THE HISTORIC LOS ANGELES CEMETERY (CA-LAN-3553) SUMMARY REPORT,

LOS ANGELES METRO GOLD LINE PROJECT,

EAST PORTAL AREA, LOS ANGELES, CA

AUGUST 2006

Cogstone Resource Management Inc.

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Submitted to:

UltraSystems Environmental, Inc.
100 Pacifica, Suite 250
Irvine, CA

Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA

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with contributions by
Armando Abeyta, Marina Adame, Ileana Bradford and Michael Mirro

August 2006

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NATIONAL ARCHAEOLOGICAL DATA BASE (NADB)
INFORMATION SHEET

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EXECUTIVE SUMMARY

This report of archaeological findings was prepared by Cogstone Resource Management Inc. (Cogstone) for the Metropolitan Transportation Authority of Los Angeles County (Metro) to document mitigation monitoring and data recovery activities in association with construction of the Eastside LRT. The purpose of the archaeological work was to achieve compliance with applicable state and federal regulations including the California Environmental Quality Act (CEQA), the Federal-Aid Highway Acts of 1935 and 1968, the National Historic Preservation Act of 1966 (NHPA), the National Environmental Policy Act of 1969 (NEPA), the Native American Graves Protection and Repatriation Act (NAGPRA), the U.S. Department of Transportation Act of 1966, and the Urban Mass Transportation Assistance Act of 1970.

Metro is performing construction activities on the Metro Gold Line Eastside Extension (MGLEE) project, a six-mile light rail transit line with 1.7 miles of twin tunnels. At the eastern end of the tunnel section, just west of Lorena Street, 1st Street is being widened to the north to accommodate a sidewalk, a parking lane, four lanes of travel, the portal to the underground segment of the MGLEE, the existing jogging path, and retaining wall. No risk factors for this work or the acquisition of the portion of the Los Angeles County Crematorium property to accommodate the widening were identified in the Modified Initial Study/Addendum to the Final Supplemental Environmental Impact Report/Subsequent Environmental Impact Statement approved by the Metro Board in February 2002.

However, human remains were encountered by the archaeological monitor present on June 22, 2005, the first day of mass grading. Bone and coffin fragments were encountered during excavation of the western end of the project area and the monitor suspended work. On June 23, the monitor permitted shallow excavation to strip off the overburden soil only adjacent to the previous driveway excavation and within an hour a coffin with bones visible inside was revealed at 3’ depth. The monitor halted the work and the excavation was moved further east in the project area to strip off the grass only over most of the loosely defined project area. A project meeting was called by Metro and work was suspended pending development of a treatment plan and approval by the Resident Advisory Committee (RAC).

An initial treatment plan was developed and approved by the RAC which permitted what Cogstone calls the "Review phase" in which a team of archaeologists reviewed the stockpiled soil and recovered any additional bone or artifacts from the previously excavated sediments. The Review phase occurred from July 11 to August 5, 2005. Thereafter subsurface testing and mapping using both ground penetrating radar (GPR) and high power metal detection equipment occurred on August 22nd and 23rd, 2005 and results were reported.

Data recovery occurred from August 30 to November 6, 2005. The data recovery at various times used combinations of 1-2 rubber-tired dozers with a toothless 2' and toothed 4' buckets and 1-2 track hoes with a 4' toothed bucket used to work effectively in the difficult adobe soil. Teams consisting of one to two archaeologists and two laborers joined the machinery operator to find recoveries while another laborer watered the area for dust control. When bone or artifacts were encountered the machinery was halted, the laborers helped to clear away the overburden while the archaeologist explored the possible burial. The confirmed burial was marked, artifacts were recorded and the heavy machinery grading was resumed in the area or redirected to another part of the project area so that an archaeological team could complete the exploration. Sometimes a 1/4" dry screen was used to recover bone fragments. Upon completion of the recovery, a shovel test pit was driven through the base of the coffin to sterile soil to test for double stacking of burials. Grading resumed in the area to finish grade while an archaeologist monitored the grading.

In 2006, archaeological monitoring was again required when a new storm drain channel was excavated. Two additional features and two isolated artifacts were recovered.

In the field, artifacts were bagged according to the Recovery number and recorded on artifact record sheets daily. All artifacts were placed in paper bags and all pertinent information was written on them, including area designation and date of recovery. The artifacts were then sent to the lab where they were cleaned, sorted and identified. This effort required several months of intensive lab work. All artifacts were given unique identification numbers and cataloged according to category and class.

Human remains recovered in the field were wrapped in archival white tissue paper and bagged according to the Recovery number and recorded on record sheets daily. Each bag was labeled with

all pertinent information, including area designation and date of recovery. Some burials were removed in segments within their matrix to preserve the integrity of the skeleton and were excavated in the osteology laboratory.

Human bone was cleaned using soft brushes and wooden tools to remove any matrix. All matrix was collected for reburial. After the analysis of each burial recovery, human remains were wrapped in tissue paper and placed in archive boxes. Inventory and measurements of bone were taken, and age, sex, ancestry, stature and pathological conditions were determined whenever possible.

Many research resources were consulted including the Huntington Library, Los Angeles Public Library, Los Angeles County Library, Los Angeles City Archives, the Los Angeles Cemetery Association and present and past employees of the Los Angeles County Crematorium. The burial registers housed at the Los Angeles County Crematorium provided important information.

Federally funded projects, such as this one, have a requirement to place collections in a federally-accredited repository. The Fowler Museum of Cultural History at the University of California at Los Angeles, will be the repository for all Eastside project archaeological documents including field notes, artifact records, and photographs as they can provide the appropriate environmental conditions to maximize preservation. All human remains recovered are scheduled to be reinterred by Metro following the recommendations of the RAC Ad Hoc Subcommittee for Reinterment. As of the date of this draft report, it has not yet been determined if artifacts will be reinterred, curated or a combination thereof.

Original cemeteries for Los Angeles were at Mission San Gabriel and Plaza Church. The subsequent Catholic graveyard was the original Calvary Cemetery (site of Cathedral High School). A public cemetery developed at Fort Moore Hill (site of Los Angeles High School) and was ringed by private cemeteries for Protestants, Jews, Free Masons, Odd Fellows and others. Later cemeteries were substantially west (Rosedale) or east (Evergreen, Los Angeles County, new Oddfellows, new Calvary, etc.) of downtown.

Research revealed that the human remains located during this project were part of a municipal indigent cemetery with initially unclear ownership and operation. An archaeological site record was

filed and the cemetery officially designated as the Historic Los Angeles Cemetery (HLAC), California Historical Resource P19-003553. The City of Los Angeles received deed to the ten acres of the cemetery in 1879 but thereafter had no involvement in its operation. Evidence demonstrates that the County of Los Angeles operated the cemetery from 1880 forward although the County did not purchase the property until 1917. Burials of indigents are documented in Burial Registers beginning in 1880 and ending in 1922 when the County began to cremate indigents.

People who were not indigent but of limited financial means were also buried at the cemetery and were charged a fee that appears to have varied with age (children charged the least amount) and ethnicity (Chinese charged the maximum amount). A portion of the cemetery was used by the Chinese community to bury their dead beginning in 1885 and ending in 1922. An archaeological site record was filed for the Chinese Memorial Shrine, California Historical Resource P19-003552, located at the center of the original length of the cemetery.

Human remains were recovered throughout the project area of impact but the distribution of recoveries was not continuous. 174 features or recoveries were documented. These represent 118 graves with skeletal remains of which 13 have two individuals present in what appeared to be one grave. These range from two substantially complete skeletons, probably representing a later grave dug into an earlier grave, to one substantially complete skeleton and an additional tooth of a second individual. 53 graves lacked bone due to disinterment or disintegration. Four are clearly medical waste. Two cremations were recovered. In addition, isolated bones representing a minimum of 34 individuals were recovered. Most of these were limb bones shallowly buried without containers and represent medical waste from the County Hospital and local medical schools.

Numerous artifacts were recovered. The most abundant class was mortuary items such as coffin hardware. The second most abundant class was clothing represented largely by buttons. All other classes were minor by comparison but include personal effects, health and grooming items, and food-related items.. American and Chinese grave markers were few in number but provide some identifications. Chinese graves had many items constituting religious offerings of respect for the deceased. Prominent were food-related items such as rice bowls.

Recoveries were classified for analysis as Chinese based on the presence of Chinese artifacts and/or the determination of Asian ancestry of the skeletal remains. Chinese and non-Chinese burials were more similar than different in most regards except for the grave offerings in many Chinese graves. The bioarchaeological analysis demonstrated that the indigent non-Chinese had higher incidence of disease suggesting difficult lives and more exposure to disease and malnutrition than the Chinese population. However, the Chinese had a higher incidence of skeletal markers for childhood illness and malnutrition.

HLAC was compared to the Golden Gate Cemetery in San Francisco, California which was also burial grounds for indigents, Chinese and medical waste; instead there were more differences than similarities. No headstones and few grave goods were recovered at Golden Gate Cemetery although burial bricks, Chinese jewelry and opium paraphernalia were found. The Golden Gate Cemetery coffins were all the same size and jewelry was much more prevalent, including religious jewelry. The lower frequency of carious lesions and ante mortem tooth loss seems to suggest that the Asian population at HLAC had a different staple diet than other historic Californian populations.

HLAC was also compared to Chinese cemeteries of Virginiatown, California. Slightly earlier in time, similar artifacts were recovered and suggest parallels in socio-economic status and ritual behavior. The Virginiatown cemeteries were completely disinterred and thus no bioarchaeological comparisons were possible.

It is recommended that the City of Los Angeles file archaeological site records for all the known historic cemeteries within the City limits. It is also recommended that the County of Los Angeles move the priceless, irreplaceable, original minutes of the Board of Supervisors from record storage to the County Library along with the original Burial and Cremation Registers from HLAC and that they appropriate funds to make high-quality digital images of these documents that can be used by researchers. The Huntington Library or the Getty would be appropriate contractors for this work.

1. INTRODUCTION

1.1. REPORT PURPOSE

This report of archaeological findings was prepared by Cogstone Resource Management Inc. (Cogstone) for the Metropolitan Transportation Authority of Los Angeles County (Metro) to document mitigation monitoring and data recovery activities in association with construction of the Eastside LRT. The purpose of the archaeological work was to achieve compliance with applicable state and federal regulations including the California Environmental Quality Act (CEQA), the Federal-Aid Highway Acts of 1935 and 1968, the National Historic Preservation Act of 1966 (NHPA), the National Environmental Policy Act of 1969 (NEPA), the Native American Graves Protection and Repatriation Act (NAGPRA), the U.S. Department of Transportation Act of 1966, and the Urban Mass Transportation Assistance Act of 1970.

1.2. PROJECT DESCRIPTION

Metro is performing construction activities on the Metro Gold Line Eastside Extension (MGLEE) project, a six-mile light rail transit line with 1.7 miles of twin tunnels in eastern portion of the City of Los Angeles (Figure 1.1). At the eastern end of the tunnel section, just west of Lorena Street, 1st Street is being widened to the north to accommodate a sidewalk, a parking lane, four lanes of travel, the portal to the underground segment of the MGLEE, the existing jogging path, and retaining wall (Figure 1.2). This work and the acquisition of the portion of the Los Angeles County Crematorium property to accommodate the widening was included in the Modified Initial Study/Addendum to the Final Supplemental Environmental Impact Report/Subsequent Environmental Impact Statement approved by the Metro Board in February 2002.

1.3. DISCOVERIES DURING CONSTRUCTION

Metro did not anticipate significant discoveries on the Crematorium property as no risk factors were identified in the Modified Initial Study/Addendum to the Final Supplemental Environmental Impact Report/Subsequent Environmental Impact Statement. However, human remains were encountered the first day of mass grading (see section 2.2). As required by the project Cultural Resources Mitigation and Monitoring Plan, construction work was halted to permit development of an

archaeological treatment plan for the resources present and to gain approval of the Resident Advisory Committee for MGLEE. Subsequent to that approval, data recovery was performed.

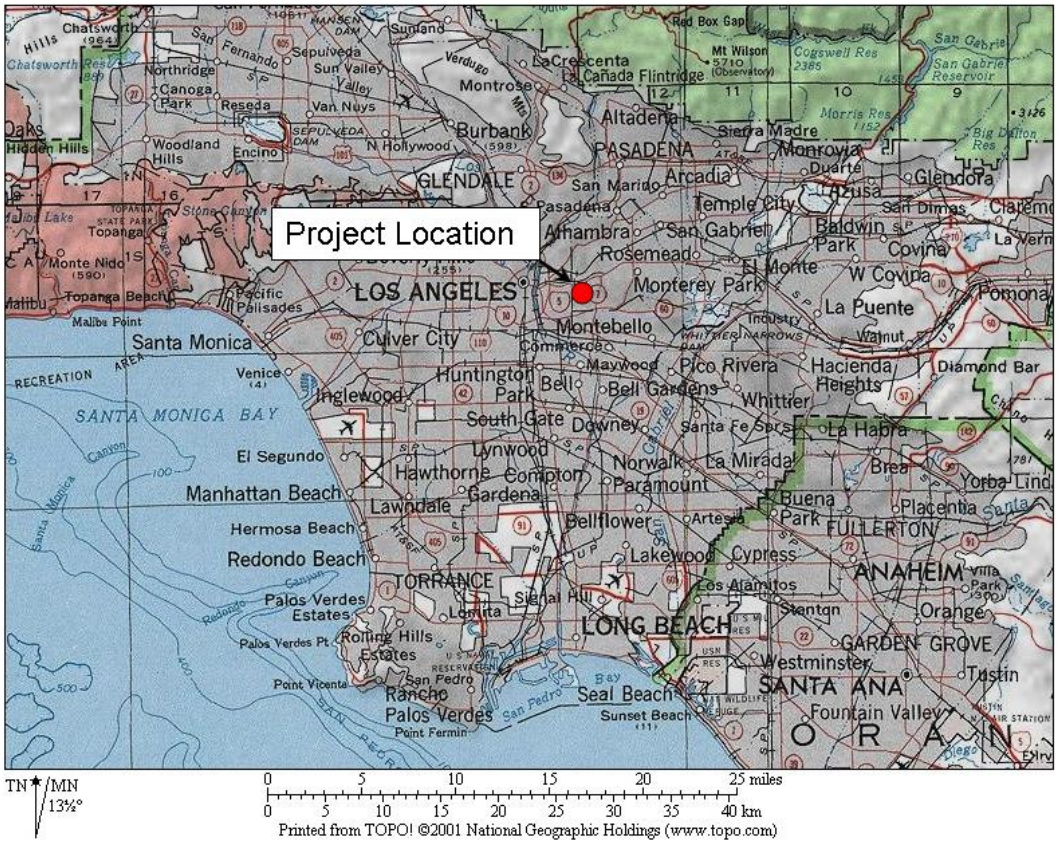


Figure 1.1. Project Vicinity Map

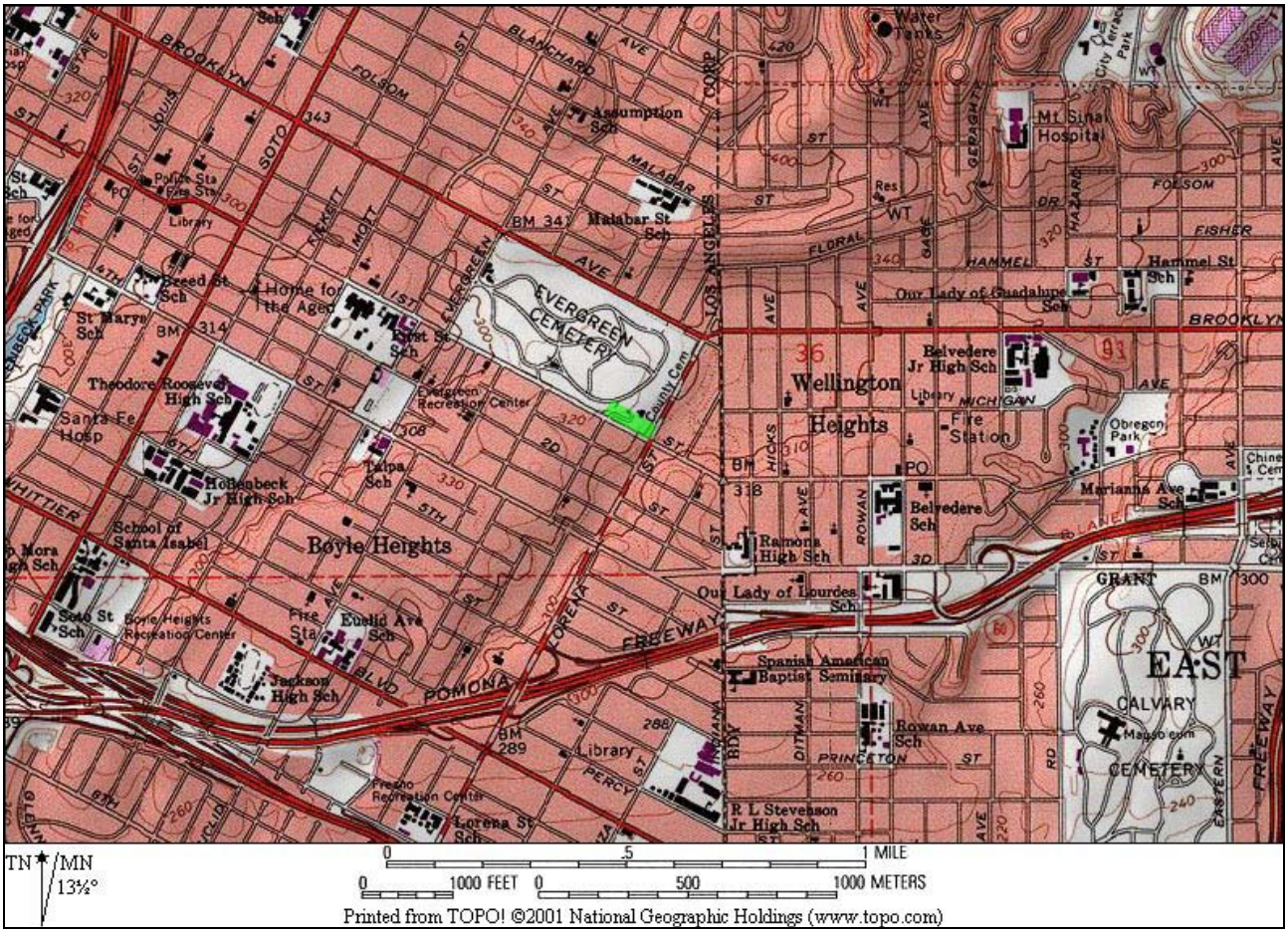


Figure 1.2. Project Area Map

1.4. PROJECT PERSONNEL

Cogstone Resource Management Inc. wrote the Cultural Resources Mitigation and Monitoring Plan for the Eastside Gold Line Project and the subsequent Treatment Plan, performed the monitoring, testing, data recovery, laboratory analysis, and wrote this report. In addition, Cogstone provided presentations, artifact displays and other services at the request of Metro.

Sherri Gust, a Registered Professional Archaeologist with more than 25 years of experience in California, was the Principal Investigator and Project Manager. She directed all phases of the work and was the primary architect of all project documents. Working under her supervision, the important project personnel were Field Director Armando Abeyta, Field Supervisor Albert Knight, Lab Supervisor Amy Diaz and Osteologists Kelly Houck and Marina Adame. Armando Abeyta

directed the field work and the subsequent paperwork, did preliminary mapping, wrote chapter 2 and the field notes portion of chapter 8. Albert Knight performed the initial monitoring, supervised the bone recovery from the first day of grading until the end of the review phase, wrote up those field activities and was integral to the data recovery efforts. Amy Diaz ran the field lab, helped excavate, supervised all artifact laboratory work, performed analysis of most artifacts, wrote the majority of chapters 3 and 9 plus the artifact portions of chapters 8 and 11. Kelly Houck helped excavate, served as field osteologist, performed osteological analysis and wrote chapter 4, the osteology portions of chapters 8 and 11 plus part of chapter 10. Marina Adame helped excavate, served as field osteologist, performed osteological analysis and wrote portions of chapter 8. A complete list of Cogstone personnel involved in all phases of the project and their qualifications is provided (Appendix A). Key personnel resumes can be viewed at www.cogstone.com.

Special assistance was provided by consultants. Alexander Akin, Ph. D. candidate, East Asian Languages & Studies, Harvard University, translated written Chinese on artifacts. Andrew Madsen, M.A. Anthropology, provided information about the unique teapot recovered. Marjorie Akin, Ph. D. Anthropology, identified the Asian coins recovered.

Cogstone acknowledges the invaluable assistance of Metro Environmental Compliance Manger Carl Ripaldi throughout the project. We also acknowledge helpful discussions with the Chinese Historical Society of Southern California, particularly Irvin Lai and Eugene Moy. Marilyn Chogyogi granted access to the crematorium grounds and records that was critical to our work. Craig Garnette of the Los Angeles County Crematorium graciously assisted us in numerous ways during our field work and research. We thank John Romani of Compass Rose for his willingness to loan us, temporarily, a number of his employees to assist with the data recovery. Peter Messick of Greenwood and Associates worked with us the final weekend of data recovery. We also thank Paul Chace, Colleen Hamilton, Julia Costello and all the other colleagues who helped in one way or another.

2. FIELD METHODS

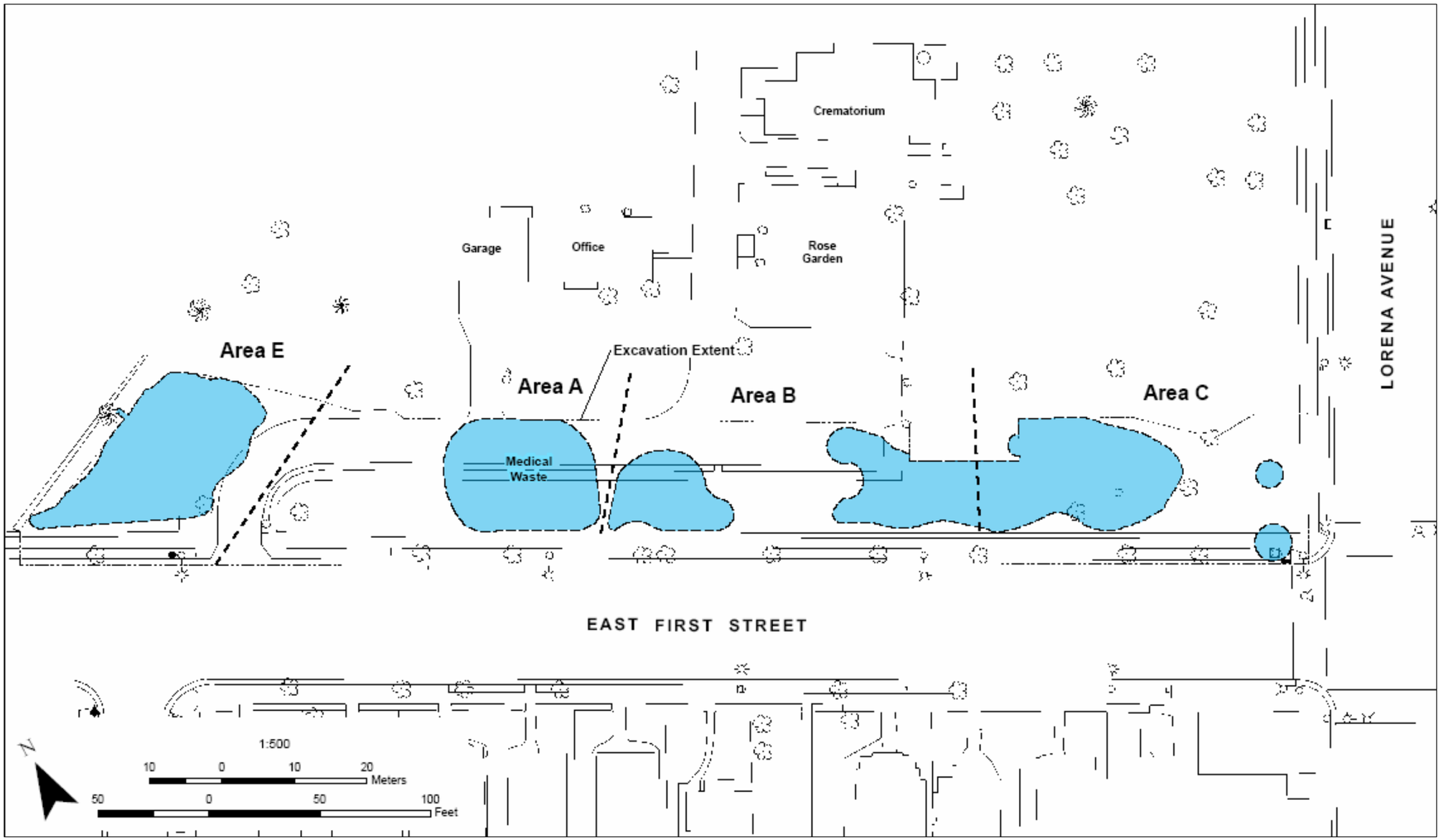


Figure 2.1. Distribution of Recovered Materials

2.1. INTRODUCTION

The project area was divided into segments based on the work that occurred (Figure 2.1). These were labeled Area A, Area B and Area C. Area D was an ungraded portion of Area B. When that area was also graded it was merged with Area B. The last area of work was Area E. Numerous human remains and artifacts were recovered, but portions of the project area were devoid of either.

2.2. INITIAL MONITORING DISCOVERIES

On June 17, 2005, subsurface work and archaeological monitoring began at LACC with demolition of the old crematorium driveway. On June 22, 2005, Eastside LRT construction crews were excavating underneath the demolished driveway in Area A when human bones were encountered about 10 am. The archaeological monitor observed only isolated limb bones with no containers or indicators of archaeological features. Excavation proceeded with caution and in shallow layers. Bones continued to be uncovered. When wood fragments were encountered that appeared to be coffin wood, the monitor suspended all work at 1:30 pm. Excavation had occurred to a depth of about 8 feet.

On June 23, 2005 shallow excavation commenced in Area B. The intent was to strip off the overburden soil only. Work progressed to a depth of about three feet before a possible coffin with bones visible inside was revealed and the monitor halted the work. The total work time was less than one hour. Work was then moved to Area C with an agreement that the only work would be stripping the grass off. The grass stripping was performed. A project meeting was called by Metro and work was suspended pending development of a treatment plan and approval by the Resident Advisory Committee (RAC).

An initial treatment plan was developed and approved by the RAC which permitted Cogstone to field a team of archaeologists to recover any additional bone or artifacts from the previously excavated sediments of Areas A and B (Figure 2.2). This work occurred from July 11 to August 5, 2005. Cogstone refers to this work as the Review Phase.

Figure 2.2. Previously excavated sediments prior to inspection

2.3. FIELD RESEARCH

Subsequently, the full treatment plan was approved by the RAC. The plan called for Cogstone to contract with a firm to perform non-invasive subsurface ground truthing in an attempt to determine the location of burials before data recovery proceeded. On August 22 and 23, 2005 GeoVision Geophysical Services performed ground penetrating radar (GPR) and high resolution metal detection testing over areas A, B, C and D (the limits of the project area at the time). GeoVision produced a report (Appendix B) showing metallic and soil density anomalies both at and below the surface to a depth of 6 feet. Though the metal detection did produce anomalies discovered to be handles, wires, and pipes located inches from the surface, lower subsurface data were not conclusive as to where, and at what depth, recoveries would be encountered. The GPR testing shows changes in the soil revealing where soil has been disturbed. In cemeteries grave shafts can often be defined using this method of testing. Much of the topsoil in the project area has been disturbed over time and the GPR results did not consistently define recovery placement. However, the results indicated anomalies requiring investigation were present and required cautious planning.

2.4. DATA RECOVERY EXCAVATIONS

GENERAL INFORMATION

In concert with the treatment plan, Cogstone archaeologists worked closely with Eastside LRT Constructors' equipment operators and laborers during the Data Recovery Excavations Phase. The project area sediments were extremely hard with a high clay content. The effective and timely scientific location and collection process was the result of the careful management of the available resources, including heavy machinery. Cogstone archaeologists employed multiple techniques and types of equipment during data recovery of the many burials. The crew typically consisted of 8 archaeologists, 2 osteologists and 4 laborers plus equipment operators, surveyors and Metro inspectors.

Nine datum points were installed along 1st Street by Cogstone archaeologists to use as mapping reference points. A Metro survey team shot in all map data and Cogstone archaeologists took backup data using handheld GPS (global positioning satellite) units. Some information was also mapped using compass and tape measure.

Recovery record sheets were used to record type of recovery (whole burial, partial burial, cremation, isolates and empty graves) and location, orientation, body elements represented, grave goods and dimensions. A minimum of three photos were taken for each recovery--upon discovery, in progress, and at the completion of burial recovery. Records and recovered remains were housed in a secure field lab located nearby on LACC grounds.

2005 DATA RECOVERY EXCAVATIONS

Data recovery began on August 30, 2005 with the investigation and collection of the surface anomalies in the project area reported by GeoVision, followed by exploration of the known recovery in Area B by Cogstone archaeologists. On August 31, 2005 machine excavation was initiated by using a rubber-tired dozer with a toothless 2' bucket, removing 20' sections of soil to sterile in 6" levels beginning in Area B. After two days a larger 4' toothed bucket replaced the 2' bucket to increase speed and effectiveness in the difficult adobe soil. Teams consisting of one to two archaeologists and two laborers joined the machinery operator to find recoveries while another laborer watered the area for dust control. Possible burials were indicated by presence of differently colored soil, wood, human bone, artifacts or a combination thereof (Figure 2.3).

Figure 3.3. Exposed coffin wood fragments with visible bone below to right

A vertical face ~11' high was cut to sterile at the slope where Area A and Area B met to determine stratigraphy over the project area. The stratigraphic section did not find any differentiation within the adobe in the cultural soil, but did conclude that sterile soil existed at approximately 6' below grade.

When bone or artifacts were encountered the machinery was halted, the laborers helped to clear away the overburden and helped collect bone and artifacts strewn within the bucket's sweep while the archaeologist explored the area to determine if a burial was present (Figure 2.4). Sometimes a 1/4" dry screen was used to recover bone fragments. If a possible burial was encountered the area was marked by a stake labeled with flagging tape listing the date and time and recovery record number. Then the bone/artifacts were bagged and recorded in association or as isolates. The heavy machinery grading was resumed in the area or redirected to another part of the project area so that an archaeological team could begin exploration. Wet screening was used on only 1 recovery (Recovery 109) to find artifacts in matrix associated with a coin purse.

Figure 2.4. Area C archaeological exploration with redirected heavy machinery testing

Upon completion of the recovery, a shovel test pit was driven through the base of the coffin to sterile soil to test for double stacking of burials. Once finished, grading was resumed in the area to finish grade while an archaeologist monitored the grading.

Two scenarios encountered during this initial machine excavation are of note. In the first, recovery numbers were assigned and at the completion of exploration some of these numbered recoveries were declared null. This was noted on the recovery record form. In the second, upon exploration grave goods were found, but no bone was encountered. Over time, the number of these no-bone recoveries pointed to the possibility of disinterred graves. These were recorded as recoveries and the grave goods collected.

On September 13 and 22, 2005 Metro requested excavations outside of the current project limits to test for anomalies from the GeoVision report. Five test pits were dug north of Area C and two test pits were dug north of Area B. The pits were 10' x 10'in size and dug to sterile (approximately 6' deep). Though burials and artifacts were present in some parts of the test pits, overall the anomaly data proved inconclusive due to the highly disturbed soil at varying depths. The artifacts were recorded, left in situ and buried in place. A week later the northern limits of grading were redefined to points from 5 to 30 feet north of the old limits. The recoveries in these test pits were relocated and subsequently recovered.

The initial method of repositioning the backhoe proved both ineffective and dangerous to archaeological teams conducting recoveries. Also, repositioning the backhoe often dropped loose soil onto nearby recoveries obscuring data. As of September 29, 2005 Cogstone used a new method in which a large track hoe with a 4' toothed bucket worked in 20' swathes parallel to 1st Street, leaving a path cut to grade continuously across the project. Excavation was conducted systematically in 6" levels, west to east, throughout the project area. Monitoring archaeologists defined recoveries continuously in one direction and teams of archaeologists followed behind the track hoe to perform exploration safely without obstructing the path of the heavy equipment. Excavation of Areas A (driveway portion), B (Area D was the temporarily ungraded segment of Area B; once graded it was redefined as Area B), and C was concluded to on October 5, 2005.

Subsequently, Metro determined that Area E also required grading. Work in this area began on October 7, 2005. Track hoe excavation with a 4' toothed bucket began immediately from the 1st Street wall inward (Figure 2.5). Additional archaeologists and laborers were brought in to expedite

the excavations. In addition, Metro engineers were available in the field to ensure that only necessary areas were subjected to grading. Data recovery concluded on November 6, 2005.

Figure 2.5. Area E exploration

2006 DATA RECOVERY EXCAVATIONS

In 2006 an existing trench was being deepened when bone was encountered and excavation activities were immediately halted by the Metro inspector and the Cogstone monitor. The trench had originally been excavated in September and November of 2005 and had encountered an existing drainage pipe at nearly 6' below grade. No sensitive cultural material was encountered at the time. On April 12, 2006 the trench had standing water from recent rains. When workers excavated deeper for installation of the new pipe, wood from a casket was visible in the side walls of the trench and a number of bones and grave goods were visible in a portion of the sediment dumped by the bucket of the machinery. The monitor was directed to recover all visible bone. The principal investigator responded to a call from the monitor, verified that the bones were human and removed them to a secure laboratory. All stockpile (~15 cubic yards) from the day's earth moving activity was staged 3 yards to the east of the trench and was covered with tarps for archaeological inspection.

The following morning a team of Cogstone archaeologists under the supervision of the field director arrived to evaluate the discovery. Two goals were identified for the discovery. First, the stockpile needed to be thoroughly explored to recover all grave goods and any additional bone no visible on the surface. Second, the trench itself needed to be investigated to define, explore and determine the condition of the recovery.

Cogstone archaeologists used trowels and brushes to sort through the soil and recover bones and grave goods. A laborer was assigned to remove processed stockpile sediments to ensure a safe and efficient exploration of the soil. A 1/8" dry screen was used to recover small fragments. All materials from the stockpile were photographed, labeled, bagged individually, with all bones wrapped in tissue and carefully packed. Materials from the stockpile were classified as isolates.

As the trench itself was a narrow and dangerous area to work in, only one archaeologist performed the initial exploration. Wood from not one, but two coffins in situ were found; one located in the east wall and one in the west wall of the trench. An MTA survey crew recorded the positions of the burials and the stockpiled soil. The recoveries were assigned a number, mapped, photographed and the dimensions explored. The burial in the west wall was in the path of the required excavations.

Shoring was placed in the trench and the burial was removed the same day, as rain was expected to make the trench unworkable the following day (Figure 2.6). The only further expansion of the pipe trench was to the south and would not impact burial in the east wall. The decision was made to leave it in place. All further excavation work was monitored full time by Cogstone archaeologists but no additional bone was encountered.

Figure 2.6. Excavation of recovery in the pipe trench and stockpile exploration

3. ARTIFACT LABORATORY METHODS

3.1. FIELD AND LAB PROCESSING

In the field, artifacts were bagged by provenience (recovery number) and recorded on artifact sheets daily. All artifacts were placed in paper bags and had the following information written on them: project name, project number, date of recovery, area designation, recovery number or isolate and material type. After the bags of artifacts were recorded, they were given bag numbers and sent to the lab.

In the lab, artifacts were washed and sorted according to which burial they were recovered from or if they were isolates, which area they were recovered from. Artifacts were then identified, classified and cataloged according to function (Table 3.1). Category, class and subclass were the three main categories into which each artifact was placed. Artifacts were also sorted by each bag number within the recovery number. Other diagnostic information such as material type, pattern name and manufacture date were given wherever possible. The total number of identified specimens (NISP) and minimum number of individuals (MNI) information was also cataloged. Because of the level of disturbance in the cemetery, MNI was determined to be one only if fragments could be cross-mended. A glossary of terminology is appended (Appendix C).

Two catalog numbers or a number and a letter were assigned to each artifact. For the burials, the first number represents the recovery number the artifact was recovered from and the second number the specific artifact number. For example, the second artifact associated with Recovery 12 is labeled 12-2. With isolates for which an area designation was given, the first number represents the specific artifact number and the letter the area it came from. For example, the fourth isolate associated with Area C is labeled 4C. With isolates for which there is no provenience, the first letters, N/P, reflect the lack of provenience and the number reflects the specific artifact number. For example, the third artifact not associated with any area is labeled N/P3. The artifact catalog is appended (Appendix D).

Table 3.1. LACC Artifact Catalog Categories

GROUP	CLASS	ITEM EXAMPLES
Activities	Commerce	coins
	Entertainment	gaming pieces, harmonicas
	Firearms	bullets
	Tools	pocket knives, Chinese padlocks
	Faunal	animal bone
	Reading	newspaper
Domestic	Food Prep/Consumption	rice bowls, teapots
	Food/Food Storage	beverage bottles, crocks
	Furnishings	flower pots
Indefinite Use	Misc. Beads	beads w/ more than one original use
	Misc. Closures	closures assoc. w/ unident. contents
	Misc. Containers	containers w/ unidentified contents
	Misc. Metal Items	hardware w/ more than one original use
Industrial	Machinery	Battery
Personal	Accoutrements	coin purse frames, eyeglasses, jewelry
	Clothing	buttons, buckles, hats
	Footwear	shoes
	Grooming/Health	perfume bottles, pharmaceutical vials
	Social Drugs	opium paraphernalia, alcohol bottles
	Toys	marbles
	Bedding	blankets
Mortuary	Hardware	handles, thumbscrews, escutcheons, plaques
	Materials	markers, coffin viewing windows
	Cremation	cremains, jars used for holding cremains
Structural	Hardware	Screws, nails
	Materials	Tile, insulators
Undefined Use	-	unidentified items (amorphous metal, slag)

After the artifacts were identified and cataloged they were placed back in the bags and the identifying information was written both on the outside of the bags and on artifact tags placed

inside the bags. No numbers were written on the actual artifacts contra typical procedure since it was unknown whether they would be reburied or curated. Artifacts from the cemetery fell into two categories, mortuary and cultural. Any object that is associated with a coffin, including headstones, hardware and the coffin itself is considered a mortuary artifact. Grave inclusions, items placed in the coffin with the body (such as coins) , and grave offerings, items left outside of the coffin (such as food for spirits), are considered cultural artifacts.

Finally, all artifacts were photographed for documentation purposes. Many artifacts were grouped together by burial, separated into mortuary and cultural groups and photographed. Items of significance were photographed separately in detail.

TYPE SPECIFIC PROCESSING

The following is a description of what types of artifacts were recovered under each material type, cleaning procedures for each material and discard policies.

Metal

Types of metals found included white metal alloys and tin (coffin hardware), bronze, gold and silver (Asian and US coins), ferrous metals (nails) and cupreous (non-ferrous) metals (suspender clasps). Metal artifacts that looked as though they could be identified were washed. Most unidentifiable and non-diagnostic fragments were identified, counted, entered into the catalog and discarded. Discarded artifacts included most coffin nails and small, ferrous fragments. In the case of several burials with multiple fragments of ferrous metal, a small sample was retained for future identification and the rest was discarded.

Ceramics

Types of ceramics recovered included both Euro-American and Chinese stonewares and porcelains (plates, buttons, rice bowls, teapots and opium pipe bowls) and bricks (burial bricks). All ceramics were washed for identification. One non-diagnostic fragment shorter than an inch in length was identified, entered into the catalog and discarded.

Glass

Types of glass recovered included bottle glass (alcohol bottles) and plate glass (coffin viewing windows). All glass was washed for identification. Non-diagnostic fragments shorter than an inch in length were identified, counted, entered into the catalog and discarded.

Animal Bone

Types of animal bone recovered included sheep and cow. Bone was dry brushed for identification. No bone was discarded.

Miscellaneous

Miscellaneous materials recovered included wood (coffins), shell (buttons, grave decorations), stone (jewelry, headstones), leather (hats, shoes), fabric (clothing, blankets), gutta-percha (buttons) and vulcanized rubber (buttons, combs). Wood and shell was dry brushed for identification, while the other materials were washed for identification. Leather and fabric was not cleaned. Non-diagnostic coffin wood was identified, counted, entered into the catalog and discarded.

4. OSTEOLOGY LABORATORY METHODS

4.1. INTRODUCTION

Human remains recovered in the field were wrapped in archival white tissue paper and bagged according to the Recovery number and cataloged on artifact record sheets. Human remains not associated with a specific burial were labeled as isolates. Each bag was labeled with the project name, project number, date of recovery, area designation, Recovery number or isolate and material type. Some burials were removed in segments within their matrix to preserve the integrity of the skeleton. These segments were further excavated in the osteology laboratory. All human remains were examined and analyzed in a secure laboratory by Marina Adame and Kelly Houck. A glossary of terminology is appended (Appendix C) as is the osteological catalog (Appendix E).

4.2. PREPARATION

Human bone was cleaned using soft brushes and wooden tools to remove any matrix. In the event where wooden tools could not remove harden matrix, water was used to soften the soil which allowed for removal. All matrix was collected for reburial. After the analysis of each burial recovery, human remains were wrapped in tissue paper and placed in archive boxes. Identifying information was written both on the outside of the boxes and on tags placed inside the boxes. No numbers were written on the actual bones contra typical procedure since it had been determined by Metro that they would be reburied.

4.3. INVENTORY

Human bone was identified to the most specific level possible using standard human osteology references (Scheuer and Black 2000, White and Folkens 2005). Each recovery was inventoried for the bone elements present, the side of body of the element, and the number of each element, in order to determine the minimum number of individuals (MNI). Tooth presence and development were recorded using the *Standards for Data Collection from Human Skeletal Remains* [*Standards* hereafter] (Buikstra and Ubelaker 1994).

4.4. MEASUREMENTS

Measurements of bone and teeth were collected using the methods described in *Standards*. Eight inch and one meter digital sliding calipers were used for all the measurements and were calibrated between each bone examined. Measurements were taken from the left side, in their absence, the right side was used. Measurements were not taken if bone was absent, fragmented, or warped.

4.5. AGE

Age was determined by the evaluation of specific bones of the skeleton and was limited by the recovery of those bones. The ageing methods included external cranial vault suture closure (Buikstra and Ubelaker 1994), dental eruption and tooth development (Scheuer and Black 2000, White and Folkens 2005), epiphyseal fusion (Buikstra and Ubelaker 1994, Scheuer and Black 2000, White and Folkens 2005), auricular surface phases (Buikstra and Ubelaker 1994, White and Folkens 2005), pubic symphysis phases (Buikstra and Ubelaker 1994, White and Folkens 2005), and sternal rib end phases (Loth and Iscan 1989). The overall size and morphology of bone and the presence of osteoarthritis aided in the determination of age. The results of the ageing methods were summarized by assigning each individual an age category described by *Standards*. The age categories used were infant (birth-3 years), child (3-12 years), adolescent (12-20 years), young adult (20-35 years), middle adult (35-50 years), and old adult (>50 years). If the determined age could not be specified by the previous categories, the age categories used were subadult (<20 years), adult (>20 years), or indeterminate.

4.6. SEX

Sex was determined using anthroposcopic traits and metric analysis of specific bones of the skeleton. The anthroposcopic methods of attributing sex by visual analysis of the skull and pelvis morphology are described by *Standards*. The pelvic traits most commonly used in the analysis were the greater sciatic notch and the subpubic region (Buikstra and Ubelaker 1994). The cranial traits used were the nuchal crest, mastoid process, supraorbital margin, glabella and the mental eminence (Buikstra and Ubelaker 1994). The metric methods for attributing sex are standard (Bass 2005). The measurements used in this analysis were the vertical head of the femur and humerus, and the epicondylar breath of the distal humerus. The robusticity of muscle attachments also aided in the assessment of sex. The individual was assigned to one of the following categories: male, female, or indeterminate.

4.7. ANCESTRY

The anthroposcopic method employed to determine ancestry is described in Rhine (1990). This method requires visual observation of the presence, absence, or degree of development of specific skeletal features. The most common traits used in this analysis were the morphology of the nasal aperture, the zygomatics, the dental arcade, and the present of the metopic suture, shoveled incisors, and Wormian bones. The individuals were assigned to one of the following categories: Euro-American, Asian, Mixed (a combination of Euro-American and Asian traits, which includes Hispanics), or indeterminate.

4.8. STATURE

The height of the individual was calculated using stature reconstruction formulas described by Trotter (1970) and Jantz (1992). The maximum length of the femur was used in the calculation. If the sex and ancestry of the individual was known, then the appropriate formulas were used for Euro-American males, Euro-American females, Asian males, and Hispanic males. If the sex and ancestry was indeterminate, then stature was calculated using the Euro-American male formula.

4.9. PATHOLOGICAL CONDITIONS (SKELETAL AND DENTAL)

All bone and teeth were examined for visually obvious pathological conditions. The most common skeletal pathological conditions were periosteal and endosteal bone formation, bone resorption, osteoarthritis, porotic hyperostosis, cribra orbitalia, and fractures. The description of each condition and the bones evolved were documented for each burial recovery. The most common dental pathological conditions were carious lesions, hypoplasias, abscesses, and extensive wear. The dental conditions were recorded using methods described in *Standards*.

5. RESEARCH

Diligent research was conducted regarding HLAC at the following libraries: Los Angeles Public Library (Central, Chinatown, & Boyle Heights), California State University, Los Angeles, East Los Angeles County, Huntington and the University of Southern California. Other resources consulted were Evergreen Cemetery, the City of Los Angeles, the Los Angeles Cemetery Association, the Los Angeles City Archives, the Los Angeles County Clerk and the Southern California Genealogical Society. Individuals contacted were current employees of the Los Angeles County Crematory,

Albert Gaskin and Craig Garnette and retired employee Clyde Emerson, Chris Kurzon from Los Angeles County Real Estate and University of Southern California Medical Center Director of Labs and Pathology Marilyn Chogyogi.

6. COLLECTIONS

Federally funded projects, such as this one, have a requirement to place collections in a federally-accredited repository. This ensures preservation of significant cultural resources in correct conditions with research access.

The most suitable federally-accredited repository is the Fowler Museum of Cultural History at the University of California at Los Angeles. The Fowler will be the repository for all Eastside project archaeological documents including field notes, artifact records, and photographs as they can provide the appropriate environmental conditions to maximize preservation.

All human remains recovered are scheduled to be reinterred by Metro following the recommendations of the RAC Ad Hoc Subcommittee for Reinterment. As of the date of this draft report, it has not yet been determined if artifacts will be reinterred, curated or a combination thereof.

The Fowler is recommended as the repository for any artifacts that are not reburied. However, the artifact collections from the Chinatown segment of the Metro Red Line project were placed with the Chinese Historical Society of Southern California who constructed a repository to house the collections. Cogstone personnel toured that facility in early 2006 and found it in excellent order and condition. Thus that facility might be considered an appropriate alternative.

7. HISTORY

7.1. CEMETERIES OF EARLY LOS ANGELES

The early landscape of cemeteries in Los Angeles shows a typical urban pattern of first cemeteries near the core of the town with later cemeteries in areas not considered ideal for housing or commerce (Figure 7.1). In the late 19th and early 20th centuries, East Los Angeles became home to numerous cemeteries.

Early deaths (1774-1820) in Los Angeles resulted in burial at Mission San Gabriel (Carpenter 1973:9). Mission San Gabriel records show burials at Plaza Church beginning in 1820 before the building was even finished (Carpenter 1973:12). Plaza Church began its own burial register in 1826. Most burials are thought to have been on the south side of the Church. This is recognized as the first cemetery in the City of Los Angeles (Los Angeles Cultural Heritage Board 1964).

A new Catholic cemetery was created as the available space at Plaza Church declined. The original Calvary Cemetery opened in 1844 and operated until filled in 1896 (Carpenter 1973:18). After closing, it deteriorated until the City required that all burials be moved. That work was completed in the 1930s. The cemetery land was used for part of the Pasadena Freeway and to build Cathedral High School. The new Calvary Cemetery opened in East Los Angeles in 1896 and still operates.

The first public City cemetery was Fort Moore Hill (Carpenter 1973:18-22). The cemetery had sections for Protestants, Jews, Masons, Odd Fellows, City Firemen, and in the northwest corner – a Chinese section (the non-public sections [Protestant, Jewish, Masons, Odd Fellows] were privately owned). Blacks and Native Americans were also buried here according to a news report of the time (*Daily Star* January 18, 1871 cited in Carpenter 1973:26-27). In 1885 the City sold the public portion for development without removing the burials (Bell 1930 cited in Carpenter 1973:32-33). Eventually, Los Angeles High School was built on part of the old cemetery. The School District gradually acquired the other parcels and paid for removal of many burials to Rosedale Cemetery.

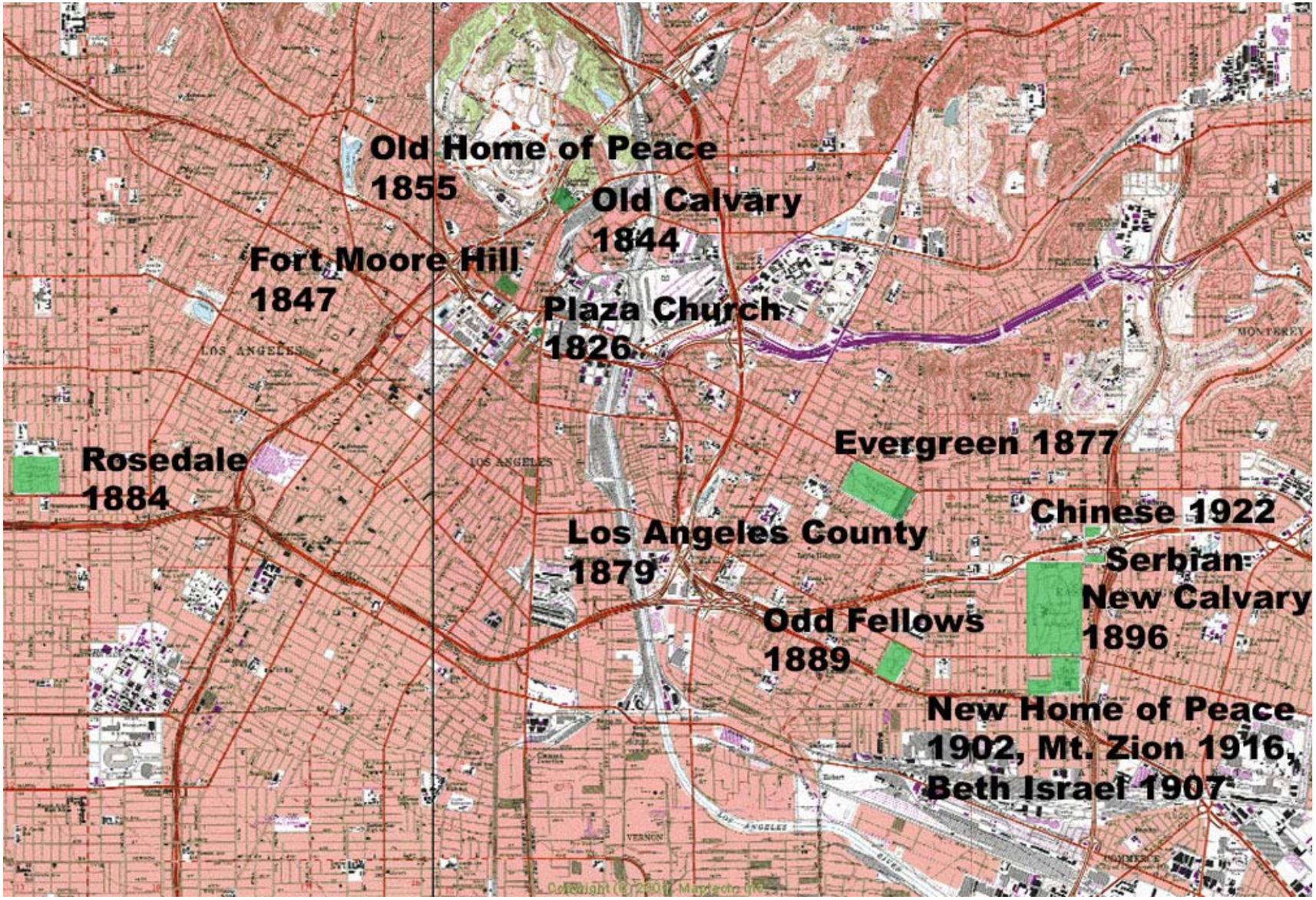


Figure 7.1. Map of Cemeteries of Los Angeles

In 2006, about 80 burials with skeletal remains were discovered during construction for a new performing arts high school on part of the old Fort Moore Hill Cemetery (*ABC News* June 16, 2006). In an echo of the work for this project, preconstruction research indicated no potential for impacts. All remains are scheduled to be reentered at Rosedale Cemetery.

An early Jewish cemetery was Home of Peace in Chavez Ravine (Carpenter 1973:35-36). Eventually, a new site was established in East Los Angeles and over a period of 8 years all the burials were moved to the new location. Two additional Jewish cemeteries adjoin the East Los Angeles location of Home of Peace; Beth Israel and Mt. Zion.

In the late 19th Century, Rosedale Cemetery was established southwest of downtown Los Angeles. This is a private commercial cemetery that continues in operation today. A sampling survey consisting of looking at date of death for the surname Wong indicates the first Chinese were buried in Rosedale around 1918 (Gillson 2003).

The City of Los Angeles passed a resolution on August 25th, 1877 establishing Evergreen Cemetery in East Los Angeles with irrevocable rights (to continue as a cemetery in perpetuity). In the same motion, the City accepted 5 acres of Evergreen's property along Lorena St. from E. 1st Street to Brooklyn Ave. [now Cesar Chavez] as a City Cemetery to be used for the sole purpose of burying bodies at public expense (Ordinances and Resolutions of the City of Los Angeles, Vol. 1:468-9). Evergreen is a private commercial cemetery that continues in operation today. It's operations were, and are, entirely separate from those of the public cemetery contra Greenwood (1996:33).

Finally, the Chinese Cemetery in East Los Angeles opened in 1922 concurrent with the cessation of burials at the Historic Los Angeles Cemetery. The Chinese Cemetery is operated by the Chinese Consolidated Benevolent Association of Los Angeles. In the late 1940s graves cost ten dollars, in addition to yearly charitable contributions of three to five dollars per person for maintenance (Lui 1948).

7.2. THE LOS ANGELES CEMETERY

The City accepted 5 acres along Lorena as a public cemetery in 1877 (see above). A problem with the legal description of the land caused a two year delay in transfer of title but the City ended up with twice the space. In 1879 the City accepted the deed for ten acres along Lorena from 1st St. to Brooklyn [Cesar Chavez] (Los Angeles City Council Minutes August 21, 1879; Figure 7.2).

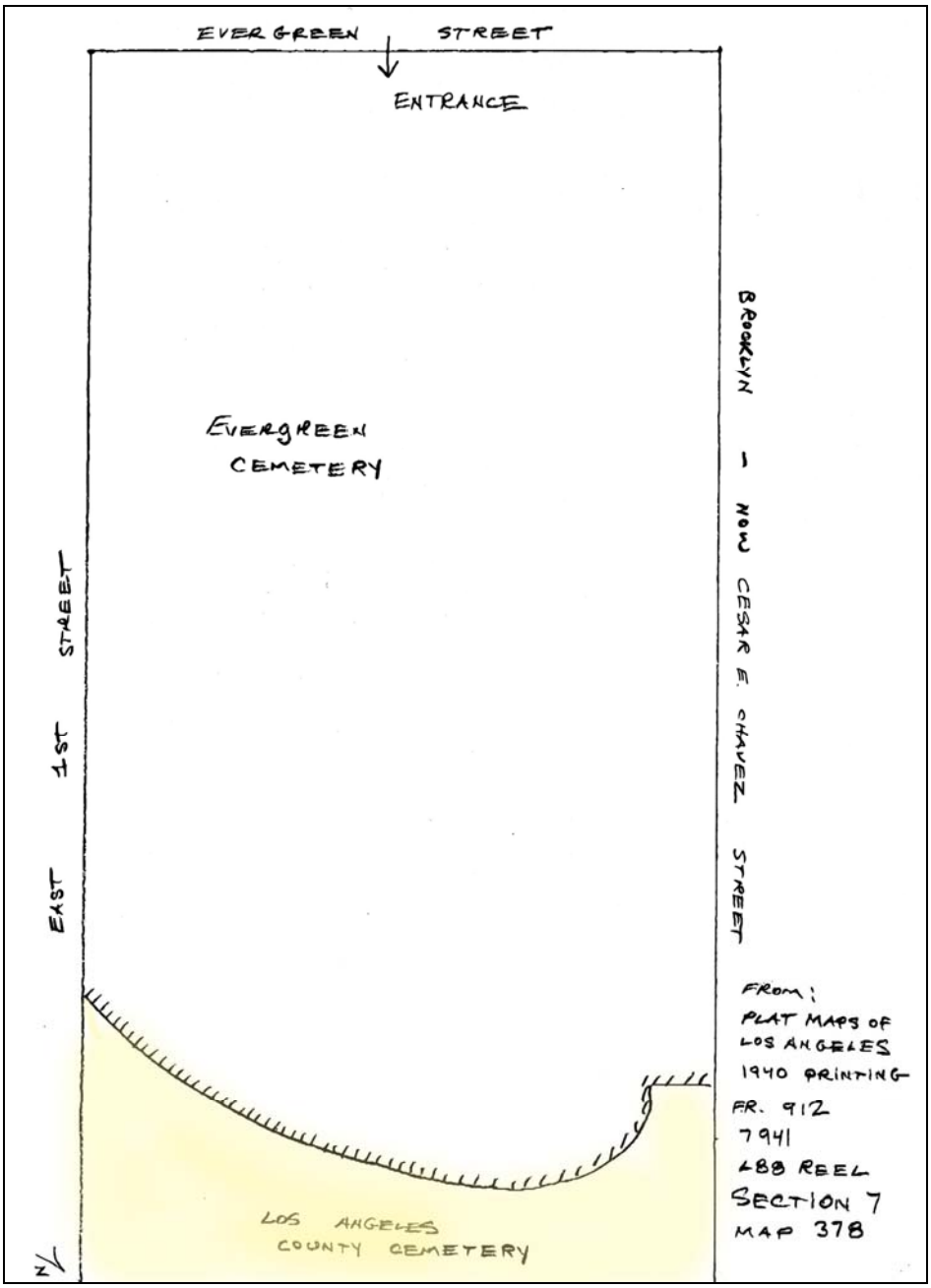


Figure 7.2. Cemetery Plat Map

The first documented burials in the cemetery date to 1880 (see section 10.2). The only information available regarding the indigent buried is from the Burial Registers of the cemetery. These have only name and date of death until 1890. The Burial Register from 1890-96 is missing. Thereafter race, cause of death and other information is recorded in the Registers. No Chinese names are recorded before 1896.

Local mythology states that the City allowed the Chinese community to inter its dead at one end of the public area, creating a separate Chinese cemetery (Carpenter 1973:42). Carpenter does not cite a source for this statement and no documentation to support it was located in the City Council Minutes or any other source. Permission was most likely sought from the Board of Supervisors since the County appears to have been operating the cemetery. Doubtless the Minutes of the Board of Supervisors of Los Angeles County (BOS) for the 1870s-80s would contain much useful information. Unfortunately, the original, handwritten Board Minutes have been misplaced at a storage facility (BOS Executive Office, personal communication, 2006).

Chinese continued to be buried at Fort Moore Hill as late as 1882 (*Los Angeles Times* March 10, 1882) and probably until the cemetery was closed to further burial. In October of 1885 a newspaper article names Evergreen as the site of a Chinese burial on October 4th and the site, weeks previous, of a Chinese gathering "to banquet the dear departed there interred" (*Los Angeles Times* October 9, 1885). Thus, there are a minimum of ten years (1885-95) when Chinese burials at HLAC were not documented by the caretakers. This Chinese cemetery apparently did not have an American name:

> The burial took places at the county cemetery, just beyond the Evergreen Cemetery. (Low Yow, *Los Angeles Times*, March 17, 1900)
>
> …to the Chinese cemetery at Evergreen. There is no other name for it. (Kwai Lan, *Los Angeles Times*, March 11, 1902)
>
> …started for the Chinese Cemetery, which adjoins Evergreen Cemetery on East First Street. (Ah Mow, *Los Angeles Times*, January 20, 1905)
>
> …left to the Chinese burying ground next to Evergreen Cemetery. (Lau Yok, *Los Angeles Times*, January 14, 1911)

The Chinese Shrine (Los Angeles City Historical Monument and California Historical Resource P19-003552) was completed in October 1888 according to a brass plaque on the structure (Figure

7.3). The structures, a memorial shrine and twin burners (one for prayers and one for personal possessions of the deceased), are located at about the center of the original length of the cemetery.

Figure 7.3. Chinese Shrine circa 1890 (CHSSC website)

The genesis of construction appears to have been a mishap during the Hungry Ghosts Festival in 1888. This festival is held on the fifteenth day of the seventh month of the Chinese calendar when both orphaned souls and the chief judge are released from the deathly underworld to roam the earth; they must be fed or they will seek revenge on those who wronged them during their lives (Chace 2005:66).

> Yesterday was a big day with the Chinese, it being the date for the annual feeding of the souls of the departed celestials. The heathens repaired to the graveyard where their dead are buried at an early hour with all manner of Chinese delicacies including roasted pig, chicken, confectionery, tea, saki, and other varieties of solid and liquid refreshments, besides a great amount of prayer papers to be burned during the ceremonies to keep out the devils.
>
> Heretofore, when the heathens have had this annual feast, or celebration, or whatever they term it, they have taken precautions against the fire from these piles of paper spreading by cutting down and cleaning off the dry grass. This year this was omitted from some oversight, and they were in the height of their ceremonies when some of the residents in the neighborhood became alarmed lest there should be a grass-fire, and reported the case to the police headquarters. Officer Berry was sent out, and compelled them to extinguish their fires, after which they were allowed to finish their exercises, which continued for some time. They finally concluded and left the cemetery, and it will be another year before the ghosts are again fed. (*Los Angeles Times*, Monday Aug. 20, 1888).

The Executive Office was able to provide access to the BOS Minutes for 1893-1899. Two mentions were found during this period. The first was a request, granted, that the BOS pay $7 to undertakers Kregelo & Bresee for the burial of an indigent child (BOS Minutes January 29, 1896). The second was a request for bids related to the cemetery (BOS Minutes February 5, 1898, emphasis added):

> In re Burial of Indigents-
> Upon motion of supervisor Field duly seconded and carried the following is declared adopted: Resolved that the clerk of this Board cause to be published in the Evening Express for the period of five days, a notice, that sealed proposals for the burial of all indigents from Los Angeles City and immediate vicinity, excepting those dying at the County Hospital, that are *to be interred in the grounds adjoining Evergreen Cemetery* [emphasis added]. All coffins to be supplied by this County. Will be received up to 2 o'clock P.M of February 13th, 1896. A certified check made payable to the Chairman of this Board in the sum of $50.00 to accompany each bid. This Board reserving the right to reject any and all bids.

The City Council minutes contain no further references to this East Los Angeles potter's field until 1914. At that time, City staff recommended exchanging the potter's field for county property for a park and playground (Los Angeles City Council Minutes May 26, 1914). The staff note "a certain portion …known as Potters Field (*which has been under the car and jurisdiction of the County for a number of years*)…[emphasis added]. Eventually, the City Attorney reported that for legal reasons, exchange was not possible and recommended sale of the potters field and purchase of the desired park land (Los Angeles City Council Minutes October 19, 1916). The City conveyed title to the Potter's Field to the County for the sum of $40,000 (Los Angeles City Council Minutes March 2, 1917).

In 1914, the Cemetery Division of the Department of Charities and Corrections of Los Angeles County report income from sale of "Chinese graves" in the amount of $460, "disinterment fees" of $120, sale of "ordinary graves" at $66 and sale of "infant graves" at $39 (BOS 1914). This is consistent with information from the cemetery Burial Registers (section 10.2) indicating that non-indigent persons, including Chinese, were charged for burial.

Beginning in 1920, the Annual Report (BOS 1920:30) identifies the cemetery as being:

> located at 3301 East First Street, Los Angeles, directly east of and adjoining Evergreen Cemetery. It accommodates indigent dead of the City and County.

The report for 1922 (BOS 1922:46) states

> The total number of bodies buried in this cemetery up to June 30, 1922, was 13,239. The burials made during the fiscal year have exhausted practically all the available ground in the cemetery and, foreseeing this condition, steps were taken many months ago to provide for future needs by construction of a crematory. The structure was completed almost coincidentally with the end of the year [fiscal], and henceforth few burials will be made.

In the following fiscal year, an additional 69 people were buried and 529 were cremated (BOS 1923:56). Subsequently, only cremations are listed. Thus the total number of people known to be buried at the Historic Los Angeles Cemetery was 13,308.

In 1922-23, a cottage was build on the cemetery grounds for the cemetery superintendent and the fence around the cemetery was repaired and painted (BOS 1923:64). In 1924-25 a large portion of the cemetery was leveled, flat cement blocks substituted for the old wooden markers and water pipe laid to permit planting of lawns (BOS 1925:60). Two additional retorts were added to the crematorium also. The 1926 report (BOS 1926:72) specifies:

> As the city grows the cemetery is being surrounded by the homes of people. The grounds are being improved and a grove of young pepper trees takes away the barren look of a pauper burying-ground. Contract has been let by the Supervisors for a wall along the Lorena Street side and this will later be covered with vines. A bluegrass lawn has been planted on each side of the roadway leading from the gate to the buildings and flowers are in bloom. The graves are being leveled and marked by cement blocks so as to make the grounds more sightly. Additional walks are to be built and the ground opened to the public to be used as a breathing space.

A letter to the County Cemetery superintendent authorized charging $15 for cremation of those over 12 years of age and $2.50 for those under (Wood 1923). It requests that relatives not able to pay be referred to the Department of Charities for investigation of their financial circumstances. Additionally the letter authorizes a charge of $5 for disinterment with no possibility of reduction of the fee. The 1926 report (BOS 1926:72) notes:

> Even though this is a cemetery for the burial or cremation of indigents, a collection of $1020 was made during the year. If the family of the deceased person is able to pay anything toward the cost of cremation, a nominal charge of $15.00 is made. Disinterments, principally of Chinese bodies being sent to their native land, are charged for at the rate of $5.00 each.

The 1927 report also waxes poetic (BOS 1927:79):

> The graves are marked with small round, concrete blocks, grass is being cultivated and a grove of pepper trees on the Lorena Street side is a source of beauty… Lorena Street, at the eastern boundary, is about to be improved and paved and as it is below the grade of the

> county property a retaining wall will be necessary. This will further improve the appearance of the tract and will remove the last traces of a "potters' field".

A special report (BOS 1929:32) indicates a complete sewer system and water mains have been installed, the grave head-boards have all been removed, the tract leveled, concrete markers level with the ground installed and additional trees planted.

By 1949, a complex of structures was located at HLAC (Figure 7.4). These included the crematorium and chapel to the northeast, the caretaker's cottage and office to the west and a large structure to the south.

A second chimney was built at the crematorium in 1955 as evidenced by engineering plans for the structure and for relocation of all graves in Block 12, the site of the chimney (on file, Los Angeles County Crematorium). The plans state that the burials from Block 12 were moved out along the Lorena Street boundary.

Time was erasing the history of the cemetery. County documents introduce a mythology that the County purchased an already established cemetery operated by a Chinese organization that was no longer usable because all plots were full and then constructed a crematorium (Barr 1959).

In 1962 the County declared 5.1 acres of the Historic Los Angeles Cemetery as surplus property (Davis 1962). In 1964 the County completed sale of that parcel to Los Angeles Cemetery Association (owners of Evergreen Cemetery) for $126,000 (BOS 1964). The County retained only the 3.9 acres of the modern crematorium. No documentation was located to account for the difference between the ten acres originally deeded for the indigent cemetery and its reduction to nine acres by the time of this sale.

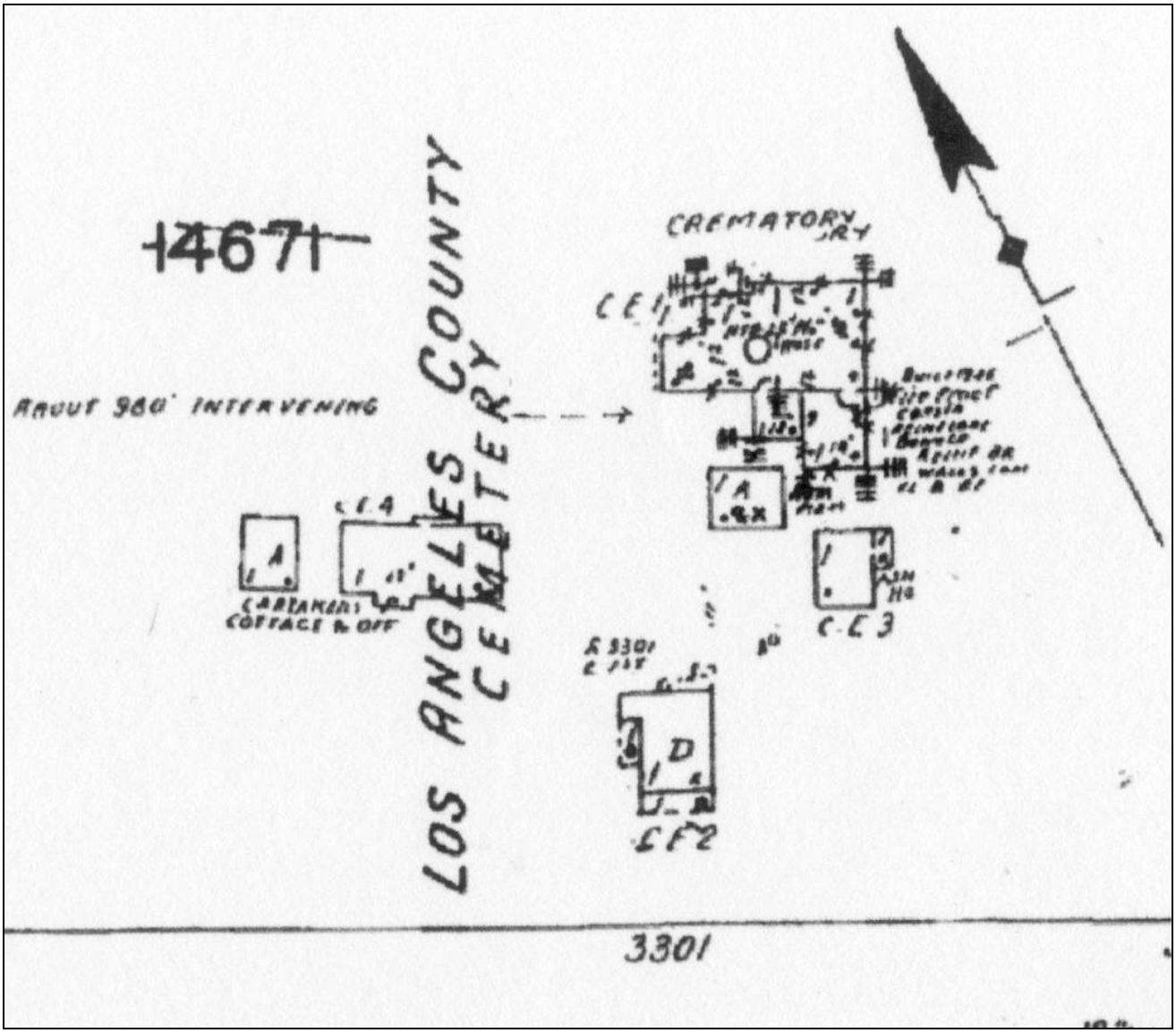


Figure 7.4. 1949 Sanborn Map of HLAC

Evergreen Cemetery put fill of depths from 4 ft. to 14 ft. over the existing graves on their new parcel (Davis 1962). New plots were sold in this "fill" area as evidenced by surface grave markers visible today. This placement of fill also had the effect of making the Chinese Shrine below the ground surface (Figure 7.5). In 1990 the Shrine was designated a Los Angeles City Historical Monument and by 1992 the Chinese Historical Society of Southern California had purchased the Shrine to ensure its preservation (CHSSC website). The Society restored the shrine and it continues in use.

Figure 7.5. Chinese Shrine in 2006 (from P19-003552 site record)

Structure damage to the crematorium occurred during the 1994 Northridge earthquake (Anonymous n.d.). Ten years later, in 2004, repair work was completed including reinforcement of the walls and roof, rebuilding and reinforcement of a chimney and upgrading of the restrooms (Anonymous n.d.).

7.3. LOS ANGELES CHINESE DEATH RITUALS

INTRODUCTION

Funerary practices of China (Watson and Rawski 1988) and of Chinese in the western United States (Chung and Wegars 2005) have been well documented. A brief summary drawn from these sources is presented as an introduction followed by specific information on Los Angeles.

In China, in common with many cultures worldwide, persons who handled corpses were traditionally considered dangerous to touch or to interact with in any way. In California, this problem was neatly solved by using Euro-American undertakers who returned the body to the Chinese community encased in a coffin, protecting them from any dangerous contact. Paid mourners were utilized to open the coffin lid for viewing and to carry the coffin. These mourners were also used to collect personal property, especially anything touched by the dead body, and place it into bundles for burning; this protects the living from any transfer contact..

Chinese religions (3 major) share a deep belief that spirits of the deceased are real and potentially beneficial or potentially dangerous to the living. Rituals and ceremonies have developed over time to minimize danger and maximize beneficence from the spirits or ghosts. These are particularly important if death is untimely, such as accident, drowning or murder, since those spirits are presumed to be angry.

New spirits require food and drink and prayers to protect them from the devil. In addition, respect for the new spirit must be demonstrated through eulogies, memorial tablets, and display of their value to the living (best possible feast, best possible coffin, most numerous mourners, best possible grave location, etc.). Between the display location and the graveyard the new spirit requires protection from being chased by the devil. The devil is deterred by loud music, firecrackers and loud wailing plus slowed by a route with numerous turns and scattering of prayer papers with numerous holes (these latter two because the devil can only travel in a straight line and must pass through all openings along his path).

Once at the graveyard, the spirit food from the preliminary ceremonies is laid out in case the new spirit needs to eat again. This food is also presented so that any unhappy ghosts (who were not paid

proper respect or fed properly) who may visit will be satisfied and not create problems for the living. Representations of money, clothing and property are burned for use by the new spirit in the next world. The foot of the casket was typically struck to create an opening to accelerate decomposition of the body before the grave was filled.

After burial, tradition required feeding the spirit again at set intervals for several weeks. The effort required to do so also demonstrated continuing respect and value placed on the spirit. Two annual ceremonies serve to continue feeding and comforting of all spirits thereafter. These are the Pure Brightness Festival (Qingming) in the spring and the Hungry Ghosts Festival (Yulanpen) in late summer.

In China traditional beliefs required exhumation of the bones of male relatives once the flesh had decomposed. The bones were then placed in an urn or other container and assumed their place in the family shrine where proper reverence could be demonstrated and the family would benefit from being in the good graces of all ancestral spirits. Continuing this practice for Chinese who died outside China was a major function of Chinese Benevolent Associations. After a period of several years, accounts vary from two to ten, most Chinese men were disinterred so their bones could be returned to their families in China. The exhumers cleaned any remaining flesh from the bones, transferred identification information to the new container, and shipped the resulting boxes. Any remnants of coffins, clothing, grave offerings, personal property, etc. were left in place.

LOS ANGELES

The primary sources of information on Chinese death ritual in 19th and 20th century Los Angeles are newspaper articles. It should be noted that these tend to be reports for funerals of relatively wealthy Chinese. It can be assumed that Chinese of more modest means had proportionately less elaborate funerals although all the elements would have been present:

> Though the Los Angeles Chinatown contains several hundred Celestials, who are as subject to mortality as the rest of us, it is rarely that our citizens have the opportunity of witnessing a "bang-up" Chinese funeral. Most of the decedents are laborers or persons of little moment, and they are committed to the grave with the minimum of demonstration. Last Saturday, however, the pig-tailed fraternity had a funeral ceremony as interesting as it was rare here. (Foo Chong, *Los Angeles Times* October 9, 1885)

Los Angeles Chinese managed to educate at least a portion of the larger community to the significance of their death rituals:

> The Chinese believe that death is the beginning of a long journey …. On the journey the deceased has need of food and raiment and of the temporal blessings which are known to Chinatown. In addition there are spirits, both good and bad, that must be favored or propitiated, for these reasons an unusually large supply of the necessities of life are provided the departed friend. (Low Yow, *Los Angeles Times* March 17, 1900)

In Los Angeles, a preliminary funeral service was conducted at the home or business of the deceased prior to the procession to the graveyard. The body was displayed next to a table(s) with food and drink for the spirit. Music, prayers and demonstrations of respect by friends and family were common features:

> The coffin containing the corpse was brought out on the side of the street, the cover removed, and a last look at the remains taken by friends. A table stood in the street, on which was displayed roast pigs, vegetables, three huge pyramids of fancy soaps, and dozens of tiny China cups, filled with tea, but from which no one partook. Near by a priest chanted from a huge book printed in Chinese characters, while the chief mourner, an old women dressed in a dirty blue gown, with a cloth over her head, sat on the ground near the coffin and moaned and groaned in the most approved agony of grief. (Ah Yet Kee, *Los Angeles Daily Star* August 8, 1877)

> Hearing that a distinguished citizen of a Chinatown was dead and lying in state in that delectable portion of Los Angeles, in company with three friends I went Thursday evening to view the body. … we soon came to a little alley dimly lighted by tallow candles that took us into a large room where there were 30 or 50 Chinamen working busily on banners, transparencies and other paraphernalia that they would need in the morrow's funeral. … Mr. Undertaker led the way into the next room where the great follower of the square and compass lay in a neat coffin covered with a white shroud. By the head of the coffin was a

basin of meal. At the foot was a spread of pork chops, chicken, rice, fruits of several kinds and many other edibles. (Lee Pai, September 1 in Los Angeles, *San Francisco Post* September 8, 1878)

On the south side of the clean-swept space under the peppertrees, directly in front of the door, two large banners, with rollers at each end, were hung up, apparently to break the force of the wind. They were of white cloth with blue border. Upon the white, in very large Chinese characters, was painted the name of the decreased, with the dates of his birth and death. Later in the day a planed board, three feet long and eight inches wide, the lower end unpainted, and the upper two feet a deep green with red inscriptions, was leaned up against the banners. It was the headboard to be placed over the grave. A smaller board, destined to go at the foot of the grave, accompanied it. Upon one of the lintel of the door was knotted a narrow strip of white cloth. The corpse was lying in the front room south of the entrance, in a rather expensive coffin. The body was dressed in a white suit, with blue trimmings, and was covered with a curious white robe. The head was closely swathed, and had several sheets of Chinese paper over it.

A little after 11 o'clock a number of Celestials brought out three tables, set them under the trees, and began to spread a feast for the dead. …Having set out the tables beneath the shade, the workers began to produce the eatables. Two Chinamen came trudging from a bakehouse with a pole from shoulder to shoulder. In a bamboo sling depending from the pole was a wide carving board, and upon it was a whole roast pig. He was placed upon the table farthest from the banners, and a mate was soon put down beside him. Each pig was probably a 75 pounder. They had been split from nose to tail, and sprawled upon their bellies. Their forefeet were curled around and tucked into the flesh each behind his own shoulder. A gash was cut into each side, and into it was twisted a hind trotter. Both pigs were done to a beautiful meerschaum brown. They had the rear table to themselves.

Upon the tables in front, however, there was a novel variety of viands spread. First to be notice were four plates of biscuits. They –the biscuits, not the plates- seem to have been boiled rather than baked; at least there was not a suspicion of a crust on any of the. Half were of a corpse-like pallor-neither white nor yet exactly grey—and the rest a brilliant cardinal. All were of a size as closely as if run in one mould, and all had "raised" well. Stuck on the sides of the pyramids into which the biscuits were built, were little wheels of the same material, cooked in the same way, whose spokes were alternate corpse-color and cardinal. The next notable entrée was the poultry-a hen and a rooster, stripped of feathers and boiled. Their combs, waities, etc. were left on, and their head were held up in a life-like manner. Both had their hind legs folded astern.

Beside the rooster and upon the same plate, was a roll of boiled fat pork; and upon it a setting of hard-boiled eggs with the shells off. Then there were pretty little bowls heaped with snowy rice, larger bowls filled with curious dainties which looked like strips of orange peel and squash fried in fat; and yet other bowls, whose contents appeared to be dried fruits. There were chop sticks laid in front of the dishes, in hen of knives and forks. At the table corners were little white tea pots with blue polka-dots; and these drew their inspiration, not from the herb which cheers without inebriating, but from a very American demijohn of brandy.

Last of all the table furnishings were two tin boxes, each fifteen inches long, six wide and four deep. There were well filled with sand and clean brown paper was neat paste over the open tops. Their mystery was explained when some of the attendants brought forth several packages done up in splints of bamboo. Unwrapped, these proved to be crimson wax

candles from a foot in length and an inch and a half in diameter, down to less than half that size. All were of the same bright color, and all were adorned with the most brilliant hand-painting in purple, silver and gold. Each candle had a rocket-like stem of cane, and the stem, stuck down through the sand, served to hold each upright. The big candles were stuck in the middle of each box, with the little ones tapering (no pun) downward on each side. When these had been thus disposed, a great lumber of sticks with scented punk on the ends were also stuck into the boxes, and all were set burning together. (Foo Chong, *Los Angeles Times* October 9, 1885)

Among the hacks which dotted the great crowd about the spot, were two of special interest-the bandwagons. Each contained a full band of four pieces-but whether to call the string bands, brass bands, or cornet bands, would puzzle a Philadephia lawyer, in his soberest moments. Each orchestra had an aesthetic bronze drum—or, rather, gong—suspended upon by a small stick. Each had also a mammoth pair of cymbals, a fife, and a wooden drum. The fife had a tiny ivory mouthpiece, and a blunderbuss of a brass flare at the other end. The drum was like unto a nailkeg in size, but appeared to be carved from one piece, with the core excavated from beneath. The top was round; and the tone, under the taps of two sticks, recalled the familiar xylophone of theatre orchestras. …

As the bands struck up their doleful ditty, the hired mourners went in to request the deceased's attendance at the ceremonies. These official mourners, or pall-bearers, were all young men, with long, white night-gowns over their other clothing, and white cook's caps on their heads. They brought out the coffin with much ado, and set it on trestles with the head to the banners and the foot to the feast. A six-inch strip of crimson cloth ran from end to end of the coffin top; and a similar but shorter strip was tied across the head of the coffin. Two gilt paper affairs with peacock feathers were stuck in the knots.

On the back of the rear table was a white curtain, with a green landscape painted upon it. Behind it two rows of heavy straw matting were spread upon the ground. Four of the hired mourners first advanced upon the matting, side by side. They clasped their hands, bowed thrice, and went down upon their knees. Then the other two poured brandy from the teapots into four thimble-sized china cups. Each kneeled, took a cup drained it upon the matting before him, and thrice bowed his body until his face was within a foot of the ground. Then they rose, and the other two mourners, with two dark clothed friends, took their places. This performance was kept up for over an hour, all the friends of the deceased thus paying their respects. (Foo Chong, *Los Angeles Times* October 9, 1885)

Four posts were planted in the ground near the sidewalks, arranged in the rectangular form, over the tops of the poles, that extended about eight feet into the air, canvas was stretched. Beneath the canvas and about eighteen inches from the ground boards were placed to hold many peculiar emblems that are indispensable to a Chinese funeral. The low bench held a whole roast pig, several roast chickens, rice and an assortment of Chinese beverages. Pans filled with sand were places around the edges and candles, tapers and punks all lighted, set upright in them. The corpse was brought … and placed beside the funeral banquet. Some incantations were indulged in and a Chinese band proceeded to beat the tom-toms and the drums in a most heart-rending manner. (Low Yow, *Los Angeles Times* March 17, 1900)

With an American 5-cent piece between his lips to pay his entrance fee to the doorkeeper of the Chinese heaven Ah Mow lay in state under a canvas fly in front of the Hop Sing Tong's headquarters, 520 ½ North Los Angeles Street, yesterday afternoon. Prostrated upon a mat

> before the coffin were Ah Mow's widow, his little son and his baby daughter, garbed in white – the mourning color of China.
>
> Pressed to the ropes encircling Ah Mow's coffin and the tables upon which were displayed the viands prepared for the last journey of the dead Chinese was a big crowd of sightseers. Those who stood in front saw the ceremonies of the Chinese Freemasons. Those behind had to contest themselves with hearing the wails of the widow and the children, accompanied by an obligato performance by a Chinese musician on a little brass clarinet from which he drew a monotonous tune.
>
> The Chinese Freemasons, who had charge of the service at the Plaza, wore long pearl-gray wraps and around their heads were strips of white and red cloth. They crowded around a table upon which three whole roasted pigs, a dozen baked chickens, cups of rice, dishes full of doughballs and trays heaped with Chinese sweetmeats were placed. Burning punk and spluttering thick red candles diffused sickening odors. The pallbearers, garbed in long white blouses, assisted the Masons in their ceremony.
>
> Libations of sam (som)-chu or Chinese wine were poured in little cups and after short prayers, thrown upon the ground in front of Ah Mow's photograph, which was placed in such a manner that it dominated all the eatables prepared for his trip to Spiritland. From a sack containing a lot of paper inscribed with Chinese characters the Master Mason drew a bundle. Another applied a match to this and when it had been reduced to ashes Ah Mow's body was lifted up and carried to the hearse. Part of this bundle represented Ah Mow's future home in his Chinese heaven and the rest was the money to keep himself in style.
>
> There were flowers and wreaths, contributed by American friends, on the coffin. One floral display was in the form of an anchor sent by the Los Angles Chinese Reform Association. Scrolls of silk and paper upon which the virtues of Ah Mow and his ancestors were engrossed and which had been stacked near the bier were lifted aloft so the body was bound to the hearse and the Chinese cemetery. (Ah Mow, *Los Angeles Examiner* Friday Jan. 20, 1905)

> In the natural course of human events, Lau Yok Jew died and the Masons buried him. It happened at No 315 ½ Apablasa Street, Chinatown, at 1 o'clock yesterday afternoon. Great was the roast pig, great the tom-toms, great the fireworks and inexpressibly great the mourning. It took place in the street… (Lau Yok, *Los Angeles Times* January 14, 1911)

> Typical Chinese rites were conducted in the funeral yesterday of Len San, a well known Los Angeles hotel cook, which was conducted by a delegation of members of the Chinese Masonic order from Los Angeles. (Len San, *Los Angeles Times* April 23, 1916)

After completion of the preliminary ceremonies, the funeral party proceeded to the cemetery. Measures to deter the devil were employed along the way and once at the graveyard, death-contaminated property was burned (for protection of the living) separately from paper representations of property (for use by the spirit in the next world), and the spirits fed:

About 2 o'clock the procession was formed and took up its line to march through Los Angeles, Commercial, Main and Temple streets to the cemetery [Fort Moore Hill Cemetery]. A carriage, preceding the hearse contained a Chinese band, with gong, cymbals, flutes, fiddles, etc., the music from which was ear-piercing and unearthly. Immediately in the rear of the hearse were two large express wagons filled to their utmost with every variety of provisions, the first of the wagons also containing the chief mourner, whose heart-rendering shrieks increased in power and volume as the procession advanced. Then followed, apparently, every hack, carriage and livery vehicle in the city, all closely packed, and, bringing up the rear, were innumerable fish and vegetables wagons and Chinamen on foot. The procession was over in ten minutes in passing a given point, and attracted general attention from which thronged the sidewalks. (Ah Yet Kee, *Los Angeles Daily Star* August 8, 1877)

At two o'clock Fred Dob's band – not Chinamen – marched through our principal streets leading an immense procession. Immediately following the band was the hearse drawn by four horses. Following the hearse, came first, hired mourners on foot, then the Masonic lodge – mostly Chinese - composed of about one hundred members, all on foot, and then followed a long line of carriages. The hearse had the square and compass in each window. (Lee Pai, September 1 in Los Angeles, *San Francisco Post* September 8, 1878)

…a small Chinese funeral came filing down Main and Commercial streets to the burying ground [Fort Moore Hill cemetery]. A nice hearse carried the corpse. A wagon with three mourners and the clothes and blankets of the dead man followed. On the hearse sat a Chinaman distributing little bits of paper to chase away the Devil. (unknown Chinese man who died on inbound train from Yuma, *Los Angeles Times* March 10, 1882)

At last the dead man had feasted enough. The viands were put in F. Baker's express wagon, in which was already stored all the bedding, clothes and other property of which Chong died seized. After long delays, during which an artist photographed the curious scene, the procession started, one band ahead of the hearse, and the other at the tail end of the convoy of fifty-six vehicles.

Arriving at Evergreen Cemetery, the hearse stopped while everyone gathered about. Then the coffin was taken out and set on trestles by the grave, and there was more bowing and worshipping. A lot of brown papers of different shapes were burned. Some represented money, some stood for clothing, etc., and thus the deceased went to *Ting Hong* well heeled. Then the coffin as lowered into the grave, and the victuals and property of the deceased were burned in the furnace which the Chinese keep there for that purpose. This was not, as an intelligent Chinaman informs the reporter, to send the things to the next world for their former owner-who had already been provided for by the symbolic sacrifice papers- but because no Chinamen keep the dead man's things. …The su-song of Foo Chong was the most elaborate here in eight years. After the ceremonies at the cemetery, the friends came home and feasted on the roast pigs. (Foo Chong, *Los Angeles Times* October 9, 1885)

There were three Chinese bands in the procession, with marshalls on horseback, and over fifty vehicles in line. The hearse was drawn by four horses, two blacks and two grays. (Low Koon Goo, *Los Angeles Times* July 4, 1890)

> A silver coin was placed in the bottom of the coffin and another in the mouth of the deceased. After some of further mystic rites the funeral cortege was formed. The provender and candles, and the corpse were loaded into one express wagon, and the clothes of the deceased, together with part of the bedclothes and couch which the woman had used in life, occupied another. Then came the hearse and the carriages containing friends. … At the grave the food and native wines were placed about the grave… and pictorial representations of the Chinese devils burned. The clothes and slats of the bed were also incinerated in the belief that by this means the pleasures of the journey would be enhanced. The burial took places at the county cemetery, just beyond the Evergreen Cemetery. (Low Yow, *Los Angeles Times* March 17, 1900)

> A guard of honor composed of very well-drilled young Chinese dressed in uniform similar to that of American cavalrymen followed the body. There was a long line of carriages filled with members of the Hop Sing Tong of which Ah Mow was president. There was an American band and a Chinese band. The procession closed with express wagons, containing all the elands prepared for Ah Mow's journey. In former days, these were left at the cemetery. Now they are returned to Chinatown, because tramps got into the habit of congregating at the cemetery after a funeral and eating up the provisions intended for the late lamented. (Ah Mow, *Los Angeles Examiner* January 20, 1905)

> … afterward Lau Yok Jew took an unconscious part in a unique procession which left to the Chinese burying ground next to Evergreen Cemetery. The procession consisted of one band wagon and one hearse. Lau Yok Jew was not in the band wagon. A great deal of care was taken to throw the devil off the scent. (Lau Yok, *Los Angeles Times* January 14, 1911)

> En route to the cemetery one member of the delegation rode on the funeral car, scattering a trail of torn bits of paper. The Chinese belief is that Satan must pass through small holes in the paper bits, this delaying this Satanic Majesty's progress until the soul of the dead has safely passed through purgatory. Cook meats and other viands were spread on the grave for the entertainment of the spirit guests who might visit the scene later. (Len San, *Los Angeles Times* April 23, 1916)

Disinterment of bones and processing for shipment back to the deceased person's family in China were unfamiliar to non-Chinese and many who happened to view the procedure were squeamish:

> A Chinaman, in fact, half a dozen Chinamen, sitting scrapping bones. Human bones. Bones that have aided in cultivating our orchards, in washing our linens, in cooking our dinner. There they were, in little piles, carefully arranged so as not to become mixed, in the Chinese burying ground, yesterday. …John kept on scraping the femur; then the skull was taken up, and his old table knife soon cleaned that after a fashion; then came the ribs and fingers, and legs all prepared. The vertebrae were carefully tied together and then the master of ceremonies deftly arranged the bones into a neat bundle, which looked exactly like a mammoth package of liquorice roots such as druggists have. A few twists of twine around it made it ready for the next operations.
>
> The "remains" were then tosses over to another John, together with a memorandum, which looked like a tea-chest label. This man neatly did the bundle up in wrapping-paper, then put a sheet of rice paper over it and consulted the tea-chest label a few minutes. "Hung Li, bing

gaa, mana kee-e-e- fiko," he chanted in an undertone, while the reporter was frantically trying to write down the words. It was evidently the deceased record he was reading, for with his brush and India ink he soon has a fake simile of the tea label on the neat looking bundle.

It was now transferred to another man, who was busily engaged in packing numerous similar packages in a large packing case, gaily decorated with red labels. The bundles told their own stories to some extent. Some were miniature, others medium sized, and one or two looked as if their contents might have formed the framework of a six-footer. Four of the chests were already packed and this one was about half full. The packer picked up the one the reporters had watched through its career, fitted it neatly into its space, and sang out what evidently meant "Next!" for soon another remnant of mortality was handed to him and was popped into its place. These chests are shipped to San Francisco, thence to China, where once in their native soil, the souls of the departed are supposed to be free to enter paradise. There are no religious ceremonies held…. *(Los Angeles Time* April 7, 1887)

… yesterday at the Chinese graveyard, just to the East of Evergreen Cemetery, and adjoining the public highway on East First Street. At the present time there are five graves lying open there, with the rotten, reeking coffins which lately held the body of some departed Celestial, fully exposed to view, while on the piles of soil alongside the graves are the decayed grave clothes, and scattered around are queues of the recent occupants and broken fragments of coffin. …

These graves have been opened to secure the bones of the dead Chinamen, in order that they may be sent back to China for their final rest. … In many cases old coffins, half rotted away, have been torn to pieces and the sections are scattered about the graves. Old slippers, pantaloons, overcoats, caps, etc., rest in confusion, not exactly picturesque, just where they have been pitched when pulled out of the graves by bone hunters. In several cases the long black queues, neatly braded and perfectly preserved, with bits of scalp attached, lay on the ground at the edges of the open graves.

…Down at the eastern end of Apablasa street there is a three-room shack enclosed with a high board fence. This building economically combines two enterprises. It is known as the Chinese hospital and "Dead House." In two … rooms the poor, decrepit old Chinese who are so diseased and unable to work that their end is considered near, are allowed to eke out their miserable existence and await their inevitable end. In the third room of this building is the "Dead House." When the bones are taken from the graves at the cemetery they are sacked up and carted to the "Dead House." Here they are poured out on tables and the old men scrape them clean of remnants of adhering flesh. The bones are then placed in tin boxes, labeled, and stored away until enough have accumulated to make a shipment to the Flowery Kingdom…. *(Los Angeles Daily Times* December 11, 1902)

A sensational yarn about the desecration of Chinese graves at the county cemetery was recently published by a local sheet. That the highly colored account was without foundations is stated by Mr. Hildebrand, foreman of the cemetery. Bodies cannot be removed until after a lapse of ten years and the graves are refilled immediately either by Mr. Hildebrand or the Chinamen themselves who dig up their dead to ship them to the old country. That the Chinese section is untidy, bestrewn with old clothing and like trash is true enough, but queues and putrid flesh are minus quantities. (*Los Angeles Daily Journal* December 12, 1902)

8. RECOVERIES

INTRODUCTION

Human remains were recovered throughout the project area of impact. Field personnel divided the project into labeled areas based on the order of work (Figure 8.1). Area A was machine excavated in its entirety on June 22, 2005 with an archaeological monitor present. Bone was encountered only in the half nearest to Area B. Area B was machine excavated to three feet on June 22 with an archaeological monitor present. Subsequently the remainder of Area B and all of Areas C and E were excavated using both mechanical and manual excavation by a team of Cogstone archaeologists assisted by equipment operators and laborers from Eastside LRT Constructors between August 30 to November 6, 2005.

The distribution of recoveries was not continuous (Figures 8.2, 8.3, 8.4). There were portions, especially in Area A, B and C where nothing was recovered at any depth. Most of the recoveries consisted of graves while some were burials of medical waste such as amputated limbs, medical jars, cadavers from medical schools, etc. Some graves had remnants of coffin wood and some had no portion of the coffin remaining. In addition, some recoveries had only artifacts which had been part of the original burial – coffin hardware and remnants of clothing. Others were associated with artifacts that are clearly grave offerings; many of them with Chinese affinities. A number of graves, especially those with Chinese affinities, had no human bone present due to disinterment.

Features were identified by changes in soil color, including rectangular and hexagonal patches of darkened sediment, presence of wood, bone and artifacts or combinations thereof. Each possible feature was given a field number at the time of discovery. Subsequent excavation sometimes determined that no burial was present (25 instances). Field numbers were assigned according to the order of work so 24 might be in Area C and 25 might be in Area E. This made it very difficult to locate a specific recovery on the map. During preparation of this report, the actual recoveries were renumbered sequentially from west to east across the impact area so that readers would be able to locate them on the maps (Figures 8.2, 8.3, 8.4). The original field numbers were retained in the catalog in addition to the new Recovery/Catalog Number.

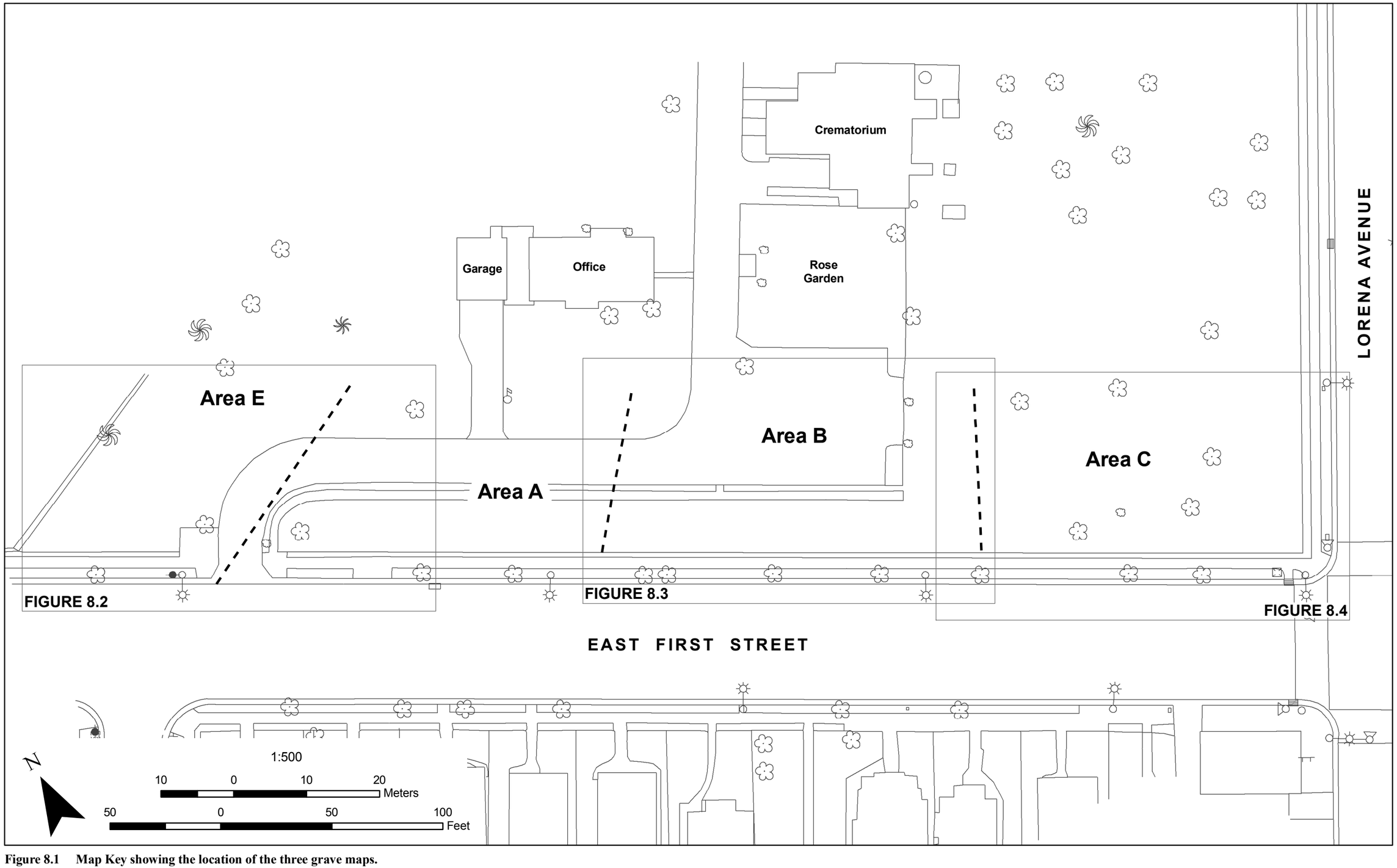


Figure 8.1 Map Key showing the location of the three grave maps.
Cogstone Resource Management Inc.

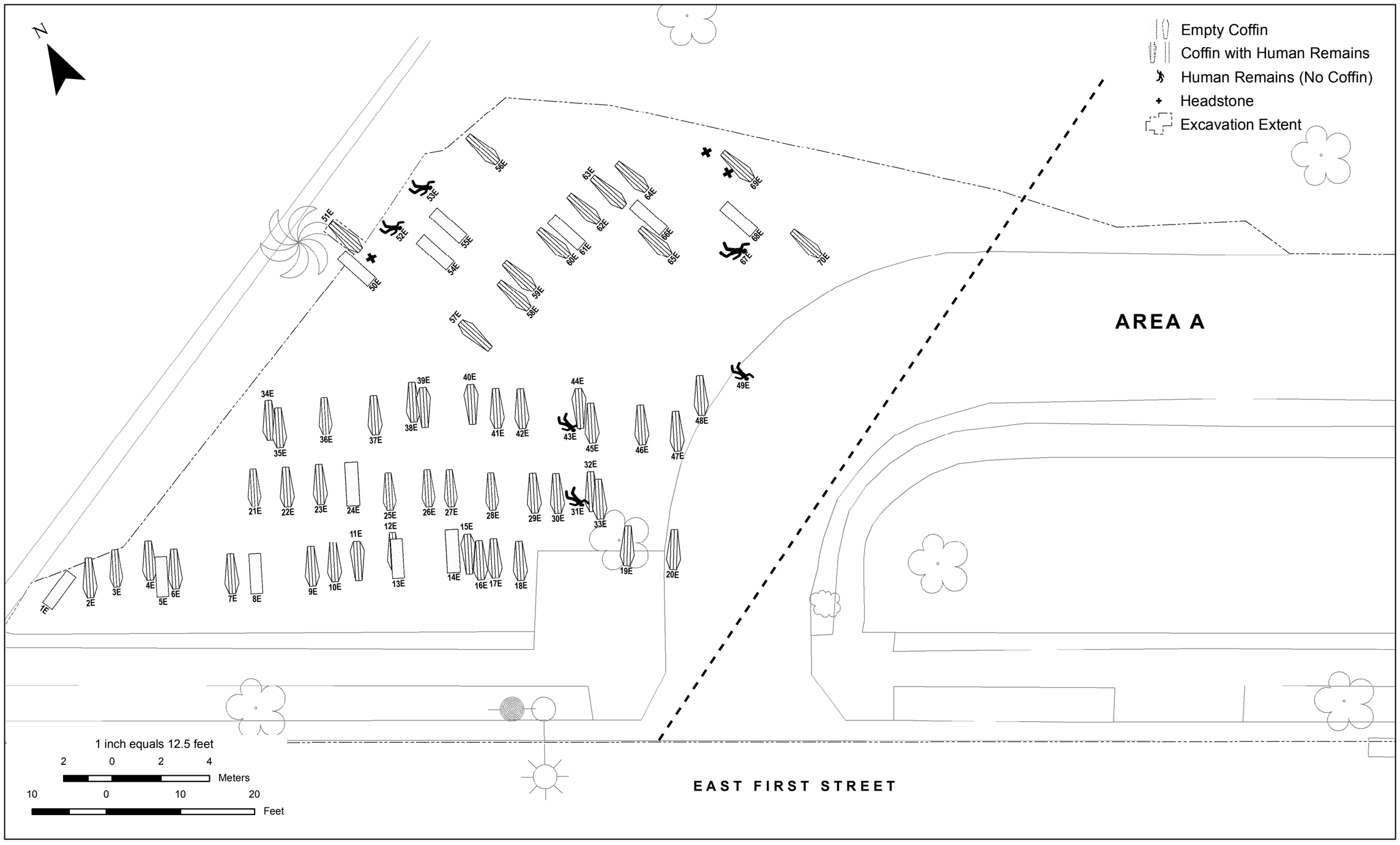


Figure 8.2 Layout showing the grave distribution in Area E.
Cogstone Resource Management Inc.

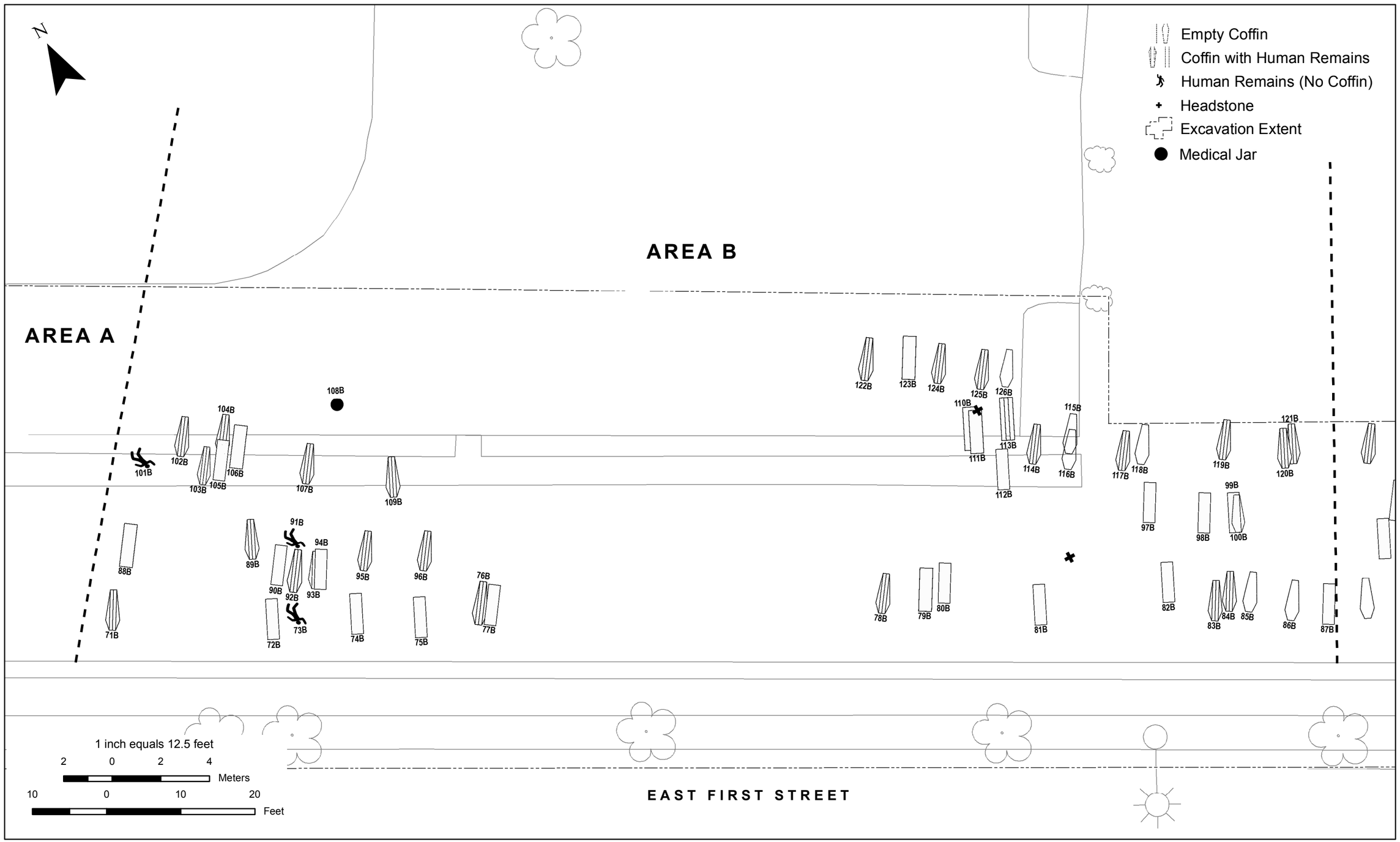


Figure 8.3 Layout showing the grave distribution in Area B.
Cogstone Resource Management Inc.

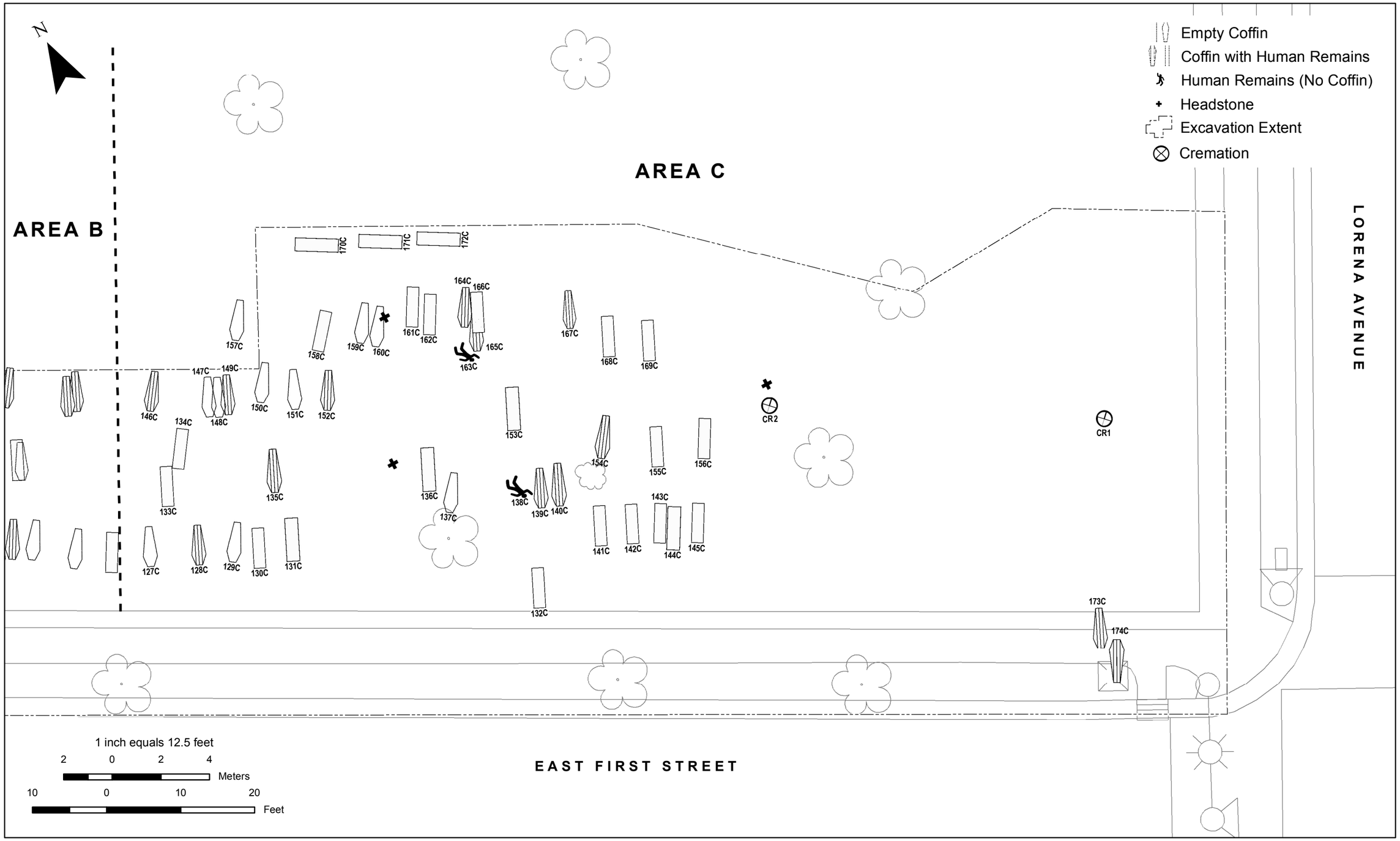


Figure 8.4 Layout showing the grave distribution in Area C.
Cogstone Resource Management Inc.

8.1 BURIALS, DISINTERMENTS AND OTHER FEATURES

174 recoveries are documented in this section (Table 8.1). Skeletal remains were present in 118 graves (13 of them with 2 individuals) and 4 medical college boxes. No skeletal remains were present in 53 graves but most, 47, had artifacts present. These range from two substantially complete skeletons, probably representing a later grave dug into an earlier grave, to one substantially complete skeleton and an additional tooth of a second individual.

Four are clearly medical waste. Three consist of mixed cadaver bones in wooden boxes substantially smaller than a coffin and one is a medical jar with bones. Three additional recoveries may be either child coffins or medical college boxes but the remains are too fragmentary to assist in distinguishing between them.

Table 8.1. Summary of Recoveries

KEY. CAT is catalog number; IND is individual; SS is substantial skeleton; PS is partial skeleton; MW is medical waste; sp is skeletal pathology and dp is dental pathology (these numbers indicate presence only).

CAT	AREA	IND	SKELETON	ANCESTRY	ARTIFACTS	SS	PS	MW	age	sp	dp	NOTES
1	E		skeleton	indeterminate	neutral		1		ad		1	
2	E		skeleton	indeterminate	neutral	1			ad		1	
3	E	a	skeleton	Euroamerican	neutral	1			yad	1	1	
3	E	b	skeleton	indeterminate	neutral		1		mad			
4	E		skeleton	Euroamerican	neutral	1			yad	1	1	
5	E		none	none	neutral							
6	E	a	skeleton	indeterminate	neutral	1			ad		1	
6	E	b	skeleton	indeterminate	neutral		1		ad			
7	E	a	skeleton	indeterminate	neutral	1			yad	1	1	
7	E	b	skeleton	indeterminate	neutral	1			mad	1		
8	E		none	none	neutral							
9	E	a	skeleton	Mixed	neutral		1		mad	1	1	
9	E	b	skeleton	indeterminate	neutral		1		ad		1	
10	E		skeleton	Euroamerican	neutral		1		ad		1	
11	E		skeleton	Asian	neutral		1		ad		1	
12	E		skeleton	Asian	neutral		1		yad	1	1	
13	E		skeleton	indeterminate	neutral			1	ad			
14	E		skeleton	Euroamerican	neutral	1			yad	1	1	
15	E		skeleton	Mixed	neutral	1			ad		1	
16	E		skeleton	Euroamerican	neutral	1			ado		1	
17	E		skeleton	Asian	neutral	1			ad	1	1	
18	E		skeleton	indeterminate	neutral	1			yad			
19	E		skeleton	Asian	neutral	1			ad		1	
20	E		none	none	none							left in place
21	E		skeleton	indeterminate	neutral	1			mad	1	1	
22	E		skeleton	indeterminate	neutral	1			mad		1	
23	E		skeleton	Asian	neutral	1			mad	1	1	
24	E		skeleton	Asian	neutral	1			mad	1	1	
25	E		skeleton	Euroamerican	neutral	1			mad	1	1	
26	E		skeleton	indeterminate	none	1			mad	1	1	
27	E		skeleton	Asian	neutral	1			ad		1	
28	E		skeleton	indeterminate	neutral		1		ad		1	
29	E		skeleton	indeterminate	neutral	1			ad			
30	E	a	skeleton	indeterminate	neutral	1			ad	1	1	
30	E	b	skeleton	indeterminate	neutral		1		ad		1	
31	E		skeleton	indeterminate	neutral	1			ado	1		
32	E		skeleton	indeterminate	neutral	1			mad	1	1	
33	E		skeleton	indeterminate	neutral	1			ad	1	1	
34	E		skeleton	Mixed	neutral	1			mad	1	1	
35	E		skeleton	indeterminate	neutral		1		ad		1	
36	E		skeleton	indeterminate	neutral	1			ad	1	1	
37	E		skeleton	indeterminate	neutral	1			ado		1	
38	E		skeleton	Asian	neutral		1		ad	1		
39	E	a	skeleton	indeterminate	neutral	1			mad		1	
39	E	b	skeleton	indeterminate	neutral		1					
40	E		skeleton	Asian	neutral	1			ad			
41	E		skeleton	Euroamerican	neutral	1			ad		1	
42	E		skeleton	Mixed	neutral	1			ad		1	
43	E		skeleton	indeterminate	none	1			mad			
44	E		skeleton	mixed	neutral	1			mad		1	
45	E		skeleton	Euroamerican	neutral	1			ad	1	1	
46	E		skeleton	indeterminate	neutral	1			ad	1		
47	E		skeleton	indeterminate	neutral	1				1		
48	E		none	none	none							left in place
49	E	a	skeleton	indeterminate	none		1		ad			
49	E	b	skeleton	indeterminate	none		1					
50	E		skeleton	indeterminate	neutral	1			mad	1	1	
51	E		skeleton	indeterminate	neutral	1			ado	1		

CAT	AREA	IND	SKELETON	ANCESTRY	ARTIFACTS	SS	PS	MW	age	sp	dp	NOTES
52	E		skeleton	indeterminate	neutral		1		ad	1		left in place, partially
53	E		none	none	neutral							left in place
54	E		skeleton	indeterminate	neutral		1					
55	E		skeleton	indeterminate	neutral		1		ad		1	
56	E		skeleton	Asian	neutral	1			ad		1	
57	E		skeleton	indeterminate	neutral	1			ado		1	
58	E	a	skeleton	indeterminate	neutral	1			ado	1		
58	E	b	skeleton	indeterminate	neutral		1					
59	E		skeleton	indeterminate	neutral	1			yad		1	
60	E		skeleton	indeterminate	neutral	1			mad			
61	E		skeleton	indeterminate	neutral		1		child			
62	E		skeleton	Euroamerican	neutral	1			yad	1	1	
63	E		skeleton	Euroamerican	neutral	1			mad	1	1	
64	E		skeleton	indeterminate	neutral	1			ad	1	1	
65	E		skeleton	Mixed	neutral	1			mad	1	1	
66	E		none	none	neutral							infant?
67	E		skeleton	indeterminate	neutral	1			ad	1		
68	E		skeleton	indeterminate	neutral		1		child	1	1	
69	E		skeleton	indeterminate	neutral		1		child	1		
70	E		skeleton	indeterminate	neutral		1					infant?
71	B		skeleton	Mixed	neutral	1			yad		1	
72	B		none	none	neutral							child?
73	B		skeleton	indeterminate	Chinese		1					
74	B		skeleton	indeterminate	Chinese		1					
75	B		skeleton	Asian	Chinese	1			child			
76	B	a	skeleton	indeterminate	neutral	1			mad	1		
76	B	b	skeleton	indeterminate	neutral		1					
77	B		none	none	none							
78	B		skeleton	indeterminate	Chinese	1			mad	1	1	
79	B		skeleton	indeterminate	Chinese		1		ado			
80	B		none	none	Chinese							
81	B		none	none	none							
82	B		none	none	neutral							
83	B		skeleton	Asian	Chinese	1			ad		1	
84	B		skeleton	indeterminate	Chinese		1		yad			
85	B		none	none	Chinese							
86	B		none	none	neutral							
87	B		none	none	Chinese							
88	B		skeleton	indeterminate	neutral		1		ad	1		
89	B		skeleton	indeterminate	neutral	1			mad	1	1	
90	B		none	none	neutral							
91	B		skeleton	Euroamerican	neutral		1		mad		1	
92	B		skeleton	Mixed	neutral	1			mad	1	1	
93	B		skeleton	indeterminate	neutral		1		infant			
94	B		skeleton	indeterminate	Chinese	1			child			
95	B		skeleton	indeterminate	neutral	1			yad	1	1	
96	B		skeleton	Euroamerican	neutral	1	1		ado		1	
97	B		none	none	neutral							
98	B		none	none	Chinese							
99	B		none	none	Chinese							
100	B		none	none	neutral							
101	B	a	skeleton	indeterminate	none		1					
101	B	b	skeleton	indeterminate	Chinese		1					
102	B		skeleton	indeterminate	neutral	1			ad			
103	B		skeleton	indeterminate	neutral	1			ad		1	
104	B		none	none	none							
105	B		skeleton	indeterminate	Chinese		1		ad			
106	B	a	skeleton	indeterminate	none		1		ad			
106	B	b	skeleton	indeterminate	none		1		ad			
107	B		skeleton	indeterminate	neutral	1			ad		1	
108	B		skeleton	indeterminate	neutral			1				medical jar
109	B		skeleton	indeterminate	neutral		1					
110	B		none	none	neutral							
111	B		none	none	Chinese							
112	B		skeleton	indeterminate	neutral	1			mad	1		
113	B		skeleton	indeterminate	neutral			12				medical college box
114	B		none	none	Chinese							
115	B		none	none	neutral							
116	B		none	none	Chinese							
117	B		skeleton	Asian	Chinese	1			ad		1	
118	B		none	none	Chinese							
119	B		skeleton	Mixed	neutral	1			ado		1	
120	B		skeleton	indeterminate	Chinese	1			ad			
121	B		skeleton	indeterminate	none		1					
122	B		skeleton	indeterminate	Chinese		1					
123	B		none	none	Chinese							
124	B		skeleton	Mixed	Chinese	1			yad	1	1	
125	B		skeleton	indeterminate	Chinese		1		ad			
126	B		none	none	Chinese							
127	C		none	none	Chinese							

CAT	AREA	IND	SKELETON	ANCESTRY	ARTIFACTS	SS	PS	MW	age	sp	dp	NOTES
128	C		none	none	Chinese							
129	C		none	none	Chinese							
130	C		skeleton	indeterminate	Chinese		1		ad		1	
131	C		none	none	neutral							
132	C		none	none	Chinese							
133	C		skeleton	indeterminate	none	1	1		ado			
134	C		none	none	Chinese							
135	C		skeleton	Asian	Chinese	1			ad			
136	C		skeleton	indeterminate	neutral		1		ad			
137	C		none	none	Chinese							
138	C		skeleton	Asian	Chinese		1					subadult?
139	C		skeleton	indeterminate	Chinese	1			ad		1	
140	C		skeleton	indeterminate	Chinese	1			ad		1	
141	C		skeleton	Asian	neutral		1		ad	1	1	
142	C		none	none	Chinese							
143	C		none	none	neutral							
144	C		none	none	neutral							child?
145	C		none	none	Chinese							
146	C		skeleton	indeterminate	Chinese	1			ad			
147	C		none	none	Chinese							
148	C		none	none	Chinese							
149	C		skeleton	indeterminate	Chinese	1			ad			
150	C		none	none	Chinese							
151	C		none	none	Chinese							
152	C		skeleton	indeterminate	Chinese	1			ad			
153	C		skeleton	indeterminate	Chinese		1					
154	C		skeleton	indeterminate	none		1					decomposed bone
155	C		none	none	Chinese							
156	C		skeleton	Asian	Chinese		1		ad		1	
157	C	a	none	none	neutral							
157	C	b	none	none	Chinese							
158	C		none	none	Chinese							
159	C		none	none	Chinese							
160	C		none	none	Chinese							
161	C		none	none	neutral							infant or college box
162	C		skeleton	indeterminate	neutral		1					infant or college box
163	C		skeleton	indeterminate	none	1			ad		1	
164	C		skeleton	indeterminate	Chinese	1			ad			
165	C		skeleton	indeterminate	Chinese	1			ad			
166	C		none	none	none							
167	C		skeleton	indeterminate	Chinese		1		ad			
168	C		skeleton	Euroamerican	neutral			1	ad		1	medical college box
169	C		none	none	neutral							infant or college box
170	C		skeleton	Asian	neutral	1			mad	1	1	
171	C		skeleton	Mixed	neutral	1			mad		1	
172	C		skeleton	Euroamerican	Chinese	1			mad	1	1	
173	C		skeleton	indeterminate	Chinese		1		ad		1	
174	C		none	none	neutral							left in place
						79	**52**	**15**		**45**	**71**	**TOTALS**

ARTIFACTS FROM RECOVERIES

A total of 3266 artifacts were found in association with Recoveries. The more interesting artifacts are discussed in detail elsewhere (Chapter 9). Most of the artifacts were from the mortuary category, with the personal and indefinite use categories the second and third most numerous, respectively (Table 8.2). Under these categories, metal artifacts occurred most often, reflecting the dominance of coffin hardware. Ceramic and glass artifacts were the next most abundant materials, respectively (Table 8.3).

Table 8.2. Summary of Recovery Artifacts by Category

	Area B	Area C	Area E	Grand Total
Activities	42	80	23	**145**
Domestic	17	139	2	**158**
Indefinite	87	95	9	**191**
Mortuary	457	546	508	**1511**
Personal	286	395	457	**1138**
Structural	1	3		**4**
Undefined	27	63	29	**119**
Grand Total	**917**	**1321**	**1028**	**3266**

Table 8.3. Summary of Recovery Artifacts by Material

	Area B	Area C	Area E	Grand Total
Bone	4		4	**8**
Brick		1		**1**
Celluloid		1		**1**
Ceramic	87	293	163	**543**
Composition			6	**6**
Fabric	10	21	15	**46**
Fiber	1	1		**2**
Gauze	2			**2**
Glass	228	216	56	**500**
Leather	24	9	24	**57**
Metal	528	735	705	**1968**
Paper	2			**2**
Plastic			2	**2**
Rubber		6	33	**39**
Shell		1	8	**9**
Slag	1			**1**
Stone	3	12		**15**
Unidentified	9		10	**19**
Wood	18	25	2	**45**
(blank)	1			**1**
Grand Total	**918**	**1321**	**1028**	**3267**

METAL

A total of 1968 metal artifacts were recovered from burials (Table 8.4). 62% of these were from the mortuary category but were also from the activities, domestic, indefinite use, personal, structural and undefined use categories. The majority of the metal artifacts consisted of coffin hardware, mainly coffin nails and swing bail handles. Buttons, both Western and Chinese-style, also had a high count, accounting for 14% of all metal recovered from burials.

Table 8.4 Summary of Metal Recovery Artifacts

Item	Area B	Area C	Area E	Grand Total
Asian coin	1			**1**
Ball button	82	65		**147**
Bracelet	1			**1**
Bracket		1		**1**
Buckle	5	2	10	**17**
Bullet			5	**5**
Button	16	15	111	**142**
Button, garment fragment		2	1	**3**
Cartridge case		4		**4**
Charm	1			**1**
Chinese padlock		1		**1**
Chinese Wen	32	18		**50**
Coffin bracket		2		**2**
Coffin decoration	3		6	**9**
Coffin nail	136	111	236	**483**
Coffin ornament		7		**7**
Coffin plaque	2		11	**13**
Coffin tack head	4		2	**6**
Coin	1	2	2	**5**
Coin purse	7	5	21	**33**
Cotter pin		1		**1**
Decorative coffin butt			1	**1**
Decorative coffin lug		7		**7**
Decorative coffin lug and coffin ornament	4			**4**
Decorative coffin screw			1	**1**
Decorative coffin stud	32	65	12	**109**
Earring		2		**2**
Escutcheon	8	13	25	**46**
Eyelet	2		4	**6**
Fastener			1	**1**
Hair pin		1		**1**
Handle		1		**1**
Hardware metal artifact	2	12	2	**16**
Jar		2		**2**

Item	Area B	Area C	Area E	Grand Total
Leather, rivet			1	**1**
Liberty Head ten dollar			1	**1**
Matrix		0		**0**
Morgan silver dollar			1	**1**
Opium pipe connector		3		**3**
Pocket knife		4	1	**5**
Pot		4		**4**
Ring			3	**3**
Rivet	15	26	12	**53**
Safety pin		27		**27**
Screw		2		**2**
Seated Liberty dime	1	13	2	**16**
Seated Liberty half dollar			9	**9**
Seated Liberty quarter dollar			2	**2**
Shield nickel		2		**2**
Shoe eyelet	3			**3**
Short bar coffin handle		53	22	**75**
Slotted coffin screw			2	**2**
Slotted screw		3		**3**
Spoon	3	1		**4**
Suspender buckle			7	**7**
Suspender clasp		1	10	**11**
Suspender clasp, garment fragment			1	**1**
Swing bail coffin handle	84	92	118	**294**
Swing bail handle		3		**3**
Teapot		6		**6**
Thumbscrew	21	24	19	**64**
Thumbscrew and escutcheon	42	36	21	**99**
Tin can lid		1		**1**
Unidentified	20	58	22	**100**
Utensil handle		1		**1**
Vietnamese Dong		24		**24**
Wallet		12		**12**
Grand Total	**528**	**735**	**705**	**1968**

CERAMIC

A total of 543 ceramic artifacts were recovered from burials (Table 8.5). 70% of these were from the personal category but were also from the domestic, indefinite use, mortuary and structural categories. The vast majority of the ceramic artifacts consisted of buttons. Chinese rice bowls the next most abundant ceramic artifacts recovered from burials.

Table 8.5. Summary of Ceramic Recovery Artifacts

Item	Area B	Area C	Area E	Grand Total
Brick	1			**1**
Button	68	144	153	**365**
Ceramic container	1			**1**
Cup			1	**1**
Dish	3	14		**17**
Dish, condiment		2		**2**
Dish, flatware	2	4		**6**
Dish, rice bowl	4	49		**53**
Jar		5		**5**
Jar lid		1		**1**
Marker	3	8		**11**
Opium pipe bowl		9		**9**
Pipe			9	**9**
Storage jar		5		**5**
Teapot	4	30		**34**
Teapot handle lug		1		**1**
Teapot lid		1		**1**
Unidentified		3		**3**
Vessel		16		**16**
Wine bowl	1	1		**2**
Grand Total	**87**	**293**	**163**	**543**

GLASS

A total of 500 glass artifacts were recovered from burials (Table 8.6). 41% of these were from the mortuary category but were also from the activities, domestic, indefinite use, personal and undefined use categories. The majority of the glass artifacts consisted of coffin viewing window fragments. Bottle fragments with undefined contents were the next most abundant glass artifacts recovered from burials.

Table 8.6. Summary of Glass Recovery Artifacts

Item	Area B	Area C	Area E	Grand Total
"Chu" gaming piece		12		12
Bead	8			8
Bottle	37	70	7	114
Bottle, alcohol	34	37	2	73
Bottle, beverage		1		1
Bottle, pharmaceutical	6			6
Button			13	13
Chinese vial, pharmaceutical		1		1
Coffin viewing window	102	75	30	207

Item	Area B	Area C	Area E	Grand Total
Decorative glassware		14		14
Eyeglasses			2	2
Glassware	1			1
Jar	1			1
Lidded jar	36			36
Marble	1	1		2
Opium lamp oil reservoir cover		2		2
Photograph		2		2
Unidentified	2	1		3
Vial, pharmaceutical			2	2
Grand Total	**228**	**216**	**56**	**500**

FAUNAL

A total of 17 animal bone and shell artifacts were recovered from burials (Table 8.7). 41% of these were from the personal category but were also from the domestic and undefined use categories. Some of the bone and shell artifacts consisted of buttons made from these materials.

Table 8.7. Summary of Faunal Recovery Artifacts

Item	B	C	E	Grand Total
Button, bone			3	**3**
Button, shell			4	**4**
Cow bone			1	**1**
Sheep bone	4			**4**
Shells		1	4	**5**
Grand Total	**4**	**1**	**12**	**17**

OTHER MATERIALS

A total of 218 artifacts made from materials other than those described above were recovered from burials (Table 8.8). 72% of these artifacts were from the personal category, and mainly included clothing-related items such as fabric, shoes and buttons. Items also came from the mortuary, indefinite use, activities and undefined use categories.

Table 8.8. Miscellaneous Artifacts from Recoveries

Item	Celluloid	Composition	Fabric	Fiber	Gauze	Leather	Paper	Plastic	Rubber	Slag	Stone	Wood	Grand Total
Bead											2		**2**
Blanket			6										**6**
Boot						2							**2**
Braided string				1									**1**
Button		6						2	13				**21**
Case									5				**5**
Chinese comb												1	**1**
Coffin wood												37	**37**
Comb									21				**21**
Frog (toggle)				1									**1**
Garment fragment			40										**40**
Hat						2							**2**
Knot						2							**2**
Marker											8		**8**
Newspaper							2						**2**
Ornamental disc											3		**3**
Pipe stem and bowl												5	**5**
Shoe						34							**34**
Strap						12							**12**
Tobacco pipe												2	**2**
Tobacco pipe	1												**1**
Unidentified					2	5				1	1		**9**
Whetstone											1		**1**
Grand Total	**1**	**6**	**46**	**2**	**2**	**57**	**2**	**2**	**39**	**1**	**15**	**45**	**218**

8.2 CREMAINS

Two specimens of cremated human remains were recovered during the project. Both were recovered from Area C (Figure 8.4).

CR1

The first cremains consisted only of a mass of ash with unidentifiable bone fragments.

CR2

The second cremains were contained in a stoneware 22 cm diameter cylinder pot approximately 20 cm in height. The bottom of the pot yields an impressed makers mark that reads PEORIA POTTERY. The company was producing ceramics from 1873-1904.

Most of the cremains were fragmented and unidentifiable. The cremains weighed 1016 grams. They were slightly blackened and cracked but with little calcination and no warping. This indicates they were burned in a low oxygen environment (not out in the open but inside a container). The skeletal remains were dry at the time of being processed as evidenced by the cracking, checking, uniform burning pattern and lack of warping. This would indicate a medical school cadaver rather than cremation of a recently deceased person.

One fragment was identifiable and consisted of the right side of a mandible which exhibited postmortem loss of the mandibular right third molar. The root development of the tooth is unknown because the tooth was not present. The individual was probably an adult over the age of 18 years old. The mandible appeared to be gracile therefore the sex of the individual is possible female.

Summary for CR2

These remains appear to be from an adult female medical school cadaver. They were burned inside a container at moderate temperature. They may result from operation of the crematorium but that is unknown. Since the crematorium did not begin operation until 1922, the use of the stoneware jar to house the cremains may represent reuse of an old pot.

8.3 ISOLATES

Isolates are defined as artifacts or bones without association to a feature such as a grave. At LACC most isolate artifacts were from Areas B and C and resulted from mechanical disturbance and from loss of association due to rain events. Most bone isolates were from Areas A and B from the initial excavations at the site. Even though the excavations were only about three feet deep in Area B, very large numbers of bones were recovered. These have been documented as consisting mostly amputated limbs and other types of medical waste buried without containers en mass. A portion of at least one burial was impacted during those initial excavations in Area A near the boundary of Area B.

ISOLATED ARTIFACTS

A total of 1096 isolates were recovered from the cemetery. Most of the artifacts were from the mortuary category, with the domestic and personal categories the second and third most numerous, respectively (Table 8.8). Under these categories, ceramic artifacts occurred most often, with glass and metal artifacts occurring second and third most often, respectively (Table 8.9). Forty-eight of these isolates were determined to be intrusive or not associated with the cemetery. The following tables include intrusive artifacts, which are discussed in detail below.

Table 8.8. Summary of Isolate Artifacts recovered by Category

Category	A	B	C	E	N/P	Grand Total
Activities	1	3	27			**31**
Domestic		77	220	1		**298**
Indefinite Use	1	61	73	1	1	**137**
Industrial			1			**1**
Mortuary	4	221	128	13	24	**390**
Personal		32	132	4	1	**169**
Structural	3	15	13		2	**33**
Undefined Use		21	16			**37**
Grand Total	**9**	**430**	**610**	**19**	**28**	**1096**

Table 8.9. Summary of Isolate Artifacts recovered by Material

Material	A	B	C	E	N/P	Grand Total
Bone	1					**1**
Ceramic	4	105	247	2	4	**362**
Ceramic, metal		1				**1**
Fabric		1	1			**2**
Fiber		2				**2**
Flora		1				**1**
Glass		130	167	4		**301**
Glass, metal		1				**1**
Leather		1	13			**14**
Matrix		3				**3**
Metal		78	96	10	3	**187**
Metal, ceramic						
Metal, fiber		4				**4**
Metal, glass			3			**3**
Metal, plastic			1			**1**
Metal, wood			13			**13**
Shell		2	7			**9**
Stone	3	2	36	3	21	**65**
Unidentified			3			**3**
Wood	1	100	23			**124**
Grand Total	**9**	**431**	**608**	**19**	**28**	**1095**

Ceramic

A total of 313 isolate ceramic artifacts were recovered from the cemetery. They were mostly from the mortuary category but were also from the structural, personal and furnishing categories (Table 8.10).

Table 8.10. Summary of Isolate Ceramic Artifacts recovered

Subclass (Item)	A	B	C	E	N/P	Grand Total
Bottle, alcohol			30	1		**31**
Brick	3	5			2	**10**
Button		10	4			**14**
Condiment dish		2	1			**3**
Crock		3	38			**41**
Cup		1				**1**
Dish		15	27	1		**43**
Flower pot		4	1			**5**
Food storage vessel			1			**1**
Insulator			1			**1**
Jar		1	3		1	**5**
Jar lid			1			**1**

Marker			9		1	**10**
Nail knob insulator			2			**2**
Pot lid			1			**1**
Rice bowl		12	104			**116**
Sewer pipe			2			**2**
Shouldered jar lid			1			**1**
Spoon			1			**1**
Tea bowl stand		1				**1**
Teapot		37	4			**41**
Teapot lid			1			**1**
Tile		4	4			**8**
Vessel	1	10	1			**12**
Wine bowl			10			**10**
Grand Total	**4**	**105**	**247**	**2**	**4**	**362**

Most of the ceramics in the domestic category were rice bowls made in China. Of these, the only identifiable pattern was Bamboo. Other domestic Chinese ceramics recovered included a spoon with the Four Seasons pattern, condiment dishes, a stoneware jar, teapot fragments and a tea bowl stand.

Other ceramic artifacts in the domestic category were of Euro-American make. Fragments of terra-cotta flower pots and dishes made from white earthenware and Euro-American porcelain were included. One fragment of a vitreous earthenware dish rim with a brown, transferware pattern was recovered, as well as pieces of a Euro-American utility stoneware storage jar with a large number "2" painted on the side. One vitreous earthenware dish rim and foot ring fragment had a maker's mark reading [ROYAL/STON]E CHINA (on banner)/[MAD]DOCK & CO/[BUR]SLEM ENGLAND/TRADE MARK (Figure 8.127). This mark was attributed to John Maddock & Sons Ltd., which operated in North Staffordshire, England. This particular piece was manufactured after 1906 (Kowalsky and Kowalsky 1999:262).

Figure 8.127. Dish fragment with maker's mark

Also in the isolate ceramic assemblage were artifacts in the personal category, which included liquor bottles. Fragments of a Tiger glaze liquor bottle and stoneware ale bottles manufactured in Great Britain were recovered. Stoneware ale bottles were initially popular because they provided the ultimate in protection of alcohol from light penetration. By 1895 however, they were phased out of American markets due to closure limitations and weight (Lindsey 2006). One base and body fragment had a maker's mark reading H. KENNEDY/BARROWFIELD /12/POTTERY/GL[ASGOW]. The mark was attributed to H. Kennedy, who operated in Barrowfield, Glasgow, Scotland (Odell 2006). Another base fragment had a maker's mark reading GROSVENOR/12/GLASGOW (Figure 8.128). It was manufactured by Grosvenor in Glasgow, Scotland.

Figure 8.128. Stoneware ale bottle fragment

The personal category also included eleven ceramic buttons. The buttons were manufactured through the Prosser process, patented by Richard Prosser in 1849 (IMACS 1992). The process included firing clays at high temperatures, producing highly vitrified buttons that were often mistaken for glass but are identifiable by the orange-peel surfaces on the backs. The Prosser process made buttons very affordable and were produced up until approximately 1910.

Ceramic structural materials were also recovered. Artifacts such as the insulators, tile and sewer pipe were considered intrusive and are discussed below. Nine bricks were recovered. One brick was stamped L.A…., possibly manufactured by the Los Angeles Pressed Brick Co. between 1887 and 1926 (Gurcke 1987:258). Two of the bricks were stamped PCP/EXCELSIOR, attributed to Pacific Clay Products, which operated in California between 1921 and 1942 (Gurcke 1987:278). Two bricks were also associated with Pacific Clay Products, stamped PCP/ACORN. Another brick was stamped GMB with three stars below; this was associated with Gladding McBean & Co., which operated in California between 1875 and 1962 (Gurcke 1987:194). The last brick was stamped LAPB and associated with the Los Angeles Pressed Brick Co., which operated in Los Angeles, CA between 1887 and 1926.

Glass

A total of 184 isolate glass artifacts were recovered from the cemetery. They were mostly from the personal category but were also from the domestic, mortuary and indefinite use categories (Table 8.11).

Table 8.11. Summary of isolate glass artifacts recovered

Subclass (Item)	A	B	C	E	Grand Total
Bottle		39	55	1	**95**
Bottle, alcohol		17	59	3	**79**
Bottle, beverage			27		**27**
Bottle, pharmaceutical			1		**1**
Bottle, soda			1		**1**
Chinese vial, pharmaceutical			1		**1**
Coffin viewing window		71	10		**81**
Jar		1	1		**2**
Jar stopper			1		**1**
Lid liner			2		**2**
Marble		1	3		**4**
Perfume bottle			2		**2**
Pickle jar			2		**2**
Plate glass		1	1		**2**
Toiletry jar			1		**1**
Grand Total	**0**	**130**	**167**	**4**	**301**

Most of the glass in the personal category consisted of alcohol bottles. Many alcohol bottles were determined to be intrusive and are discussed below. Of the bottles not labeled intrusive, the colors ranged from shades of olive-green to aqua to sun-colored amethyst. A few fragments of black glass pre-dating the 1890s were recovered. Most of the bottles were wine or champagne bottles produced on a turn mold between 1890 and 1915. One clear pumpkin seed flask base produced on a cup-bottom mold between 1890 and the mid-1910s was recovered. Also worth noting is a dark olive-green, export-style beer bottle produced on a turn mold with a tooled, mineral-style finish, produced between 1890 and 1915.

Other glass artifacts in the personal category were in the grooming and health class. A Chinese medicine vial was recovered and is discussed in the Chinese artifact section. A sun-colored amethyst pharmaceutical bottle with a Hopkin's square base was recovered. This bottle was produced on a cup-bottom mold with a tooled, prescription-style finish between 1905 and the 1910s. A clear perfume bottle produced on a cup-bottom mold with a tooled, prescription-style finish was recovered. This bottle was embossed LUNDBORG/PARFUMEUR and had its tapered, ground shank stopper with a solid, round finial intact. It was manufactured between 1890 and the 1910s (Figure 8.129).

Figure 8.129. Perfume bottle

Four marbles of different colors and styles were recovered. A toiletry jar was also recovered, determined to be intrusive and is discussed below. All of the glass artifacts in the domestic category were determined to be intrusive and are discussed below.

All the glass artifacts in the mortuary category consisted of plate glass that was probably used as coffin viewing glass windows. These were commonly cut from ordinary windowpane stock and are discussed in further detail in the coffin hardware analysis.

The remainder of the isolate glass artifacts were in the indefinite use category, which means that they were items with more than one potential

original use. These were all bottles for which the original contents could not be determined. Many of them were shades of olive green that may have originally been alcohol bottles. One sun-colored amethyst bottle fragment with a tooled, prescription-style finish was recovered, as well as an amber body fragment with a Handy-style base profile and embossed leaves on the side. Also recovered were an aqua bottle with a packer-style finish, produced between 1885 and the 1910s and a dark olive-green bottle with an applied mineral-style finish, produced between 1865 and the late 1880s. Other bottles of indefinite use were determined to be intrusive and are discussed below.

Metal

A total of 117 isolate metal artifacts were recovered from the cemetery. They were mostly from the mortuary category but were also from the activities, domestic, indefinite use, personal and structural categories (Table 8.12).

Table 8.12. Summary of isolate metal artifacts recovered

Subclass (Item)	A	B	C	E	N/P	Grand Total
Ball button			3		1	**4**
Bolt		1				**1**
Bullet			1			**1**
Button		1	10			**11**
Can			1			**1**
Can, alcohol			2			**2**
Cartridge case		1				**1**
Case			2			**2**
Chinese Wen		2	5			**7**
Coffin decoration		1	1			**2**
Coffin hinge		1				**1**
Coffin ornament			3			**3**
Coffin plaque		6				**6**
Cotter pin and ring			1			**1**
Decorative coffin lug		2	1			**3**
Decorative coffin lug and coffin ornament			1			**1**
Decorative coffin stud			1			**1**
Escutcheon		2	2	5		**9**
Handle			1			**1**
Hardware metal artifact		10	1			**11**
Jefferson Head nickel			1			**1**
Metal disc			1			**1**
Nail		2				**2**
Pocket knife			3			**3**
Seated Liberty dime		1				**1**

Short bar coffin handle			4			**4**
Skeleton key			2			**2**
Stove bolt and nut		1				**1**
Swing bail coffin handle		18	33	4	2	**57**
Teaspoon			1			**1**
Thumbscrew		2	3			**5**
Thumbscrew and escutcheon		14	5	1		**20**
Unidentified		13	6			**19**
Washington Head quarter dollar			1			**1**
Grand Total	**0**	**78**	**96**	**10**	**3**	**187**

Most of the artifacts in the mortuary category were swing bail coffin handles. The other metal mortuary artifacts consisted of short bar coffin handles, coffin decorations, lugs and ornaments, decorative studs, thumbscrews and escutcheons. These artifacts are discussed in detail in the coffin hardware analysis.

Metal artifacts from the activities category included Asian and US coins. The US coins were modern and are discussed below. Also recovered was a .33 caliber bullet, a pocket knife and two skeleton keys.

Metal artifacts from the domestic category included a large can with a double seam side seam and a teaspoon.

Several artifacts were placed in the indefinite use category because they could have had more than one potential original use. These included a cotter pin and ring and various other hardware metal artifacts.

In the personal category was a modern beer can that is discussed below. Also included were three Chinese-style buttons and a brass, four-hole, inserted four-way self shank with the mark D. VAUGHAN/DUBLIN …IGSTOWN.

In the structural category was a ferrous handle that could have had a use as a handle for a burial case and two cut nails.

Miscellaneous

Artifacts of mixed materials or materials not described above include two jade bangle-style bracelets, a fragment of a fabric garment, braided string from which coffin ornaments hung from decorative lugs, a peach pit, a clear glass bottle fragment with a metal screw cap, a leather hat, fragments of leather shoes, coffin wood, a harmonica composed of metal and wood, sea shell fragments, threaded beads of unidentified material and several unidentified objects (Table 8.13). Also recovered were multiple stone grave markers made of concrete or marble. Grave markers are discussed in detail in another section.

Table 8.13. Summary of isolate miscellaneous artifacts recovered

Subclass (Item)	A	B	C	E	N/P	Grand Total
Bangle-style bracelet		2				**2**
Battery			1			**1**
Bottle		1				**1**
Braided string		2				**2**
Cap			3			**3**
Coffin ornament		4				**4**
Coffin wood	1	100	22			**123**
Concrete slab			2			**2**
Chicken	1					**1**
Cow			1			**1**
Garment fragment		1				**1**
Hardware metal artifact			1			**1**
Harmonica			13			**13**
Hat			2			**2**
Marker	3		33	3	21	**60**
Nail knob insulator, nail		1				**1**
Pit		1				**1**
Shell		2	7			**9**
Shoe			11			**11**
Stove						
Threaded bead			0			**0**
Unidentified		4	3			**7**
Grand Total	**5**	**118**	**99**	**3**	**21**	**246**

INTRUSIVE ARTIFACTS

Forty-six isolate artifacts recovered from the cemetery were determined to be intrusive, based on the date ranges of the artifacts or the complete disassociation with other cemetery artifacts. From approximately 1922 to 1944 a caretaker's house sat at the crematorium. Many of the isolate artifacts date to this time span and were recovered from the area in which the house once stood (Table 8.14).

Table 8.14. Summary of intrusive material

	Total
Material	
Ceramic	**9**
Glass	**30**
Metal	**6**
Other	**3**
Unidentified	**1**
Grand Total	**46**

Glass

Most of the intrusive artifacts recovered were glass artifacts from the indefinite use category. The other artifacts were from the domestic and personal categories.

All of the glass artifacts in the indefinite use category included bottles for which the original contents could not be determined. One clear, narrow-mouth bottle with an external, continuous thread finish was produced on an automatic bottle machine post-1920s. Another clear bottle fragment was produced on an automatic bottle machine and had an eight-pointed star embossed on the base and the mark, CW111 embossed on the side. This is possibly a milk bottle produced in the 1940s. A light aqua bottle fragment was recovered with an applied color label reading [O]Z…(1PT.). This bottle was produced on an automatic bottle machine after 1934. A 7-Up green bottle fragment recovered was produced on an Owens automatic bottle machine between 1905 and the 1930s. Manufacturers could be determined for two bottles. One small, amber bottle with a wide mouth, external, continuous threaded finish and a round base profile was recovered. This bottle was produced on an automatic bottle machine and was embossed 650 12/3 A/6 50/9 (anchor imposed over H) on the base. It is attributed to the Anchor Hocking Corp. which operated in

Salem, NJ between 1937 and 1977 (Toulouse 1971:46-49). A clear bottle fragment produced on an automatic bottle machine with the embossed letters and numbers LM/17 was recovered. It is attributed to the Latchford-Marble Glass Company, which operated in Los Angeles, CA from 1939 to 1957 (Toulouse 1971:332-333).

Several intrusive glass artifacts were placed in the domestic category. Multiple milk bottle fragments were recovered. One fragment had a hobnail pattern on the neck and another was embossed with the lettering SC D…/ONE QUART//CW1. The milk bottle fragments were produced on an automatic bottle machine between the 1910s and the 1940s. A clear soda bottle, produced on an automatic bottle machine with a crown-style finish was recovered. This bottle featured the mark 10 FL. OZ./DISPOSE OF PROPERLY//10 FL. OZ./NO REFILL//416-10A/A7 Ball 3 75 and is attributed to Ball Brothers Manufacturing Co., which operated in Muncie, IN (Toulouse 1971:66-68). This particular bottle was produced after 1940. A 7-Up green soda or mineral water bottle produced on an automatic bottle machine with a crown-style finish had the mark 27 S2 and was produced post-1920s. Another soda or mineral water bottle with clear glass was recovered. It too was manufactured on an automatic bottle machine with a small mouth, external, continuous thread. The bottle was embossed 2 3079 LA-I//16 and was produced post-1920s. A contemporaneous pickle jar was recovered. This aqua jar was in the cathedral style and was produced between 1860 and 1880 (Figure 8.130). Finally, a white milkglass fruit jar lid liner was recovered. Milkglass lid liners were invented by Lewis R. Boyd in order to keep the zinc cap from coming into contact with the food and were used post-1869 (Rosenberg and Kvietok 1981:43).

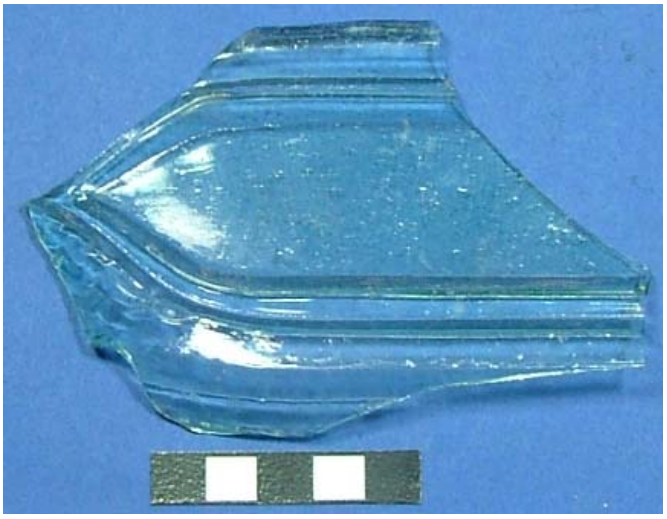


Figure 8.130. Cathedral-style pickle jar fragment

Five intrusive liquor bottles or liquor bottle fragments and one white milkglass jar fragment were recovered and were placed in the personal category. One clear glass bottle manufactured on an automatic bottle machine with a narrow, continuous threaded finish had a man's profile in a circle embossed on the front. Embossed lettering read FEDERAL [LAW] FORBIDS S[ALE OR REU]SE OF TH[IS BOTTLE]. This phrase is indicative of liquor bottles and was used after Prohibition ended in 1935 and discontinued in 1964. A 7-Up green wine bottle fragment manufactured on an automatic bottle machine was embossed ...QUAR[T]//WINE/1-43 and dates to post-1920s. A light aqua liquor bottle recovered was manufactured on an automatic bottle machine with a small mouth external, continuous threaded finish and a slender handy base profile. It was embossed 200 ML (6.8 FL. OZ.)//200ML (6.8 FL. OZ.)//12 8/LIQUOR BOTTLE/… and dates to post-1964. Two 7-Up green wine bottles recovered were manufactured by the Madera Glass Company in Madera, CA between 1971 and the 1990s (Whitten 2005). These were both manufactured on automatic bottle machines with small mouth external, continuous threaded finishes that took metal caps. Both were Bordeaux-style bottles (Figure 8.131). The first bottle was embossed 375 ML (12.7 FL. OZ.)//375 ML (12.7 FL. OZ.)//3701/76 13/MG, the second 4/5 PINT 4/5 PINT//4/5 PINT 4/5 PINT//A3 MG 76/1010. Finally, the white milkglass toiletry jar fragment was embossed JJ/15 and is attributed to the Johnson and Johnson Company, produced between the 1920s and the mid twentieth-century.

Figure 8.131. Modern wine bottles

Ceramic

Nine intrusive ceramic artifacts were recovered. Most of these were from the structural category and one was from the personal category.

Four insulators, three of which were of the nail knob variety, were recovered. One of the nail knob insulators was embossed THOMAS and is attributed to the Thomas Company, which operated between 1884 and 1957 (Author Unknown 2006a). The non-nail knob insulator was of the single skirt, threaded pinhole variety. Decorative ceramic tile was also recovered in colors indicative of the 1930s and 1940s (Figure 8.132). The tile can be attributed to the American Encaustic Tile Company, which operated in Vernon and Hermosa Beach, CA, after 1875 (Author Unknown 2005).

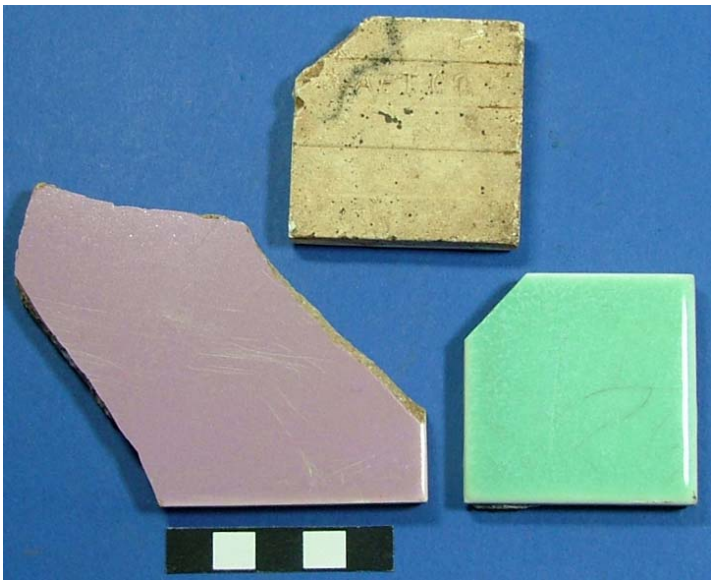


Figure 8.132. Decorative tile

The only intrusive ceramic in the personal category was a contemporaneous pot lid. Made of white earthenware, the top has a green, blue and black transferware design with remnants of gilding around the edge (Figure 8.133). The lettering read H.P. WAKELEE DRUGGIST/COLD CREAM/SAN FRANCISCO. Ceramic pots were manufactured between the mid nineteenth and early twentieth-centuries with highly-decorative lids. They held products such as toothpaste, ointment and cold cream and were generally made to give the public the illusion that more product was inside (Author Unknown 2006b).

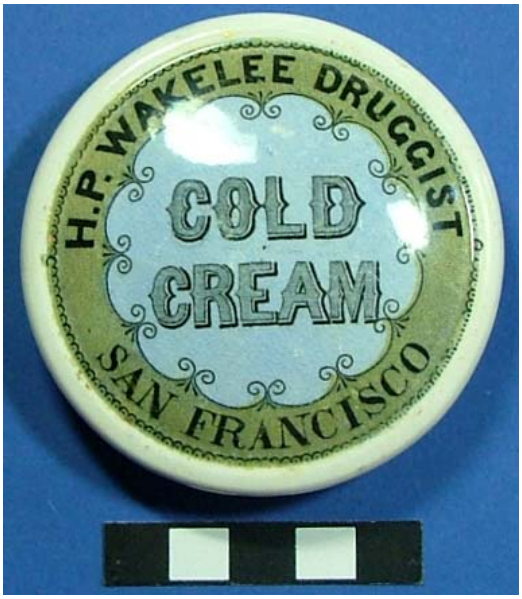


Figure 8.133. Cold cream pot lid

Metal

Five intrusive metal artifacts were recovered. A cylindrical hardware fitting from the indefinite use category was recovered. Two artifacts were placed in the activities category, a 1982 Washington Head quarter dollar and a 1987 Jefferson Head nickel. A modern aluminum beer can, placed in the personal category, was identified, catalogued and discarded. Finally, in the domestic category, multiple pieces of a full-size, gas burning stove were recovered. It was made largely of ferrous metal, but the knobs and door insert were porcelain. The stove featured cabriole legs and a name plaque which read PERFECT STOVE MFG. CO. No information on the manufacturer could be obtained.

Miscellaneous

A cylindrical battery part was recovered and placed in the industrial category. It was composed of carbon, graphite or lead. Two concrete slabs, in the structural category, were identified, counted, catalogued and discarded. One indefinite use hardware metal artifact composed of metal and plastic was recovered.

BONE ISOLATES

The minimum number of individuals for area A was eight. There were three males and one female identified. Three were determined to be adults and one was determined to be an adolescent. One was determined to be of Asian ancestry. Four exhibited skeletal pathological conditions and two exhibited dental pathological conditions.

The minimum number of individuals for area A/B is two. One was identified as Euro-American.

The minimum number of individuals for area B is 18. Thirteen were identified as male and four were identified as female. Sixteen were assessed for age ranges. Ten were determined to be adults, three were determined to be young adults and three were determined to be middle adults. One was identified as Euro-American. Five exhibited skeletal pathological conditions and another five exhibited dental pathological conditions.

The minimum number of individuals for area C is three. Three were identified as female. One was identified as a young adult. One exhibited a skeletal pathological condition and one exhibited a dental pathological condition.

The minimum number of individuals for area E is two. There were two that exhibited dental pathological conditions.

9. GRAVE THINGS: CEMETERY MATERIAL CULTURE

9.1. THE BEAUTIFICATION OF DEATH

The "beautification of death" movement, often referred to as an archaeological horizon, began in Victorian England as another way to cope with grief (Bell 1990:55). It began in the late eighteenth century and was on its way out by the beginning of the twentieth century. The movement was adopted by Victorians everywhere, even in America. It changed the way society viewed death, even to present times. It was a sentimental movement that included Neo-Classical, Romantic and Christian motifs, cemeteries that resembled parks, prolonged and public mourning, a change in the shape of the containers the dead were buried in and the creation of the funeral industry.

While some will argue this movement appealed only to those of English descent, we differ. California, in the late 19th century, was the new home of people from many origins. Whether they were Chinese or Swedish, they were part of a society that adopted mass marketing and consumerism enthusiastically. The beautification of death movement was an integral component of both. When the core religious beliefs of the ethnic group were already markedly "sentimental", such as the ancestor reverence of the Chinese, the appeal of coffin decoration and elaborate ceremony would have been intensified, not decreased.

The dead were put on display despite a general denial of death; euphemisms such as "resting" and "sleeping" were used to refer to the dead. The recently deceased, especially children and infants, were posed to look as if they were sleeping and then photographed. It would follow that the containers in which the dead were buried would be heavily embellished. The shape changed over time from the hexagonal "toe-pincher" coffins to rectangular coffins still in use today. Along with this shift came very ornate functional fittings such as handles and thumbscrews and ornaments serving purely decorative purposes became available. For the wealthy the "beautification of death" movement peaked in the late 1860s and 1870s (Little et al 1992:415). For other groups it lasted into the twentieth century.

Bell (1990:55) states that items produced in mass may "reflect an aspect of popular culture and function as a strategy of mediating or masking socioeconomic differences. Mass-produced objects are symbolic of apparent wealth; they serve to impart a sense of socioeconomic stature that was not

otherwise attainable." Coffin hardware was no exception and was indeed mass-produced owing to mass marketing through the newly-established funeral industry and improvements in technology and transportation. Custom-made, silver-plated brass hardware used by the wealthy could be inexpensively reproduced using white metal alloys. Widely distributed trade catalogues showed US consumers what was popular (Bell 1990:57). Hardware could be "bought in bulk from warehouses located in New York, Philadelphia, Boston, and San Francisco" (Allen 2002:4). So prolific had coffin hardware become that styles similar to those recovered at HLAC have been found throughout North America in cemeteries dating after the mid-nineteenth-century (Bell 1990:54).

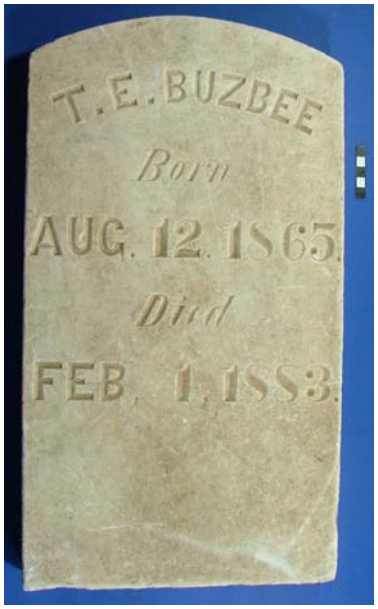
By the end of the nineteenth-century, the wealthy began reversing the trend using what Little (1992:398) calls the "invisible ink strategy": after the middle and lower classes achieve the means by which to emulate the upper classes, the upper classes change slightly so as to be set apart again. The wealthy began burying their dead in tasteful, understated coffins. The absence of elaborate hardware at the turn of the century made the coffins seem richer; meanwhile those of lesser means lagged behind, cycling through the earlier styles while the wealthy moved on, happily set apart.

9.2. GRAVE MARKERS

The historic Los Angeles Cemetery (HLAC) began as an indigent cemetery thus most graves would not be expected to have headstones. In fact, only three American headstones are known and all three are for children. Simple concrete markers used by the cemetery administration as location markers were also recovered. However, these were extensively damaged and many moved by heavy commercial lawn moving equipment of the latter half of the 20th Century. Two types of Chinese markers were recovered from HLAC.

AMERICAN HEADSTONES

Three traditional American marble headstones were recovered from the cemetery. These are all for young people and all were found in the oldest part of the cemetery.



The first headstone found was 20.5 inches (52.07cm) tall and arched at the top. The lettering was deep and in very good condition. The headstone read T.E. BUZBEE/BORN/AUG. 12, 1865./DIED/FEB. 4, 1883 (Figure 9.1). Young mister Buzbee was 18 at the time of his death. This headstone was found flat on the ground adjacent to the skeleton of an adolescent male 17-19 years of age.

Figure 9.1. Headstone for T.E. Buzbee

The second headstone found was 16.9 inches (42.9cm) tall, arched at the top and beveled on the front sides. There was some damage to the top. The top front of the headstone featured a bird set into a circle and decorative flourishes to either side. The lettering was deep and in good condition; there was some damage to one letter. The headstone read WILLIE E./SON OF/I.C. & S.F. SMOOT./DIED/NOV. 29. 1883/AGED/6 YRS. 13 D'YS (Figure 9.2). Willie Smoot was just 6 years old at the time of his death.

Figure 9.2. Headstone for Willie E. Smoot

The third headstone found was 18.7 inches (47.4cm) tall and had a Gothic-style arched top and notched sides. There was some damage to the top. The top front of the headstone featured a three-dimensional cross and decorative flourishes to either side. The lettering was in very good condition, though not as deep as the other two headstones. The headstone read ANNA LUDEMANN/GEB./DEN 28. MAR. 1880/GEST./DEN 1. AUG. 1880 (Figure 9.3). Anna Ludemann was only 5 months old at the time of her death. Her tombstone is the oldest in this portion of the cemetery.

Figure 9.3. Headstone for Anna Ludemann

CONCRETE MARKERS

Twenty-six concrete plugs with legible numbers on their tops were recovered. Most of the plugs had one number on them and it is unclear what this represented. Nine plugs had one number over another (Figure 9.4). This may indicate section and row numbers or row and grave numbers. All but two of the plugs were cylindrical with a standard height of 7.8 inches (19.8cm) and a top diameter of 3.9 inches (9.9cm). The base was slightly larger. Two rectangular plugs were recovered, both with a height of 7.6 inches (19.3cm) and width of 2.9 inches (7.3cm).

Figure 9.4. Concrete marker

CHINESE HEADSTONES

Twenty-one fragments of eight marble headstones with Chinese characters on them were recovered from the cemetery. The following is a description and translation of each headstone.

A large headstone from Recovery 111B was broken into six pieces (Figure 9.5). The right character translated as “Ning Yap”, a former name for Toishan county in Guangdong Province. The center five characters translated as “Jew Fuk Cheong gong mu”; indicating that this is the tomb of Mr. Jew Fuk Cheong. The left two characters translate as “Fu Shek”, a place name that means “floating stone”; this may indicate that there was a pumice mine nearby.

Figure 9.5. Headstone from Recovery 111B

The headstone from Recovery 160C was a tall stone with an arched top (Figure 9.6, on left side). The right characters translated as “Tai Tam cun”, meaning Tai

Tam village, Hoi Ning. The center characters translated as “Wai Yik Keung weng fenmu”, indicating that this is the tomb of master Wai Yik Keung.

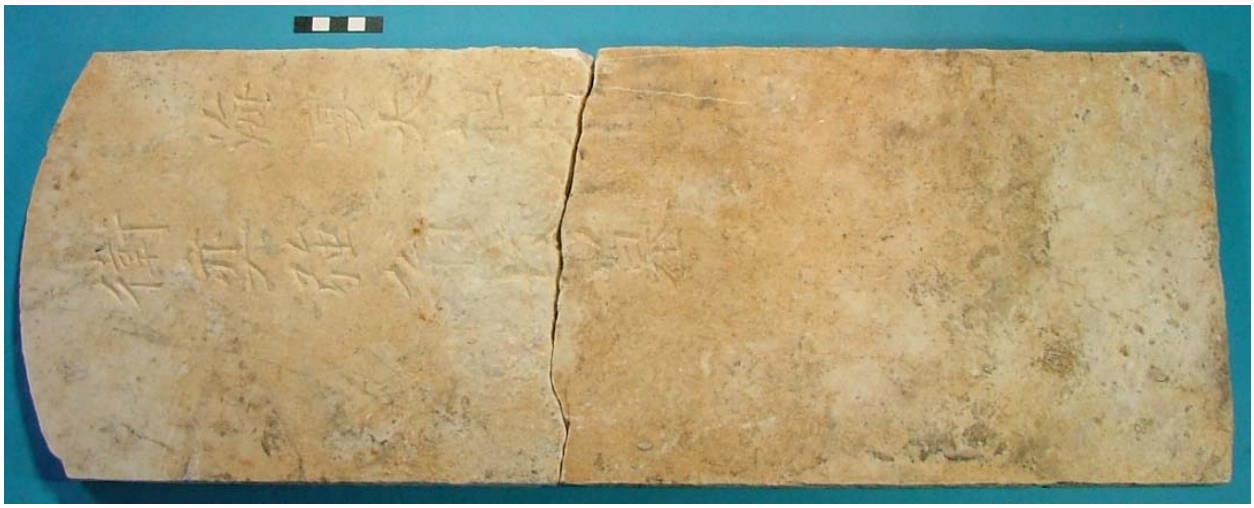


Figure 9.6. Headstone from Recovery 160C

Isolate EI163C was broken into seven pieces but had a rounded top. The stone is broken where part of the name should be (represented by “XX”). The center characters translate as “Qing Hoi An Wah XX gong mu”, indicating that this is the grave of Mr. Wah XX of Hoi An, in the Qing [Empire]. The bottom characters were broken off and undecipherable (Figure 9.7, on left side).

Figure 9.7. Headstone EI163C

Isolate EI164C was a small, rectangular stone. The Chinese characters are shallowly inscribed and cannot be read on photographs. The top characters translated as “Hoi Yap”, referring to Hoi Ping county, Guangdong Province. The right characters translated as “Shi ju Yeung Lo”, meaning that the deceased was a multiple-generation resident of Yeung Lo. The center characters translated as “Chew Cheong X gong mu”, indicating that this is the tomb of M. Chew Cheong X (“X” represents an undecipherable character; it appears to be either “Lee” or “Sui”). The left characters translated as “Wing On Tseun cun ren”, meaning this was a man of Wing On Tseun village.

Isolate EI165C was a base fragment with one character translated as “Mu”, the character for tomb (Figure 9.8). Isolate EI168C was a fragment with an illegible character.

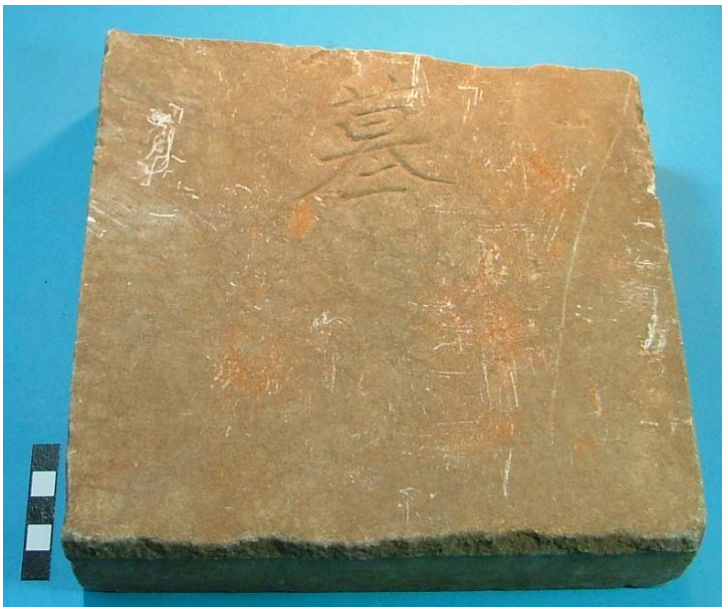


Figure 9.8. Headstone EI165C

Isolate EI217C was a rectangular stone broken into two pieces. The characters on the right translated as “Hoi Yap”, referring to Hoi Ping county, X village (“X” represents an undecipherable character; it may be “To”; Figure 9.9). The center characters translated as “Kwan Sum”, indicating the name of the deceased. It should be noted that the character “Kwan” was missing many strokes, possibly because of the quality of the stone.

Figure 9.9. Headstone EI217C

Isolate EI19N/P was a rectangular, marble stone that was heavily damaged (Figure 9.10, on left side). Most of the characters had been chiseled out; the characters that survived were one on the right, translated as “Huiyi”, a district in the Guangdong province, and one at the bottom center, meaning “tomb”.

Figure 9.10. Headstone EI19N/P

CHINESE BURIAL BRICKS

Twenty-two fragments of fourteen Chinese burial bricks were recovered. Burial bricks were buried with the individual and had identifying information painted or carved on the surfaces. The bricks, meant to be read when the individual was disinterred, usually featured the name of the individual and the name of the home village in China.

The characters on the brick from Recovery 137C were painted onto the surface (Figure 9.11). The right two characters translated as "X Lee cun, X", meaning X Lee village ("X" represents a missing character). The center characters translated as "Chow Nui Kam", the name of the deceased woman. The lower characters could not be deciphered. The reverse of the brick had the mark of the brick maker, J. MULLALLY/LOS ANGELES. Mullally operated a brickyard under his name until about 1890 (Greenwood 1996:125).

Figure 9.11. Burial brick from Recovery 137C

The characters on the brick from Recovery 98B were painted onto the surface (Figure 9.12). The characters translated as "Wong Sei Tsun fenmu"; meaning the tomb of Wong Sei Tsun.

Figure 9.12. Burial brick from Recovery 98B

Two fragments of one brick were recovered from Recovery 123B. This brick had characters carved into the surface (Figure 9.13). The right characters translated as “Tung Hou li”, referring to the Tung Hou township, Ning Yap. The center characters translated as “Wong Yee mu”, meaning that this is the tomb of Wong Yee. The middle character (the given name of the deceased) has two extra dots which could be a mistake or a local variant.

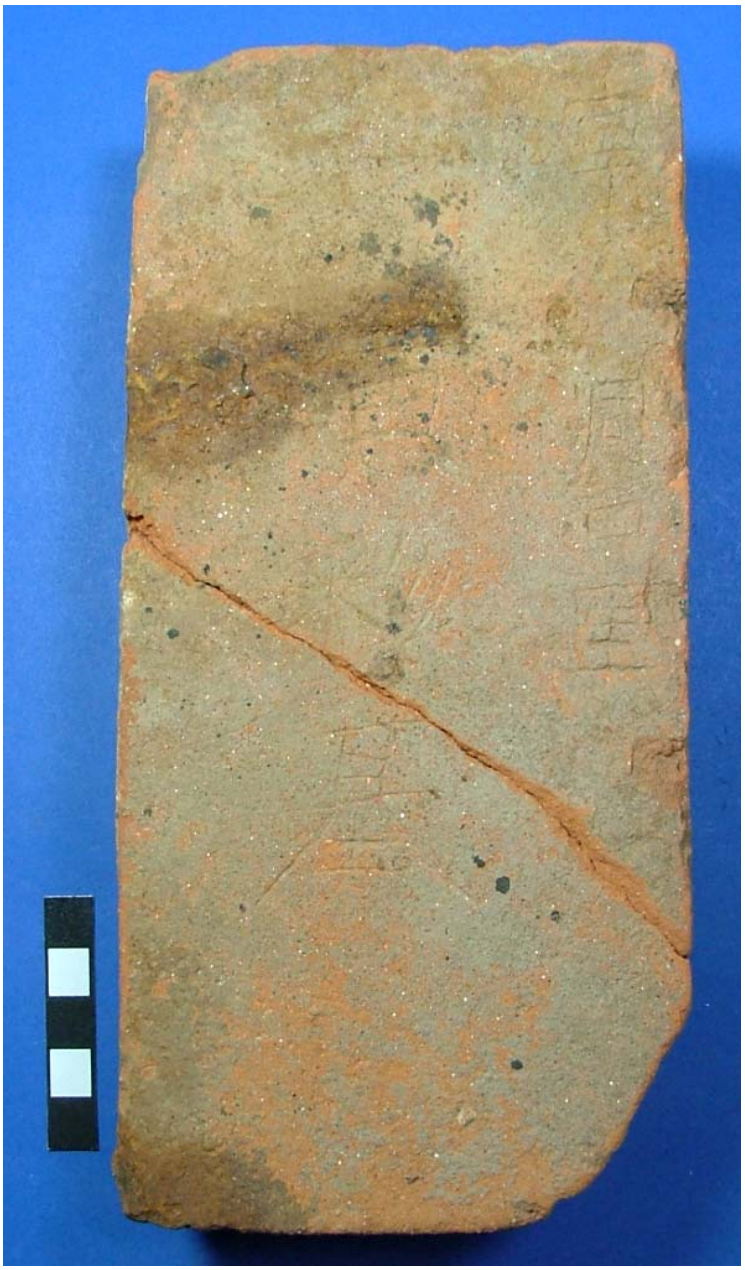


Figure 9.13. Burial brick from Recovery 123B

One whole brick and three brick fragments were recovered from Recovery 159C. It was unclear as to if the three fragments were from the same brick; no refit was possible (Figure 9.14). The characters were painted onto the surface. The bricks have the same inscription: “Kam Bin cun”, referring to Kam Bin village, Tung Hou, Ning Yap. The characters at the bottom translated as Wong Sek X, where “X” represents an undecipherable character.

Figure 9.14. Burial bricks from Recovery 159C

Two brick fragments with characters painted onto the surface were recovered from Recovery 126B (Figure 9.15). It was unclear as to if the fragments were from the same brick; no refit was possible. The right characters translated as “Wing Shing, Tung Hou”, referring to Wing Shing village, Tung Hou. The center characters translated as a partially legible name, “Yee X Wong gong X”, meaning Mr. Yee Wong, where the “X” represents undecipherable characters. The characters on the left side

of the brick indicated the exact time of the man's death: "Guangxu 11 nian 11 yue chu liu yinshi", meaning the yin hour of the sixth day of the eleventh lunar month of the Guangxu era. This is equivalent to the time between 4 and 5 am, December 11, 1885.

Figure 9.15. Burial bricks from Recovery 126B

The brick from Recovery 116B had characters carved onto the surface. The top two characters translated as "Ning Yap", a former name for Toishan county in Guangdong Province. The right characters translated as "Shi ju Hoi An", meaning a multiple-generation resident of Hoi An. The center characters translated as "Chew Kei Uet gong fenmu" indicating that this is the tomb of Mr. Chew Kei Uet. The left characters translated as "Na Ma Tung Tou", referring to East point, Nama (Figure 9.16).

Figure 9.16. Burial brick from Recovery 116B

The characters on the brick from Recovery 158C were carved onto the surface and onto one side (Figure 9.17). On the top front, the characters were translated as "Ning Yap", a former name for Toishan county in Guangdong Province. The right characters were translated as "XX cun", where "cun" means village and "X" represents the missing character for the village name. The characters on the left translated as "Chang X li", referring to the Chang X township, where X represents a missing character. The characters in the center translated as "Chan Chue", indicating the name of the deceased. The characters on the side of the brick translated as "Guangxu 13", meaning "Year 13 of Gunagxu", which would be 1887 to the first month of 1888.

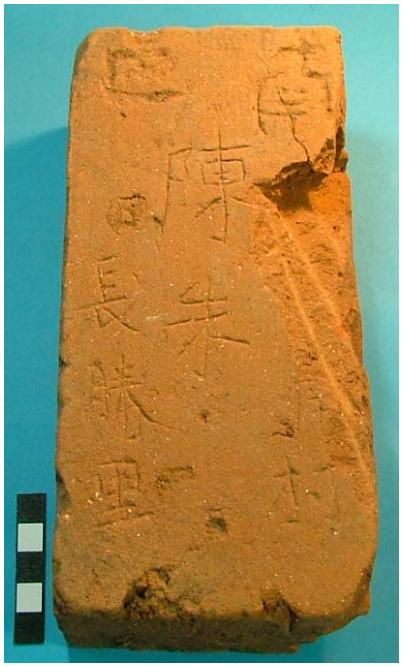


Figure 9.17. Burial brick from Recovery 158C

Isolate EI7C consisted of two fragments of one brick. The characters were carved and painted onto the surface and both sides (Figure 9.18). The brick had also been painted white. The characters on the front of the brick translated as "Wong Yuk Lun", indicating the name of the deceased. The characters on the left side translated as "Tse Bin cun", referring to Tse Bin village. The characters on the right side translated as "Ning Yap", a former name for Toishan county in Guangdong Province.

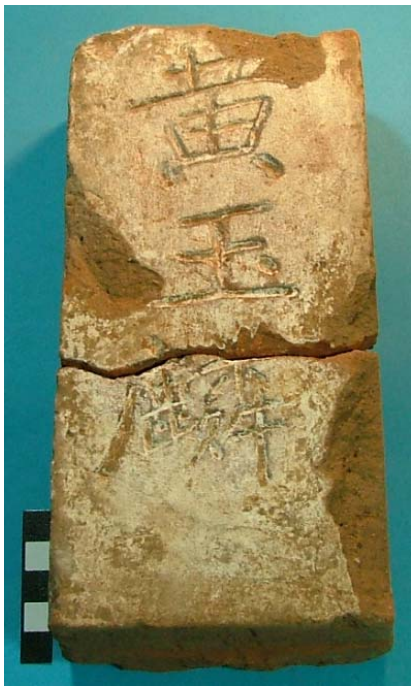


Figure 9.18. Burial brick EI7C

Isolate EI45C was a brick with very faded, painted characters on the surface. Only the final character of the deceased's name, "Wong", was decipherable.

Isolate EI46C was a brick with characters painted onto the surface (Figure 9.19). The right characters translated as "Shan Ha Tsuen cun", referring to Shan Ha village, or literally, the village under the mountain. The center characters translated as "Wong Kwan San fen[mu]", indicating that this is the tomb of Wong Kwan San. The character "mu" is missing but would logically follow.

Figure 9.19. Burial brick EI46C

Isolate EI76C was a small brick fragment with the partial character of the surname "Wong" carved and painted onto the surface.

Isolate EI166C was a brick with characters carved onto the surface. The characters translated as "Yuen Lung", possibly the name of the deceased but it is also the name of a town in the New Territories of Hong Kong (Figure 9.20).

Figure 9.20. Burial brick EI166C

Isolate EI189C consisted of three brick fragments. Two fragments had characters carved and painted onto the surface. It was unclear as to if the brick fragments were from the same brick; no refit was possible. The character on one fragment translated as "Wong", an individual's name, and the character on the second fragment was undecipherable.

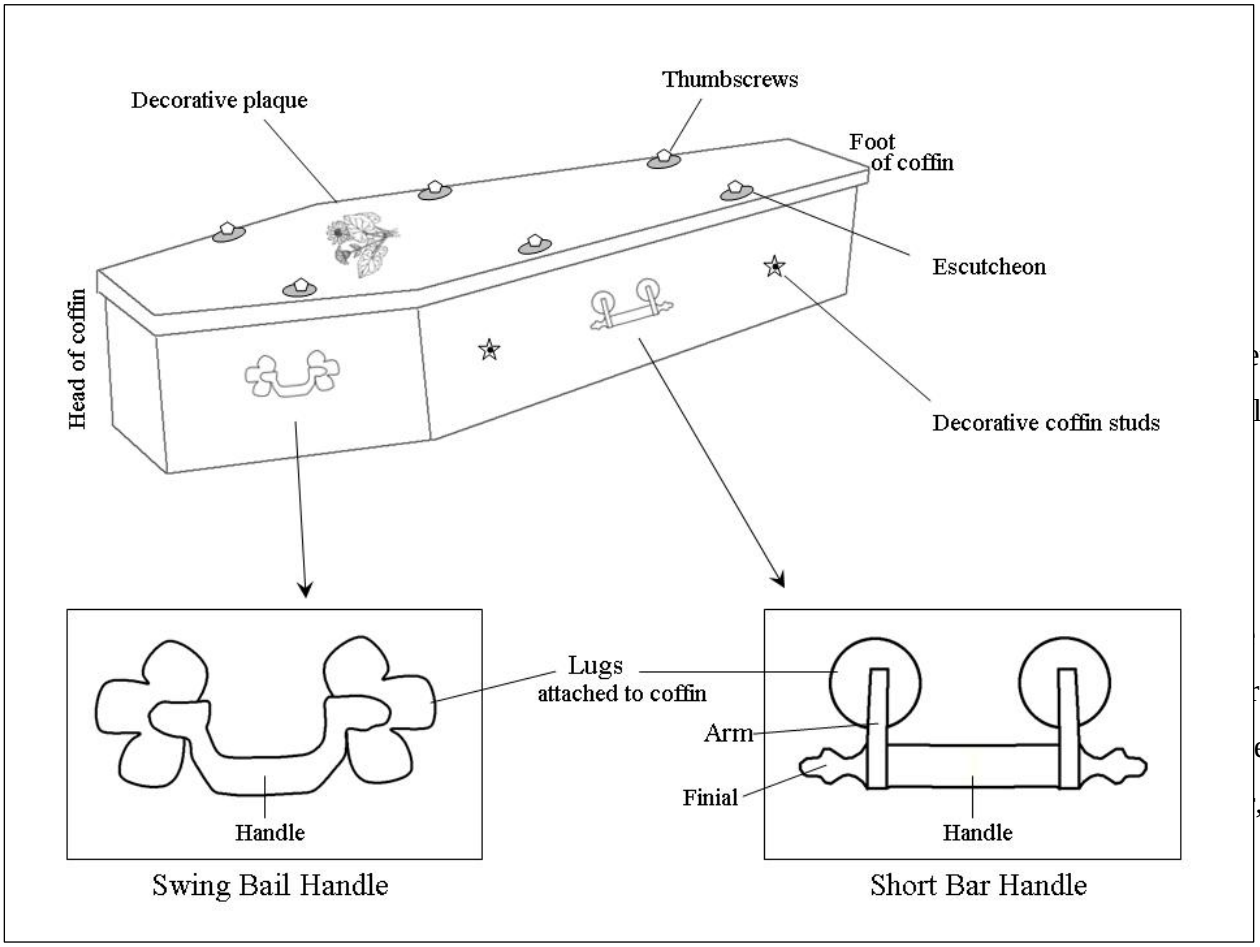
EI2N/P was a brick with characters painted onto the surface. The characters translated as “Wong Choi Kei fenmu”, indicating that this is the tomb of Wong Choi Kei (Figure 9.21).

Figure 9.21. Burial brick EI2N/P

9.3. COFFIN HARDWARE

DECORATIVE COFFIN HARDWARE

As a corollary to Victorian era beautification of death, functional hardware was replaced by more ornate styles and purely decorative accents were added. McKillop (1995:83) states that no descriptive names were used in 19th century catalogs; only "plain", "fancy" or "child's size". For organizational purposes, hardware styles were assigned descriptive names for this project. General location of the hardware described below on the coffin is illustrated (Figure 9.22).



The number of burials with swing bail handles, the variety of styles and interchangeable lugs and handles show how popular they continued to be despite the fact that short bar handles were quickly rising in popularity (Kogon and Mayer 1995:156). Kogon and Mayer (1995:161) propose the usage dates for swing bail handles as post-1860s, while Bybee (2006) suggests the usage dates were between the 1850s and the 1910s. The latter date range was used for the purposes of this analysis.

The most common style of swing bail handle was labeled “Floral”, a simple design that featured the number “112” on the reverse of the lugs and handle and occurred on twenty coffins (Figure 9.23). This style appeared more often than any other frequently occurring style in other categories of decorative hardware.

Figure 9.23. “Floral” swing bail handle

Symbolism found on swing bail handles throughout the cemetery included natural and Christian motifs. Acorns and oak leaves, symbols for stability, strength and honor, were found on two handles (Boyle et al 2005:91). Handles representing shaking hands, symbolic of a final farewell to the living, were recovered. A style representing climbing ivy on tree trunks was also found; these can be interpreted as fidelity, attachment and the brevity of life (Author Unknown 2003). Christian symbolism in the forms of Botonee and Gothic crosses were also found on swing bail handles. Swing bail handles represented a large portion of the mismatched hardware at the cemetery. Five swing bail handles were recovered from Recovery 92B, four with the popular Floral style and one in the Acorn style. It is possible that the Acorn handle was placed on one of the ends of the coffin for extra embellishment. Another example of mismatched hardware can be seen on Recovery 60E, in which the lugs are two variations on the Botonee cross motif. The swing bail handles recovered from Recovery 137C, a disinterred Chinese grave, present a different kind of problem: ten handles in four different styles were present. This most likely represents abandonment of handles from more than one disinterment in one spot.

Two styles were recovered that suggest they were special-ordered from a catalogue. Fragments of two swing bail handles found with Recovery 159C had a letter "G", a compass and a square, classic Freemason symbols. The handles found with Recovery 158C had all-seeing eyes and the letters "IOOF" stamped on them, symbolic of the International Order of Odd Fellows. However, these handles had been manufactured with the lugs upside down, indicative of factory seconds (Figure 9.24).

Figure 9.24. Upside-down "IOOF" swing bail handles

Some swing bail handles were slightly smaller and were probably meant for children's coffins. The four swing bail handles recovered from Recovery 69E are representative of these scaled down sizes. One of the more unique styles was found on one of these smaller handles from Recovery 142C and represents two gloved hands holding a feathered handle (Figure 9.25).

Figure 9.25. "Gloved Hands" juvenile swing bail handle

There were also examples of mixing handles and lugs to create different styles. Recovery 60E and Recovery 52E show different lugs used with the Shaking Hands handle style (Figure 9.26).

Figure 9.26. "Shaking Hands" swing bail handles with lugs

Swing bail handles, infant

During the Victorian era children represented innocence and infants the ultimate symbol of purity. Not even able to walk or talk, when an infant died he or she did so safe from sin in the Victorians' eyes. The burial of an individual who was not yet part of the world was different than that of the adult who was (Snyder 1989:11).

Twenty-one infant swing bail coffin handles were recovered from the cemetery. In keeping with the sizes of the coffins, all of the handles recovered were tiny swing bail handles made of a white metal alloy and attached to a single, decorative lug. The lug was attached to the coffin with two screws. No more than four handles, two per side, were recovered from the infant burials. Styles were all variations on the same Lamb motif, a symbol of innocence and resurrection (Figure 9.27). Most of the variations featured the lamb against a sunburst, symbolic of eternal life (Boyle et al 2005:91). Other handle motifs were available at the time, including those of cherubs, scallops and stars, so the dominance of the lamb motif suggests that it was more available and possibly less expensive than the other motifs (McKillop 1995:87).

Figure 9.27. Infant swing bail handle

Short bar handles

Forty-two short bar handles were recovered from the cemetery. Short bar handles were the second type of coffin handles recovered. They consist of two white metal alloy arms that attach to lugs of the same material. The arms and the lugs could be plain or decorated and were occasionally found with remnants of silver or silver-like plating.

The handle, constructed from ferrous metal or wood, attaches between the arms and is capped on either end by decorative finials made of a white metal alloy. The handles were all found badly decomposed, leaving only the lugs, arms, and finials. Short bar handles were able to swing out for carrying the coffin and rest against the coffin when not in use. They attached to the coffin with screws, usually two on each lug. Six handles, three per side, were standard, although like the swing bail handles, two per side were often encountered. The main difference between short bar handles and swing bail handles is that swing bail handles attach directly to the lugs while short bar handles are attached by arms to the lugs.

A standard size for short bar handles is difficult to determine because of the decomposition of the handles. However, lug and arm sizes appear to be standard, and there were no small-scale short bar handles for juvenile or infant coffins. Short bar handles continue to be used today on modern caskets. Kogon and Mayer (1995:161) propose the first usage dates for short bar handles as post-1878, while Bybee (2006) suggests the beginning date as 1890. However, the handles from Recovery 50E had patent dates of 1877 while the handles from Recovery 128C had patent dates of 1875, suggesting they were in use much earlier than previously thought. The dates and the under-representation in the cemetery also suggest that they may have been more expensive than swing bail handles.

Because so few short bar handles were recovered from the cemetery, no one dominant style was found. Each style occurred only once or twice. Most of the styles were abstract, simple or geometric (Figure 9.28). The most ornate style depicted heavy drapery (Figure 9.29), symbolic of mourning (Boyle et al 2005:90).

Figure 9.28. "Decorative Diamond" short bar handle

Figure 9.29. "Drapery" short bar handle

Occasionally, short bar handles were found with swing bail handles. Recovery 83B is one instance of this occurrence; four swing bail handles and one short bar handle were recovered.

Escutcheons

One hundred forty-one escutcheons were recovered from the cemetery, eighty-nine of which were still attached to thumbscrews. Escutcheons served decorative purposes on coffins and were used in conjunction with thumbscrews. They are screw plates, decorative or plain, attached to coffins with small, non-ferrous tacks. Thumbscrews were inserted through a center hole. All of the escutcheons recovered from the cemetery were made of white metal alloy. Because they were only decorative, escutcheons were not always found with thumbscrews at the cemetery. It does not appear that there was any standard number of escutcheons used on coffins. Kogon and Mayer (1995:161) propose the first usage dates for escutcheons as post-1871, and Bybee (2006) places the beginning date at post-1870s. The latter date was used for the purposes of this analysis.

The most frequently occurring style observed for escutcheons was the Fleur-de-Lis motif (Figure 9.30), a symbol of passion or love of a mother (Boyle et al 2005:91). Other symbolism found on escutcheons includes drapery (mourning), crosses (faith, resurrection) and crowns (glory of life after death) (Author Unknown 2003).

Figure 9.30. "Fleur-de-Lis" escutcheon

Thumbscrews

One hundred fifty-seven thumbscrews were recovered from the cemetery, eighty-nine of which were still attached to escutcheons. Thumbscrews are decorative heads attached to ferrous screws. Used with or without escutcheons, they were used on coffins to hand-tighten and secure lids. At the cemetery, all thumbscrews were made of a white metal alloy. It does not appear that there was any standard number of thumbscrews used. Kogon and Mayer (1995:161) propose the first usage dates

for thumbscrews as post-1881, while Bybee (2006) places the first usage date as post-1870s. The Kogon and Mayer date is confusing because they place escutcheons at an earlier date, yet the only known use for escutcheons is to finish off the look for thumbscrews and caplifters, the latter not being found at HLAC but having the same usage dates as thumbscrews. Bybee's date of post-1870s was used for the purpose of this analysis.

There was no dominant thumbscrew style found at the cemetery. The most common styles were Acanthus (symbolic of the heavenly garden), Crown (glory of life after death), Wheat (body of Christ), Celtic Cross (faith and eternity) and Hexagonal Finial (Boyle et al 2005:91; Author Unknown 2003) (Figure 9.31). Other symbols found on thumbscrews were crosses and sunbursts (faith, resurrection and eternal life), drapery (mourning) and urns (ancient Greek symbol of mourning) (Boyle et al 2005:90; Author Unknown 2003).

Figure 9.31. Hexagonal Finial, Celtic Cross, Crown and Acanthus thumbscrews

The most unique thumbscrew was from Recovery 70E, an infant burial, and featured a bluebird in the form of the thumbscrew and a bed of leaves and flowers as the escutcheon (Figure 9.32).

Figure 9.32. Bird on Flowers thumbscrew/escutcheon

<u>Decorative coffin studs</u>

Ninety stamped tin coffin studs were recovered from the cemetery. Stamped tin coffin studs were attached to the exteriors of coffins, usually to cover up utilitarian hardware such as nails and screws. They were available in various styles including five-pointed stars and Rococo shells. Tin

was inexpensive, making the studs a very popular option for decorating coffins. At HLAC, they were applied in patterns on Chinese coffins but used sparingly and only to hide utilitarian hardware on Euro-American coffins. Upon recovery, the tin was found to be extremely fragile, sometimes only leaving an impression in the matrix. Most of the studs recovered are fragments. Kogon and Mayer (1995:161) propose the first usage date for stamped tin coffin studs as post-1870. Bybee does not give a usage date, so Kogon's and Mayer's date was used for the purpose of this analysis.

The most common decorative coffin stud styles found were floral designs, although other styles included Rococo shells and six-pointed stars (Figure 9.33).

Figure 9.33. Stamped tin coffin studs

Viewing glass

One popular 19th century coffin innovation was the glass viewing window, which allowed mourners to see the peaceful-looking individual inside. Coffin viewing glass windows were made from plate glass and set into the lids of coffins. They may have been developed as a means to view the deceased while keeping the living safe from disease or odors (Bell 1990:58). There were also options for how much of the body one wanted to show, from head only, head and chest, or entire body, as seen in many infant's coffins. Bell (1990:58) states that viewing windows were in use as early as 1848, but became much more common after the mid-nineteenth century. Coffin manufacturers could cut the windows from ordinary windowpane stock, making them a very affordable way to beautify coffins. They could be cut in a variety of shapes from simple rectangles to rounded trapezoids; however there is no evidence that any HLAC windows were cut in any other shape but inexpensive rectangles. Approximately eight coffins at the cemetery had coffin viewing glass windows based on fragments recovered. Kogon and Mayer (1995:161) propose the first usage

date for coffin viewing windows as post-1878, while Bybee (2006) proposes a range between the 1860s and the 1910s. The latter date range was used for the purpose of this analysis.

Plaques

Four coffin plaques were recovered from the cemetery. Decorative coffin plaques were constructed from white metal alloys in two pieces and then screwed onto the coffin lid. They were stamped with generic sayings such as "REST IN PEACE" or "AT REST" and not with personal information. Kogon and Mayer (1995:161) propose the usage dates for coffin plaques as between 1850 and 1870, while Bybee (2006) proposes a beginning usage date of post-1880s. Because the beginning interment date of the cemetery was 1877 and one plaque had a patent date of 1879, the latter date was used for the purpose of this analysis.

Three of the four plaques recovered were of the same style. The plaque on Recovery 110B, patented in 1879, was larger, more ornate and featured roses and lilies (Figure 9.34) (symbolic of beauty, hope and resurrection; the lily is also commonly associated with female burials) (Boyle et al 2005:90-91).

Figure 9.34. Coffin plaque

Coffin decorations and ornaments

Nine coffin decorations were recovered from the cemetery. These served decorative purposes, were all made of a white metal alloy, and were flat, stamped plaques attached to coffins with small, non-ferrous tacks. Only one decoration per coffin was observed at the cemetery. Kogon and Mayer (1995:161) propose the usage date for these decorations as post-1881; Bybee (2006) does not give a date for decorations.

The most common style found was of a hand clasping a rose (Figure 9.35). The other styles found were of calla lilies and a flower basket.

Figure 9.35. "Hand Clasping Rose" coffin decoration

Thirteen decorative coffin lugs and fourteen coffin ornaments with Chinese motifs were recovered from the cemetery. These artifacts have been associated with Chinese burials and appear to be the only cultural embellishment added to coffins. Many of the white metal alloy lugs had traces of silver or silver-like plating and oak leaf and acorn designs on them. They attached to the coffin with ferrous screws. A hole in the center of the lug held a knotted, braided string that was inserted through a hole and knotted inside of the ornaments. The ornaments, also a white metal alloy with traces of silver or silver-like plating, represented lotus blossoms and hung upside down from the braided string (Figure 9.36). The lugs had patent dates of 1875.

Figure 9.36. Chinese lotus blossom decoration

Decorative brackets

Three decorative brackets, all made of white metal alloys, were recovered from two burials. Two brackets with scallop shells (symbolic of birth and baptism; Author Unknown 2003) were recovered from Recovery 126B (Figure 9.37). One bracket with a decorative scroll was recovered from Recovery 50E. Neither Kogon and Mayer nor Bybee give usage dates for decorative brackets.

Figure 9.37. "Scallop Shell" brackets

UTILITARIAN HARDWARE

Hinges, nails and screws

The only hinges recovered from the cemetery were two ferrous butterfly hinges from Recovery 93B. The lack of hinges is probably due to the fact that most of the coffins had removable lids that were screwed down, as opposed to attached lids that could swing open or closed.

Approximately 471 nails were recovered from coffins at the cemetery. Most of the nails were so broken and badly decomposed that the method of manufacture could not be positively identified. However, three nails from Recovery 170C were identified as wire nails, used on coffins after 1880 (Bybee 2006).

Several slotted screws were also recovered. The date range proposed for the use of slotted screws on coffins is between the 1850s and the 1900s (Bybee 2006).

Coffins and Caskets

The words "coffin" and "casket" are often used interchangeably to describe any style of burial container, but historically they have been differentiated by shape. Coffins are described as hexagonal burial containers with their widest points at the shoulders. Caskets are described as rectangular burial containers and are the dominant style in use today. The word "casket" actually describes a case for jewelry and other precious items and its use to describe a burial container suggests a euphemism invented by the funeral industry. Crow (2004:36) suggests that the word "casket" refers to the "increased decorative embellishment" on the burial container rather than to the shape of the container itself. Whatever the case may be, Kogon and Mayer (1995:156) state that coffins and caskets were "contemporaneous with each other for up to fifty years"; a mid-nineteenth century ad for a funeral undertaker advertised coffins and caskets for sale separately, suggesting coffins were a less expensive option (Habenstein 1955:244).

Remnants of, or distinct outlines of differently color soil indicated that hexagonal and rectangular burial containers were found at the cemetery, and the term "coffin" is used throughout the report for the purpose of simplicity. Hexagonal coffins were the dominant burial container shape discovered at the cemetery. Rectangular caskets, widely used by 1849, were the burial containers that were ornately decorated (Bybee 2006). Research data show that hexagonal coffins were rarely decorated and were obsolete by anywhere between the late 1800s and 1930. In Kogon's and Mayer's (1995:156) studies, they could find no examples of hexagonal coffins used in the twentieth century.

The fact that so many hexagonal coffins were used after 1879 (when the first HLAC burials occurred) but more than 30 years after the advent of rectangular caskets is very interesting. Bell (1990:61) states that "discounts [were] given on volume purchases" of coffins and Crow (2004:70) states that mass-produced coffins "appear more frequently in cemeteries located nearer urban centers". However, keeping a large stock of coffins for more than 30 years seems an unlikely explanation. Los Angeles did not have a large population until the early 20th century so it seems much more likely that the local producers of coffins failed to keep up with the fashion of the times.

Standard sizes were the typical wares sold; custom-made sizes were for the wealthy (Bell 1990:63). This is demonstrated by Recovery 88B, in which the individual's legs were severed at mid-calf, presumably to fit into the coffin; the lower legs and feet were placed near the head.

Few stylistic variations on the standard wooden box were noted. Many of the fragments of Chinese coffins exhibited traces of red paint on the exterior, a color used to frighten evil spirits. Several Chinese burials also contained multiple fragments of flat, ferrous metal and curved metal fragments resembling a rim. These may have been an internal metal lid to protect the living from the spirits of the dead until interment (see Chapter 7). Several coffins were painted a cream or yellow color with a red primer. Finally, traces of white paint were found on fragments of several infant coffins, a common practice during that time, meant to symbolize the purity of the child (Allen 2002:6).

9.4. CHINESE ARTIFACTS

Many Chinese artifacts were recovered from the cemetery. Most of these artifacts were domestic, including ceramic rice bowls left as offerings at graves. Other artifacts were of a personal nature such as opium paraphernalia, jewelry, coins and gaming pieces. The five material categories associated with Chinese artifacts were ceramic, glass, metal, stone and miscellaneous materials such as fiber and wood.

CERAMICS/TABLEWARE

The ceramic tablewares recovered from the cemetery were made in South China for the Chinese, not for Euro-Americans (Greenwood 1996:68-69). These items represent burial offerings (see Chapter 7).

Chinese rice bowls made up the majority of ceramic tableware artifacts. 165 fragments of 102 bowls were recovered. The minimum number of rice bowls was based on cross-mends recovered from each grave. Most of these bowls were a fine, highly-vitrified stoneware with the Bamboo pattern. The Bamboo pattern prominently features three circles, bamboo and an abstract element representing a dragonfly. This pattern occurs only on rice bowls and is also known by the names “Swatow”, “Dragonfly” and “Three Circles”. Greenwood (1996:70) states that Bamboo is one of the most inexpensive patterns, which explains its abundance at the cemetery (Figure 9.38). Of the 102 bowls recovered, eighty-one could be positively identified as having the Bamboo pattern.

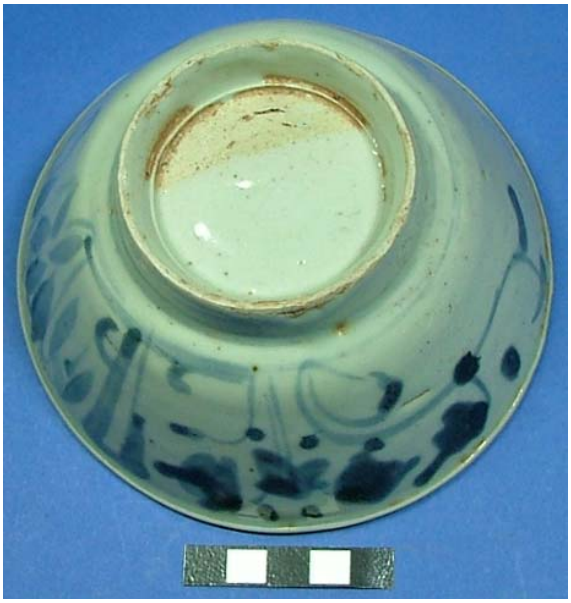


Figure 9.38. Rice bowl with Bamboo pattern

The Four Seasons pattern, considered to be more expensive, occurred once on a smaller rice bowl that also featured a mark on the base that possibly represents the Ching Dynasty (Greenwood 1996:70). The Four Seasons pattern also occurred on a teapot, spoon and a condiment dish (Figure 9.39). It features a center peach and four flowers representing the four seasons.

Figure 9.39. Condiment dish with Four Seasons pattern

The Double Happiness pattern occurred only once on a rice bowl, and it is the only example of the pattern at the cemetery. According to Greenwood (1996:70), Double Happiness was one of the earliest and cheapest patterns, and rare after the 1860s (Figure 9.40). Other rice bowls had no pattern but instead a celadon glaze, considered to be more expensive than the other patterns (Greenwood 1996:142).

Figure 9.40. Rice bowl with Double Happiness pattern

Small, handleless porcelain cups recovered were either wine or small tea bowls. All of these bowls had a celadon glaze. Two bowls had marks on their bases, one the Chinese character for the number ten, the other the Chinese character for the number two. One tea bowl stand, used like a Euro-American saucer but with a hole in the center, was recovered. Both sides were decorated, but the patterns could not be identified.

Two separate teapot lids, one plain and one with an unidentified, blue pattern were recovered. Patterns on Chinese porcelain teapots found included Simple Flower and Vine, Four Seasons and plain white.

One teapot, reconstructed from pieces, has a unique design consisting of two horses sitting on hills with vegetation (Figure 9.41). Photos of this teapot were sent to many experts and no one had ever seen this pattern before. Ceramic expert Andrew Madsen (personal communication 2006) was able to determine that it was consistent with a late nineteenth or early twentieth century export manufactured teapot. The body was likely wheel thrown and the spout molded and applied to the body. Two small pieced "ears" located on the front and rear top would have been the location where a wire handle, or wire and bamboo handle would have been affixed to the top (not unlike many teapots still used in Chinese restaurants today). The shape is consistent with the late nineteenth century at the earliest and the decoration is quite hurriedly painted which is consistent with export wares from this period. The absence of an impressed mark on the base would suggest a pre-1950 date. The primary export kilns were destroyed during a period of internal strife in China in 1853 and were not rebuilt until 1864 and thus the teapot post-dates 1864.

Figure 9.41. Reconstructed teapot with horses on hills pattern

Stoneware food storage jar fragments were recovered, most with a slipped interior and a dark brown-glazed exterior. One storage jar in very good condition was found placed on the lid of a

coffin. Also in very good condition was a small jar lid, the interior of which was left plain but the exterior was given a dark brown glaze.

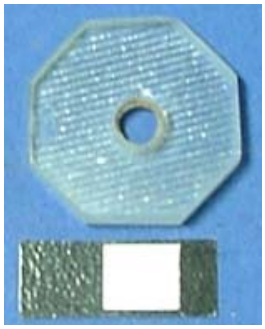
INDULGENCES

Opium-related artifacts recovered from the cemetery included pipe and lamp paraphernalia. Two opium pipe bowls were recovered. The first was a whole, circular, grey-green earthenware bowl with a polished top and a stem with a grooved flange. It was wheel thrown in one piece with positive-stamped characters on the base and double-incised lines around the base and sides (Figure 9.42). The second bowl was fragmented and was also wheel thrown in one piece. The circular, rose-brown bowl had a slipped interior and no stem. Positive-stamped characters were featured on the base and negative-stamped characters were featured around the sides. None of the characters on either bowl could be identified.

Figure 9.42. Opium pipe bowl

Three metal opium pipe stem connectors were recovered. These were meant to attach the bowl to a saddle, which was then connected to the pipe stem. The only opium lamp pieces recovered were two oil reservoir covers/wick holders. These small, flat pieces of glass had holes in their centers to accept the wicks. One cover was circular, the other octagonal (Figure 9.43).

Figure 9.43. Opium lamp oil reservoir cover



Fragments from one Chinese liquor bottle were recovered. These ceramic bottles were round in shape, had short necks and lipped finishes. The exteriors were finished with Tiger glazes.

Eleven glass "Chu" gaming pieces were recovered (Figure 9.44). These pieces average about a half inch (1.27cm) in diameter, are rounded on the top and flat on the bottom. Nine were opaque white. Two appeared black, but when held up to light were green and purple.

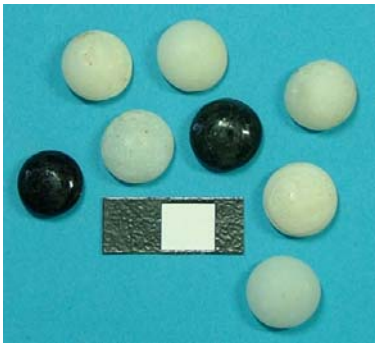


Figure 9.44. "Chu" gaming pieces

CLOTHING AND ADORNMENTS

143 fragments of 139 Chinese "ball" buttons were recovered. These were typically round, brass, hollow buttons with loop shanks. They averaged about 0.3 inches (0.76cm) in diameter. They were found to be very fragile, and some had remnants of a fabric covering (Figure 9.45). When used with ball buttons, clothing toggles or frogs are called huaniu. One of these knotted toggles in a clover form was recovered (Figure 9.46).

Figure 9.45. Ball buttons

Figure 9.46. Knotted toggle

Two fragments of a single metal hoop earring were recovered. It was carved with a floral pattern. Recovered from the same burial were three highly-polished, perforated jade discs. Two of the discs

were cut from the same stone and were probably meant to slip over hoop earrings. The third disc was similar in color and might have been worn around the neck as a pendant.

Two bangle-style jade bracelets, one whole and one broken, were recovered with interior diameters of 2 inches (5.08cm). One was whole, the other broken in half (Figure 9.47). Another bracelet recovered was almost certainly, at 2.5 inches (6.35cm) diameter and no clasp, a child's bracelet. A metal charm attached to metal links featured Chinese characters that translated as "Precious, Long Life".

Figure 9.47. Jade bracelets

GROOMING AND HEALTH

Two Chinese medicine vials were recovered. Both were light aqua-green in color and mouth blown. The blown bodies incorporated the necks and they both had sheared finishes. One vial still had a cork in place and was full of tiny, red pills (Figure 9.48). One wooden, lunate end cap of a Chinese comb was recovered (Figure 9.49).

Figure 9.48. Chinese medicine vial with pills

Figure 9.49. End cap of a Chinese comb

MORTUARY

Burial bricks and headstone with Chinese characters were recovered and are discussed in 9.2 above. Chinese-associated coffin hardware was also recovered and is discussed in 9.3 above.

MISCELLANEOUS

One metal, Chinese padlock was recovered from the surface (Figure 9.50).

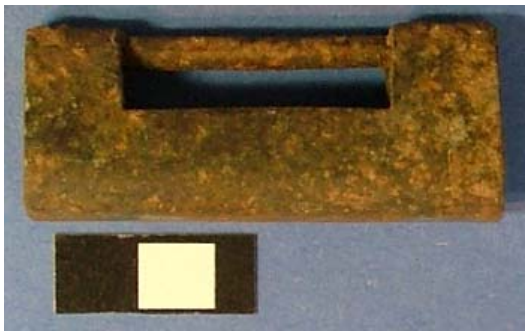


Figure 9.49. Chinese padlock

9.5. COINS

AMERICAN COINS

A total of 39 coins minted in America or another region other than Asia were recovered from the cemetery (Table 9.1). Seated Liberty dimes were the most commonly encountered coin, representing 44% (n=17) of all coins recovered. Jefferson Head nickels, Liberty Head ten dollars, Morgan silver dollars and Washington Head quarter dollars were the least commonly encountered coins, each representing less than 1% (n=1) of all coins recovered. Five coins could not be identified; it was determined that these were not Asian coins but instead either American coins corroded beyond recognition or coins from another foreign origin. Only 3 coins were not found in association with a burial.

Table 9.1. Summary of American/other coins recovered by catalog number

Catalog	Coin	Jefferson Head nickel	Liberty Head ten dollar	Morgan silver dollar	Seated Liberty dime	Seated Liberty half dollar	Seated Liberty quarter dollar	Shield nickel	Washington Head quarter dollar	Grand Total
15E							1			1
16E	1						1			2
59E	1		1	1	2	9				14
83B					1					1
114B	1									1
117B	1									1
119B	1									1
125B					1					1
126B					3			1		4
132C					1					1
140C								1		1
141C					1					1
158C					3					3
159C					1					1
173C					3					3
EI17C									1	1
EI18C		1								1
RI0338B					1					1
Grand Total	5	1	1	1	17	9	2	2	1	39

Recovery 59E had the highest number of coins at 14. This recovery also had the most variety of coins, with one unidentifiable (probably foreign) coin, one gold Liberty Head ten dollar (Figure 9.51), one Morgan silver dollar (Figure 9.52), two Seated Liberty dimes and nine Seated Liberty half dollars (Figure 9.53). The Liberty Head, Morgan and Seated Liberty half dollars found in Recovery 59E were the only ones of their kind recovered from HLAC.

Figure 9.51. Liberty Head ten dollar

Figure 9.52. Morgan silver dollar

Figure 9.53. Seated Liberty half dollar

The dates on the coins from recoveries are consistent with the interment dates of the cemetery; none post-date the last interment date. All dates were nineteenth-century, with the earliest definite date

being 1851 for a Seated Liberty dime and the latest being 1888, also for a Seated Liberty dime. Other dates for Seated Liberty dimes were 1875, 1853(2), 1876(4), 1883(2), 1873 and 1871(2).

The dates on the two Seated Liberty quarter dollars were 1858 and 1872. The date on the Liberty Head ten dollar was 1880 and the date on the Morgan silver dollar was 1881. The dates on the Seated Liberty half dollars were 1876(2), 1871, 1872, 1864, 1854 and 1868. The dates on two Seated Liberty half dollars could only be dated to the decade, 1860s and 1880s.

The dates on five coins – two Seated Liberty dimes, one Seated Liberty half dollar and both Shield nickels – were completely illegible. However date ranges for the coins could be narrowed down, as coin designs were changed throughout the years.

Two of the isolate coins recovered, the Jefferson Head nickel and the Washington Head quarter, were modern, having been minted in 1987 and 1982, respectively.

Mintmarks were observed on several coins; the Liberty Head ten dollar and the Morgan silver dollar were both minted in San Francisco, while a Seated Liberty quarter and dime were minted in Philadelphia. A second Seated Liberty dime was minted in New Orleans.

ASIAN COINS

80 Asian coins were recovered (Table 9.2). These consist of one badly deteriorated and indeterminate Asian coin, 57 Chinese coins called wen (Figure 9.54, 9.55) and 22 Vietnamese coins called dong (Figure 9.56, 9.57). All Asian coins have been entered into the California Asian Numismatic Survey at the Department of Anthropology, University of California, Riverside.

Table 9.2. Summary of Asian coins recovered by catalog number

Catalog	Asian coin	Chinese Wen	Vietnamese Dong	Grand Total
83B		4		**4**
85B		11		**11**
99B		2		**2**
116B		1		**1**
120B		3		**3**
123B		20		**20**
125B	1			**1**
132C			22	**22**
135C		1		**1**
138C		1		**1**
152C		1		**1**
158C		2		**2**
160C		3		**3**
172C		1		**1**
EI16C		1		**1**
EI64B		1		**1**
EI69B		1		**1**
EI86C		1		**1**
EI205C		3		**3**
Grand Total	**1**	**57**	**22**	**80**

9.54. Chinese Wen obverse

9.55. Chinese Wen reverse

9.56. Vietnamese Dong obverse

9.57. Vietnamese Dong reverse

Asian coins are not believed to have had any monetary value in California, but were used in many types of talismans such as coin swords, as gaming pieces in games such as fan-tan, as decorations on clothing and baskets, and to perform the medicinal practice of coin rubbing (Akin 1992:59-62). The wen associated with Recovery 123B still had remnants of the red cord used to string them together into a protective charm.

The wen are all brass and as such, many of them are in good condition. The obverses of the wen each have four characters. The top and bottom characters bear the name of the emperor reigning China at the time the coin was minted. The names are not proper names, but instead slogan-like names the emperors chose for themselves at the beginning of their reigns (Akin 1992:58). The reigns represented are those of Xian Feng, Kang XI, Qian Long, Shun Zhi, Jia Long and Dao Guang. The right and left characters translate as "current coin" (Akin 1992:58). In addition, most bear a mint mark on their reverses. The mints represented are Guangzhou, Guangdong, the Board of Revenue, Beijing, the Board of Works, Beijing, Ningbo, Zhejiang, Shandong, Guilin, Guangxi, Baoding, Suzhou, Jiangsu and Yunnanfu, Yunnan. Since the time period of each emperor's reign is known, a rough chronology is possible. Most of the wen from HLAC were from 100-200 years earlier than the first burials (Figure 9.58).

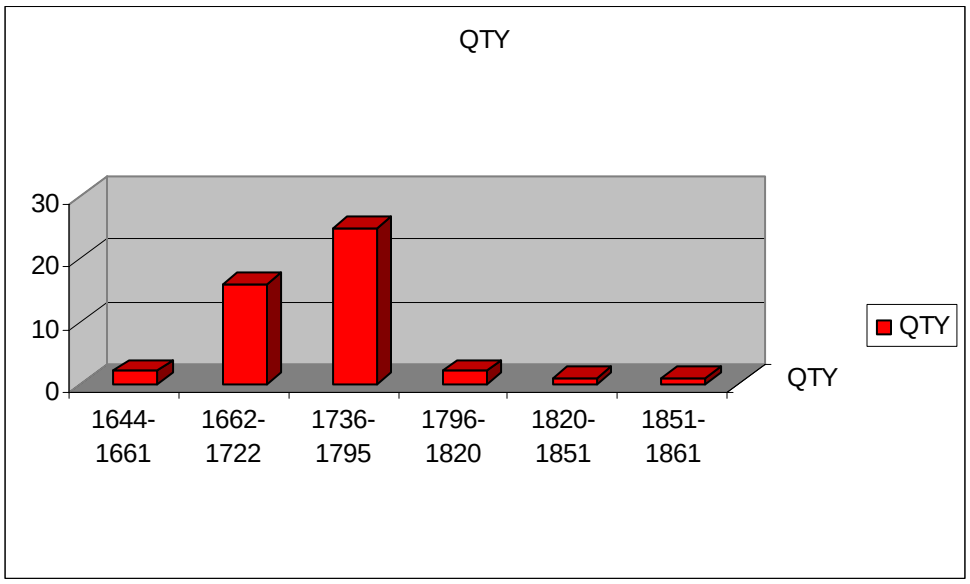


Figure 9.58. Time Periods Represented by Wen

The dong are all zinc and as such are in poor condition. They were recovered from one burial only, 132C (Table 9.2). The dong, like the wen, each bear the name of the reigning emperor at the time the coin was minted and represent the reigns of Gia Long, Minh Mang and Tu Duc. They do not bear mint marks. As with the wen, because the time period of each emperor's reign is known, a rough chronology is possible. The dong from HLAC were from less than 100 years earlier than the first burials. The three time periods represented by dong are 1802-1820 (n=3), 1820-1841 (n=17) and 1848-1883 (n=2).

9.6. OTHER ARTIFACTS

A whole Hutchinson soda bottle was recovered from Recovery 130C (Figure 9.59). This aqua-colored bottle was manufactured on a post-bottom mold with a tooled blob finish. The Hutchinson spring stopper was still in place and the bottle was full of liquid. The liquid was almost certainly rainwater, as sediment was in the bottom and the stopper was replaceable. This style of bottle was manufactured between the mid-1880s and the mid-1910s.

9.59. Hutchinson soda bottle

Two Prosser, four-hole, dish-style, calico buttons were recovered from Recovery 165C. Calico buttons were printed with designs that matched calico textiles, which featured tiny floral and geometric designs. Both calico fabrics and Prosser process buttons were affordable and popular. What makes the presence of calico buttons at the cemetery somewhat unusual is that they were manufactured between 1849 and 1865 in the United States, long before the first interment date at the cemetery (IMACS 1992).

Also recovered from Recovery 165C was a celluloid pipe bit (Figure 9.60). Celluloid is a very early plastic first manufactured in 1856 from nitrocellulose and camphor. It is very rarely used today due to its high rate of flammability and decomposition, but during the time the cemetery was

used, celluloid was highly popular. The pipe bit was a marbled yellow and green color, threaded at the end so that it could screw into the pipe stem.

9.60. Celluloid pipe bit

An interesting artifact was recovered from Recovery 158C, a personal case made from vulcanized rubber (Figure 9.61). It is possible that this was a cigarette case. The case was in the shape of an ornately-decorated book, with the initials "TPW" crudely carved on the "spine" and the initials "FEU" on the front. The three sides of the case meant to be "pages" all swing out, revealing the interior.

9.61. Vulcanized rubber case, shown with two sides open

A pair of eyeglasses was recovered from Recovery 7E. The small, oval lenses were set in very thin, ferrous frames. When the individual was interred, the glasses were neatly folded and attached to a suspender clasp.

Several vulcanized, or hard, rubber combs were recovered from the cemetery. These were all simple and utilitarian double-sided or foldable combs. The double-sided comb from Recovery 58E is the most complete. It dates to post-1851, the year Charles Goodyear patented the vulcanization process.

10. HERE LIES: THE PEOPLE OF THE CEMETERY

10.1. WHAT THE BONES TELL US

Archaeologists value human remains as sources of historical evidence, in contrast to the rich symbolic connotations human skeletons have for most people (Walker 2000:15). Human remains provide information relating to growth, development and disease that are a unique record of life and death in the past (Walker 2000:25).

DEMOGRAPHY

The total number of burials recovered with complete or partial skeletons was 119 (118 from Recoveries and 1 isolated burial). The minimum number of individuals for complete or partial burials was 132, since 13 of these burials had a minimum number of two individuals. The minimum number of individuals was determined based on the number of recoveries and the number of individuals per recovery.

The cemetery's sex and age distribution was dominated by adult males (Figure 10.1). The total sample consisted of 47 males, 35 females, and 50 individuals whose sex was indeterminate. One hundred and twelve individuals were given an age category (Table 10.1). The average life expectancy category for the cemetery was determined to be young adult. Approximately 78% percent of the individuals lived to be at least a young adult.

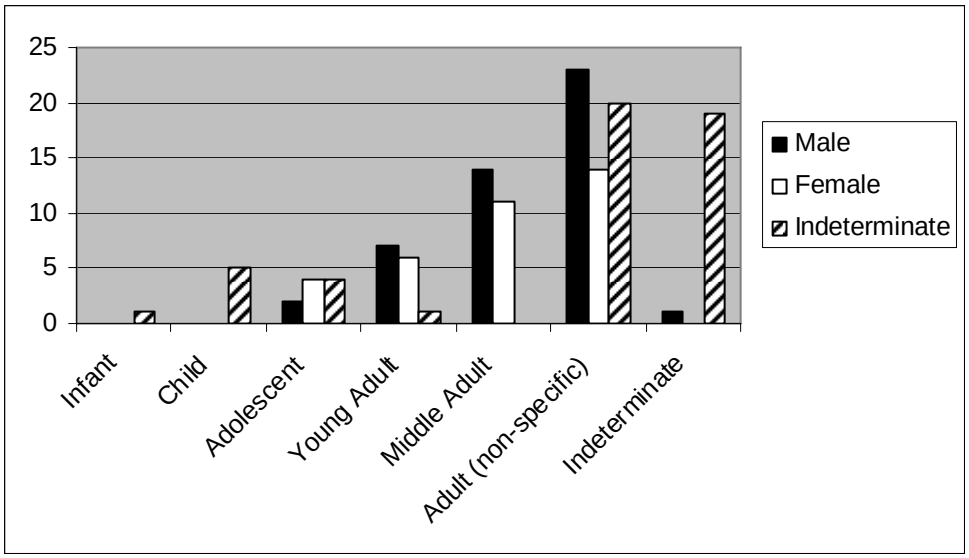


Figure 10.6. Age and Sex Distribution by frequency
Table 10.1. Age Categories by MNI

Age Category	Age Range	Individuals
Infant	Birth to 3 years	1
Child	3-12 years	5
Adolescent	12-20 years	10
Young Adult	20-35 years	14
Middle Adult	>35 years	25
Adult (non-specific)	>20 years	57

Ancestry was assigned to 44 of the individuals recovered. Ancestry was determined by a few specific skeletal characteristics, which explains why only one-third of the individuals' ancestry was determined. The largest ancestral group represented in the cemetery was Asian, followed by Euro-American, and Mixed ancestry, which included Hispanics (Table 10.2). The high yield of Asian individuals is probably due to the location of a unique trait of assessing Asian ancestry that is found on the teeth and teeth preserve better than skeletal material. By examining the sex distribution among the ancestral groups, it is apparent that females are more abundant in the Asian and mixed ancestry groups, whereas they are equal to males in the Euro-American group (Figure 10.2).

Table 10.2. Ancestry by MNI

Ancestry	Individuals
Asian	18
Euro-American	14
Mixed	12

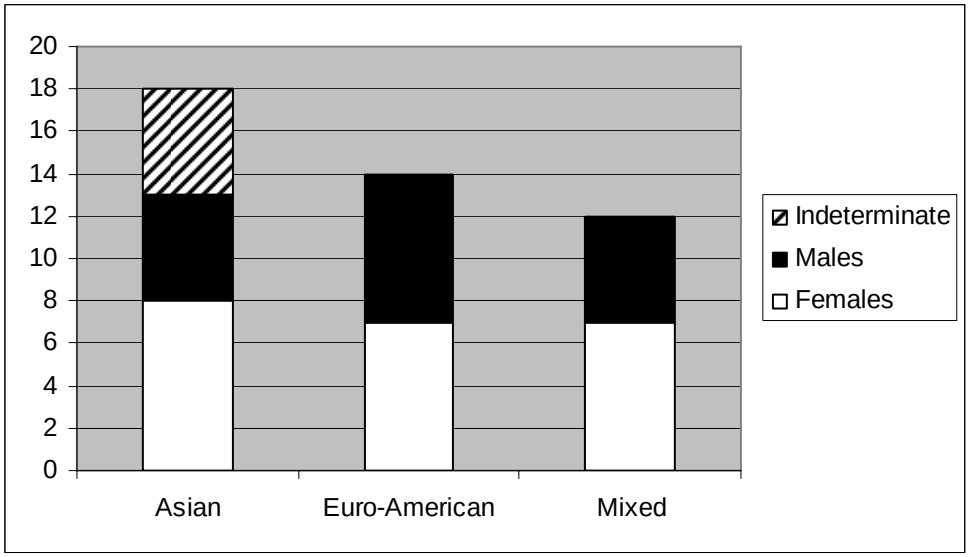


Figure 10.7. Sex and Ancestry Distribution by frequency

BIOARCHAEOLOGY

Some diseases and trauma individuals are inflicted with during life produce skeletal and dental manifestations. The following is a brief description of the skeletal and dental pathological conditions present in the cemetery population.

The skeletal pathological conditions observed were abnormal bone loss, cribra orbitalia, degenerative disc disease, endosteal bone formation, fractures, osteoarthritis, periosteal bone formation, and porotic hyperostosis. Abnormal bone loss is caused by the destruction and resorption of bone due to trauma, such as a pulled ligament, or infectious disease (Ortner 2003). Cribra orbitalia and porotic hyperostosis are a form of bone resorption that is observed as porous lesions in the eye orbits and on the cranial vault, respectively. They are usually a response to anemia (Ortner 2003).

Degenerative disc disease is caused by trauma or habitual stress to the intervertebral disc of the spine (Larsen 1997). It leads to bone resorption of the vertebral bodies that may cause fractures and compression. Periosteal and endosteal bone formation is observed as extra bone growth surrounding the exterior shafts (periosteal) and interior shafts (endosteal) of the long bones. It is caused by the inflammation of the periosteal and endosteal tissue surrounding the surfaces of the bone, which is due to trauma or infection (Ortner 2003).

Fractures are evident by the presence of a bone callus or extra bone formation surrounding the shaft of the injured bone (Ortner 2003). Sometimes the bone is offset, resulting in abnormal shape or morphology. Osteoarthritis is caused by the inflammation of the synovial joint due to repeated stress or trauma (Larsen 1997). It is manifested in the form of porosity on the joint surface or bone formation resulting in lipping around the joint surface.

The dental pathological conditions observed were dental abscesses, antemortem tooth loss, carious lesions, dental fillings, enamel hypoplasias, extensive dental wear, and enamel pearls. Dental abscesses are caused by inflammation of the pulp chamber due to extensive wear or carious lesions. They are evidenced by the presence of a hole in the alveolus near the apex of the tooth to provide drainage.

Carious lesions, also known as cavities, are eroded areas found on the tooth's enamel caused by a diet rich in carbohydrates and sugars (Larsen 1997). Large carious lesions may result in the antemortem loss of the tooth. Extensive dental wear is caused by a diet consisting of coarse foods and is evident by the lack of enamel on the occlusal surface of the tooth exposing the dentin. Enamel hypoplasias are defects in the formation of the enamel during the development of the tooth. They can be caused by disease or malnutrition and are present in the form of lines and pits (Larsen 1997).

One hundred and twenty-three individuals were examined for the presence or absence of skeletal pathological conditions and 37% of the population exhibited at least one type of skeletal pathology (Table 10.3). Males were more commonly affected by skeletal pathologies at 56%, and females at 37%. Examining the distribution of skeletal pathologies among the ancestral groups, Euro-American displayed the highest percentage of 64%, followed by the group of mixed ancestry at 50%, and Asians yielding 33% affected. This suggests the Euro-American males had the highest incidence of skeletal pathological conditions. Kinds of skeletal pathologies are dominated by periosteal bone formation at 15% and osteoarthritis at 10% (Table 10.4).

Out of the 90 individuals examined for dental pathological conditions, 78% were inflicted with at least one type of dental pathology (Table 10.5). The higher percent of individuals with dental pathologies, compared to skeletal pathologies, is probably due to the better preservation of teeth, yielding a higher likelihood of observing dental conditions. The incident rate for males and females were both relatively high at 89% and 90%, respectively. All of the individuals identified as Euro-American or of mixed ancestry exhibited dental pathological conditions and only 72% of Asian individuals had dental pathologies. This differentiation might be due to the ability to determine Asian ancestry based on the structure of some teeth; therefore they generated a higher sample. The highest incident rates of dental pathological conditions were carious lesions at 52%, enamel hypoplasias at 46%, and antemortem tooth loss at 40%. The rest of the conditions were more scarcely distributed throughout the population (Table 10.6).

The stature was calculated for 12 individuals ranging from adolescents to old adults using the complete maximum length of the femora (Figure 10.3). The shortest height was 4 feet and 11.9 inches (152.18 cm) and the tallest was 5 feet and 8.4 inches (173.77 cm). The average height was 5

feet and 5.2 inches (165.68 cm) and the standard deviation was 6.08. Males seemed to be in the taller range and females in the shorter; however it is inappropriate to the compare the distribution based on sex and ancestry because the stature formulae are based on those known characteristics.

Table 10.3. Distribution of Skeletal Pathological Conditions

	Presence of Skeletal Pathology	Total
Entire Population	46	123
Female	13	35
Males	26	46
Asian	6	18
Euro-American	9	14
Mixed	6	12

Table 10.4. Presence of Skeletal Pathological Conditions

Skeletal Pathology	Presence	Percent Affected
Periosteal Bone Formation	18	15
Osteoarthritis	12	10
Abnormal Bone Loss	9	7
Cribra Orbitalia	6	5
Endosteal Bone Formation	6	5
Degenerative Disc Disease	4	3
Porotic Hyperostosis	3	2
Fracture	3	2
Total Observed	123	

Table 10.5. Distribution of Dental Pathological Conditions

	Presence of Dental Pathology	Total
Entire Population	70	90
Female	28	31
Males	34	38
Asian	13	18
Euro-American	13	13
Mixed	12	12

Table 10.6. Presence of Dental Pathological Conditions

Dental Pathological Conditions	Presence	Percent Affected
Carious Lesions	47	52
Hypoplasia	42	47
Antemortem Tooth Loss	36	40
Extensive Wear	15	17
Dental Filling	6	7
Dental Abscess	5	6
Enamel Pearls	1	1
Total Observed	90	

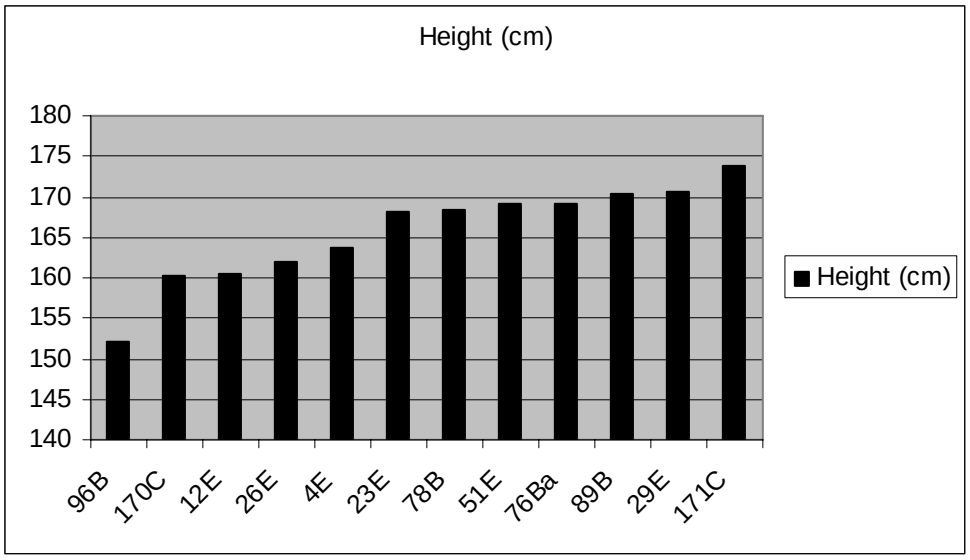


Figure 10.8. Distribution of Stature by Recovery Number

10.2. WHAT THE BURIAL RECORDS TELL US

Every cemetery in California is now required to keep thorough records of who is buried and where they are buried. Each cemetery has burial registers or logs and a map of the plots. Because the Historic Los Angeles Cemetery had such an unusual and almost casual development process, the burial records vary over time and it is unclear if a map of the plots ever existed.

The Historic Los Angeles Cemetery has 5 burial registers dating from 1880 to 1922. Thereafter, the County Crematorium has a large number of cremation registers dating from 1922 to the present. Both of these types of registers are chronological in organization and include medical waste in addition to burials or cremations. The County Crematorium also has a medical waste register covering the period 1973-1998. The terminal date is when they stopped accepting medical waste. No current or past maps of the burial plots have been located despite diligent searches by County staff and Cogstone researchers.

The Los Angeles County Board of Supervisors has determined that the contents of the burial registers are public information and has directed the Department of Health Services to make them available to the public in a searchable, electronic format. Cogstone input the records from blocks 1 to 5 as part of our research and that information has been delivered to the County in electronic format. Not all information was present in all registers and there were missing pages in some registers. About 1.5 burial registers and many cremation registers will still need to be input by the County before the complete information will be available.

Cogstone reviewed the burial registers in hope of identifying burials, not for sociological analysis. The Cogstone database includes register, page, name, age, sex, race, cause of death, physician, undertaker, block, row, grave, disinterment, and notes for all burials in block 1-5 and for all Chinese regardless of block. It has been edited to standardize terminology especially for racial designations and to update names of medical conditions. In addition, some registers list date of death, some date of interment, some both and some neither. We used date of death when it was available and date of interment when it was not. Please note that before 1930, native Californians with Spanish surnames were classified as white by the U. S. government and thereafter were considered Mexican (Molina 2006:7).

BURIAL REGISTER CONTENT

The oldest burial register is a bound accounting book with "Names in Old Block" printed on the cover. This register has 26 pages with information hand written on them. The first 13 pages have no dates, of death or interment, just names plus row and grave numbers (Table 10.7). The second 13 pages have dates for some names but not for all. While there are no dates in the first part of the register, Cogstone recovered headstones for the first person listed on page 1 and for two of the people listed on page 4. These were T. E. Buzbee whose headstone is dated 1883, Anna Ludemann whose headstone is dated 1880, and Willie Smoot whose headstone is also dated 1883. In addition, in the portion with dates, beginning on page 14, the first entry is 1880 and the second is 1888. The most recent burials in this register are dated 1890. Thus is appears that much of this register was written not as a chronological record of burials, but as an after-the-fact inventory. No Chinese names are listed in this register.

Table 10.7. Example of First Burial Register Content, Page 4 excerpt

Name	Block	Row	Grave
G Halifax		5	56
Kurt Olsen		5	58
M. J. Brewer		5	59
Grant		5	63
Annie Ludeman		6	6
Willie Smoot		6	7
Milla McHenry		6	25
Jos. Waloh		6	26
Emma Ellis		6	29
W. Wilkeson		6	34
W R R		6	37
D W Dennis		6	38
D Moore		6	43
Oran Lawrle		6	45
Jean Ladre		6	49

The next register contains entries from January 1, 1896 to April 30, 1902. Thus there is a six year gap between the first register and this one. This register is entirely chronological in organization. It has date, name, age, sex, race, cause of death, physician, undertaker, block, row and grave. Block, row and grave are blank on pages 1-9. On page 10 the Block column begins to list 1 and 2 for most

entries but row and grave are blank for most. A diversity of people are listed and there are varying charges to their families (Table 10.8).

For example, most of the people listed are male and Caucasian; only one was charged for burial. All four Chinese men were charged for burial. The black teen was also charged. By the end of this register, block, row and grave are always filled in except for Chinese names.

Table 10.8. Example of Second Burial Register Content, Page 6 excerpt

Date	Name	Age	Sex	Race	Notes
3/30/1896	Morris W.R.	33	Male	Caucasian	
3/31/1896	Milo Morrison	18	Male	Caucasian	
4/2/1896	McAdam, John	About 55	Male	Caucasian	$6
4/2/1896	Miller, John	45	Male	Caucasian	
4/3/1896	Matheson, Annie	38	Female	Caucasian	
4/5/1896	Brookund C.B.	29	Male	Caucasian	
4/8/1896	Johnson, Aceneth C	34	Female	Caucasian	
4/9/1896	Leavitt, Henry W	35	Male	Caucasian	
4/10/1896	Jue Wah	23	Female	Chinese	$10
4/13/1896	Ah Wey	34	Male	Chinese	$10
4/13/1896	Davis, Gertrude	13	Female	Black	$4
4/13/1896	Hawk Leo Too		Male	Chinese	$10
4/17/1896	Leune Quong	51	Male	Chinese	$10

The third burial register contains entries from May 1, 1902 to September 29, 1909. Block, row and grave are always filled in except for Chinese names (Table 10.9). An example of early disinterment is shown below where a Chinese woman was disinterred after only one year. There are no notes regarding payments for burial in this register. Note also that graves within a row were not filled in numerical order.

Table 10.9. Example of Third Burial Register Content, Page 188 excerpt

Date	Name	Age	Sex	Race	Block	Row	Grave	Disinterment
3/4/1902	Fred Grant	46	Male	Caucasian	5	27	8	
3/4/1902	Chas M Douglas	46	Male	Black	5	28	2	
3/4/1902	Carl Brecht	35	Male	Caucasian	5	28	6	
3/4/1902	Thomas Smith	31	Male	Caucasian	5	28	7	
3/6/1902	Martin Johansen	54	Male	Caucasian	5	28	8	
3/6/1902	Jesus Torres	42	Male	Caucasian	5	28	9	
3/6/1902	Clarence W Brooks	25	Male	Caucasian	5	28	3	
3/6/1902	H A Harford	33	Male	Caucasian	5	29	2	
3/10/1902	Lim Quong	45	Male	Chinese				
3/10/1902	Toy Sing Howe	37	Female	Chinese				9/10/1903
3/11/1902	Ling Quong Waln	48	Male	Chinese				

The fourth burial register contains entries from October 1, 1909 to July 31, 1918. It shows the continuing evolution of cemetery record-keeping (Table 10.10) with designation of "China" as the block where most Chinese are buried. Fees are once again listed with most Chinese adults charged $10 and an infant charged $5. The sole exception is a Chinese man who was buried without charge like all others who died at County Hospital. A large proportion of the Chinese in this register were disinterred. Note the burial of a "college box" of medical waste from the County Hospital.

Table 10.10. Example of Fourth Burial Register Content, pages 482-492, 1918

name	age	sex	race	undertaker	block	row	grave	disinterment	notes
Woo Wing	45	Male	Chinese	JD Button	China	10	8	6/17/1937	paid $10
Jung Chuck	62	Male	Chinese	JD Button	China	17	16	6/4/1937	paid $10
Gen Tong	62	Male	Chinese	JD Button	China	8	2	6/1/1937	paid $10
Lee Long	50	Male	Chinese	JD Button	China	15	6	6/7/1937	paid $10
Quen Heng	72	Male	Chinese	JD Button	China	14	8	6/11/1937	paid $10
Lee Kon	65	Male	Chinese	LA Undertaker Co.	China	27	8	11/19/1925	paid $10
Woo Qun (Quin)	53	Male	Chinese	JD Button	China	26	14	6/4/1932	paid $10
Hive Wee	5 mo	Male	Chinese	JD Button	China	31	21		paid $5
Hop Sing	72	Male	Chinese	Co. Hospital	18	5	1		free
Len Chew	64	Male	Chinese	JD Button	China	22	14	6/21/1937	paid $10
Philip Wilson	72	Male	Caucasian	Co. Hospital	5	15	0		
Escado Garcia	23	Male	Hispanic	Pierce Bros	5	16	0		paid $9
1 College Box				Co. Hospital	5	14	0		
Chin Hing	63	Male	Chinese	JD Button	China	22	13	8/21/1924	paid $10
William Hatch	85	Male	Caucasian	Co. Hospital	5	13	0		

While it may appear that most of the people being buried were Chinese, the sample is biased by including all Chinese but excluding anyone else unless buried in blocks 1-5. This is true for the following register also.

The final burial register contains entries from July 31, 1918 to January 31, 1923. The cemetery records are consistent with those above. Note the American first names of the young Chinese near the bottom of the table. Many Chinese were disinterred as above. The disinterment of Hanna Lew for reburial in Evergreen in 1923 is of special interest. This was about a year after the crematorium began operations and burials at HLAC ended. It also apparently marked an increase in the number of burial options open to Chinese families in Los Angeles.

Table 10.11. Example of Fifth Burial Register Content, pages 170-190, 1921

name	age	sex	race	block	row	grave	disinterment	notes
Francisca Velasco	3	Female	Hispanic	5	42			
Wong Sun	58	Male	Chinese	China	31	8	5/29/1937	paid $10
Baby Rodriguez		Female	Hispanic	5	68			
Fong Gen	56	Male	Chinese	China	13	18	8/12/1937	paid $10
Leung Toy Chung	76	Male	Chinese	China	22	17	8/13/1937	paid $10
Sing Kee	65	Male	Chinese	China	24	6	8/13/1937	paid $10
Yuen Sik Wong	52	Male	Chinese	China	30	4	5/29/1937	paid $10
Chong Oak Shin	4 days	Female	Chinese	China	24	19		paid $5
Lew Duck	60	Male	Chinese	China	15	14	6/24/1937	paid $10
Charley Gue	70	Male	Chinese	China	16	8	8/22/1920	paid $10
Lem Guey Fong	60	Male	Chinese	China	19	5	6/6/1927	paid $10
Soo Ho Song	65	Male	Chinese	China	17	7	8/12/1937	paid $10
Lewie Wing	64	Male	Chinese	China	21	10	6/15/1937	paid $10
Wong Sing	67	Male	Chinese	China	30	21	5/29/1937	paid $10
Aug Hoyh	72	Male	Chinese	China	31	15	6/5/1937	paid $10
Hanna Lew	5	Female	Chinese	China	13	24	7/20/1923	paid $5; taken to Evergreen
Lee Hee Dick	71	Male	Chinese	China	30	19	6/17/1937	paid $10
Wong Den	31	Male	Chinese	China	34	17	6/4/1937	paid $10
Ella Low	1	Female	Chinese	China	10	24		paid $5
David Fong	19	Male	Chinese	China	31	12	9/25/1929	paid $10

One additional register book requires explanation. There is a book without a label that is informally called the Chinese book. It appears to be a list of all Chinese buried at HLAC. However, close inspection and comparison reveal it to be a list copied from the registers listed above. Cogstone entered all the data from this book, sorted the database and deleted duplicate entries. We were left with only 21 new records. Thus the list was copied before pages were lost from the

original registers (the new superintendent in 1911 specifies the pages missing when the registers were turned over to him – notes attached to the registers). However, many disinterment dates were obtained from the Chinese book that were not present in the original registers. Based on these facts, it appears that the purpose of the Chinese book was to assist disinterment record keeping.

As a final note on the Burial Registers, we attempted to search for the names of the Chinese whose funerals were reported in the local press in the late 19th and early 20th centuries (Chapter 7) to no avail. There were zero matches for names or dates. This is probably a complex result of Chinese fronting easy-to-pronounce names to Americans, associations reporting false names for those in the country illegally and very casual recording practices of both physicians and cemetery personnel.

REPRESENTATION

The racial composition of the burial population can be compared to the racial composition of Los Angeles County (Table 10.12). For this purpose the HLAC sample was limited to the first two registers that were entirely entered into the database and the County sample was limited to the 1890 and 1900 census records (Molina 2006:7). Blacks are the only group represented in proportion to their numbers in the county. Caucasians are underrepresented. This must be partially due to the fact that native Californians of Mexican descent were classified as white before 1930 and were likely to have been preferentially buried in Catholic Cemeteries. The same factor is probably at work in the case of Hispanics (foreign-born Mexicans, per census classifications). Chinese are dramatically over-represented.

Table 10.12. Racial composition of samples

	%HLAC	% County
Black	3	3
Caucasian	66	93
Chinese	29	2.7
Hispanic	0.5	1
Japanese	0 * less than .001	0 * less than .01
	1896 to 1902 registers only	1890 & 1900 censuses only

CAUSE AND AGE OF DEATH

The recorded causes of death for the people buried at the cemetery appear to have come from death certificates. Arcane terms for medical conditions, appropriate to the period of time, are prevalent in the registers. 376 separate causes of death are listed but were grouped to illustrate the major categories (Table 10.13). Lung diseases caused 35% of deaths. Of that total, 80% were from tuberculosis and 20% from pneumonia. Heart disease caused 10% of deaths and kidney disease 5%. Cancer, suicide, and accidents of all types (mostly railroad) caused 3% each. Infants died from stillbirth, failure to thrive and premature birth totaling 6%.

Table 10.13. Causes of Death in sample

Disease/Cause	Percent
Lung	35
Heart	10
Kidney	5
Cancer	3
Suicide	3
Accident	3
Infant Deaths	6

Age at death information was also grouped to illustrate the sample trends. Infants had a high death rate but the number of old people was very low (Figure 10.4). Instead, young to middle aged adults dominate the death assemblage. This is certainly related to the incidence of tuberculosis in the sample.

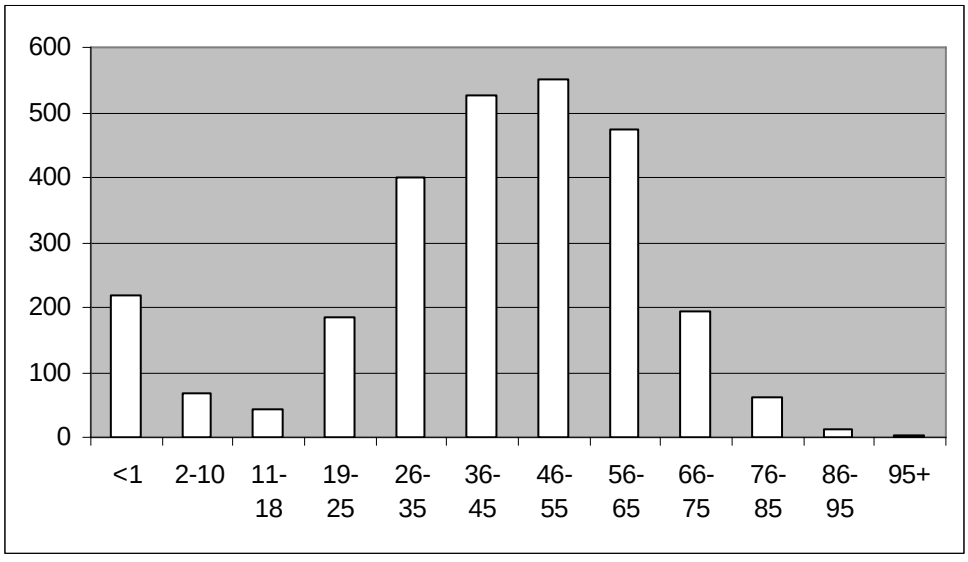


Figure 10.9. Age at Death in sample

DISINTERMENTS

A variety of people were exhumed from the HLAC over its recorded history. Most were reburied at Evergreen as noted in the registers. Several were reburied at Calvary, the Catholic Cemetery. One each were reburied in Santa Ana, the Serbian Cemetery and Lawrence, Massachusetts. These may represent rapid burials of infectious disease patients from County Hospital that were later claimed by their families.

Most of the disinterments were of Chinese burials. As noted in Chapter 7, the Chinese had religious reasons to return the bones of the deceased to China. Disinterments were noted in the registers from 1897 to 1945 at HLAC (Table 10.14). The count varies from year to year but the large numbers in 1937 represent many months of daily disinterments noted in County records and the local newspapers.

Table 10.14. Chinese Disinterments

Year	Count		Year	Count
1897	19		1921	18
1898	23		1922	69
1900	26		1923	32
1901	15		1924	29
1902	27		1925	28
1903	17		1926	8
1906	2		1927	5
1907	5		1928	10
1908	10		1929	10
1909	38		1930	2
1910	7		1931	5
1911	6		1932	4
1912	12		1935	1
1913	16		1936	1
1914	39		1937	281
1915	14		1939	1
1916	4		1940	1
1917	10		1945	1
1918	23			
1919	6			
1920	27			

11. COMPARISONS

11.1. WITHIN HLAC

For the purposes of this section, burials were considered to be Chinese based on the presence of Chinese artifacts and/or the determination of Asian ancestry during the osteological analysis. For the purpose of simplicity, Chinese burials are referred to as CB and non-Chinese burials as NCB. 68 recoveries met CB criteria and 42 of those had skeletal material. 102 recoveries were NCB and of those 77 had skeletal material.

CULTURAL ATTRIBUTES

The overview of major artifact classes from NCB and CB shows many similarities (Figure 11.1). Coffin parts and materials dominate both, followed by buttons (clothing). CB had many more food-related artifacts, more miscellaneous containers, shoes and social drugs.

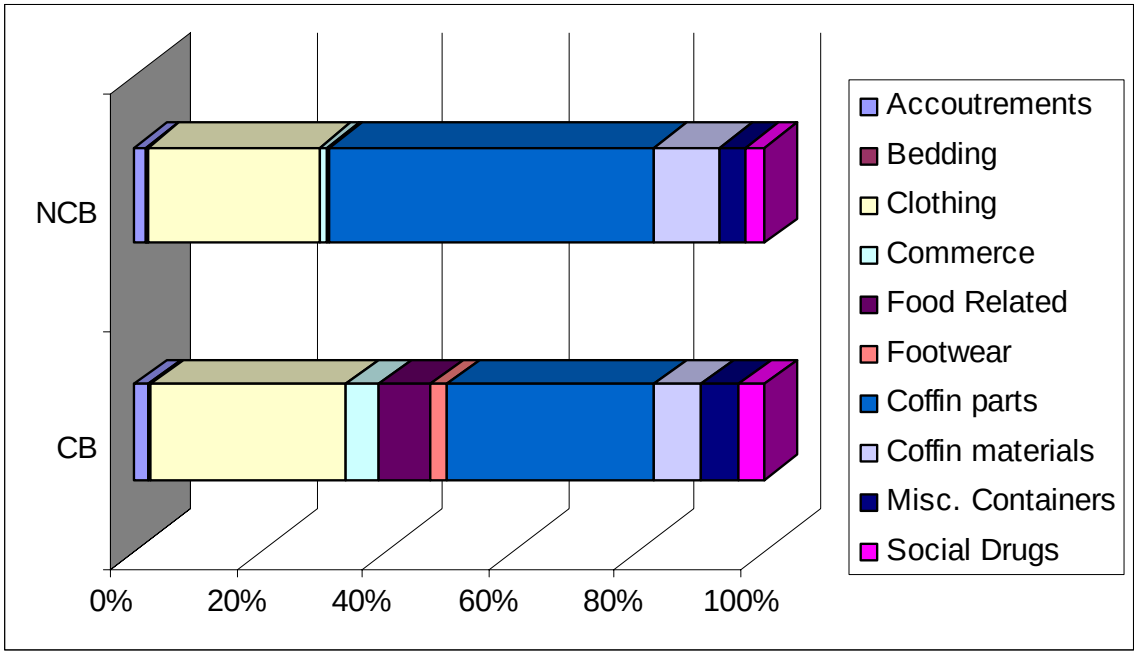


Figure 11.1. Comparison of artifacts from Chinese and Non-Chinese Graves

The majority of artifacts are associated with Chinese burials (Table 11.1). Non-Chinese burials, although present in greater number, have fewer artifacts (Table 11.2).

Table 11.1. Distribution of artifacts from Chinese burials by class and category

	Activities	Domestic	Indefinite	Mortuary	Personal	Structural	Grand Total
Accoutrements					39		**39**
Activities					2		**2**
Bedding					4		**4**
Clothing					530		**530**
Commerce	90						**90**
Entertainment	12						**12**
Firearms	8						**8**
Food Related		142					**142**
Footwear					42		**42**
Furnishings		16					**16**
Grooming/Health					5		**5**
Coffin Hardware				564		1	**565**
Coffin Materials				125		1	**126**
Misc. Beads			10				**10**
Misc. Closures			2				**2**
Misc. Containers			106				**106**
Misc. Metal Items			17				**17**
Social Drugs					67		**67**
Tools	6						**6**
Grand Total	**116**	**158**	**135**	**689**	**689**	**2**	**1789**

Table 11.2. Distribution of artifacts from Non-Chinese burials by class and category

	Activities	Domestic	Indefinite	Mortuary	Personal	Structural	Grand Total
Accoutrements					24		**24**
Bedding					2		**2**
Clothing					355		**355**
Commerce	19						**19**
Firearms	1						**1**
Food Related		4					**2**
Footwear					3		**3**
Grooming/Health					24		**24**
Coffin Hardware				667		2	**669**
Coffin Materials				139			**139**
Misc. Containers			53				**53**
Misc. Metal Items			3				**3**
Reading	2						**2**
Social Drugs					37		**37**
Tools	1						**1**
Toys					2		**2**
Unidentified					2		**40**
Grand Total	**23**	**4**	**56**	**806**	**449**	**2**	**1376**

In the mortuary category, the biggest similarity between CB and NCB is the prevalence of coffins and coffin hardware. Both groups were interring their dead largely in wood, hexagon-shaped burial containers and using the kind of ornate, inexpensive and mass-produced coffin hardware that was widely available at the time. Both groups used most types of coffin hardware, including swing bail handles, short bar handles, thumbscrews, escutcheons, viewing windows and stamped tin coffin studs. The Chinese selected more short bar handles, a greater number of coffin studs per coffin and lotus blossom ornaments. The Chinese also painted many of their coffins red.

The second greatest similarity between CB and NCB is in the personal category and includes buttons. Next to coffin hardware, buttons accounted for the majority of artifacts recovered from both types of burials. CB often contained the non-Chinese types of ceramic or metal buttons often recovered from NCB. Some of these CB contained only non-Chinese buttons and other western-style clothing-items such as metal rivets and suspender clasps, suggesting that the individuals had been interred in non-traditional attire. However, many CB contained both non-Chinese clothing items and Chinese "ball" buttons, suggesting that the individuals had been interred in a combination of traditional and non-traditional attire. Finally, some CB contained only Chinese clothing items, including "ball" buttons and in one case, a toggle.

Another similarity between CB and NCB is the use of coins in burials. NCB were found to contain US coins, mostly Seated Liberty dimes. CB were found to contain both Asian and US coins, mostly wen and Seated Liberty dimes. Although both types of burials contained coins, it is likely they did so for different reasons. The use of coins in NCB may have been used to show perceived wealth, while the use of coins in CB may have had talismanic purposes.

There were two major differences between CB and NCB. The first was the inclusion of personal effects. NCB did not contain many personal items, but those present included a clay pipe, a pair of eyeglasses, combs and pocketknives. In contrast, CB contained a variety of personal effects, including opium and tobacco paraphernalia, jewelry, a photograph, a medicine vial and gaming pieces.

The second major and most noticeable difference between CB and NCB was the inclusion and offerings of food-related artifacts in CB. CB included many different types of food-related artifacts, both of Euro-American and Chinese manufacture. A variety of Euro-American liquor and soda bottles, Euro-American spoons and a cast iron pot were recovered from CB. Also recovered were an even wider variety of Chinese ceramics including rice bowls, wine bowls, a tea bowl stand, teapots, food storage containers and a spoon representing at least five patterns and including celadon. In stark contrast, NCB showed only a few pieces of evidence of food-related offerings or inclusions and included liquor bottle glass and ceramics.

BIOARCHAEOLOGY

One CB had two skeletons and eight NCBs had two skeletons. The minimum number of individuals (MNI) for the CBs is 42 and the MNI for the NCBs is 77. Age categories were assigned to 35 of the Chinese and 69 of the non-Chinese skeletons (Figure 11.2). Adults dominate both populations; however, subadults make up 16% of the non-Chinese burials and only 7% of the CBs.

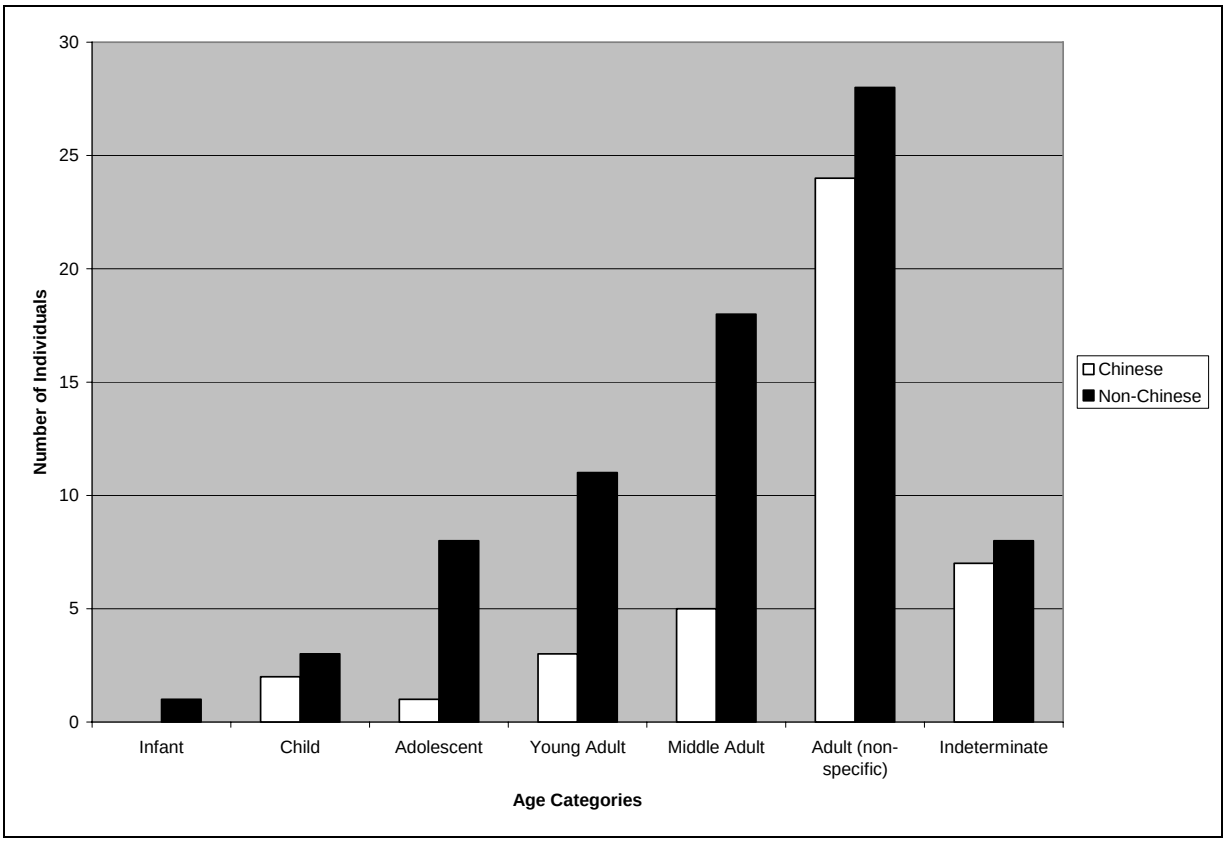


Figure 11.2. Age Distribution of Chinese and non-Chinese Burials

Females represent approximately 30% of both the CBs and NCBs (Figure 11.3). Males make up a larger proportion of the NCBs at 40% and only 26% of the CBs. Sex could not be determined for 19 of the Asian skeletons and 24 of the non-Chinese skeletons.

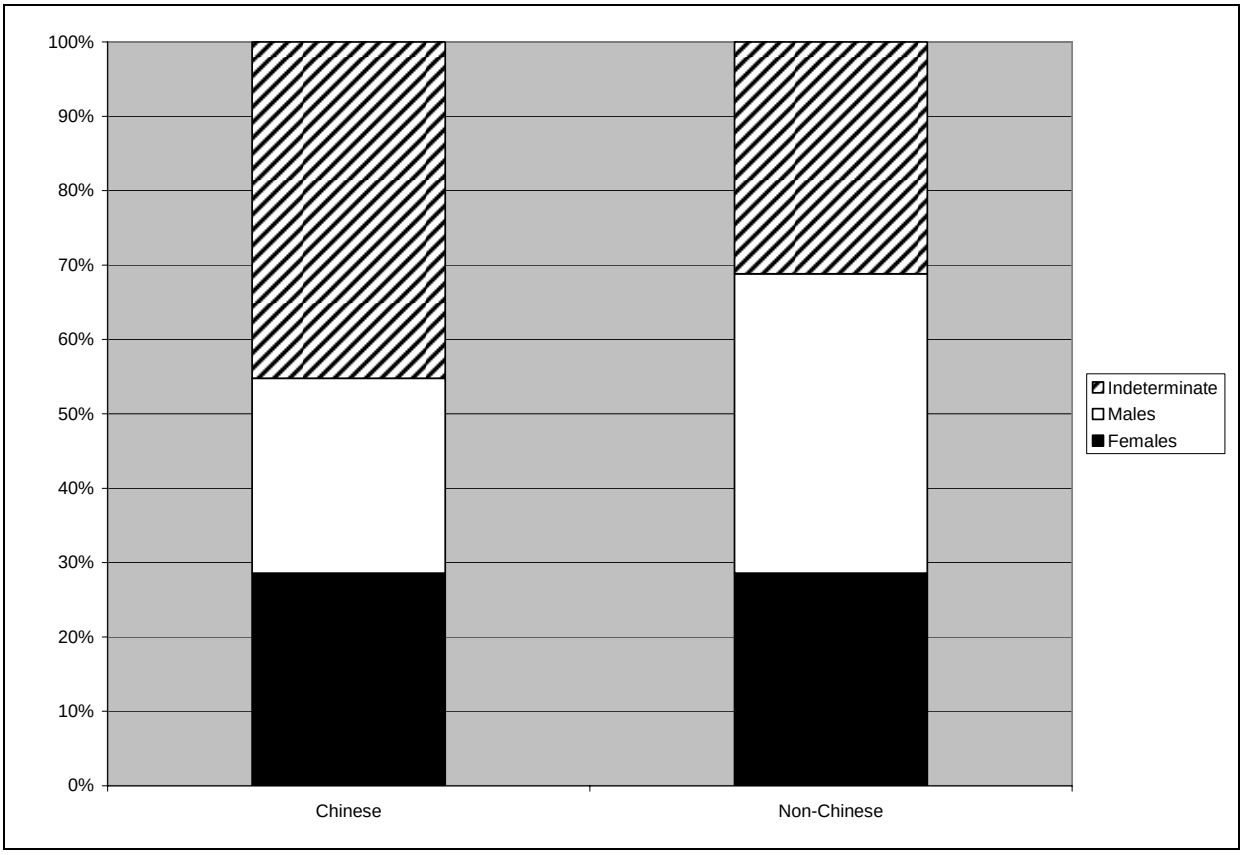


Figure 11.3. Sex Distribution of Chinese and non-Chinese burials

Stature was calculated using mathematical formulas based on the age and ancestry of the individual (Trotter 1970 and Jantz 1992). This makes statistical comparisons invalid. Also only a few skeletons were well-preserved enough to be included (4CB, 7NCB). The average height of the adult Chinese skeletons was 164.35 cm (Table 11.3). The average height of the non-Chinese skeletons was 166.99 cm. Of these non-Chinese skeletons, two of them were adolescent, which may have decreased the average height.

Table 11.3. Average Heights in Centimeters of the Chinese and Non-Chinese Burials

	Chinese		Non-Chinese	
		Total		Total
Female	160.27	1	161.43	2
Male	165.71	3	169.21	5
Total	164.35	4	166.99	7

The non-Chinese population had a higher percentage of individuals affected by the presence of skeletal and dental diseases (Table 11.4). The presence of skeletal and dental pathological conditions was determined by the number of individuals with at least one condition present. Of the 74 NCB examined for skeletal pathological conditions, approximately 47% were affected. Of the 38 CB examined for skeletal pathological conditions, only 26% were affected. The NCB suffered double the amount of infectious disease, arthritis, anemia, and traumatic injuries. The non-Chinese also had a higher incidence rate of dental disease. In the non-Chinese population, five of the subadults had diseased skeletons and six had diseased teeth. The higher incidence of disease skeletons and teeth found among the non-Chinese population suggests they had a difficult life and were exposed to more disease and malnutrition than the Chinese population.

Of the 56 NCB examined, approximately 86% were affected by some dental pathological condition. A little less than 65% of the CB was inflicted with a dental pathological condition. The incidence rate for both populations are relatively high; however, the NCB had a lower rate of cavities, tooth loss, and enamel defects caused by nutritional stress during the developmental years. Of the three subadult Chinese individuals, none had any skeletal or dental diseases.

Table 11.4. Presence of Skeletal and Dental Pathological Conditions

	Chinese		Non-Chinese	
	Percent	Total	Percent	Total
Skeletal Pathology Presence	26.3	38	47.3	74
Dental Pathology Presence	64.5	31	85.7	56

The distribution of Chinese and non-Chinese artifacts associated with graves is illustrated (Figure 11.5). Area E is notable for the lack of Chinese artifacts in spite of the presence of Asian skeletons. Areas B and C have many disinterments with Chinese artifacts and a mixture of CB and NCB.

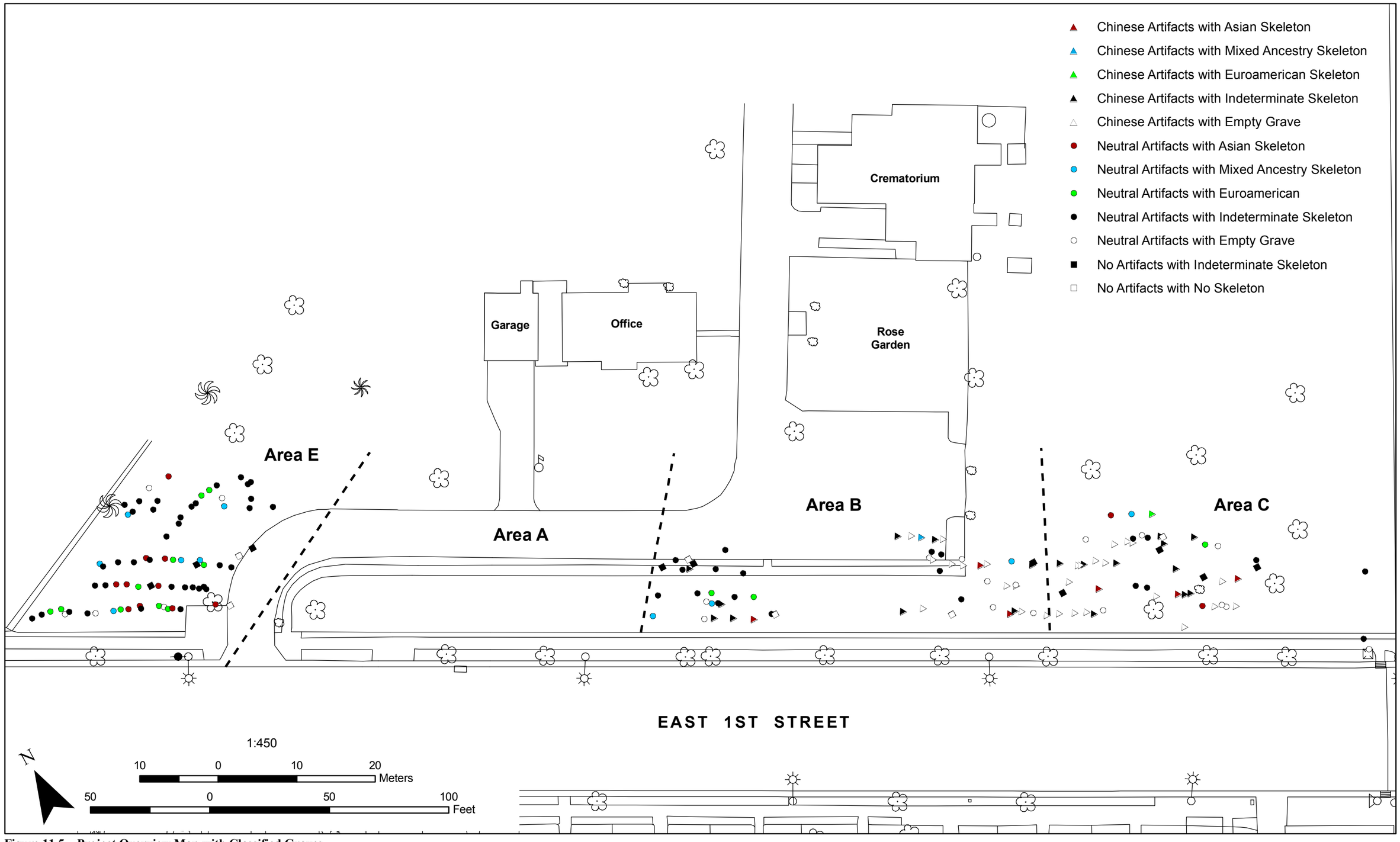


Figure 11.5 Project Overview Map with Classified Graves

11.2. NINETEENTH CENTURY INDIGENT CEMETERIES

The Golden Gate Cemetery (GGC), thought to have been in use between the late 1860s and 1911, was an unaffiliated cemetery set aside for the poor, the unknown, the Chinese and medical waste akin to HLAC (Chattan et al. 1997:4, 12). After 1911, the cemetery was moved outside of the city limits and the California Palace of the Legion of Honor was constructed within the former boundaries in the early 1920s. When the building began undergoing seismic retrofit and expansion construction in 1989, it became clear that not all of the GGC had been relocated. 751 burials were archaeologically excavated from impact areas for new construction. Of those, 34 were identified as Chinese.

These two cemeteries, GGC and HLAC, are important additions to knowledge of the health status of historic Californians since so few non-Native American skeletal samples exist from the time period and area (Buzon et al. 2001). The GGC skeletal population closely resembles that of HLAC, but only 90 adult skeletons of European ancestry were sampled for analysis.

MORTUARY COMPARISONS

Hexagonal coffins were recovered from the Golden Gate Cemetery, but also burial containers were described as “rectangular wood boxes” instead of caskets for reasons unknown (Chattan et al. 1997:30). Dimensions of adult coffins did not vary and it was observed that taller individuals “were pushed into the six foot long coffins” (Chattan et al. 1997:29). Coffins at HLAC, however, did vary and there was only one instance of an individual being made to fit into a smaller box. Metal-lined coffins were also recovered from Golden Gate. It was thought that these were used to seal out communicable disease, but it should also be noted that metal-lined coffins and caskets were marketed as preserving the deceased. Intact coffins of this type, when opened during the Palace of the Legion of Honor Excavations, revealed individuals with soft tissue and hair preserved. None of the metal-lined coffins were associated with Chinese burials or with individuals interred with grave goods indicating any kind of wealth, real or perceived. At HLAC, several coffins associated with Chinese burials were excavated with many fragments of flat, ferrous metal that could possibly have been the remains of metal lining. The individuals who were still interred with this metal did not

show better preservation. While not clearly stated in the text, it can be inferred from the report and from photos that the coffins at Golden Gate Cemetery were more intact than those at HLAC.

Unfortunately, coffin hardware recovered from the Golden Gate Cemetery was only given a passing reference in the report. A sketch drawing of a Chinese burial points out the placement of "coffin ornaments" (Chattan et al. 1997:45). These are almost certainly stamped tin coffin studs, many of which were found on both Chinese and Euro-American coffins at HLAC. The sketch also shows many studs placed around the coffin. At HLAC, it was found that many studs were placed on the Chinese coffins as well, while the use of studs on Euro-American coffins was minimal. Other mention of coffin hardware appears in the list of associated artifacts. These include a Chinese burial with metal flower decorations on the head and footboards, a coffin with six handles and hinges and another coffin with one handle.

Only two bricks were recovered from Golden Gate. The first was found lying on top of a coffin and includes the maiden and married names of the individual, her birth date, the time and date at which she died and her home village. The second brick was recovered as an isolate and also had the maiden and married names of the individual. The opposite side of the brick was interesting in that it included depictions of bats (symbols of longevity and prosperity) and a symbol (shou) for longevity. No symbolism was found on any of the burial bricks at HLAC but they included the name and village of each person and sometimes additional information.

CULTURAL COMPARISONS

As at HLAC, excavators at the Golden Gate Cemetery recovered a variety of personal items identified as grave goods. Personal artifacts recovered from both were cartridge cases, safety pins, buckles, shoes, eyeglasses, a clay pipe, hair combs, a frog fastener, an opium pipe bowl, jade bracelets, jade and metal earrings, glass vials, coins and buttons. Unlike HLAC, none of the coins recovered from Golden Gate were Asian, although some of the Chinese burials contained US coins.

Another glaring difference between the Chinese sections at the cemeteries is the absence of food-related artifacts at Golden Gate. While the number of Chinese burials recovered at Golden Gate is small, the isolated Chinese porcelain fragments and a Chinese stoneware vessel in a burial that were

present do not represent the quantities that were likely present at the time of burial. It seems likely that these were removed by the original construction activities at the Palace of the Legion of Honor.

Buttons recovered from Golden Gate were found to be made from milk glass, clear glass, black glass and antler. These were also present at HLAC.

Some of the relatively common artifacts attributed to Euro-American individuals at Golden Gate Cemetery that were not present at HLAC include Catholic jewelry (crucifixes, rosaries and medals), other types of jewelry (rings, watch fobs, cuff links) and medical devices. All of the jewelry was made from inexpensive materials. Bybee (2003) states that the family of the deceased would have kept more valuable items however that varied among families.

The presence of medical devices is evidence of access to health care. Dentures were recovered from eight burials, a gold tooth was recovered from one burial and seven individuals were recovered with gold fillings. Eyeglasses, two leather stump covers for amputated legs, crutches, and a jaw prosthesis were also recovered. In comparison, one pair of eyeglasses and gold fillings in one individual were recovered from HLAC. Perhaps some of these 15 individuals from Golden Gate represent once prosperous people who either died or lost their property/livelihood in the 1906 quake and fire. Alternatively, San Francisco may have offered more access to health care than Los Angeles.

BIOARCHAEOLOGY COMPARISONS

Almost 65% of the Euroamericans at HLAC had systemic skeletal pathologies compared to 33% of Asians. Comparison shows that the Euroamerican population of GGC had lower incidence of these types of skeletal pathologies (Table 10.5). General periosteal reaction, an indication of infectious disease (Ortner 2003) was prevalent in all populations. The Euroamericans of HLAC have high frequencies of cribra orbitalia and porotic hyperostosis, an indication of anemia (Ortner 2003). The Asian population at HLAC has much less anemia but presence of osteoarthritis in 17% of the Asians indicates generalized stress to the joints caused by habitual activities such as labor (Larsen 1997). There is an abnormally high frequency of fractures at GGC that Buzon and colleagues (2001) attribute to a high rate of interpersonal violence among the San Francisco working class population. However, this could also result from traumas due to the 1906 earthquake and fire.

Table 10.5. Comparison of Skeletal Pathologies

	HLAC Euro-American		HLAC Asian		GGC Subsample (Buzon et al. 2001)	
	Percent	Total	Percent	Total	Percent	Total
Skeletal Pathology Presence	65	14	33	18	n/a	
General Periosteal Reaction	34	14	28	18	21	90
Cribra Orbitalia	29	14	6	18	8	7
Porotic Hyperostosis	7	14	6	18	3	74
Osteoarthritis	7	14	17	18	n/a	
Fracture	0	14	0	18	38	90

There is a relatively high frequency of dental pathological conditions among all the populations. The high presence of carious lesions and antemortem tooth loss among all the populations except for the HLAC Asian subsample is due to poor dental health caused by a high sugar and carbohydrate diet (Ortner 2003). Dental abscesses may also occur when carious lesions go untreated (Ortner 2003). There is a relatively high incidence of abscesses in the GGC subsample and a moderate incidence among the HLAC Asian subsample.

There is a significantly high incidence of enamel hypoplasias in the HLAC Asian subsample, an indicator of stress during the developmental years (Larsen 1997), possibly related to impoverished childhoods in China. The Euroamericans, both GGC and HLAC, have lower rates.

Table 10.6. Presence of Dental Pathological Conditions

	HLAC Euro-American		HLAC Asian		GGC Subsample (Buzon et al. 2001)	
	Percent	Total	Percent	Total	Percent	Total
Dental Pathology Presence	100	13	72	18	88	90
Carious Lesions	77	13	39	18	43	80
Antemortem Tooth Loss	77	13	39	18	80	76
Enamel Hypoplasia	39	13	61	18	50	58
Abscess	0	13	11	18	34	80

11.3. NINETEENTH CENTURY CHINESE CEMETERIES

Virginiatown was a mining camp established in western Placer County near Auburn. The camp was typical of the other camps that sprung up all over California after the discovery of gold in 1848 and like these camps, the Chinese had a large presence that was quickly segregated to a "Chinatown" outside the limits of the camp. Three Chinese cemeteries are known from Virginiatown but all are disinterred cemeteries. The Chinese skeletons were removed and returned to China in the late 19th or early 20th centuries. Open graves and piles of artifacts were visible under vegetation when archaeologists began excavation of two of the cemeteries (Numbers 1 and 3) in 1992. These excavations provide valuable information for comparison to the Chinese section at HLAC.

MORTUARY COMPARISONS

Both rectangular caskets and hexagonal coffins were recovered from the Virginiatown cemeteries. Caskets were the only burial containers recovered from Cemetery 3; as at HLAC however, caskets and coffins were recovered from Cemetery 1. The construction and the average sizes of the burial containers at Virginiatown are similar to those at HLAC. Rouse (2002:25) notes that some of the containers were actually preserved well enough to be reconstructed. However most of them were badly deteriorated or had completely decomposed, as was seen at HLAC.

Although the type of hardware recovered from Virginiatown was similar to that recovered at HLAC, the quantity was vastly different. At Virginiatown, ornate swing bail handles were recovered, although there were very few. Thumbscrews and escutcheons were also recovered from Virginiatown, again, in small numbers. In fact, an acorn and leaf-design swing bail handle and a thumbscrew and escutcheon set recovered were exactly the same as a few of those found at HLAC.

Rouse (2002:25) suggests that the same thumbscrew and escutcheon design was found in three other burials because it was a popular design. A larger sample from HLAC shows that no one design was most popular. It seems more likely that the design was more readily available than others in the rural mining camp. Missing from the Virginiatown cemeteries but present at HLAC were short bar coffin handles, plaques, viewing windows, stamped tin coffin studs or any other type of decoration, including the lotus blossom ornaments found only on Chinese coffins at HLAC. The lack of short bar handles at Virginiatown can be attributed to the fact that the cemeteries there are older than LACC.

Two types of coffin hardware were recovered from the Virginiatown cemeteries but not from HLAC. These were swing bail shipping box handles and caplifters. The shipping box handles were attached to the boxes used to ship the coffins, and the coffins were often left in the boxes for burial. Neither the handles nor the shipping boxes were recovered from LACC. Caplifters were similar to thumbscrews and were used to lift the top panels of the coffin. The lack of caplifters at LACC may be due to the coffins being of a simple design with lids that were not paneled.

Burial bricks were also recovered at both the Virginiatown cemeteries and HLAC. The Virginiatown bricks, like the HLAC bricks, included inscriptions with the names and home villages of the deceased. There is no evidence of any headstones at Virginiatown.

CULTURAL COMPARISONS

Grave goods recovered from both Virginiatown and HLAC include an opium pipe bowl and metal connector, a Chinese padlock, a tobacco pipe stem, coins and buttons. The buttons were both Chinese and American at each site suggesting that most Chinese were buried in a combination of traditional and non-traditional attire. However, most of the Virginiatown buttons were metal while most of the HLAC buttons were ceramic. Only a small number of Chinese coins were recovered at Virginiatown, possibly due to the rural location.

Food-related grave goods were also recovered from the Virginiatown cemeteries. These were similar to those recovered from HLAC and included stoneware jars, rice bowls and wine bowls. Celadon, Double Happiness, Four Seasons and Bamboo patterns were all represented, although the Double Happiness occurred with much more frequency at Virginiatown than it did at HLAC. This is suggestive of earlier interment dates. Ceramics recovered at HLAC but not Virginiatown include teapots, a spoon and a tea bowl stand.

An interesting artifact found at Virginiatown with a parallel to HLAC was a Masonic badge. At least one burial at HLAC could be associated with the Freemasons through the coffin hardware. We are uncertain if this indicates affiliation with Masonic Lodges or, especially in the case of the coffin hardware, undertakers unloading old inventory on people who did not read English.

Pit features, one at Virginiatown and one at HLAC, were very similar. Virginiatown Exhumation Pit #27 contained a wide variety of artifacts, including over sixty Euro-American and Chinese buttons, ceramic and glass fragments, a shovel, eyeglass lenses, an Asian coin, an ink well, a pencil and a paint brush. Rouse (2002:25) speculates that the pit represents a secondary deposition of burial goods created by exhumers. At HLAC, a similar pit of artifacts was encountered. The pit contained a gas stove, rice bowl and condiment fragments, stoneware crock and liquor bottle fragments, Euro-American dish fragments, bottle glass, Chinese wen, a leather hat, a marble grave marker and swing bail handles in two different designs, one of which had a Freemasons design. Like the pit at Virginiatown, the pit at HLAC appears to have been an accumulation of discarded grave goods created by the exhumers.

12. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The City of Los Angeles received deed to the ten acres of the public cemetery in 1879 but thereafter had no involvement in its operation. Evidence demonstrates that the County of Los Angeles operated the cemetery from 1880 forward although the County did not purchase the property until 1917. Burials of indigents are documented in Burial Registers beginning in 1880 and ending in 1922 when the County began to cremate indigents.

People who were not indigent but of limited financial means were also buried at the cemetery and were charged a fee that appears to have varied with age (children charged the least amount) and ethnicity (Chinese charged the maximum amount). A portion of the cemetery was used by the Chinese community to bury their dead beginning in 1885 and ending in 1922. Prior to use of HLAC, the Chinese buried their dead at Fort Moore Hill cemetery.

Record keeping at HLAC in the early years appears to have been casual, particularly in regard to Chinese burials. There are at least ten years (1885-95) when Chinese burials at HLAC were not documented by the caretakers at all and for many years thereafter the record is demonstrably incomplete.

Beautification of the cemetery grounds by grading to level it, removal of the head-boards, installation of concrete markers, installation of complete sewer and water systems, construction of buildings and retaining walls all appear to have negatively impacted the information that once existed at the cemetery. Any impacts on burials were not made part of the public record.

Compared to the racial composition of Los Angeles County at the time, Chinese are dramatically over-represented at the cemetery, blacks are represented proportionately and whites and foreign-born Hispanics are underrepresented. This must be partially due to the fact that native Californians of Mexican descent were classified as white before 1930 and were likely to have been preferentially buried in Catholic Cemeteries. The same factor is probably at work in the case of Hispanics (foreign-born Mexicans, per census classifications).

Lung diseases caused 35% of deaths. Of that total, 80% were from tuberculosis and 20% from pneumonia. Heart disease caused 10% of deaths and kidney disease 5%. Cancer, suicide, and accidents of all types (mostly railroad) caused 3% each. Infants died from stillbirth, failure to thrive and premature birth totaling 6%. The cemetery sample is dominated by young to middle aged adults, probably due to the incidence of tuberculosis.

Most of the disinterments were of Chinese burials so that the bones could be returned to the family in China. Disinterments were noted in the registers from 1897 to 1945 at HLAC. The count varies from year to year but the large numbers in 1937 represent many months of daily disinterments noted in County records and the local newspapers.

Human remains were recovered throughout the project area of impact but in three clusters with empty areas between them. 174 features or recoveries were documented including 2 cremations and 4 medical waste. 53 graves lacked bone due to disinterment or disintegration. In addition, isolated bones representing a minimum of 34 individuals were recovered. Most of these were limb bones shallowly buried without containers and represent medical waste from the County Hospital and local medical schools.

Numerous artifacts were recovered. The most abundant class was mortuary items such as coffin hardware. The second most abundant class was clothing represented largely by buttons. All other classes were minor by comparison. American and Chinese grave markers were few in number but provide some identifications. Chinese graves had many items constituting religious offerings of respect for the deceased. Prominent were food-related items such as rice bowls.

Recoveries were classified for analysis as Chinese based on the presence of Chinese artifacts and/or the determination of Asian ancestry of the skeletal remains. Chinese and non-Chinese burials were more similar than different in most regards except for the offerings in many Chinese graves. The bioarchaeological analysis demonstrated that the indigent non-Chinese had higher incidence of disease suggesting difficult lives and more exposure to disease and malnutrition than the Chinese population. However, the Chinese had a higher incidence of skeletal markers for childhood illness and malnutrition.

A similar burial ground for indigents, Chinese and medical waste at Golden Gate Cemetery in San Francisco had very few grave markers or grave goods but jewelry was much more prevalent and included religious jewelry. Evidence of access to health care was seen in 2% of individuals compared to 2.5% at HLAC. The lower frequency of cavities and tooth loss in life seems to suggest that the Asian population at HLAC had a different staple diet than the other historic Californian populations. Comparison to exclusively Chinese cemeteries north of Sacramento demonstrated many similarities to the Chinese graves at HLAC. They imply similarity of rituals and adaptation.

RECOMMENDATIONS

The City of Los Angeles should file archaeological site records for all known historic cemeteries within the city limits. This will ensure these resources are reported during record searches and included in assessments and impact analyses.

The County of Los Angeles should take immediate steps to remove all Board of Supervisors Minutes older than fifty years from record storage and transfer them to the County Library Rare Books section. The inability of the storage facility to locate the priceless, irreplaceable, original handwritten Minutes from the 1880s is a symptom of a larger problem. The County should also remove the original, handwritten Burial and Cremation Registers from the County Crematorium facility and transfer those to County Library Rare Books or the Norris Library Rare Books section. These records are also irreplaceable and are held in a building without fire sprinklers or adequate security. Finally, the County should appropriate funds to create digital images of the BOS Minutes for use by researchers. The Huntington Library or the Getty would be appropriate contractors for this work.

The County and State Board of Cemeteries and Funerals should require the owners of Evergreen Cemetery to make the map and all record information on the graves of HLAC that they covered with fill in the 1960s available to be included in the electronic database of the HLAC records being created by the Department of Health Services.

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