1	N	N	n/a
10032	I	Infant/Juvenile	1	N	N	n/a
10033	I	Infant/Juvenile	1	Y	N	n/a
10034	I	Infant/Juvenile	1	Y	N	n/a
10035	I	Infant/Juvenile	1	N	N	n/a
10036	I	Infant/Juvenile	1	Y	N	n/a
10037	I	Infant/Juvenile	1	N	N	n/a
10038	I	Infant/Juvenile	1	Y	N	n/a
10039	I	Infant/Juvenile	1	N	N	n/a
10040	I	Infant/Juvenile	1	N	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10041	I	Infant/Juvenile	1	N	N	n/a
10042	I	Infant/Juvenile	1	Y	N	n/a
10043	I	Infant/Juvenile	1	Y	N	n/a
10044	I	Infant/Juvenile	1	Y	N	n/a
10045	I	Infant/Juvenile	1	Y	N	n/a
10046	I	Infant/Juvenile	1	N	N	n/a
10047	I	Infant/Juvenile	1	Y	N	n/a
10048	I	Infant/Juvenile	1	Y	N	n/a
10049	I	Infant/Juvenile	1	N	N	n/a
10050	I	Infant/Juvenile	1	N	N	n/a
10051	I	Infant/Juvenile	1	Y	N	n/a
10052	I	Infant/Juvenile	1	Y	N	n/a
10053	I	Infant/Juvenile	1	Y	N	n/a
10054	I	Infant/Juvenile	1	Y	N	n/a
10055	I	Infant/Juvenile	1	Y	N	n/a
10056	I	Infant/Juvenile	1	Y	N	n/a
10057	n/a	n/a	n/a	n/a	n/a	n/a
10058	I	Infant/Juvenile	1	N	N	n/a
10059	I	Infant/Juvenile	1	Y	N	n/a
10060	P	n/a	n/a	n/a	n/a	n/a
10061	I	Infant/Juvenile	1	Y	N	n/a
10062	I	Infant/Juvenile	1	Y	N	n/a
10063	I	Infant/Juvenile	2	N	N	n/a
10064	I	Infant/Juvenile	1	N	N	n/a
10065	I	Infant/Juvenile	1	Y	N	n/a
10066	I	Adult	1	N	N	n/a
10067	I	Adult	1	Y	N	n/a
10068	I	Adult	1	Y	N	n/a
10069	I	Infant/Juvenile	1	Y	N	n/a
10070	I	Infant/Juvenile	1	N	N	n/a
10071	I	Infant/Juvenile	1	N	N	n/a
10072	I	Infant/Juvenile	1	Y	N	n/a
10073	I	Adult	2	Y	N	n/a
10074	P	n/a	n/a	n/a	n/a	10408
10075	I	Infant/Juvenile	1	N	N	n/a
10076	I	Infant/Juvenile	1	Y	N	n/a
10077	I	Infant/Juvenile	1	N	N	n/a
10078	I	Infant/Juvenile	1	Y	N	n/a
10079	I	Infant/Juvenile	1	Y	N	n/a
10080	I	Infant/Juvenile	1	Y	N	n/a
10081	I	Adult	1	Y	N	n/a
10082	I	Infant/Juvenile	1	N	N	n/a
10083	I	Adult	1	N	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10084	I	Infant/Juvenile	1	N	N	n/a
10085	I	Infant/Juvenile	1	Y	N	n/a
10086	I	Infant/Juvenile	1	Y	N	n/a
10087	I	Infant/Juvenile	1	Y	N	n/a
10088	C	n/a	8	Y	N	n/a
10089	I	Infant/Juvenile	n/a	n/a	n/a	10014
10090	n/a	n/a	n/a	n/a	n/a	n/a
10091	I	Adult	1	Y	N	n/a
10092	I	Adult	6	N	N	n/a
10093	I	Adult	1	Y	N	n/a
10094	I	Adult	1	N	N	n/a
10095	I	Adult	3	Y	N	n/a
10096	I	Adult	5	Y	N	n/a
10097	I	Adult	1	Y	N	n/a
10098	I	Adult	2	N	N	n/a
10099	I	Adult	2	N	N	n/a
10100	I	Adult	1	Y	N	n/a
10101	I	Adult	1	N	N	n/a
10102	I	Adult	1	Y	N	n/a
10103	I	Adult	1	N	N	n/a
10104	I	Adult	2	N	N	n/a
10105	I	Adult	1	N	N	n/a
10106	I	Infant/Juvenile	1	N	N	n/a
10107	I	Infant/Juvenile	1	Y	N	n/a
10108	I	Infant/Juvenile	1	Y	N	n/a
10109	I	Infant/Juvenile	1	Y	N	n/a
10110	I	Infant/Juvenile	1	Y	N	n/a
10111	I	Infant/Juvenile	1	N	N	n/a
10112	I	Infant/Juvenile	1	Y	N	n/a
10113	I	Infant/Juvenile	1	Y	N	n/a
10114	P	n/a	n/a	n/a	n/a	10363
10115	I	Infant/Juvenile	1	Y	N	n/a
10116	I	Infant/Juvenile	1	N	N	n/a
10117	I	Infant/Juvenile	1	Y	N	n/a
10118	I	Infant/Juvenile	1	N	N	n/a
10119	P	n/a	n/a	n/a	n/a	10097
10120	I	Infant/Juvenile	1	N	N	n/a
10121	I	Infant/Juvenile	1	Y	N	n/a
10122	I	Infant/Juvenile	1	N	N	n/a
10123	I	Infant/Juvenile	1	Y	N	n/a
10124	I	Infant/Juvenile	1	Y	N	n/a
10125	I	Infant/Juvenile	1	N	N	n/a
10126	I	Infant/Juvenile	1	N	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10127	I	Infant/Juvenile	1	N	N	n/a
10128	I	Infant/Juvenile	1	N	N	n/a
10129	I	Infant/Juvenile	1	Y	N	n/a
10130	I	Infant/Juvenile	1	Y	N	n/a
10131	I	Infant/Juvenile	1	Y	N	n/a
10132	I	Infant/Juvenile	1	N	N	n/a
10133	I	Infant/Juvenile	1	Y	N	n/a
10134	I	Infant/Juvenile	1	N	N	n/a
10135	n/a	Infant/Juvenile	1	n/a	Y	n/a
10136	I	Infant/Juvenile	1	N	N	n/a
10137	I	Adult	n/a	n/a	n/a	10097
10138	I	Infant/Juvenile	1	N	N	n/a
10139	I	Infant/Juvenile	1	N	N	n/a
10140	I	Infant/Juvenile	1	N	N	n/a
10141	I	Infant/Juvenile	1	N	N	n/a
10142	I	Infant/Juvenile	1	N	N	n/a
10143	I	Infant/Juvenile	1	N	N	n/a
10144	I	Infant/Juvenile	1	N	N	n/a
10145	I	Infant/Juvenile	1	Y	N	n/a
10146	n/a	n/a	n/a	n/a	n/a	n/a
10147	I	Infant/Juvenile	1	Y	N	n/a
10148	I	Infant/Juvenile	1	N	N	n/a
10149	I	Infant/Juvenile	1	Y	N	n/a
10150	I	Infant/Juvenile	1	N	N	n/a
10151	I	Infant/Juvenile	1	N	N	n/a
10152	I	Infant/Juvenile	1	Y	N	n/a
10153	I	Infant/Juvenile	1	Y	N	n/a
10154	n/a	Adult	n/a	n/a	Y	n/a
10155	I	Infant/Juvenile	1	Y	N	n/a
10156	I	Infant/Juvenile	1	Y	N	n/a
10157	I	Infant/Juvenile	1	Y	N	n/a
10158	I	Infant/Juvenile	1	N	N	n/a
10159	I	Infant/Juvenile	1	N	N	n/a
10160	I	Infant/Juvenile	1	Y	N	n/a
10161	I	Infant/Juvenile	1	Y	N	n/a
10162	I	Infant/Juvenile	1	Y	N	n/a
10163	n/a	n/a	n/a	n/a	n/a	n/a
10164	I	Infant/Juvenile	1	Y	N	n/a
10165	I	Infant/Juvenile	1	N	N	n/a
10166	I	Infant/Juvenile	1	N	N	n/a
10167	I	Infant/Juvenile	1	N	N	n/a
10168	I	Infant/Juvenile	1	N	N	n/a
10169	n/a	Adult	n/a	n/a	Y	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10170	I	Infant/Juvenile	1	Y	N	n/a
10171	I	Infant/Juvenile	1	N	N	n/a
10172	I	Infant/Juvenile	1	Y	N	n/a
10173	I	Infant/Juvenile	1	N	N	n/a
10174	I	Infant/Juvenile	1	N	N	n/a
10175	I	Infant/Juvenile	1	N	N	n/a
10176	I	Infant/Juvenile	1	N	N	n/a
10177	I	Infant/Juvenile	1	N	N	n/a
10178	I	Infant/Juvenile	1	N	N	n/a
10179	I	Infant/Juvenile	1	N	N	n/a
10180	I	Infant/Juvenile	1	N	N	n/a
10181	I	Infant/Juvenile	1	N	N	n/a
10182	I	Infant/Juvenile	1	Y	N	n/a
10183	I	Infant/Juvenile	1	Y	N	n/a
10184	I	Infant/Juvenile	1	Y	N	n/a
10185	I	Infant/Juvenile	1	N	N	n/a
10186	I	Infant/Juvenile	1	N	N	n/a
10187	I	Infant/Juvenile	1	Y	N	n/a
10188	I	Infant/Juvenile	1	Y	N	n/a
10189	I	Infant/Juvenile	1	N	N	n/a
10190	I	Infant/Juvenile	1	N	N	n/a
10191	I	Infant/Juvenile	1	N	N	n/a
10192	I	Infant/Juvenile	1	Y	N	n/a
10193	I	Infant/Juvenile	1	N	N	n/a
10194	I	Infant/Juvenile	1	N	N	n/a
10195	I	Infant/Juvenile	1	N	N	n/a
10196	I	Infant/Juvenile	1	N	N	n/a
10197	n/a	Infant/Juvenile	1	n/a	Y	n/a
10198	I	Infant/Juvenile	1	N	N	n/a
10199	I	Infant/Juvenile	1	N	N	n/a
10200	I	Infant/Juvenile	1	N	N	n/a
10201	I	Infant/Juvenile	1	N	N	n/a
10202	I	Infant/Juvenile	1	N	N	n/a
10203	I	Infant/Juvenile	1	N	N	n/a
10204	I	Infant/Juvenile	1	Y	N	n/a
10205	n/a	n/a	n/a	n/a	n/a	n/a
10206	I	Infant/Juvenile	1	Y	N	n/a
10207	I	Infant/Juvenile	1	Y	N	n/a
10208	I	Infant/Juvenile	1	N	N	n/a
10209	I	Infant/Juvenile	1	Y	N	n/a
10210	n/a	n/a	n/a	n/a	n/a	n/a
10211	n/a	n/a	n/a	n/a	n/a	n/a
10212	n/a	n/a	n/a	n/a	n/a	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10213	n/a	n/a	n/a	n/a	n/a	n/a
10214	n/a	Infant/Juvenile	n/a	N	Y	n/a
10215	n/a	n/a	n/a	n/a	n/a	n/a
10216	n/a	Infant/Juvenile	n/a	N	Y	n/a
10217	I	Infant/Juvenile	1	Y	N	n/a
10218	I	Infant/Juvenile	1	Y	N	n/a
10219	I	Adult	5	N	N	n/a
10220	P	n/a	n/a	n/a	n/a	10100
10221	I	Infant/Juvenile	1	Y	N	n/a
10222	I	Infant/Juvenile	1	N	N	n/a
10223	I	Infant/Juvenile	1	N	N	n/a
10224	P	n/a	n/a	n/a	n/a	10137
10225	I	Infant/Juvenile	1	N	N	n/a
10226	I	Infant/Juvenile	1	Y	N	n/a
10227	I	Infant/Juvenile	1	Y	N	n/a
10228	I	Infant/Juvenile	1	N	N	n/a
10229	P	n/a	n/a	n/a	n/a	10325
10230	I	Infant/Juvenile	1	Y	N	n/a
10231	I	Infant/Juvenile	1	Y	N	n/a
10232	I	Infant/Juvenile	1	N	N	n/a
10233	I	Infant/Juvenile	1	Y	N	n/a
10234	n/a	Infant/Juvenile	n/a	n/a	Y	n/a
10235	I	Infant/Juvenile	1	N	N	n/a
10236	n/a	Infant/Juvenile	n/a	n/a	Y	n/a
10237	I	Infant/Juvenile	1	N	N	n/a
10238	I	Infant/Juvenile	1	N	N	n/a
10239	I	Infant/Juvenile	1	N	N	n/a
10240	I	Infant/Juvenile	1	N	N	n/a
10241	I	Infant/Juvenile	1	N	N	n/a
10242	I	Infant/Juvenile	1	Y	N	n/a
10243	n/a	n/a	n/a	n/a	N	n/a
10244	I	Infant/Juvenile	1	Y	N	n/a
10245	I	Infant/Juvenile	1	Y	N	n/a
10246	I	Infant/Juvenile	1	Y	N	n/a
10247	I	Infant/Juvenile	1	Y	N	n/a
10248	n/a	Infant/Juvenile	n/a	n/a	Y	n/a
10249	n/a	Infant/Juvenile	n/a	n/a	n/a	n/a
10250	n/a	Infant/Juvenile	n/a	n/a	Y	n/a
10251	n/a	Infant/Juvenile	n/a	n/a	n/a	n/a
10252	P	n/a	n/a	n/a	n/a	10371
10253	I	Adult	1	N	N	n/a
10254	I	Adult	1	Y	N	n/a
10255	P	n/a	n/a	n/a	n/a	10102

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10256	I	Adult	n/a	n/a	N	10095
10257	P	n/a	n/a	n/a	n/a	10095
10258	I	Adult	n/a	n/a	n/a	10098
10259	I	Adult	n/a	n/a	n/a	10095
10260	I	Infant/Juvenile	1	Y	N	n/a
10261	I	Infant/Juvenile	1	N	N	n/a
10262	I	Infant/Juvenile	1	N	N	n/a
10263	I	Infant/Juvenile	1	Y	N	n/a
10264	I	Infant/Juvenile	1	N	N	n/a
10265	I	Infant/Juvenile	1	Y	N	n/a
10266	I	Infant/Juvenile	1	Y	N	n/a
10267	I	Infant/Juvenile	1	Y	N	n/a
10268	I	Infant/Juvenile	1	Y	N	n/a
10269	I	Infant/Juvenile	1	Y	N	n/a
10270	I	Adult	1	Y	N	n/a
10271	I	Infant/Juvenile	1	Y	N	n/a
10272	I	Infant/Juvenile	1	Y	N	n/a
10273	I	Infant/Juvenile	1	N	N	n/a
10274	I	Infant/Juvenile	1	N	N	n/a
10275	I	Infant/Juvenile	1	Y	N	n/a
10276	I	Infant/Juvenile	1	Y	N	n/a
10277	I	Infant/Juvenile	1	Y	N	n/a
10278	I	Adult	1	N	N	n/a
10279	I	Adult	1	N	N	n/a
10280	I	Adult	1	N	N	n/a
10281	I	Adult	1	Y	N	n/a
10282	I	Adult	1	N	N	n/a
10283	I	Adult	1	Y	N	n/a
10284	I	Adult	1	Y	N	n/a
10285	I	Adult	1	Y	N	n/a
10286	n/a	Infant/Juvenile	n/a	N	Y	n/a
10287	n/a	Infant/Juvenile	n/a	N	Y	n/a
10288	I	Infant/Juvenile	1	Y	N	n/a
10289	I	Infant/Juvenile	1	Y	N	n/a
10290	I	Infant/Juvenile	1	Y	N	n/a
10291	I	Adult	1	N	N	n/a
10292	I	Adult	1	N	N	n/a
10293	I	Adult	1	Y	N	n/a
10294	I	Adult	1	N	N	n/a
10295	C	Adult	8	N	N	n/a
10296	I	Adult	2	Y	N	n/a
10297	I	Adult	1	Y	N	n/a
10298	I	Adult	1	Y	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10299	I	Adult	1	N	N	n/a
10300	I	Adult	1	Y	N	n/a
10301	I	Adult	1	Y	N	n/a
10302	I	Adult	1	N	N	n/a
10303	I	Adult	1	N	N	n/a
10304	I	Adult	1	N	N	n/a
10305	I	Adult	1	Y	N	n/a
10306	I	Adult	1	Y	N	n/a
10307	I	Adult	1	Y	N	n/a
10308	I	Adult	1	N	N	n/a
10309	n/a	n/a	n/a	n/a	n/a	n/a
10310	I	Adult	1	Y	N	n/a
10311	I	Adult	1	N	N	n/a
10312	I	Adult	1	Y	N	n/a
10313	I	Adult	6	Y	N	n/a
10314	I	Adult	1	N	N	n/a
10315	I	Adult	2	N	N	n/a
10316	I	Adult	1	N	N	n/a
10317	I	Juvenile	1	N	N	n/a
10318	I	Adult	1	Y	N	n/a
10319	I	Adult	1	Y	N	n/a
10320	I	Adult	1	Y	N	n/a
10321	I	Adult	1	Y	N	n/a
10322	I	Juvenile	2	Y	N	n/a
10323	I	Adult	1	Y	N	n/a
10324	I	Adult	1	N	N	n/a
10325	I	Adult	1	Y	N	n/a
10326	I	Adult	1	Y	N	n/a
10327	I	Adult	1	N	N	n/a
10328	I	Adult	4	Y	N	n/a
10329	I	Adult	1	N	N	n/a
10330	I	Adult	1	N	N	n/a
10331	C	Adult/Juvenile	8	Y	N	n/a
10332	I	Adult	1	N	N	n/a
10333	I	Adult	1	N	N	n/a
10334	I	Adult	1	Y	N	n/a
10335	I	Adult	1	Y	N	n/a
10336	I	Adult	1	N	N	n/a
10337	I	Adult	1	Y	N	n/a
10338	I	Adult	1	Y	N	n/a
10339	I	Adult	1	N	N	n/a
10340	I	Adult	1	N	N	n/a
10341	I	Adult	1	N	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10342	I	Adult	1	Y	N	n/a
10343	I	Adult	1	Y	N	n/a
10344	I	Adult	1	N	N	n/a
10345	I	Adult	1	N	N	n/a
10346	I	Adult	1	N	N	n/a
10347	C	Adult	8	N	N	n/a
10348	I	Adult	6	N	N	n/a
10349	I	Adult	1	N	N	n/a
10350	I	Adult	1	Y	N	n/a
10351	I	Adult	1	N	N	n/a
10352	I	Adult	1	Y	N	n/a
10353	I	Adult	1	N	N	n/a
10354	I	Adult	1	N	N	n/a
10355	I	Adult	1	N	N	n/a
10356	P	n/a	n/a	n/a	n/a	10382
10357	I	Adult	1	N	N	n/a
10358	I	Adult	1	N	N	n/a
10359	I	Adult	1	N	N	n/a
10360	I	Adult	1	Y	N	n/a
10361	I	Adult	1	Y	N	n/a
10362	I	Adult	1	Y	N	n/a
10363	I	Adult	1	Y	N	n/a
10364	I	Adult	1	Y	N	n/a
10365	I	Adult	1	N	N	n/a
10366	P	n/a	n/a	n/a	n/a	10357
10367	P	n/a	n/a	n/a	n/a	10342
10368	I	Adult	1	N	N	n/a
10369	I	Adult	1	Y	N	n/a
10370	I	Adult	1	Y	N	n/a
10371	I	Adult	1	N	N	n/a
10372	I	Adult	1	N	N	n/a
10373	P	n/a	n/a	n/a	n/a	10364
10374	P	n/a	n/a	n/a	n/a	10326
10375	I	Adult	1	N	N	n/a
10376	I	Adult	1	N	N	n/a
10377	P	n/a	n/a	n/a	n/a	10429
10378	C	Adult	5	N	N	10430
10379	I	Adult	1	Y	N	n/a
10380	I	Adult	1	N	N	n/a
10381	I	Adult	1	Y	N	n/a
10382	I	Adult	1	N	N	n/a
10383	I	Adult	1	N	N	n/a
10384	P	n/a	n/a	n/a	n/a	10386

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10385	I	Infant/Juvenile	1	Y	N	n/a
10386	I	Adult	1	N	N	n/a
10387	I	Adult	1	N	N	n/a
10388	I	Adult	1	N	Y	n/a
10389	P	n/a	n/a	n/a	n/a	10411
10390	n/a	n/a	n/a	n/a	n/a	n/a
10391	P	n/a	n/a	n/a	n/a	10312
10392	P	n/a	n/a	n/a	n/a	10083
10393	P	n/a	n/a	n/a	n/a	10318
10394	P	n/a	n/a	n/a	n/a	10315
10395	P	n/a	n/a	n/a	n/a	10293
10396	P	n/a	n/a	n/a	n/a	10354
10397	P	n/a	n/a	n/a	n/a	10343
10398	P	n/a	n/a	n/a	n/a	10328
10399	P	n/a	n/a	n/a	n/a	10306
10400	I	Adult	n/a	n/a	n/a	10328
10401	I	Adult	n/a	n/a	n/a	10328
10402	I	Adult	n/a	n/a	n/a	10296
10403	I	Infant/Juvenile	1	Y	N	n/a
10404	I	Infant/Juvenile	1	Y	N	n/a
10405	I	Infant/Juvenile	1	Y	N	n/a
10406	I	Adult	1	N	N	n/a
10407	I	Adult	1	N	N	n/a
10408	I	Adult	1	N	N	n/a
10409	I	Adult	1	Y	N	n/a
10410	C	Adult	8	Y	N	n/a
10411	I	Adult	1	N	N	n/a
10412	I	Adult	1	N	N	n/a
10413	I	Adult	1	N	N	n/a
10414	I	Adult	1	N	N	n/a
10415	P	n/a	n/a	n/a	n/a	10350
10416	P	n/a	n/a	n/a	n/a	10406
10417	P	n/a	n/a	n/a	n/a	10308
10418	P	n/a	n/a	n/a	n/a	10305
10419	P	n/a	n/a	n/a	n/a	10340
10420	P	n/a	n/a	n/a	n/a	10333
10421	P	n/a	n/a	n/a	n/a	10296
10422	P	n/a	n/a	n/a	n/a	10319
10423	I	Adult	1	N	N	n/a
10424	I	Infant/Juvenile	1	Y	N	n/a
10425	I	Adult	n/a	n/a	n/a	10328
10426	P	n/a	n/a	n/a	n/a	10355
10427	n/a	n/a	n/a	n/a	n/a	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10428	P	n/a	n/a	n/a	n/a	10299
10429	I	Adult	n/a	n/a	n/a	10342
10430	C	Adult	n/a	n/a	n/a	10378
10431	I	Infant/Juvenile	1	Y	N	n/a
10432	I	Infant/Juvenile	1	N	N	n/a
10433	P	n/a	n/a	n/a	n/a	10321
10434	P	n/a	n/a	n/a	n/a	10388
10435	P	n/a	n/a	n/a	n/a	10339
10436	P	n/a	n/a	n/a	n/a	10301
10437	P	n/a	n/a	n/a	n/a	10307
10438	P	n/a	n/a	n/a	n/a	10327
10439	P	n/a	n/a	n/a	n/a	10316
10440	P	n/a	n/a	n/a	n/a	10407
10441	P	n/a	n/a	n/a	n/a	10346
10442	I	Infant/Juvenile	1	N	N	n/a
10443	P	n/a	n/a	n/a	n/a	10302
10444	P	n/a	n/a	n/a	n/a	10294
10445	P	n/a	n/a	n/a	n/a	10297
10446	P	n/a	n/a	n/a	n/a	10375
10447	P	n/a	n/a	n/a	n/a	10334
10448	P	n/a	n/a	n/a	n/a	10355
10449	P	n/a	n/a	n/a	n/a	10332
10450	P	n/a	n/a	n/a	n/a	10300
10451	I	Adult	n/a	n/a	n/a	10322
10452	P	n/a	n/a	n/a	n/a	10298
10453	P	n/a	n/a	n/a	n/a	10368
10454	P	n/a	n/a	n/a	n/a	10324
10455	P	n/a	n/a	n/a	n/a	10341
10456	P	n/a	n/a	n/a	n/a	10349
10457	C	Adult	n/a	n/a	n/a	10322
10458	P	n/a	n/a	n/a	n/a	10066
10459	P	n/a	n/a	n/a	n/a	10313
10460	I	Adult	n/a	n/a	n/a	10313
10461	P	n/a	n/a	n/a	n/a	10351
10462	P	n/a	n/a	n/a	n/a	10460
10463	P	n/a	n/a	n/a	n/a	10385
10464	P	n/a	n/a	n/a	n/a	10338
10465	P	n/a	n/a	n/a	n/a	10320
10466	I	Adult	1	Y	N	n/a
10467	C	Adult	n/a	n/a	n/a	10348
10468	P	n/a	n/a	n/a	n/a	10329
10469	P	n/a	n/a	n/a	n/a	10323
10470	P	n/a	n/a	n/a	n/a	10104

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10471	I	Adult	n/a	n/a	n/a	10104
10472	P	n/a	n/a	n/a	n/a	10471
10473	P	n/a	n/a	n/a	n/a	10103
10474	C	Adult	n/a	n/a	n/a	10348
10475	P	n/a	n/a	n/a	n/a	10096
10476	P	n/a	n/a	n/a	n/a	10336
10477	I	Adult	n/a	n/a	n/a	10315
10478	P	n/a	n/a	n/a	n/a	10310
10479	C	Adult	n/a	n/a	n/a	10096
10480	I	Adult	n/a	n/a	n/a	10099
10481	I	Infant/Juvenile	n/a	n/a	n/a	10063
10482	P	n/a	n/a	n/a	n/a	10383
10483	P	n/a	n/a	n/a	n/a	10466
10484	C	Adult	n/a	n/a	n/a	10313
10485	n/a	n/a	n/a	n/a	n/a	n/a
10486	P	n/a	n/a	n/a	n/a	10413
10487	P	n/a	n/a	n/a	n/a	10091
10488	I	Infant/Juvenile	1	Y	N	n/a
10489	I	Infant/Juvenile	1	N	N	n/a
10490	I	Infant/Juvenile	1	N	N	n/a
10491	I	Infant/Juvenile	1	N	N	n/a
10492	I	Infant/Juvenile	1	Y	N	n/a
10493	I	Infant/Juvenile	1	Y	N	n/a
10494	I	Infant/Juvenile	1	Y	N	n/a
10495	n/a	Infant/Juvenile	1	N	Y	n/a
10496	I	Infant/Juvenile	1	N	N	n/a
10497	I	Infant/Juvenile	1	N	N	n/a
10498	I	Infant/Juvenile	1	Y	N	n/a
10499	I	Infant/Juvenile	1	N	N	n/a
10500	I	Infant/Juvenile	1	Y	N	n/a
10501	I	Infant/Juvenile	1	Y	N	n/a
10502	I	Infant/Juvenile	1	N	N	n/a
10503	I	Infant/Juvenile	1	N	N	n/a
10504	I	Infant/Juvenile	1	Y	N	n/a
10505	I	Infant/Juvenile	1	Y	N	n/a
10506	I	Infant/Juvenile	1	Y	N	n/a
10507	I	Infant/Juvenile	1	N	N	n/a
10508	n/a	n/a	n/a	N	n/a	n/a
10509	P	n/a	n/a	n/a	n/a	10330
10510	I	Infant/Juvenile	1	N	N	n/a
10511	P	n/a	n/a	n/a	n/a	10311
10512	P	n/a	n/a	n/a	n/a	10101
10513	I	Infant/Juvenile	2	N	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10514	P	n/a	n/a	n/a	n/a	10094
10515	I	Adult	n/a	n/a	n/a	10219
10516	I	Adult	1	Y	N	n/a
10517	I	Adult	1	Y	N	n/a
10518	I	Adult	1	N	N	n/a
10519	I	Adult	1	Y	N	n/a
10520	I	Adult	1	Y	N	n/a
10521	I	Adult	1	N	N	n/a
10522	I	Adult	1	Y	N	n/a
10523	I	Adult	1	N	N	n/a
10524	I	Adult	1	N	N	n/a
10525	I	Adult	8	Y	N	n/a
10526	I	Adult	5	Y	N	n/a
10527	I	Adult	1	Y	N	n/a
10528	I	Adult	1	N	N	n/a
10529	I	Adult	1	Y	N	n/a
10530	I	Infant/Juvenile	n/a	n/a	n/a	10513
10531	I	Infant/Juvenile	1	N	N	n/a
10532	P	n/a	n/a	n/a	n/a	10270
10533	I	Adult	1	N	N	n/a
10534	I	Adult	6	Y	N	n/a
10535	C	Adult	8	N	N	n/a
10536	I	Adult	7	N	N	n/a
10537	I	Adult	1	N	N	n/a
10538	I	Adult	1	N	N	n/a
10539	I	Adult	1	Y	N	n/a
10540	I	Adult	1	N	N	n/a
10541	I	Adult	1	N	N	n/a
10542	C	Adult	5	N	N	10587
10543	I	Infant/Juvenile	1	N	N	n/a
10544	I	Infant/Juvenile	1	N	N	n/a
10545	I	Infant/Juvenile	1	Y	N	n/a
10546	I	Infant/Juvenile	1	Y	N	n/a
10547	P	n/a	n/a	n/a	n/a	10314
10548	I	Infant/Juvenile	1	Y	N	n/a
10549	P	n/a	n/a	n/a	n/a	10528
10550	n/a	Adult	n/a	n/a	n/a	n/a
10551	P	n/a	n/a	n/a	n/a	10518
10552	P	n/a	n/a	n/a	n/a	10525
10553	P	n/a	n/a	n/a	n/a	10523
10554	I	Adult	1	N	N	n/a
10555	I	Adult	1	Y	N	n/a
10556	I	Adult	1	Y	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10557	I	Adult	1	N	N	n/a
10558	I	Adult	1	N	N	n/a
10559	P	n/a	n/a	n/a	n/a	10521
10560	I	Adult	1	N	N	n/a
10561	I	Adult	1	N	N	n/a
10562	I	Adult	1	N	N	n/a
10563	I	Adult	1	Y	N	n/a
10564	I	Adult	1	N	N	n/a
10565	I	Adult	1	N	N	n/a
10566	P	n/a	n/a	n/a	n/a	10516
10567	P	n/a	n/a	n/a	n/a	10537
10568	I	Adult	1	N	N	n/a
10569	I	Adult	1	Y	N	n/a
10570	C	Adult	5	N	N	10940
10571	I	Adult	1	Y	N	n/a
10572	I	Adult	6	Y	N	n/a
10573	I	Adult	1	Y	N	n/a
10574	I	Adult	1	N	N	n/a
10575	I	Adult	1	N	N	n/a
10576	I	Adult	1	N	N	n/a
10577	I	Adult	1	Y	N	n/a
10578	P	n/a	n/a	n/a	n/a	10533
10579	P	n/a	n/a	n/a	n/a	10529
10580	C	Adult	n/a	n/a	n/a	10533
10581	P	n/a	n/a	n/a	n/a	10254
10582	P	n/a	n/a	n/a	n/a	10361
10583	P	n/a	n/a	n/a	n/a	10527
10584	P	n/a	n/a	n/a	n/a	10564
10585	P	n/a	n/a	n/a	n/a	10562
10586	P	n/a	n/a	n/a	n/a	10560
10587	I	Adult	n/a	n/a	n/a	10542
10588	P	n/a	n/a	n/a	n/a	10517
10589	P	n/a	n/a	n/a	n/a	10067
10590	P	n/a	n/a	n/a	n/a	10352
10591	P	n/a	n/a	n/a	n/a	10370
10592	I	Infant/Juvenile	1	Y	N	n/a
10593	I	Infant/Juvenile	1	Y	N	n/a
10594	n/a	Infant/Juvenile	1	N	Y	n/a
10595	I	Infant/Juvenile	1	N	N	n/a
10596	I	Infant/Juvenile	1	N	N	n/a
10597	I	Infant/Juvenile	1	N	N	n/a
10598	P	n/a	n/a	n/a	n/a	10557
10599	P	n/a	n/a	n/a	n/a	10372

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10600	P	n/a	n/a	n/a	n/a	10556
10601	P	n/a	n/a	n/a	n/a	10540
10602	n/a	n/a	n/a	n/a	n/a	n/a
10603	P	n/a	n/a	n/a	n/a	10555
10604	P	n/a	n/a	n/a	n/a	10561
10605	P	n/a	n/a	n/a	n/a	10524
10606	P	n/a	n/a	n/a	n/a	10565
10607	C	Adult	n/a	n/a	n/a	10571
10608	P	n/a	n/a	n/a	n/a	10554
10609	I	Adult	n/a	n/a	n/a	10572
10610	C	Adult	n/a	n/a	n/a	10572
10611	P	n/a	n/a	n/a	n/a	10558
10612	n/a	Infant/Juvenile	n/a	N	Y	n/a
10613	n/a	Infant/Juvenile	n/a	N	Y	n/a
10614	I	Infant/Juvenile	1	Y	N	n/a
10615	I	Infant/Juvenile	1	Y	N	n/a
10616	I	Infant/Juvenile	1	N	N	n/a
10617	n/a	Infant/Juvenile	1	N	Y	n/a
10618	I	Infant/Juvenile	1	Y	N	n/a
10619	n/a	Infant/Juvenile	1	N	Y	n/a
10620	I	Adult	1	N	N	n/a
10621	I	Adult	1	Y	N	n/a
10622	I	Adult	1	Y	N	n/a
10623	I	Adult	1	Y	N	n/a
10624	I	Adult	1	N	N	n/a
10625	I	Adult	1	Y	N	n/a
10626	I	Adult	1	N	N	n/a
10627	I	Adult	1	N	N	n/a
10628	I	Adult	1	N	N	n/a
10629	I	Adult	1	N	N	n/a
10630	I	Adult	6	N	N	n/a
10631	I	Infant/Juvenile	1	N	N	n/a
10632	I	Adult	1	N	Y	n/a
10633	I	Adult	1	N	N	n/a
10634	n/a	Infant/Juvenile	1	N	Y	n/a
10635	I	Adult	1	N	N	n/a
10636	I	Adult	1	N	N	n/a
10637	n/a	Infant/Juvenile	1	N	Y	n/a
10638	n/a	Infant/Juvenile	1	N	Y	n/a
10639	I	Adult	1	Y	N	n/a
10640	I	Infant/Juvenile	1	N	N	n/a
10641	I	Adult	1	N	N	n/a
10642	I	Adult	2	Y	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10643	I	Adult	1	N	N	n/a
10644	n/a	Infant/Juvenile	1	N	Y	n/a
10645	P	n/a	n/a	n/a	n/a	10643
10646	P	n/a	n/a	n/a	n/a	10519
10647	P	n/a	n/a	n/a	n/a	10620
10648	P	n/a	n/a	n/a	n/a	10633
10649	P	n/a	n/a	n/a	n/a	10628
10650	I	Adult	1	N	N	n/a
10651	I	Adult	1	N	N	n/a
10652	I	Adult	1	N	N	n/a
10653	I	Adult	1	N	N	n/a
10654	I	Adult	1	N	N	n/a
10655	I	Adult	1	Y	N	n/a
10656	I	Adult	1	Y	N	n/a
10657	I	Adult	1	Y	N	n/a
10658	I	Adult	1	N	N	n/a
10659	I	Adult	1	Y	N	n/a
10660	I	Adult	1	Y	N	n/a
10661	I	Adult	1	Y	N	n/a
10662	C	Adult	8	Y	N	n/a
10663	I	Adult	6	N	N	n/a
10664	C	Adult	8	Y	N	n/a
10665	I	Adult	1	Y	Y	n/a
10666	I	Adult	1	Y	Y	n/a
10667	I	Adult	1	Y	Y	n/a
10668	I	Adult	5	N	Y	n/a
10669	C	Adult	8	N	Y	n/a
10670	I	Adult	6	Y	Y	n/a
10671	I	Adult	1	N	Y	n/a
10672	I	Adult	1	Y	Y	n/a
10673	I	Adult	1	?	Y	n/a
10674	n/a	n/a	n/a	n/a	n/a	n/a
10675	I	Adult	1	N	Y	n/a
10676	I	Adult	1	N	Y	n/a
10677	I	Adult	1	N	Y	n/a
10678	I	Adult	1	N	Y	n/a
10679	n/a	n/a	n/a	n/a	n/a	n/a
10680	I	Adult	1	Y	Y	n/a
10681	I	Adult	1	N	Y	n/a
10682	I	Adult	1	Y	N	n/a
10683	I	Adult	1	Y	N	n/a
10684	I	Adult	1	N	N	n/a
10685	I	Adult	1	Y	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10686	I	Adult	1	Y	N	n/a
10687	I	Adult	1	N	N	n/a
10688	I	Adult	1	N	N	n/a
10689	I	Adult	1	Y	Y	n/a
10690	I	Adult	1	Y	N	n/a
10691	I	Adult	1	N	N	n/a
10692	I	Adult	1	N	N	n/a
10693	P	n/a	n/a	n/a	n/a	10622
10694	P	n/a	n/a	n/a	n/a	10642
10695	I	Adult	8	Y	N	n/a
10696	I	Adult	1	N	N	n/a
10697	I	Adult	1	Y	N	n/a
10698	I	Adult	1	Y	N	n/a
10699	I	Adult	1	N	N	n/a
10700	I	Adult	1	N	N	n/a
10701	P	n/a	n/a	n/a	n/a	10641
10702	I	Adult	1	N	N	n/a
10703	I	Adult	1	N	N	n/a
10704	I	Adult	1	N	N	n/a
10705	I	Adult	1	Y	N	n/a
10706	I	Adult	1	N	N	n/a
10707	I	Adult	6	N	N	n/a
10708	I	Adult	5	N	N	n/a
10709	I	Adult	1	Y	N	n/a
10710	I	Adult	1	N	N	n/a
10711	I	Adult	1	N	N	n/a
10712	I	Adult	1	N	N	n/a
10713	I	Adult	1	N	Y	n/a
10714	I	Adult	1	Y	N	n/a
10715	I	Adult	5	Y	N	n/a
10716	P	n/a	n/a	n/a	n/a	10253
10717	I	Infant/Juvenile	1	Y	N	n/a
10718	P	n/a	n/a	n/a	n/a	10639
10719	I	Adult	1	N	N	n/a
10720	I	Adult	1	N	N	n/a
10721	I	Adult	1	Y	N	n/a
10722	P	n/a	n/a	n/a	n/a	10653
10723	I	Adult	1	N	N	n/a
10724	I	Adult	n/a	n/a	n/a	10073
10725	P	n/a	n/a	n/a	n/a	10650
10726	I	Infant/Juvenile	1	N	N	n/a
10727	P	n/a	n/a	n/a	n/a	10682
10728	P	n/a	n/a	n/a	n/a	10678

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10729	P	n/a	n/a	n/a	n/a	10068
10730	I	Adult	1	Y	N	n/a
10731	I	Adult	6	N	N	n/a
10732	C	Adult	8	N	N	n/a
10733	I	Adult	6	Y	N	n/a
10734	I	Adult	1	Y	N	n/a
10735	I	Adult	1	N	N	n/a
10736	I	Adult	1	Y	N	n/a
10737	I	Adult	1	N	N	n/a
10738	I	Adult	1	Y	N	n/a
10739	I	Juvenile	1	Y	N	n/a
10740	I	Adult	1	Y	N	n/a
10741	I	Adult	1	Y	N	n/a
10742	I	Adult	1	N	N	n/a
10743	I	Adult	1	Y	N	n/a
10744	I	Adult	1	N	N	n/a
10745	I	Adult	1	N	N	n/a
10746	I	Adult	1	Y	N	n/a
10747	I	Adult	1	Y	N	n/a
10748	I	Adult	1	N	Y	n/a
10749	I	Adult	1	N	N	n/a
10750	I	Adult	1	N	N	n/a
10751	I	Adult	6	Y	N	n/a
10752	I	Adult	1	N	Y	n/a
10753	I	Adult	1	Y	Y	n/a
10754	I	Adult	1	Y	Y	n/a
10755	I	Adult	1	N	N	n/a
10756	I	Adult	1	N	Y	n/a
10757	I	Adult	1	N	N	n/a
10758	I	Adult	1	Y	N	n/a
10759	I	Adult	1	N	N	n/a
10760	I	Adult	1	Y	N	n/a
10761	I	Adult	1	N	N	n/a
10762	I	Adult	1	Y	N	n/a
10763	C	Adult	8	Y	N	n/a
10764	I	Adult	1	N	N	n/a
10765	I	Adult	1	N	N	n/a
10766	I	Adult	1	N	N	n/a
10767	I	Adult	1	N	N	n/a
10768	I	Adult	1	N	N	n/a
10769	I	Adult	1	Y	Y	n/a
10770	I	Adult	1	Y	N	n/a
10771	I	Adult	1	N	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10772	I	Adult	1	N	N	n/a
10773	I	Adult	1	Y	N	n/a
10774	I	Adult	1	N	N	n/a
10775	I	Adult	1	N	N	n/a
10776	I	Adult	1	N	N	n/a
10777	I	Adult	1	Y	N	n/a
10778	I	Adult	1	N	N	n/a
10779	I	Adult	1	N	N	n/a
10780	I	Adult	1	Y	N	n/a
10781	I	Adult	1	N	N	n/a
10782	I	Adult	1	N	N	n/a
10783	I	Adult	1	N	N	n/a
10784	I	Adult	1	N	N	n/a
10785	I	Adult	1	Y	N	n/a
10786	I	Adult	1	N	N	n/a
10787	I	Adult	1	N	N	n/a
10788	n/a	n/a	n/a	n/a	n/a	n/a
10789	I	Adult	1	N	N	n/a
10790	I	Adult	1	N	N	n/a
10791	I	Adult	1	N	N	n/a
10792	I	Adult	1	N	N	n/a
10793	I	Adult	1	Y	N	n/a
10794	I	Adult	1	N	N	n/a
10795	I	Adult	1	N	N	n/a
10796	P	n/a	n/a	n/a	n/a	n/a
10797	P	n/a	n/a	n/a	n/a	n/a
10798	P	n/a	n/a	n/a	n/a	n/a
10799	P	n/a	n/a	n/a	n/a	n/a
10800	P	n/a	n/a	n/a	n/a	n/a
10801	P	n/a	n/a	n/a	n/a	n/a
10802	n/a	n/a	n/a	n/a	n/a	n/a
10803	I	Adult	1	Y	N	n/a
10804	I	Adult	1	Y	N	n/a
10805	I	Adult	2	N	N	n/a
10806	I	Adult	1	Y	N	n/a
10807	I	Adult	1	N	N	n/a
10808	I	Adult	1	Y	N	n/a
10809	C	Adult	8	Y	N	n/a
10810	I	Adult	1	Y	N	n/a
10811	I	Adult	5	Y	N	n/a
10812	C	Adult	1	Y	N	n/a
10813	I	Adult	1	Y	N	n/a
10814	I	Adult	1	N	N	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10815	I	Adult	1	N	N	n/a
10816	I	Adult	1	N	Y	n/a
10817	I	Adult	1	N	N	n/a
10818	I	Adult	1	N	N	n/a
10819	I	Adult	1	Y	N	n/a
10820	I	Adult	1	Y	N	n/a
10821	I	Adult	1	N	N	n/a
10822	P	n/a	n/a	n/a	n/a	10667
10823	I	Adult	n/a	n/a	n/a	10092
10824	P	n/a	n/a	n/a	n/a	10651
10825	P	n/a	n/a	n/a	n/a	10,680
10826	C	n/a	n/a	n/a	n/a	10092
10827	P	n/a	n/a	n/a	n/a	10686
10828	P	n/a	n/a	n/a	n/a	10657
10829	I	Adult	n/a	n/a	n/a	10630
10830	P	n/a	n/a	n/a	n/a	10522
10831	P	n/a	n/a	n/a	n/a	10659
10832	P	n/a	n/a	n/a	n/a	10692
10833	P	n/a	n/a	n/a	n/a	10685
10834	n/a	n/a	n/a	n/a	n/a	n/a
10835	I	Adult	n/a	n/a	n/a	10630
10836	C	n/a	n/a	n/a	n/a	10668
10837	P	n/a	n/a	n/a	n/a	10,690
10838	P	n/a	n/a	n/a	n/a	10105
10839	P	n/a	n/a	n/a	n/a	10687
10840	P	n/a	n/a	n/a	n/a	10534
10841	I	Adult	n/a	n/a	n/a	10534
10842	C	n/a	n/a	n/a	n/a	10534
10843	I	Adult	n/a	n/a	n/a	10536
10844	C	n/a	n/a	n/a	N	10536
10845	P	n/a	n/a	n/a	n/a	10681
10846	P	n/a	n/a	n/a	n/a	10661
10847	P	n/a	n/a	n/a	n/a	10658
10848	I	Adult	n/a	n/a	n/a	10536
10849	P	n/a	n/a	n/a	n/a	10636
10850	P	n/a	n/a	n/a	n/a	10671
10851	I	Adult	n/a	n/a	n/a	10,670
10852	P	n/a	n/a	n/a	n/a	10607
10853	P	n/a	n/a	n/a	n/a	10851
10854	P	n/a	n/a	n/a	n/a	10663
10855	I	Adult	n/a	n/a	N	10663
10856	C	n/a	n/a	n/a	n/a	10662
10857	P	n/a	n/a	n/a	n/a	10691

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10858	P	n/a	n/a	n/a	n/a	10,700
10859	C	n/a	n/a	n/a	n/a	10670
10860	P	n/a	n/a	n/a	n/a	10688
10861	P	n/a	n/a	n/a	n/a	10695
10862	P	n/a	n/a	n/a	n/a	10699
10863	P	n/a	n/a	n/a	n/a	10697
10864	P	n/a	n/a	n/a	n/a	10698
10865	P	n/a	n/a	n/a	n/a	10,720
10866	P	n/a	n/a	n/a	n/a	10,740
10867	P	n/a	n/a	n/a	n/a	10526
10868	P	n/a	n/a	n/a	n/a	10696
10869	P	n/a	n/a	n/a	n/a	10702
10870	P	n/a	n/a	n/a	n/a	10705
10871	P	n/a	n/a	n/a	n/a	10702
10872	C	n/a	n/a	n/a	n/a	10526
10873	P	n/a	n/a	n/a	n/a	10750
10874	P	n/a	n/a	n/a	n/a	10,710
10875	P	n/a	n/a	n/a	n/a	10706
10876	P	n/a	n/a	n/a	n/a	10735
10877	P	n/a	n/a	n/a	n/a	10714
10878	P	n/a	n/a	n/a	n/a	10575
10879	P	n/a	n/a	n/a	n/a	10737
10880	I	Adult	1	N	Y	n/a
10881	I	Adult	n/a	n/a	n/a	10707
10882	P	n/a	n/a	n/a	n/a	10712
10883	P	n/a	n/a	n/a	n/a	10742
10884	C	n/a	n/a	n/a	n/a	10707
10885	I	Adult	n/a	n/a	n/a	10761
10886	C	n/a	n/a	n/a	n/a	10751
10887	P	n/a	n/a	n/a	n/a	10573
10888	P	n/a	n/a	n/a	n/a	10704
10889	P	n/a	n/a	n/a	n/a	10736
10890	P	n/a	n/a	n/a	n/a	10757
10891	P	n/a	n/a	n/a	n/a	10743
10892	P	n/a	n/a	n/a	n/a	10721
10893	P	n/a	n/a	n/a	n/a	10563
10894	P	n/a	n/a	n/a	n/a	10703
10895	P	n/a	n/a	n/a	n/a	10744
10896	P	n/a	n/a	n/a	n/a	10748
10897	P	n/a	n/a	n/a	n/a	10734
10898	P	n/a	n/a	n/a	n/a	10709
10899	P	n/a	n/a	n/a	n/a	10574
10900	P	n/a	n/a	n/a	n/a	10711

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10901	P	n/a	n/a	n/a	n/a	10541
10902	P	n/a	n/a	n/a	n/a	10708
10903	P	n/a	n/a	n/a	n/a	10766
10904	P	n/a	n/a	n/a	n/a	10789
10905	C	n/a	n/a	n/a	n/a	10708
10906	P	n/a	n/a	n/a	n/a	10771
10907	P	n/a	n/a	n/a	n/a	10760
10908	P	n/a	n/a	n/a	n/a	10743
10909	I	Adult	n/a	n/a	n/a	10733
10910	C	n/a	n/a	n/a	n/a	10733
10911	P	n/a	n/a	n/a	n/a	10577
10912	I	Adult	n/a	n/a	n/a	10731
10913	C	n/a	n/a	n/a	n/a	10731
10914	P	n/a	n/a	n/a	n/a	10792
10915	P	n/a	n/a	n/a	n/a	10738
10916	P	n/a	n/a	n/a	n/a	10813
10917	P	n/a	n/a	n/a	n/a	10749
10918	P	n/a	n/a	n/a	n/a	10791
10919	P	n/a	n/a	n/a	n/a	10780
10920	P	n/a	n/a	n/a	n/a	10795
10921	P	n/a	n/a	n/a	n/a	10778
10922	P	n/a	n/a	n/a	n/a	10781
10923	P	n/a	n/a	n/a	n/a	10739
10924	P	n/a	n/a	n/a	n/a	10765
10925	C	n/a	n/a	n/a	n/a	10715
10926	P	n/a	n/a	n/a	n/a	10755
10927	P	n/a	n/a	n/a	n/a	10758
10928	P	n/a	n/a	n/a	n/a	10,770
10929	P	n/a	n/a	n/a	n/a	10783
10930	P	n/a	n/a	n/a	n/a	10747
10931	P	n/a	n/a	n/a	n/a	10779
10932	P	n/a	n/a	n/a	n/a	10777
10933	P	n/a	n/a	n/a	n/a	10754
10934	P	n/a	n/a	n/a	n/a	10817
10935	P	n/a	n/a	n/a	n/a	10807
10936	P	n/a	n/a	n/a	n/a	10821
10937	P	n/a	n/a	n/a	n/a	10786
10938	P	n/a	n/a	n/a	n/a	10568
10939	P	n/a	n/a	n/a	n/a	10793
10940	I	Adult	5	Y	N	n/a
10941	P	n/a	n/a	n/a	n/a	10790
10942	P	n/a	n/a	n/a	n/a	10794
10943	P	n/a	n/a	n/a	n/a	10805

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10944	P	n/a	n/a	n/a	n/a	10767
10945	P	n/a	n/a	n/a	n/a	10815
10946	P	n/a	n/a	n/a	n/a	10785
10947	P	n/a	n/a	n/a	n/a	10820
10948	P	n/a	n/a	n/a	n/a	10762
10949	P	n/a	n/a	n/a	n/a	10811
10950	P	n/a	n/a	n/a	n/a	10787
10951	P	n/a	n/a	n/a	n/a	10775
10952	P	n/a	n/a	n/a	n/a	10816
10953	P	n/a	n/a	n/a	n/a	10784
10954	P	n/a	n/a	n/a	n/a	10768
10955	C	n/a	n/a	n/a	n/a	10811
10956	P	n/a	n/a	n/a	n/a	10774
10957	P	n/a	n/a	n/a	n/a	10804
10958	P	n/a	n/a	n/a	n/a	10803
10959	P	n/a	n/a	n/a	n/a	10814
10960	P	n/a	n/a	n/a	n/a	10810
10961	P	n/a	n/a	n/a	n/a	10808
10962	P	n/a	n/a	n/a	n/a	10761
10963	P	n/a	n/a	n/a	n/a	10773
10964	P	n/a	n/a	n/a	n/a	10806
10965	P	n/a	n/a	n/a	n/a	10818
10966	I	Adult	1	N	Y	n/a
10967	I	Adult	1	Y	N	n/a
10968	I	Adult	1	N	N	n/a
10969	I	Juvenile	1	Y	N	n/a
10970	I	Adult	1	Y	N	n/a
10971	C	Adult	5	Y	N	n/a
10972	I	Adult	1	Y	N	n/a
10973	I	Adult	1	Y	N	n/a
10974	I	Adult	1	N	N	n/a
10975	I	Adult	1	N	N	n/a
10976	I	Adult	1	Y	N	n/a
10977	I	Adult	1	N	N	n/a
10978	I	Adult	1	N	N	n/a
10979	n/a	n/a	n/a	n/a	n/a	n/a
10980	I	Adult	1	N	N	n/a
10981	I	Adult	1	N	N	n/a
10982	I	Adult	1	Y	N	n/a
10983	I	Adult	1	Y	N	n/a
10984	I	Adult	1	N	N	n/a
10985	I	Adult	1	N	N	n/a
10986	n/a	n/a	n/a	n/a	n/a	n/a

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
10987	I	Adult	1	N	N	n/a
10988	P	n/a	n/a	n/a	n/a	10978
10989	P	n/a	n/a	n/a	n/a	10984
10990	P	n/a	n/a	n/a	n/a	10982
10991	P	n/a	n/a	n/a	n/a	10985
10992	P	n/a	n/a	n/a	n/a	10782
10993	P	n/a	n/a	n/a	n/a	10970
10994	P	n/a	n/a	n/a	n/a	10977
10995	P	n/a	n/a	n/a	n/a	10987
10996	I	Infant/Juvenile	n/a	n/a	n/a	10971
10997	P	n/a	n/a	n/a	n/a	10776
10998	P	n/a	n/a	n/a	n/a	10974
10999	P	n/a	n/a	n/a	n/a	10972
11000	P	n/a	n/a	n/a	n/a	10975
11001	n/a	n/a	n/a	n/a	n/a	n/a
11002	n/a	n/a	n/a	n/a	n/a	n/a
11003	I	Adult	1	N	N	n/a
11004	P	n/a	n/a	n/a	n/a	10973
11005	P	n/a	n/a	n/a	n/a	10976
11006	P	n/a	n/a	n/a	n/a	11003
11007	P	n/a	n/a	n/a	n/a	10345
11008	I	Infant/Juvenile	n/a	n/a	n/a	10120
11009	I	Infant/Juvenile	n/a	n/a	n/a	10142
11010	I	Infant/Juvenile	n/a	n/a	n/a	10142
11011	I	Infant/Juvenile	n/a	n/a	n/a	10147
11012	I	Infant/Juvenile	n/a	n/a	n/a	10147
11013	I	Infant/Juvenile	n/a	n/a	n/a	10167
11014	I	Infant/Juvenile	n/a	n/a	n/a	10167
11015	I	Adult	n/a	n/a	n/a	10096
11016	I	Infant/Juvenile	n/a	n/a	n/a	10228
11017	I	Infant/Juvenile	n/a	n/a	n/a	10228
11018	I	Adult	n/a	n/a	n/a	10296
11019	I	Infant/Juvenile	n/a	n/a	n/a	10233
11020	I	Infant/Juvenile	n/a	n/a	n/a	10244
11021	I	Adult	n/a	n/a	n/a	10342
11022	I	Adult	n/a	n/a	n/a	10331
11023	I	Adult	n/a	n/a	n/a	10331
11024	I	Adult	n/a	n/a	n/a	10347
11025	I	Adult	n/a	n/a	n/a	10502
11026	I	Adult	n/a	n/a	n/a	10354
11027	I	Adult	n/a	n/a	n/a	10503
11028	I	Infant/Juvenile	n/a	n/a	n/a	10971
11029	I	Infant/Juvenile	n/a	n/a	n/a	10545

Lot #	Sample: Individual (I), Commingled (C), Pelvic Flot (P)	Age	Burial Category	Grave Good Present	Disturbed (Y/N)	Assoc, Lot # Yes Primary Individual
11030	I	Infant/Juvenile	n/a	n/a	n/a	10593
11031	I	Adult	n/a	n/a	n/a	10809
11032	I	Adult	n/a	n/a	n/a	10981
11033	I	Adult	n/a	n/a	n/a	10809
11034	I	Adult	n/a	n/a	n/a	10970
11035	I	Adult	n/a	n/a	n/a	10970
11036	I	Adult	n/a	n/a	n/a	10763
11037	I	Adult	n/a	n/a	n/a	10763
11038	I	Adult	n/a	n/a	n/a	10751
11039	I	Adult	n/a	n/a	n/a	10732
11040	I	Adult	n/a	n/a	n/a	10732
11041	I	Adult	n/a	n/a	n/a	10715
11042	I	Infant/Juvenile	n/a	n/a	n/a	10669
11043	I	Adult	n/a	n/a	n/a	10669
11044	I	Adult	n/a	n/a	n/a	10668
11045	I	Adult	n/a	n/a	n/a	10662
11046	I	Adult	n/a	n/a	n/a	10306
11047	I	Adult	n/a	n/a	n/a	10542
11048	I	Adult	n/a	n/a	n/a	10538
11049	I	Adult	n/a	n/a	n/a	10538
11050	I	Adult	n/a	n/a	n/a	10535
11051	I	Adult	n/a	n/a	n/a	10535
11052	I	Adult	n/a	n/a	n/a	10525
11053	I	Adult	n/a	n/a	n/a	10940
11054	I	Adult	n/a	n/a	n/a	10664
11055	I	Infant/Juvenile	n/a	n/a	n/a	10378

Lot Book Part 3

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10000	n/a	n/a	n/a	n/a	n/a	X
10001	n/a	n/a	n/a	n/a	n/a	n/a
10002	n/a	n/a	n/a	n/a	n/a	X
10003	n/a	n/a	n/a	n/a	n/a	X
10004	n/a	n/a	n/a	n/a	n/a	X
10005	n/a	n/a	n/a	n/a	n/a	X
10006	n/a	n/a	n/a	n/a	n/a	X
10007	n/a	n/a	n/a	n/a	n/a	X
10008	n/a	n/a	n/a	n/a	n/a	X
10009	n/a	n/a	n/a	n/a	n/a	n/a
10010	n/a	n/a	n/a	n/a	n/a	X
10011	n/a	n/a	n/a	n/a	n/a	X
10012	n/a	n/a	n/a	n/a	n/a	X
10013	n/a	n/a	n/a	n/a	n/a	X
10014	10089	n/a	n/a	n/a	n/a	n/a
10015	n/a	n/a	n/a	n/a	n/a	X
10016	n/a	n/a	n/a	n/a	n/a	X
10017	n/a	n/a	n/a	n/a	n/a	X
10018	n/a	n/a	n/a	n/a	n/a	X
10019	n/a	n/a	n/a	n/a	n/a	X
10020	n/a	n/a	n/a	n/a	n/a	X
10021	n/a	n/a	n/a	n/a	n/a	X
10022	n/a	n/a	n/a	n/a	n/a	X
10023	n/a	n/a	n/a	n/a	n/a	X
10024	n/a	n/a	n/a	n/a	n/a	X
10025	n/a	n/a	n/a	n/a	n/a	X
10026	n/a	n/a	n/a	n/a	n/a	n/a
10027	n/a	n/a	n/a	n/a	n/a	X
10028	n/a	n/a	n/a	n/a	n/a	X
10029	n/a	n/a	n/a	n/a	n/a	X
10030	n/a	n/a	n/a	n/a	n/a	X
10031	n/a	n/a	n/a	n/a	n/a	X
10032	n/a	n/a	n/a	n/a	n/a	X
10033	n/a	n/a	n/a	n/a	n/a	X
10034	n/a	n/a	n/a	n/a	n/a	X
10035	n/a	n/a	n/a	n/a	n/a	X
10036	n/a	n/a	n/a	n/a	n/a	X
10037	n/a	n/a	n/a	n/a	n/a	X
10038	n/a	n/a	n/a	n/a	n/a	X

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10039	n/a	n/a	n/a	n/a	n/a	X
10040	n/a	n/a	n/a	n/a	n/a	X
10041	n/a	n/a	n/a	n/a	n/a	X
10042	n/a	n/a	n/a	n/a	n/a	X
10043	n/a	n/a	n/a	n/a	n/a	X
10044	n/a	n/a	n/a	n/a	n/a	X
10045	n/a	n/a	n/a	n/a	n/a	X
10046	n/a	n/a	n/a	n/a	n/a	X
10047	n/a	n/a	n/a	n/a	n/a	X
10048	n/a	n/a	n/a	n/a	n/a	X
10049	n/a	n/a	n/a	n/a	n/a	X
10050	n/a	n/a	n/a	n/a	n/a	X
10051	n/a	n/a	n/a	n/a	n/a	X
10052	n/a	n/a	n/a	n/a	n/a	X
10053	n/a	n/a	n/a	n/a	n/a	X
10054	n/a	n/a	n/a	n/a	n/a	X
10055	n/a	n/a	n/a	n/a	n/a	X
10056	n/a	n/a	n/a	n/a	n/a	X
10057	n/a	n/a	n/a	n/a	n/a	n/a
10058	n/a	n/a	n/a	n/a	n/a	X
10059	n/a	n/a	n/a	n/a	n/a	X
10060	10387	n/a	n/a	n/a	n/a	n/a
10061	n/a	n/a	n/a	n/a	n/a	X
10062	n/a	n/a	n/a	n/a	n/a	X
10063	10481	n/a	n/a	n/a	n/a	n/a
10064	n/a	n/a	n/a	n/a	n/a	X
10065	n/a	n/a	n/a	n/a	n/a	X
10066	n/a	n/a	n/a	n/a	10458	n/a
10067	n/a	n/a	n/a	n/a	10589	n/a
10068	n/a	n/a	n/a	n/a	10729	n/a
10069	n/a	n/a	n/a	n/a	n/a	X
10070	n/a	n/a	n/a	n/a	n/a	X
10071	n/a	n/a	n/a	n/a	n/a	X
10072	n/a	n/a	n/a	n/a	n/a	X
10073	10724	n/a	n/a	n/a	n/a	n/a
10074	n/a	n/a	n/a	n/a	n/a	n/a
10075	n/a	n/a	n/a	n/a	n/a	X
10076	n/a	n/a	n/a	n/a	n/a	X
10077	n/a	n/a	n/a	n/a	n/a	X
10078	n/a	n/a	n/a	n/a	n/a	X
10079	n/a	n/a	n/a	n/a	n/a	X
10080	n/a	n/a	n/a	n/a	n/a	X
10081	n/a	n/a	n/a	n/a	n/a	X

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10082	n/a	n/a	n/a	n/a	n/a	X
10083	n/a	n/a	n/a	n/a	10392	n/a
10084	n/a	n/a	n/a	n/a	n/a	X
10085	n/a	n/a	n/a	n/a	n/a	X
10086	n/a	n/a	n/a	n/a	n/a	X
10087	n/a	n/a	n/a	n/a	n/a	X
10088	n/a	n/a	n/a	n/a	n/a	X
10089	n/a	n/a	n/a	n/a	n/a	n/a
10090	n/a	n/a	n/a	n/a	n/a	n/a
10091	n/a	n/a	n/a	n/a	10487	n/a
10092	10823	n/a	n/a	10826	10797	n/a
10093	n/a	n/a	n/a	n/a	10800	n/a
10094	n/a	n/a	n/a	n/a	10514	n/a
10095	10256	10259	n/a	n/a	n/a	n/a
10096	n/a	n/a	n/a	10479	10475	n/a
10097	10137	n/a	n/a	n/a	10119	n/a
10098	10258	n/a	n/a	n/a	n/a	n/a
10099	10480	n/a	n/a	n/a	n/a	n/a
10100	n/a	n/a	n/a	n/a	10220	n/a
10101	n/a	n/a	n/a	n/a	10512	n/a
10102	n/a	n/a	n/a	n/a	10255	n/a
10103	n/a	n/a	n/a	n/a	10473	n/a
10104	10471	n/a	n/a	n/a	10470	n/a
10105	n/a	n/a	n/a	n/a	n/a	X
10106	n/a	n/a	n/a	n/a	n/a	X
10107	n/a	n/a	n/a	n/a	n/a	X
10108	n/a	n/a	n/a	n/a	n/a	X
10109	n/a	n/a	n/a	n/a	n/a	X
10110	n/a	n/a	n/a	n/a	n/a	X
10111	n/a	n/a	n/a	n/a	n/a	X
10112	n/a	n/a	n/a	n/a	n/a	X
10113	n/a	n/a	n/a	n/a	n/a	X
10114	n/a	n/a	n/a	n/a	n/a	n/a
10115	n/a	n/a	n/a	n/a	n/a	X
10116	n/a	n/a	n/a	n/a	n/a	X
10117	n/a	n/a	n/a	n/a	n/a	X
10118	n/a	n/a	n/a	n/a	n/a	X
10119	n/a	n/a	n/a	n/a	n/a	X
10120	n/a	n/a	n/a	n/a	n/a	X
10121	n/a	n/a	n/a	n/a	n/a	X
10122	n/a	n/a	n/a	n/a	n/a	X
10123	n/a	n/a	n/a	n/a	n/a	X
10124	n/a	n/a	n/a	n/a	n/a	X

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10125	n/a	n/a	n/a	n/a	n/a	X
10126	n/a	n/a	n/a	n/a	n/a	X
10127	n/a	n/a	n/a	n/a	n/a	X
10128	n/a	n/a	n/a	n/a	n/a	X
10129	n/a	n/a	n/a	n/a	n/a	X
10130	n/a	n/a	n/a	n/a	n/a	X
10131	n/a	n/a	n/a	n/a	n/a	X
10132	n/a	n/a	n/a	n/a	n/a	X
10133	n/a	n/a	n/a	n/a	n/a	X
10134	n/a	n/a	n/a	n/a	n/a	X
10135	n/a	n/a	n/a	n/a	n/a	X
10136	n/a	n/a	n/a	n/a	n/a	X
10137	n/a	n/a	n/a	n/a	10224	X
10138	n/a	n/a	n/a	n/a	n/a	n/a
10139	n/a	n/a	n/a	n/a	n/a	X
10140	n/a	n/a	n/a	n/a	n/a	X
10141	n/a	n/a	n/a	n/a	n/a	X
10142	n/a	n/a	n/a	n/a	n/a	X
10143	n/a	n/a	n/a	n/a	n/a	X
10144	n/a	n/a	n/a	n/a	n/a	X
10145	n/a	n/a	n/a	n/a	n/a	X
10146	n/a	n/a	n/a	n/a	n/a	n/a
10147	n/a	n/a	n/a	n/a	n/a	X
10148	n/a	n/a	n/a	n/a	n/a	X
10149	n/a	n/a	n/a	n/a	n/a	X
10150	n/a	n/a	n/a	n/a	n/a	X
10151	n/a	n/a	n/a	n/a	n/a	X
10152	n/a	n/a	n/a	n/a	n/a	X
10153	n/a	n/a	n/a	n/a	n/a	X
10154	n/a	n/a	n/a	n/a	n/a	X
10155	n/a	n/a	n/a	n/a	n/a	X
10156	n/a	n/a	n/a	n/a	n/a	X
10157	n/a	n/a	n/a	n/a	n/a	X
10158	n/a	n/a	n/a	n/a	n/a	X
10159	n/a	n/a	n/a	n/a	n/a	X
10160	n/a	n/a	n/a	n/a	n/a	X
10161	n/a	n/a	n/a	n/a	n/a	X
10162	n/a	n/a	n/a	n/a	n/a	X
10163	n/a	n/a	n/a	n/a	n/a	n/a
10164	n/a	n/a	n/a	n/a	n/a	X
10165	n/a	n/a	n/a	n/a	n/a	X
10166	n/a	n/a	n/a	n/a	n/a	X
10167	n/a	n/a	n/a	n/a	n/a	X

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10168	n/a	n/a	n/a	n/a	n/a	X
10169	n/a	n/a	n/a	n/a	n/a	X
10170	n/a	n/a	n/a	n/a	n/a	X
10171	n/a	n/a	n/a	n/a	n/a	X
10172	n/a	n/a	n/a	n/a	n/a	X
10173	n/a	n/a	n/a	n/a	n/a	X
10174	n/a	n/a	n/a	n/a	n/a	X
10175	n/a	n/a	n/a	n/a	n/a	X
10176	n/a	n/a	n/a	n/a	n/a	X
10177	n/a	n/a	n/a	n/a	n/a	X
10178	n/a	n/a	n/a	n/a	n/a	X
10179	n/a	n/a	n/a	n/a	n/a	X
10180	n/a	n/a	n/a	n/a	n/a	X
10181	n/a	n/a	n/a	n/a	n/a	X
10182	n/a	n/a	n/a	n/a	n/a	X
10183	n/a	n/a	n/a	n/a	n/a	n/a
10184	n/a	n/a	n/a	n/a	n/a	X
10185	n/a	n/a	n/a	n/a	n/a	X
10186	n/a	n/a	n/a	n/a	n/a	X
10187	n/a	n/a	n/a	n/a	n/a	X
10188	n/a	n/a	n/a	n/a	n/a	X
10189	n/a	n/a	n/a	n/a	n/a	X
10190	n/a	n/a	n/a	n/a	n/a	X
10191	n/a	n/a	n/a	n/a	n/a	X
10192	n/a	n/a	n/a	n/a	n/a	X
10193	n/a	n/a	n/a	n/a	n/a	X
10194	n/a	n/a	n/a	n/a	n/a	X
10195	n/a	n/a	n/a	n/a	n/a	X
10196	n/a	n/a	n/a	n/a	n/a	X
10197	n/a	n/a	n/a	n/a	n/a	X
10198	n/a	n/a	n/a	n/a	n/a	X
10199	n/a	n/a	n/a	n/a	n/a	X
10200	n/a	n/a	n/a	n/a	n/a	X
10201	n/a	n/a	n/a	n/a	n/a	n/a
10202	n/a	n/a	n/a	n/a	n/a	n/a
10203	n/a	n/a	n/a	n/a	n/a	X
10204	n/a	n/a	n/a	n/a	n/a	X
10205	n/a	n/a	n/a	n/a	n/a	n/a
10206	n/a	n/a	n/a	n/a	n/a	X
10207	n/a	n/a	n/a	n/a	n/a	X
10208	n/a	n/a	n/a	n/a	n/a	X
10209	n/a	n/a	n/a	n/a	n/a	X
10210	n/a	n/a	n/a	n/a	n/a	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10211	n/a	n/a	n/a	n/a	n/a	n/a
10212	n/a	n/a	n/a	n/a	n/a	n/a
10213	n/a	n/a	n/a	n/a	n/a	n/a
10214	n/a	n/a	n/a	n/a	n/a	n/a
10215	n/a	n/a	n/a	n/a	n/a	n/a
10216	n/a	n/a	n/a	n/a	n/a	X
10217	n/a	n/a	n/a	n/a	n/a	X
10218	n/a	n/a	n/a	n/a	n/a	X
10219	n/a	n/a	n/a	10515	n/a	n/a
10220	n/a	n/a	n/a	n/a	n/a	n/a
10221	n/a	n/a	n/a	n/a	n/a	X
10222	n/a	n/a	n/a	n/a	n/a	X
10223	n/a	n/a	n/a	n/a	n/a	X
10224	n/a	n/a	n/a	n/a	n/a	n/a
10225	n/a	n/a	n/a	n/a	n/a	X
10226	n/a	n/a	n/a	n/a	n/a	X
10227	n/a	n/a	n/a	n/a	n/a	X
10228	n/a	n/a	n/a	n/a	n/a	X
10229	n/a	n/a	n/a	n/a	n/a	n/a
10230	n/a	n/a	n/a	n/a	n/a	X
10231	n/a	n/a	n/a	n/a	n/a	X
10232	n/a	n/a	n/a	n/a	n/a	X
10233	n/a	n/a	n/a	n/a	n/a	X
10234	n/a	n/a	n/a	n/a	n/a	n/a
10235	n/a	n/a	n/a	n/a	n/a	X
10236	n/a	n/a	n/a	n/a	n/a	X
10237	n/a	n/a	n/a	n/a	n/a	X
10238	n/a	n/a	n/a	n/a	n/a	X
10239	n/a	n/a	n/a	n/a	n/a	X
10240	n/a	n/a	n/a	n/a	n/a	X
10241	n/a	n/a	n/a	n/a	n/a	X
10242	n/a	n/a	n/a	n/a	n/a	X
10243	n/a	n/a	n/a	n/a	n/a	n/a
10244	n/a	n/a	n/a	n/a	n/a	X
10245	n/a	n/a	n/a	n/a	n/a	X
10246	n/a	n/a	n/a	n/a	n/a	X
10247	n/a	n/a	n/a	n/a	n/a	X
10248	n/a	n/a	n/a	n/a	n/a	n/a
10249	n/a	n/a	n/a	n/a	n/a	n/a
10250	n/a	n/a	n/a	n/a	n/a	n/a
10251	n/a	n/a	n/a	n/a	n/a	n/a
10252	n/a	n/a	n/a	n/a	n/a	n/a
10253	n/a	n/a	n/a	n/a	10716	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10254	n/a	n/a	n/a	n/a	10581	n/a
10255	n/a	n/a	n/a	n/a	n/a	n/a
10256	n/a	10259	n/a	n/a	n/a	n/a
10257	n/a	n/a	n/a	n/a	n/a	n/a
10258	n/a	n/a	n/a	n/a	n/a	n/a
10259	10256	n/a	n/a	n/a	n/a	n/a
10260	n/a	n/a	n/a	n/a	n/a	X
10261	n/a	n/a	n/a	n/a	n/a	X
10262	n/a	n/a	n/a	n/a	n/a	X
10263	n/a	n/a	n/a	n/a	n/a	X
10264	n/a	n/a	n/a	n/a	n/a	X
10265	n/a	n/a	n/a	n/a	n/a	X
10266	n/a	n/a	n/a	n/a	n/a	X
10267	n/a	n/a	n/a	n/a	n/a	X
10268	n/a	n/a	n/a	n/a	n/a	X
10269	n/a	n/a	n/a	n/a	n/a	X
10270	n/a	n/a	n/a	n/a	10532	n/a
10271	n/a	n/a	n/a	n/a	n/a	X
10272	n/a	n/a	n/a	n/a	n/a	X
10273	n/a	n/a	n/a	n/a	n/a	X
10274	n/a	n/a	n/a	n/a	n/a	X
10275	n/a	n/a	n/a	n/a	n/a	X
10276	n/a	n/a	n/a	n/a	n/a	X
10277	n/a	n/a	n/a	n/a	n/a	X
10278	n/a	n/a	n/a	n/a	n/a	X
10279	n/a	n/a	n/a	n/a	n/a	X
10280	n/a	n/a	n/a	n/a	n/a	X
10281	n/a	n/a	n/a	n/a	n/a	X
10282	n/a	n/a	n/a	n/a	n/a	X
10283	n/a	n/a	n/a	n/a	n/a	X
10284	n/a	n/a	n/a	n/a	n/a	X
10285	n/a	n/a	n/a	n/a	n/a	X
10286	n/a	n/a	n/a	n/a	n/a	X
10287	n/a	n/a	n/a	n/a	n/a	X
10288	n/a	n/a	n/a	n/a	n/a	X
10289	n/a	n/a	n/a	n/a	n/a	X
10290	n/a	n/a	n/a	n/a	n/a	X
10291	n/a	n/a	n/a	n/a	n/a	X
10292	n/a	n/a	n/a	n/a	n/a	X
10293	n/a	n/a	n/a	n/a	10395	n/a
10294	n/a	n/a	n/a	n/a	10444	n/a
10295	n/a	n/a	n/a	n/a	n/a	X
10296	10402	n/a	n/a	n/a	10421	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10297	n/a	n/a	n/a	n/a	10445	n/a
10298	n/a	n/a	n/a	n/a	10452	n/a
10299	n/a	n/a	n/a	n/a	10428	n/a
10300	n/a	n/a	n/a	n/a	10450	n/a
10301	n/a	n/a	n/a	n/a	10436	n/a
10302	n/a	n/a	n/a	n/a	10443	n/a
10303	n/a	n/a	n/a	n/a	n/a	X
10304	n/a	n/a	n/a	n/a	n/a	X
10305	n/a	n/a	n/a	n/a	10418	n/a
10306	n/a	n/a	n/a	n/a	10399	n/a
10307	n/a	n/a	n/a	n/a	10437	n/a
10308	n/a	n/a	n/a	n/a	10417	n/a
10309	n/a	n/a	n/a	n/a	n/a	n/a
10310	n/a	n/a	n/a	n/a	10478	n/a
10311	n/a	n/a	n/a	n/a	10511	n/a
10312	n/a	n/a	n/a	n/a	10391	n/a
10313	10460	n/a	n/a	10484	10459	n/a
10314	n/a	n/a	n/a	n/a	10547	n/a
10315	10477	n/a	n/a	n/a	10394	n/a
10316	n/a	n/a	n/a	n/a	10439	n/a
10317	n/a	n/a	n/a	n/a	n/a	X
10318	n/a	n/a	n/a	n/a	10393	n/a
10319	n/a	n/a	n/a	n/a	10422	n/a
10320	n/a	n/a	n/a	n/a	10465	n/a
10321	n/a	n/a	n/a	n/a	10433	n/a
10322	10451	n/a	n/a	n/a	10459	n/a
10323	n/a	n/a	n/a	n/a	10469	n/a
10324	n/a	n/a	n/a	n/a	10454	n/a
10325	n/a	n/a	n/a	n/a	10229	n/a
10326	n/a	n/a	n/a	n/a	10374	n/a
10327	n/a	n/a	n/a	n/a	10438	n/a
10328	10400	10401	10425	n/a	10398	n/a
10329	n/a	n/a	n/a	n/a	10468	n/a
10330	n/a	n/a	n/a	n/a	10509	n/a
10331	n/a	n/a	n/a	n/a	n/a	X
10332	n/a	n/a	n/a	n/a	10449	n/a
10333	n/a	n/a	n/a	n/a	10420	n/a
10334	n/a	n/a	n/a	n/a	10447	n/a
10335	n/a	n/a	n/a	n/a	10448	n/a
10336	n/a	n/a	n/a	n/a	10476	n/a
10337	n/a	n/a	n/a	n/a	n/a	X
10338	n/a	n/a	n/a	n/a	10464	n/a
10339	n/a	n/a	n/a	n/a	1435	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10340	n/a	n/a	n/a	n/a	10419	n/a
10341	n/a	n/a	n/a	n/a	10455	n/a
10342	10429	n/a	n/a	n/a	10367	n/a
10343	n/a	n/a	n/a	n/a	10397	n/a
10344	n/a	n/a	n/a	n/a	n/a	X
10345	n/a	n/a	n/a	Same as Burial #	n/a	n/a
10346	n/a	n/a	n/a	n/a	10441	n/a
10347	n/a	n/a	n/a	n/a	n/a	X
10348	10467	n/a	n/a	10474	n/a	n/a
10349	n/a	n/a	n/a	n/a	10456	n/a
10350	n/a	n/a	n/a	n/a	10415	n/a
10351	n/a	n/a	n/a	n/a	10461	n/a
10352	n/a	n/a	n/a	n/a	10590	n/a
10353	n/a	n/a	n/a	n/a	n/a	X
10354	n/a	n/a	n/a	n/a	10396	X
10355	n/a	n/a	n/a	n/a	10426	n/a
10356	n/a	n/a	n/a	n/a	n/a	n/a
10357	n/a	n/a	n/a	n/a	10366	n/a
10358	n/a	n/a	n/a	n/a	10463	n/a
10359	n/a	n/a	n/a	n/a	n/a	X
10360	n/a	n/a	n/a	n/a	n/a	X
10361	n/a	n/a	n/a	n/a	10582	n/a
10362	n/a	n/a	n/a	n/a	n/a	X
10363	n/a	n/a	n/a	n/a	10114	n/a
10364	n/a	n/a	n/a	n/a	10373	n/a
10365	n/a	n/a	n/a	n/a	n/a	X
10366	n/a	n/a	n/a	n/a	n/a	n/a
10367	n/a	n/a	n/a	n/a	n/a	n/a
10368	n/a	n/a	n/a	n/a	10453	n/a
10369	n/a	n/a	n/a	n/a	n/a	X
10370	n/a	n/a	n/a	n/a	n/a	X
10371	n/a	n/a	n/a	n/a	10252	n/a
10372	n/a	n/a	n/a	n/a	10599	n/a
10373	n/a	n/a	n/a	n/a	n/a	n/a
10374	n/a	n/a	n/a	n/a	n/a	n/a
10375	n/a	n/a	n/a	n/a	10446	n/a
10376	n/a	n/a	n/a	n/a	n/a	X
10377	n/a	n/a	n/a	n/a	n/a	n/a
10378	n/a	n/a	n/a	n/a	n/a	n/a
10379	n/a	n/a	n/a	n/a	n/a	X
10380	n/a	n/a	n/a	n/a	n/a	X
10381	n/a	n/a	n/a	n/a	n/a	X
10382	n/a	n/a	n/a	n/a	10356	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10383	n/a	n/a	n/a	n/a	10482	n/a
10384	n/a	n/a	n/a	n/a	n/a	n/a
10385	n/a	n/a	n/a	n/a	n/a	X
10386	n/a	n/a	n/a	n/a	10384	n/a
10387	n/a	n/a	n/a	n/a	10060	n/a
10388	n/a	n/a	n/a	n/a	10434	n/a
10389	n/a	n/a	n/a	n/a	n/a	n/a
10390	n/a	n/a	n/a	n/a	n/a	n/a
10391	n/a	n/a	n/a	n/a	n/a	n/a
10392	n/a	n/a	n/a	n/a	n/a	n/a
10393	n/a	n/a	n/a	n/a	n/a	n/a
10394	n/a	n/a	n/a	n/a	n/a	n/a
10395	n/a	n/a	n/a	n/a	n/a	n/a
10396	n/a	n/a	n/a	n/a	n/a	n/a
10397	n/a	n/a	n/a	n/a	n/a	n/a
10398	n/a	n/a	n/a	n/a	n/a	n/a
10399	n/a	n/a	n/a	n/a	n/a	n/a
10400	n/a	10401	10425	n/a	n/a	n/a
10401	10400	n/a	10425	n/a	n/a	n/a
10402	n/a	n/a	n/a	n/a	n/a	n/a
10403	n/a	n/a	n/a	n/a	n/a	X
10404	n/a	n/a	n/a	n/a	n/a	X
10405	n/a	n/a	n/a	n/a	n/a	X
10406	n/a	n/a	n/a	n/a	10416	n/a
10407	n/a	n/a	n/a	n/a	10440	n/a
10408	n/a	n/a	n/a	n/a	10074	n/a
10409	n/a	n/a	n/a	n/a	n/a	X
10410	n/a	n/a	n/a	n/a	n/a	X
10411	n/a	n/a	n/a	n/a	10389	n/a
10412	n/a	n/a	n/a	n/a	n/a	X
10413	n/a	n/a	n/a	n/a	10486	n/a
10414	n/a	n/a	n/a	n/a	n/a	X
10415	n/a	n/a	n/a	n/a	n/a	n/a
10416	n/a	n/a	n/a	n/a	n/a	n/a
10417	n/a	n/a	n/a	n/a	n/a	n/a
10418	n/a	n/a	n/a	n/a	n/a	n/a
10419	n/a	n/a	n/a	n/a	n/a	n/a
10420	n/a	n/a	n/a	n/a	n/a	n/a
10421	n/a	n/a	n/a	n/a	n/a	n/a
10422	n/a	n/a	n/a	n/a	n/a	n/a
10423	n/a	n/a	n/a	n/a	n/a	X
10424	n/a	n/a	n/a	n/a	n/a	X
10425	10400	10401	n/a	n/a	n/a	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10426	n/a	n/a	n/a	n/a	n/a	n/a
10427	n/a	n/a	n/a	n/a	n/a	n/a
10428	n/a	n/a	n/a	n/a	n/a	n/a
10429	n/a	n/a	n/a	n/a	10377	n/a
10430	n/a	n/a	n/a	n/a	n/a	n/a
10431	n/a	n/a	n/a	n/a	n/a	X
10432	n/a	n/a	n/a	n/a	n/a	X
10433	n/a	n/a	n/a	n/a	n/a	n/a
10434	n/a	n/a	n/a	n/a	n/a	X
10435	n/a	n/a	n/a	n/a	n/a	n/a
10436	n/a	n/a	n/a	n/a	n/a	n/a
10437	n/a	n/a	n/a	n/a	n/a	n/a
10438	n/a	n/a	n/a	n/a	n/a	n/a
10439	n/a	n/a	n/a	n/a	n/a	n/a
10440	n/a	n/a	n/a	n/a	n/a	n/a
10441	n/a	n/a	n/a	n/a	n/a	n/a
10442	n/a	n/a	n/a	n/a	n/a	X
10443	n/a	n/a	n/a	n/a	n/a	n/a
10444	n/a	n/a	n/a	n/a	n/a	n/a
10445	n/a	n/a	n/a	n/a	n/a	n/a
10446	n/a	n/a	n/a	n/a	n/a	n/a
10447	n/a	n/a	n/a	n/a	n/a	n/a
10448	n/a	n/a	n/a	n/a	n/a	n/a
10449	n/a	n/a	n/a	n/a	n/a	n/a
10450	n/a	n/a	n/a	n/a	n/a	n/a
10451	n/a	n/a	n/a	10457	n/a	n/a
10452	n/a	n/a	n/a	n/a	n/a	n/a
10453	n/a	n/a	n/a	n/a	n/a	n/a
10454	n/a	n/a	n/a	n/a	n/a	n/a
10455	n/a	n/a	n/a	n/a	n/a	n/a
10456	n/a	n/a	n/a	n/a	n/a	n/a
10457	10451	n/a	n/a	n/a	n/a	n/a
10458	n/a	n/a	n/a	n/a	n/a	n/a
10459	n/a	n/a	n/a	n/a	n/a	n/a
10460	n/a	n/a	n/a	10484	10462	n/a
10461	n/a	n/a	n/a	n/a	n/a	n/a
10462	n/a	n/a	n/a	n/a	n/a	n/a
10463	n/a	n/a	n/a	n/a	n/a	n/a
10464	n/a	n/a	n/a	n/a	n/a	n/a
10465	n/a	n/a	n/a	n/a	n/a	n/a
10466	n/a	n/a	n/a	n/a	10483	n/a
10467	10474	n/a	n/a	n/a	n/a	n/a
10468	n/a	n/a	n/a	n/a	n/a	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10469	n/a	n/a	n/a	n/a	n/a	n/a
10470	n/a	n/a	n/a	n/a	n/a	n/a
10471	n/a	n/a	n/a	n/a	10472	n/a
10472	n/a	n/a	n/a	n/a	n/a	n/a
10473	n/a	n/a	n/a	n/a	n/a	n/a
10474	10467	n/a	n/a	n/a	n/a	n/a
10475	n/a	n/a	n/a	n/a	n/a	n/a
10476	n/a	n/a	n/a	n/a	n/a	n/a
10477	n/a	n/a	n/a	n/a	n/a	n/a
10478	n/a	n/a	n/a	n/a	n/a	n/a
10479	n/a	n/a	n/a	n/a	n/a	n/a
10480	n/a	n/a	n/a	n/a	n/a	n/a
10481	n/a	n/a	n/a	n/a	n/a	n/a
10482	n/a	n/a	n/a	n/a	n/a	n/a
10483	n/a	n/a	n/a	n/a	n/a	n/a
10484	10460	n/a	n/a	n/a	n/a	n/a
10485	n/a	n/a	n/a	n/a	n/a	n/a
10486	n/a	n/a	n/a	n/a	n/a	n/a
10487	n/a	n/a	n/a	n/a	n/a	n/a
10488	n/a	n/a	n/a	n/a	n/a	X
10489	n/a	n/a	n/a	n/a	n/a	X
10490	n/a	n/a	n/a	n/a	n/a	X
10491	n/a	n/a	n/a	n/a	n/a	X
10492	n/a	n/a	n/a	n/a	n/a	X
10493	n/a	n/a	n/a	n/a	n/a	X
10494	n/a	n/a	n/a	n/a	n/a	X
10495	n/a	n/a	n/a	n/a	n/a	X
10496	n/a	n/a	n/a	n/a	n/a	X
10497	n/a	n/a	n/a	n/a	n/a	X
10498	n/a	n/a	n/a	n/a	n/a	X
10499	n/a	n/a	n/a	n/a	n/a	X
10500	n/a	n/a	n/a	n/a	n/a	X
10501	n/a	n/a	n/a	n/a	n/a	X
10502	n/a	n/a	n/a	n/a	n/a	X
10503	n/a	n/a	n/a	n/a	n/a	X
10504	n/a	n/a	n/a	n/a	n/a	X
10505	n/a	n/a	n/a	n/a	n/a	X
10506	n/a	n/a	n/a	n/a	n/a	X
10507	n/a	n/a	n/a	n/a	n/a	X
10508	n/a	n/a	n/a	n/a	n/a	X
10509	n/a	n/a	n/a	n/a	n/a	n/a
10510	n/a	n/a	n/a	n/a	n/a	X
10511	n/a	n/a	n/a	n/a	n/a	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10512	n/a	n/a	n/a	n/a	n/a	n/a
10513	10503	n/a	n/a	n/a	n/a	n/a
10514	n/a	n/a	n/a	n/a	n/a	n/a
10515	n/a	n/a	n/a	n/a	n/a	n/a
10516	n/a	n/a	n/a	n/a	10566	n/a
10517	n/a	n/a	n/a	n/a	10588	n/a
10518	n/a	n/a	n/a	n/a	10551	n/a
10519	n/a	n/a	n/a	n/a	10646	n/a
10520	n/a	n/a	n/a	n/a	n/a	X
10521	n/a	n/a	n/a	n/a	10559	n/a
10522	n/a	n/a	n/a	n/a	10830	n/a
10523	n/a	n/a	n/a	n/a	10553	n/a
10524	n/a	n/a	n/a	n/a	10605	n/a
10525	n/a	n/a	n/a	n/a	10552	n/a
10526	n/a	n/a	n/a	10872	10867	n/a
10527	n/a	n/a	n/a	n/a	10583	n/a
10528	n/a	n/a	n/a	n/a	10549	n/a
10529	n/a	n/a	n/a	n/a	10579	n/a
10530	n/a	n/a	n/a	n/a	n/a	n/a
10531	n/a	n/a	n/a	n/a	n/a	X
10532	n/a	n/a	n/a	n/a	n/a	n/a
10533	10580	n/a	n/a	n/a	10578	n/a
10534	10841	n/a	n/a	10842	10840	n/a
10535	n/a	n/a	n/a	n/a	n/a	X
10536	10843	10848	n/a	10844	n/a	n/a
10537	n/a	n/a	n/a	n/a	10567	n/a
10538	n/a	n/a	n/a	n/a	n/a	X
10539	n/a	n/a	n/a	n/a	n/a	X
10540	n/a	n/a	n/a	n/a	10601	n/a
10541	n/a	n/a	n/a	n/a	10901	n/a
10542	n/a	n/a	n/a	n/a	n/a	n/a
10543	n/a	n/a	n/a	n/a	n/a	X
10544	n/a	n/a	n/a	n/a	n/a	X
10545	n/a	n/a	n/a	n/a	n/a	X
10546	n/a	n/a	n/a	n/a	n/a	X
10547	n/a	n/a	n/a	n/a	n/a	n/a
10548	n/a	n/a	n/a	n/a	n/a	X
10549	n/a	n/a	n/a	n/a	n/a	n/a
10550	n/a	n/a	n/a	n/a	n/a	n/a
10551	n/a	n/a	n/a	n/a	n/a	n/a
10552	n/a	n/a	n/a	n/a	n/a	n/a
10553	n/a	n/a	n/a	n/a	n/a	n/a
10554	n/a	n/a	n/a	n/a	10608	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10555	n/a	n/a	n/a	n/a	10603	n/a
10556	n/a	n/a	n/a	n/a	10600	n/a
10557	n/a	n/a	n/a	n/a	10595	n/a
10558	n/a	n/a	n/a	n/a	10611	n/a
10559	n/a	n/a	n/a	n/a	n/a	n/a
10560	n/a	n/a	n/a	n/a	10586	n/a
10561	n/a	n/a	n/a	n/a	10604	n/a
10562	n/a	n/a	n/a	n/a	10585	n/a
10563	n/a	n/a	n/a	n/a	10893	n/a
10564	n/a	n/a	n/a	n/a	10584	n/a
10565	n/a	n/a	n/a	n/a	10606	n/a
10566	n/a	n/a	n/a	n/a	n/a	n/a
10567	n/a	n/a	n/a	n/a	n/a	n/a
10568	n/a	n/a	n/a	n/a	10937	n/a
10569	n/a	n/a	n/a	n/a	n/a	X
10570	n/a	n/a	n/a	n/a	n/a	n/a
10571	10607	n/a	n/a	n/a	n/a	n/a
10572	10609	n/a	n/a	10610	n/a	n/a
10573	n/a	n/a	n/a	n/a	10887	n/a
10574	n/a	n/a	n/a	n/a	10899	n/a
10575	n/a	n/a	n/a	n/a	10878	n/a
10576	n/a	n/a	n/a	n/a	n/a	X
10577	n/a	n/a	n/a	n/a	10911	n/a
10578	n/a	n/a	n/a	n/a	n/a	n/a
10579	n/a	n/a	n/a	n/a	n/a	n/a
10580	n/a	n/a	n/a	n/a	n/a	n/a
10581	n/a	n/a	n/a	n/a	n/a	n/a
10582	n/a	n/a	n/a	n/a	n/a	n/a
10583	n/a	n/a	n/a	n/a	n/a	n/a
10584	n/a	n/a	n/a	n/a	n/a	n/a
10585	n/a	n/a	n/a	n/a	n/a	n/a
10586	n/a	n/a	n/a	n/a	n/a	n/a
10587	n/a	n/a	n/a	n/a	n/a	n/a
10588	n/a	n/a	n/a	n/a	n/a	n/a
10589	n/a	n/a	n/a	n/a	n/a	n/a
10590	n/a	n/a	n/a	n/a	n/a	n/a
10591	n/a	n/a	n/a	n/a	n/a	n/a
10592	n/a	n/a	n/a	n/a	n/a	X
10593	n/a	n/a	n/a	n/a	n/a	X
10594	n/a	n/a	n/a	n/a	n/a	X
10595	n/a	n/a	n/a	n/a	n/a	X
10596	n/a	n/a	n/a	n/a	n/a	X
10597	n/a	n/a	n/a	n/a	n/a	X

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10598	n/a	n/a	n/a	n/a	n/a	n/a
10599	n/a	n/a	n/a	n/a	n/a	n/a
10600	n/a	n/a	n/a	n/a	n/a	n/a
10601	n/a	n/a	n/a	n/a	n/a	n/a
10602	n/a	n/a	n/a	n/a	n/a	n/a
10603	n/a	n/a	n/a	n/a	n/a	n/a
10604	n/a	n/a	n/a	n/a	n/a	n/a
10605	n/a	n/a	n/a	n/a	n/a	n/a
10606	n/a	n/a	n/a	n/a	n/a	n/a
10607	n/a	n/a	n/a	n/a	n/a	n/a
10608	n/a	n/a	n/a	n/a	n/a	n/a
10609	n/a	n/a	n/a	10610	n/a	n/a
10610	10609	n/a	n/a	n/a	n/a	n/a
10611	n/a	n/a	n/a	n/a	n/a	n/a
10612	n/a	n/a	n/a	n/a	n/a	X
10613	n/a	n/a	n/a	n/a	n/a	X
10614	n/a	n/a	n/a	n/a	n/a	X
10615	n/a	n/a	n/a	n/a	n/a	X
10616	n/a	n/a	n/a	n/a	n/a	X
10617	n/a	n/a	n/a	n/a	n/a	X
10618	n/a	n/a	n/a	n/a	n/a	X
10619	n/a	n/a	n/a	n/a	n/a	X
10620	n/a	n/a	n/a	n/a	10647	n/a
10621	n/a	n/a	n/a	n/a	n/a	X
10622	n/a	n/a	n/a	n/a	10693	n/a
10623	n/a	n/a	n/a	n/a	n/a	X
10624	n/a	n/a	n/a	n/a	n/a	X
10625	n/a	n/a	n/a	n/a	n/a	X
10626	n/a	n/a	n/a	n/a	n/a	X
10627	n/a	n/a	n/a	n/a	n/a	X
10628	n/a	n/a	n/a	n/a	10649	n/a
10629	n/a	n/a	n/a	n/a	n/a	X
10630	10829	n/a	n/a	10835	n/a	n/a
10631	n/a	n/a	n/a	n/a	n/a	X
10632	n/a	n/a	n/a	n/a	n/a	X
10633	n/a	n/a	n/a	n/a	10648	n/a
10634	n/a	n/a	n/a	n/a	n/a	X
10635	n/a	n/a	n/a	n/a	n/a	X
10636	n/a	n/a	n/a	n/a	10849	n/a
10637	n/a	n/a	n/a	n/a	n/a	X
10638	n/a	n/a	n/a	n/a	n/a	X
10639	n/a	n/a	n/a	n/a	10718	n/a
10640	n/a	n/a	n/a	n/a	n/a	X

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10641	n/a	n/a	n/a	n/a	10701	n/a
10642	10649	n/a	n/a	n/a	n/a	n/a
10643	n/a	n/a	n/a	n/a	10645	n/a
10644	n/a	n/a	n/a	n/a	n/a	X
10645	n/a	n/a	n/a	n/a	n/a	n/a
10646	n/a	n/a	n/a	n/a	n/a	n/a
10647	n/a	n/a	n/a	n/a	n/a	n/a
10648	n/a	n/a	n/a	n/a	n/a	n/a
10649	n/a	n/a	n/a	n/a	n/a	n/a
10650	n/a	n/a	n/a	n/a	10725	n/a
10651	n/a	n/a	n/a	n/a	10824	n/a
10652	n/a	n/a	n/a	n/a	10796	n/a
10653	n/a	n/a	n/a	n/a	10722	n/a
10654	n/a	n/a	n/a	n/a	10799	n/a
10655	n/a	n/a	n/a	n/a	n/a	X
10656	n/a	n/a	n/a	n/a	10798	n/a
10657	n/a	n/a	n/a	n/a	10828	n/a
10658	n/a	n/a	n/a	n/a	10847	n/a
10659	n/a	n/a	n/a	n/a	10831	n/a
10660	n/a	n/a	n/a	n/a	n/a	X
10661	n/a	n/a	n/a	n/a	10846	n/a
10662	n/a	n/a	n/a	n/a	n/a	X
10663	10855	n/a	n/a	10856	10854	n/a
10664	n/a	n/a	n/a	n/a	n/a	X
10665	n/a	n/a	n/a	n/a	n/a	X
10666	n/a	n/a	n/a	n/a	n/a	X
10667	n/a	n/a	n/a	n/a	10822	n/a
10668	n/a	n/a	n/a	10836	n/a	n/a
10669	n/a	n/a	n/a	n/a	n/a	X
10670	10851	n/a	n/a	10895	10852	n/a
10671	n/a	n/a	n/a	n/a	10850	n/a
10672	n/a	n/a	n/a	n/a	n/a	X
10673	n/a	n/a	n/a	n/a	n/a	X
10674	n/a	n/a	n/a	n/a	n/a	n/a
10675	n/a	n/a	n/a	n/a	n/a	X
10676	n/a	n/a	n/a	n/a	n/a	X
10677	n/a	n/a	n/a	n/a	n/a	X
10678	n/a	n/a	n/a	n/a	10728	n/a
10679	n/a	n/a	n/a	n/a	n/a	n/a
10680	n/a	n/a	n/a	n/a	10825	n/a
10681	n/a	n/a	n/a	n/a	10845	n/a
10682	n/a	n/a	n/a	n/a	10727	n/a
10683	n/a	n/a	n/a	n/a	n/a	X

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10684	n/a	n/a	n/a	n/a	10801	n/a
10685	n/a	n/a	n/a	n/a	10833	n/a
10686	n/a	n/a	n/a	n/a	10827	n/a
10687	n/a	n/a	n/a	n/a	10839	n/a
10688	n/a	n/a	n/a	n/a	10860	n/a
10689	n/a	n/a	n/a	n/a	n/a	X
10690	n/a	n/a	n/a	n/a	10837	n/a
10691	n/a	n/a	n/a	n/a	10857	n/a
10692	n/a	n/a	n/a	n/a	10832	n/a
10693	n/a	n/a	n/a	n/a	n/a	n/a
10694	n/a	n/a	n/a	n/a	n/a	n/a
10695	n/a	n/a	n/a	n/a	10861	n/a
10696	n/a	n/a	n/a	n/a	10868	n/a
10697	n/a	n/a	n/a	n/a	10863	n/a
10698	n/a	n/a	n/a	n/a	10864	n/a
10699	n/a	n/a	n/a	n/a	10862	n/a
10700	n/a	n/a	n/a	n/a	10858	n/a
10701	n/a	n/a	n/a	n/a	n/a	n/a
10702	n/a	n/a	n/a	n/a	10869	n/a
10703	n/a	n/a	n/a	n/a	10894	n/a
10704	n/a	n/a	n/a	n/a	10888	n/a
10705	n/a	n/a	n/a	n/a	10870	n/a
10706	n/a	n/a	n/a	n/a	10875	n/a
10707	10881	n/a	n/a	10884	10871	n/a
10708	n/a	n/a	n/a	10905	10902	n/a
10709	n/a	n/a	n/a	n/a	10898	n/a
10710	n/a	n/a	n/a	n/a	10874	n/a
10711	n/a	n/a	n/a	n/a	10900	n/a
10712	n/a	n/a	n/a	n/a	10882	n/a
10713	n/a	n/a	n/a	n/a	n/a	X
10714	n/a	n/a	n/a	n/a	10877	n/a
10715	n/a	n/a	n/a	10925	n/a	n/a
10716	n/a	n/a	n/a	n/a	n/a	n/a
10717	n/a	n/a	n/a	n/a	n/a	X
10718	n/a	n/a	n/a	n/a	n/a	n/a
10719	n/a	n/a	n/a	n/a	n/a	X
10720	n/a	n/a	n/a	n/a	10865	n/a
10721	n/a	n/a	n/a	n/a	10892	n/a
10722	n/a	n/a	n/a	n/a	n/a	n/a
10723	n/a	n/a	n/a	n/a	n/a	X
10724	n/a	n/a	n/a	n/a	n/a	n/a
10725	n/a	n/a	n/a	n/a	n/a	n/a
10726	n/a	n/a	n/a	n/a	n/a	X

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10727	n/a	n/a	n/a	n/a	n/a	n/a
10728	n/a	n/a	n/a	n/a	n/a	n/a
10729	n/a	n/a	n/a	n/a	n/a	n/a
10730	n/a	n/a	n/a	n/a	n/a	X
10731	10912	n/a	n/a	10913	n/a	n/a
10732	n/a	n/a	n/a	n/a	n/a	X
10733	10909	n/a	n/a	10910	n/a	n/a
10734	n/a	n/a	n/a	n/a	10897	n/a
10735	n/a	n/a	n/a	n/a	10876	n/a
10736	n/a	n/a	n/a	n/a	10889	n/a
10737	n/a	n/a	n/a	n/a	10879	n/a
10738	n/a	n/a	n/a	n/a	10915	n/a
10739	n/a	n/a	n/a	n/a	10923	n/a
10740	n/a	n/a	n/a	n/a	10866	n/a
10741	n/a	n/a	n/a	n/a	n/a	X
10742	n/a	n/a	n/a	n/a	10883	n/a
10743	n/a	n/a	n/a	n/a	10908	n/a
10744	n/a	n/a	n/a	n/a	10895	n/a
10745	n/a	n/a	n/a	n/a	10891	n/a
10746	n/a	n/a	n/a	n/a	n/a	X
10747	n/a	n/a	n/a	n/a	10930	n/a
10748	n/a	n/a	n/a	n/a	10896	n/a
10749	n/a	n/a	n/a	n/a	10917	n/a
10750	n/a	n/a	n/a	n/a	10873	n/a
10751	10885	n/a	n/a	10886	n/a	n/a
10752	n/a	n/a	n/a	n/a	n/a	X
10753	n/a	n/a	n/a	n/a	n/a	X
10754	n/a	n/a	n/a	n/a	10933	n/a
10755	n/a	n/a	n/a	n/a	10926	n/a
10756	n/a	n/a	n/a	n/a	n/a	X
10757	n/a	n/a	n/a	n/a	10890	n/a
10758	n/a	n/a	n/a	n/a	10927	n/a
10759	n/a	n/a	n/a	n/a	n/a	X
10760	n/a	n/a	n/a	n/a	10907	n/a
10761	n/a	n/a	n/a	n/a	10962	n/a
10762	n/a	n/a	n/a	n/a	10948	n/a
10763	n/a	n/a	n/a	n/a	n/a	X
10764	n/a	n/a	n/a	n/a	n/a	X
10765	n/a	n/a	n/a	n/a	10924	n/a
10766	n/a	n/a	n/a	n/a	10903	n/a
10767	n/a	n/a	n/a	n/a	10944	n/a
10768	n/a	n/a	n/a	n/a	10954	n/a
10769	n/a	n/a	n/a	n/a	n/a	X

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10770	n/a	n/a	n/a	n/a	10928	n/a
10771	n/a	n/a	n/a	n/a	10906	n/a
10772	n/a	n/a	n/a	n/a	n/a	X
10773	n/a	n/a	n/a	n/a	10963	n/a
10774	n/a	n/a	n/a	n/a	10956	n/a
10775	n/a	n/a	n/a	n/a	10951	n/a
10776	n/a	n/a	n/a	n/a	10997	n/a
10777	n/a	n/a	n/a	n/a	10932	n/a
10778	n/a	n/a	n/a	n/a	10921	n/a
10779	n/a	n/a	n/a	n/a	10931	n/a
10780	n/a	n/a	n/a	n/a	10919	n/a
10781	n/a	n/a	n/a	n/a	10922	n/a
10782	n/a	n/a	n/a	n/a	10992	n/a
10783	n/a	n/a	n/a	n/a	10929	n/a
10784	n/a	n/a	n/a	n/a	10935	n/a
10785	n/a	n/a	n/a	n/a	10946	n/a
10786	n/a	n/a	n/a	n/a	10937	n/a
10787	n/a	n/a	n/a	n/a	10950	n/a
10788	n/a	n/a	n/a	n/a	n/a	n/a
10789	n/a	n/a	n/a	n/a	10904	n/a
10790	n/a	n/a	n/a	n/a	10941	n/a
10791	n/a	n/a	n/a	n/a	10918	n/a
10792	n/a	n/a	n/a	n/a	10914	n/a
10793	n/a	n/a	n/a	n/a	10939	n/a
10794	n/a	n/a	n/a	n/a	10942	n/a
10795	n/a	n/a	n/a	n/a	10920	n/a
10796	10652	n/a	n/a	n/a	n/a	n/a
10797	10092	n/a	n/a	n/a	n/a	n/a
10798	10656	n/a	n/a	n/a	n/a	n/a
10799	10654	n/a	n/a	n/a	n/a	n/a
10800	10093	n/a	n/a	n/a	n/a	n/a
10801	10684	n/a	n/a	n/a	n/a	n/a
10802	n/a	n/a	n/a	n/a	n/a	n/a
10803	n/a	n/a	n/a	n/a	10958	n/a
10804	n/a	n/a	n/a	n/a	10957	n/a
10805	10943	n/a	n/a	n/a	n/a	n/a
10806	n/a	n/a	n/a	n/a	10964	n/a
10807	n/a	n/a	n/a	n/a	10935	n/a
10808	n/a	n/a	n/a	n/a	10961	n/a
10809	n/a	n/a	n/a	n/a	n/a	X
10810	n/a	n/a	n/a	n/a	10960	n/a
10811	n/a	n/a	n/a	19055	10949	n/a
10812	n/a	n/a	n/a	n/a	n/a	X

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10813	n/a	n/a	n/a	n/a	10916	n/a
10814	n/a	n/a	n/a	n/a	10959	n/a
10815	n/a	n/a	n/a	n/a	10945	n/a
10816	n/a	n/a	n/a	n/a	10952	n/a
10817	n/a	n/a	n/a	n/a	10934	n/a
10818	n/a	n/a	n/a	n/a	10965	n/a
10819	n/a	n/a	n/a	n/a	n/a	X
10820	n/a	n/a	n/a	n/a	10947	n/a
10821	n/a	n/a	n/a	n/a	10936	n/a
10822	n/a	n/a	n/a	n/a	n/a	n/a
10823	n/a	n/a	n/a	10826	n/a	n/a
10824	n/a	n/a	n/a	n/a	n/a	n/a
10825	n/a	n/a	n/a	n/a	n/a	n/a
10826	10823	n/a	n/a	n/a	n/a	n/a
10827	n/a	n/a	n/a	n/a	n/a	n/a
10828	n/a	n/a	n/a	n/a	n/a	n/a
10829	n/a	n/a	n/a	10835	n/a	n/a
10830	n/a	n/a	n/a	n/a	n/a	n/a
10831	n/a	n/a	n/a	n/a	n/a	n/a
10832	n/a	n/a	n/a	n/a	n/a	n/a
10833	n/a	n/a	n/a	n/a	n/a	n/a
10834	n/a	n/a	n/a	n/a	n/a	n/a
10835	10829	n/a	n/a	n/a	n/a	n/a
10836	n/a	n/a	n/a	n/a	n/a	n/a
10837	n/a	n/a	n/a	n/a	n/a	n/a
10838	n/a	n/a	n/a	n/a	n/a	n/a
10839	n/a	n/a	n/a	n/a	n/a	n/a
10840	n/a	n/a	n/a	n/a	n/a	n/a
10841	n/a	n/a	n/a	10842	n/a	n/a
10842	10841	n/a	n/a	n/a	n/a	n/a
10843	n/a	10848	n/a	10844	n/a	n/a
10844	10843	10848	n/a	n/a	n/a	n/a
10845	n/a	n/a	n/a	n/a	n/a	n/a
10846	n/a	n/a	n/a	n/a	n/a	n/a
10847	n/a	n/a	n/a	n/a	n/a	n/a
10848	10843	n/a	n/a	10844	n/a	n/a
10849	n/a	n/a	n/a	n/a	n/a	n/a
10850	n/a	n/a	n/a	n/a	n/a	n/a
10851	n/a	n/a	n/a	10853	n/a	n/a
10852	n/a	n/a	n/a	n/a	n/a	n/a
10853	n/a	n/a	n/a	n/a	n/a	n/a
10854	n/a	n/a	n/a	n/a	n/a	n/a
10855	n/a	n/a	n/a	10856	n/a	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10856	10855	n/a	n/a	n/a	n/a	n/a
10857	n/a	n/a	n/a	n/a	n/a	n/a
10858	n/a	n/a	n/a	n/a	n/a	n/a
10859	10851	n/a	n/a	n/a	n/a	n/a
10860	n/a	n/a	n/a	n/a	n/a	n/a
10861	n/a	n/a	n/a	n/a	n/a	n/a
10862	n/a	n/a	n/a	n/a	n/a	n/a
10863	n/a	n/a	n/a	n/a	n/a	n/a
10864	n/a	n/a	n/a	n/a	n/a	n/a
10865	n/a	n/a	n/a	n/a	n/a	n/a
10866	n/a	n/a	n/a	n/a	n/a	n/a
10867	n/a	n/a	n/a	n/a	n/a	n/a
10868	n/a	n/a	n/a	n/a	n/a	n/a
10869	n/a	n/a	n/a	n/a	n/a	n/a
10870	n/a	n/a	n/a	n/a	n/a	n/a
10871	n/a	n/a	n/a	n/a	n/a	n/a
10872	n/a	n/a	n/a	n/a	n/a	n/a
10873	n/a	n/a	n/a	n/a	n/a	n/a
10874	n/a	n/a	n/a	n/a	n/a	n/a
10875	n/a	n/a	n/a	n/a	n/a	n/a
10876	n/a	n/a	n/a	n/a	n/a	n/a
10877	n/a	n/a	n/a	n/a	n/a	n/a
10878	n/a	n/a	n/a	n/a	n/a	n/a
10879	n/a	n/a	n/a	n/a	n/a	n/a
10880	n/a	n/a	n/a	n/a	n/a	X
10881	n/a	n/a	n/a	10884	n/a	n/a
10882	n/a	n/a	n/a	n/a	n/a	n/a
10883	n/a	n/a	n/a	n/a	n/a	n/a
10884	10881	n/a	n/a	n/a	n/a	n/a
10885	n/a	n/a	n/a	10886	n/a	n/a
10886	10885	n/a	n/a	n/a	n/a	n/a
10887	n/a	n/a	n/a	n/a	n/a	n/a
10888	n/a	n/a	n/a	n/a	n/a	n/a
10889	n/a	n/a	n/a	n/a	n/a	n/a
10890	n/a	n/a	n/a	n/a	n/a	n/a
10891	n/a	n/a	n/a	n/a	n/a	n/a
10892	n/a	n/a	n/a	n/a	n/a	n/a
10893	n/a	n/a	n/a	n/a	n/a	n/a
10894	n/a	n/a	n/a	n/a	n/a	n/a
10895	n/a	n/a	n/a	n/a	n/a	n/a
10896	n/a	n/a	n/a	n/a	n/a	n/a
10897	n/a	n/a	n/a	n/a	n/a	n/a
10898	n/a	n/a	n/a	n/a	n/a	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10899	n/a	n/a	n/a	n/a	n/a	n/a
10900	n/a	n/a	n/a	n/a	n/a	n/a
10901	n/a	n/a	n/a	n/a	n/a	n/a
10902	n/a	n/a	n/a	n/a	n/a	n/a
10903	n/a	n/a	n/a	n/a	n/a	n/a
10904	n/a	n/a	n/a	n/a	n/a	n/a
10905	n/a	n/a	n/a	n/a	n/a	n/a
10906	n/a	n/a	n/a	n/a	n/a	n/a
10907	n/a	n/a	n/a	n/a	n/a	n/a
10908	n/a	n/a	n/a	n/a	n/a	n/a
10909	n/a	n/a	n/a	10910	n/a	n/a
10910	10909	n/a	n/a	n/a	n/a	n/a
10911	n/a	n/a	n/a	n/a	n/a	n/a
10912	n/a	n/a	n/a	10913	n/a	n/a
10913	10912	n/a	n/a	n/a	n/a	n/a
10914	n/a	n/a	n/a	n/a	n/a	n/a
10915	n/a	n/a	n/a	n/a	n/a	n/a
10916	n/a	n/a	n/a	n/a	n/a	n/a
10917	n/a	n/a	n/a	n/a	n/a	n/a
10918	n/a	n/a	n/a	n/a	n/a	n/a
10919	n/a	n/a	n/a	n/a	n/a	n/a
10920	n/a	n/a	n/a	n/a	n/a	n/a
10921	n/a	n/a	n/a	n/a	n/a	n/a
10922	n/a	n/a	n/a	n/a	n/a	n/a
10923	n/a	n/a	n/a	n/a	n/a	n/a
10924	n/a	n/a	n/a	n/a	n/a	n/a
10925	n/a	n/a	n/a	n/a	n/a	n/a
10926	n/a	n/a	n/a	n/a	n/a	n/a
10927	n/a	n/a	n/a	n/a	n/a	n/a
10928	n/a	n/a	n/a	n/a	n/a	n/a
10929	n/a	n/a	n/a	n/a	n/a	n/a
10930	n/a	n/a	n/a	n/a	n/a	n/a
10931	n/a	n/a	n/a	n/a	n/a	n/a
10932	n/a	n/a	n/a	n/a	n/a	n/a
10933	n/a	n/a	n/a	n/a	n/a	n/a
10934	n/a	n/a	n/a	n/a	n/a	n/a
10935	n/a	n/a	n/a	n/a	n/a	n/a
10936	n/a	n/a	n/a	n/a	n/a	n/a
10937	n/a	n/a	n/a	n/a	n/a	n/a
10938	n/a	n/a	n/a	n/a	n/a	n/a
10939	n/a	n/a	n/a	n/a	n/a	n/a
10940	n/a	n/a	n/a	10570	n/a	n/a
10941	n/a	n/a	n/a	n/a	n/a	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10942	n/a	n/a	n/a	n/a	n/a	n/a
10943	n/a	n/a	n/a	n/a	n/a	n/a
10944	n/a	n/a	n/a	n/a	n/a	n/a
10945	n/a	n/a	n/a	n/a	n/a	n/a
10946	n/a	n/a	n/a	n/a	n/a	n/a
10947	n/a	n/a	n/a	n/a	n/a	n/a
10948	n/a	n/a	n/a	n/a	n/a	n/a
10949	n/a	n/a	n/a	n/a	n/a	n/a
10950	n/a	n/a	n/a	n/a	n/a	n/a
10951	n/a	n/a	n/a	n/a	n/a	n/a
10952	n/a	n/a	n/a	n/a	n/a	n/a
10953	n/a	n/a	n/a	n/a	n/a	n/a
10954	n/a	n/a	n/a	n/a	n/a	n/a
10955	n/a	n/a	n/a	n/a	n/a	n/a
10956	n/a	n/a	n/a	n/a	n/a	n/a
10957	n/a	n/a	n/a	n/a	n/a	n/a
10958	n/a	n/a	n/a	n/a	n/a	n/a
10959	n/a	n/a	n/a	n/a	n/a	n/a
10960	n/a	n/a	n/a	n/a	n/a	n/a
10961	n/a	n/a	n/a	n/a	n/a	n/a
10962	n/a	n/a	n/a	n/a	n/a	n/a
10963	n/a	n/a	n/a	n/a	n/a	n/a
10964	n/a	n/a	n/a	n/a	n/a	n/a
10965	n/a	n/a	n/a	n/a	n/a	n/a
10966	n/a	n/a	n/a	n/a	n/a	X
10967	n/a	n/a	n/a	n/a	n/a	X
10968	n/a	n/a	n/a	n/a	n/a	X
10969	n/a	n/a	n/a	n/a	n/a	X
10970	n/a	n/a	n/a	n/a	10993	n/a
10971	10996	n/a	n/a	n/a	n/a	n/a
10972	n/a	n/a	n/a	n/a	10999	n/a
10973	n/a	n/a	n/a	n/a	11004	n/a
10974	n/a	n/a	n/a	n/a	10998	n/a
10975	n/a	n/a	n/a	n/a	11000	n/a
10976	n/a	n/a	n/a	n/a	11005	n/a
10977	n/a	n/a	n/a	n/a	10994	n/a
10978	n/a	n/a	n/a	n/a	10988	n/a
10979	n/a	n/a	n/a	n/a	n/a	X
10980	n/a	n/a	n/a	n/a	n/a	X
10981	n/a	n/a	n/a	n/a	n/a	X
10982	n/a	n/a	n/a	n/a	10990	n/a
10983	n/a	n/a	n/a	n/a	n/a	X
10984	n/a	n/a	n/a	n/a	10989	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
10985	n/a	n/a	n/a	n/a	10991	n/a
10986	n/a	n/a	n/a	n/a	n/a	X
10987	n/a	n/a	n/a	n/a	10995	n/a
10988	n/a	n/a	n/a	n/a	n/a	n/a
10989	n/a	n/a	n/a	n/a	n/a	n/a
10990	n/a	n/a	n/a	n/a	n/a	n/a
10991	n/a	n/a	n/a	n/a	n/a	n/a
10992	n/a	n/a	n/a	n/a	n/a	n/a
10993	n/a	n/a	n/a	n/a	n/a	n/a
10994	n/a	n/a	n/a	n/a	n/a	n/a
10995	n/a	n/a	n/a	n/a	n/a	n/a
10996	n/a	n/a	n/a	n/a	n/a	n/a
10997	n/a	n/a	n/a	n/a	n/a	n/a
10998	n/a	n/a	n/a	n/a	n/a	n/a
10999	n/a	n/a	n/a	n/a	n/a	n/a
11000	n/a	n/a	n/a	n/a	n/a	n/a
11001	n/a	n/a	n/a	n/a	n/a	X
11002	n/a	n/a	n/a	n/a	n/a	X
11003	n/a	n/a	n/a	n/a	11006	n/a
11004	n/a	n/a	n/a	n/a	n/a	n/a
11005	n/a	n/a	n/a	n/a	n/a	n/a
11006	n/a	n/a	n/a	n/a	n/a	n/a
11007	n/a	n/a	n/a	n/a	n/a	n/a
11008	n/a	n/a	n/a	n/a	n/a	n/a
11009	n/a	n/a	n/a	n/a	n/a	n/a
11010	11009	n/a	n/a	n/a	n/a	n/a
11011	n/a	n/a	n/a	n/a	n/a	n/a
11012	11012	n/a	n/a	n/a	n/a	n/a
11013	n/a	n/a	n/a	n/a	n/a	n/a
11014	11013	n/a	n/a	n/a	n/a	n/a
11015	10479	n/a	n/a	n/a	n/a	n/a
11016	11017	n/a	n/a	n/a	n/a	n/a
11017	11016	n/a	n/a	n/a	n/a	n/a
11018	10402	n/a	n/a	n/a	n/a	n/a
11019	n/a	n/a	n/a	n/a	n/a	n/a
11020	n/a	n/a	n/a	n/a	n/a	n/a
11021	10429	n/a	n/a	n/a	n/a	n/a
11022	11023	n/a	n/a	n/a	n/a	n/a
11023	11022	n/a	n/a	n/a	n/a	n/a
11024	n/a	n/a	n/a	n/a	n/a	n/a
11025	n/a	n/a	n/a	n/a	n/a	n/a
11026	n/a	n/a	n/a	n/a	n/a	n/a
11027	n/a	n/a	n/a	n/a	n/a	n/a

Lot #	Assoc, Lot # Yes 1st Secondary Individual	Assoc, Lot # Yes 2nd Secondary Individual	Assoc, Lot # Yes 3rd Secondary Individual	Assoc Lot # Yes Commingled	Assoc Lot # Yes Adult Pelvic Flot	Assoc Lot # No (check box)
11028	10996	n/a	n/a	n/a	n/a	n/a
11029	n/a	n/a	n/a	n/a	n/a	n/a
11030	n/a	n/a	n/a	n/a	n/a	n/a
11031	11033	n/a	n/a	n/a	n/a	n/a
11032	n/a	n/a	n/a	n/a	n/a	n/a
11033	11031	n/a	n/a	n/a	n/a	n/a
11034	11035	n/a	n/a	n/a	n/a	n/a
11035	11034	n/a	n/a	n/a	n/a	n/a
11036	11037	n/a	n/a	n/a	n/a	n/a
11037	11036	n/a	n/a	n/a	n/a	n/a
11038	10885	10886	n/a	n/a	n/a	n/a
11039	11040	n/a	n/a	n/a	n/a	n/a
11040	11039	n/a	n/a	n/a	n/a	n/a
11041	10925	n/a	n/a	n/a	n/a	n/a
11042	11043	n/a	n/a	n/a	n/a	n/a
11043	11042	n/a	n/a	n/a	n/a	n/a
11044	10836	n/a	n/a	n/a	n/a	n/a
11045	n/a	n/a	n/a	n/a	n/a	n/a
11046	n/a	n/a	n/a	n/a	n/a	n/a
11047	10587	n/a	n/a	n/a	n/a	n/a
11048	11049	n/a	n/a	n/a	n/a	n/a
11049	11048	n/a	n/a	n/a	n/a	n/a
11050	11051	n/a	n/a	n/a	n/a	n/a
11051	11050	n/a	n/a	n/a	n/a	n/a
11052	n/a	n/a	n/a	n/a	n/a	n/a
11053	10570	n/a	n/a	n/a	n/a	n/a
11054	n/a	n/a	n/a	n/a	n/a	n/a
11055	10430	n/a	n/a	n/a	n/a	n/a

Lot Book Part 4

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10000	29-May-13	PBR	TJZ, SAS	X	n/a	1
10001		n/a	n/a	n/a	n/a	n/a
10002	10-Jun-13	SAS	AGK	X	5	4
10003	10-Jun-13	SAS	BLD	X	1	1
10004	10-Jun-13	SAS	ACF	X	1	1
10005	10-Jun-13	SAS	JMK	X	1	0
10006	10-Jun-13	SAS	KJA	X	3	2
10007	10-Jun-13	SAS	CLZ	X	7	5
10008	10-Jun-13	SAS	ZRS	X	2	1
10009	10-Jun-13	SAS	n/a	n/a	n/a	n/a
10010	10-Jun-13	SAS	AMJ	X	1	0
10011	10-Jun-13	SAS	VMP	X	1	0
10012	10-Jun-13	SAS	SKF	X	1	0
10013	10-Jun-13	SAS	MAS	X	4	4
10014	10-Jun-13	SAS	DMS	X	4	3
10015	10-Jun-13	SAS	MCM	X	6	5
10016	10-Jun-13	SAS	AGK	X	3	2
10017	10-Jun-13	SAS	SHC	X	9	8
10018	10-Jun-13	SAS	AMJ	X	3	2
10019	10-Jun-13	SAS	CLZ	X	3	2
10020	10-Jun-13	SAS	AGK	X	5	3
10021	10-Jun-13	SAS	RAD	X	2	2
10022	10-Jun-13	SAS	CLZ	X	3	2
10023	10-Jun-13	SAS	LMM	X	2	2
10024	10-Jun-13	SAS	CLZ	X	1	0
10025	10-Jun-13	SAS	CLZ	X	2	1
10026	10-Jun-13	SAS	n/a	n/a	n/a	n/a
10027	10-Jun-13	SAS	MAS	X	2	1
10028	10-Jun-13	SAS	AGK	X	3	3
10029	10-Jun-13	SAS	KZR, KMS	X	5	4
10030	10-Jun-13	SAS	KLS	X	2	2
10031	10-Jun-13	SAS	JAD, JMK	X	2	1
10032	13-Jun-13	SAS	EJB	X	2	1
10033	11-Jun-13	SAS	KZR, ZRS	X	2	1
10034	11-Jun-13	SAS	EJB	X	1	1
10035	11-Jun-13	SAS	ZRS	X	2	1
10036	11-Jun-13	SAS	RPM	X	2	2
10037	11-Jun-13	SAS	RAD	X	4	3
10038	11-Jun-13	SAS	LMM	X	3	2
10039	11-Jun-13	SAS	LMM	X	1	1
10040	11-Jun-13	SAS	MCM	X	4	3
10041	11-Jun-13	SAS	VMP	X	2	1

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10042	11-Jun-13	SAS	VP	X	2	1
10043	11-Jun-13	SAS	VP	X	2	1
10044	11-Jun-13	SAS	ZRS, MCM	X	3	2
10045	11-Jun-13	SAS	AWA	X	3	2
10046	11-Jun-13	SAS	MCM	X	4	3
10047	11-Jun-13	SAS	RAD	X	3	2
10048	11-Jun-13	SAS	AWA	X	4	2
10049	11-Jun-13	SAS	AFC, BLD	X	3	2
10050	11-Jun-13	SAS	BLD	X	2	1
10051	11-Jun-13	SAS	KLS	X	2	1
10052	11-Jun-13	SAS	KLS	X	3	3
10053	11-Jun-13	SAS	EJ	X	3	1
10054	11-Jun-13	SAS	KJI	X	3	2
10055	11-Jun-13	SAS	ZRS	X	2	1
10056	11-Jun-13	SAS	SKF	X	2	1
10057	11-Jun-13	SAS	n/a	n/a	n/a	n/a
10058	11-Jun-13	SAS	RCM	X	2	1
10059	11-Jun-13	SAS	VMP	X	3	2
10060	10-Jul-13	SAS	KMS	X	NA	1
10061	11-Jun-13	SAS	WCR	X	2	1
10062	11-Jun-13	SAS	TJZ	X	2	1
10063	11-Jun-13	SAS	CRJ	X	3	2
10064	11-Jun-13	SAS	KMS	X	3	1
10065	9-Jul-13	SAS	EJB	X	2	1
10066	12-Jun-13	SAS	MAS	X	2	1
10067	12-Jun-13	SAS	RAD	X	3	2
10068	12-Jun-13	SAS	CRJ, RCM, EME	X	3	-
10069	12-Jun-13	SAS	EE, RCM	X	3	2
10070	12-Jun-13	SAS	EME, LMM	X	2	2
10071	12-Jun-13	SAS	BLD	X	2	1
10072	12-Jun-13	SAS	BMC	X	4	3
10073	12-Jun-13	SAS	CRJ, RCM	X	3	-
10074	9-Jul-13	SAS	RCM	X	0	1
10075	12-Jun-13	SAS	DMS	X	2	1
10076	12-Jun-13	SAS	LMM	X	2	1
10077	12-Jun-13	SAS	BLD	X	4	3
10078	12-Jun-13	SAS	KMF, REA	X	3	2
10079	13-Jun-13	SAS	AWA	X	3	2
10080	13-Jun-13	SAS	SKP	X	1	1
10081	14-Jun-13	SAS	WCR	X	2	n/a
10082	13-Jun-13	SAS	KZR	X	1	1
10083	27-Jun-13	SAS	MCM	X	3	1
10084	13-Jun-13	SAS	MCM	X	2	1
10085	13-Jun-13	SAS	SKP	X	2	1

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10086	13-Jun-13	SAS	SKF	X	2	1
10087	13-Jun-13	SAS	MCM	X	3	2
10088	13-Jun-13	SAS	KJA	X	?	?
10089	14-Jun-13	SAS	DMS	X	see Lot # 10014	see Lot # 10014
10090	14-Jun-13	SAS	n/a	n/a	n/a	n/a
10091	15-Jun-13	SAS	KJA	X	3	1
10092	14-Jun-13	SAS	AMJ, MAS	X	1	-
10093	14-Jun-13	SAS	SKF, VCR	X	4	-
10094	14-Jun-13	SAS	MAS, MMB	X	2	-
10095	14-Jun-13	SAS	CLZ	X	2	-
10096	14-Jun-13	SAS	AGR	X	1	-
10097	14-Jun-13	SAS	_NK	X	2	-
10098	14-Jun-13	SAS	AMJ, KMS, REA	X	2	-
10099	14-Jun-13	SAS	LMM	X	3	-
10100	14-Jun-13	SAS	AWA	X	2	-
10101	14-Jun-13	SAS	RAD	X	3	-
10102	14-Jun-13	SAS	AMJ	X	6	-
10103	14-Jun-13	SAS	SKF	X	2	-
10104	14-Jun-13	SAS	EJB	X	2	-
10105	14-Jun-13	SAS	BEC, LJH, EJB	X	1	-
10106	17-Jun-13	SAS	SKF	X	2	1
10107	17-Jun-13	SAS	REA	X	3	2
10108	18-Jun-13	SAS	CLZ	X	3	2
10109	18-Jun-13	SAS	AGK	X	4	3
10110	18-Jun-13	SAS	BMC	X	4	3
10111	18-Jun-13	SAS	BMC	X	2	1
10112	18-Jun-13	n/a	AWA	X	2	1
10113	18-Jun-13	n/a	AWA	X	3	2
10114	8-Jul-13	SAS	AWA	X	n/a	1
10115	18-Jun-13	SAS	UMP	X	2	1
10116	18-Jun-13	SAS	Ump	X	3	2
10117	18-Jun-13	SAS	RAD	X	3	2
10118	18-Jun-13	SAS	EJB	X	2	2
10119	15-Jul-13	SAS	KNH	n/a	n/a	n/a
10120	18-Jun-13	SAS	KLS	X	3	2
10121	18-Jun-13	SAS	KLS	X	2	1
10122	18-Jun-13	SAS	EE	X	2	1
10123	18-Jun-13	SAS	MAS	X	2	1
10124	18-Jun-13	SAS	RAD	X	2	2
10125	18-Jun-13	SAS	SMC	X	2	1
10126	18-Jun-13	SAS	AGK	X	2	1
10127	18-Jun-13	SAS	EJB	X	2	1
10128	18-Jun-13	SAS	SMC	X	5	4

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10129	18-Jun-13	SAS	SKF	X	2	1
10130	18-Jun-13	SAS	BLD, SMC	X	5	4
10131	18-Jun-13	SAS	AWA	X	4	3
10132	28-Jun-13	SAS	BMC	x	2	1
10133	18-Jun-13	SAS	EJB	X	1	1
10134	18-Jun-13	SAS	EJB	X	2	1
10135	18-Jun-13	SAS	SAS	n/a	0	0
10136	28-Jun-13	SAS	JLP	X	3	2
10137	18-Jun-13	SAS	KNH	X	2	1
10138	18-Jun-13	SAS	CLZ, KJI	X	2	1
10139	18-Jun-13	SAS	CLZ	X	2	2
10140	18-Jun-13	SAS	EJB	X	2	1
10141	18-Jun-13	SAS	RAD	X	1	1
10142	18-Jun-13	SAS	BJA	X	1	1
10143	18-Jun-13	SAS	SF, BTA	X	4	5
10144	18-Jun-13	SAS	AGK	X	3	2
10145	18-Jun-13	SAS	REA	X	2	1
10146	18-Jun-13	SAS	n/a	n/a	n/a	n/a
10147	18-Jun-13	SAS	KJA	X	2	1
10148	18-Jun-13	SAS	SF, BMC	X	4	3
10149	18-Jun-13	SAS	SKF	X	4	18
10150	18-Jun-13	SAS	KLS, NWR	X	4	3
10151	18-Jun-13	SAS	KLS, NWR	X	4	3
10152	18-Jun-13	SAS	VP	X	3	2
10153	18-Jun-13	SAS	BJA	X	3	2
10154	18-Jun-13	SAS	BJA	X	3	2
10155	18-Jun-13	SAS	SKF	X	5	4
10156	18-Jun-13	SAS	SKF	X	3	2
10157	18-Jun-13	SAS	SKF	X	3	2
10158	18-Jun-13	SAS	RPM	X	3	2
10159	18-Jun-13	SAS	SWP	X	2	1
10160	18-Jun-13	SAS	SKF	X	4	3
10161	18-Jun-13	SAS	KJA	X	2	1
10162	18-Jun-13	SAS	BLP	X	2	1
10163	18-Jun-13	SAS	n/a	n/a	n/a	n/a
10164	18-Jun-13	SAS	KLS, WBA	X	2	1
10165	18-Jun-13	SAS	KLS	n/a	3	2
10166	18-Jun-13	SAS	VWP	X	2	1
10167	18-Jun-13	SAS	VMP	X	2	1
10168	18-Jun-13	SAS	AGK	n/a	2	1
10169	27-Jun-13	SAS	BJA	n/a	0	0
10170	18-Jun-13	SAS	BLD	X	3	2
10171	18-Jun-13	SAS	RPM	X	3	2
10172	18-Jun-13	SAS	KJA	n/a	4	2

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10173	18-Jun-13	SAS	RPM	X	1	1
10174	18-Jun-13	SAS	EJB	X	2	1
10175	18-Jun-13	SAS	EJB	X	2	1
10176	18-Jun-13	SAS	EJB	X	2	1
10177	18-Jun-13	SAS	EJJ, KJA	X	2	1
10178	18-Jun-13	SAS	SMC	X	2	1
10179	19-Jun-13	SAS	JB	X	2	1
10180	19-Jun-13	SAS	JB	X	3	2
10181	19-Jun-13	SAS	TR	X	2	1
10182	19-Jun-13	SAS	VP	X	2	1
10183	19-Jun-13	SAS	MCM	X	4	3
10184	19-Jun-13	SAS	MCM	X	7	6
10185	19-Jun-13	SAS	AWA	X	3	2
10186	19-Jun-13	SAS	VMP	X	2	1
10187	19-Jun-13	SAS	MCM	X	3	2
10188	19-Jun-13	SAS	EJB	X	2	1
10189	19-Jun-13	SAS	AGK	X	2	1
10190	19-Jun-13	SAS	KS	X	1	1
10191	19-Jun-13	SAS	JLP	X	4	3
10192	19-Jun-13	SAS	JLP	X	4	3
10193	19-Jun-13	SAS	KJA	X	2	1
10194	19-Jun-13	SAS	NWR, JLP	X	3	2
10195	19-Jun-13	SAS	SKP	X	3	2
10196	19-Jun-13	SAS	SKP	X	2	1
10197	19-Jun-13	SAS	BJA	X	n/a	n/a
10198	19-Jun-13	SAS	SKC, KMS	X	2	1
10199	19-Jun-13	SAS	RAD	X	3	2
10200	19-Jun-13	SAS	SKP	X	2	1
10201	19-Jun-13	SAS	BMC	X	4	1
10202	19-Jun-13	SAS	RCM	X	4	3
10203	19-Jun-13	SAS	RCM	X	5	4
10204	19-Jun-13	SAS	BMS	X	4	3
10205	19-Jun-13	SAS	n/a	n/a	n/a	n/a
10206	19-Jun-13	SAS	JB	X	4	3
10207	19-Jun-13	SAS	KS	X	4	3
10208	19-Jun-13	SAS	SKF	X	2	1
10209	19-Jun-13	SAS	BLD	X	2	1
10210	19-Jun-13	SAS	n/a	n/a	n/a	n/a
10211	19-Jun-13	SAS	n/a	n/a	n/a	n/a
10212	19-Jun-13	SAS	n/a	n/a	n/a	n/a
10213	19-Jun-13	SAS	n/a	n/a	n/a	n/a
10214	19-Jun-13	SAS	DMS	n/a	0	0
10215	19-Jun-13	SAS	n/a	n/a	n/a	n/a
10216	19-Jun-13	SAS	AGK	X	0	0

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10217	19-Jun-13	SAS	VP	X	3	2
10218	19-Jun-13	SAS	MMB	X	2	2
10219	19-Jun-13	SAS	BLD	X	2	n/a
10220	19-Jun-13	SAS	AWA	X		2
10221	21-Jun-13	SAS	SMC	X	3	2
10222	21-Jun-13	SAS	ZRS	X	2	1
10223	21-Jun-13	SAS	BLD	X	3	2
10224	15-Jul-13	SAS	KNH	n/a	n/a	n/a
10225	21-Jun-13	SAS	TR	X	2	1
10226	21-Jun-13	SAS	ZRS	X	3	2
10227	21-Jun-13	SAS	EME	X	3	2
10228	21-Jun-13	SAS	SMC	X	2	1
10229	8-Jul-13	SAS	AMJ	X	n/a	2
10230	21-Jun-13	SAS	WBA	X	2	1
10231	21-Jun-13	SAS	KMS	X	4	3
10232	21-Jun-12	SAS	KMS	X	2	1
10233	21-Jun-13	SAS	AWA	X	10	9
10234	21-Jun-13	SAS	AGK	n/a	0	0
10235	21-Jun-13	SAS	DMS	X	2	1
10236	21-Jun-13	SAS	JAD, RCM	n/a	0	0
10237	22-Jun-13	SAS	TR, LMZ	X	3	2
10238	22-Jun-13	SAS	EJB	X	3	2
10239	22-Jun-13	SAS	REA	X	2	1
10240	22-Jun-13	SAS	MCM, JCP	n/a	3	2
10241	22-Jun-13	SAS	DMS	X	3	2
10242	22-Jun-13	SAS	EJJ	X	2	2
10243	22-Jun-13	SAS	n/a	n/a	n/a	n/a
10244	22-Jun-13	SAS	LMM	X	4	3
10245	22-Jun-13	SAS	KMS	X	3	2
10246	22-Jun-13	SAS	KMS	X	2	1
10247	22-Jun-13	SAS	JB, EJJ	X	3	2
10248	22-Jun-13	SAS	n/a	n/a	n/a	n/a
10249	22-Jun-13	SAS	n/a	n/a	n/a	n/a
10250	22-Jun-13	SAS	n/a	n/a	n/a	n/a
10251	22-Jun-13	SAS	n/a	n/a	n/a	n/a
10252	8-Jul-13	SAS	RAD	X	n/a	n/a
10253	22-Jun-13	SAS	MAS	X	3	-
10254	22-Jun-13	SAS	KNH, MMB	X	2	-
10255	22-Jun-13	TJZ	AMJ	X	-	2
10256	27-Jun-13	SAS	CLZ	X	1	0
10257	24-Jun-13	SAS	CLZ	n/a	-	1
10258	24-Jun-13	DMW	REA	X	1	-
10259	24-Jun-13	SAS	CLZ	X	1	-
10260	26-Jun-13	RMS	LMN, DMS	X	7	6

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10261	26-Jun-13	SAS	KMS	X	2	1
10262	26-Jun-13	SAS	BLD	X	2	1
10263	26-Jun-13	SAS	BLD	X	2	1
10264	26-Jun-13	SAS	RWE	X	3	2
10265	26-Jun-13	SAS	WBA	X	3	2
10266	26-Jun-13	SAS	KMS	X	2	1
10267	26-Jul-13	SAS	EJB	X	2	1
10268	26-Jun-13	SAS	TJZ	X	2	1
10269	26-Jun-13	SAS	LMZ	X	2	1
10270	26-Jun-13	SAS	WER	X	2	-
10271	26-Jun-13	SAS	SKP	X	2	1
10272	26-Jun-13	SAS	AGK	X	2	1
10273	26-Jun-13	SAS	JMK	X	2	1
10274	26-Jun-13	SAS	LMZ	X	5	4
10275	26-Jun-13	SAS	SMC	X	3	1
10276	26-Jun-13	SAS	SKF	X	2	1
10277	26-Jun-13	SAS	SMC	X	3	1
10278	26-Jun-13	SAS	RPM	X	2	-
10279	26-Jun-13	SAS	KLS	X	1	-
10280	26-Jun-13	SAS	KLS	X	1	-
10281	26-Jun-13	SAS	TAR, BJA	X	2	1
10282	26-Jun-13	SAS	AGK	X	3	-
10283	26-Jun-13	SAS	REA	X	3	-
10284	26-Jun-13	SAS	DMS	X	3	-
10285	26-Jun-13	SAS	RAD, NF	X	3	-
10286	26-Jun-13	SAS	REA	n/a	0	0
10287	26-Jun-13	SAS	REA	n/a	0	0
10288	26-Jun-13	SAS	LMZ	n/a	2	1
10289	26-Jun-13	SAS	SKF	n/a	2	1
10290	26-Jun-13	SAS	SKF	X	2	1
10291	26-Jun-13	SAS	AGK, RPM	X	2	-
10292	26-Jun-13	SAS	KLS, ZRS, AWA	X	1	-
10293	26-Jun-13	SAS	KJI	X	2	-
10294	26-Jun-13	SAS	DMW	X	2	-
10295	26-Jun-13	SAS	BLD	X	4	-
10296	26-Jun-13	SAS	EJB	X	2	-
10297	26-Jun-13	SAS	KLS	X	2	-
10298	26-Jun-13	SAS	KJA, AWA	X	2	-
10299	26-Jun-13	SAS	EEB, RCM	X	2	-
10300	26-Jun-13	SAS	EAE	X	2	-
10301	22-Jun-13	SAS	MCM	X	2	-
10302	22-Jun-13	SAS	EEB	X	1	-
10303	22-Jun-13	SAS	JLP	X	1	-
10304	22-Jun-13	SAS	KJI	X	2	-

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10305	22-Jun-13	SAS	KJA	X	2	-
10306	22-Jun-13	SAS	JB, AMJ	X	-	-
10307	22-Jun-13	SAS	VMP	X	2	-
10308	2-Jun-13	SAS	AGK	X	2	-
10309	27-Jun-13	SAS	n/a	n/a	n/a	n/a
10310	27-Jun-13	SAS	EAE	X	2	-
10311	27-Jun-13	SAS	RCM	X	2	-
10312	27-Jun-13	SAS	AWA	X	2	-
10313	27-Jun-13	SAS	JMK	X	2	-
10314	22-Jun-13	SAS	KNH	X	1	-
10315	22-Jun-13	SAS	BLD	X	1	-
10316	22-Jun-13	SAS	BLD	X	2	-
10317	22-Jun-13	SAS	KMS	X	2	-
10318	22-Jun-13	SAS	KLS	X	2	-
10319	22-Jun-13	SAS	JLP	X	2	-
10320	22-Jun-13	SAS	REA, KJI	X	2	-
10321	22-Jun-13	SAS	DMS	X	4	-
10322	22-Jun-13	SAS	BJA	X	1	1
10323	22-Jun-13	SAS	DMS	X	2	-
10324	22-Jun-13	SAS	SKF	X	2	-
10325	22-Jun-13	SAS	AMJ, CRJ	X	2	-
10326	22-Jun-13	SAS	CRJ	X	2	-
10327	22-Jun-13	SAS	AGK	X	2	-
10328	22-Jun-13	SAS	LMZ, BMC	n/a	1	-
10329	22-Jun-13	SAS	AMJ	X	2	-
10330	22-Jun-13	SAS	KLS	X	2	-
10331	22-Jun-13	SAS	LMM	X	4	-
10332	22-Jun-13	SAS	LMM	X	2	-
10333	22-Jun-13	SAS	EJB	X	1	-
10334	22-Jun-13	SAS	EJB	X	1	-
10335	22-Jun-13	SAS	KMF, EJB	X	1	-
10336	22-Jun-13	SAS	ZRS, NWR	X	2	-
10337	22-Jun-13	SAS	CRJ	X	2	-
10338	22-Jun-13	SAS	RPM	X	3	-
10339	22-Jun-13	SAS	AWA	X	2	-
10340	22-Jun-13	SAS	AWA	X	2	-
10341	22-Jun-13	SAS	MAS	X	3	-
10342	22-Jun-13	SAS	MAS	X	1	n/a
10343	22-Jun-13	SAS	EAE	X	1	-
10344	22-Jun-13	SAS	SCM	X	2	-
10345	22-Jun-13	SAS	SMC	X	2	-
10346	22-Jun-13	SAS	SKF, AWA	X	2	-
10347	22-Jun-13	SAS	AWA, KZR	X	2	-
10348	22-Jun-13	SAS	KZR, JAD	X	2	-

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10349	22-Jun-13	SAS	AGK	X	3	-
10350	22-Jun-13	SAS	WCR	X	2	-
10351	22-Jun-13	SAS	LMZ, MMB	X	3	-
10352	22-Jun-13	SAS	SKF	X	2	-
10353	22-Jun-13	SAS	WCR	X	1	-
10354	22-Jun-13	SAS	SKP	X	2	-
10355	22-Jun-13	SAS	EAE, WCR	X	1	-
10356	3-Jul-13	SAS	AGK, KNA	X	-	1
10357	22-Jun-13	SAS	EAE	X	1	-
10358	22-Jun-13	SAS	SCM	X	2	-
10359	22-Jun-13	SAS	VMP	X	2	-
10360	27-Jun-13	SAS	JLP	X	2	-
10361	28-Jun-13	RWE	JMK, KJA	X	2	-
10362	28-Jun-13	RWE	KNH	X	3	-
10363	28-Jun-13	RWE	BMC, KLS	X	1	-
10364	28-Jun-13	RWE	AMJ	X	2	-
10365	28-Jun-13	RWE	RAD	X	4	-
10366	3-Jul-13	SAS	EAE	X	-	2
10367	3-Jul-13	SAS	MAS	X	-	1
10368	28-Jun-13	RWE	ZRS	X	2	-
10369	28-Jun-13	RWE	BJA	X	2	-
10370	28-Jun-13	RWE	BJA	X	1	-
10371	28-Jun-13	RWE	ZRS	X	2	-
10372	28-Jun-13	RWE	JCM, KNH	X	2	-
10373	5-Jul-13	RWE	AMJ	X	-	1
10374	28-Jul-13	RWE	CRJ	X	-	2
10375	28-Jun-13	RWE	JMK	X	2	-
10376	28-Jun-13	RWE	JMK	X	2	-
10377	3-Jul-13	SAS	MAS	X	-	1
10378	28-Jun-13	RWE	SMC, MMB	X	3	-
10379	28-Jun-13	RWE	AGK	X	2	-
10380	3-Jul-13	SAS	JAD	X	2	-
10381	3-Jul-13	SAS	RPM	X	1	-
10382	28-Jun-13	RWE	AGK	X	2	-
10383	12-Jul-13	DMW	SAS, RWE	X	3	-
10384	8-Jul-13	RWE/SAS	RWE, KZR, TJZ	X	-	1
10385	8-Jul-13	SAS	DMS, SAS	X	2	1
10386	28-Jun-13	RWE	TJZ, RWE, KZR	X	2	-
10387	28-Jun-13	RWE	KMS	X	3	-
10388	28-Jun-13	SAS	RCM	X	2	-
10389	3-Jul-13	SAS	JLP	X	-	2
10390	3-Jul-13	RWE	n/a	n/a	n/a	n/a
10391	28-Jun-13	DMW	MCM	X	-	2

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10392	28-Jun-13	RWE	KLS	X	-	2
10393	28-Jun-13	RWE	KLS	X	-	2
10394	28-Jun-13	SAS	BLD	X	-	1
10395	29-Jun-13	DMW	KJI	X	-	1
10396	29-Jun-13	DMW	SKP	X	-	1
10397	29-Jun-13	DMW	EAE	X	-	1
10398	29-Jun-13	DMW	BMC	X	-	2
10399	29-Jun-13	DMW	JB, AMJ	X	-	2
10400	29-Jul-13	DMW	BMC	X	1	-
10401	29-Jun-13	DMW	BMC	X	1	-
10402	1-Jul-13	SAS	EJB	X	1	-
10403	1-Jul-13	SAS	DMW	X	2	1
10404	1-Jul-13	SAS	KMS	X	2	1
10405	1-Jul-13	SAS	WBA	X	4	3
10406	1-Jul-13	SAS	JLP	X	2	-
10407	1-Jul-13	SAS	RAD	X	3	-
10408	1-Jul-13	SAS	RAD	X	2	-
10409	1-Jul-13	SAS	KNH	X	1	-
10410	1-Jul-13	SAS	KNH	X	1	-
10411	1-Jul-13	SAS	JLP	X	2	-
10412	1-Jul-13	SAS	AGK, EAE	X	1	-
10413	1-Jul-13	SAS	REA, BMC	X	2	-
10414	1-Jul-13	SAS	CRJ	X	1	-
10415	8-Jul-13	SKJ	WCR	X	-	1
10416	8-Jul-13	RWE	JWP	X	-	2
10417	8-Jul-13	RWE	AGK	X	-	2
10418	2-Jul-13	SAS	KJA	X	-	1
10419	2-Jul-13	SAS	AWA	X	-	2
10420	1-Jul-13	SAS	EJB	X	-	1
10421	1-Jul-13	SAS	EJB	X	-	1
10422	1-Jul-13	SAS	JLP	X	-	2
10423	1-Jul-13	SAS	RCM	X	2	-
10424	15-Jul-13	SAS	MCM	X	3	2
10425	2-Jul-13	SAS	BMC, LMZ	X	1	-
10426	2-Jul-13	RWE	EAE	X	-	1
10427	n/a	n/a	n/a	n/a	n/a	n/a
10428	2-Jul-13	RWE	EEB	X	-	1
10429	2-Jul-13	TJZ	MAS	X	1	-
10430	2-Jul-13	TJZ	TJZ, MAB	X	0	-
10431	5-Jul-13	RWE	NWR	X	3	1
10432	5-Jul-13	RWE	EME	X	2	1
10433	5-Jul-13	RWE	DMS	X	-	1
10434	5-Jul-13	TJZ	RCM	X	-	1
10435	5-Jul-13	RWE	AWA	X	-	2

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10436	8-Jul-13	RWE	MCM	X	-	1
10437	5-Jul-13	n/a	VMP	X	-	1
10438	5-Jul-13	n/a	AGK	X	-	1
10439	5-Jul-13	RWE	BLD	X	-	1
10440	5-Jul-13	RWE	RAD	X	-	1
10441	5-Jul-13	KMF	AWA, SKP	X	-	2
10442	8-Jul-13	RWE	DMB	X	3	2
10443	8-Jul-13	RWE	EWE	X	-	1
10444	8-Jul-13	DMW	DMW	X	-	1
10445	8-Jul-13	RWE	KS	X	-	1
10446	8-Jul-13	RWE	JMK	X	-	1
10447	8-Jul-13	RWE	EJD	X	-	1
10448	8-Jul-13	RWE	EJD, KMF	X	-	1
10449	8-Jul-13	RWE	LMM	X	-	2
10450	9-Jul-13	RWE	EAE	X	-	1
10451	9-Jul-13	RWE	BJA	X	1	-
10452	9-Jul-13	SAS	KJA	X	-	?
10453	10-Jul-13	DNW	ZRS	X	-	1
10454	10-Jul-13	TJZ	SKF	X	-	1
10455	10-Jul-13	TJZ	MAS	X	-	1
10456	10-Jul-13	SAS	AGK	X	-	1
10457	10-Jul-13	SAS	BJA	X	1	-
10458	10-Jul-13	TJZ	MAS	x	-	1
10459	10-Jul-13	TJZ	JMK	X	-	1
10460	10-Jul-13	TJZ	JMK	X	1	-
10461	10-Jul-13	TJZ	MMB	X	-	1
10462	10-Jul-13	DMW	JMK	X	-	1
10463	10-Jul-13	SAS	SMC	X	-	1
10464	10-Jul-13	TJZ	RPM	X	-	2
10465	11-Jul-13	TJZ	REA	X	-	2
10466	11-Jul-13	TJZ	REA	X	3	-
10467	11-Jul-13	SAS	KZR, JAD	X	1	-
10468	11-Jul-13	PBR	AMJ	X	-	2
10469	11-Jul-13	PBR	DMS	X	-	1
10470	11-Jul-13	TJZ	EJB	X	-	1
10471	11-Jul-13	TJZ	EJB	X	2	-
10472	11-Jul-13	TJZ	EJB	X	-	1
10473	11-Jul-13	TJZ	SKF	X	-	2
10474	11-Jul-13	KZR	JAD, KZR	X	1	-
10475	11-Jul-13	TJZ	AGK	X	-	1
10476	11-Jul-13	SAS	BLD	X	1	-
10477	2-Jul-13	KZR	EAE	X	1	-
10478	12-Jul-13	KZR	EAE	X	1	-
10479	29-Jul-13	KZR	AGK	X	1	-

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10480	12-Jul-13	DMW	LMM	X	1	-
10481	12-Jul-13	DWM	CRJ	X	See 10063	See 10063
10482	12-Jul-13	DMW	KMS	X	-	1
10483	12-Jul-13	DMW	BMC, REA	X	-	1
10484	12-Jul-13	KZR	JMK	X	1	-
10485	n/a	KZR	n/a	n/a	n/a	n/a
10486	13-Jul-13	KMF	n/a	X	-	1
10487	13-Jul-13	DMW	KJA	X	-	1
10488	13-Jul-13	DMW	EJJ	X	4	3
10489	13-Jul-13	DMW	KMS	X	2	1
10490	13-Jul-13	DMW	KLS	X	2	1
10491	13-Jul-13	DMW	SKF	X	2	1
10492	13-Jul-13	DMW	SKF	X	2	1
10493	13-Jul-13	DMW	KMS	X	2	1
10494	13-Jul-13	DMW	JLP	X	3	2
10495	13-Jul-13	DMW	JLP	X	1	1
10496	13-Jul-13	DMW	KMS	X	2	1
10497	13-Jul-13	DMW	BJA	X	3	2
10498	13-Jul-13	DMW	BJA	X	3	3
10499	13-Jul-13	DMW	DMS	X	3	2
10500	13-Jul-13	DMW	DMW	X	4	3
10501	13-Jul-13	DMW	DMS	X	4	3
10502	13-Jul-13	DMW	MCM	X	2	1
10503	13-Jul-13	DMW	ZRS	X	2	1
10504	13-Jul-13	DMW	BJA	X	4	3
10505	13-Jul-13	DMW	BJA	X	2	1
10506	13-Jul-13	DMW	LMM	X	2	1
10507	13-Jul-13	DMW	LMM	X	3	2
10508	13-Jul-13	DMW	AWA	X	2	-
10509	15-Jul-13	KZR	n/a	X	-	1
10510	15-Jul-13	SAS	JM	X	1	1
10511	15-Jul-13	KZR	RCM	X	-	2
10512	15-Jul-13	SAS	RAD	X	-	2
10513	15-Jul-13	KF	CRJ	X	2	1
10514	15-Jul-13	TJZ	MAB	X	-	1
10515	16-Jul-13	RWE	BLD	X	3	-
10516	16-Jul-13	SAS	KLS	X	1	-
10517	16-Jul-13	SAS	LMM, MCM	X	3	-
10518	16-Jul-13	SAS	MCM	X	2	-
10519	16-Jul-13	SAS	n/a	X	3	-
10520	16-Jul-13	SAS	CRJ	X	2	-
10521	16-Jul-13	SAS	ZRS	X	2	-
10522	16-Jul-13	SAS	KJA, EJJ	X	2	-
10523	16-Jul-13	SAS	SMC	X	2	-

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10524	16-Jul-13	SAS	SRK, JLM, REC	X	2	-
10525	16-Jul-13	SAS	SKF	X	2	-
10526	16-Jul-13	SAS	KJA	X	1	-
10527	16-Jul-13	SAS	AGK	X	2	-
10528	16-Jul-13	SAS	RCM	X	2	-
10529	16-Jul-13	SAS	RCM, KMS	X	3	-
10530	16-Jul-13	RWE	CRJ	X	0	0
10531	16-Jul-13	SAS	AGK	X	2	1
10532	16-Jul-13	RWE	?	X	-	2
10533	16-Jul-13	SAS	AWA	X	-	1
10534	16-Jul-13	SAS	EEB, CJ	X	2	-
10535	16-Jul-13	SAS	EEB, VMP	X	3	-
10536	16-Jul-13	SAS	EJB, KZR	X	1	-
10537	16-Jul-13	SAS	EJB	X	2	-
10538	16-Jul-13	SAS	RAD, BJA	X	2	-
10539	16-Jul-13	SAS	DMS	X	2	-
10540	16-Jul-13	SAS	RPM, WCR	X	2	-
10541	16-Jul-13	SAS	DMW, TJZ, RWE, SAS	X	2	-
10542	16-Jul-13	SAS	DMS, ZRS	X	2	-
10543	16-Jul-13	SAS	AGK	X	2	1
10544	16-Jul-13	RWE	DMS	X	3	2
10545	16-Jul-13	RWE	KJA	X	2	1
10546	16-Jul-13	SAS	WCR	X	2	2
10547	16-Jul-13	SAS	KNR	X	-	1
10548	16-Jul-13	TJZ	RPM	X	2	1
10549	17-Jul-13	KZR	RCM	X	-	1
10550	17-Jul-13	SAS	n/a	n/a	n/a	n/a
10551	17-Jul-13	SAS	n/a	X	-	1
10552	17-Jul-13	KMF	SKF	X	-	1
10553	17-Jul-13	SAS	SCM	X	-	1
10554	17-Jul-13	SAS	MAS, AMJ	X	2	-
10555	17-Jul-13	SAS	RAD	X	2	-
10556	17-Jul-13	SAS	SMC, RCT	X	2	-
10557	17-Jul-13	SAS	SMC	X	2	-
10558	17-Jul-13	SAS	EEJ, KJA	X	2	-
10559	17-Jul-13	SAS	ZRS	X	-	1
10560	17-Jul-13	SAS	AMJ, MAS	X	2	-
10561	17-Jul-13	SAS	EJB	X	2	-
10562	17-Jul-13	SAS	KLS	X	2	-
10563	17-Jul-13	SAS	BEC, EAE	X	2	-
10564	17-Jul-13	SAS	KMF	X	2	-
10565	17-Jul-13	SAS	DMW	X	2	-
10566	17-Jul-13	SAS	KLS	X	-	1

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10567	17-Jul-13	SAS	EJB	X	-	1
10568	18-Jul-13	SAS	KMS	X	2	-
10569	18-Jul-13	SAS	EAE, EJJ	X	2	-
10570	18-Jul-13	SAS	BLD	X	3	-
10571	18-Jul-13	SAS	MAS, AMJ, RAD	X	2	-
10572	18-Jul-13	SAS	AWA, EJB	X	1	-
10573	18-Jul-13	SAS	LMM	X	2	-
10574	18-Jul-13	SAS	DMW	X	2	-
10575	17-Jul-13	SAS	JAD	X	2	-
10576	17-Jul-13	SAS	KMS, BMC	X	3	-
10577	18-Jul-13	SAS	KMS, BMC	X	2	-
10578	18-Jul-13	SAS	n/a	X	-	1
10579	18-Jul-13	RWE	RCM, KMS	X	-	1
10580	18-Jul-13	KZR	AWA	X	2	-
10581	18-Jul-13	SAS	KNH	X	-	1
10582	18-Jul-13	SAS	JMK, KJA	X	-	1
10583	18-Jul-13	SAS	WBA, AGK	X	-	1
10584	18-Jul-13	SAS	BEC, KMF	X	-	1
10585	18-Jul-13	SAS	KLS, LJH	X	-	1
10586	18-Jul-13	SAS	MAS, AMJ	X	-	1
10587	18-Jul-13	SAS	ZRS	X	1	-
10588	18-Jul-13	SAS	LMM, MCM	X	-	1
10589	18-Jul-13	SAS	RAD	X	-	2
10590	18-Jul-13	SAS	SKF	X	-	1
10591	18-Jul-13	SAS	BJA	X	-	1
10592	19-Jul-13	RWE	KS, BMC	X	3	2
10593	19-Jul-13	RWE	TR	X	2	1
10594	19-Jul-13	RWE	KLS	X	0	0
10595	19-Jul-13	RWE	TR	X	1	1
10596	19-Jul-13	RWE	MAS	X	2	2
10597	19-Jul-13	RWE	BJA, DMW	X	3	2
10598	19-Jul-13	RWE	SMC	X	-	1
10599	19-Jul-13	RWE	KNH, JLM	X	-	1
10600	19-Jul-13	DMW	WCR	X	-	1
10601	19-Jul-13	DMW	WCR	X	-	1
10602	19-Jul-13	TJZ	n/a	n/a	n/a	n/a
10603	19-Jul-13	TJZ	RAD, AGK	X	-	1
10604	20-Jul-13	DMW	EJB	X	-	1
10605	20-Jul-13	DMW	JLM, BC	X	-	1
10606	20-Jul-13	DMW	BMC, LJH	X	-	1
10607	20-Jul-13	DMW	RAD	X	2	-
10608	20-Jul-13	DMW	?	X	-	1
10609	20-Jul-13	KMF	AWA, EJB	X	1	-

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10610	20-Jul-13	KMF	AWA, EJB	X	1	-
10611	22-Jul-13	SAS	KJA	X	-	1
10612	22-Jul-13	SAS	SMC	X	0	0
10613	22-Jul-13	SAS	AMJ	X	0	0
10614	22-Jul-13	SAS	BMC	X	2	1
10615	22-Jul-13	SAS	SKF	X	2	1
10616	22-Jul-13	SAS	WCR	X	2	2
10617	22-Jul-13	SAS	BJA	X	1	1
10618	22-Jul-13	SAS	JMK	X	2	1
10619	22-Jul-13	SAS	EAE	X	0	0
10620	22-Jul-13	SAS	EJB	X	2	-
10621	22-Jul-13	SAS	VMP	X	4	-
10622	22-Jul-13	SAS	WJE, DMS	X	2	-
10623	22-Jul-13	SAS	RAD	X	4	-
10624	22-Jul-13	SAS	BC	X	2	-
10625	22-Jul-13	SAS	KNA	X	2	-
10626	22-Jul-13	SAS	BLD	X	2	-
10627	22-Jul-13	SAS	KJA	X	3	-
10628	22-Jul-13	SAS	CRJ	X	1	-
10629	22-Jul-13	SAS	AGK	X	1	-
10630	22-Jul-13	SAS	BLD	X	1	-
10631	22-Jul-13	SAS	BJA	X	2	1
10632	23-Jul-13	SAS	SKF, WCR	X	1	-
10633	22-Jul-13	SAS	SMC	X	2	-
10634	22-Jul-13	SAS	EAE	X	2	2
10635	22-Jul-13	SAS	SKF	X	2	-
10636	22-Jul-13	SAS	LMM	X	3	-
10637	22-Jul-13	SAS	WCR	X	0	0
10638	22-Jul-13	SAS	JMK	X	2	1
10639	22-Jul-13	SAS	AMJ	X	3	-
10640	22-Jul-13	SAS	BMC	X	2	1
10641	22-Jul-13	SAS	EAE	X	2	-
10642	22-Jul-13	SAS	BJA	X	3	-
10643	22-Jul-13	SAS	BJA	X	3	-
10644	22-Jul-13	SAS	JMK	X	1	-
10645	22-Jul-13	SAS	BJA	X	-	1
10646	22-Jul-13	SAS	LMM, MCM	X	-	1
10647	22-Jul-13	SAS	EJB	X	-	1
10648	22-Jul-13	SAS	SMC, MMD	X	-	1
10649	22-Jul-13	SAS	CRJ, BMC	X	-	1
10650	22-Jul-13	SAS	EAE	X	2	-
10651	22-Jul-13	SAS	RCM, RAD, NF	X	4	-
10652	22-Jul-13	SAS	BJA, BEC	X	3	-

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10653	22-Jul-13	SAS	SMC, KLS	X	2	-
10654	22-Jul-13	SAS	AGK, KJG	X	2	-
10655	22-Jul-13	SAS	AGK, KJG	X	1	-
10656	22-Jul-13	SAS	DMS, JMK	X	2	-
10657	22-Jul-13	SAS	AWA, MME	X	3	-
10658	22-Jul-13	SAS	JLM, EAE	X	2	-
10659	22-Jul-13	SAS	WCR, SKF	X	2	-
10660	22-Jul-13	SAS	AMJ, AWA	X	2	-
10661	22-Jul-13	SAS	WCR, SKF, JB	X	2	-
10662	22-Jul-13	SAS	AWA, JAJ	X	3	-
10663	22-Jul-13	SAS	DMS, MAS	X	1	-
10664	22-Jul-13	SAS	EAE	X	2	-
10665	22-Jul-13	SAS	EJB	X	1	-
10666	22-Jul-13	SAS	MMB, VMP	X	2	-
10667	22-Jul-13	SAS	EJB, JAD	X	3	-
10668	22-Jul-13	SAS	EJB, KJA, JAP	X	1	-
10669	22-Jul-13	SAS	EEM, CRJ	X	3	-
10670	22-Jul-13	SAS	KJG, AGK	X	1	-
10671	22-Jul-13	SAS	MMB, BLD	X	2	-
10672	22-Jul-13	SAS	EAE, EJB	X	1	-
10673	22-Jul-13	SAS	MMB, BLD	X	1	-
10674	22-Jul-13	SAS	n/a	n/a	n/a	n/a
10675	22-Jul-13	SAS	SKF, WCR	X	2	-
10676	22-Jul-13	SAS	BLD	X	3	-
10677	22-Jul-13	SAS	KNH, LJH	X	4	-
10678	22-Jul-13	SAS	EAE, WJE	X	2	-
10679	22-Jul-13	SAS	n/a	n/a	n/a	n/a
10680	22-Jul-13	SAS	WJE	X	1	-
10681	22-Jul-13	SAS	JMK, DMS	X	1	-
10682	22-Jul-13	SAS	LMM, MCM	X	4	-
10683	22-Jul-13	SAS	WJE	X	2	-
10684	22-Jul-13	SAS	LJH, KNH, BEC	X	2	-
10685	22-Jul-13	SAS	CRJ, BMC	X	2	-
10686	22-Jul-13	SAS	MMB	X	2	-
10687	22-Jul-13	SAS	KNH, KJA, VMP	X	2	-
10688	22-Jul-13	SAS	KNH, VMP	X	2	-
10689	22-Jul-13	SAS	NWR, MCM, BMC	X	2	-
10690	22-Jul-13	SAS	RAD, RMC, AWA	X	2	-
10691	22-Jul-13	SAS	WCR, SKF	X	2	-
10692	22-Jul-13	SAS	DMS	X	2	-

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10693	22-Jul-13	SAS	DMS, WJE	X	-	1
10694	22-Jul-13	SAS	KLS, JMK	X	-	1
10695	22-Jul-13	SAS	EAE	X	1	-
10696	22-Jul-13	SAS	KJG, WJE	X	2	-
10697	22-Jul-13	SAS	EJB	X	2	-
10698	22-Jul-13	SAS	SKF, WCR	X	2	-
10699	22-Jul-13	SAS	KLS, JLM	X	1	-
10700	22-Jul-13	SAS	DMW, KLS, JLM	X	1	-
10701	22-Jul-13	SAS	EAE	X	-	1
10702	22-Jul-13	SAS	AMJ	X	2	-
10703	22-Jul-13	SAS	KLS	X	2	-
10704	22-Jul-13	SAS	WCR, SKF	X	2	-
10705	22-Jul-13	SAS	CRJ, LMM	X	1	-
10706	22-Jul-13	SAS	WCR, SKF	X	2	-
10707	22-Jul-13	SAS	MAS	X	2	-
10708	22-Jul-13	SAS	MAS	X	1	-
10709	22-Jul-13	SAS	WCR, SKF	X	2	-
10710	22-Jul-13	SAS	VMP	X	2	-
10711	22-Jul-13	SAS	KMS, SMC	X	2	-
10712	22-Jul-13	SAS	KJG	X	2	-
10713	22-Jul-13	SAS	RWE, TJZ	X	1	-
10714	22-Jul-13	SAS	EEB	X	2	-
10715	22-Jul-13	SAS	AMJ	X	2	-
10716	22-Jul-13	SAS	MAS, JAJ	X	-	2
10717	23-Jul-13	SAS	MMB	X	1	1
10718	23-Jul-13	SAS	AMJ	X	-	1
10719	23-Jul-13	SAS	NWR	X	1	-
10720	23-Jul-13	SAS	AWA	X	2	-
10721	23-Jul-13	SAS	VMP, MCM	X	2	-
10722	23-Jul-13	SAS	KLS	X	-	1
10723	23-Jul-13	SAS	AGK	X	2	-
10724	23-Jul-13	KZR	CRJ, RCM	X	2	-
10725	23-Jul-13	SAS	EAE	X	-	1
10726	24-Jul-13	RWE	MMB	X	2	1
10727	24-Jul-13	SAS	LMM, MCM	X	-	1
10728	24-Jul-13	DMW	EAE	X	-	1
10729	24-Jul-13	SAS	CRJ, RCM	X	-	1
10730	24-Jul-13	SAS	LJH, DMS	X	1	-
10731	24-Jul-13	SAS	KJG, MMB, KNH	X	1	-
10732	24-Jul-13	SAS	KJG	X	5	-
10733	22-Jul-13	SAS	EAE	X	2	-
10734	22-Jul-13	SAS	AWA	X	2	-
10735	22-Jul-13	SAS	KNH	X	2	-

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10736	22-Jul-13	SAS	BLD	X	3	-
10737	22-Jul-13	SAS	RAD	X	2	-
10738	22-Jul-13	SAS	SMC	X	1	-
10739	22-Jul-13	SAS	AWA	X	2	-
10740	24-Jul-13	SAS	BLD	X	2	-
10741	24-Jul-13	SAS	RAD	X	3	-
10742	24-Jul-13	SAS	EAE	X	1	-
10743	24-Jul-13	SAS	EEB	X	1	-
10744	24-Jul-13	SAS	BMC	X	2	-
10745	24-Jul-13	SAS	AGK	X	2	-
10746	24-Jul-13	SAS	MMC	X	2	-
10747	24-Jul-13	SAS	EEB	X	1	-
10748	24-Jul-13	SAS	CRJ	X	1	-
10749	24-Jul-13	SAS	BEC	X	2	-
10750	24-Jul-13	SAS	KLS, JLM	X	1	-
10751	24-Jul-13	SAS	LJH	X	3	-
10752	24-Jul-13	SAS	CRJ	X	1	-
10753	24-Jul-13	SAS	WJE	X	1	-
10754	24-Jul-13	SAS	BJA	X	1	-
10755	24-Jul-13	SAS	EAE	X	1	-
10756	24-Jul-13	SAS	EJB	X	2	-
10757	24-Jul-13	SAS	JMK	X	2	-
10758	24-Jul-13	SAS	EJB	X	2	-
10759	24-Jul-13	SAS	MMC	X	2	-
10760	24-Jul-13	SAS	BJA	X	2	-
10761	24-Jul-13	SAS	KJA	X	2	-
10762	24-Jul-13	SAS	AWA	X	1	-
10763	24-Jul-13	SAS	MMB, AGK	X	4	-
10764	24-Jul-13	SAS	CRJ, RCM	X	1	-
10765	24-Jul-13	SAS	JMK	X	2	-
10766	24-Jul-13	SAS	AGK	X	2	-
10767	24-Jul-13	SAS	DMW	X	2	-
10768	24-Jul-13	SAS	EEB	X	2	-
10769	24-Jul-13	SAS	JLM	X	1	-
10770	24-Jul-13	SAS	WCR, SKF	X	2	-
10771	24-Jul-13	SAS	EJJ, LMM	X	2	-
10772	24-Jul-13	SAS	MMB	X	1	-
10773	24-Jul-13	SAS	AMJ, RCM	X	2	-
10774	24-Jul-13	SAS	JAD	X	2	-
10775	24-Jul-13	SAS	BEC	X	2	-
10776	24-Jul-13	SAS	EAE, EJC	X	2	-
10777	24-Jul-13	SAS	LMN	X	2	-
10778	24-Jul-13	SAS	JAD,TJZ	X	2	-
10779	24-Jul-13	SAS	KNH	X	3	-

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10780	24-Jul-13	SAS	JLM	X	2	-
10781	24-Jul-13	SAS	SMC	X	2	-
10782	24-Jul-13	SAS	EJB	X	1	-
10783	24-Jul-13	SAS	CRJ	X	1	-
10784	24-Jul-13	SAS	KJG	X	2	-
10785	24-Jul-13	SAS	BMC	X	2	-
10786	24-Jul-13	SAS	LJH, SMC	X	2	-
10787	24-Jul-13	SAS	LJH	X	1	-
10788	24-Jul-13	SAS	n/a	n/a	n/a	n/a
10789	24-Jul-13	SAS	TJZ, KMF	x	2	-
10790	24-Jul-13	SAS	VMP	x	2	-
10791	24-Jul-13	SAS	MAS	x	2	-
10792	24-Jul-13	SAS	WCR, SRF	x	2	-
10793	24-Jul-13	SAS	KJA	x	2	-
10794	24-Jul-13	SAS	JLM	x	2	-
10795	24-Jul-13	SAS	VMP	x	2	-
10796	24-Jul-13	SAS	BEC, BJA	X	-	1
10797	24-Jul-13	SAS	MAS	X	-	1
10798	24-Jul-13	SAS	JMK, DMS	X	-	1
10799	24-Jul-13	SAS	AGK, KJG	X	-	1
10800	24-Jul-13	SAS	SKF, WCR	X	-	1
10801	24-Jul-13	SAS	KNH, LJH	X	-	1
10802	24-Jul-13	SAS	n/a	n/a	n/a	n/a
10803	24-Jul-13	SAS	RPM, KNH	X	2	-
10804	24-Jul-13	SAS	CLZ	X	3	-
10805	24-Jul-13	SAS	EAE	X	1	-
10806	24-Jul-13	SAS	WJE	X	1	-
10807	24-Jul-13	SAS	DMS, EJJ	x	3	-
10808	24-Jul-13	SAS	BLD	X	1	-
10809	24-Jul-13	SAS	SKF, WCR	X	4	-
10810	24-Jul-13	SAS	KMS	X	2	-
10811	24-Jul-13	SAS	JMK	X	2	-
10812	24-Jul-13	SAS	WCR, SKF	X	2	-
10813	24-Jul-13	SAS	LJH	x	2	-
10814	24-Jul-13	SAS	MAS, KJG	X	2	-
10815	24-Jul-13	SAS	EJB	X	2	-
10816	24-Jul-13	SAS	AGK, VMP	X	2	-
10817	24-Jul-13	SAS	MAS	x	2	-
10818	24-Jul-13	SAS	RAD	X	2	-
10819	24-Jul-13	SAS	NWR, WJE	x	1	-
10820	24-Jul-13	SAS	SMC	X	2	-
10821	24-Jul-13	SAS	RAD	x	1	-
10822	24-Jul-13	SAS	EJB, JAD	X	-	1
10823	24-Jul-13	RWE	CZR, MAS, RWE	X	1	-

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10824	24-Jul-13	RWE	RAD, RCM	X	-	1
10825	25-Jul-13	RWE	WJE	X	-	1
10826	25-Jul-13	KZR	KZR, RWE	X	1	-
10827	25-Jul-13	TJZ	LMM	X	-	1
10828	25-Jul-13	SAS	AWA, MCM	X	-	1
10829	25-Jul-13	SAS	BLD	X	1	-
10830	25-Jul-13	TJZ	LSA	X	-	1
10831	26-Jul-13	DMW	SKF, WCR	X	-	1
10832	26-Jul-13	n/a	DMS, JMK	X	-	1
10833	26-Jul-13	DMW	BMC, CRJ	X	-	1
10834	n/a	n/a	n/a	n/a	n/a	n/a
10835	26-Jul-13	DMW	BLD	X	1	-
10836	26-Jul-13	DMW	EJB, KJA	X	1	-
10837	26-Jul-13	DMW	RAD	X	-	1
10838	26-Jul-13	DMW	LJH, BEC	x	-	1
10839	26-Jul-13	DMW	VMP	X	-	1
10840	26-Jul-13	n/a	CRJ, EJB, BMC	X	-	1
10841	26-Jul-13	n/a	CRJ, EJB, BMC	X	1	-
10842	26-Jul-13	n/a	CRJ, EJB, BMC	X	1	-
10843	27-Jul-13	KZR	KZR, EJB	X	1	-
10844	27-Jul-13	KZR	RWE, DMW	X	1	-
10845	27-Jul-13	KZR	JMK	X	-	1
10846	27-Jul-13	DMW	WCR, JB	X	-	1
10847	27-Jul-13	TJZ	EAE, JLM	X	-	1
10848	27-Jul-13	DMW	KZR, DMW, RWE.EJB	X	-	1
10849	27-Jul-13	TJZ	JAD	X	-	1
10850	29-Jul-13	SAS	BLD, MMB	X	-	1
10851	29-Jul-13	SAS	KJG, AGK, WJE	X	1	-
10852	29-Jul-13	SAS	KJG, AGK. WJE	x	-	1
10853	29-Jul-13	SAS	KJG, AGK, WJE	x	-	1
10854	29-Jul-13	SAS	DMS, MAS	x	-	1
10855	29-Jul-13	SAS	DMS, MAS	X	1	-
10856	29-Jul-13	SAS	DMS, MAS	X	1	-
10857	30-Jul-13	SAS	WCR, SKF	X	-	1
10858	30-Jul-13	SAS	KLS, JLM, DMW	X	-	1
10859	30-Jul-13	KZR	KJG, WJE	X	1	-
10860	30-Jul-13	SAS	VMP, KNH	X	-	1
10861	30-Jul-13	SAS	EAE	X	-	1
10862	31-Jul-13	SAS	KLS, JLM	X	-	1

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10863	31-Jul-13	SAS	EJB	X	-	1
10864	31-Jul-13	SAS	WCR, SKF	X	-	1
10865	31-Jul-13	SAS	AWA	X	-	1
10866	31-Jul-13	DMW	BLD	X	-	1
10867	31-Jul-13	SAS	KJA	X	-	1
10868	31-Jul-13	SAS	KJG	X	-	1
10869	31-Jul-13	SAS	AMJ	X	-	2
10870	31-Jul-13	SAS	LMM	x	-	1
10871	31-Jul-13	SAS	MAS	x	-	2
10872	1-Aug-13	KZR	KJA	X	1	-
10873	1-Aug-13	SAS	KLS	X	-	1
10874	1-Aug-13	SAS	VMP	x	-	1
10875	1-Aug-13	SAS	SKF, WCR	X	-	1
10876	1-Aug-13	SAS	KNH	x	-	1
10877	1-Aug-13	SAS	EEB	X	-	1
10878	1-Aug-13	KZR	JAD	X	-	2
10879	1-Aug-13	SAS	RAD	x	-	1
10880	1-Aug-13	SAS	KMF	X	-	1
10881	2-Aug-13	KZR	MAS	x	1	-
10882	2-Aug-13	DMW	KJG	X	-	1
10883	2-Aug-13	EAE	n/a	x	-	1
10884	2-Aug-13	KER	MAS	x	1	-
10885	2-Aug-13	RWS	TJH	x	3	-
10886	2-Aug-13	RWS	LJH	x	3	-
10887	2-Aug-13	RWS	LMN	x	-	1
10888	2-Aug-13	DMW	SKF, VCR	x	-	1
10889	2-Aug-13	RWE	BLD	x	-	1
10890	2-Aug-13	DMW	JMK	x	-	1
10891	2-Aug-13	RWE	AGK	x	-	1
10892	2-Aug-13	RWE	VMP	x	-	1
10893	2-Aug-13	RWE	BEC	x	-	1
10894	2-Aug-13	DMW	KLS	x	-	1
10895	2-Aug-13	DMW	BMC	x	-	1
10896	5-Aug-13	SAS	CRJ	x	-	1
10897	5-Aug-13	SAS	AWA	x	-	1
10898	5-Aug-13	SAS	WCR, SKF	x	-	1
10899	5-Aug-13	SAS	DMW, KS	x	-	1
10900	5-Aug-13	SAS	KS, SMC	x	-	1
10901	5-Aug-13	DMW	DMW	x	-	1
10902	5-Aug-13	SAS	MAS	x	-	1
10903	5-Aug-13	TSZ	AGK	x	-	1
10904	5-Aug-13	DMW	KMF	x	-	1
10905	5-Aug-13	TSZ	MAS	x	1	-
10906	6-Aug-13	SAS	LMM	x	-	2

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10907	6-Aug-13	SAS	BJA	x	-	1
10908	6-Aug-13	PBR	EEB	x	-	1
10909	6-Aug-13	SAS	EAE	x	1	-
10910	6-Aug-13	SAS	EAE	X	1	-
10911	6-Aug-13	SAS	KIA	x	-	1
10912	6-Aug-13	TJZ	KJG	x	1	-
10913	6-Aug-13	TJZ	KJG	x	1	-
10914	6-Aug-13	SAS	SKF, WCR	x	-	1
10915	6-Aug-13	SAS	SMC	x	-	1
10916	6-Aug-13	SAS	LJH	x	-	1
10917	6-Aug-13	SAS	BEC	x	-	1
10918	7-Aug-13	SAS	MAS	x	-	1
10919	7-Aug-13	SAS	JLM	x	-	1
10920	7-Aug-13	SAS	VMP	x	-	1
10921	7-Aug-13	SAS	JAD	x	-	1
10922	7-Aug-13	SAS	SMC	x	-	1
10923	7-Aug-13	SAS	AWR	x	-	1
10924	7-Aug-13	TJZ	JMK	x	-	1
10925	8-Aug-13	TJZ	AMJ	x	1	-
10926	8-Aug-13	TJZ	EAE	x	-	1
10927	8-Aug-13	TJZ	EJB	x	-	1
10928	8-Aug-13	TJZ	WCR, SKF	x	-	1
10929	8-Aug-13	TJZ	CRJ	x	-	1
10930	8-Aug-13	PBR	EEB	x	-	1
10931	8-Aug-13	PBR	KNH	x	-	1
10932	8-Aug-13	PBR	LMM	x	-	2
10933	9-Aug-13	DMW	BJA	x	-	1
10934	9-Aug-13	DMW	MAS	x	-	1
10935	9-Aug-13	DMW	EJJ	x	-	1
10936	9-Aug-13	DMW	RAD	x	-	1
10937	9-Aug-13	DMW	SMC, LJH	x	-	1
10938	9-Aug-13	DMW	KS	x	-	1
10939	10-Aug-13	DMW	EJJ	x	-	1
10940	10-Aug-13	DMW	BLD	x	2	-
10941	12-Aug-13	TJZ	VMP	x	-	1
10942	12-Aug-13	SAS	JLM	x	-	1
10943	12-Aug-13	RWE	EAE	X	-	1
10944	12-Aug-13	DMW	DMW	x	-	1
10945	12-Aug-13	DMW	EJB	X	-	1
10946	12-Aug-13	SAS	BMC	x	-	1
10947	12-Aug-13	SAS	SMC	X	-	1
10948	12-Aug-13	KZR	AWA	X	-	1
10949	12-Aug-13	SAS	JMK	X	-	2
10950	12-Aug-13	SAS	LJH	X	-	1

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10951	12-Aug-13	SAS	BEC	X	-	2
10952	13-Aug-13	SAS	AGK	X	-	1
10953	13-Aug-13	SAS	KJG	X	-	1
10954	13-Aug-13	SAS	JLM, MCM, EEB	X	-	1
10955	13-Aug-13	KZR	JMK	X	1	-
10956	13-Aug-13	SAS	JAD	X	-	1
10957	13-Aug-13	SAS	CLZ	X	-	2
10958	13-Aug-13	SAS	KNH	X	-	1
10959	13-Aug-13	SAS	MAS	X	-	1
10960	13-Aug-13	KZR	KMS	X	-	1
10961	13-Aug-13	SAS	BLD	X	-	1
10962	13-Aug-13	SAS	KJA	X	-	1
10963	14-Aug-13	SAS	AMJ	X	-	1
10964	14-Aug-13	SAS	WJE, EAE	X	-	1
10965	14-Aug-13	SAS	RAD, AWA	X	-	1
10966	15-Aug-13	SAS	EAE	X	1	-
10967	27-Aug-13	SAS	SKF, PBR, NWR	X	1	-
10968	27-Aug-13	SAS	DMS, ZRS, JLM	X	1	-
10969	27-Aug-13	SAS	MAS, KJG	X	1	-
10970	28-Aug-13	SAS	CLZ, CRJ	X	2	-
10971	28-Aug-13	SAS	CLZ, SKF	X	2	-
10972	28-Aug-13	SAS	DMW	X	1	-
10973	28-Aug-13	SAS	SKF, KMS	X	2	-
10974	28-Aug-13	SAS	EEB	X	2	-
10975	28-Aug-13	SAS	JMK, AGK	X	2	-
10976	28-Aug-13	SAS	KJA	X	1	-
10977	28-Aug-13	SAS	KZR, SAS	X	1	-
10978	28-Aug-13	SAS	EAE, EJB	X	1	-
10979	28-Aug-13	SAS	KJA, VMP	X	0	-
10980	28-Aug-13	SAS	DMW	X	1	-
10981	28-Aug-13	SAS	KZR, SAS	X	1	-
10982	28-Aug-13	SAS	CLZ, CRJ	X	2	-
10983	28-Aug-13	SAS	CLZ, CRJ	X	1	-
10984	28-Aug-13	SAS	JMK, VMP	X	2	-
10985	28-Aug-13	SAS	TJZ	X	1	-
10986	28-Aug-13	SAS	SAS, DMW	X	0	-
10987	28-Aug-13	SAS	AGK, JMK	X	2	-
10988	29-Aug-13	SAS	EAE, EJB	X	-	1
10989	29-Aug-13	SAS	JMK, VMP	X	-	1
10990	29-Aug-13	SAS	CLZ, CRJ	X	-	1
10991	30-Aug-13	SAS	EAE, KMS	X	-	1
10992	3-Sep-13	SAS	EAE, EJB	X	-	1
10993	3-Sep-13	TJZ	CLZ, CRJ	X	-	1

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
10994	n/a	KZR	KZR, SAS	X	-	1
10995	4-Sep-13	SAS	JMK, AGK	X	-	1
10996	4-Sep-13	KZR	CLZ, SKF	X	1	1
10997	4-Sep-13	SAS	EAE, EJB	X	-	1
10998	4-Sep-13	KZR	EEB	X	-	1
10999	5-Sep-13	SAS	DMW	X	-	1
11000	5-Sep-13	SAS	JMK, AGK	X	-	1
11001	5-Sep-13	SAS	EAE, EJB	X	0	-
11002	5-Sep-13	SAS	EAE, EJB	X	0	-
11003	5-Sep-13	SAS	EEB	X	2	-
11004	5-Sep-13	DMW	SKF, KMS	X	-	1
11005	6-Sep-13	SAS	KJA	X	-	1
11006	6-Sep-13	TJZ	EEB, CRJ	X	-	1
11007	17-Sep-13	SAS	SMC	X	-	1
11008	17-Jul-14	EME	KLS	X	0	0
11009	18-July014	EME	BJA	X	0	0
11010	18-Jul-14	EME	BJA	X	0	0
11011	18-Jul-14	EME	KJA	X	0	0
11012	18-Jul-14	EME	KJA	X	0	0
11013	18-Jul-14	EME	VMP	X	0	0
11014	18-Jul-14	EME	VMP	X	0	0
11015	30-Jul-14	CRJ	AGK	X	0	0
11016	4-Aug-14	EME	SMC	X	0	0
11017	4-Aug-14	EME	SMC	X	0	0
11018	5-Aug-14	CRJ	EJB	X	0	0
11019	5-Aug-14	EME	AWA	X	0	0
11020	7-Aug-14	EME	LMN	X	0	0
11021	13-Aug-14	CRJ	MAS	X	0	0
11022	14-Aug-14	CRJ	LMM	X	0	0
11023	14-Aug-14	CRJ	LMM	X	0	0
11024	15-Aug-14	CRJ	AWA, KZR	X	0	0
11025	18-Aug-14	CRJ	MCM	X	0	0
11026	19-Aug-14	CRJ	SKP	X	0	0
11027	19-Aug-14	CRJ	ZRS	X	0	0
11028	21-Aug-14	EME	SKF, CLZ	X	0	0
11029	22-Aug-14	EME	KJA	X	0	0
11030	27-Aug-14	EME	TR	X	0	0
11031	29-Aug-14	CRJ	SKF, WCR	X	0	0
11032	2-Sep-14	CRJ	KZR, SAS	X	0	0
11033	2-Sep-14	CRJ	SKF, WCR	X	0	0
11034	4-Sep-14	CRJ	CLZ, CRJ	X	0	0
11035	4-Sep-14	CRJ	CLZ, CRJ	X	0	0
11036	9-Sep-14	CRJ	MMB, AGK	X	0	0
11037	9-Sep-14	CRJ	MMB, AGK	X	0	0

Lot #	Date Assigned (ex 1 Jan 13)	Supervisor Init	Excavator Init	Recovered (check box)	# of Boxes	Total # of Adult and Juvenile/ Infant Flot Bags
11038	12-Sep-14	CRJ	LJH	X	0	0
11039	19-Sep-14	CRJ	KJG	X	0	0
11040	19-Sep-14	CRJ	KJG	X	0	0
11041	23-Sep-14	CRJ	AMJ	X	0	0
11042	25-Sep-14	CRJ	EEB, CRJ	X	0	0
11043	25-Sep-14	CRJ	EEB, CRJ	X	0	0
11044	7-Oct-14	CRJ	EJB, KJA, JAD	X	0	0
11045	9-Oct-14	CRJ	AWA, JAJ	X	0	0
11046	14-Oct-14	CRJ	JB, AMJ	X	0	0
11047	22-Oct-14	CRJ	DMS, ZRS	X	0	0
11048	28-Oct-14	CRJ	RAD, BJA	X	0	0
11049	28-Oct-14	CRJ	RAD, BJA	X	0	0
11050	18-Nov-14	CRJ	EEB, VMP	X	0	0
11051	18-Nov-14	CRJ	EEB, VMP	X	0	0
11052	25-Nov-14	CRJ	SKF	X	0	0
11053	3-Dec-14	CRJ	BLD	X	0	0
11054	3-Dec-14	CRJ	EAE	X	0	0
11055	4/10/2015	EME		X	0	0

Lot Book Part 5

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10000	29-May-13	n/a	2 arm long bones, a rib and bone fragments (Water line)	29-May-13	SAS
10001	n/a	n/a	Bone and hardware recovered from overburden above burials from across the site	n/a	n/a
10002	17-Jun-13	A	Block A- Grave Shaft, HR, GG	18-Jul-13	KJI
10003	12-Jun-13	A	Block A- Coffin Wood, Base of Coffin Collected for Flot	18-Jul-13	KJI
10004	13-Jun-13	A	Block A- Disturbed Area-Flagging Tape-Coffin Wood- Nail; Lot # 10032 Collapsed into 10004	18-Jul-13	KJI
10005	17-Jun-13	A	Block A- Grave Shaft- Disturbed- No coffin	18-Jul-13	KJI
10006	12-Jun-13	A	Block A- Grave Shaft, Metal, Pins, Button, Coffin Nails; 2 Infants in Coffin?	18-Jul-13	KJI
10007	13-Jun-13	A	Block A- Grave Shaft, Angel Figure, Textile-headrest, Diaper, Metal Rings	18-Jul-13	KJI
10008	14-Jun-13	A	Block A- Grave Shaft, Coffin, No GG	18-Jul-13	KJI
10009	n/a	n/a	VOID	n/a	n/a
10010	17-Jun-13	A	Block A- Grave Shaft, Infant; Disturbed, Flagging Tape in Grave Shaft	18-Jul-13	KJI
10011	12-Jun-13	A	Block A- Grave Shaft, Infant; Disturbed, Flagging Tape in Grave Shaft	18-Jul-13	KJI
10012	13-Jun-13	A	Block A- Grave Shaft, Infant; Disturbed, Flagging Tape in Grave Shaft	18-Jul-13	KJI
10013	12-Jun-13	A	Block A- Grave Shaft, Infant, Coffin; Disturbed	18-Jul-13	KJI
10014	14-Jun-13	A	Block A- Grave Shaft, Infant, Coffin Coffin, Glass Fragments; 2 Individuals?	18-Jul-13	KJI
10015	12-Jun-13	A	Block A- Grave Shaft, Infant, Coffin, 4 White Buttons, 1 Safety Pin	18-Jul-13	KJI
10016	17-Jun-13	A	Block A- Grave Shaft, Infant,Coffin, No GG	18-Jul-13	KJI
10017	12-Jun-13	A	Block A- Grave Shaft, Infant, Fastner, Wire, Fabric, Coffin	18-Jul-13	KJI
10018	n/a	A	Block A- Grave Shaft. Infant, Coffin, Sole of Child's Shoe	18-Jul-13	KJI
10019	17-Jun-13	A	Block A- Grave Shaft, Infant, Coffin, White Buttons	18-Jul-13	KJI
10020	14-Jun-13	A	Block A- Grave Shaft, Infant, Safty Pin, Diaper/Fabric, Coffin Lid	18-Jul-13	KJI
10021	12-Jun-13	A	Grave Shaft, Infant, Coffin, 25 Coffin Nails, 5 Coffin Nail Fragments, No GG	18-Jul-13	KJI
10022	18-Jun-13	A	Block A- Grave Shaft, Infant?; Disturbed (backhoe?), No GG	18-Jul-13	KJI
10023	22-Jun-13	A	Block A- Grave shaft, Infant, Coffin, HR, No GG	18-Jul-13	KJI
10024	14-Jun-13	A	Block A- Grave Shaft, Infant?, 2 Nails, Coffin Wood; Disturbed (Backhoe?)	18-Jul-13	KJI
10025	13-Jun-13	A	Block A- Grave Shaft, Infant?; Indeterminate Coffin Shape, No GG	18-Jul-13	KJI
10026	n/a	n/a	VOID	29-Jul-13	KJI
10027	18-Jun-13	A	Block A- Grave Shaft, Infant, 3 Buttons; 6 Sided Coffin	18-Jul-13	KJI
10028	19-Jun-13	A	Block A- Grave Shaft, Infant, 6 Sided Coffin, Submerged, No GG	18-Jul-13	KJI
10029	17-Jun-13	A	Block A- Grave Shaft, Infant (No HR recovered all in flot), 6 Sided Coffin, No GG	18-Jul-13	KJI
10030	17-Jun-13	A	Block A- Coffin Taken Out Whole; Glass, Wood, HR; Grave Shaft, Infant; 6 Sided Coffin (Intact)	18-Jul-13	KJI
10031	18-Jun-13	A	Block A- Grave Shaft, Infant; 6-sided coffin, No GG	18-Jul-13	KJI
10032	18-Jun-13	A	Block A- Grave Shaft, Infant; 4-sided Coffin, HR, No GG	18-Jul-13	KJI
10033	10-Jul-13	A	Block A- Grave Shaft, Infant, Coffin, HR, White button	18-Jul-13	KJI

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10034	19-Jun-13	A	Block A- Grave shaft, Infant, Coffin, Submerged, HR, White button, small crucifix	18-Jul-13	KJI
10035	11-Jul-13	A	Block A- Grave Shaft, Infant, Coffin, HR, No GG	18-Jul-13	KJI
10036	15-Jul-13	A	Block A- Grave Shaft, Infant, Coffin, HR, Diaper pin	18-Jul-13	KJI
10037	19-Jun-13	A	Block A- Grave shaft, Infant, 4 Sided Coffin, No GG	18-Jul-13	KJI
10038	18-Jun-13	A	Block A- Grave Shaft, Infant, 38 Pink Glass Beads; 6 Sided Coffin	18-Jul-13	KJI
10039	19-Jun-13	A	Block A- Grave Shaft, Infant, HR, 6 Sided Coffin, No GG	18-Jul-13	KJI
10040	17-Jun-13	A	Block A- Grave Shaft, Infant, Coffin, No GG	18-Jul-13	KJI
10041	14-Jun-13	A	Block A- Grave shaft, Infant, Coffin, HR, No GG	18-Jul-13	KJI
10042	18-Jun-13	A	Area A- Grave Shaft, Infant, Coffin, HR, Fabric	18-Jul-13	KJI
10043	18-Jun-13	A	Area A- Grave Shaft, Infant, Coffin, Shell Beads	18-Jul-13	KJI
10044	12-Jun-13	A	Area A- Grave Shaft, Coffin, Shaft, Infant, Grave Goods	18-Jul-13	KJI
10045	17-Jun-13	A	Area A- Grave Shaft, Infant, Coffin, HR, Safety pins, cloth, leather	18-Jul-13	KJI
10046	17-Jun-13	A	Area A- Grave Shaft, Infant, Coffin, HR, No GG	18-Jul-13	KJI
10047	14-Jun-13	A	Area A- Grave Shaft, Infant, Coffin, HR, 5 Safety pins, 2 White Shell Buttons	18-Jul-13	KJI
10048	14-Jun-13	A	Area A- Grave Shaft, Infant, Pins, Grave Marker, Coffin	18-Jul-13	KJI
10049	14-Jun-13	A	Area A- Grave Shaft, Infant, Gravermarker, Coffin	18-Jul-13	KJI
10050	17-Jun-13	A	Area A- Grave Shaft, Infant, Coffin, HR, No GG	18-Jul-13	KJI
10051	25-Jun-13	A	Area A- Grave Shaft, Infant, Coffin, HR, Button	18-Jul-13	KJI
10052	18-Jun-13	A	Block A- Grave Shaft, Infant, HR, Safety pin, White Button	18-Jul-13	KJI
10053	17-Jun-13	A	Block A- Grave Shaft, Infant, 2 Safety pin	18-Jul-13	KJI
10054	13-Jul-13	A	Block A- Grave Shaft, Infant, Safety pin, Blanket/Fabric/Paper	18-Jul-13	KJI
10055	19-Jun-13	A	Block A- Grave shaft, Infant, Coffin, HR, Pins, Buttons, Blanket frag.	18-Jul-13	KJI
10056	3-Jul-13	A	Block A- Infant?, Coffin, HR, Blanket?	18-Jul-13	KJI
10057	n/a	n/a	VOID	29-Jul-13	KJI
10058	19-Jun-13	A	Block A- Grave Shaft, Infant, HR, No GG	18-Jul-13	KJI
10059	12-Jul-13	A	Block A- Coffin, Grave Goods, Grave Shaft, Infant, 3 White buttons	18-Jul-13	KJI
10060	10-Jul-13	n/a	Pelvic Flot	18-Jul-13	KJI
10061	10-Jul-13	A	Block A- Little Coffin Remaining; Grave Shaft, Infant	18-Jul-13	KJI
10062	9-Jul-13	A	Block A- Grave Shaft, Juvenile, HR, Buttons, Safty Pin, Fabric	18-Jul-13	KJI
10063	17-Jul-13	A	Block A- Grave Shaft, Infant, HR, No GG	18-Jul-13	KJI
10064	19-Jun-13	A	Block A- Grave shaft, Infant, Coffin, HR, No GG	18-Jul-13	KJI
10065	10-Jul-13	A	Block A- Grave Shaft, Infant, Safty Pin, Clothing Frag	18-Jul-13	KJI
10066	10-Jul-13	A	Block A- Grave Shaft, Adult, Coffin, No GG	18-Jul-13	KJI
10067	11-Jul-13	A	Block A- Grave Shaft, Adult, Buttons, Glass, Pillow w/ safety pins, Safety pin frags.	18-Jul-13	KJI
10068	24-Jul-13	A	Block A- Grave Shaft, Adult, Coffin, HR, Pillow Fabric, Ring (from left finger)	30-Aug-13	KJI
10069	17-Jun-12	A	Block A- Grave Shaft, Infant, HR, Pin, Button, Gravemarker?	18-Jul-13	KJI
10070	15-Jul-13	A	Block A- Grave Shaft, Infant, HR, No GG	18-Jul-13	KJI
10071	8-Jun-13	A	Block A- Grave Shaft, Infant, Coffin, No GG	18-Jul-13	KJI
10072	17-Jun-13	A	Block A- Grave Shaft, Infant, HR, Button	18-Jul-13	KJI
10073	23-Jul-13	A	Block A- Grave Shaft, Adult, Coffin, Fabric	30-Jul-13	KJI

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10074	9-Jul-13	n/a	Pelvic Flot	18-Jul-13	KJI
10075	18-Jul-13	A	Block A- Grave Shaft, Infant, Coffin, No GG	18-Jul-13	KJI
10076	10-Jul-13	A	Block A- Grave Shaft, Infant, HR, Fabric/Blanket	18-Jul-13	KJI
10077	22-Jun-13	A	Block A- Grave Shaft, Juvenile, HR, No GG	18-Jul-13	KJI
10078	17-Jun-13	A	Block A- Grave Shaft, Infant, 2 buttons	18-Jul-13	KJI
10079	18-Jul-13	A	Block A- Grave Shaft, Infant, rubber	18-Jul-13	KJI
10080	1-Jul-13	A	Block A- Grave Shaft, Infant, Coffin, HR, 2 buttons, 1 metal straight pin	18-Jul-13	KJI
10081	15-Jul-13	A	Block A- Graveshaft, Adult, Coffin, HR, Black button	18-Jul-13	KJI
10082	9-Jul-13	A	Block A- Grave Shaft, Infant, Coffin; All pulled as flot, individual reamains bagged	18-Jul-13	KJI
10083	2-Jul-13	C	Block C- Adult, Coffin, HR, No GG	18-Jul-13	KJI
10084	11-Jul-13	A	Block A- Grave Shaft, Infant, Coffin, No GG	18-Jul-13	KJI
10085	14-Jun-13	A	Grave Shaft, Infant, Safety Pin	18-Jul-13	KJI
10086	15-Jul-13	A	Grave Shaft, Infant, HR, 2 buttons, Fabric Pillow, 1 Buckle	18-Jul-13	KJI
10087	10-Jul-13	A	Grave Shaft, Infant, HR, 2 buttons, Fabric Pillow, 1 Buckle	18-Jul-13	KJI
10088	25-Jun-13	A	Co-mingled Remains in Shaft	18-Jul-13	KJI
10089	14-Jun-13	A	Second Infant in Burial	18-Jul-13	KJI
10090	n/a	n/a	VOID	29-Jul-13	KJI
10091	15-Jul-13	A	Block A- Grave shaft, Adult, Button, Cloth	18-Jul-13	KJI
10092	25-Jul-13	A	Block A- Grave shaft; Adult, Coffin, No Grave Goods, 2nd Individual	18-Jul-13	KJI
10093	24-Jul-13	A	Block A- Grave Shaft; Adult, 1 shoe, Metal Objects	18-Jul-13	KJI
10094	15-Jul-13	A	Block A- Grave Shaft, Adult, Coffin, No GG	18-Jul-13	KJI
10095	25-Jul-13	A	Block A- Grave shaft, Adult, Buttons, Buckle?, Glass Fragments	18-Jul-13	KJI
10096	12-Jul-13	A	Block A- Grave Shaft, Adult, Coffin, Goods	18-Jul-13	KJI
10097	15-Jul-13	A	Block A- Grave Shaft, Adult, Grave Goods	18-Jul-13	KJI
10098	1-Jul-13	A	Block A- Grave Shaft, Adult, Coffin; 2 individuals	18-Jul-13	KJI
10099	15-Jul-13	A	Block A- Grave Shaft	18-Jul-13	KJI
10100	25-Jun-13	A	Block A- Grave Shaft, Adult, Coffin, Safety pin	18-Jul-13	KJI
10101	17-Jul-13	A	Block A- Grave Shaft, Adult, Coffin, No GG	18-Jul-13	KJI
10102	25-Jun-13	A	Block A- Grave Shaft, Adult, Coffin, metal spring coil, safety pin shaft, unknown organic	18-Jul-13	KJI
10103	12-Jul-13	A	Block A- Grave Shaft, Coffin, Adult, No Goods	18-Jul-13	KJI
10104	12-Jul-13	A	Block A- Grave Shaft, Adult, Coffin, No Goods	18-Jul-13	KJI
10105	27-Jul-13	A	Block A- Grave Shaft, Adult, Coffin, No GG	29-Jul-13	KJI
10106	18-Jun-13	A	Block A- Infant, Grave Shaft, Coffin	18-Jul-13	KJI
10107	19-Jun-13	A	Block A- Infant, Grave Shaft, Coffin, Saftey Pin	18-Jul-13	KJI
10108	18-Jun-13	A	Block A- Infant, Granveshaft, Coffin, HR, Safety Pin, Textile?	18-Jul-13	KJI
10109	18-Jun-13	A	Block A- Infant, Grave Shaft, Coffin, HR, Safety Pin, Fabric	18-Jul-13	KJI
10110	18-Jun-13	B	Block B- Infant, Grave Shaft, Grave Goods	18-Jul-13	KJI
10111	15-Jul-13	B	Block B- Juvenile/Infant, Coffin, No GG	29-Jul-13	KJI
10112	16-Jul-13	B	Block B- Juve/Infant?; Very Small Coffin, Safety Pins	18-Jul-13	KJI
10113	15-Jul-13	B	Block B- Juvenile, Coffin, HR, Coffin Wood, Saftey Pin, Fabric, Shell Button	18-Jul-13	KJI

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10114	8-Jul-13	n/a	Pelvic Flot	18-Jul-22	KJI
10115	15-Jul-13	B	Block B- Coffin, Infant HR, Diaper Pin	18-Jul-13	KJI
10116	16-Jul-13	B	Block B- Coffin, Infant, HR, No GG	18-Jul-13	KJI
10117	26-Jun-13	B	Block B- Coffin, HR, Infant, 2 safety pins	18-Jul-13	KJI
10118	22-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, No Grave Goods	18-Jul-13	KJI
10119	n/a	n/a	Pelvic Flot	18-Jul-13	KJI
10120	27-Jun-13	B	Block B- Coffin, Infant HR, No GG	18-Jul-13	KJI
10121	26-Jun-13	B	Block B- Infant, Coffin, Grave Shaft, Grave Goods	18-Jul-13	KJI
10122	25-Jun-13	B	Block B- Coffin, HR, Infant, No GG	18-Jul-13	KJI
10123	24-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, Grave Goods	18-Jul-13	KJI
10124	22-Jun-13	B	Block B- Coffin, HR, Infant, 2 Safety Pins, 4 white shell buttons	18-Jul-13	KJI
10125	15-Jul-13	B	Block B- Coffin, HR, Infant, No GG	18-Jul-13	KJI
10126	25-Jun-13	B	Block B- Coffin, HR, Infant, No GG	18-Jul-13	KJI
10127	26-Jun-13	B	Block B- Coffin, HR, Infant, No GG	18-Jul-13	KJI
10128	27-Jun-13	B	Block B- Coffin, Juvenile, HR, No GG	18-Jul-13	KJI
10129	15-Jul-13	B	Block B- Infant, Grave Goods	18-Jul-13	KJI
10130	26-Jun-13	B	Block B- Coffin, HR, Fabric, Flat Glass in Grave Shaft	18-Jul-13	KJI
10131	22-Jun-13	B	Block B- Infant, Coffin, HR, ceramic w/ brown glaze	18-Jul-13	KJI
10132	28-Jun-13	A	Block A- # Formerly Assigned, now reassigned to Grave Shaft, Coffin, Infant, No Grave Goods	18-Jul-13	KJI
10133	24-Jun-13	B	Block B- Infant, Coffin, HR, Bandage, Cloth frag w/ pin	18-Jul-13	KJI
10134	27-Jun-13	B	Block B- Coffin, Infant, HR, No GG	18-Jul-13	KJI
10135	8-Jul-13	A	Block A- Grave Shaft, No Coffin, No Human Remains; Disturbed	18-Jul-13	KJI
10136	15-Jul-13	B	Black B- Juvenile/Infant, Coffin, HR, No GG	18-Jul-13	KJI
10137	15-Jul-13	C	Area C- 2nd Individual, Adult HR	18-Jul-13	KJI
10138	26-Jun-13	B	Block B- Coffin, HR, Infant, No GG	18-Jul-13	KJI
10139	21-Jun-13	B	Block B- Coffin, HR, Infant, No GG	18-Jul-13	KJI
10140	n/a	B	Block B- Coffin, Infant, HR, No GG	18-Jul-13	KJI
10141	27-Jun-13	B	Block B- Coffin, HR, Infant, No GG	18-Jul-13	KJI
10142	25-Jun-13	B	Block B- Coffin, Infant, HR, No GG	18-Jul-13	KJI
10143	24-Jun-13	B	Block B- Grave Shaft, Coffin, juvenile, No Grave Goods	24-Jul-13	KJI
10144	25-Jun-13	B	Block B- Coffin, Infant HR, No GG	24-Jul-13	KJI
10145	15-Jul-13	B	Block B- Infant, Coffin, 2 Safety pins	24-Jul-13	KJI
10146	n/a	n/a	VOID	29-Jul-13	KJI
10147	27-Jun-13	B	Block B- Coffin, Infant, Safety Pin	24-Jul-13	KJI
10148	24-Jun-13	B	Block B- Grave Shaft, Coffin, HR Infant, No Grave Goods	24-Jul-13	KJI
10149	24-Jun-13	B	Block B- Grave Shaft, Coffin, HR, Glass, Leather, metal, Necklace or Hem Clothing	24-Jul-13	KJI
10150	25-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, No Grave Goods	24-Jul-13	KJI
10151	25-Jun-13	B	Block B- Coffin, HR, Infant, No GG	24-Jul-13	KJI
10152	24-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, Grave Goods	24-Jul-13	KJI
10153	26 Jne 13	B	Block B- Grave Shaft, Coffin, Infant, Pins, Textile	24-Jul-13	KJI
10154	26-Jun-13	C	Block C- Disturbed Bad, 1992 excavations	24-Jul-13	KJI
10155	24-Jun-13	B	Block B- Coffin, HR Juvenile, Glass, Diaper Pin	24-Jul-13	KJI

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10156	26-Jun-13	B	Black B- Coffin, HR, Infants, Safety Pins	18-Jul-13	KJI
10157	22-Jun-13	B	Black B- Coffin, Infant, HR, Safety Pin	18-Jul-13	KJI
10158	15-Jul-13	B	Block B- Coffin, Infant HR, No GG	18-Jul-13	KJI
10159	22-Jun-13	B	Block B- Coffin Indetermiante, Infant HR, No GG	24-Jul-13	KJI
10160	n/a	B	Block B- Coffin, Infant HR, Safety Pin, Rubber/Diaper fabric	24-Jul-13	KJI
10161	24-Jun-13	B	Block B- Coffin, Infant, Safety Pins	24-Jul-13	KJI
10162	27-Jun-13	B	Block B- Coffin, Infant, Safety Pins	24-Jul-13	KJI
10163	n/a	n/a	VOID	24-Jul-13	KJI
10164	22-Jun-13	B	Block B- Juvenile/Infant, 3 pins, 1 ceramic, 2 thumb tacks	24-Jul-13	KJI
10165	22-Jun-13	B	Block B- Juvenile/Infant, Coffin, No GG	24-Jul-13	KJI
10166	25-Jun-13	B	Block B- Coffin, Infant HR, No GG	24-Jul-13	KJI
10167	26-Jun-13	B	Block B- Coffin, HR, Infant, No GG	24-Jul-13	KJI
10168	24-Jun-13	B	Block B- Coffin, Infant HR, No GG	24-Jul-13	KJI
10169	27-Jun-13	C	Distrubed, Plastic Present (Previously Excavated in the 90s)	24-Jul-13	KJI
10170	26-Jun-13	B	Block B- Coffin,Infant, Grave Goods	24-Jul-13	KJI
10171	16-Jul-13	B	Block B- Infant, Coffin, Grave Shaft, Pop Bottle (in Grave Shaft)	24-Jul-13	KJI
10172	16-Jul-13	B	Block B- Infant, Grave shaft, Coffin, Pins	24-Jul-13	KJI
10173	16-Jul-13	B	Block B- Infant/Juvenile - No Grave Shaft, Disturbed by backhoe, No Human Remains	24-Jul-13	KJI
10174	15-Jul-13	B	Block B- Coffin, Infant HR, No GG	24-Jul-13	KJI
10175	16-Jul-13	B	Block B- Unknown Juvenile/Infant HR	24-Jul-13	KJI
10176	16-Jul-13	B	Block B- Coffin, HR, Infant, No GG	24-Jul-13	KJI
10177	24-Jun-13	B	Block B- Grave Shaft, Coffin, HR Infant, No Grave Goods	24-Jul-13	KJI
10178	12-Jul-13	B	Block B- Infant, Coffin, HR Infant, No Grave Goods	24-Jul-13	KJI
10179	13-Jul-13	B	Block B- Infant Coffin, Infant HR, No Grave Goods	24-Jul-13	KJI
10180	13-Jul-13	B	Block B- Infant Coffin, HR Infant, No Grave Goods	24-Jul-13	KJI
10181	13-Jul-13	B	Block B- Infant Coffin, Infant HR, No Grave Goods	24-Jul-13	KJI
10182	12-Jul-13	B	Block B- Infant Coffin, Shaft, Grave Goods	24-Jul-13	KJI
10183	26-Jun-13	B	Block B- Coffin, Infant, HR, Four Safety Pins	24-Jul-13	KJI
10184	27-Jun-13	B	Block B- Coffin, Infant, Possible Leather	24-Jul-13	KJI
10185	26-Jun-13	B	Block B- Coffin, HR, Infant, No GG	24-Jul-13	KJI
10186	16-Jul-13	B	Block B- Coffin, Infant, No Grave Goods	24-Jul-13	KJI
10187	16-Jun-13	B	Block B- Infant, Coffin, 3 Safety pins	24-Jul-13	KJI
10188	16-Jun-13	B	Block B- Infant, Coffin, Pins	24-Jul-13	KJI
10189	17-Jul-13	B	Block B- Infant, Coffin, HR, No GG	24-Jul-13	KJI
10190	19-Jul-13	B	Block B- Infant Coffin, No Grave Goods	24-Jul-13	KJI
10191	27-Jun-13	B	Block B- Coffin, Infant, No Grave Goods	24-Jul-13	KJI
10192	26-Jun-13	B	Block B- Coffin, Infant, 3 Safety Pins	24-Jul-13	KJI
10193	17-Jul-13	B	Block B- Coffin, Infant HR, No GG	24-Jun-13	KJI
10194	27-Jun-13	B	Block B- Coffin, Infant HR, No GG	24-Jul-13	KJI
10195	15-Jul-13	B	Block B- Coffin, HR Infant, No Grave Goods	24-Jun-13	KJI
10196	12-Jul-13	B	Block B- infant Coffin, Grave Shaft, No Grave Goods	24-Jul-13	KJI
10197	19-Jul-13	B	Block B- Nothing Found	24-Jul-13	KJI
10198	19-Jul-13	B	Block B- infant Coffin, No Grave Goods	24-Jul-13	KJI

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10199	19-Jul-13	B	Block B- Infant, Coffin, HR	24-Jul-13	KJI
10200	15-Jul-13	B	Block B- Infant Coffin, HR Infant, No Grave Goods	24-Jul-13	KJI
10201	22-Jun-13	B	Block B- Coffin, Grave Shaft, HR, No GG	24-Jul-13	KJI
10202	26-Jun-13	B	Block B- Coffin, Grave Shaft, HR, No GG	24-Jul-13	KJI
10203	27-Jun-13	B	Block B- Coffin, Infant, No Grave Goods	24-Jul-13	KJI
10204	24-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, Grave Goods	24-Jul-13	KJI
10205	n/a	n/a	VOID	29-Jul-13	KJI
10206	24-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, Grave Goods	24-Jul-13	KJI
10207	15-Jul-13	B	Block B- Infant, HR, Grave Goods	24-Jul-13	KJI
10208	19-Jul-13	B	Block B- Infant Coffin, No Grave Goods	24-Jul-13	KJI
10209	19-Jul-13	B	Block B- Infant Coffin, Grave Goods	24-Jul-13	KJI
10210	n/a	n/a	Block B- In Disturbed Area VOID	24-Jul-13	KJI
10211	n/a	n/a	Block B- In Disturbed Area VOID	24-Jul-13	KJI
10212	n/a	n/a	VOID	29-Jul-13	KJI
10213	n/a	n/a	VOID	29-Jul-13	KJI
10214	21-Jun-13	B	Block B- Infant Grave Shaft; 4 points shot in; Disturbed, No Coffin	24-Jul-13	KJI
10215	n/a	n/a	VOID	29-Jul-13	KJI
10216	19-Jun-13	B	Block B- Grave Shaft, Infant; 4 points shot in (previously excavated in 90s)	24-Jul-13	KJI
10217	22-Jun-13	A	Block A- Grave Shaft, Infant, 5 buttons, 2 diaper pins	24-Jul-13	KJI
10218	22-Jul-13	A	Block A- Grave Shaft, Infant, Coffin, 2 White buttons, safety pin	24-Jul-13	KJI
10219	17-Jul-13	A	Block A- Grave Shaft, Adult,; Multiple Individuals	24-Jul-13	KJI
10220	25-Jun-13	n/a	Pelvic Flot	24-Jul-13	KJI
10221	12-Jul-13	B	Block B- Infant Coffin, Shaft, Grave Goods	24-Jul-13	KJI
10222	25-Jun-13	B	Block B- Coffin, Grave Shaft, HR, No GG	24-Jul-13	KJI
10223	24-Jun-13	B	Block B- No Grave Goods, Grave Shaft, Coffin , Infant	24-Jul-13	KJI
10224	n/a	n/a	Pelvic Flot	24-Jul-13	KJI
10225	15-Jul-13	B	Block B- Juvenile/Infant, Coffin, No GG	24-Jul-13	KJI
10226	27-Jun-13	B	Block B- Coffin, Infant HR, Rubber, Blanket	24-Jul-13	KJI
10227	28-Jun-13	B	Block B- Infant, Button, Blanket Fragment	24-Jul-13	KJI
10228	16-Jul-13	B	Block B- Juvenile/ Infant HR, Coffin, No GG	24-Jul-13	KJI
10229	9-Jul-13	n/a	Pelvic Flot	24-Jul-13	KJI
10230	25-Jun-13	B	Block B- Juvenile, 1 Button	24-Jul-13	KJI
10231	24-Jun-13	B	Block B- Grave Shaft, Coffin, Juvenile, Grave Goods	24-Jul-13	KJI
10232	24-Jun-13	B	Block B- Grave Shaft, Coffin Infant, No Grave Goods	24-Jul-13	KJI
10233	27-Jun-13	B	Block B- Coffin, Juvenile HR, Safety Pins, Fabric	24-Jul-13	KJI
10234	21-Jun-13	B	Block B- Distrubed; Grave Shaft, No Coffin (Previously excavated in 90s)	24-Jul-13	KJI
10235	27-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, No GG	24-Jul-13	KJI
10236	21-Jun-13	B	Block B- Distrubed; Grave Shaft, No Coffin (Previously excavated in 90s)	24-Jul-13	KJI
10237	22-Jun-13	B	Block B- Grave Shaft, Coffin, Grave Marker, No GG	24-Jul-13	KJI
10238	26-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, No GG	24-Jul-13	KJI
10239	26-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, No GG	24-Jul-13	KJI
10240	26-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, No GG	24-Jul-13	KJI

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10241	24-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, No GG	24-Jul-13	KJI
10242	13-Jul-13	B	Block B- Grave Shaft, Coffin, Infant, 2 pins w/ fabric attached	24-Jul-13	KJI
10243	n/a	n/a	Block B- Grave Shaft, Coffin: VOID?	29-Jul-13	KJI
10244	26-Jun-13	B	Block B- Grave Shaft, Coffin, Infant, No GG	24-Jul-13	KJI
10245	12-Jul-13	B	Block B- Grave Shaft, Coffin, Infant, White glass button	24-Jul-13	KJI
10246	13-Jul-13	B	Block B- Grave Shaft, Coffin, Infant, 2 Safety Pins	24-Jul-13	KJI
10247	15-Jul-13	B	Block B- Grave Shaft, Coffin, Infant, Pins	24-Jul-13	KJI
10248	n/a	B	Block B- Grave Shaft- Disturbed; Previously Excavated in 90s, No Coffin, Points Shot for Grave Shaft	24-Jul-13	KJI
10249	n/a	B	Block B- Disturbed; Grave Shaft, Previously Excavated in 90s, Not Excavated: VOID	24-Jul-13	KJI
10250	n/a	B	Block B- Disturbed; Grave Shaft, Previously Excavated in 90s, No Coffin, Points Shot for Grave Shaft	24-Jul-13	KJI
10251	n/a	B	Block B- Disturbed; Grave Shaft, Previously Excavated in 90s, Not Excavated: VOID	16-Sep-13	SAS
10252	8-Jul-13	n/a	Pelvic Flot	24-Jul-13	KJI
10253	23-Jul-13	A	Block A- Grave Shaft, Adult, Coffin, HR, No GG	24-Jul-13	KJI
10254	18-Jul-13	A	Block A- Grave Shaft, Adult, Coffin, Fabric	29-Jul-13	KJI
10255	22-Jun-13	n/a	Pelvic Flot	24-Jul-13	KJI
10256	28-Jun-13	A	Second Individual	24-Jul-13	KJI
10257	22-Jun-13	n/a	Pelvic Flot	24-Jul-13	KJI
10258	1-Jul-13	A	Block A- Second Individual, Adult Remains	24-Jul-13	KJI
10259	25-Jul-13	A	Third Individual; One Bead?	24-Jul-13	KJI
10260	28-Jun-13	B	Block B- Juvenile, Coffin, Rubber, Tacks, Safety Pins	24-Jul-13	KJI
10261	28-Jun-13	A	Block A- Juvenile, Coffin, HR, No GG	24-Jul-13	KJI
10262	9-Jul-13	A	Block A- Juvenile, Coffin, HR, No GG	24-Jul-13	KJI
10263	9-Jul-13	A	Block A- Juvenile, Coffin, HR, button, Organic Fabric	24-Jul-13	KJI
10264	3-Jul-13	A	Block A- Infant/Juvenile, Coffin, No GG	24-Jul-13	KJI
10265	5-Jul-13	A	Block A- Juvenile, Coffin, 3 Buttons	24-Jul-13	KJI
10266	1-Jul-13	A	Block A- Juvenile, Coffin, 2 Buttons, 2 Safety Pins, Rubber Diaper	24-Jul-13	KJI
10267	9-Jul-13	A	Block A- Juvenile, Coffin, 2 White buttons	24-Jul-13	KJI
10268	3-Jul-13	A	Block A- Infant/Juvenile, Coffin, Unidentified material	24-Jul-13	KJI
10269	5-Jul-13	A	Block A- Juvenile, Grave Shaft, Coffin, Clothing, Glass	24-Jul-13	KJI
10270	17-Jul-13	A	Block A- Adult, Coffin, Safety Pin	24-Jul-13	KJI
10271	28-Jun-13	C	Block C- Juvenile, HR, Coffin, While Buttons, 1 Metal Piece (possibly copper)	24-Jul-13	KJI
10272	27-Jun-13	C	Block C- Juvenile, Infant, Coffin, Buttons	24-Jul-13	KJI
10273	1-Jul-13	C	Block C- Infant/Juvenile, Coffin, HR, No GG	24-Jul-13	KJI
10274	28-Jun-13	C	Block C-Infant/Juvenile, Coffin, No GG	24-Jul-13	KJI
10275	28-Jun-13	C	Block C- Infant/Juvenile, HR, 8 Buttons	24-Jul-13	KJI
10276	3-Jul-13	C	Block C- Infant/Juvenile (based on coffin size), Coffin, Blanket, Newspaper Lining	24-Jul-13	KJI
10277	28-Jun-13	C	Block C- Infant/Juvenile (based on coffin size), coffin, rectangular glass	24-Jul-13	KJI
10278	3-Jul-13	C	Block C- Adult, Coffin, HR, No GG	24-Jul-13	KJI
10279	28-Jun-13	C	Block C- Adult, Coffin, HR, No GG	24-Jul-13	KJI

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10280	28-Jun-13	C	Block C- Adult, Coffin, HR, No GG	24-Jul-13	KJI
10281	1-Jul-13	C	Block C - Adult, Coffin, Textiles? (Flot sample taken because excavators thought the remains were juvenile)	24-Jul-13	KJI
10282	1-Jul-13	C	Block C- Adult, Coffin, No, Grave Shaft, No Grave Goods	24-Jul-13	KJI
10283	28-Jun-13	C	Block C- Adult, Coffin, shoes, pant fabric, shirt fabric	24-Jul-13	KJI
10284	1-Jul-13	C	Block C- Adult, Grave Shaft, Coffin, Glass, Pins, Ceraimcs	24-Jul-13	KJI
10285	1-Jul-13	C	Block C- Adult, Coffin, Grave Shaft, Leather frag	24-Jul-13	KJI
10286	27-Jun-13	C	Block C- Juvenile, Distrubed, recent fabric from jacker/shirt	29-Jul-13	KJI
10287	27-Jun-13	C	Block C- Juvenile/Infant; Disturbed (Elev. Center point)	29-Jul-13	KJI
10288	3-Jul-13	C	Block C- Infant, HR, Coffin, Fabric	29-Jul-13	KJI
10289	28-Jun-13	C	Block C- Infant, coffin, grave shaft, infant, 1 pin piece	29-Jul-13	KJI
10290	27-Jun-13	C	Block C- Infant, Coffin, Pin	29-Jul-13	KJI
10291	1-Jul-13	C	Block C- Adult, Coffin, No Grave Shaft, No Grave Goods	29-Jul-13	KJI
10292	28 June 13/ 25 July 13	C	Block C- Adult, Distrubed; Boring for Fiber Optics?; Water Burial, Coffin, No GG	29-Jul-13	KJI
10293	1-Jul-13	C	Block C- Adult, Coffin, Book/Bible?	29-Jul-13	KJI
10294	8-Jul-13	C	Block C- Adult, Coffin, Grave Shaft, No Grave Goods	29-Jul-13	KJI
10295	12-Jul-13	A	Block A- Adult, Co-mingled, Coffin, No GG	29-Jul-13	KJI
10296	1-Jul-13	A	Block A- Adult, Coffin, Pin, Glass, 2 white and 1 black button	29-Jul-13	KJI
10297	8-Jul-13	C	Block C- Adult, Glass, Leather, Coffin	29-Jul-13	KJI
10298	9-Jul-13	C	Block C- Adult, Coffin, HR, Shoes, Safety Pin, Buttons, Cloth, Fabric, Leather, Unknown Material	29-Jul-13	KJI
10299	3-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10300	10-Jul-13	C	Block C- Adult, Coffin, Dentures/mouth piece, newspaper/paper, Button, 3 metal/copper frag, Leather book cover	29-Jul-13	KJI
10301	9-Jul-13	C	Block C- Adult, Coffin, HR, Metal Buttons, Leather Strap, Fabric	29-Jul-13	KJI
10302	8-Jul-13	C	Block C- Adult, HR, Coffin, No GG	29-Jul-13	KJI
10303	28-Jun-13	C	Block C- Adult, Coffin, No Grave Goods; Very Wet	29-Jul-13	KJI
10304	2-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10305	2-Jul-13	C	Block C- Adult, Coffin, HR, Pencil Tip with Lead	29-Jul-13	KJI
10306	1-Jul-13	C	Block C- Adult, Coffin, HR, Metal	29-Jul-13	KJI
10307	5-Jul-13	C	Block C- Adult, Coffin, Copper Pin	29-Jul-13	KJI
10308	9-Jul-13	C	Block C- Adult, Coffin, HR, No GG	9-Jul-13	KJI
10309	n/a	n/a	VOID	29-Jul-13	KJI
10310	12-Jul-13	A	Block A- Adult, Coffin, Textile	29-Jul-13	KJI
10311	16-Jul-13	A	Block A- Adult, Coffin, No GG	29-Jul-13	KJI
10312	1-Jul-13	A	Block A- Adult, Coffin, Glass door knob, glass, metal, rubber	29-Jul-13	KJI
10313	12-Jul-13	A	Block A- Adult, Coffin, Pin	29-Jul-13	KJI
10314	17-Jul-13	A	Block A- Adult, Coffin, No GG	29-Jul-13	KJI
10315	3-Jul-13	C	Block C- Adult	29-Jul-13	KJI
10316	8-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	29-Jul-13	KJI
10317	5-Jul-13	C	Block C- Juvenile, Coffin, Grave Shaftl, No Grave Goods	29-Jul-13	KJI
10318	1-Jul-13	C	Block C- Adult, Coffin, Grave Shaft, glass bottles, 3 glass pieces	29-Jul-13	KJI
10319	2-Jul-13	C	Block C- Adult, Coffin, HR, Safety Pin	29-Jul-13	KJI
10320	11-Jul-13	C	Block C- Adult, HR, Coffin, White Button	29-Jul-13	KJI

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10321	5-Jul-13	C	Block C- Adult, Cloth, Coffin	29-Jul-13	KJI
10322	5-Jul-13	C	Block C- Juvenile, HR, Cross	29-Jul-13	KJI
10323	12-Jul-13	C	Block C- Adult, HR, Coffin, Cloth	29-Jul-13	KJI
10324	10-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10325	9-Jul-13	C	Block C- Adult, Coffin, HR, Metal, Lamp	29-Jul-13	KJI
10326	3-Jul-13	C	Block C- Adult, HR, Coffin, 4 Button, Pin, Fabric	29-Jul-13	KJI
10327	8-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	29-Jul-13	KJI
10328	2-Jul-13	C	Block C- Adult, Coffin, HR, Pessary (Three Additional Individuals in Coffin)	29-Jul-13	KJI
10329	12-Jul-13	C	Block C- Adult, Coffin, Shaft, No goods	29-Jul-13	KJI
10330	12-Jul-13	C	Black C- Adult, Coffin, No Grave Goods	29-Jul-13	KJI
10331	3-Jul-13	C	Block C- Co-mingled Adult and Juvenile, Glass frag.	29-Jul-13	KJI
10332	9-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10333	3-Jul-13	C	Block C- Adult, HR, Coffin, No GG	29-Jul-13	KJI
10334	8-Jul-13	C	Block C- Adult, Coffin, 2 Pins Fragments	29-Jul-13	KJI
10335	8-Jul-13	C	Block C- Adult, HR, Coffin, Button, Pin	29-Jul-13	KJI
10336	15-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10337	10-Jul-13	C	Block C- Adult, HR, Coffin, Pin/Nail	29-Jul-13	KJI
10338	12-Jul-13	C	Block C- Adult, Poor Preservation, Buttons	29-Jul-13	KJI
10339	8-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	29-Jul-13	KJI
10340	3-Jul-13	C	Block C-Adult, HR, Coffin, No GG	29-Jul-13	KJI
10341	12-Jul-13	C	Block C- Adult, HR, Coffin, No GG	29-Jul-13	KJI
10342	3-Jul-13	C	Block C- Adult, HR, Coffin, Button	29-Jul-13	KJI
10343	1-Jul-13	C	Block C- Adult, Coffin, Clothing, Button	29-Jul-13	KJI
10344	5-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	29-Jul-13	KJI
10345	9-Jul-13	C	Block C- Adult, Coffin, HR	29-Jul-13	KJI
10346	10-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10347	12-Jul-13	C	Block C- Adult, Coffin, Shaft, No GG, Co-mingled	29-Jul-13	KJI
10348	11-Jul-13	C	Block C- Adult; Commingled w/ 10.467	29-Jul-13	KJI
10349	10-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10350	9-Jul-13	C	Block C- Adult, Coffin, HR, Staple like Pin/Nail	29-Jul-13	KJI
10351	10-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10352	8-Jul-13	C	Block C- Adult, Coffin, No Grave Shaft, glass, newspaper/book	29-Jul-13	KJI
10353	3-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10354	1-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10355	2-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10356	3-Jul-13	n/a	Pelvic Flot	29-Jul-13	KJI
10357	5-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	29-Jul-13	KJI
10358	11-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10359	10-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10360	11-Jul-13	C	Block C- Adult, HR, Coffin, Gold Tooth, rubber tube, nest/pillow, Gold Ring	29-Jul-13	KJI
10361	19-Jul-13	C	Block C- Adult, Coffin, Fabric	29-Jul-13	KJI
10362	11-Jul-13	C	Block C- Adult, HR, Coffin, Clothing, Leather Belt, White Button	29-Jul-13	KJI

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10363	9-Jul-13	C	Block C- Adult, HR, Coffin, Fabric	29-Jul-13	KJI
10364	3-Jul-13	C	Block C- Adult, Glass, Coffin	29-Jul-13	KJI
10365	2-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10366	3-Jul-13	n/a	Pelvic Flot	29-Jul-13	KJI
10367	3-Jul-13	n/a	Pelvic Flot	29-Jul-13	KJI
10368	10-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10369	2-Jul-13	C	Block C- Adult, Coffin, Grave Shaft, Textiles	29-Jul-13	KJI
10370	5-Jul-13	C	Block C- Adult, HR, Coffin, Textile/Burial garb	29-Jul-13	KJI
10371	8-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10372	8-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	29-Jul-13	KJI
10373	19-Jul-13	n/a	Pelvic Flot for 10.364	29-Jul-13	KJI
10374	3-Jul-13	n/a	Pelvic Flot	29-Jul-13	KJI
10375	8-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	29-Jul-13	KJI
10376	9-Jul-13	C	Block C- Adult, Coffin, HR, No GG	29-Jul-13	KJI
10377	3-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10378	5-Jul-13	C	Block C- Adult, Commingled	30-Jul-13	KJI
10379	2-Jul-13	C	Block C- Adult, Coffin, HR, Buttons	30-Jul-13	KJI
10380	5-Jul-13	C	Block C- Adult, Coffin, HR, No GG	30-Jul-13	KJI
10381	5-Jul-13	C	Block C- Adult, HR, Coffin, Fabric	30-Jul-13	KJI
10382	12-Jul-13	C	Block C- Adult, Coffin, HR, No GG	30-Jul-13	KJI
10383	12-Jul-13	C	Block C- Adult, Coffin, Shaft, No Grave Goods	30-Jul-13	KJI
10384	9-Jul-13	n/a	Pelvic Flot for 10.386	30-Jul-13	KJI
10385	8-Jul-13	A	Area A- Juvenile/Infant, Possible cloth, few bones	30-Jul-13	KJI
10386	9-Jul-13	C	Block C- Disturbed by Backhoe, Adult, HR, Coffin, No GG	30-Jul-13	KJI
10387	10-Jul-13	C	Block C- Adult, Coffin, HR, No GG	30-Jul-13	KJI
10388	5-Jul-13	C	Block C- Disturbed By Backhoe, Adult, HR, Coffin, No GG	31-Jul-13	KJI
10389	8-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10390	n/a	n/a	Block B- Juvenile/Infant	30-Jul-13	KJI
10391	1-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10392	2-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10393	1-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10394	3-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10395	1-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10396	29-Jun-13	n/a	Pelvic Flot	30-Jul-13	KJI
10397	1-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10398	2-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10399	1-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10400	2-Jul-13	C	Block C- Adult (second individual)	30-Jul-13	KJI
10401	2-Jul-13	C	Block C- Adult (third individual)	30-Jul-13	KJI
10402	1-Jul-13	C	Block C- Adult HR, Second individual in Burial	30-Jul-13	KJI
10403	10-Jul-13	A	Block A- Juvenile, Grave Shaft, Coffin, HR, Grave Goods	30-Jul-13	KJI
10404	11-Jul-13	A	Block A- Juvenile, Coffin, 1 Safety Pin	30-Jul-13	KJI
10405	12-Jul-13	A	Block A- Infant, Coffin, Grave Shaft, 2 buttons, 1 copper pin	30-Jul-13	KJI

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10406	9-Jul-13	C	Block C- Adult, Coffin, HR, No GG	30-Jul-13	KJI
10407	9-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10408	9-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10409	5-Jul-13	C	Block C- Adult, Damaged Coffin, Disturbed, eye dropper, glass tube, broken clear glass	30-Jul-13	KJI
10410	8-Jul-13	C	Block C- Adult, Commingled Remains, Skull caps, vertabrae, Glass Bottles, shoe sole, wood spindle/whistle?, metal debris	30-Jul-13	KJI
10411	5-Jul-13	C	Block C- Adult, Disturbed, No Coffin, Grave Shaft, HR, No GG	30-Jul-13	KJI
10412	15-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10413	15-Jul-13	C	Blok C- Adult, Coffin, No GG	30-Jul-13	KJI
10414	15-Jul-13	C	Block C- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10415	9-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10416	9-Jul-13	n/a	Pelvic Flot for 10406	30-Jul-13	KJI
10417	9-Jul-13	n/a	Pelvic Flot for 10.308	30-Jul-13	KJI
10418	2-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10419	3-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10420	3-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10421	1-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10422	11-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10423	11-Jul-13	A	Block A- Adult, HR, Pieces of Ceramic (Grave Shaft)	30-Jul-13	KJI
10424	16-Jul-13	B	Block B- Juveile/Infant, 2 Safety Pins	30-Jul-13	KJI
10425	2-Jul-13	C	Block C- Adult (fourth Individual)	30-Jul-13	KJI
10426	2-Jul-13	n/a	Block C- Pelvic Flot	30-Jul-13	KJI
10427	n/a	n/a	VOID	n/a	n/a
10428	n/a	n/a	Block C- Pelvic Flot	n/a	n/a
10429	3-Jul-13	C	Block C- 2nd Individual	30-Jul-13	KJI
10430	3-Jul-13	C	Block C- Commingled; 2nd individual	30-Jul-13	KJI
10431	5-Jul-13	A	Block A- Infant, HR, Coffin, Fabric, Newsprint	30-Jul-13	KJI
10432	5-Jul-13	A	Block A- Infant, Coffin, No Grave Goods	30-Jul-13	KJI
10433	2-Jul-13	n/a	Pelvic Flot for 10.321	30-Jul-13	KJI
10434	5-Jul-13	n/a	Pelvic Flot for 10.388	30-Jul-13	KJI
10435	8-Jul-13	n/a	Pelvic Flot for 10.339	30-Jul-13	KJI
10436	9-Jul-13	n/a	Pelvic Flot for 10.301	30-Jul-13	KJI
10437	5-Jul-13	n/a	Pelvic Flot for 10.302	30-Jul-13	KJI
10438	8-Jul-13	n/a	Pelvic Flot for 10.327	30-Jul-13	KJI
10439	5-Jul-13	n/a	Pelvic Flot for 10.316	30-Jul-13	KJI
10440	9-Jul-13	n/a	Pelvic Flot for 10.407	30-Jul-13	KJI
10441	5-Jul-13	n/a	Pelvic Flot for 10.346	30-Jul-13	KJI
10442	8-Jul-13	A	Block A- Infant, Coffin, No Grave Goods	30-Jul-13	KJI
10443	8-Jul-13	n/a	Pelvic Flot for 10.302	30-Jul-13	KJI
10444	8-Jul-13	n/a	Block C- Pelvic Flot	30-Jul-13	KJI
10445	8-Jul-13	n/a	Block C- Pelvic Flot for 10.297	30-Jul-13	KJI
10446	8-Jul-13	n/a	Pelvic Flot for 10.375	30-Jul-13	KJI
10447	8-Jul-13	n/a	Pelvic Flot for 10.334	30-Jul-13	KJI

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10448	8-Jul-13	n/a	Pelvic Flot for 10.335	30-Jul-13	KJI
10449	9-Jul-13	n/a	Pelvic Flot for 10.332	30-Jul-13	KJI
10450	9-Jul-13	n/a	Pelvic Flot for 10.300	30-Jul-13	KJI
10451	9-Jul-13	C	Block C- 2nd Individual in 10.322	30-Jul-13	KJI
10452	9-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10453	10-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10454	10-Jul-13	n/a	Pelvic Flot- Adult	30-Jul-13	KJI
10455	10-Jul-13	n/a	Pelvic Flot- Adult	30-Jul-13	KJI
10456	10-Jul-13	n/a	Pelvic Flot- Adult	16-Sep-13	SAS
10457	7-Sep-13	C	Block C- Commingled, hands, feet and ribs	30-Jul-13	KJI
10458	10-Jul-13	n/a	Pelvic Flot	16-Sep-13	SAS
10459	12-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10460	12-Jul-13	C	Adult Area C in with 10.313	30-Jul-13	KJI
10461	10-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10462	12-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10463	11-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10464	12-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10465	11-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10466	12-Jul-13	C	Adult Area C (along Doyne Ave slope) , HR, Coffin, 2 boots, belt, blanket/fabric, 4 buttons, pocket knife	30-Jul-13	KJI
10467	11-Jul-13	C	Adult; Commingled with 10.348	30-Jul-13	KJI
10468	12-Jul-13	n/a	Pelvic Flot- Adult	30-Jul-13	KJI
10469	12-Jul-13	n/a	Pelvic Flot- Adult	30-Jul-13	KJI
10470	12-Jul-13	n/a	Pelvic Flot- Adult	30-Jul-13	KJI
10471	12-Jul-13	A	Area A- Adult; Commingled w/ 10.104	30-Jul-13	KJI
10472	12-Jul-13	n/a	Pelvic Flot for 10.471	30-Jul-13	KJI
10473	12-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10474	12-Jul-13	C	Commingled; Third Individual	30-Jul-13	KJI
10475	12-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10476	3-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10477	12-Jul-13	C	Block C- Adult HR; Second Individual	30-Jul-13	KJI
10478	12-Jul-13	n/a	Pelvic Flot; Adult	30-Jul-13	KJI
10479	12-Jul-13	A	Commingled; There is 1 individual and these com. Remains	30-Jul-13	KJI
10480	15-Jul-13	n/a	Second Individual	30-Jul-13	KJI
10481	12-Jul-13	n/a	Trench A- 2nd Infant	30-Jul-13	KJI
10482	12-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10483	12-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10484	12-Jul-13	A	Commingled; Third Individual Possible	30-Jul-13	KJI
10485	n/a	n/a	VOID	30-Jul-13	KJI
10486	15-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10487	15-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10488	13-Jul-13	B	Trench B- Infant, Coffin, Safety Pin	30-Jul-13	KJI
10489	15-Jul-13	B	Block B- Grave shaft, Infant, Coffin, No Grave Goods	30-Jul-13	KJI
10490	15-Jul-13	B	Block B- Grave shaft, Infant, Coffin, No Grave Goods	30-Jul-13	KJI

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10491	16-Jul-13	B	Block B- Grave shaft, Infant, Coffin, No Grave Goods	30-Jul-13	KJI
10492	16-Jul-13	B	Block B- Grave Shaft, Infant, 2 Safety Pins	30-Jul-13	KJI
10493	17-Jul-13	B	Block B- Grave Shaft, Infant, Coffin, Safety pin	30-Jul-13	KJI
10494	16-Jul-13	B	Block B- Grave Shaft, Infant, Coffin, Pin	30-Jul-13	KJI
10495	16-Jul-13	B	Block B- Grave Shaft, Base of coffin, No HR, Disturbed by backhoe, 1 Flot Sample Taken	30-Jul-13	KJI
10496	16-Jul-13	B	Block B- Grave Shaft, Infant, No Grave Goods, Coffin	30-Jul-13	KJI
10497	15-Jul-13	B	Block B- Grave shaft, Infant, Coffin, No Grave Goods	30-Jul-13	KJI
10498	15-Jul-13	B	Block B- Grave Shaft, Infant, Coffin Indeterminate, Pin	30-Jul-13	KJI
10499	16-Jul-13	B	Block B- Grave Shaft, Infant, Cofin, Possible glass in grave shaft	30-Jul-13	KJI
10500	15-Jul-13	B	Block B- Grave Shaft, Infant, Cloth, Coffin	30-Jul-13	KJI
10501	16-Jul-13	B	Block B- Grave Shaft, Infant, 1 ceramic sherd, coffin	30-Jul-13	KJI
10502	15-Jul-13	B	Block B- Grave shaft, Infant, Coffin, No Grave Goods	30-Jul-13	KJI
10503	16-Jul-13	B	Block B- Grave Shaft, Infant, Coffin, No Grave Goods	30-Jul-13	KJI
10504	17-Jul-13	B	Block B- Grave Shaft, Infant, Pins	30-Jul-13	KJI
10505	16-Jul-13	B	Block B- Grave Sahft, Infant, Coffin Indeterminate, Pins	30-Jul-13	KJI
10506	16-Jul-13	B	Block B- Grave Shaft, Infant, Coffin, Rubber diaper/blanket, pins	30-Jul-13	KJI
10507	16-Jul-13	B	Block B- Grave Shaft, Coffin, No Grave Goods, infant	30-Jul-13	KJI
10508	16-Jul-13	B	Block B- Grave Shaft, Coffin, Canine, No Grave Goods	30-Jul-13	KJI
10509	15-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10510	13-Jul-13	B	Block B- Juvenile/Infant, Coffin, Grave Shaft, No GG	30-Jul-13	KJI
10511	16-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10512	17-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10513	16-Jul-13	A	Block A- Juvenile/Infant; 2nd Individual, No grave goods	30-Jul-13	KJI
10514	15-Jul-13	n/a	Pelvic Flot	30-Jul-13	KJI
10515	17-Jul-13	A	Additional Individual in 10219, Block A, Adult	30-Jul-13	KJI
10516	17-Jul-13	A	Block A- Adult, Coffin, button, buckle, pin, textile w/ gromets	30-Jul-13	KJI
10517	23-Jul-13	A	Block A- Adult, Coffin, Medallion	30-Jul-13	KJI
10518	17-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10519	23-Jul-13	A	Block A- Adult, Buttons (4 horn, 1 shell)	30-Jul-13	KJI
10520	19-Jul-13	A	Block A- Adult, Grave Shaft, Coffin, Metal Pins, Cloth	30-Jul-13	KJI
10521	17-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10522	26-Jul-13	A	Block A- Adult, Coffin, HR, Dentures	30-Jul-13	KJI
10523	17-Jul-13	A	Block A- Adult, Grave Shaft, No Grave Goods	30-Jul-13	KJI
10524	19-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10525	18-Jul-13	A	Block A- Adult, Glass, Grave Goods, Pipe, Medical Waste	30-Jul-13	KJI
10526	1-Aug-13	A	Block A- Adult, Coffin, HR, Shroud/rubber sheet, Tire Iron, metal rake end, glass frag, odd "tube"	15-Sep-13	SAS
10527	19-Jul-13	A	Block A- Adult, Grave Shaft, Coffin, Button, Fabric	30-Jul-13	KJI
10528	17-Jul-13	A	Block A- Adult, Coffin, No Grave Shaft, No Grave Goods	30-Jul-13	KJI
10529	18-Jul-13	A	Block A- Adult, Coffin, Small blanket frag	30-Jul-13	KJI
10530	16-Jul-13	A	Block A- Infnat, Second Individual with 10.513	30-Jul-13	KJI
10531	17-Jul-13	B	Block B- Juvenile/Infant, Coffin, HR, No GG	30-Jul-13	KJI
10532	17-Jul-13	n/a	Pelvic Flot for 10.270	30-Jul-13	KJI

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10533	19-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10534	29-Jul-13	A	Block A- Adult, Coffin, 1 copper frag, 2 unidentified materials	30-Jul-13	KJI
10535	19-Jul-13	A	Block A- Adult, Co-mingled, Coffin, No GG	19-Jul-13	KJI
10536	29-Jul-13	A	Block A- Adult	30-Jul-13	KJI
10537	18-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10538	20-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10539	2-Aug-13	A	Block A- Adult, Coffin, Brown glass, glass tube, red rubber material, rusted metal rod, metal plates	15-Sep-13	SAS
10540	19-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	30-Jul-13	KJI
10541	5-Aug-13	A	Block A- Adult, Coffin, No Grave Goods	15-Sep-13	SAS
10542	19-Jul-13	A	Block A- Adult Coffin, No Grave Goods, Commingled	30-Jul-13	KJI
10543	16-Jul-13	B	Block B- Juvenile/Infant, Coffin, HR, No GG	30-Jul-13	KJI
10544	17-Jul-13	B	Block B- Juvenile/Infant, Coffin, HR, No GG	30-Jul-13	KJI
10545	18-Jul-13	A	Block A- Juvenile/Infant, Coffin, HR, Button	30-Jul-13	KJI
10546	18-Jul-13	B	Block B- Infant, Coffin indeterminate, Tack/Safety Pin	31-Jul-13	KJI
10547	17-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10548	17-Jul-13	A/C	Area A/C- Infant/Juvenile, Diaper pin, wood shavings/sock, form of bedding, shard of glass	31-Jul-13	KJI
10549	17-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10550	n/a	C	Block C- Adult, Previously Excavated in 1992, Flagging Tap and Spike	31-Jul-13	KJI
10551	17-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10552	18-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10553	17-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10554	20-Jul-13	A	Block A- Adult, Coffin, HR, No Grave Goods	31-Jul-13	KJI
10555	20-Jul-13	A	Block A- Asult, Coffin, 2 Safety pins	31-Jul-13	KJI
10556	19-Jul-13	A	Block A- Adult, Grave Shaft, Coffin, Pin	31-Jul-13	KJI
10557	19-Jul-13	A	Block A- Adult, Grave Shaft, Coffin, No Grave Goods	31-Jul-13	KJI
10558	26-Jul-13	A	Block A- Adult, Coffin, HR, No Grave Goods	31-Jul-13	KJI
10559	17-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10560	18-Jul-13	A	Block A- Adult, Coffin, HR, No Grave Goods	31-Jul-13	KJI
10561	20-Jul-13	A	Block A- Adult, Coffin, No Garve Goods	31-Jul-13	KJI
10562	20-Jul-13	A	Block A- Adult, Coffin, HR, No Grave Goods	31-Jul-13	KJI
10563	2-Aug-13	A	Block A- Adult, Coffin, Paper frags.	15-Sep-13	SAS
10564	19-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	31-Jul-13	KJI
10565	19-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	31-Jul-13	KJI
10566	17-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10567	18-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10568	10-Aug-13	A	Block A- Adult, Coffin, No Grave Goods	15-Sep-13	SAS
10569	12-Aug-13	A	Block A- Adult, Coffin, Complete glass bottle, glass tube, fabric, metal rod, hair, unknown organic	15-Sep-13	SAS
10570	12-Aug-13	A	Block A- Adult, Co-mingled	15-Sep-13	SAS
10571	20-Jul-13	A	Block A- Adult, Coffin, HR, Glass, Cork, Canvas Bag/Wrapping	31-Jul-13	KJI
10572	20-Jul-13	A	Block A- Adult, Coffin, Glass	31-Jul-13	KJI
10573	5-Aug-13	A	Block A- Adult, Coffin, Glass, Short blondish-red hair (Fox fur?)	15-Sep-13	SAS

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10574	20-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	31-Jul-13	KJI
10575	2-Aug-13	A	Block A- Adult, Coffin, No Grave Goods	15-Sep-13	SAS
10576	19-Jul-13	A	Block A- Adult, Coffin, No Grave Goods	31-Jul-13	KJI
10577	7-Aug-13	A	Block A- Adult	15-Sep-13	SAS
10578	19-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10579	18-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10580	19-Jul-13	A	Commingled Lot	31-Jul-13	KJI
10581	18-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10582	19-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10583	19-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10584	19-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10585	18-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10586	18-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10587	19-Jul-13	A	Seconf Individual	31-Jul-13	KJI
10588	23-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10589	Assigned in Lab 7/18 SAS	n/a	Pelvic Flot	31-Jul-13	KJI
10590	Assigned in Lab 7/18 SAS	n/a	Pelvic Flot	31-Jul-13	KJI
10591	Assigned in Lab 7/18 SAS	n/a	Pelvic Flot	31-Jul-13	KJI
10592	19-Jul-13	B	Block B- Infant/Juvenile	31-Jul-13	KJI
10593	20-Jul-13	B	Block B- Infant/Juvenile	31-Jul-13	KJI
10594	22-Jul-13	B	Block B- Infant/Juvenile, Disturbed by backhoe	31-Jul-13	KJI
10595	20-Jul-13	B	Block B- Infant/Juvenile, Coffin, No GG	31-Jul-13	KJI
10596	22-Jul-13	B	Block B- Infant/Juvenile, Coffin, No GG	31-Jul-13	KJI
10597	19-Jul-13	B	Block B- Infant/Juvenile, Coffin, No GG	31-Jul-13	KJI
10598	19-Jul-13	n/a	Pelvic Flot for 10.557	31-Jul-13	KJI
10599	19-Jul-13	n/a	Pelvic Flot for 10.372	31-Jul-13	KJI
10600	19-Jul-13	n/a	Pelvic Flot for 10.556	31-Jul-13	KJI
10601	19-Jul-13	n/a	Pelvic Flot for 10.540	31-Jul-13	KJI
10602	n/a	n/a	VOID	31-Jul-13	KJI
10603	19-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10604	20-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10605	19-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10606	20-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10607	20-Jul-13	A	Commingled; Second Individual Association w/ 10.571	31-Jul-13	KJI
10608	20-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10609	22-Jul-13	A	Second Individual	31-Jul-13	KJI
10610	22-Jul-13	n/a	Commingled Remains	31-Jul-13	KJI
10611	26-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10612	22-Jul-13	E	Block E- Infant/Juvenile (based on grave shaft outline) - disturbed, no coffin, No HR (previously excavated?)	31-Jul-13	KJI
10613	22-Jul-13	E	Block E- Infant/Juvenile (based on grave shaft outline) - disturbed, no coffin, No HR (previously excavated?)	31-Jul-13	KJI

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10614	22-Jul-13	E	Block E- infant/Juvenile, Coffin, 3 Safety pin heads	31-Jul-13	KJI
10615	22-Jul-13	E	Block E- Infant/Juvenile, Coffin, Buttons	31-Jul-13	KJI
10616	22-Jul-13	E	Block E- Infant/Juvenile, Coffin, No GG	31-Jul-13	KJI
10617	22-Jul-13	E	Block E- Infant/Juvenile (based on grave shaft outline) - disturbed, no coffin, No HR	31-Jul-13	KJI
10618	22-Jul-13	E	Block E- Infant/Juvenile, Coffin, Pins	31-Jul-13	KJI
10619	22-Jul-13	E	Block E- Infant/Juvenile (based on grave shaft outline) - disturbed, no coffin, No HR	31-Jul-13	KJI
10620	23-Jul-13	E	Block E- Adult	31-Jul-13	KJI
10621	23-Jul-13	E	Block E- Adult	31-Jul-13	KJI
10622	22-Jul-13	E	Block E- Adult, Coffin, Metal tube/plate	31-Jul-13	KJI
10623	23-Jul-13	E	Block E- Adult, Coffin, Metal plate	31-Jul-13	KJI
10624	23-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10625	22-Jul-13	E	Block E- Adult, Coffin, Buttons, Paper	31-Jul-13	KJI
10626	22-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10627	23-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10628	22-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10629	25-Jul-13	E	Block E- Adult, No Grave Goods, Coffin, Grave Shaft, (Hit by Backhoe)	31-Jul-13	KJI
10630	26-Jul-13	E	Block E- Adult, Coffin, No GG (Hit By Backhoe)	31-Jul-13	KJI
10631	22-Jul-13	E	Block E- Infant/Juvenile, Coffin, No GG	31-Jul-13	KJI
10632	25-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10633	23-Jul-13	E	Block E- Adult	31-Jul-13	KJI
10634	22-Jul-13	E	Block E- Infant/Juvenile (based on grave shaft outline) - disturbed, no coffin, No HR	31-Jul-13	KJI
10635	30-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10636	30-Jul-13	E	Block E- Adult (Hit by Backhoe), Coffin, No GG	31-Jul-13	KJI
10637	22-Jul-13	E	Block E- Infant/Juvenile- Disturbing by Water Line, Coffin, No HR, No GG	31-Jul-13	KJI
10638	22-Jul-13	E	Block E- Infant/Juvenile (based on grave shaft outline) - disturbed, no coffin, No HR	31-Jul-13	KJI
10639	23-Jul-13	E	Block E- Adult, Coffin, metal, Buttons	31-Jul-13	KJI
10640	22-Jul-13	E	Block E- Infant, Coffin, No GG	31-Jul-13	KJI
10641	23-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10642	23-Jul-13	E	Block E- Adult, Coffin, Glass	31-Jul-13	KJI
10643	23-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10644	22-Jul-13	E	Block E- Infant/Juvenile (based on grave shaft outline) - disturbed, no coffin, No HR	31-Jul-13	KJI
10645	23-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10646	23-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10647	23-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10648	23-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10649	22-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10650	24-Jul-13	E	Block E- Adult, Coffin, HR, No Grave Goods	31-Jul-13	KJI
10651	25-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10652	24-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10653	24-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10654	24-Jul-13	E	Block E- Adult, Grave Shaft, Coffin, No GG	31-Jul-13	KJI
10655	23-Jul-13	E	Block E- Adult, Coffin, Buttons, Glass, Fabric, Bandage (?)	31-Jul-13	KJI
10656	25-Jul-13	E	Block E- Adult, Coffin, Button	31-Jul-13	KJI
10657	26-Jul-13	E	Block E- Adult, Coffin, Safety pin, Button	31-Jul-13	KJI
10658	27-Jul-13	E	Block E- Adult, Coffin, HR, No Grave Goods	31-Jul-13	KJI
10659	26-Jul-13	E	Block E- Adult, Coffin, HrR, Grave Goods	31-Jul-13	KJI
10660	30-Jul-13	E	Block E- Adult, Coffin, Safety pin	31-Jul-13	KJI
10661	27-Jul-13	E	Block E- Adult, Coffin, Copper pin	31-Jul-13	KJI
10662	24-Jul-13	E	Block E- Adult, Coffin, Grave Shaft, Glass, Metal, Porcelin (Commingled)	31-Jul-13	KJI
10663	30-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10664	26-Jul-13	E	Block E- Adult, Coffin, Co-mingled, Bottles, glass pieces, Fabric, GE lightbulb - co-mingled	31-Jul-13	KJI
10665	24-Jul-13	E	Block E- Adult, Coffin, HR, Grave Goods	31-Jul-13	KJI
10666	25-Jul-13	E	Block E- Adult, Coffin, HR, Projectile Point in Coffin	31-Jul-13	KJI
10667	25-Jul-13	E	Block E- Adult, Flat Glass, Coffin, Grave Shaft	31-Jul-13	KJI
10668	27-Jul-13	E	Block E- Adult, Coffin, Shaft, No Grave Goods (Commingled)	31-Jul-13	KJI
10669	30-Jul-13	E	Block E- Adult, Coffin, Co-mingled	14-Sep-13	SAS
10670	30-Jul-13	E	Block E- Adult, Coffin, Small plastic “vile”	31-Jul-13	KJI
10671	30-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10672	30-Jul-13	E	Block E- Adult, Coffin, White Button, White rubber frag, Fabric frag	31-Jul-13	KJI
10673	31-Jul-13	E	Block E- Adult, Coffin, HR	31-Jul-13	KJI
10674	n/a	n/a	Block E- Adult: VOID	31-Jul-13	KJI
10675	23-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10676	24-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10677	23-Jul-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10678	24-Jul-13	E	Block E- Adult, Coffin, No GG, along water pipe trench	31-Jul-13	KJI
10679	n/a	n/a	Block E- Adult: VOID	31-Jul-13	KJI
10680	24-Jul-13	E	Block E- Adult, Coffin, Grave Shaft, Safety Pin	31-Jul-13	KJI
10681	27-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10682	24-Jul-13	E	Block E- Adult, Coffin, Shoes	31-Jul-13	KJI
10683	29-Jul-13	E	Block E- Adult, Coffin, Safety pin, newspaper	31-Jul-13	KJI
10684	25-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10685	26-Jul-13	E	Block E- Adult, Coffin, Pin, Unknown material	31-Jul-13	KJI
10686	26-Jul-13	E	Block E- Adult, Coffin, Paper?, metal-jewelry/wire	31-Jul-13	KJI
10687	27-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10688	30-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10689	30-Jul-13	E	Block E- Adult, Coffin, 3 Gold teeth	31-Jul-13	KJI
10690	27-Jul-13	E	Block E- Adult, Coffin, Grave Goods	31-Jul-13	KJI
10691	30-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10692	26-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10693	22-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10694	22-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10695	1-Aug-13	E	Block E- Adult, Coffin, Co-mingled, Glass pane and Bottle, Buttons, Ruber "O" ring	2-Aug-13	KJI
10696	1-Aug-13	E	Block E- Adult, Coffin, No GG	2-Aug-13	KJI
10697	1-Aug-13	E	Block E- Adult, Coffin, HR, Shell Buttons, Plastic Button	2-Aug-13	KJI
10698	31-Jul-13	E	Block E- Adult, Coffin, Whiteware vessel (rim sherd)	2-Aug-13	KJI
10699	31-Jul-13	E	Block E- Adult, Coffin, No GG	2-Aug-13	KJI
10700	23-Jul-13	E	Block E- Adult, Coffin, No GG	31-Jul-13	KJI
10701	23-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10702	1-Aug-13	E	Block E- Adult, Coffin, HR, No GG	2-Aug-13	KJI
10703	2-Aug-13	E	Block E- Adult, Coffin, HR, Grave Shaft, No GG	14-Sep-13	SAS
10704	2-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10705	31-Jul-13	E	Block E- Adult, Coffin, HR, Gold Leaf (possibly jewlery)	2-Aug-13	KJI
10706	1-Aug-13	E	Block E- Adult, Coffin, No GG	2-Aug-13	KJI
10707	2-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10708	6-Aug-13	E	Block E- Adult, Coffin, HR, No GG	14-Sep-13	SAS
10709	5-Aug-13	E	Block E- Adult, Coffin, medal, pillow	14-Sep-13	SAS
10710	2-Aug-13	E	Block E- Adult, Coffin, HR, Grave Shaft, No GG	14-Sep-13	SAS
10711	5-Aug-13	E	Block E- Adult, Coffin, HR, No GG	14-Sep-13	SAS
10712	5-Aug-13	E	Block E- Adult, Coffin, HR, No GG	14-Sep-13	SAS
10713	1-Aug-13	E	Block E- Adult, heavily impacted by backhoe, partial coffin, hand and 2 rib fragments recovered	14-Sep-13	SAS
10714	1-Aug-13	E	Block E- Adult, Coffin, Fabric/Bandage	2-Aug-13	KJI
10715	8-Aug-13	E	Block E- Adult, Coffin, Fabric, Pencil	14-Sep-13	SAS
10716	23-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10717	23-Jul-13	A	Block A- Infant, Coffin, Safety pins, Buttons	31-Jul-13	KJI
10718	23-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10719	31-Jul-13	E	Block E- Adult, Coffin, No GG	2-Aug-13	KJI
10720	1-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10721	5-Aug-13	E	Block E- Adult, Coffin, Shell buttons	14-Sep-13	SAS
10722	23-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10723	7-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10724	23-Jul-13	A	Block A- Adult, Second Individual	14-Sep-13	SAS
10725	24-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10726	24-Jul-13	A	Area A- infant, Coffin, Grave Shaft	31-Jul-13	KJI
10727	24-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10728	24-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10729	24-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10730	8-Aug-13	E	Block E- Adult, Coffin, Buttons, Gloves (?), Copper Wire, Glass, Red elastic, Peanut shelss	14-Sep-13	SAS
10731	7-Aug-13	E	Block E- Adult, coffin, HR, no grave goods	14-Sep-13	SAS
10732	10-Aug-13	E	Block E- Adult, Coffin, No GG, Co-mingled	14-Sep-13	SAS
10733	6-Aug-13	E	Block E- Adult, adult, coffin, HR, milk glass, unknown fiber, poly material	14-Sep-13	SAS
10734	6-Aug-13	E	Block E- Adult, coffin, HR, glass	14-Sep-13	SAS
10735	2-Aug-13	E	Block E- Adult, coffin, shaft, no grave goods	14-Sep-13	SAS

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10736	6-Aug-13	E	Block E- Adult, Coffin, Pencil, 2 Pipes, Clothing (One box of Grave Goods)	14-Sep-13	SAS
10737	5-Aug-13	E	Block E- Adult, Coffin, HR	14-Sep-13	SAS
10738	7-Aug-13	E	Block E- Adult, Coffin, Gold ring, White button	14-Sep-13	SAS
10739	8-Aug-13	E	Block E- Juvenile, Coffin, Fabric, Clothing Fastner, White Buttons (One box of Grave Goods)	14-Sep-13	SAS
10740	1-Aug-13	E	Block E- Adult, Coffin, Shroud Frag., Wood Shavings	2-Aug-13	KJI
10741	7-Aug-13	E	Block E- Adult, coffin, HR, pieces of fabric	14-Sep-13	SAS
10742	5-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10743	6-Aug-13	E	Block E- Adult, coffin, HR, copper metal frag.	14-Sep-13	SAS
10744	5-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10745	8-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10746	7-Aug-13	E	Block E- Adult, Coffin, Vest, Fabric, Buttons, Glass, Ceramic, Leather Strap	14-Sep-13	SAS
10747	9-Aug-13	E	Block E- Adult, Coffin, Tubing	14-Sep-13	SAS
10748	5-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10749	8-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10750	1-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10751	2-Aug-13	E	Block E- Adult, Coffin, Safety Pin, glass, fabric	14-Sep-13	SAS
10752	6-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10753	12-Aug-13	E	Block E- Adult, Coffin, Leather Strap	14-Sep-13	SAS
10754	9-Aug-13	E	Block E- Adult, Coffin, Textile, Slag	14-Sep-13	SAS
10755	9-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10756	7-Aug-13	E	Block E- Adult, Coffin, HR, No GG	14-Sep-13	SAS
10757	5-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10758	8-Aug-13	E	Block E- Adult, Coffin, Finger ring	14-Sep-13	SAS
10759	12-Aug-13	E	Block E- Adult (paperwork not in binder)	14-Sep-13	SAS
10760	7-Aug-13	E	Block E- Adult, coffin, HR, textile fabric	14-Sep-13	SAS
10761	14-Aug-13	E	Block E- Adult, Coffin, HR, No GG	14-Sep-13	SAS
10762	13-Aug-13	E	Block E- Adult, Coffin, Gold ring, Buttons	14-Sep-13	SAS
10763	9-Aug-13	E	Block E- Adult, coffin, co-mingled, fabric, ceramic, glass, medical bottles, metal, stone	14-Sep-13	SAS
10764	13-Aug-13	E	Block E- Adult, Coffin, HR, No GG	14-Sep-13	SAS
10765	8-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10766	6-Aug-13	E	Block E- Adult, coffin, HR, no grave goods	14-Sep-13	SAS
10767	12-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10768	13-Aug-13	E	Block E- Adult, Coffin, No GG	14-Sep-13	SAS
10769	6-Aug-13	E	Block E- Adult, Coffin, Shoe leather	14-Sep-13	SAS
10770	8-Aug-13	E	Block E- Adult, Coffin, Glass (loose fill), Safety pin/Brace (?)	14-Sep-13	SAS
10771	7-Aug-13	E	Block E- Adult, Coffin, HR, No GG	14-Sep-13	SAS
10772	13-Aug-13	E	Block E- Adult, Coffin, No GG, (Disturbed by Backhoe)	13-Sep-13	SAS
10773	14-Aug-13	E	Block E- Adult, Coffin, Metal leg garter	13-Sep-13	SAS
10774	13-Aug-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS
10775	14-Aug-13	E	Block E- Adult, Coffin, HR, No GG	13-Sep-13	SAS
10776	5-Sep-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10777	9-Aug-13	E	Block E- Adult, coffin, HR, shell buttons	13-Sep-13	SAS
10778	7-Aug-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS
10779	9-Aug-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS
10780	8-Aug-13	E	Block E- Adult, Coffin, Button	13-Sep-13	SAS
10781	8-Aug-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS
10782	3-Sep-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS
10783	9-Aug-13	E	Block E- Adult, coffin, shaft, no grave goods	13-Sep-13	SAS
10784	13-Aug-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS
10785	12-Aug-13	E	Block E- Adult, coffin, HR, glass sherd, 2 gold hooks	13-Sep-13	SAS
10786	9-Aug-13	E	Block E- Adult, coffin, HR, no grave goods	13-Sep-13	SAS
10787	13-Aug-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS
10788	n/a	n/a	VOID: Accidentally assigned to Lot #10794 when opening Area F	13-Sep-13	SAS
10789	7-Aug-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS
10790	12-Aug-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS
10791	7-Aug-13	E	Block E- Adult	13-Sep-13	SAS
10792	7-Aug-13	E	Block E - Adult, Coffin, HR, No GG	13-Sep-13	SAS
10793	9-Aug-13	E	Block E- Adult, coffin, HR, button	13-Sep-13	SAS
10794	12-Aug-13	E	Block E- Adult, Coffin, No GG	13-Sep-13	SAS
10795	8-Aug-13	E	Block E- Adult	13-Sep-13	SAS
10796	24-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10797	25-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10798	25-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10799	25-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10800	24-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10801	25-Jul-13	n/a	Pelvic Flot	31-Jul-13	KJI
10802	n/a	n/a	Block E - Adult: VOID	n/a	n/a
10803	14-Aug-13	E	Block E - Adult, Coffin, HR, 3 buttons (2 wood, 1 shell), whiteware, glass	13-Sep-13	SAS
10804	14-Aug-13	E	Block E - Adult, coffin, metal clasp, black textile, metal button, glass (from grave shaft)	13-Sep-13	SAS
10805	13-Aug-13	E	Block E - Adult, Coffin, No GG	13-Sep-13	SAS
10806	14-Aug-13	E	Block E - Adult, Coffin, HR, Gold ring w/ green mineral setting, several pieces of copper pin	13-Sep-13	SAS
10807	10-Aug-13	E	Block E, Adult, coffin, HR, piece of white ware	2-Aug-13	KJI
10808	14-Aug-13	E	Block E - Adult, no coffin, HR, Boot heels (Frag)	13-Sep-13	SAS
10809	13-Aug-13	E	Block E - Adult, Coffin, Commingled remains, bottles, glass and pipe frags	13-Sep-13	SAS
10810	14-Aug-13	E	Block E - Adult, Coffin-no wood remains, HR, brown glass, dentures, 1 ring, button	13-Sep-13	SAS
10811	13-Aug-13	E	Block E - Adult, Coffin, glass, plastic	13-Sep-13	SAS
10812	14-Aug-13	E	Block E - Adult, Coffin, commingled HR, glass bottle and frags, metal, buttons, leather gromets, safety pin	13-Sep-13	SAS
10813	7-Aug-13	E	Block E - Adult, Coffin, Button	2-Aug-13	KJI
10814	14-Aug-13	E	Block E - Adult, Coffin, HR, No GG	13-Sep-13	SAS
10815	13-Aug-13	E	Block E - Adult, Coffin, No GG	13-Sep-13	SAS
10816	14-Aug-13	E	Block E - Adult, Coffin, HR, No GG	13-Sep-13	SAS

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10817	12-Aug-13	E	Block E - Adult, Coffin, No GG	13-Sep-13	SAS
10818	14-Aug-13	E	Block E - Adult, Coffin, No GG	2-Aug-13	KJI
10819	10-Aug-13	E	Block E - Adult, Coffin, HR, Copper Safety Pin, Two glass shards	2-Aug-13	KJI
10820	13-Aug-13	E	Block E - Adult, Coffin, Crucifix, Tweezers (?)	2-Aug-13	KJI
10821	10-Aug-13	E	Block E - Adult, Coffin, HR, No GG	2-Aug-13	KJI
10822	15-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10823	25-Jul-13	A	Block A- 2nd Individual in 10.092, Grave Shaft, Coffin, No Grave Goods	2-Aug-13	KJI
10824	25-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10825	25-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10826	25-Jul-13	n/a	Commingled Remains	2-Aug-13	KJI
10827	26-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10828	26-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10829	26-Jul-13	E	Block E- Second Individual	2-Aug-13	KJI
10830	25-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10831	26-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10832	26-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10833	26-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10834	n/a	n/a	VOID	2-Aug-13	KJI
10835	26-Jul-13	E	Adult; 3rd Individual	2-Aug-13	KJI
10836	27-Jul-13	n/a	Commingled Remains	2-Aug-13	KJI
10837	27-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10838	27-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10839	27-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10840	29-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10841	29-Jul-13	A	Second Individual	2-Aug-13	KJI
10842	29-Jul-13	n/a	Commingled	2-Aug-13	KJI
10843	29-Jul-13	E	Second Individual	2-Aug-13	KJI
10844	29-Jul-13	n/a	Commingled	2-Aug-13	KJI
10845	27-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10846	27-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10847	27-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10848	29-Jul-13	E	Third Individual	2-Aug-13	KJI
10849	30-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10850	30-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10851	30-Jul-13	E	Second Individual	2-Aug-13	KJI
10852	30-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10853	30-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10854	30-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10855	30-Jul-13	E	Second Individual	2-Aug-13	KJI
10856	30-Jul-13	n/a	Commingled	2-Aug-13	KJI
10857	30-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10858	30-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10859	30-Jul-13	n/a	Commingled	2-Aug-13	KJI

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10860	30-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10861	30-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10862	31-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10863	31-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10864	31-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10865	1-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10866	1-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10867	1-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10868	1-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10869	1-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10870	31-Jul-13	n/a	Pelvic Flot	2-Aug-13	KJI
10871	2-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10872	1-Aug-13	n/a	Commingled	2-Aug-13	KJI
10873	1-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10874	2-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10875	1-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10876	2-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10877	1-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10878	2-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10879	5-Aug-13	n/a	Pelvic Flot	2-Aug-13	KJI
10880	2-Aug-13	E	Block E- Adult Along water Line: mostly truncated by 1980s trench	13-Sep-13	SAS
10881	2-Aug-13	E	2nd individual - sub adult	14-Aug-13	JLM
10882	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10883	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10884	2-Aug-13	n/a	Commingled Remains	14-Aug-13	JLM
10885	2-Aug-13	E	2nd Adult Burial	14-Aug-13	JLM
10886	2-Aug-13	n/a	Commingled Remains	14-Aug-13	JLM
10887	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10888	2-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10889	6-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10890	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10891	2-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10892	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10893	2-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10894	2-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10895	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10896	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10897	6-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10898	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10899	20-Jul-13	n/a	Pelvic Flot	14-Aug-13	JLM
10900	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10901	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10902	6-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10903	6-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10904	5-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10905	6-Aug-13	n/a	Commingled Remains	14-Aug-13	JLM
10906	7-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10907	7-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10908	6-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10909	6-Aug-13	n/a	Second Individual	14-Aug-13	JLM
10910	6-Aug-13	n/a	Commingled Remains	14-Aug-13	JLM
10911	7-Aug-13	n/a	PelvicFlot	14-Aug-13	JLM
10912	7-Aug-13	E	Adult Area E w/10731: 2nd Individual	14-Aug-13	JLM
10913	7-Aug-13	n/a	Co-mingled	14-Aug-13	JLM
10914	7-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10915	7-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10916	7-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10917	8-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10918	8-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10919	8-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10920	8-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10921	7-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10922	8-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10923	8-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10924	8-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10925	8-Aug-13	n/a	Commingled Remains	14-Aug-13	JLM
10926	9-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10927	9-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10928	8-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10929	9-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10930	9-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10931	9-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10932	9-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10933	9-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10934	12-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10935	10-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10936	9-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10937	9-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10938	10-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10939	9-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10940	12-Aug-13	E	Block E Adult, Coffin, HR, Shroud/bandage frag., 4 white, rubber tube	14-Aug-13	JLM
10941	12-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10942	12-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10943	13-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10944	12-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10945	13-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10946	12-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10947	13-Aug-03	n/a	Pelvic Flot	14-Aug-13	JLM
10948	13-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10949	13-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10950	13-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10951	14-Aug-13	n/a	Pelvic Flot	14-Aug-13	JLM
10952	14-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10953	13-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10954	13-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10955	13-Aug-13	n/a	Commingled	12-Sep-13	SAS
10956	13-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10957	14-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10958	14-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10959	14-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10960	14-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10961	14-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10962	14-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10963	14-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10964	14-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10965	14-Aug-13	n/a	Pelvic Flot	12-Sep-13	SAS
10966	15-Aug-13	E	Block E - Adult, water pipe trench, N1/4 of Coffin, Left HR elements present	12-Sep-13	SAS
10967	30-Aug-13	F	Block F - under plywood (relocate), Coffin indeterminate, upper dentures, glass, nails (some very tiny)	12-Sep-13	SAS
10968	6-Sep-13	C	Block C - two south of 10380, Adult, Coffin, No GG	12-Sep-13	SAS
10969	28-Aug-13	F	Block F - Very NW burial, Juvenile, Buttons, Copper clasp/fastner	12-Sep-13	SAS
10970	3-Sep-13	F	Block F - Adult, Coffin, Glass, Wooden object	12-Sep-13	SAS
10971	4-Sep-13	F	Block F - Adult, Coffin, Commingled, many grave goods,	12-Sep-13	SAS
10972	5-Sep-13	F	Block F - Adult, Coffin, Safety Pin	12-Sep-13	SAS
10973	6-Sep-13	F	Block F - Adult, HR, Coffin, Glass, Buttons, Safety pin	12-Sep-13	SAS
10974	5-Sep-13	F	Block F - Adult, Coffin, No GG	12-Sep-13	SAS
10975	5-Sep-13	F	Block F - Adult, Coffin, No GG	13-Sep-13	SAS
10976	6-Sep-13	F	Block F - Adult, Coffin, Many Grave Goods	13-Sep-13	SAS
10977	4-Sep-13	F	Block F - Adult, Coffin, No GG	13-Sep-13	SAS
10978	29-Aug-13	F	Block F - Adult, Coffin (deteriorated), No GG	13-Sep-13	SAS
10979	30-Aug-13	F	Block F - Adult: NO BURIAL	13-Sep-13	SAS
10980	30-Aug-13	F	Block F - Adult	13-Sep-13	SAS
10981	30-Aug-13	F	Block F - Adult	13-Sep-13	SAS
10982	30-Aug-13	F	Block F - Adult (one box of grave goods)	13-Sep-13	SAS
10983	3-Sep-13	F	Block F - Adult, Coffin, metal chain, glassware	13-Sep-13	SAS
10984	30-Aug-13	F	Block F - Adult, Coffin shadow, No GG	13-Sep-13	SAS
10985	3-Sep-13	F	Block F - Adult	13-Sep-13	SAS
10986	28-Aug-13	F	Block F - Grave Shaft outline observed along the water pipe trench but became mottled and amorphous during excavation, no coffin	13-Sep-13	SAS
10987	4-Sep-13	F	Block F - Adult	13-Sep-13	SAS

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
10988	29-Aug-13	n/a	Pelvic Flot	13-Sep-13	SAS
10989	30-Aug-13	n/a	Pelvic Flot	13-Sep-13	SAS
10990	30-Aug-13	n/a	Pelvic Flot	13-Sep-13	SAS
10991	3-Sep-13	n/a	Pelvic Flot	13-Sep-13	SAS
10992	3-Sep-13	n/a	Pelvic Flot	13-Sep-13	SAS
10993	3-Sep-13	n/a	Pelvic Flot	13-Sep-13	SAS
10994	n/a	n/a	Pelvic Flot	13-Sep-13	SAS
10995	4-Sep-13	n/a	Pelvic Flot	13-Sep-13	SAS
10996	4-Sep-13	F	2nd individual - fetal remains in jar, recorded in paperwork for lot # 10971	13-Sep-13	SAS
10997	5-Sep-13	n/a	Pelvic Flot	13-Sep-13	SAS
10998	5-Sep-13	n/a	Pelvic Flot	13-Sep-13	SAS
10999	5-Sep-13	n/a	Pelvic Flot	13-Sep-13	SAS
11000	5-Sep-13	n/a	Pelvic Flot	13-Sep-13	SAS
11001	6-Sep-13	C	Area C - Adult, Previously excavated as 10381: VOID	12-Sep-13	SAS
11002	6-Sep-13	C	Area C - Adult, Coffin Wood, No HR, Previously excavated as 10380: VOID	12-Sep-13	SAS
11003	6-Sep-13	C	Area C -Adult, coffin, glass, cut wood	12-Sep-13	SAS
11004	6-Sep-13	n/a	Pelvic Flot	12-Sep-13	SAS
11005	6-Sep-13	n/a	Pelvic Flot	12-Sep-13	SAS
11006	6-Sep-13	n/a	Pelvic Flot	12-Sep-13	SAS
11007	9-Jul-13	n/a	Pelvic Flot, flot sample had same lot # as burial lot #	19-Sep-13	SAS
11008	17-Jul-14	n/a	Second individual - fetal 16 wks	18-Jun-15	CRJ
11009	18-Jul-14	B	Block B Second individual - fetal remains	18-Jun-15	CRJ
11010	18-Jul-14	B	Block B Commingled remains	18-Jun-15	CRJ
11011	18-Jul-14	B	Block B fetal remains identified during analysis	18-Jun-15	CRJ
11012	18-Jul-14	B	Block B fetal remains identified during analysis	18-Jun-15	CRJ
11013	18-Jul-14	B	Block B fetal remains	18-Jun-15	CRJ
11014	18-Jul-14	B	Block B fetal remains	18-Jun-15	CRJ
11015	30-Jul-14	n/a	Associated w/10096 2nd individual	18-Jun-15	CRJ
11016	4-Aug-14	B	Block B fetal 2nd individual	18-Jun-15	CRJ
11017	4-Aug-14	B	Block B fetal 3rd individual	18-Jun-15	CRJ
11018	5-Aug-14	A	Block A Commingled bone associated w/10296, 10402	18-Jun-15	CRJ
11019	5-Aug-14	B	Block B fetal remains assoc w/Infant	18-Jun-15	CRJ
11020	7-Aug-14	B	Block B second neonate	18-Jun-15	CRJ
11021	13-Aug-14	C	Block C commingled remains	18-Jun-15	CRJ
11022	14-Aug-14	C	Block C 2nd Individual	18-Jun-15	CRJ
11023	14-Aug-14	C	Block C Assoc commingled remains	18-Jun-15	CRJ
11024	15-Aug-14	C	Block C 2nd Individual	18-Jun-15	CRJ
11025	18-Aug-14	B	Block B commingled bones	18-Jun-15	CRJ
11026	19-Aug-14	C	Block C commingled bones	18-Jun-15	CRJ
11027	19-Aug-14	B	Block B commingled remains	18-Jun-15	CRJ
11028	21-Aug-14	n/a	2nd infant in jar	18-Jun-15	CRJ
11029	22-Aug-14	A	2nd infant to 1-545, Block A infant	18-Jun-15	CRJ

Lot #	Date Completed (ex 1 Jan 13)	Area	Comments	Date Entered in Excel	Recorder Init
11030	27-Aug-14	B	2nd individual to 10593, Block B infant coffin, copper pin, & frags	18-Jun-15	CRJ
11031	29-Aug-14	E	Commingled remains, block E	18-Jun-15	CRJ
11032	2-Sep-14	F	Block F commingled remains	18-Jun-15	CRJ
11033	2-Sep-14	E	2nd individual Block E	18-Jun-15	CRJ
11034	4-Sep-14	F	2nd individual, block F	18-Jun-15	CRJ
11035	4-Sep-14	F	Commingled remains, block F	18-Jun-15	CRJ
11036	9-Sep-14	E	2nd individual block E	18-Jun-15	CRJ
11037	9-Sep-14	E	Commingled remains, block E	18-Jun-15	CRJ
11038	12-Sep-14	E	3rd individual, block E	18-Jun-15	CRJ
11039	19-Sep-14	E	2nd Individual, block E	18-Jun-15	CRJ
11040	19-Sep-14	E	Commingled remains, block E	18-Jun-15	CRJ
11041	23-Sep-14	E	Commingled remains, block E	18-Jun-15	CRJ
11042	25-Sep-14	E	2nd individual, block E	18-Jun-15	CRJ
11043	25-Sep-14	E	Commingled remains, block E	18-Jun-15	CRJ
11044	7-Oct-14	E	2nd individual block E	18-Jun-15	CRJ
11045	9-Oct-14	E	Commingled remians block E	18-Jun-15	CRJ
11046	14-Oct-14	C	Commingled remains, block C	18-Jun-15	CRJ
11047	22-Oct-14	A	Commingled remains, block A	18-Jun-15	CRJ
11048	29-Oct-14	A	2nd individual block A	18-Jun-15	CRJ
11049	29-Oct-14	A	Commingled remains block A	18-Jun-15	CRJ
11050	18-Nov-14	A	2nd individual block A	18-Jun-15	CRJ
11051	18-Nov-14	A	Commingled remains block A	18-Jun-15	CRJ
11052	25-Nov-14	A	Commingled remains	18-Jun-15	CRJ
11053	3-Dec-14	A	Block A Adult commingled remaisn	18-Jun-15	CRJ
11054	3-Dec-14	E	Block E Adult commingled remaisn	18-Jun-15	CRJ
11055	4/10/2015	C	Infant left femur	18-Jun-15	CRJ

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APPENDIX B: EXAMPLE FORMS

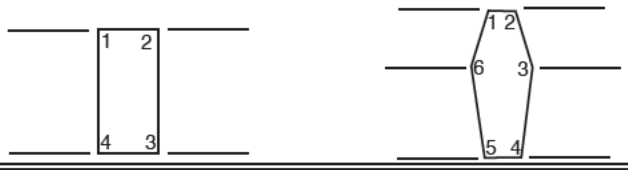
PART 1: BURIAL EXCAVATION FORMS

Lot No.2013-001. _____ **MCIG BURIAL EXCAVATION RECORD** Date _____
HRMS Project# 2013-001

Recorder _____

Grid locus you measured from: N _____ E _____

Elevations at Top of Coffin



Photos

Camera	DSC#

Burial Type

Extended ____
D sturbed ____
Other ____

Coffin shape (circle one) 4 6 Other ____ Indeterm n e No off n

Coffin Dimensions

Max. Length (n) _____ rect n_____
Max. W dth (n) _____ D ect on_____

Burial Type

Pos t on _____
ead o: _____ (D ection)

G ave Type

Su ace _____
Coff n _____
Other _____

Burial Pit Dimensions

Max. Length (n) _____ D rect on_____
Max. W dth (n) _____ D rect on_____

More than one individual?

YES ☐ NO ☐

Assoc ated Lot#s _____

_____

Gra Goods Present? ☐ YES ☐ NO

List Grave Goods

_____
_____
_____
_____
_____
_____

Preser ation

Poor ____ Fa r ____ Good ____

Completeness _____ %

Sex

M ____ F ____ Ind ____

Age

Infant ____
Juven e ____
Adu t ____
Unknown ____

Comments (Obv ous patho og es, d sart cu at ons, m ss ng e ements, d sturbances, etc

_____
_____
_____
_____
_____
_____
_____

Additional comments on page 2? ☐ YES ☐ NO

Lot No.2013-001. _____

MCIG BURIAL EXCAVATION RECORD
HRMS Project# 2013-001
— Page 2 —

Total # of boxes (adult or juvenile) _____

# of juvenile flot bags _____

Pelvic Flotation

Lot# 2013-001. _____

# of Bags _____

SEDIMENT DESCRIPTION

Compare the soil within the coffin to the grave shaft fill

	Coffin Fill	Grave Shaft Fill
Munsell Color		
Soil Texture		

Describe context and disturbances:

Additional Comments:

	Photos Taken		Datums Mapped		Plan Drawn		Excavated	
	nitials	Date	nitials	Date	nitials	Date	nitials	Date
Excavator	____	_____	____	_____	____	_____	____	_____
Supervisor	____	_____	____	_____	____	_____	____	_____

Supervisor Signature _____

Lot Book Check ☐

Lot No.2013-001. _____

MCIG BURIAL EXCAVATION RECORD — Page 3 —
HRMS Project# 2013-001

1 ft.
0 3 6 12 n.

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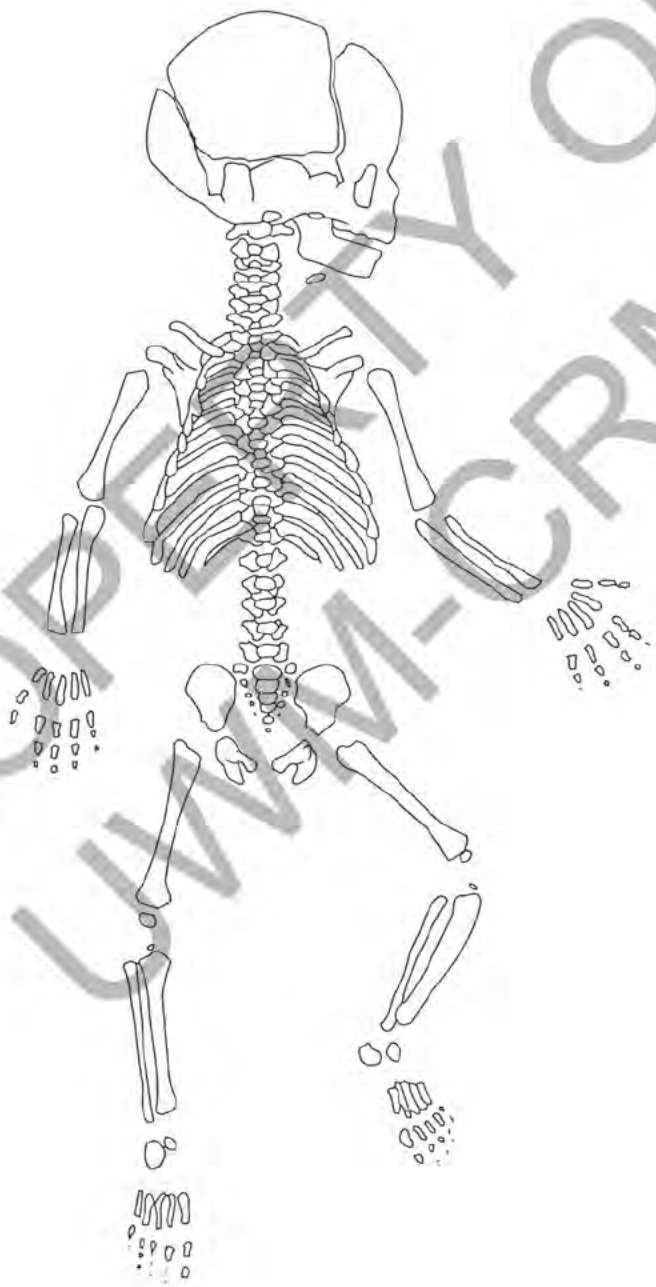
Lot No. 2013.001-_____

MCIG BURIAL EXCAVATION RECORD
HRMS Project 2013.001
- Page 4 –

Infant Skeleton Recording Form

Darken elements present



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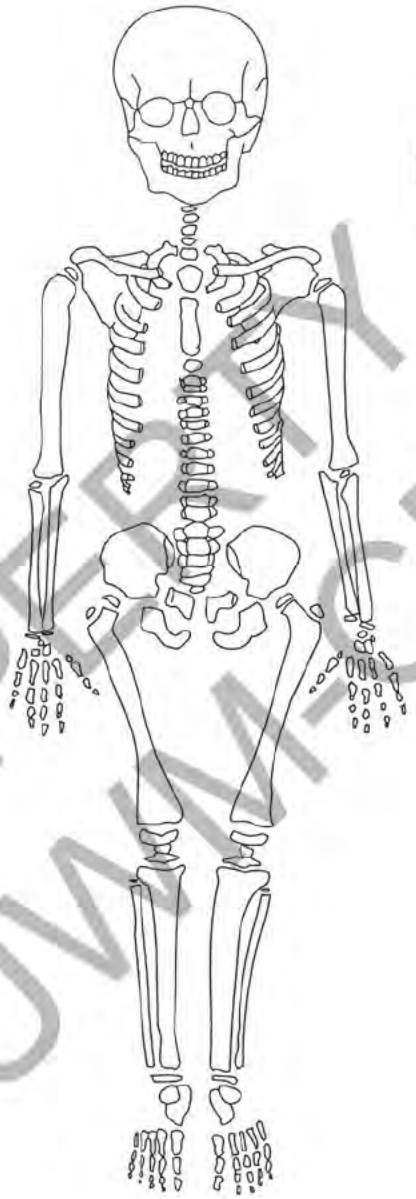
Lot No. 2013.001-_____

Juvenile Skeleton Recording Form

MCIG BURIAL EXCAVATION RECORD
HRMS Project 2013.001
- Page 4 –

Darken elements present



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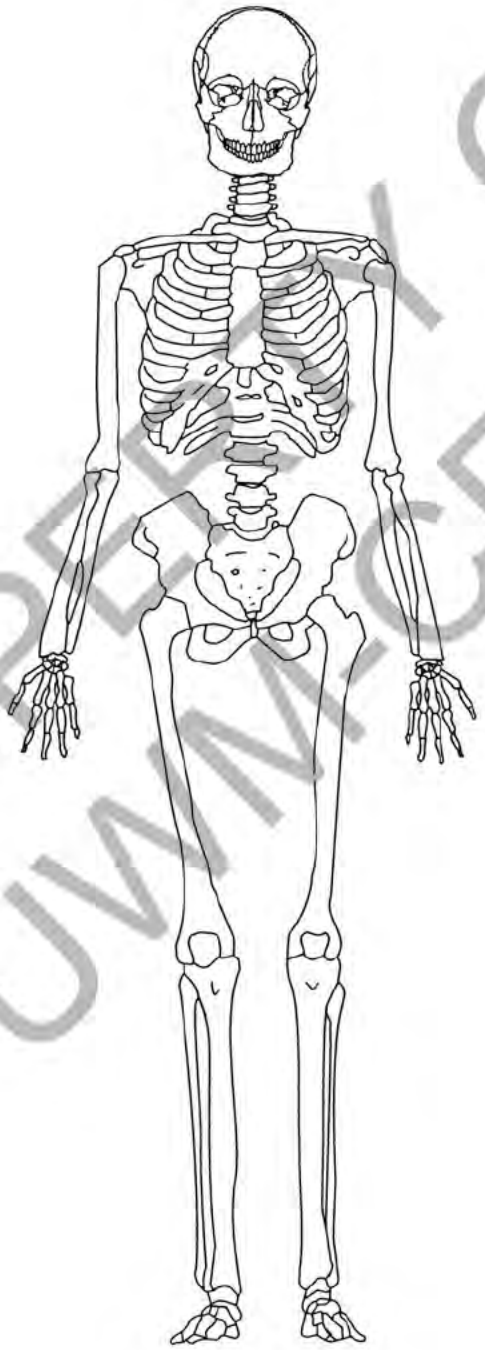
Lot No. 2013.001-_____

MCIG BURIAL EXCAVATION RECORD
HRMS Project 2013.001
- Page 4 –

Adult Skeleton Recording Form

Darken elements present



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PART 2: ADULT INVENTORY AND ANALYSIS FORMS

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Adult Burial Inventory Record – UWM Milwaukee County Institution Grounds (MCIG) Poor Farm Cemetery 47BMI0076/Collection Location: UWM-ARL & Curatorial Facility	**Lot No.** 2013.001- _____ **Assoc. Lot #s:**_____ (do not include pelvic flot lot #s)

Completed By:_____ **Date Started:**_____ **Date Completed:**_____

QUANTITATIVE INVENTORY

RE quantities: If any portion of an element is present, indicate "1" in the quantity field. If fragments of that element or element group also exist, tally the number and record it following the element or element group number. Example: One left humerus and five fragments thereof: 1 (+5 frags). Example: r ght arm and 15 fragments: 3 (+15 frags). Cross-mending specimens, a.k.a. refits, count as 1.

CRANIAL

ELEMENT	Max #	QUANTITY
Skull	1	
Mandible	1	
Hyoid	1	

Comments: _____

POST-CRANIAL, APPENDICULAR

ELEMENT	Max #	QUANTITY
Right Arm	3	
Left Arm	3	
Right Hand	27	
Left Hand	27	
Mixed Hands	54	
Right Leg*	4	
Left Leg*	4	
Right Foot	26	
Left Foot	26	
Mixed Feet	52	

*includes patella

Comments _____

_____

MISC. ELEMEN S

Misc llaneous elements are those that xceed the ex ected number for a sing1 adult burial. Ex: 2 left 1 s; record one group above a d only one below (see xample in table).

Misc. Elements	Quantity
Ex. 1 left leg	4

MISC. FRAGMENTS

Miscellaneous fragments are those that you are unable to identify as representing any particular element. Misc. Fragments: _____

DENTITION

ELEMENT	QUANTITY		
	Normal	Denture	Gold
Maxillary T eth			
Mandibular eeth			
Loose			

PELVIS

ELEMENT	Max #	QUANTITY
Left Innominate	1	
Right Innominate	1	
Sacrum	1	

Comments: _____

_____

TORSO

ELEMENT	Max #	QUANTITY
Righ Clavicle	1	
Left Cla icle	1	
Right Scapula	1	
Left S pula	1	
V rtebrae	24	
Ribs	24	
Sternum	1	

Comments: _____

_____

NISP

(Number of Identified Specimens)

Sum the element quantities, fragments, teeth, and misc. fragments.

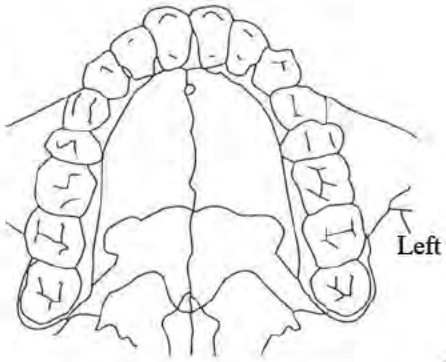
CAUTION: When calculating the NISP, do not double count specimens. If elements exist beyond those expected from a single individual, count those *only* in the Misc. Elements section and *not* in the NISP.

NISP: ____

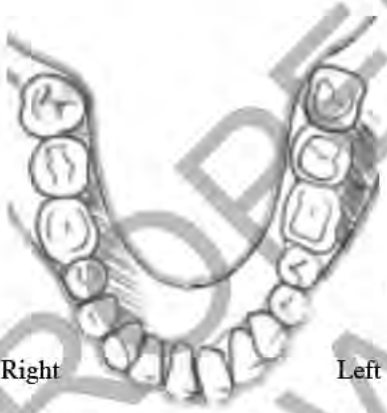
LS:ResearchGroups:Archaeology:MCIG:2013-001:MCIG Staff:2013-001_HRAnalysis:Adults_Single:docx_forms:AdultInventoryForm_23June15.docx

ILLUSTRATED SKELETAL INVENTORY

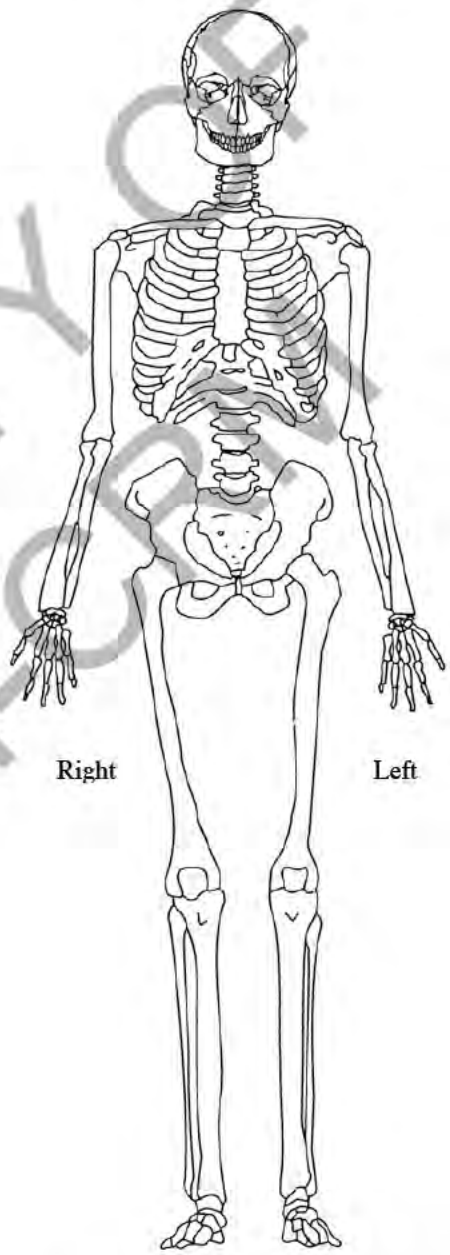
Shade in the represented elements or teeth – including fragments – based on the results of the lab inventory, not on information provided in the burial record. Shade in articulated teeth, but not loose teeth.



Maxillary dentition, occlusal surface



M ndibular dentition, oc lusal s rface



Supervisor Approval: _____ Date: _____ Lot: _____

LS:ResearchGroups:Archaeology:MCIG:2013-001:MCIG Staff:2013-001_HRAnalysis:Adults_Single:docx_forms:AdultInventoryForm_23June15.docx

Adult Commingled Burial Inventory Record – UWM
Milwaukee County Institution Grounds (MCIG) Poor Farm Cemetery
47BMI0076/Collection Location: UWM ARL & Curatorial Facility

Lot No. 2013.001- _____
Assoc. Lot #s:_____
_____

Completed By:_____ **Date Started:**_____ **Date Completed:**_____

QUANTITATIVE INVENTORY

RE quantities: If any portion of an element is present, indicate "1" in the Element field. If fragments of that element or element group also exist, tally the number and record it in the Frags field following the element or element group number. Example: One left Humerus and five fragments: 1 element, 5 frags. Example: right arm and 15 fragments: 3 elements, 15 frags. Cross-mending specimens, a.k.a. refits, count as 1.

CRANIAL

BONE	ELEMENTS	FRAGS
Skull		
Mandible		
Hyoid		

Comments: _____

DENTITION

TOOTH	QUANTITY		
	Normal	Denture	Gold
Maxillary Teeth			
Mandibular Teeth			
Loose			

POST-CRANIAL, APPENDICULAR

BONE	ELEMENTS	FRAGS
Right Arm		
Left Arm		
Right Hand		
Left Hand		
Mixed Hands		
Right Leg*		
Left Leg*		
Right Foot		
Left Foot		
Mixed Feet		

*includes patella

Comments: _____

PELVIS

BONE	ELEMENTS	FRAGS
Left Innominate		
Right Innominate		
Sacrum		

Comments: _____

TORSO

BONE	ELEMENTS	FRAGS
Right Clavicle		
Left Clavicle		
Right Scapula		
Left Scapula		
Vertebrae		
Ribs		
Sternum		

Comments: _____

SHARED MISCELLANEOUS BONE

Limb bone that cannot be separated between two or more long bone numbers.

Bone	Inventory

NISP

Sum element quantities, fragments, teeth, and misc. frags.

CAUTION: When calculating NISP, do not double count specimens; be sure to only count bones also listed as Shared Miscellaneous Bone on one lot's inventory.

NISP: ____

MISC. FRAGMENTS

Miscellaneous fragments are those that you are unable to identify as representing any particular element.
Misc. Fragments (Quantity): _____

Supervisor: _____ Date: _____

Juvenile Age Assessment Part I – FUSION Prenatal to Childhood Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM–ARL & Curatorial Facility	**Lot No.** 2013.001-_____ Assoc. Lot #s: _____ ☐ Mixed lot assessment
Observer Name: **Date Started:** **Date Completed:**	
SUMMARY AGE Category: ☐ Prenatal (Prenatal – 2.49 y) ☐ Early Childhood (2.5 – 5.9 y) ☐ Late Childhood (6-12. y) ☐ I determinate **AGE RANGE:**_____ fw / pn m/ pn y *to* _____ fw / pn m/ pn y ☐ determinate * 'fw' fetal weeks; 'pn m' postnatal months; 'pn y' postnatal years.	

FUSION OF OSSIFICATION CENTERS

Use the Manual when completing this form. Record fusion data using the following codes: O = open, U = fusion underway, or F = fusion complete though not oblite ated. Slash he box when the feature is not observable.

Element	Primary Elements	Observation Code:	Fusion C mplete
Sphenoid	Lesser Wings to Sphenoid Body		5 fm
	Presphenoid to Postsphenoid Body		8 fm
	Greater Wings to Sphenoid Body		1 y
	Foramen Ovale (Greater Wing)		1 y
Temporal	Tympanic Ring to Tempora Squam us		35 fw
	Petromastoid to Squamotympan c		1 y
Occipital	Supraoccipital to Interparietal S uama		5 fm
	Superior Median F ssure		1 y
	Sutura Mendosa		1 y
	Pars Lateralis to Squa a		1 – 3 y
	Hypoglos al Cana (Pars a eralis)		2 – 4 y
	Pars Late alis to Pars Basilaris		5 – 7 y
Mandible	Mandibular mphysis		1 y
	Coronoid o Ma n Mass		by 8 f wks
Frontal	Fusion of le t and right Frontals		9 fm - 2 y
	Metopic Suture obliterated (g nera ly)		2 – 4 y
Vertebr e	C – R & L Posterior arches (to ne an ther)		4 – 5 y
	C1- Anterior Arch to An er r Bars		5 – 6 y
	C2 Intradental union (be omes Dens)		Full term
	C2- R & L Neural Arc es (to one another)		3 – 4 y
	C2- Dens to Neur l Arch		3 – 4 y
	C2- Centrum to Neu al Arch		4 – 6 y
	C2- Ossicu um Termin le of dens		12 y
	C3-L5 Neural Arches (o one another)		1 – 2 y
	C3-L5 Neural Ar h s to Centra		2 – 5 y
Sacrum (S1 and S2)	Lateral Elements to Neural Arches → 'Wings'		2 – 5 y
	Wings to Centra		2 – 6 y
Os Coxa	Ischiopubic Ramus		5 – 11 y
Humerus	Greater and Lesser Tubercles to Head		2 – 6 y

*'f m' indicates 'fetal month'; 'f wks' indicates 'fetal weeks'; 'm' indicates postnatal months; and 'y' indicates postnatal years.

Estimated Age

Step 1) Age Range.

Indicate the estimated age range of your individual in the fields below after referring to the fusion table above. In the first field, indicate the youngest age associated with 'O' or 'U' fusion observations. In the second field, indicate the oldest age associated with 'F' fusion observations.

_____ fetal weeks / postnatal months / postnatal years (circle unit)

to

_____ fetal weeks / postnatal months / postnatal years (circle unit)

* Remember to indicate the age range in the summary section on the top of page 1 of this form.

☐ Indeterminate, i.e. no evidence to assign the individual to an age category. Proceed to step 3.

Step 2) If you were able to provide an age range in step 1, skip this step and proceed to step 3.
If you selected 'Indeterminate' in step 1 but your individual includes other evidence to allow you to assign the individual to an age category, indicate the information and the estimated age below (e.g. petrosal ossification compares favorably to individual 20 fetal weeks old). Then, use this information to select a categorical age in step 3.

Step 3) Age Category:

If you provided an age range in step 1, calculate the mean from of the ages and use the value to select an age category below.
Alternatively, if you arrived at step 3 following the directions in step 2, to proceed to assign your individual to an age category below based on the data you provided in step 2.

- Prenatal – 2.5 years (Prenatal – 2.49 years)
- Early Childhood (2.5 – 5 years)
- Late Childhood (6 – 12 years)
- Indeterminate; i.e. no evidence to allow you to assign the individual to an age category.

Comments:

Supervisor signature:_____ Lot:_____Date:_____

After your supervisor signs this form in the field above, proceed to complete the appropriate JUVENILE AGE ASSESSMENT PART II form:

☐ Prenatal – 2.5 years (LMP – 2.49 years)
☐ Early Childhood (2.5 – 5 years)
☐ Late Childhood (6 – 12 years)
☐ Indeterminate; i.e. no evidence to allow you to assign the individual to an age category.

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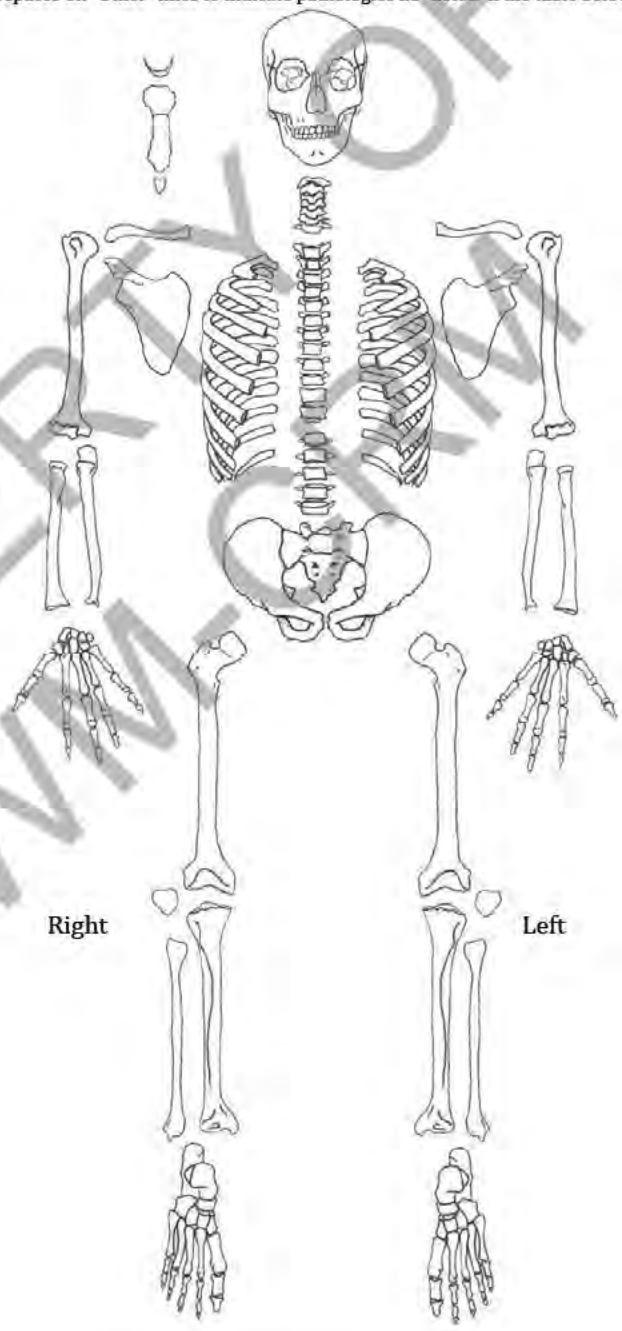
Skeletal Pathology & Trauma Recording Form – ADULT
Milwaukee County Institution Grounds (MCIG) Poor Farm Cemetery
47BMI0076/Collection Location: UWM–ARL & Curatorial Facility

Observer Name: Date Started: Date Completed:

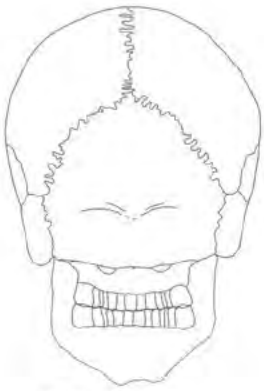
Lot No. 2013.001-_____
Assoc. Lot #s:_____
_____
(do not include pelvic flot lot #s).
☐ Mixed lot assessment ☐ No Pathology
☐ No Trauma ☐ No Pathology or trauma

INSTRUCTIONS: Complete this form while referencing the Manual. Assess the lot for the presence or absence of pathologies listed in the tables below. Place a check mark in the 'P' or 'A' box to the right of the listed pathology to indicate presence or absence. Efficiently illustrate pathologies on the appropriate outlines with reference to numerals in the key. Use colored pencils to make various conditions distinct from one another. With a supervisor, use blank spaces on "Other" lines to indicate pathologies not listed in the table below.

PATHOLOGY:	P	A	Key
Unidentified Lesions			
Blastic			1
Lytic			2
Growth & Developmental Stress			
Cribra orbitalia			3
Porotic hyperostosis			4
Spina bifida occulta			5
Other:			6
Joint Pathology			
Ankylosis			7
Eburnation			8
Schmorl's nodes			9
Osteophytic lipping			10
Degenerative joint disease (DJD)			11
Other:			12
Non-specific Infection			
Periostitis			13
Osteomyelitis			14
Other:			15
Neoplastic Condition			
Osteoma			6
Neoplasm			17
Other:			18
Trauma			
Healed fracture			19
Other:			20
Peri-mortem Antemortem Medical Intervention			
Healed amputation			21
Healed trepanation			22
Other:			23
Perimortem Activity			
Cut or sawed bone without evidence for healing			4
Craniotomy			25
Unhealed burr hole trepanation			26
Unhealed fracture			27
Other:			28

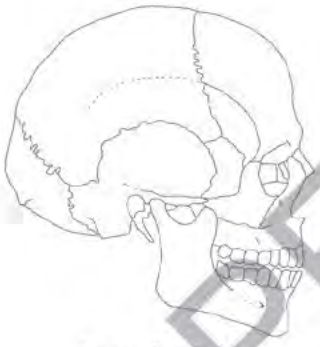


☐**Check box if pathologies do not exist on the skull.**



Posterior view

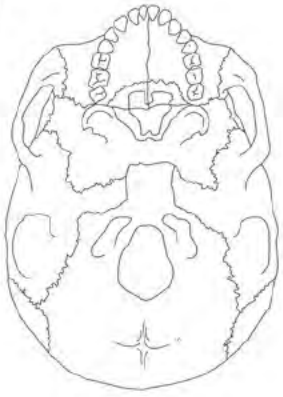
Anterior view



Lateral right iew

Lateral left view

Superior view



Inferior view

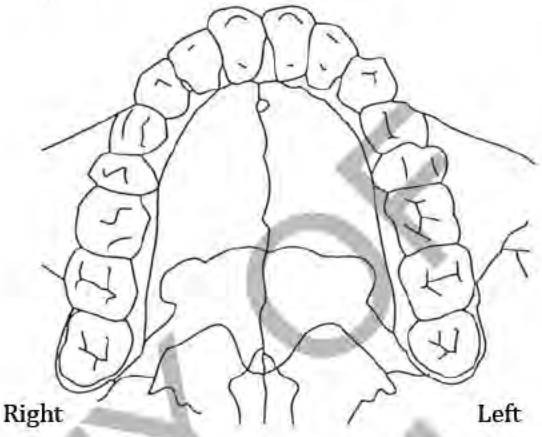
Lot: _____ Date: _____

Dental Pathologies
(mandible outline on p. 4)

☐ **Check box if dental pathologies are not present.**

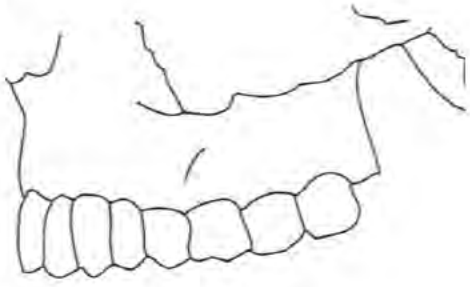
Use the dental-specific table below when recording pathologies observed on the maxilla (this page) or mandible (next page).
Some of the pathologies listed on the first table may be observed within the dentition. To maintain clarity, use keyed numbers listed in the first table when referring those conditions.

DENTAL PATHOLOGY	Present	Absent	Key
Growth & Developmental Stress			
Enamel hypoplasia			29
Other:			30
Periodontal disease			
Calculus			3
Caries			32
Abscess (note: may apply to any element)			33
Remodeled alveolus/ tooth loss			34
Other:			35
Anoma ous Condit on			
Peg tooth			36
Supe numera y too			37
Other:			38
C ltura / Occupational Modifi tion			
Pip stem gr oves			3
O her:			40
Durable Medical De ice:			
B dge:			41
Dentures:			



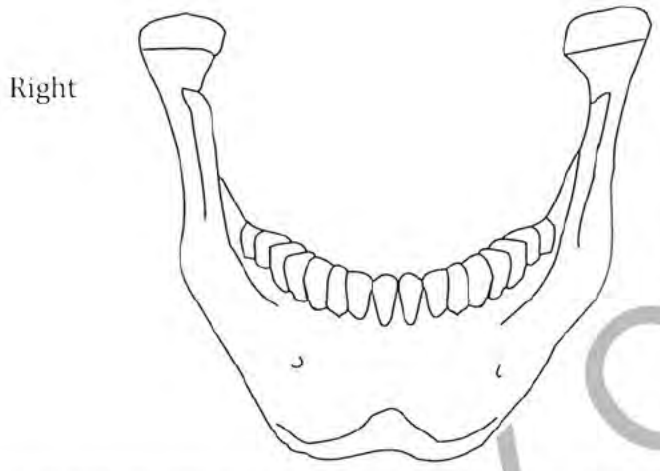
Oc lus l (inferior) surface view of maxillary dentition

Right Maxillary Dentition

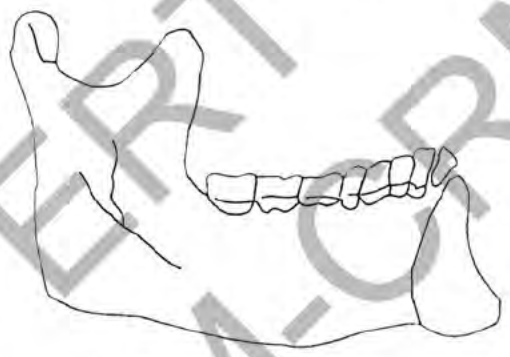


Left Maxillary Dentition

Lot: _____ Date: _____



Oblique superior-anterior view of the labial and buccal mandibular dentition



Left Mandible, view to lingual side of buccal dentition

Right mandible, view to lingual side of buccal dentition

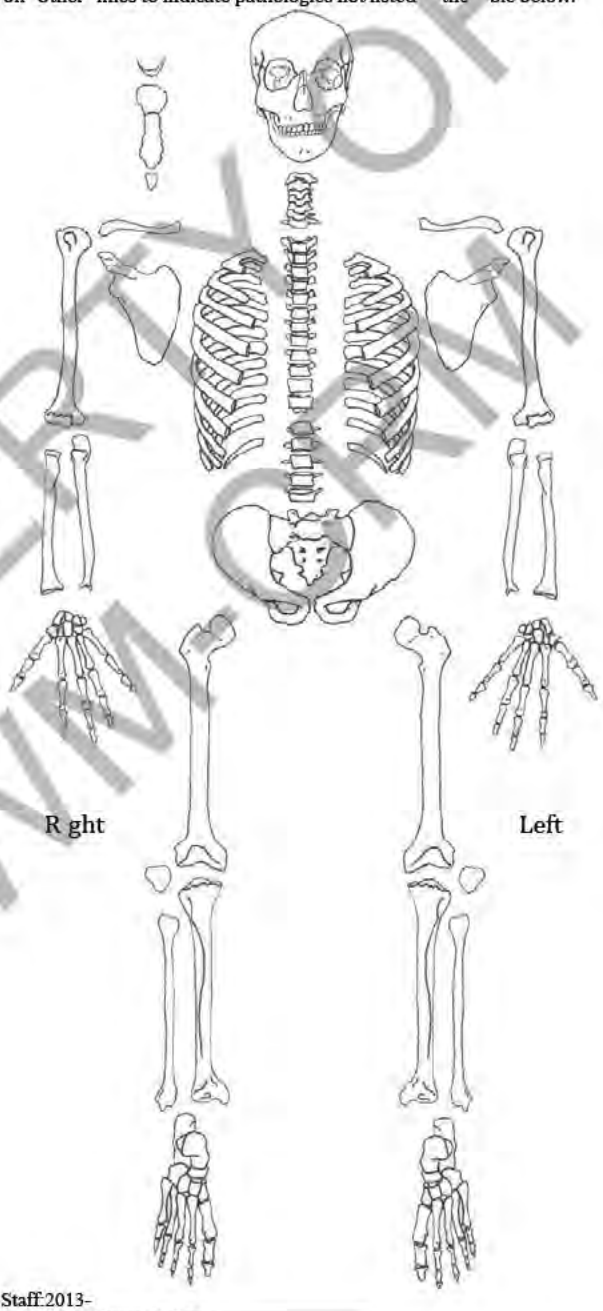
Skeletal Taphonomy Recording Form – ADULT
Milwaukee County Institution Grounds (MCIG) Poor Farm Cemetery
47BMI0076/Collections Location: UWM–ARL & Curatorial Facility

Observer Name: Date Started: Date Completed:

Lot No. 2013.001-_____
Assoc. Lot #s:_____
_____
(do not include pelvic flot lot #s)
☐ Mixed lot assessment
☐ No taphonomic modifications observed

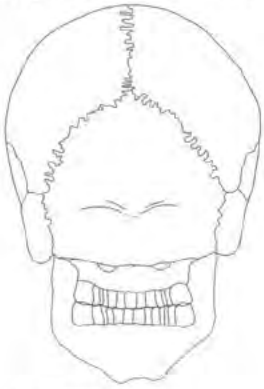
INSTRUCTIONS: Complete this form while referencing the Manual. Assess the lot for the presence or absence of taphonomic changes listed in the tables below. Place a check mark in the 'P' or 'A' box to the right of the listed taphonomic changes to indicate presence or absence. Illustrate taphonomy on the appropriate outlines with reference to numerals in the key. Use colored pencils to make various conditions distinct. With a supervisor, use blank spaces on "Other" lines to indicate pathologies not listed in the table below.

	Present	Absent	Key
Adherent Materials			
Desiccated tissue (e.g.: brain tissue)			1
Adipocere			2
Hair			3
Matrix			4
Textile			5
Mold			6
Other:			7
Chemical Changes			
Stains			8
Chemical erosion			9
Other:			10
Physical Changes			
Water damage			1
Postmortem fracture			12
Gnaw marks			13
Burnin			
Burned bone			14
Curatoria Changes:			
Bleaching			15
Cleaning			16
Other:			17



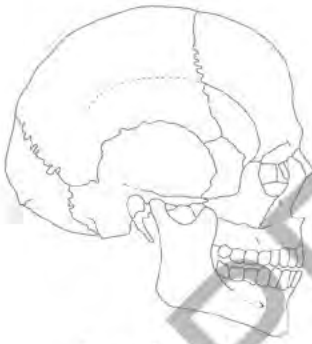
L:S:ResearchGroups:Archaeology:MCIG:2013-001:MCIG Staff:2013-001_HRAnaly s:Adults_Single:docx_forms:adultTAPHformFINAL_21may14 docx

☐Check box if taphonomic modifications are not observed on the skull.



Posterior view:

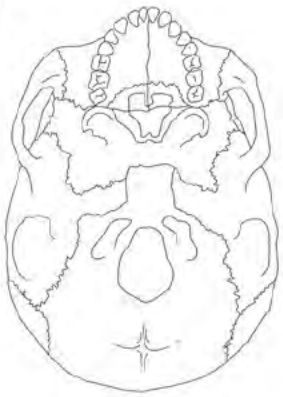
Anterior view



Lateral right iew

Lateral left view

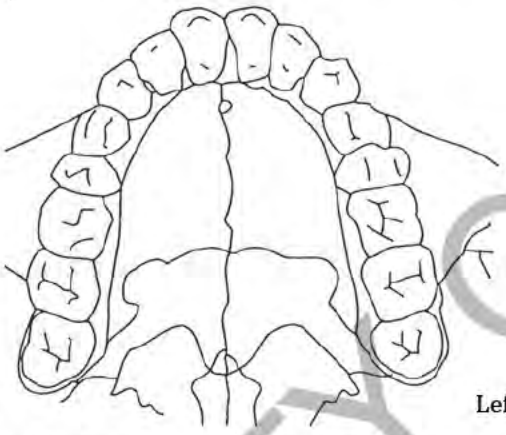
Superior view



Inferior view

Lot:_____ Date: _____

☐ **Check box if taphonomic modifications are not observed on the dentition**
(mandible outline on p. 4)



Right Left

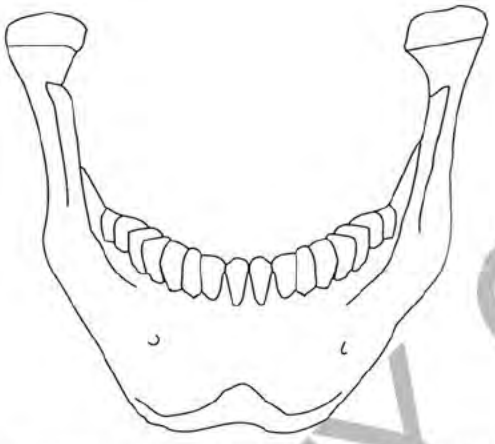
Occlusal (inferior) surfac iew of maxillary dentition

Right Maxil ry D n ition

Left Maxillary Dentition

Lot:_____ Date: _____

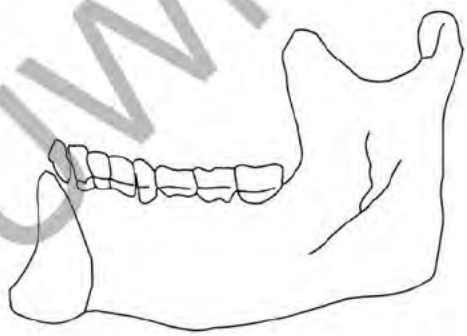
Right



Left

Oblique superior-anterior view of the labial and buccal mandibular dentition

Left Mandible, view to lingual side of buccal dentition



Right mandible, view to lingual side of buccal dentition.

Supervisor:_____ Lot:_____ Date: _____

PART 3: JUVENILE INVENTORY AND ANALYSIS FORMS

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Juvenile Age Assessment Part I – FUSION Prenatal to Childhood Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM–ARL & Curatorial Facility	**Lot No.** 2013.001-_____ Assoc. Lot #s: _____ ☐ Mixed lot assessment
Observer Name: **Date Started:** **Date Completed:**	
SUMMARY AGE Category: ☐ Prenatal (Prenatal – 2.49 y) ☐ Early Childhood (2.5 – 5.9 y) ☐ Late Childhood (6-12. y) ☐ I determinate **AGE RANGE:**_____fw / pn m/ pn y *to* _____fw / pn m/ pn y ☐ determinate * 'fw' fetal weeks; 'pn m' postnatal months; 'pn y' postnatal years.	

FUSION OF OSSIFICATION CENTERS

Use the Manual when completing this form. Record fusion data using the following codes: O = open, U = fusion underway, or F = fusion complete though not oblite ated. Slash he box when the feature is not observable.

Element	Primary Elements	Observation Code:	Fusion C mplete
Sphenoid	Lesser Wings to Sphenoid Body		5 fm
	Presphenoid to Postsphenoid Body		8 fm
	Greater Wings to Sphenoid Body		1 y
	Foramen Ovale (Greater Wing)		1 y
Temporal	Tympanic Ring to Tempora Squam us		35 fw
	Petromastoid to Squamotympan c		1 y
Occipital	Supraoccipital to Interparietal S uama		5 fm
	Superior Median F ssure		1 y
	Sutura Mendosa		1 y
	Pars Lateralis to Squa a		1 – 3 y
	Hypoglos al Cana (Pars a eralis)		2 – 4 y
	Pars Late lis to Pars Basilaris		5 – 7 y
Mandible	Mandibular mphysis		1 y
	Coronoid o Ma n Mass		by 8 f wks
Frontal	Fusion of le t and right Frontals		9 fm - 2 y
	Metopic Suture obliterated (genera ly)		2 – 4 y
Vertebrae	C1 R & L Posterior arches (to ne an ther)		4 – 5 y
	C1- Anterior Arch to An eri r Bars		5 – 6 y
	C2 Intradental union (be omes Dens)		Full term
	C2- R & L Neural Arc es (to one another)		3 – 4 y
	C2- Dens to Neur l Arch		3 – 4 y
	C2- Centrum to Neu al Arch		4 – 6 y
	C2- Ossicu um Termin le of dens		12 y
	C3-L5 Neural Arches (o one another)		1 – 2 y
	C3-L5 Neural Ar h s to Centra		2 – 5 y
Sacrum (S1 and S2)	Lateral Elements to Neural Arches → 'Wings'		2 – 5 y
	Wings to Centra		2 – 6 y
Os Coxa	Ischiopubic Ramus		5 – 11 y
Humerus	Greater and Lesser Tubercles to Head		2 – 6 y

*'f m' indicates 'fetal month'; 'f wks' indicates 'fetal weeks'; 'm' indicates postnatal months; and 'y' indicates postnatal years.

Estimated Age

Step 1) Age Range.

Indicate the estimated age range of your individual in the fields below after referring to the fusion table above. In the first field, indicate the youngest age associated with 'O' or 'U' fusion observations. In the second field, indicate the oldest age associated with 'F' fusion observations.

_____ fetal weeks / postnatal months / postnatal years (circle unit)

to

_____ fetal weeks / postnatal months / postnatal years (circle unit)

* Remember to indicate the age range in the summary section on the top of page 1 of this form.

☐ Indeterminate, i.e. no evidence to assign the individual to an age category. Proceed to step 3.

Step 2) If you were able to provide an age range in step 1, skip this step and proceed to step 3.
If you selected 'Indeterminate' in step 1 but your individual includes other evidence to allow you to assign the individual to an age category, indicate the information and the estimated age below (e.g. petrosal ossification compares favorably to individual 20 fetal weeks old). Then, use this information to select a categorical age in step 3.

Step 3) Age Category:
If you provided an age range in step 1, calculate the mean from of the ages and use the value to select an age category below.
Alternatively, if you arrived at step 3 following the directions in step 2, to proceed to assign your individual to an age category below based on the data you provided in step 2.

- Prenatal – 2.5 years (Prenatal – 2.49 years)
- Early Childhood (2.5 – 5 years)
- Late Childhood (6 – 12 years)
- Indeterminate; i.e. no evidence to allow you to assign the individual to an age category.

Comments:

Supervisor signature:_____ Lot:_____Date:_____

After your supervisor signs this form in the field above, proceed to complete the appropriate JUVENILE AGE ASSESSMENT PART II form:

☐ Prenatal – 2.5 years (LMP – 2.49 years)
☐ Early Childhood (2.5 – 5 years)
☐ Late Childhood (6 – 12 years)
☐ Indeterminate; i.e. no evidence to allow you to assign the individual to an age category.

Juvenile Age Assessment Part I – FUSION Childhood - Adolescence Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM–ARL & Curatorial Facility	**Lot No.** 2013.001-_____ Assoc. Lot #s: _____ ☐ Mixed lot assessment
Observer Name: **Date Started:** **Date Completed:**	
SUMMARY: ☐ Late Childhood (6-12.9 years) ☐ Adolescent (13-19.9 years) ☐ Young Adult (≥ 20 years) ☐ Indeterminate	

FUSION ASSESSMENT

Complete all boxes with the following codes: O = open, U = fusion underway, or F = fus on comp te th ugh not obliterated. Slash the box when feature is not observable and data cannot be recorde .

		Observation Code:	**Un on Begin**	**Fusion Complete**
Humerus	Proximal		14	21
	Medial		13	18
	Distal		11	18
Radius	Proximal		12	18
	Distal		14	2
Ulna	Proximal		12	18
	Distal		15	20
Hand	Metacarpals & Phalanges		11	18
Femur	Head		14	19
	Greater Trochanter		4	19
	Lesser Trochanter		14	19
	Distal		14	20
Tibia	Proximal		14	20
	Distal		14	18
Fibula	Proximal		4	20
	Distal		14	20
Foot	C l neus		10	20
	Metacarpals & Phalanges		11	16
Scapula	Coracoid Glenoid Complex		11	18
	Acromion		14	20
	ferio Angle		15	23
	Medial Border		15	23
P lvi	ri-radiate Complex		10	18
	Anterior Inferior Ili c Sp ne		10	18
	Ischial Tuberos y		13	20
	Iliac Crest		14	22
Sacrum	Auricula Surface		15	21
	S1-S2 Bodi s		14	25+
	S1-S2 Alae		11	27
	S2-S5 Bodies		12	28
	S2-S5 Alae		14	21
Vertebrae	Bodies		13	23
Ribs	Heads		17	22
Clavicle	Medial		12	29+
Manubrium	1st Costal Notch		18	25

Estimated Age based on Fusion

1) Indicate the estimated age range of your individual in the fields below after referring to the fusion table above. In the first field, indicate the youngest age associated with 'O' or 'U' fusion observations. In the second field, indicate the oldest age associated with 'F' fusion observations.

_____-_____ years

2) Use the mean of the ages you provided for your estimated age range, to assign the individual to an age category below:

❏ Late Childhood (6-12.9 yrs.)
❏ Adolescent (13 – 19.9 yrs.)
❏ Young Adult (≥ 20 years)

Comments:

Supervisor signature:_____Lot:_____Date:_____

Juvenile Age Assessment Part II- Prenatal – 2.49 years Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM–ARL & Curatorial Facility	**Lot No. 2013.001-** _____ Assoc. Lot #s: _____ _____
Observer Name: Date Started: Date Completed:	☐ Mixed lot assessment

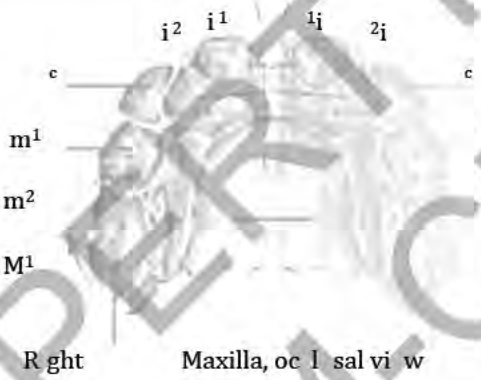
SUMMARY DATA:

Dental Age: Age range:_____-_____ fw/pn m / pn y ☐ Indet minate
Sub-age Category: ☐ Embryo ☐ Fetus ☐ Neonate ☐ Infant ☐ Toddler ☐ Indeter in te
Osteometric Age: Age range:_____-_____ fw/pn m / pn y ☐ I d termi te
Sub-age Category: ☐ Embryo ☐ Fetus ☐ Neonate ☐ Infant ☐ Toddler ☐ Indete minat
* 'fw' fetal weeks; 'pn m' postnatal months; and 'pn y' postnatal years.

NON-METRIC DENTAL AGE ASSESSMENT

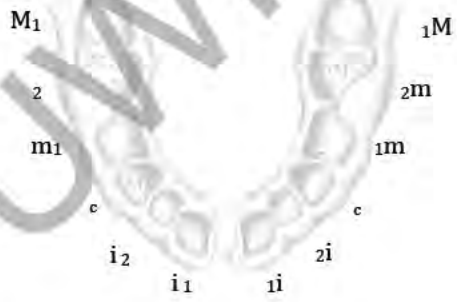
Use and attach a Juvenile mixed dentition outline if that form is more appro riate for your subject lot.

☐ Mandible not present ☐ Maxilla not present ☐ Mandible and Maxilla not present



R ght Maxilla, oc l sal vi w Left

Illustration Key:
● Articulated Tooth
○ Loose Tooth
X Missing Tooth



Right Mandible, occlusal view Left

Formation and Eruption Assessments

Complete all assessments unless you are absolutely certain that your individual presents demonstrative evidence of prenatal or postnatal age. If you have *any uncertainty* about the individual's age, complete all assessments. Refer to the manual as you complete this f rm.

Mineralization Stages (Sunderland et al. 1987) *Applied to prenatal individuals only.*
Use the table below to assign a fetal age to the individual based on the oldest age We ks Post-Fertilization (wpf) for mineralized teeth that are recorded as "Present." Indicate you answers in the fields below.

	Presence/Absence		Tooth	15th % (wpf):	Range (pf):
	LEFT	RIGHT			
Maxilla			di1	15	13 – 17
			di2	17	14 – 19
			dc	19	17 – 20
			dm1	6	14 – 17
			dm2	1	18 - 20
Mandible			di1	15	13 – 17
			di2	17	14 – 19
			d	19	17 – 20
			dm1	16	14 7
			dm2	19	18 - 2

15th percentile age: ____weeks pos fertiliz ion. Age Range: _____ - _____wpf.
Unable to make assessment du to: ☐ Lack of evidence (missing) ☐ Fragmentation
☐ Age is likely postnatal; evi ence: _____
☐ Other:_____

Tooth formation stages (Moorrees et al. 1963) *Applies to postnata ndividuals.*
Evaluate the crown and ro t development of the man ibular canines, first molar, and second molar from postnatal indi idual Indicate the appropriate cod and corresponding age in the appropriate fields withi the table elow

Mandibul r Tooth	Formation Stag Co e		Estimated Age (years)	
	Left	R ght	Left	Right
c				
1m				
2m				

ndicate the *oldest age of the te th you w e able to score:* _____ years
Unable to make assessment due t ☐ Missing ☐ Fragmentation ☐ Unable to observe complete tooth in profile
☐ Age likely fetal; eviden e: _____
☐ Other:_____

Formation and eruption sequence following Ubelaker (1989)
Instructions: Estimate the age of your subject lot by finding the image in the Manual that best matches your individual. Indicate the age estimation in the line below:

Estimated Age:_____ mths Estimated Age Range:_____ - _____mths
Unable to make assessment due to:
☐ Missing ☐ Fragmentation ☐ Other:_____

Eruption times (After Lysell et al. 1962, as presented in Scheuer & Black 2000:153)
Instructions: In the fields below, indicate whether a deciduous tooth is present or absent. Beneath the table, indicate the oldest mean age and age range given the teeth present.

	Tooth	Emerged past alveolar crest? (yes/no)	Mean (months)	Age Range ± 1 SD (months)
Maxilla	Central Incisor		10	8-12
	Lateral Incisor		11	9-13
	Canine		19	16-22
	First Molar		16	3-19*
	Second Molar		29	5-33
Mandible	Central incisor		8	6-10
	Lateral incisor		13	10-16
	Canine		20	17-23
	First molar		1	14-18
	Second molar		27	23-31*

Mean Age: _____ mths Age range: _____ - _____ +/ 1 SD

Unable to make assessment due to:
☐ Missing ☐ Fragmentation ☐ Unabl to ob rve tooth above alveolar cres ☐ O her:

Estimated Age, Combined Nonm tric D tal Assessment

1) Age Range: The final estimated age rang is the youngest mean age/ag of a given range and the oldest mean age/age of a iven ag range derived from an of the non-m tric dental age assessment methods above
   a. Do results from ne ssessment d sagree markedly from others a d other extant osteological e idence If so, d cuss the age range, the as ssme t, and contrary evidence with your sup rviso (e.g., 18 – 20 week mi ralization age range, but neonatal petrosa*).
      i. e ra ge: _____ - _____ deri ed from the _____Method
      ii. Con adictory osteologica evidence _____
   b. Ind cate age range in fields below and n the summary section on page 1 of this form. If you prov ded information in section a. above *do not use it for the age range (below).*
      * o not u ta other than th collected in the on-metric dental assessment for the age range.

   Age ange _____ Unit: fe al weeks/postnatal months/postnatal year (circle).
   to
   _____ Unit: fetal weeks/postnatal months/postnatal year (circle).

2) *Mean Age.* Calculate the ave age of the oldest and youngest mean age scores or provide a single mean score from bove when nly one exists.
   Mean Age: _____ Unit: fetal eeks / postnatal months / postnatal year (circle one).

3) *Age Category.* Select the age category into which the value you generate following step 2 fits. Select the same category in the summary section on page 1 of this form.

   ☐ Embryo (0-8 weeks or two lunar months)
   ☐ Fetus (9 – 40 weeks)
   ☐ Neonate (Birth – 28 days)
   ☐ Infant (Birth – 11.9 months)
   ☐ Toddler (1 – 2.49 years)
   ☐ Indeterminate Lot: _____ Date: _____

OSTEOMETRIC AGE ASSESSMENT - FETAL

Note: The following osteometric assessments are applicable only to individuals determined to be prenatal based on preceeding fusion and dental assessments. See the Manual for instructions on collecting measurements as well as on deriving age estimations.

Cranial Measurements

Occipital: Pars lateralis and Pars basilaris (Frazekas and Kosa 1978)

Element	Measurement name	Left (mm)	(mm)	Right (mm)	Age:
Pars lateralis	Maximum length		N/A		
Pars basilaris	Maximum width (MW)	N/A		/A	
	Sagittal length (SL)	N/A		N/A	

*If you were unable to collect any measurements, indicate the eason below:

Age estimation from pars basilaris (Scheuer and MacLauigh n-Black 1994)

The pars basilaris MW measurement value (above) is

☐ Larger than the SL measurement value → then ≥ 30 fe al weeks
☐ Smaller than the SL measurement value → then ≤ 28 fetal weeks
☐ Not applicable; unable to collect data due to:_____

Sphenoid (Fazekas & Kosa 1978)

Measurement name	*Left* (mm)	*M dline* (m)	*Right (mm)*	*Feta Age*	**Not measured?*
Body – Length (BL)	N A		N/A		
Body – Width (BW)	N/A		N/A		
Lesser Wing – Length (LWL)		N/A			
Lesser Wing – Width (LWW)		N/A			
Greater Wing – Length (GWL)		N/A			
Greater Wing – Width (GWW)		N/A			

Temporal Fazekas & Kosa 1978)

	Left (mm)	*Rig t (mm)*	*Fetal Age*	**Not measured?*
Petrous Length				
Petrou Width				

Mandible, Maxilla, and Zygoma (Fazekas & Kosa 1978)

	Left (mm)	*Right (mm)*	*Fetal Age*	**Not measured?*
Mandible –Length				
Mandible – Width				
Mandible – Oblique length				
Maxilla – Length				
Maxilla – Height				
Maxilla – Width				
Zygomatic- Length				
Zygomatic – Oblique Height				

**Place a '✓' in the far right columns of tables to indicate any measurements you were unable to collect. If you need more writing space, please use the comments section on p. 5*

Lot:_____ Date: _____

Postcranial Measurements

Shoulder elements and upper limbs (Fazekas & Kosa 1978)

Measurement name	*Left (mm)*	*Right* (mm)	*Fetal Age*	**Not measured?*
Clavicle – Length				
Scapula – Length (height)				
Scapula – Width				
Scapula – Length of the Spine				
Humerus – Length (height)				
Humerus – Distal Width				
Radius – Length				
Ulna – Length				

Pelvic elements and lower limbs (Fazekas & Kosa 1978)

Measurement name	*Left (mm)*	*Ri ht* mm)	*Fet l Age*	**No me su ed?*
Maximum iliac length				
Maximum iliac width				
Maximum ischium length				
Maximum ischium width				
Maximum length of pubis				
Femur maximum length				
Femur distal width				
Tibia maximum length				
Fibula maximum length				

**Place a '✓' in the far ight co mns o ables to indicate any meas rements you were unable to collect. If you need mo e wri ng space, please use th omments section below*

COMMENTS

OSTEOMETRIC AGE ASSESSMENT – Postnatal through 2.49 years

Note: The following osteometric assessments are applicable only to individuals with ages determined via fusion and dental assessments to be postnatal through 2.49 years of age. Methods follow Maresh (1970).

Element	*Left (mm)*	*Epiphysis included?*	*Age:*	*NM**	*Right (mm)*	*Epiphysis included?*	*Age:*	*NM**
Humerus								
Radius								
Ulna								
Femur								
Tibia								
Fibula								

**NM indicates Not Measured. Place a '✓' in the far right columns of tables to indicate any measurements you were unable to collect. If you need more writing space, please use the comments section below*

Comments:

Estimated Age, Combined osteometric

1) Age Range:
   The final estimated age range is the youngest mean age/age of a given age range and the oldest mean age/age of a given age range derived from the osteometric assessments above. Indicate this data in the fields below and in the summary section on page 1 of this form.
   _____ Unit: fetal weeks/postnatal months/postnatal year (circle).
   _____ Unit: fetal weeks/postnatal months/postnatal year (circle).

2) Mean Age:
   Calculate the mean of the ages you provided in the age range above or provide a single mean age when only one exists.
   _____ Unit: fetal weeks/postnatal months/postnatal year (circle).

3) Select the age category in which the value you generated following step 2 fits. Select the same category in the summary section on page 1 of this form.

   ☐ Embryo (0-8 weeks or two lunar months)
   ☐ Fetus (9 – 40 weeks)
   ☐ Neonate (Birth – 28 days)
   ☐ Infant (Birth – 1 year)
   ☐ Toddler (1 – 2.49 years)
   ☐ Indeterminate

Supervisor:_____ Lot:_____ Date: _____

Juvenile Age Recording Form –Part II Early Childhood - Adolescence Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM–ARL & Curatorial Facility	**Lot No.** 2013.001-_____ Assoc. Lot #s: _____ _____ ☐ Mixed lot assessment
Observer Name: Date Started: Date Completed:	

SUMMARY DATA:

Dental **Age Range:**____-____ years **Category:** ☐ Early Childhood (2 – 5.9 y)
☐ Late Childhood (6 – 12.9 y) ☐ Adolescent (13 – 19.9 y) ☐ Indeterminate Juvenile

Osteometric **Age Range:**____-____ years **Category:** ☐ Early Childhood (2 5 – 5. y)
☐ Late Childhood (6 – 12.9 y) ☐ Adolescent (13 – 19.9 y) ☐ Indeterminate uvenile

NON-METRIC DENTAL AGE ASSESSMENT

Permanent teeth are represented in the outer ring of teeth; deciduous t eth are r presented in the inner ring of teeth. See manual for tooth guide.

Dentition ☐ No Dentition

Maxilla (Labial)

Il ustration Key
● Ar icula ed Tooth
○ Loose T oth
X Missing Tooth

Right **Left**

Mandible (Labial)

Moorres Tooth Formation and Resorption Assessments (1963a,b)

Deciduous tooth formation stages (Moorrees et al. 1963a)

Deciduous mandibular tooth	Formation Stage Code (Use Table in Manual)		Not Scored*	Estimated Age (Use tables in Manual)		Not Scored*
	Left	Right		Left	Ri ht	
Canine						
1st Molar						
2nd Molar						

*Indicate reason tooth not assessed by checking the appropriate boxes elow.
Unable to make assessments due to: ☐Missing Tooth/Teeth ☐Fragmen ed Tooth/Teeth
☐ Tooth/Teeth articulated with alveolar bone.
Comments: _____

Deciduous tooth resorption stages, if applicable (Moorrees et al. 1963a)

Deciduous mandibular tooth	Formation Stage Code (Use Table in Manual)		Not scored*	Estimated Age (U e table in Manual)		Not sc red*
	Left	Right		Left	Right	
Canine						
1st Molar – mesial root						
1st Molar – distal root						
2nd Molar – mesial root						
2nd Molar – distal root						

*Indicate reason tooth not ass ssed by checki g the appropria e boxes below
Unable to make assessments d e to ☐Missing Tooth/Teeth ☐Fragment d Tooth/Teeth
☐ Tooth/Teeth articulated ith al eolar bone.
Comments: _____

Permanent Tooth formation tages (Moorrees et al. 1 63b)

Permanen Tooth	Formation Stag Code (Use Table in Man al)		Mean Age (Use tables in Manual)	
	Left	R ght	Left	Right
1st Incisor Maxilla)				
2 Inci or (Ma illa)				
1st Inci or (Mandible)				
nd Incisor (Mandible)				
Can ne (Mandible)				
1st Premolar (Mandible)				
2nd Premolar (Mandible)				
1st Molar (Mandible)				
2nd Molar (Mandible)				
3rd Molar (Mandible)				

*Indicate reason tooth not assessed by checking the appropriate boxes below.
Unable to make assessments due to: ☐Missing Tooth/Teeth ☐Fragmented Tooth/Teeth
☐ Tooth/Teeth articulated with alveolar bone.
Comments: _____

Formation and eruption sequence following Ubelaker (1989)

Instructions: Estimate the age of your subject lot by finding the image within the Manual that best matches your individual's dentition. Indicate the age estimation in the fields below:

Estimated Age:_____years Estimated Age Range: _____-_____years
Unable to make assessment due to:
☐Missing ☐Fragmentation ☐Other:_____
Comments: _____

Non-metric Dental Age Assessment, Combined Results

1) Age Range:
   The final estimated age range is the youngest mean age age of a given range and the oldest mean age/age of a given age range derived from ny of t e non-metric dental age assessment methods above. Indicate this data in the field below and in the summary section on page 1 of this form.

   Age range: _____-_____ years.

2) *Mean Age.* Calculate the average of he olde t and youngest mean age score or pro ide a single mean score from above when only o e e ists.

   Mean Age: _____ years

3) *Age Category.* Sele t the a e cate ory into which the value y u gener te following step 2 fits. Select the same c tegory in the summary section on page 1 of this form.

   ☐ Early hildhood (2.5 – 5.9 years)
   ☐ La Childhood (6 – 12.9 years)
   ☐ Adol scent (13 – 19.9 yea s)
   ☐ Inde erminate

Lot: _____ Date: _____

OSTEOMETRIC AGE ASSESSMENT

Measure the maximum length of complete limb bones following Maersh (1970)

Element	*Left (mm)*	*Epiphysis included?*	*Age*	*NM**	*Right (mm)*	*Epiphysis included?*	*Age*	*NM**
Humerus								
Radius								
Ulna								
Femur								
Tibia								
Fibula								

**NM indicates Not Measured. Place a '✓' in the far right column of the table to indica e any measurements you were unable to collect. If you need more writi g space, please use the area below*

Estimated Age, Combined osteometric

1) The final estimated age range is the youngest mean age/age of a given range and th ldest mean age/age of a given age range derived fro the osteometric assessments above In icate this data in the fields below and in the summary s ction on page 1 of this form.
   Age range: _____-_____ Unit: fetal weeks/postnatal months/post atal year (circle).

2) Calculate the mean of the ages you p ovided in t age range (abo e) or provide a single mean age when only one exists.
   Mean Age: _____Unit: fe al weeks/pos natal months/pos natal year (circle one).

3) *Age Category.* Selec the a e cat gory into which the value you generate following step 2 fits. Select the same ategory n the summary section on page 1 of hi orm.

   ☐ Early Childhood (2.5 – 5.9 years)
   ☐ La e Ch dhood (6 – 12.9 years)
   ☐ Adol scent (13 – 19.9 yea s)
   ☐ Inde rminate Juvenile

Supervisor: _____Lot: _____ Date: _____

Skeletal Pathology & Trauma Recording Form – JUVENILE
Milwaukee County Institution Grounds Poor Farm Cemetery
47BMI0076/Collection Location: UWM–ARL & Curatorial Facility

Lot No. 2013.001-_____
Assoc. Lot #s:_____
_____
(do not include pelvic flot lot #s)

Observer Name: Date Started:
Date Completed:

☐ Mixed lot assessment ☐ No Pathology
☐ No Trauma ☐ No Pathology or trauma

INSTRUCTIONS: Complete this form while referencing the MCIG JUVENILE INVENTORY & ANALYTICAL SOP Manual. Assess the lot for the presence or absence of pathologies listed in the tables below by placing a respective check mark in the 'P' 'A' to the right of the lesion's name. Indicate pathology locations on the appropriate skeletal outline while referencing numerals the 'key' column below. If the individual exhibits numerous conditions, use colored pencils to illustrate your skeletal outline.

PATHOLOGY:	P	A	Key
Unidentified Lesions			
Blastic			1
Lytic			2
Growth & Developmental Stress			
Cribra orbitalia			3
Porotic hyperostosis			4
Spina bifida occulta			5
UnID cranial morphology			6
UnID postcranial morph.			7
Other:			8
Joint Pathology			
Ankylosis			9
Eburnation			10
Schmorl's nodes			11
Osteophytic lipping			12
Degenerative joint disease (DJD)			13
Other:			4
Non-specific Infection			
Periostitis			5
Osteomyelitis			6
Other:			17
Neoplastic C dition			
Osteoma			18
Neoplasm			19
Other:			20
T uma			
Healed ractur			21
Othe			22
re- or Antemortem Medical Intervention			
Heal d ampu ation			3
He ed trepanation			24
ther:			25
Perimortem Activity			
Cut r sawed bone without evidence for healing			2
Craniotomy			27
Unhealed burr hole trepanation			28
Unhealed fracture			29
Other:			30

DENTAL PATHOLOGY	P		ey
Growth & Developmental Str ss			
Enamel hypoplasia			3
UnID enamel morph			2
Other:			33
Pe iodontal disease			
Calculus			34
Caries			35
Abscess (ote: may apply to any lement)			36
Remod led alveolus/ tooth los			37
Other:			38
Anomalo Condit on			
Peg tooth			39
Supernumerar tooth.			40
Dental agen sis			41
Other:			42
Cultural / O cupati nal Modification			
P e stem gr ves			43
O he :			44
Du ab Medical Device, Dentition:			
Brid e:			45
D ntu es:			46
Filling :			47
her:			48

Supervisor's signature:_____
Date:_____

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Skeletal Taphonomy Recording Form – Juvenile
Milwaukee County Institution Grounds Poor Farm Cemetery
47BMI0076 Collection Location: UWM-ARL & Curatorial Facility
	Lot No. 2013.001+ _____
	Assoc. Lot #s: _____
	_____(do not include pelvic flot lot #s)
	☐ Mixed lot assessment
	☐ No taphonomic modification observed & no outline attached.

Observer Name: **Date Started:** **Date completed:**	

Evaluate skeletal material for the taphonomic indicators listed in the table below. Select the appr priate Juvenile Skeletal Outline and label according to the key numbers below. You may use the extra space for notes

	Present	Absent	Key
Adherent Materials			
Desiccated tissue (e.g., brain)			1
Adipocere			2
Hair			3
Matrix			4
Textile			5
Mold			6
Other:			7
Chemical Changes			
Stains			8
Erosion			9
Other:			10
Physical Chan es			
Water damage			1
Postmortem fracture			12
Gnaw marks			13
Burning			
Burned bone			14
Lab/Cura ial Changes:			
Water-screen d			15
Water spot- eatment			
Other:			7

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Juvenile (Prenatal – 2.49 years) Inventory Record
Milwaukee County Institution Grounds Poor Farm Cemetery
47BMI0076/Collection Location: UWM-ARL & Curatorial Facility
Observer: Date Started:
Date Completed:

Lot No. 2013.001-_____
Associated Lot #s:_____
_____
□ Check box if used for a mixed lot

Note about recording quantities: if any portion of an element is present, place a "1" in the quantity field. If fragments of that element or element group (e.g. right arm) also exist tally the number and record it following the element or element group number (e.g. for Humerus: 1 (+5) frags. For right arm 3 (+15) frags. Please select the appropriate juvenile skeletal outline form, complete the visual inventory and paper clip the outline to this form.

CRANIAL

ELEMENT	Max #	QUANTITY
Mandible	1*	
Cranium:	1	

*may not be fused; expected 'Max #' is still 1.

DENTITION

ELEMENT	Max #	QUANTITY
Maxillary Teeth in crypt	10	
Mandibular Teeth in crypt	10	
Loose		

POST-CRANIAL

ELEMENT	Max #	QUANTITY
Clavicle	2	
Scapula	2	
Vertebra Centra*	29+	
Vertebra, Transverse	58+	
Ribs	24	
Sternum (Manubrium)	4 (1)	
Long bones	12	
Hand & Foot bones	9	
Innominates	6	

* includes primary sacral elements

NISP
Calculate by summing the element quantities fragments teeth, and misc. fragments.
NISP _____ ___

MISC. ELEMENTS
Miscellaneous elements are those that exceed the expected number for a single juvenile burial. E.g., 14 long bones (see ex below)

Misc. Element	Quantity
Ex: femo	2

Miscellaneous fragments are those that you are unable to identify as representing any particular element. Quantity: _____

Do not quantify misc. fragments ≤ 6 mm

COMMENTS:

Supervisor signature:_____ **Lot:**_____**Date:**_____

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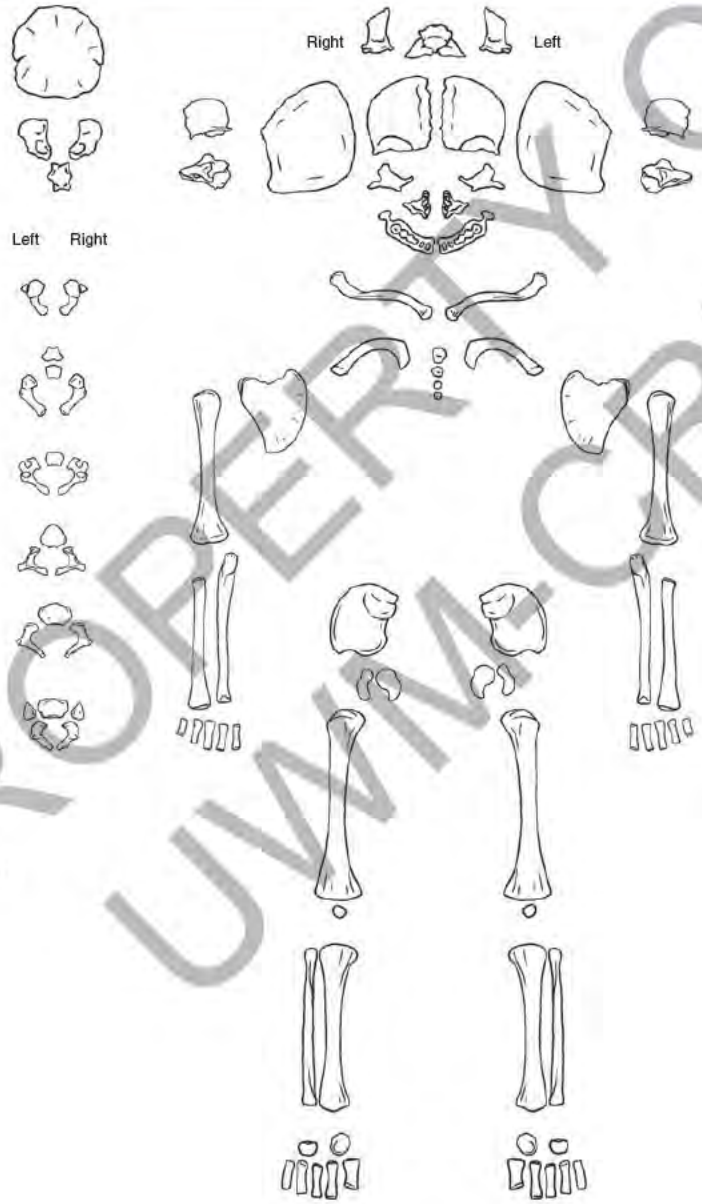
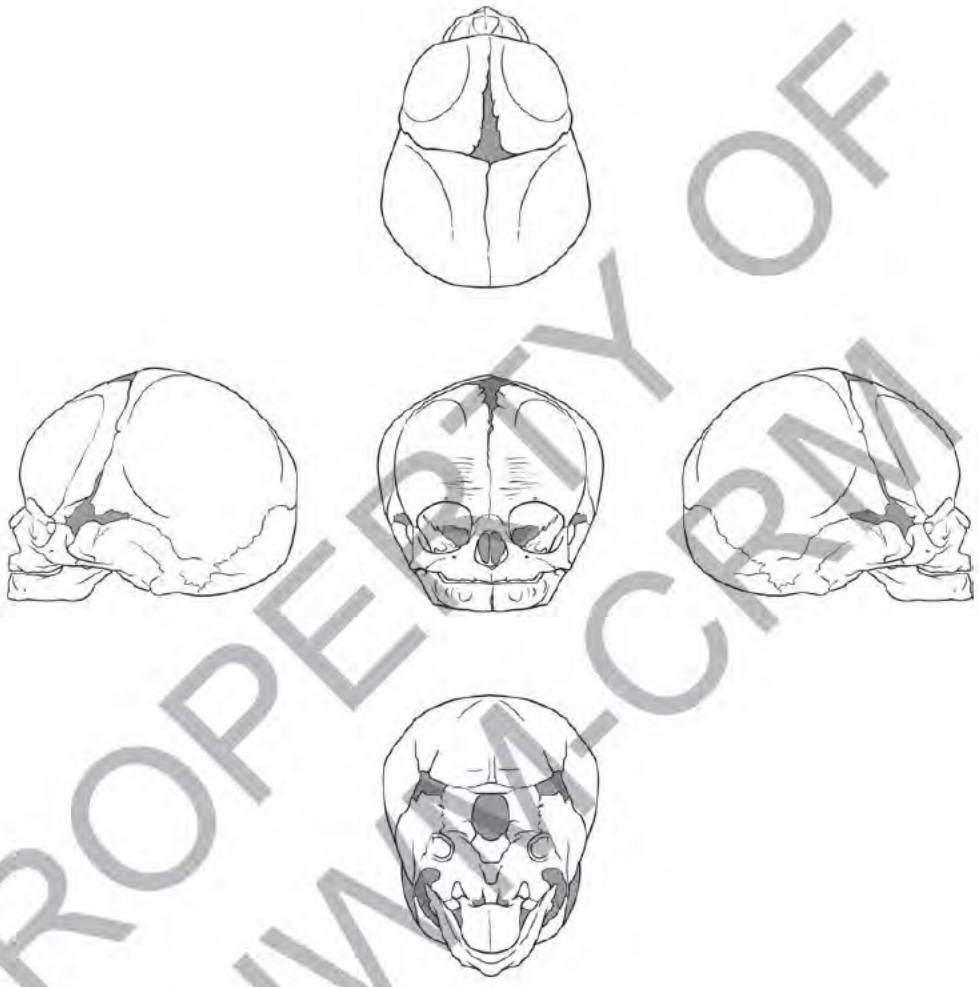
Juvenile Skeletal Outline- Fetal – 2.49 years Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM–ARL & Curatorial Facility	**Lot No.** 2013.001-_____ Assoc. Lot #s: _____
Observer Name: **Date Started:** **Date Completed:**	☐ **Mixed lot assessment**
Indicate form's purpose: ☐ **Visual Inventory** ☐ **Pathology & Trauma** ☐ **Taphonomy** ☐ **Other:** _____	



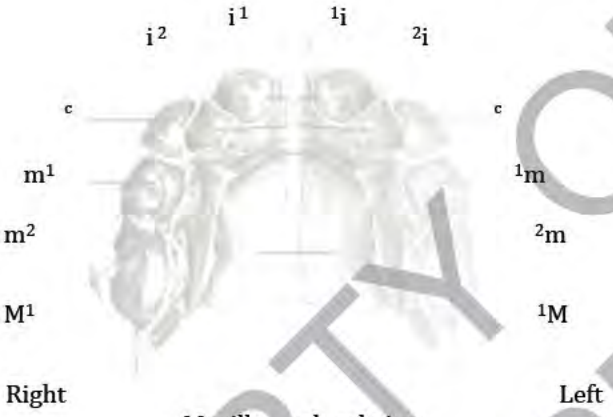
Skull ☐ No Skull



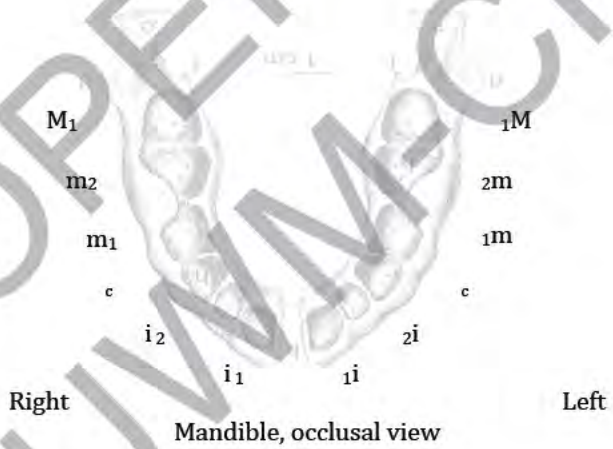
Lot: _____ Date: _____

Dentition ☐ No Dentition

Use the outline below to indicate the presence of any teeth by shading in their shape.



Maxilla, cclusal view



Mandible, occlusal view

Supervisor: _____ Lot: _____ Date: _____

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Juvenile Inventory Form - Early Childhood (2.5 – 5.9 years) Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM-ARL & Curatorial Facility Observer: Date Started: Date Completed:	**Lot No.** 2013.001-_____ **Associated Lot #s:**_____ _____ □ Check box if used for a mixed lot

Refer to the instructions in the Manual when completing this form. Note that this form is used for documenting the quantitative inventory of elements associated with a single lot number. For instructions on curation of osteological material, consult the Manual.

If any portion of an element is present, place a "1" in the quantity field. If fragments that element or element group (e.g. right arm) also exist, tally the number and record it following the element or element group number (e.g. for Humerus: 1 (+5) frags. For right arm 3 (+15) frags.

NOTE: Numbers followed by a "+" listed beneath the "Expected" column indicat the poss ility f observing unfused epiphyses, which are characteristic of many elements representing ind viduals 6 – 2.9 years old. If there are any questions, please speak to a supervisor.

Cranial

ELEMENT	Max #	QUANTITY
Skull	1	
Mandible	1	

Comments: _____

Dentition

ELEMENT	QUANTITY	
	Normal	Teeth with Fillings
Maxillary Teeth		
Mandib lar Teeth		
Loose		

Post-cranial

ELEMENT NAME	Expected	QUANTITY
Clavicle	2	
Scapula	2+	
Humerus	2	
Ribs	24	
Radius	2	
Ulna	2	
Metacarpals & phalange	1 +	
Carpals	16	
Os coxa	2+	
Femur	2+	
Patella	2	
Tibia	2+	
Fib la	2+	
Tarsa s	14+	
Metatarsals & phalanges	10+	
S ernum	3 +	
C1	1	
C2	2*	
C3 – L5	22	
Sacral layers	5 +	

Miscellaneous elements are hose th t *exceed the expected number for a single ile burial*. Example: One right fem is expected, an additional 13 right femo a are not expected (see table below). See your supervisor if y u identify any Misc. elements.

Misc. Elements	Quantity
Ex: Right femora	13

Miscellaneous fragments are specimens you are unable to identify as representing any particular element.
Quantity: _____

NISP: Calculate by summing the element quantities, fragments, teeth, and misc. fragments.
NISP: _____

Comments:

Supervisor: _____ Date: _____

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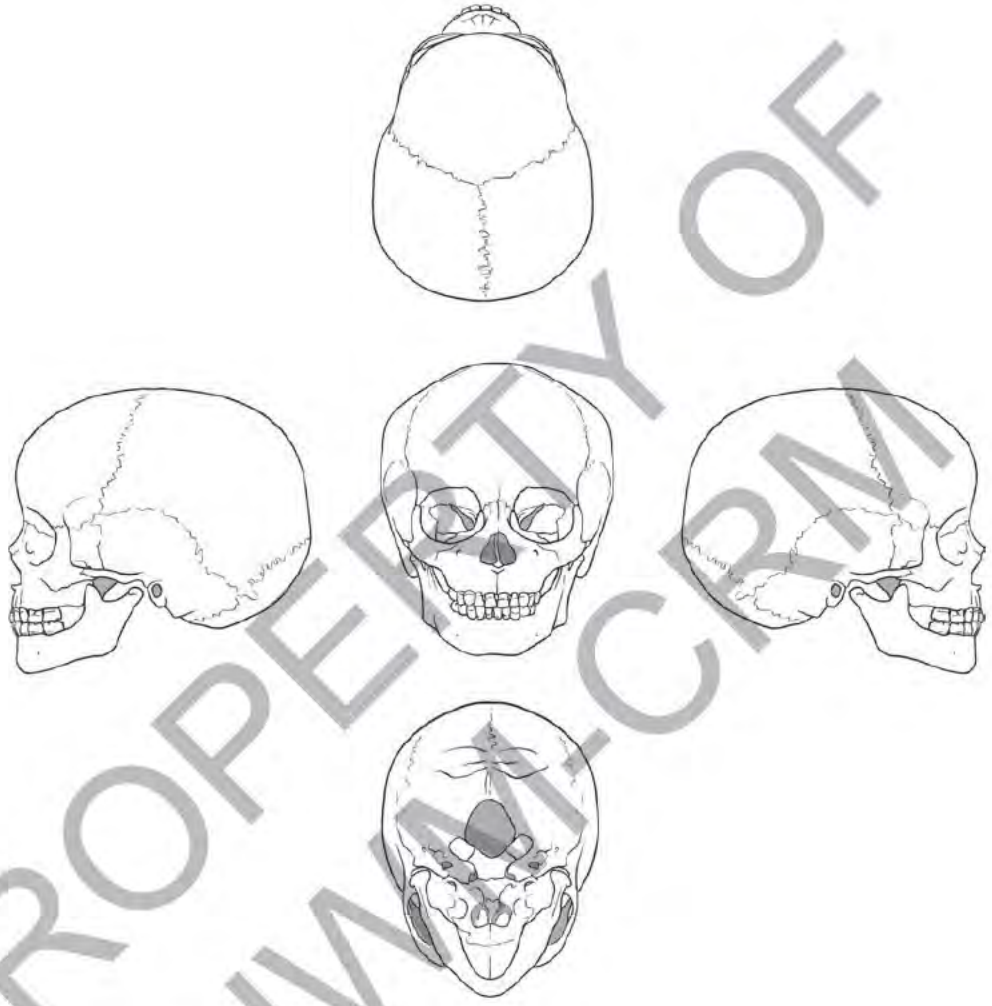
Juvenile Skeletal Outline – Early Childhood (2.5 – 5.9 years) Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM–ARL & Curatorial Facility	**Lot No.** 2013.001-_____ Assoc. Lot #s: _____
Observer Name: **Date Started:** **Date Completed:**	☐ **Mixed lot assessment**
Indicate form's purpose: ☐ Visual Inventory ☐ Pathology & Trauma ☐ Taphonomy ☐ Othe : _____	



Lot#: _____ **Date:**_____

Dentition (Permanent dentition represented in the outer ring of teeth, deciduous dentition represented in the inner ring of teeth)

☐ **No Dentition**

Maxilla (Labial)

Right **Left**

Mandible (Labial)

Supervisor: _____Lot#: _____Date:_____

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Juvenile Inventory Form –Late Childhood (6 – 12.9 years) Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM-ARL & Curatorial Facility Observer: Date Started: Date Completed:	**Lot No.** 2013.001-_____ **Associated Lot #s:**_____ _____ □ Check box if used for a mixed lot

Refer to the instructions in the Manual when completing this form. Note that this form is used for documenting the quantitative inventory of elements associated with a single lot number. For instructions on curation of osteological material, consult the Manual.

If any portion of an element is present, place a "1" in the quantity field. If fragments that element or element group (e.g. right arm) also exist, tally the number and record it following the element or element group number (e.g. for Humerus: 1 (+5) frags. For right arm 3 (+15) frags.

NOTE: Numbers followed by a "+" listed beneath the "Expected" column indicate the possibility of observing unfused epiphyses, which are characteristic of many elements representing individuals 6 – 12.9 years old. If there are any questions, please speak to a supervisor.

Cranial

ELEMENT	Max #	QUANTITY
Skull	1	
Mandible	1	

Comments: _____

Dentition

ELEMENT	QUANTITY	
	Normal	Teeth with Fillings
Maxillary Teeth		
Mandibular Teeth		
Loose		

Post-cranial

ELEMENT NAME	Expected	QUANTITY
Clavicle	2	
Scapula	2+	
Humerus	2	
Ribs	24	
Radius	2	
Ulna	2	
Metacarpals & phalange	1 +	
Carpals	16	
Os coxa	2+	
Femur	2+	
Patella	2	
Tibia	2+	
Fibula	2+	
Tarsals	14+	
Metatarsals & phalanges	10+	
Sternum	3 +	
C1	1	
C2	2*	
C3 – L5	22	
Sacral layers	5 +	

Miscellaneous elements are those that *exceed the expected number for a single burial*. Example: One right femur is expected, an additional 13 right femora are not expected (see table below). See your supervisor if you identify any Misc. elements.

Misc. Elements	Quantity
Ex: Right femora	13

Miscellaneous fragments are specimens you are unable to identify as representing any particular element.
Quantity: _____

NISP: Calculate by summing the element quantities, fragments, teeth, and misc. fragments.
NISP: _____

Comments:

Supervisor: _____ Date: _____

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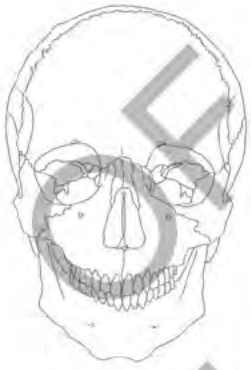
Juvenile Inventory Form – Late Childhood (6 – 12.9 years) Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM–ARL & Curatorial Facility	**Lot No.** 2013.001-_____ Assoc. Lot #s: _____
Observer Name: **Date Started:** **Date Completed:**	☐ **Mixed lot assessment**
Indicate form's purpose: ☐ Visual Inventory ☐ Pathology & Trauma ☐ Taphonomy ☐ Othe : _____	

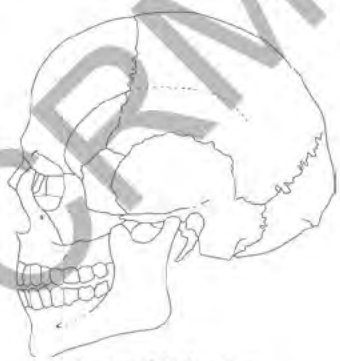
Cranium ☐ No Cranium

Posterior view:



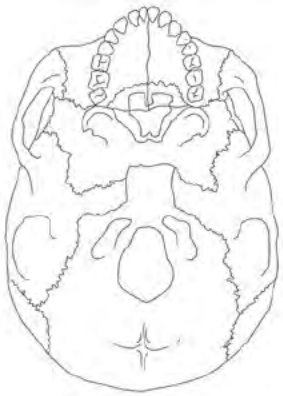
Anterior view

Lat ral right view



Lateral left view

Superior view



Inferior view

LOT #:_____DATE: _____

Dentition (Permanent dentition represented in the outer ring of teeth, deciduous dentition represented in the inner ring of teeth)

☐ **No Dentition**

Maxilla (Labial)

Right **Left**

Mandible (Labial)

Supervisor:_____ Lot#:_____ Date: _____

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Juvenile Inventory Record – Adolescent 13-19.9 years
Milwaukee County Institution Grounds Poor Farm Cemetery
47BMI0076/Collection Location: UWM-ARL & Curatorial Facility
Observer: Date Started:
Date Completed:

Lot No. 2013.001-_____
Associated Lot #s:_____
_____
□ Check box if used for a mixed lot

QUANTITATIVE INVENTORY

RE quantities: If any portion of an element is present, indicate "1" in the quantity field. If fragments of that element or element group also exist, tally the number and record it following the el ment o element group number. Example: One humerus and five fragments: 1 (+5) frags. Example: right arm a d 15 fragments: 3 (+15) frags. Cross-mending specimens, a.k.a. refits, count as 1.

CRANIAL

ELEMENT	Max #	QUANTITY
Skull	1	
Mandible	1	
Hyoid	1	

Comments: _____

POST-CRANIAL, APPENDICULAR

ELEMENT	Max #	QUANTITY
Right Arm	3	
Left Arm	3	
Right Hand	27	
Left Hand	27	
Mixed Hands	54	
Right Leg*	4	
Left Leg*	4	
Right Foot	26	
Left Foot	26	
Mixed Feet	52	

*includes patella
Commen s: ___ _____ ___

MISC. ELEMENTS

Miscel neou elements are those tha xceed he expecte numbe for a single adult buria Ex: 2 lef gs; ecord the extra below (s e example i table).

Misc. Elements	Q antity
Ex. 1 left leg	

MISC. FRAGMENTS

Miscellaneous fragments are those that you are unable to identify as representing any particular element. Misc. Fragments (Quantity): _____

DENTITI N

ELEMENT	QUANTITY		
	Norma	Denture	Gold
Maxillary Teeth			
Mandibular Teeth			
Loose			

PELVIS

ELEMENT	Max #	QUANTITY
Left Innominate	1	
R ght Innominate	1	
Sacrum	1	

Comments: _____
_____

TORSO

ELEMENT	Max #	QUANTITY
Right Clavicle	1	
Left Clavi le	1	
Right Scapula	1	
eft Scapula	1	
Ve tebrae	24	
Ribs	24	
Sternum	1	

Comments: _____

NISP

(Number of Identified Specimens)
Sum element quantities, fragments, teeth, and misc. fragments.

CAUTION: When calculating NISP, do not double count specimens. If elements exist beyond those expected from a single individual, count those *only* in the Misc. Elements section and *not* in the NISP.

NISP: ____

Supervisor:_____ Date:_____

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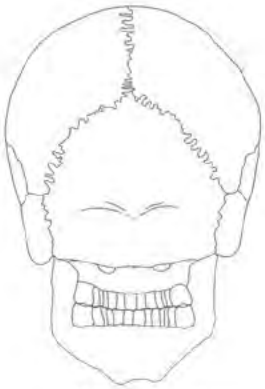
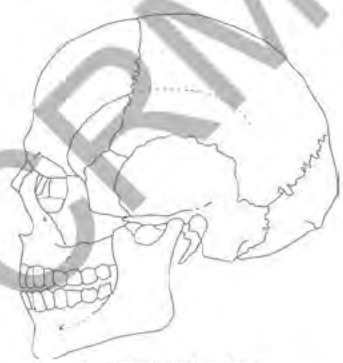
Juvenile Skeletal Outline – Adolescent (13 – 19.9 years) Milwaukee County Institution Grounds Poor Farm Cemetery 47BMI0076/Collection Location: UWM–ARL & Curatorial Facility	**Lot No.** 2013.001-_____ Assoc. Lot #s: _____
Observer Name: **Date Started:** **Date Completed:**	☐ Mixed lot assessment
Indicate form's purpose: ☐ Visual Inventory ☐ Pathology & Trauma ☐ Taphonomy ☐ Othe : _____	



Posterior view:

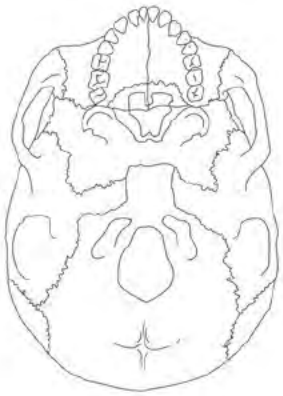
Anterior view

Lat ral right view



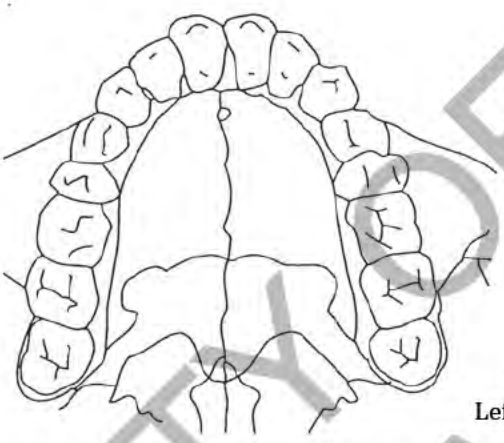
Lateral left view

Superior view



Inferior view

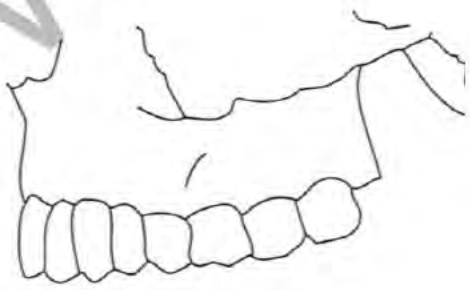
Supervisor:_____ Lot #:_____ Date: _____



Right Left

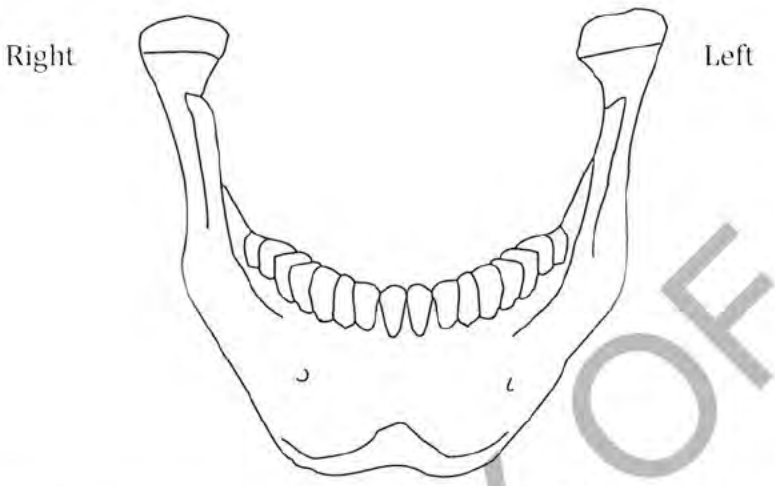
Occlusal (inferior) surface iew of maxillary dent ion

R ght Maxillary Dentition



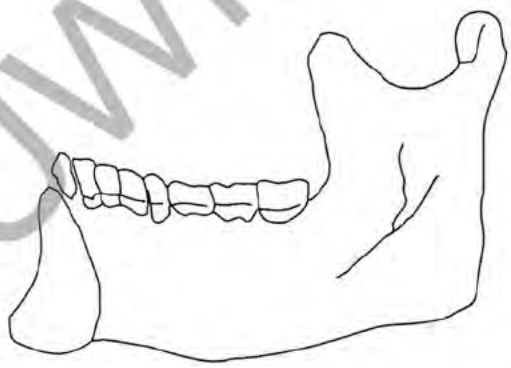
Left Maxillary Dentition

Lot:_____ Date: _____



Oblique superior-anterior view of the labial and buccal mandibular dentition:

Left Mandible, view to lingual side of buccal dentition



Right mandible, view to lingual side of buccal dentition.

PART 4: COMMINGLED LOT INVENTORY AND ANALYSIS FORMS

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Adult Commingled Burial Inventory Record – UWM
Milwaukee County Institution Grounds (MCIG) Poor Farm Cemetery
47BMI0076/Collection Location: UWM ARL & Curatorial Facility

Lot No. 2013.001- _____
Assoc. Lot #s:_____
_____

Completed By:_____ **Date Started:**_____ **Date Completed:**_____

QUANTITATIVE INVENTORY

RE quantities: If any portion of an element is present, indicate "1" in the Element field. If fragments of that element or element group also exist, tally the number and record it in the Frags field following the element or element group number. Example: One left Humerus and five fragments: 1 element 5 frag Example: right arm and 15 fragments: 3 elements, 15 frags. Cross-mending specimens, a.k.a. refits, coun s 1.

CRANIAL

BONE	ELEMENTS	FRAGS
Skull		
Mandible		
Hyoid		

Comments: _____

DENTITION

TOOTH	QUANTITY		
	Normal	Denture	Gold
Maxillary Teeth			
Mandibular Teeth			
Loose			

POST-CRANIAL, APPENDICULAR

BONE	ELEMENTS	FRAGS
Right Arm		
Left Arm		
Right Hand		
Left Hand		
Mixed Hands		
Right Leg*		
Left Leg*		
Right Foot		
Left Foot		
Mixed Feet		

*includes patella

Comments: _____
_____

PELVIS

BONE	ELEMENTS	FRAGS
Left In ominate		
Right Innominate		
Sacrum		

Comments: _____
_____

TORSO

BONE	ELEMENTS	FRAGS
Right Clavicle		
Lef Clavicl		
Righ Sc pula		
Left S apula		
Vertebr e		
Ri s		
Sternum		

Comments: _____
_____

SHARED M SCELLANEOUS BONE

Li y bo that cannot be separated bet en t o or more lo numb rs.

Bon	In ntory

NISP

Sum element quantities, fragments, teeth, and misc. frags.

CAUTION: When calculating NISP, do not double count specimens; be sure to only count bones also listed as Shared Miscellaneous Bone on one lot's inventory.

NISP: ____

MISC. FRAGMENTS

Miscellaneous fragments are those that you are unable to identify as representing any particular element.
Misc. Fragments (Quantity): _____

Supervisor: _____ Date: _____

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Commingled Lot Assessment - Element Set Inventory Milwaukee County Institution Grounds (MCIG) Cemetery 47BMI0076 UWM-Archaeological Research Laboratory HRMS 2013.001		□ Check box if reverse side used	L t No. 013. 01. Associated Lots:
Observer Name:	Start Date: Complete Date:		

Instructions: Use a separate line for each element set; use multiple sheets if necessary. List the EMENT SET number in the l ft column, then the SIDE of the body (Left, Right, or Midline). Indicate the multiple methods used to associate elements und r EVIDENCE Note the INVENTORY o nt for the element [i.e. n = 2+(3)].

ES #	SIDE	INCLUDED ELEMENTS	EVIDENCE	INVENTORY

Commingled Lot Assessment - Element Association Exclusions Milwaukee County Institution Grounds (MCIG) Cemetery 47BMI0076 UWM-Archaeological Research Laboratory HRMS 2013.001		□ Check box if r verse side used	Lot No. 2013.001. Associated Lots:
Observer Name:	Start Date: Complete Date:		

Instructions: Use a separate numbered line for each exclusion noted; use multiple sheets if nec List the specific elements on the left side and the reason for excluding them from a match or refit on the right. Include notes on any methods that le d to a suggesti n of a match before the x lusionary trait was discovered.

#	ELEMENTS	REASON FOR EX LU ION

Commingled Lot Assessment – Age Recording Form
Milwaukee County Institution Grounds (MCIG) Poor Farm Cemetery
47BMI0076 Collection Location: UWM–ARL Curatorial Facility

Lot No. 2013.001- _____
If multiple elements, specify:_____
Burial Category:_____
Assoc. Lot #s:_____
_____
(do not include pelvic flot lot #s)

Observer Name: Start Date: Complete Date:

SUMMARY DATA: **Age Range:** _____ - _____ years
Age Category: ☐Young Adult ☐Middle Adult ☐Old Adult ☐Indeterminate Adult

Estimated Age

Pubic Symphysis (score left and/or right sides on lines following 'L' and 'R', respectively)
Suchey-Brooks (0-6) [Scores for ☐Female OR ☐Male]
L:____ R:_____ Based on Stage Table in Manual; Mean Age: _____ Range: _____
☐Check box if casts used ☐Innominate present but unable to score due to: _____

Todd (1-10) [use only for pelvis of indeterminate nonmetric sex]
L:____ R:_____ Based on Stage Table in Manual; Mean Age: _____ Range: _____
☐Check box if casts used ☐Innominate present but unable to score due to: _____

Auricular Surface
Stage: _____ Mean Age:_____ Range _____
☐Left ☐Right ☐Innominate present but unable to score due to: _____

Cranial Suture Closure (Use left side when possible)
– = Unobservable 0 = Open 1 = Minimal Closure 2 = Significant Closure 3 = Complete Obliteration

External Cranial Vault ☐Unobservable
1. Midlambdoid ____
2. Lambda ____
3. Obelion ____
4. Anterior Sagittal ____
5. Bregma ____
6. Midcoronal ____
7. Pterion ____
8. Sphenofrontal ____
9. Inferior Sphenotemporal ____
10. Superior Sphenotemporal ____

Stage: Mean: _____
Vault Composite Score _____
Range

Stage: Mean: _____
Lateral-Anterior Composite Score _____ _____
Range

Palate ☐Unobservable
11. Incisive ____
12. Anterior Median Palatine ____
13. Posterior Median Palatine ____
14. Transverse Palatine ____

Endocranial (Internal) Vault ☐Unobservable
15. Sagittal ____
16. Left Lambdoid ____
17. Left Coronal ____

Indicate sutures (by number) you scored on the right side when scoring left was not possible: _____
Indicate sutures (by number) you were unable to observe and why: _____

Estimated Age, Combined: Use the following steps to derive a combined estimated age:
1) Average of the highest and lowest mean average age scores or provide a single mean score from above when only one of the four exists: _____

2) Use the result of #1 to select an age category. Select the same category in the Summary Data section above.
☐Young Adult (20-34.9 years) ☐Middle Adult (35-49.9 years) ☐Old Adult (50+ years) ☐Indeterminate adult

3) The final estimated age range is the lowest age of a given age range and the highest age of a given age range derived from the pubic symphysis, auricular surface, and cranial suture scores. Write the lowest age in the first space and the highest age in the second space _____ - _____. Also write this in the Summary Data section.

Supervisor Approval: _____ Date: _____

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Commingled Lot Assessment – Stature Recording Form
Milwaukee County Institution Grounds (MCIG) Poor Farm Cemetery
47BMI0076 Collection Location: UWM–ARL Curatorial Facility

Observer Name: Start Date:
Date Complete Date:

Lot No. 2013.001- _____
If multiple elements, specify:_____
Burial Category:_____
Assoc. Lot #s:_____
_____
(do not include pelvic flot lot #s)

SUMMARY DATA:		
	1. Max Femur Length:_____mm	**Max Tibia Length:**_____mm
	2. Max Femur Length:_____mm	**Max Tibia Length:**_____mm
	3. Max Femur Length:_____mm	**Max Tibia Length:**_____mm

Estimated Stature

When possible, measure the left side. In addition to recording your sc res in mill meters in the appropriate fields below, record the measurements in the Summary D ta section above.

1. Element: _____ Part f Element Set: _____
Sex of Element: ☐Female ☐Male

Maximum length of the femur _____ mm
Side measured: ☐Left ← Preferred standard
☐Right

Maximum length of the tibia _____ mm
Side measured: ☐Left ← Preferred standa d
☐Right

2. Element: _____ Part f Element t: _____
Sex of Element: ☐Female ☐Male

Maximum length of the femur _____ mm
Side measured: ☐Left ← Prefe ed standard
☐Right

Maximum length f the tibia _____ mm
Side me sured: ☐L ft ← Preferred sta dard
☐Ri ht

3. Element: _____ Part of Element Set: _____
S of Element: ☐Female ☐Male

Maximu length of the femur _____ mm
Sid measured: ☐Left Prefer ed standard
☐Right

Maximum length of the tibia _____ mm
Side measured: ☐Left ← P eferred standard
☐Right

Supervisor Approval: _____ Date: _____

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Commingled Lot Assessment - Skeletal Pathology and Trauma Form

Milwaukee County Institution Grounds (MCIG) Cemetery 47BMI0076

UWM-Archaeological Research Laboratory HRMS 2013.001

Observer Name:

Start Date:

Complete Date:

Page _____ of _____

L No 2013.0 1

Associated ots:

Instructions Indicate presence of pathology or trauma by lis ing the ffected element, side of the body, area of element affected, and shading in the type of lesion present. Use OTHER only with supervisor approval.

	ELEMENT	SIDE	AREA	1 Blastic	2 Lytic	3 nbra Orbitalia	4 Porotic Hyperostosis	5 Spi a Bifida Occulta	6 ther:	7 Ank losis	8 Ebu nation	9 Schmorl's Nodes	10 Osteophytic L pping	11 Degenerativ Joint Disease	12 Other:	1 Periostitis	14 Osteomyelitis	15 Oth	16 Osteom	17 N oplasm	18 Ot er	19 H aled Fra ur	20 O her:	21 Heal d Am utation	22 Healed Tr p nation	23 Other:	24 Cut/Sawed bone	25 Craniotomy	26 Unhealed Trepanation	27 Unhealed Fracture	28 Other:	29 Other	31 Other:	32 Other:	33 Other:
1																																		
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20																																		

Supervisor:_____ Date:_____

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Commingled Lot Assessment - Skeletal and Dental Taphonomy Form
Milwaukee County Institution Grounds (MCIG) Cemetery 47BMI0076
UWM-Archaeological Research Laboratory HRMS 2013.001

Lot No. 2013.001

Associate Lots:

Observer Name:	Start Date: Complete Date:	Page _____ of _____

Instructions: Indicate presence of taphonomy by listing the affected element or toothside of the body, area of element affected, and shading in the type of taphonomy present. Use OTHER only with supervisor approval.

	ELEMENT	SIDE	AREA	1 Desiccated tissue	2 Adipocere	3 Hair	4 Matrix	5 Textile	6 Mold	7 Other:	8 Stains	9 Chemical Erosion	10 Other:	11 Water damage	12 Postmortem fracture	13 Gnaw marks	14 Burned bone	15 Bleaching	16 Cleaning	17 Other:	18 Other:	19 Other:	20 Other:
1																							
2																							
3																							
4																							
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20																							

Supervisor:_____ Date:_____

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Commingled Lot Assessment - MNI Inventory	Lot No. 2013.001
Milwaukee County Institution Grounds (MCIG) Cemetery	Associated Lots:
47BMI0076 Collection Location: UWM-ARL Curatorial Facility	
Observer Name: Start Date:	Final Lot MNI: Based On:
Complete Date:	

Tally the number of skeletal elements and landmarks present in the appropriate box. Example: 4 compl e ulnae | IIII |

Complete along with the Manual. Use appropriate side column (Left, Midline/Unsided, R g) recor bones. Care should be taken NOT to record elements twice by recording a bone as COMPLETE and then so recordin indi dual landmarks.

ELEMENT	L	M	R
Complete Cranium			
Complete Frontal			
1. Frontal squama			
2. Superciliary arch			
3. Orbital plate			
Complete Parietal			
1. Frontal angle			
2. Occipital angle			
3. Mastoid angle			
4. Sphenoidal angle			
Complete Temporal			
1. Mastoid process			
2. Squama			
3. Zygomatic process			
4. Petrous portion			
Complete Occipital			
1. Occipital planum			
2. Nuchal crest			
3. Occipital condyle			
4. Cruciform eminence			
Complete Maxill			
1. Frontal proces			
2. Zygomatic pro ess			
3. Alveol r p cess			
4. Pal tine pro ess			
Complete Z g tic			
1 Fron l process			
2. Maxillar process			
3. T mporal p ocess			
omplete Mandible			
Mandibular condyle			
2. amus			
3. Mental eminence			
4. Body			
Loose Teeth			
Maxillary			
Mandibular			
Fragmented			
Complete Hyoid			
1. Greater horn			
2. Body			

ELEMENT	L	M	R
Complete Atlas			
1. Body			
2. Lamin			
Complete Axis			
1 Dens			
2. Body			
3. Spinous pro ss			
4. Lamina			
C mplete Cervical			
1. B dy			
2. Spinous process			
3. Lamina			
4. Transverse proce			
Complete Tho acic			
1. Body			
2. Spino s process			
3. Lamin			
4. Transvers proc s			
Comple Lumbar			
Body			
2. Sp nous process			
3 Lam na			
4 Transverse process			
Complete Sternum			
1. Manubrium			
2. Corpus sterni			
3. Xiphoid process			
Complete Rib			
1. Head			
2. Shaft			
3. Sternal end			
Complete Clavicle			
1. Acromial end			
2. Body			
3. Sternal end			
Complete Scapula			
1. Coracoid process			
2. Spine			
3. Body			
4. Acromion			
5. Glenoid fossa			

ELEMENT	L	M	R
Complete Humerus			
1. Head			
2. Shaft w/deltoid tub.			
3. Shaft w/nutrient for.			
4. Trochlea			
5. Medial epicondyle			
Complete Radius			
1. Head			
2. Tuberosity			
3. Shaft w/nutrient for.			
4. Dorsal tubercle			
5. Styloid process			
Complete Ulna			
1. Olecranon			
2. Coronoid process			
3. Shaft w/nutrient for.			
4. Styloid process			
Complete Sacrum			
1. Sacral plateau			
2. Ala			
3. Median sacral crest			
Complete Os Coxae			
1. Iliac fossa			
2. Greater sciatic notch			
3. Acetabulum			
4. Ischial tuberosity			
5. Ischiopubic ramus			
6. Pubic body			
7. Iliopubic ramus			
8. A. i. iliac spin			
9. Iliac body			
10. Iliac t rosity			

ELEMENT	L	M	R
Complete Patella			
Complete Femur			
1. Head w/fovea cap.			
2. Greater trochanter			
3. Lesser trochanter			
4. Shaft w/nutrient for			
5. Medial condyle			
6. Lateral condyle			
Complete Tibia			
1. Lateral condyle			
2. Media ondyle			
3. Tibial t berosity			
3 Shaft w/ utrient for.			
5. Talar fac			
6. Medial mal olus			
Complete Fibula			
1 Head			
2. Sh ft w/nutrient for.			
3. Lateral malleolus			
Complete Hand			
1. Phalanges			
2. Metacar als			
3. Carpa s			
Compl e Foot			
1. Calcan ous			
2. Talus			
3. Tarsal			
Met tarsals			
5. alanges			
Extra ous Osseus Material			

Mis . Fragm nts are those that you are unab to ident y as epresent g any particular lement.

Misc Frag Q y:_____

NISP is the sum of all elements, fragments, teeth, and misc. fragments in the lot.

NISP: _____

SUPPLEMENTARY DATA: Data gath ed through analytical methods outlined in the Manual (i.e. pair-matching, efitting, etc) which may imp t calculation of MNI. Be sure to indicate the landmarks/elements involved, the type of alysis, and any relevant notes.

CALCULATING MNI

Use this worksheet to calculate the MNI for the Lot. Refer to the Manual for expanded instructions on calculating the MNI.

Review the above tally of included elements and landmarks. Write down the number and name of th landmark with the highest representation in the indicated spaces below. Next, insert the number and name of the co plete bones *associated with that landmark* in the indicated spaces below. In accordance with the Manual, insert the number nd name of any supernumerary data (listed on the previous page) relevant to the chosen landmark in the indica d space below. Sum the numbers in each box; the total will be the MN

Calculations for several landmarks/elements may be necessary; extra space has been provided. S ike th ugh or erase calculations which are not used for Final MNI Calculation. Rewrite Final MNI Calc lations in ind cated spaces below.

Example:

4	+	2	+/-	0	=	6
LANDMARK *olecranon*		COMPLETE BONES *ulna*		S NUM RARY DATA		MNI

	+		+/-			
LANDMARK		COMPLETE BO ES		SUPERNUMERARY D A		MNI

	+		+/-		=	
LANDMARK		CO PLETE BON S		SUPERNU ERARY DAT		MNI

	+		+/-		=	
LANDMARK		COMPLETE BONES		UPERNUMERARY DATA		MNI

FIN L MNI CALCULATION

	+		+/-		=	
LA DMARK		**OMP ETE BONES**		**SUPERNUMERARY DATA**		**FINAL MNI**

SUPERVISOR APPROVAL:_____ DATE:_____

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APPENDIX C: PERMITS

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WISCONSIN HISTORICAL SOCIETY

May 21, 2013

Froedtert Memorial Lutheran Hospital
c/o
von Briesen & Roper, s.c.
411 East Wisconsin Avenue, Suite 1000
Milwaukee, WI 53202

Re: Request to Disturb Catalogued Human Burial Site
Paupers Cemetery – Froedtert Tract (MI-0527, BMI-0076)
SHSW #12-0916/MI

Permit to Disturb Paupers Cemetery – Froedtert Tract (MI-0527, BMI-0076)

To Froedtert Memorial Lutheran Hospital:

In response to DHA Adminstrative Law Judge Ping's decision of April 18, 2013 in the administrative hearing held on February 15, 2013 in response to your application for a permit to disturb a catalogued human burial site (Paupers Cemetery – Froedtert Tract (MI-0527, BMI-0076), wherein she concluded that the benefits to the permit applicant Froedtert in disturbing the catalogued burial site outweighed the benefits to all other persons shown to have an interest in not disturbing the burial site, and pursuant to the provisions of Wis. Stat. § 157.70 (5) 3., I do hereby issue you a permit to disturb the Paupers Cemetery – Froedtert Tract (MI-0527, BMI-0076).

This permit shall be valid through the duration of the Froedtert Memorial Hospital Southside Expansion project, the proposal having been fully described during the above-referenced hearing of February 15, 2013.

With questions, please contact me at (608) 264-6440. Thank you for your continued attention to this matter.

Sincerely,

Ellsworth H. Brown
Ruth and Hartley Barker Director
Wisconsin Historical Society

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WISCONSIN PUBLIC LANDS FIELD ARCHAEOLOGICAL PERMIT, 2013
REQUIRED TO CONDUCT ARCHAEOLOGY ON ALL NON-FEDERAL PUBLIC LAND UNDER WIS. § 44.47
Wisconsin Historical Society

Name/Organization/Contact UW-Milwaukee HRMS Telephone 414-229-2416

Address PO Box 413 City Milwaukee State WI Zip Code 53201

E-mail Address pbrownr@uwm.edu FAX# 414-229-5148

Institutional Affiliation UW-Milwaukee Occupation Archaeologist

Location of work:
Highway: Hwy/Rd _____ County _____
Project Begin: _____ Project End: _____

Other Projects: County Milwaukee Civil Town Wauwatosa Town 7N Range 21E Section 28

Quarter Sections (minimum 3) NE, SE, SW, NW

Name of Park, Wildlife Area _____ Site Name: Pauper Cemetery-Froedtert Tre Site Number BMI-0076

Type of fieldwork: ☐ Phase I/Survey ☐ Phase II/Testing ☑ Phase III/Excavation ☐ Other

Purpose of the fieldwork: ☐ Federal Compliance ☑ State Compliance ☐ Education ☐ Other

Period of field work beginning on May 2013 and ending on October 2013

What institution will curate recovered artifacts, notes, and records? UW-Milwaukee
(Curation agreement must be on file with WHS)

Signature of Archaeologist Patricia B Richards Date 5-22-13

Print name Patricia B. Richards, Ph.D. ☐ continuation sheet or see attachments

Permit is in association with Froedtert request to disturb catalogued burial site BMi-0076 / MT-0587

Maps and/or Letters of explanation can accompany this application

Froedtert Memorial

Landowner or custodian name (print) Lutheran Hospital, Inc. Phone 414-805-2994

Signature of Landowner _____ Date 5/22/3013

SVP & General Counsel DO NOT WRITE BELOW THIS LINE

Permit Approved for John H. Broihahn (Leslie Eisenberg) Date 5-22-13

PLP # 13.053

John H. Broihahn
State Archaeologist
Wisconsin Historical Society
FAX: 608-264-6504 / PH 608-264-6496
Email: john.broihahn@wisconsinhistory.org

Conditions:
1) Two copies of the final report must be submitted to the Division of Historic Preservation – Public History.
2) All artifacts, notes and records must be curated in an appropriate facility that is staffed by trained personnel.

This permit does NOT cover work within cataloged and uncataloged burial sites under Wis. § 157.70 .
This permit does NOT cover removal of human remains under Wis. § 157.70.

Please contact Sherman Banker at (608) 264-6507 or by e-mail at sherman.banker@wisconsinhistory.org

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APPENDIX D: BURIAL CONTRACT

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Archeological Contract among Froedtert Memorial Lutheran Hospital, Historic Resource Management Services(HRMS) of the University of Wisconsin-Milwaukee (UWM), and the Wisconsin Historical Society
For Excavation, Analysis and Temporary Curation of Human Remains and Objects Related to the Burial from the Paupers Cemetery – Froedtert Tract (Wisconsin Historical Society Site #s BMI-0076, MI-0527), Milwaukee County

This agreement is made by and among Froedtert Memorial Lutheran Hospital (hereinafter Froedtert), the Director (or his Designee) of the Wisconsin Historical Society (hereinafter Society) and HRMS (hereinafter Contractor) for archaeological and analytical services to by performed at [the Archaeological Research Laboratory, Department of Anthropology, UWM]. The purpose of this Contract is to ensure that the excavation and analysis of human remains and associated objects are performed and completed in a timely manner and that sufficient information is provided to the Society to allow for a disposition determination per Wis. Stat. §157.70(6) and Wis. Admin. Code § HS 2.05(1) following the completion of the excavation and skeletal analysis.

Deliverables include:

1. A thorough literature search (to include Milwaukee County and hospital records) and the historical record, including all records of the UW-Milwaukee Anthropology Department related to this cemetery and this area generally.

2. The professional archaeological excavation and removal of human remains and any associated objects.

3. The determination of either direct kinship, or the cultural, tribal or religious affiliation of the remains by a "Skeletal Analyst" as defined in Wis. Admin. Code § HS 2.02(12) and HS 2.04(6)(b) as well as the minimum and maximum number of individuals identified, including their age, and sex, if possible. To the extent necessary to make the determination, the analysis may also include documentation and description of trauma, evidence for cultural and/or medical intervention, the presence and documentation of pathology, as well as any relevant taphonomic factors. Please refer to "Standards for data Collection From Human Skeletal Remains" edited by J. E. Buikstra and D. H. Ubelaker for guidance.

4. Soil removed from the bones during cleaning must be retained with the remains for future disposition.

5. It is the responsibility of the Contractor to retain the services of a "Skeletal Analyst," as defined at Wis. Stat. § 157.70 and Wis. Admin. Code 2.02 (12) and 2.04 (6)(b). A skeletal analyst must be present in the field during excavation and

also in the laboratory during analysis. When those activities run concurrently, two skeletal analysts must be working simultaneously.

A current listing of those individuals is appended to this contract and may be found at http://www.wisconsinhistory.org/hp/burialsites/about/bs_skeletalanalyst.pdf.

6. The preparation of an overall site map that references the location of the burial(s) relative to a permanent datum point as well as the preparation of an *in-situ* plan view of the excavation and each burial.

   Each burial shall have a separate field and laboratory inventory record

7. Scaled digital black-and-white photographic documentation of the disturbance, the excavation and any associated objects.

8. The completion and submittal of an archaeological site inventory (ASI) update form to State Archaeologist's office at the WHS.

9. The Contractor shall be responsible for submitting two copies of the final report to the Society for review and approval once the excavation and analysis are completed. The report must include information on the context of discovery and any associated cultural information that would aid in determining the ancestry and direct kinship, or the cultural, tribal or religious affiliation of the remains.

10. The Contractor shall be responsible for transferring all reports generated and copies of field notes, maps, and photographs related to the burial site to the Wisconsin Historical Society, under Wis. Admin. Code § HS 2.04(10). The Contractor shall provide 1 set of hard-copy printed materials and 1 set of electronic (digitized) materials.

11. The Contractor shall provide a comprehensive Scope of Work describing in detail the nature of the archeological project to be undertaken, in compliance with and in satisfaction of all terms expressed in this contract. The Scope of Work shall be attached and incorporated herein as Appendix A. The Society shall review the Scope of Work and approve same prior to its incorporation as Appendix A; such approval shall be evidenced by the Society's authorized signature on the final page of the Scope of Work.

Particular care should be taken to follow pages 84-102 of the 1997 Wisconsin Archaeological Survey "Guidelines for Public Archaeology in Wisconsin, as Revised," during the excavation and recording of the human remains and associated objects.

It is the responsibility of the Contractor to secure a field permit under Wis. Stat. §44.47(4) (if applicable) from the State Archaeologist prior to initiating fieldwork on state, county or municipal land.

The Contractor shall obtain prior permission from the Society for presentation of lectures, reports, or publications of information obtained during and as a result of this project until such time as the final report is completed and approved by the Society. After approval of the final report, no permissions will be required and any party to this contract may distribute the report of research results.

An archaeologist qualified to excavate burials (per Wis. Stats. § 157.70 (5) and Wis. Admin. Code § HS 2.04 (6)(a) shall be on-site at all times during the excavation; the Contractor shall have under contract at minimum two such qualified archeologists.

A skeletal analyst (per Wis. Admin. Code 2.02 (12) and 2.04 (6)(b) shall be present to conduct and to supervise all analysis of human remains and objects related to the burials.

The Contractor shall prepare and submit interim reports to the Society: weekly e-mail updates/monthly written reports. Such reports shall go to the attention of:

Chip Harry L. Brown III, J.D.
Wisconsin Historical Society
816 State Street
Madison, WI 53706
608-264-6508 (voice)
608-264-6504 (fax),
chip.brown@wisconsinhistory.org (email)

The Contractor shall provide for temporary custody of the remains and any associated artifacts in a secure facility located in the State of Wisconsin until such time as a disposition decision is made by the Society.

At no time for any reason may any human remains or associated artifacts be transferred out of the State of Wisconsin, unless a plan for such transfer (to include returning the remains to the State of Wisconsin by an explicit date) is submitted to the Society for consideration and the Society agrees to the plan in writing. The Society shall have 30 days from receipt of such a request to review and respond. If the Society does not respond within 30 days, then the request shall be deemed to have been denied.

No bone samples may be harvested for study without the express permission of the Society, pursuant to Wis. Admin. Code § HS 2.04(9).

The terms of payment shall be arranged between Froedtert and the Contractor, but in no case shall more than 80% of the total agreed upon payment be paid to the archaeological contractor until the report (referenced above as Deliverables #8) is received and approved by the Society.

The excavation shall be completed no later than **August 30, 2013**. The analysis shall be completed by **December 15, 2014** and the report shall be submitted to the Society no later than **February 16, 2015**.

Draft: 5/22/2013 10:47 AM

The Society shall review the report and shall issue its findings in writing. If the Society identifies deficiencies in the report, it shall identify them in writing, and the archeological contractor shall have 30 days from the date of receipt of the Society's comments to remedy or otherwise address the identified deficiencies in writing in a revised report, submitted to the Society for further review and approval by:

Director of the Wisconsin Historical Society
816 State Street
Madison, WI 53706

If the excavation, analysis and/or report deadlines are not met, the Society may terminate this archeological contract. If the Society terminates this contract for the aforestated reason, then the Society shall negotiate a new contract with Froedtert and a new Archeological Contractor. The archeological contractor whose contract has been terminated shall forfeit any claim for damages.

It is understood by all signatories to this contract that inadvertent discoveries during the course of the excavation may result in unforeseen delays; such delays must be immediately communicated to and coordinated with the Society so that a new field completion date may be negotiated.

Nothing in this contract shall be construed as a disposition determination under the provisions of Wis. Stat. § 157.70 (6) and HS 2.06. Such determination in its entirety shall be made after the successful completion of all of the terms of this contract.

The Contractor shall obtain prior permission from the Society for presentation of lectures, reports, or publications of information obtained during and as a result of this project until such time as the final report is completed and approved by the Society. After approval of the final report, no permissions will be required and any party to this contract may distribute the report of research results.

Froedtert, and/or the Contractor is/are responsible for satisfying provisions of or otherwise carrying out any duties related to any other local, state or federal ordinance(s), law, code or regulation not reference herein.

For Froedtert Memorial Lutheran Hospital

Signed: _____ Dated: _____
Name/Title

Draft: 5/22/2013 10:47 AM

For Historic Resource Management Services

Signed: Thomas R. Marcussen Dated: 5/22/13
Name/Title Thomas R. Marcussen, Director, Office of Sponsored Programs, UWM

For the Wisconsin Historical Society:

Signed: Ellsworth H. Brown Dated: 5/22/13
Ellsworth H. Brown
Ruth and Hartley Barker Director

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APPENDIX E: ARCHAEOLOGICAL SITE INVENTORY UPDATE FORM

Wisconsin ASI Update/Correction Form

Site# 47-MI-0527 Burial Site# 47-BMI-0076 Field Number# _____ County Milwaukee

Site Name (limit 25 characters) M waukee County Grounds - Froedtert Tract Other Name _____ _____

Civil Town(s) _____ Town # 7 North Range# 21 East Section# 28

USGS Quad Name Wauwatosa

Please refer to the ASI form and provide the appropriate headings for the correction or new information. Examples of headings are: QUARTER SECTIONS, USGS MAP, SITE DESCRIPTION, and BIBLIOGRAPHIC REFERENCES. Provide a justification or reference for any new information. When appropriate, attach a sketch map and copy of USGS quad showing revised location of site.

HEADING(S) AND NATURE OF CORRECTION/UPDATE:

SITE DESCRIPTION:
UWM Phase III investigations in 2013 exposed 0.49 acres (.20 hectares) of 47MI527 as defined in Wisconsin ASI. A total of 632 individual burial locations containing the remains of a minimum of 665 individuals were investingated.

USGS MAP:
Following the 2013 Phase III excavations, an estimated 0.382 acres (16639.92 sqft) of intact cemetery remain largely under Doyne Avenue. Re-allignment of a 1930's WPA map of the cemetery (originally utilized to define the bounds of 47MI527) to the location of identified graves, suggests a subtle re-alignment and expansion of the site boundary (see attached map and new site dimensions below).

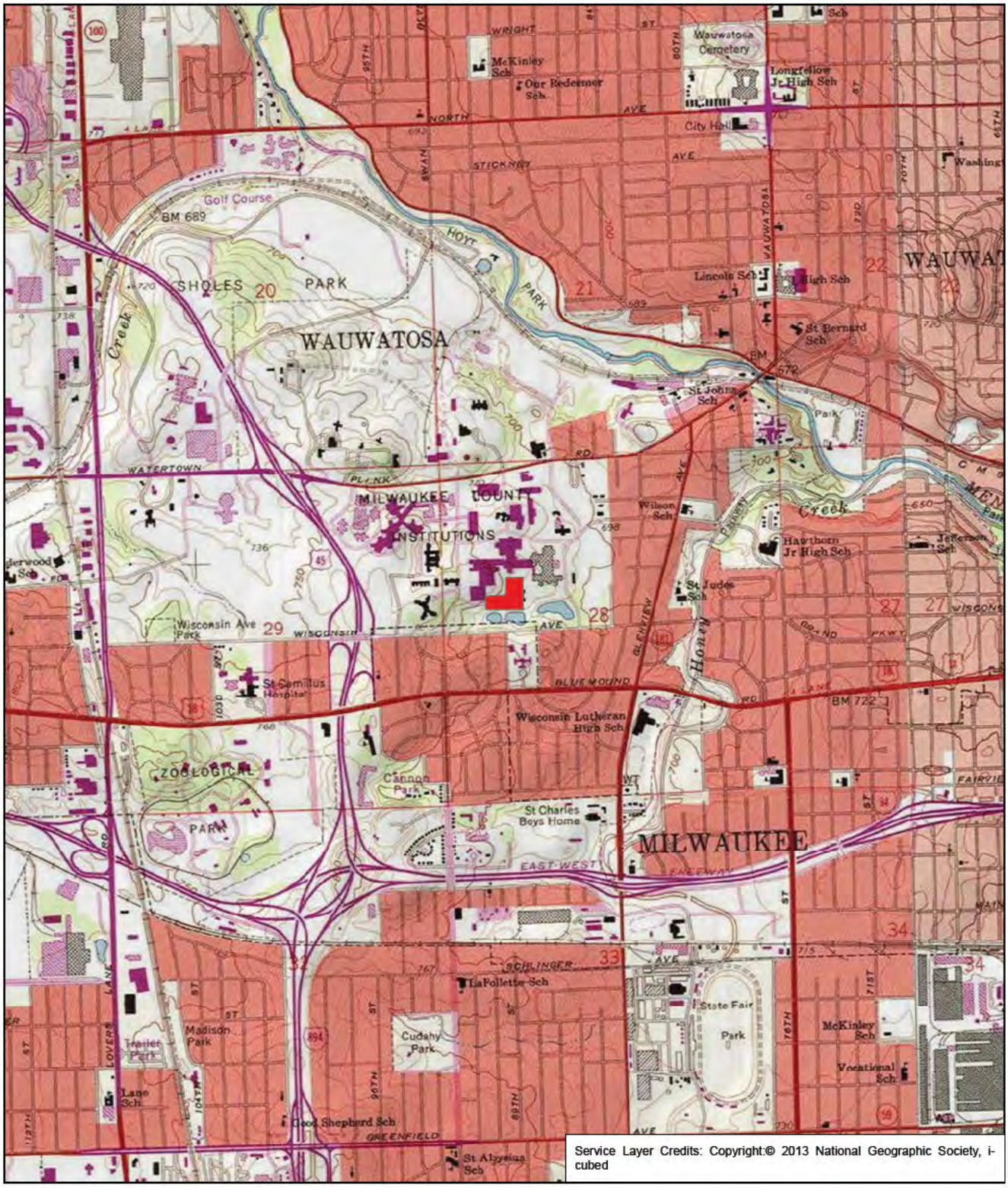
SITE DIMENSIONS:
As noted above, site boundaries are ammended, encompassing the following area:
207,800 sq feet (4.77 acres)
19,305 sq meters (1.93 hectares)

LOCATION DESCRIPTION:
This site is located along and underneath Doyne Aveneue, north of a set of stormwater detention ponds.

MODERN LANDUSE:
to include: Municipal/Roadway (i.e. Doyne Avenue)

Investigator Patricia Richards, Ph.D. Affiliation UWM-CRM Date 8/16/15
Submitted by Thomas J. Zych, MS, RPA Affiliation UWM-CRM Date 8/16/15

FOR WHS OFFICE USE: ❒ ASI# _____ ❒ CHK'D _____ ❒ GIS ENTRY _____ ❒ GIS ENTRY CHK'D _____ ❒ ENTER _____ ❒ ENTRY CHK'D _____ HP-00-000 (rev 08/2002)



N

1:24,000

47-MI-0527/BMI-0076 Updated Extent

0 0.5 1 2 Kilometers

0 0.5 1 Miles

47-MI-0527 Site Boundary

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APPENDIX F: ARCHAEOLOGICAL REPORT INVENTORY FORM

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ARCHAEOLOGICAL REPORTS INVENTORY FORM

WHS PROJECT # 12-0916/MI COUNTY Milwaukee

AUTHORS: P. Richards, E. Burant, B. Drew, E. Epstein, C. Jones, N. Richards, T. Zych

REPORT TITLE: Nine for Mortal Men Doomed to Die: the Archaeology and Osteology of the 2013 ~~Milw~~aukee County Poor Farm Cemetery Project (Froedtert Tract - 47 MI 0527)

DATE OF REPORT (MONTH AND YEAR): September 2015

SERIES/NUMBER: UWM ARL ROI 381

PLACE OF PUBLICATION: University of Wisconsin-Milwaukee

LOCATIONAL INFORMATION [LEGAL DESCRIPTION OF SURVEY AREA (T-R-S)]
NEI/4, SEI/4, SW1/4, NWI/4 of Section 28, T7N, R21E, in the City of Wauwatosa

U.S.G.S. QUAD MAP(S): Wauwatosa, Wi

SITE(S) INVESTIGATED: Paupers Cemetery - Froedtert tract (MI-0527, BMI-0076)

ACRES INVESTIGATED: 0.8 acres AGENCY # ____

INVESTIGATION TECHNIQUES COMPLETED (Check all that apply.)

☒ Historical Research	☐ Surface Survey	☐ Geomorphology
☐ Interview/Informant	☐ Soil Core	☐ Underwater
☒ Records/Background	☐ Walk Over/Visual Inspection	☐ Avocational Survey
☒ Literature Background Research	☒ Mechanical Stripping	☐ Chance Encounter
☐ Traditional Knowledge	☐ Test Excavation/Phase II	☒ Osteological Analysis
☐ Monitoring	☒ Major Excavation/Phase III	☒ Faunal Analysis
☐ Shovel Testing/Probing	☐ Remote Sensing	☐ Floral Analysis

ABSTRACT: ☒ Included in report ☐ Written in space below

Office of the State Archaeologist ARI # _____