

### Physical Anthropological Methods

On February 20 and 21, 2002, Dr. Washburn and I examined the human remains recovered from beneath Washington Avenue. We conducted our examinations at the Anthropology Laboratory on the Temple University campus. Muriel Kirkpatrick, Director of the Laboratory, assisted us with the examinations and photographic documentation of the remains. Joseph Gingerich, an anthropology major at Temple University, also assisted us.

The osteological examinations and analyses of the remains from Washington Avenue were conducted following standard physical anthropological procedures according to recommendations set forth in *Skeletal Database Committee Recommendations* (Paleopathology Association 1991) and *Standards for Data Collection from Human Skeletal Remains* (Buikstra and Ubelaker 1994). Paleopathologic data were collected using the Smithsonian Institution Coding System. All examinations were conducted grossly and with the aid of a magnifying lens. No invasive tests were performed.

Documentation of each individual included an inventory of the bones and teeth that were present, an assessment of preservation, and determination of the minimum number of individuals found in each coffin.

Demographic profiles were subsequently established for each individual represented by the remains. These profiles included a determination of each individual's sex, age range at death, and ancestry. The profiles were determined using a combination of morphological, metrical, and multivariate techniques.

We also recorded the personal characteristics of each individual. These attributes included traumatic or pathologic lesions; non-metric morphological traits; evidence of biomechanical stress, including location and severity of enthesophytes and osteophytes; degree of dental attrition; identity of lost teeth and time of loss when observable; evidence of occupational activities; and evidence of intentional cultural or social modifications. A differential diagnosis was made where possible to account for the observed lesions on each bone or tooth.

The individuals were documented using 35mm slide film and standard radiographs of the dentition.

### Physical Anthropological Results

The remains of 15 individuals were recovered during the excavations in February 2002. This group comprised nine adults (four males and five females) and six infants and children (Table 1). Sex cannot be accurately determined from the remains of children without DNA sampling. There was no identificatory information found with any of the individuals.

Of the six subadults, five had died before reaching the age of 18 months, including one newborn infant (Burial 14). The sixth subadult was a child aged 2-3 years at death who was represented only by the long bones of the lower limbs. All of the adults were at least 25 years old at death, with the oldest one (Burial 1) 50-55 years old when he died. All of the adults who presented crania sufficiently preserved to determine ancestry were of European descent and would have been socially recognized as white.

None of the individuals presented lesions that indicated their cause of death. Two individuals, however, exhibited evidence of disease. Burial 3, a male 40-50 years old at death, presented healed periostitis (inflammation of the outer layer of the bone) across the right tibia. This lesion is the result of a localized infection of unknown origin. Burial 9, a child 2-3 years old at death, exhibited anterior curvature of the femora and tibiae, reflecting vitamin D deficiency (rickets). Additionally Burial 5, a 35-40-year-old woman, presented a wide pre-auricular sulcus, evidence of at least one pregnancy.

Conclusions

Excavations of wooden coffins inadvertently discovered during water line installations beneath Washington Avenue near Seventh Street in October 2001 resulted in the relocation of 15 unidentified individuals apparently interred during the historical period in a currently undocumented burial ground.

According to Dr. Waskie, archival evidence suggests that the remains are from the Old St. Joseph's Catholic Burial Ground that had been formerly located across Washington Avenue, opposite the location of the backhoe trench in which the remains were discovered in 2001. That burial ground was opened in 1824. The shapes and styles of the coffins (hexagonal and flat-lidded) and nature of the limited number of artifacts recovered with the remains (particularly hand-made wooden buttons and white metal coffin trim) are consistent with burials made during the first half of the nineteenth century.

Of the 15 individuals recovered, nine were adults (four males and five females) and six were infants and children, including one newborn. All of the adults were of European descent and would have been socially recognized as white. No causes of death could be determined. There was no evidence of trauma but two of the individuals presented skeletal lesions reflective of a localized infection and nutritional deficiency. These lesions are common among human remains dating from the historical period.

Given the lack of detailed records and possibility of previous disturbance, it is highly unlikely that any of these individuals will ever be personally identified.

Judge Lazarus, please contact me if you have any questions or need further information about our anthropological analyses. Although I now live and teach in upstate New York, I still serve as the Forensic Anthropologist for the Philadelphia Medical Examiner's Office and make frequent visits to the city. My current email address is [Tcrist@utica.edu](mailto:Tcrist@utica.edu).

Respectfully,



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Associate Professor, Utica College

TC/

cc: Dr. Arthur Washburn  
Dr. Anthony Waskie

References

Buikstra, Jane E., and Douglas H. Ubelaker (eds.)  
1994 *Standards for Data Collection from Human Skeletal Remains*. Research Series No. 44. Arkansas Archeological Survey, Fayetteville.

Paleopathology Association  
1991 *Skeletal Database Committee Recommendations*. Paleopathology Association, Detroit.

Tables

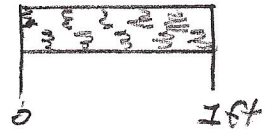
TABLE 1. Demography of Individuals Relocated from Washington Avenue near Seventh Street.

Burial No.	Sex	Age	Comments
1	Male	50-55	
2	Female?	30-35	
3	Male	45-50	Healed R tibial periostitis
4	Female	30-35	Buried with a blanket
5	Female	35-40	Wide pre-auricular sulcus; evidence of pregnancy
6	Male?	35-40	
7	C	8-16 months.	
8	Female	25+	
9	C	2-3 years.	Lower limbs only present; presents with rickets
10	Female	35-40	
11	Male	35-40	
-----	-----	-----	No remains recovered
-----	-----	-----	No remains recovered
14	C	Newborn	
15	C	8-16 months	
16	C	6-8 months	
17	C	8-16 months	

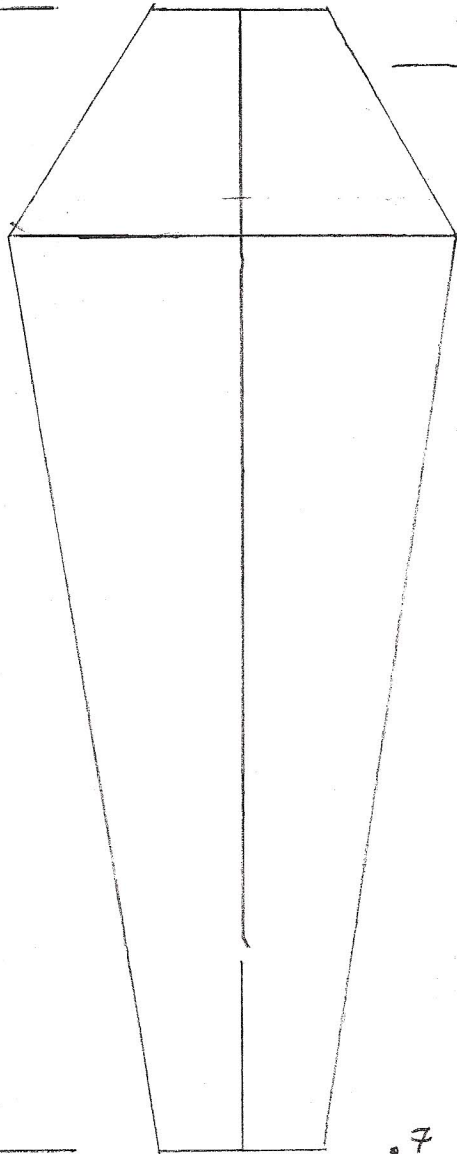
**APPENDIX B**

**SCALED FIELD DRAWINGS OF COFFINS**

Washington Ave  
burial C-6  
2/7/02



66.87W width



0.95 top to bottom of ground surface  
8.05 f+bs measured to surface on which  
☒ coffin sat. Taken after coffin was  
removed

7.95 f+bs ☒

60.87 W

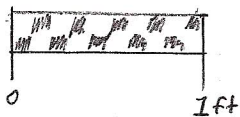
7 top of coffin to ground surface  
7.9 ☒

C-6 is 7.1ft below ground surface

\* coffin is slightly collapsed

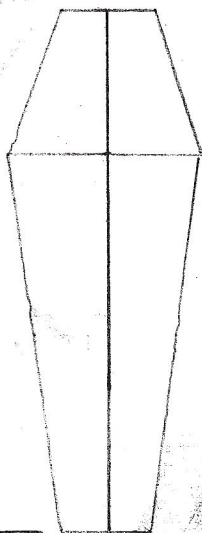


Washington Ave.  
burial C-7



N →

S 2.7 W



6.1' from  
Macadam  
surface to  
surface on which  
coffin lay

49.4 W

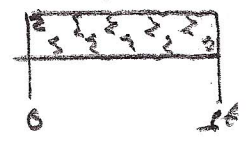
16.7

\* coffin collapsed before distance from  
top to bottom could be measured

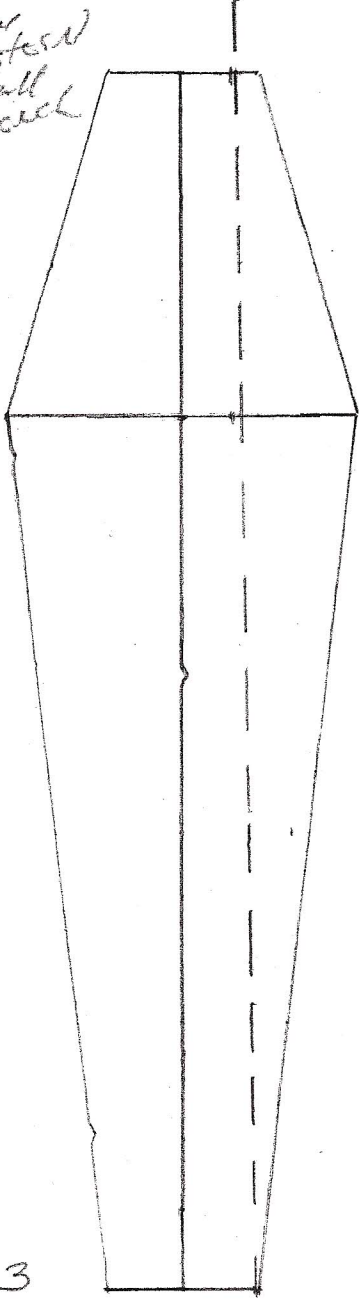
drawing # I

of Section  
direction

Washington Ave  
burial C-8



11.9 feet  
from  
western  
wall  
of trench



1.1 ft depth top to bottom

4.1 ft from ground surface  
to bottom of coffin

18.3

604  
WESTERN  
wall  
of trench

.95 depth top to bottom

 indicates Southern wall  
of trench

- Top of coffin collapsed in on  
itself

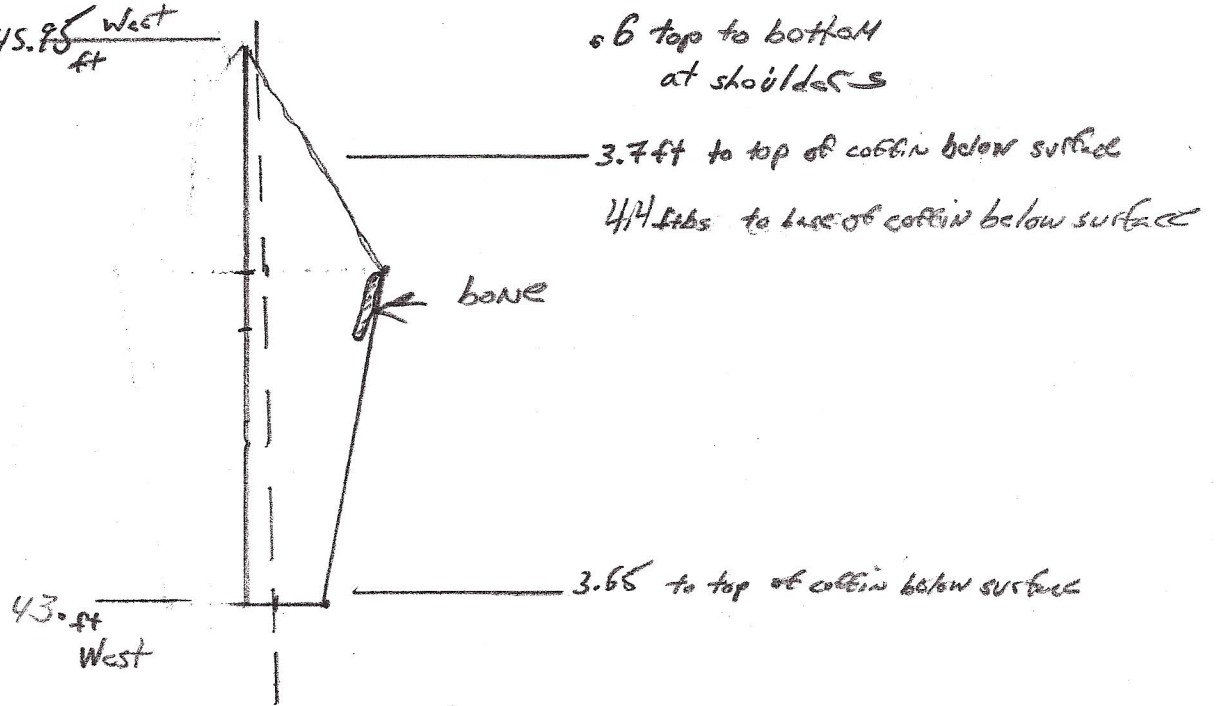
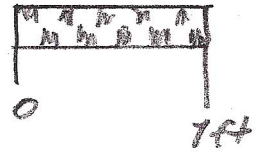
drawing #3

Washington Ave

C-9


2/7/02

45.85 West  
ft



Northern portion removed  
by bulldozer

Top collapsed in on itself

 dotted line is south wall of  
trench

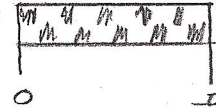
sketch #4



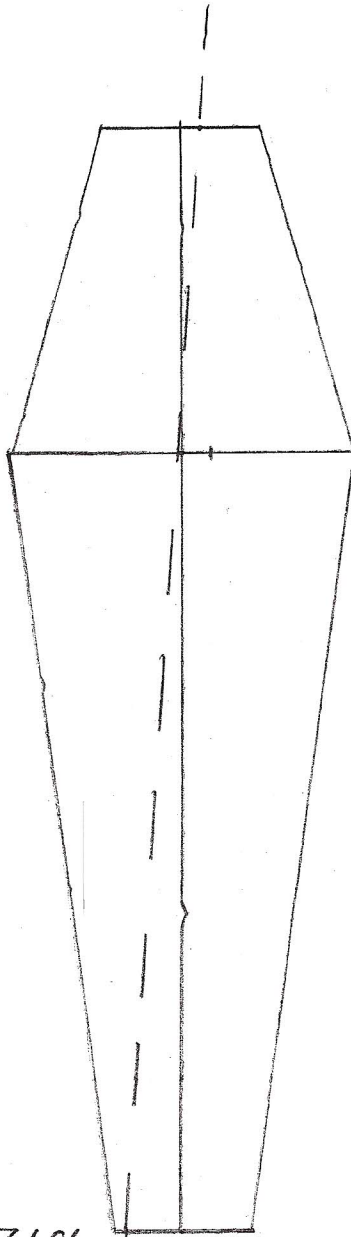
Washington Ave

C-10

2/7/02



12.3 ft  
↑  
Measurements taken from  
western most portion of  
trench



Top to bottom .7 ft  
ground surface to top 4.2 ft

--- Southern well of trench

Coffin made of red colored wood  
lies directly below C-8

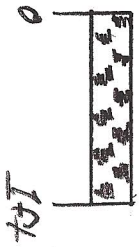
17.1 ft  
↑  
Measurements taken from  
western most portion of trench

Drawing # 5

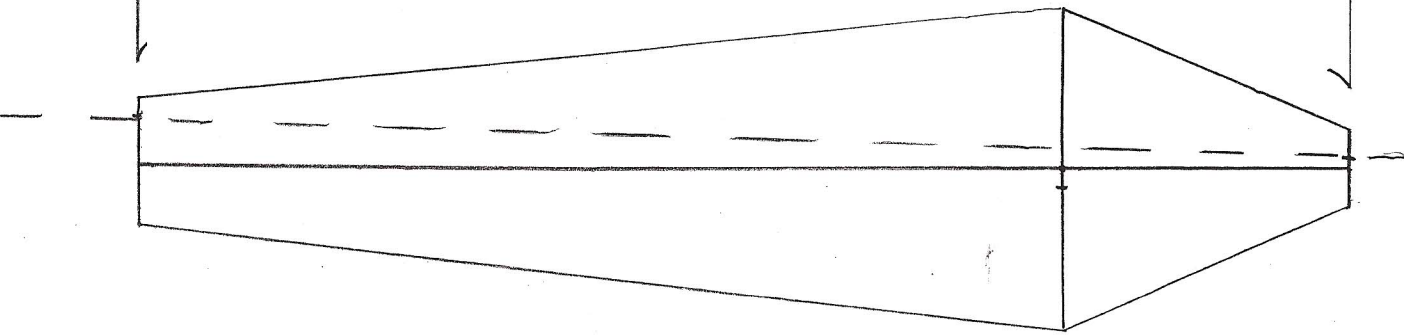
Washington Ave.

C-11

2/7/02



11.5 ft  
front western part  
portion of truck



17.9 ft  
front western part  
portion of truck

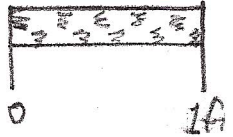
85 ft floor top to bottom of ceiling  
4.8 ft below ground surface to top of  
[ ] southern wall of truck

drawing #7

Washington Ave

C-12

2/7/01



52.3ft W →

• 6ft top to bottom

4.7ft bs

located protruding out of  
North wall of trench

--- North wall of trench

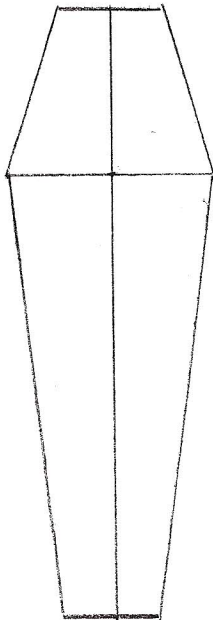
46.8ft  
W →



drawing #6

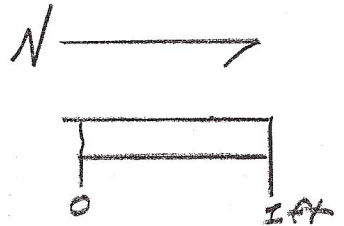
Washington Ave  
C-16  
2/7/02

14.3 ft  
Measured from western  
most portion of trench



15. ft  
Measured from  
western most portion  
of trench

\* Under South wall of trench  
C-7's  
located under 8, 10, 11

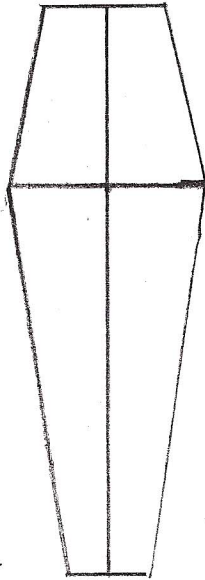


Washington Av.

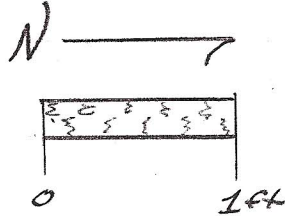
C-17

2/7/02

19. ft  
Measured from  
Western most  
portion



21.8 ft  
Measured from  
Western most portion



5.6 ft below surface to top of robbing  
Under southern trench wall