

# Archaeological Investigations for the Speedway-Main Monitoring Project and the Excavation of Seven Burials within the Court Street Cemetery, AZ BB:13:156 (ASM), Tucson, Pima County, Arizona

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No. 5 Cross.

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Technical Report No. 2012-17  
Desert Archaeology, Inc.

Cover: Casket Ornament Type 2, as illustrated in the circa 1880 Warfield & Rohr Company catalog.

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**Technical Report No. 2012-17**  
**Desert Archaeology, Inc.**

3975 N. Tucson Boulevard, Tucson, Arizona 85716 • November 2013



## ABSTRACT

Desert Archaeology, Inc., implemented an archaeological monitoring project for Pima County within the historic Court Street Cemetery, AZ BB:13:156 (ASM). Eleven locations within and adjacent to the cemetery were monitored during installation of a new plastic lining within the existing ceramic sewer pipes, first installed in the mid-1910s.

The Court Street Cemetery was established in 1875, on what was then the far north side of Tucson. It was envisioned as the final resting place for approximately 8,000-9,000 city residents. The cemetery was divided into sections, including areas for religious and fraternal organizations, as well as a non-secular area for city residents. The Catholic portion of the cemetery encompassed 50 percent of the total area. Efforts to enhance the physical appearance of the cemetery through landscaping and fencing of the different sections were thwarted by the lack of water for vegetation, a high caliche level, and overall apathy of city residents. As Tucson grew northward, the Catholic Church and the Tucson business community opted, in 1907, to open new cemeteries farther from town, to remove the burials already present, and to use the land for residential and commercial development. However, problems in relocating graves, the lack of interested relatives and friends, and the relatively high cost of exhuming the remains, made efforts to remove the burials difficult, and many bodies were left behind, although the exact number is unknown.

Since 1949, archaeologists have documented 48 burials in the Court Street Cemetery, including the 11 identified during the current project. During this project, 11 trenches were excavated to repair broken pipes, replace manhole covers, or to install new clean-outs. Human remains or burials were identi-

fied in five locations. Isolated human bone was found in one trench, likely representing a burial disturbed during the initial sewer pipe installation. Eleven graves were identified in four other trenches: seven were excavated by archaeologists, and four were left in place, as they were not being disturbed by the current utility project.

Three of the seven excavated burials had not been exhumed, with one burial heavily disturbed by the initial sewer construction. Four other burials had been exhumed between 1907 and 1916, but in each case, partial human remains, clothing items, and the coffin had been left behind. Analysis of the human remains identified men, women, and children. All appear to have been interred wearing clothing. One woman held a rosary in her hand, while a male had a glass-covered picture frame placed with him. Two of the burials lacked elaborate coffin hardware, in contrast with the other five. Many pieces of hardware could be matched to contemporary coffin hardware catalogs. Other human remains and coffin parts were recovered from the old sewer line trench back-dirt, indicating many other burials were disturbed by construction of the sewer system. All the remains and associated artifacts recovered during this project were from the Catholic portion of the cemetery.

Repairs and installation of new sewer, water, natural gas, and communication cable lines will take place within the boundaries of the Court Street Cemetery. Desert Archaeology, Inc., recommends all future utility work be monitored and the work be conducted under the conditions outlined in the Order Permitting Disinterment and Reinterment of Human Remains issued by the Superior Court of the State of Arizona in and for the County of Pima (Case No. C210120994).



# SHPO REPORT ABSTRACT

**DATE:** 8 November 2013

**REPORT TITLE:** *Archaeological Investigations for the Speedway-Main Monitoring Project and the Excavation of Seven Burials within the Court Street Cemetery, AZ BB:13:156 (ASM), Tucson, Pima County, Arizona.* Technical Report No. 2012-17, Desert Archaeology, Inc.

**CLIENT:** Pima County

**CLIENT PROJECT TITLE:** Speedway to Main Sewer Monitoring Project

**PROJECT DESCRIPTION:** Aging ceramic sewer pipes, installed beginning in 1916, have started to fail within the boundaries of the Court Street Cemetery. Bounded by W. Speedway Boulevard on the north, N. Stone Avenue on the east, W. 2nd Street on the south, and N. Main Avenue on the west, the Court Street Cemetery was used between 1875 and 1909, and was the location of approximately 8,000-9,000 burials. While many burials were exhumed between 1907 and 1915, and moved to Holy Hope and Evergreen cemeteries, the majority appear to have been left in place. Pima County decided to line the existing pipes with a cured-in-place plastic liner. Eleven areas were excavated to repair damaged pipes, install new clean-outs, and repair or construct new manholes. Final Disposition of project artifacts, field notes, data, and records: All project field forms, maps, and digital photographs are curated at the Arizona State Museum as Accession 2012-322. The human remains and associated artifacts have been turned over to the Arizona State Museum for future repatriation by the Catholic Diocese of Tucson.

**AGENCY:** Pima County

**PROJECT NUMBER:** DAI Project No. 12-104

**LAND STATUS:** City of Tucson Right-of-way (ROW)

**LOCATION:**

**Land Ownership:** City of Tucson

**County:** Pima

**Description:** Section 12, Township 13 South, Range 14 East on the USGS 7.5 minute topographic quad Tucson, Arizona (AZ BB:13 [NW]).

**APPLICABLE PERMIT NUMBERS, APPLICABLE LAWS/REGULATIONS:** Arizona Antiquities Act Project Specific Permit (2012-099ps), Arizona State Museum Burial Agreement 2012-20. Arizona State Museum Accession Number 2012-322. Arizona Historic Preservation Act; Arizona Antiquities Act; State Burial Act, ARS 41-844.

**DATES OF FIELDWORK:** 2 October 2012-16 November 2012

**SUMMARY AND CONCLUSIONS:** Human bone or burials were found in five locations. Eleven graves were identified. Seven burials were excavated, with four others left in place, as they were not going to be disturbed by the work. Additional human remains, associated clothing items, and coffin hardware were recovered from the original sewer trench backdirt, indicating that numerous burials were disturbed during the initial sewer pipe installation. Of the seven excavated burials, four had been exhumed in the 1907-1915 time span, but in each case, partial human remains, clothing items, and coffins were left behind. Three complete burials were excavated, although one had been severely impacted by the original sewer line work.

It is recommended that all future subsurface utility work within the boundaries of the Court Street Cemetery be monitored by a qualified archaeologist. If human remains are located in the future, work should be immediately halted and the Arizona State Museum Repatriation Coordinator be contacted as required by Arizona Revised Statute § 41-844, and that the protocols outlined in the Order Permitting

Disinterment and Reinterment of Human Remains be followed (Case No. C20120994, by the Superior Court of the State of Arizona for Pima County, dated 2 April 2012).

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## ACKNOWLEDGMENTS

The Speedway to Main Monitoring project was conducted for the Pima County Cultural Resources and Historic Preservation Office, with Roger Anyon providing project oversight. Jonathan Mabry, Historic Preservation Office in the Tucson Historic Preservation Office, procured the Court Order for Disinterment and Interment under which the project was conducted. K E & G Construction, Inc., personnel assisted during the fieldwork.

The field crew, under the direction of Homer Thiel, included Robert Ciaccio, Mario Arechederra, Tyler Theriot, Allen Denoyer, Rachel Byrd, and Alex Tuggle. Artifacts were processed in the laboratory

by Lisa Eppley and Susan Blair. Robert Ciaccio photographed the recovered artifacts. Tyler Theriot and Susan Hall prepared maps. James Watson conducted the osteological analyses. Michael Diehl identified coffin wood species. Jeremy Pye of the University of Florida identified the coffin hardware. Sara Lely entered information into a computer database. Emilee Mead edited the report, which was formatted by Donna Doolittle.

William Doelle served as Principal Investigator for the project. Patricia Castalia, Jean Kramer, and Val Hintze provided operational support.



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## THE COURT STREET CEMETERY

*J. Homer Thiel  
Desert Archaeology, Inc.*

Desert Archaeology, Inc., personnel conducted archaeological monitoring and burial excavation within and adjacent to the historic Court Street Cemetery, AZ BB:13:156 (ASM), in October and November of 2012. Ceramic sewer pipes located throughout the former cemetery, some installed as early as 1916, are beginning to crack and fail. Pima County decided to reline the pipes with a cured-in-place plastic lining rather than conduct extensive excavation, removal, and replacement of the existing pipes. During the course of repair work, 11 trenches were opened to repair cracked pipe, to repair or build manhole covers, and to install new clean-outs. Human remains and burials were located in five of the trenches. Archaeologists excavated seven burials, leaving four other burials in place after it was determined that they would not be disturbed by the utility work. Trench backdirt was screened at three locations, recovering human remains, clothing items, and coffin wood and hardware from burials disturbed during the original sewer trench excavation. During the excavation of the modern trenches by the contractors overseeing the sewer project, KE&G Construction, grave shafts and human burials in coffins were discovered. Screening of backdirt from the original sewer trench, excavated in the late 1910s, resulted in the recovery of disturbed human remains and coffin hardware.

All grave shafts encountered within the Court Street Cemetery once contained human burials. In all cases where shafts have been excavated by archaeologists, some combination of human remains, coffin hardware, clothing remnants, and personal effects have been encountered, even where the body had been exhumed during the timespan when bodies were moved to Evergreen or Holy Hope Cemeteries, from 1907 to 1916. As a result, all grave shafts found during the current project were given sequential feature numbers and are considered to be burials. Thirty-seven burials have previously been identified by archaeologists within the cemetery. The 11 grave shafts and burials identified during the current project were numbered Features 38 through 48. During the construction of the sewer system in 1916, numerous burials were cut through, and human bone, clothing remnants, or coffin hardware were redeposited in the original trench as it was filled up. During the current project, most of the human bone

and coffin hardware located in the disturbed trench fill could not be associated with the identified burials. As is typical during archaeological projects, the isolated, unassociated bone and hardware were not assigned separate feature numbers if they could not be associated with a specific burial.

Fieldwork was conducted under Arizona Antiquities Act Project Specific Permit 2012-099ps and Arizona State Museum Burial Permit 2012-020. Work was conducted under the protocols established by an Order Permitting Disinterment and Reinterment of Human Remains, issued by the Superior Court of the State of Arizona in and for the County of Pima on 2 April 2012 (Case No. C20120994). The archaeological fieldwork was conducted using the Pima County Monitoring Plan, which received concurrence from the Arizona State Historic Preservation Office on 15 October 2010, as well as the City of Tucson Monitoring Plan (O'Mack and Boley 2010; thiel 2012b). In total, 11 supervisory and 18 non-supervisory person-days were spent monitoring the work, screening trench backdirt, and excavating burials. Field notes, maps, analysis records, and digital photographs are curated at the Arizona State Museum (ASM) as Accession Number 2012-322. The human remains and associated artifacts were turned over to the Arizona State Museum on 18 February 2013, for future repatriation. At the time of the publication of this report, the final disposition of the remains has not been determined.

### PROJECT LOCATION AND DESCRIPTION

The historic Court Street Cemetery was bounded by W. Speedway Boulevard on the north, N. Stone Avenue on the east, W. 2nd Street on the south, and N. Main Avenue on the west (Figure 1.1). The project area consists of 11 separate locations in Section 12 of Township 14 South, Range 13 East, in Tucson, Pima County, Arizona (Figure 1.2). All the trench locations were located within either streets or alleys.

The overall project area averages 2,379 ft above sea level. The cemetery likely had typical desert vegetation when it was created. Through time, some attempts at landscaping were made, including the drilling of wells to provide water for trees. After the

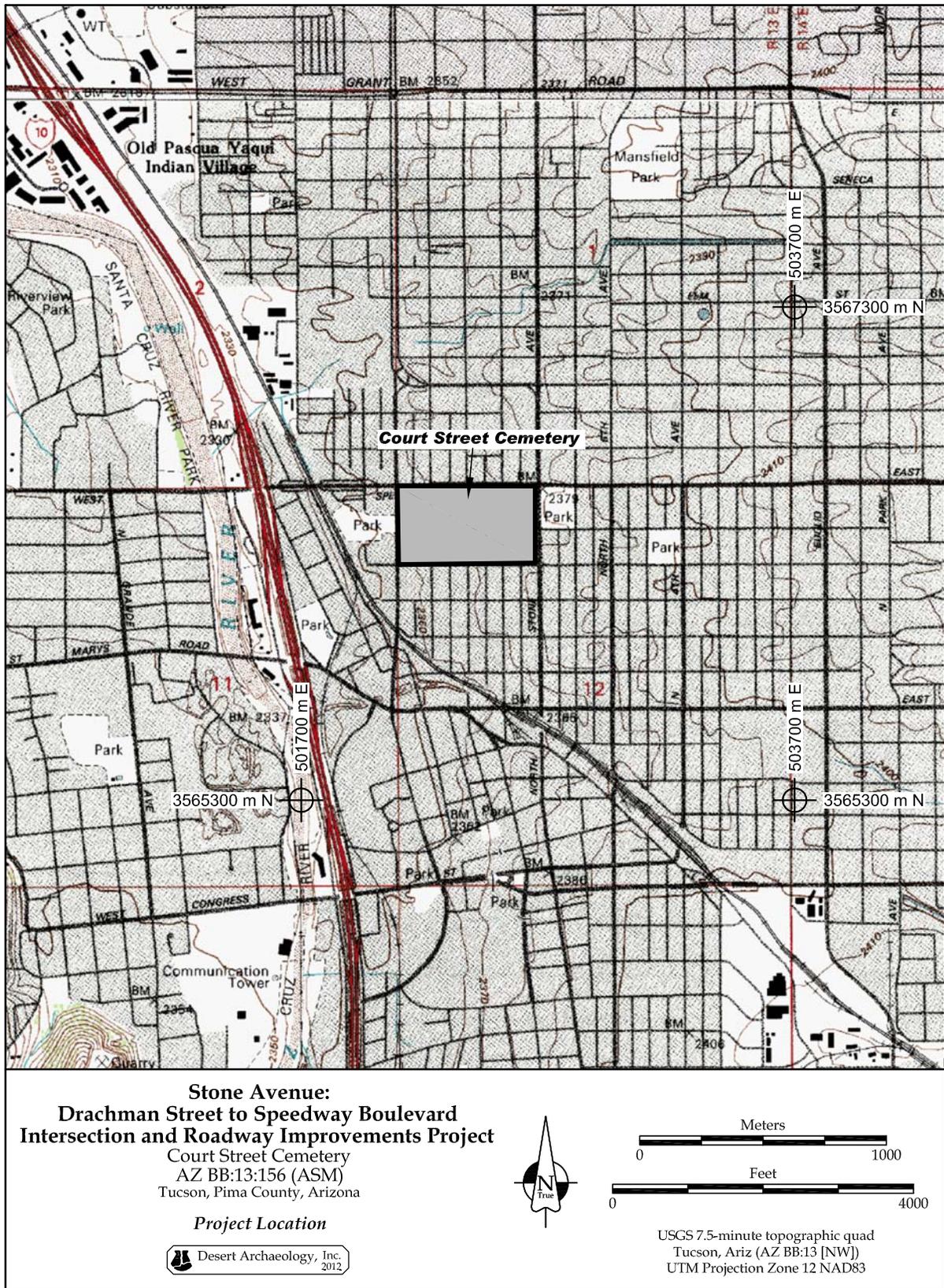


Figure 1.1. Reproduction of USGS 7.5-minute topographic quad Tucson, Ariz. (AZ BB:13:[NW]), showing location of the Court Street Cemetery, AZ BB:13:156 (ASM).

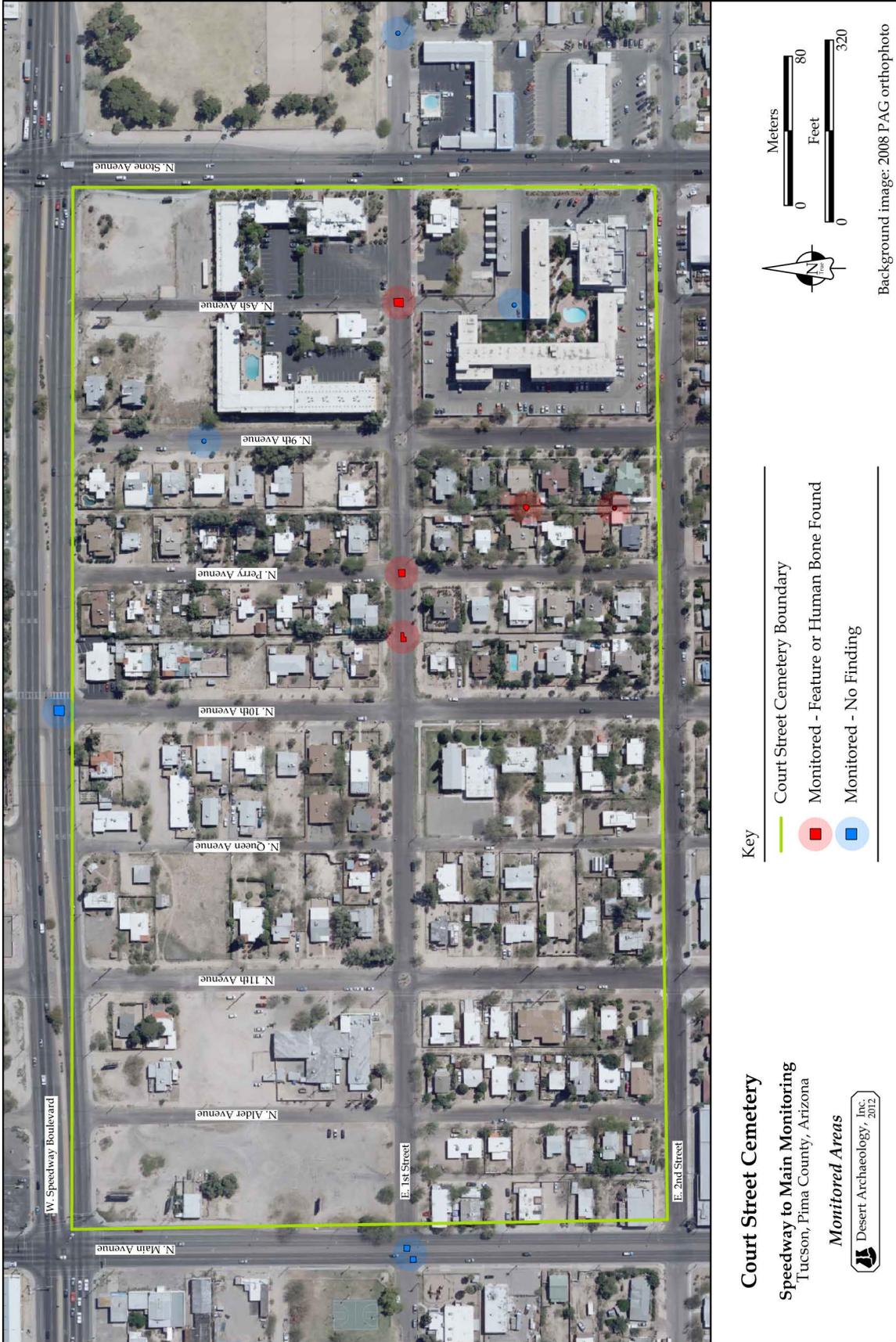


Figure 1.2. Location of trenches monitored within the Court Street Cemetery, AZ BB:13:156 (ASM), for the Speedway to Main Sewer project. (Note that the "Monitored-No Finding" area on E. 1st Street contains two separate locations.)

cemetery was abandoned and the land sold to developers, the area saw extensive leveling, in an attempt to flatten house lots and street surfaces. In some portions, especially along the eastern side of the modern blocks, several feet of soil and caliche were removed and deposited on the western side of the blocks. Currently, some 90 residences, a hotel, an apartment building, several other businesses, and a Salvation Army facility are present within the cemetery boundaries.

## CULTURAL BACKGROUND OF THE PROJECT AREA

The history of the Greater Southwest and of the Tucson Basin is marked by a close relationship between people and the natural environment. Environmental conditions have strongly influenced subsistence practices and social organization, and social and cultural changes have, in turn, made it possible to more efficiently exploit environmental resources. Through time, specialized adaptations to the arid region distinguished people living in the Southwest from those in other areas. Development of cultural and social conventions also became more regionally specific, and by A.D. 650, groups living in the Tucson Basin can be readily differentiated from those living in other areas of the Southwest. Today, the harsh desert climate no longer isolates Tucson and its inhabitants, but life remains closely tied to the unique resources of the Southwest. The chronology of the Tucson Basin is summarized in Table 1.1.

### Paleoindian Period (11,500?-7500 B.C.)

Archaeological investigations suggest the Tucson Basin was initially occupied some 13,000 years ago, a time much wetter and cooler than today. The Paleoindian period is characterized by small, mobile groups of hunter-gatherers who briefly occupied temporary campsites as they moved across the countryside in search of food and other resources (Cordell 1997:67). The hunting of large mammals, such as mammoth and bison, was a particular focus of the subsistence economy. A Clovis point characteristic of the Paleoindian period (circa 9500 B.C.) was collected from the Valencia site, AZ BB:13:74 (ASM), located along the Santa Cruz River in the southern Tucson Basin (Doelle 1985:183-184). Another Paleoindian point was found in Rattlesnake Pass, in the northern Tucson Basin (Huckell 1982). These rare finds suggest prehistoric use of the Tucson area probably began at this time. Paleoindian use of the Tucson Basin is supported by archaeological investigations in the nearby San Pedro Val-

ley and elsewhere in southern Arizona, where Clovis points have been discovered in association with extinct mammoth and bison remains (Huckell 1993, 1995). However, because Paleoindian sites have yet to be found in the Tucson Basin, the extent and intensity of this occupation are unknown.

### Archaic Period (7500-2100 B.C.)

The transition from the Paleoindian period to the Archaic period was accompanied by marked climatic changes. During this time, the environment came to look much like it does today. Archaic period groups pursued a mixed subsistence strategy, characterized by intensive wild plant gathering and the hunting of small animals. The only Early Archaic period (7500-6500 B.C.) site known from the Tucson Basin is found in Ruelas Canyon, south of the Tortolita Mountains (Swartz 1998:24). However, Middle Archaic period sites dating between 3500 and 2100 B.C. are known from the bajada zone surrounding Tucson, and, to a lesser extent, from floodplain and mountain areas. Investigations conducted at Middle Archaic period sites include excavations along the Santa Cruz River (Gregory 1999), in the northern Tucson Basin (Roth 1989), at the La Paloma development (Dart 1986), and along Ventana Canyon Wash and Sabino Creek (Dart 1984; Douglas and Craig 1986). Archaic period sites in the Santa Cruz floodplain were found to be deeply buried by alluvial sediments, suggesting more of these sites are present, but undiscovered, due to the lack of surface evidence.

### Early Agricultural Period (2100 B.C.-A.D. 50)

The Early Agricultural period, previously identified as the Late Archaic period, was the period when domesticated plant species were first cultivated in the Greater Southwest. The precise timing of the introduction of cultigens from Mexico is not known, although direct radiocarbon dates on maize indicate it was being cultivated in the Tucson Basin and several other parts of the Southwest by 2100 B.C. (Mabry 2008). By at least 400 B.C., groups were living in substantial agricultural settlements in the floodplain of the Santa Cruz River. Recent archaeological investigations suggest canal irrigation also began sometime during this period.

Several Early Agricultural period sites are known from the Tucson Basin and its vicinity (Diehl 1997; Ezzo and Deaver 1998; Freeman 1998; Gregory 2001; Huckell and Huckell 1984; Huckell et al. 1995; Mabry 1998, 2008; Roth 1989). While there is variability among these sites, due to the 2,150 years included in the period, all excavated sites to date contain

**Table 1.1.** Periods, phases, and chronology of the Santa Cruz Valley-Tucson Basin.

Era/Period	Phase	Date Range
Historic		
American Statehood	-	A.D. 1912-present
American Territorial	-	A.D. 1856-1912
Mexican	-	A.D. 1821-1856
Spanish	-	A.D. 1694-1821
Protohistoric	-	A.D. 1450-1694
Prehistoric		
Hohokam Classic	Tucson	A.D. 1300-1450
	Tanque Verde	A.D. 1150-1300
Hohokam Sedentary	Late Rincon	A.D. 1100-1150
	Middle Rincon	A.D. 1000-1100
	Early Rincon	A.D. 950-1000
Hohokam Colonial	Rillito	A.D. 850-950
	Cañada del Oro	A.D. 750-850
Hohokam Pioneer	Snaketown	A.D. 700-750
	Tortolita	A.D. 500-700
Early Ceramic	Late Agua Caliente	A.D. 350-500
	Early Agua Caliente	A.D. 50-350
Early Agricultural	Late Cienega	400 B.C.-A.D. 50
	Early Cienega	800-400 B.C.
	San Pedro	1200-800 B.C.
	(Unnamed)	2100-1200 B.C.
	Chiricahua	3500-2100 B.C.
Archaic	(Occupation gap?)	6500-3500 B.C.
	Sulphur Springs-Ventana	7500-6500 B.C.
Paleoindian		11,500?-7500 B.C.

small, round, or oval semisubterranean pithouses, many with large internal storage pits. At some sites, a larger round structure is also present, which is thought to be for communal or ritual purposes.

Stylistically distinctive Cienega, Cortaro, and San Pedro type projectile points are common at Early Agricultural sites, as are a range of ground stone and flaked stone tools, ornaments, and shell jewelry (Diehl 1997; Mabry 1998). The fact that shell and some of the material used for stone tools and ornaments were not locally available in the Tucson area suggests trade networks were operating. Agriculture, particularly the cultivation of corn, was important in the diet, and it increased in importance through time. However, gathered wild plants, such as tansy mustard and amaranth seeds, mesquite seeds and pods, and agave hearts, were also frequently used resources. As in the preceding Archaic period, the hunting of animals such as deer, cottontail rabbits, and jackrabbits, continued to provide an important source of protein.

#### Early Ceramic Period (A.D. 50-500)

Although ceramic artifacts, including figurines and crude pottery, were first produced in the Tuc-

son Basin during the Early Agricultural period (Heidke and Ferg 2001; Heidke et al. 1998), the widespread use of ceramic containers marks the transition from the Early Agricultural period to the Early Ceramic period (Huckell 1993). Undecorated plain ware pottery was widely used in the Tucson Basin by about A.D. 50, marking the start of the Early Agua Caliente phase (A.D. 50-350).

Architectural features became more formalized and substantial during the Early Ceramic period, representing a greater investment of effort in construction, and perhaps more permanent settlement. A number of pithouse styles are present, including small, round, and basin-shaped houses, as well as slightly larger subrectangular structures. As during the Early Agricultural period, a class of significantly larger structures may have functioned in a communal or ritual manner.

Reliance on agricultural crops continued to increase, and a wide variety of cultigens, including maize, beans, squash, cotton, and agave, were an integral part of the subsistence economy. Populations grew as farmers expanded their crop production to floodplain land near permanently flowing streams, and it is assumed that canal irrigation systems also expanded. Evidence from archaeological excavations indicates trade in shell, turquoise, ob-

sidian, and other materials intensified and that new trade networks developed.

### **Hohokam Sequence (A.D. 500-1450)**

The Hohokam tradition developed in the deserts of central and southern Arizona sometime around A.D. 500, and is characterized by the introduction of red ware and decorated ceramics: red-on-buff wares in the Phoenix Basin and red-on-brown wares in the Tucson Basin (Doyel 1991; Wallace et al. 1995). Red ware pottery was introduced to the ceramic assemblage during the Tortolita phase (A.D. 500-700). The addition of a number of new vessel forms suggests that, by this time, ceramics were utilized for a multitude of purposes.

Through time, Hohokam artisans embellished this pottery with highly distinctive geometric figures and life forms, such as birds, humans, and reptiles. The Hohokam diverged from the preceding periods in several other important ways: (1) pit-houses were clustered into formalized courtyard groups, which, in turn, were organized into larger village segments, each with their own roasting area and cemetery; (2) new burial practices appeared (cremation instead of inhumation), in conjunction with special artifacts associated with death rituals; (3) canal irrigation systems were expanded, and, particularly in the Phoenix Basin, represented huge investments of organized labor and time; and, (4) large communal or ritual features, such as ballcourts and platform mounds, were constructed at many village sites.

The Hohokam sequence is divided into the pre-Classic (A.D. 500-1150) and the Classic (A.D. 1150-1450) period. At the start of the pre-Classic, small pithouse hamlets and villages were clustered around the Santa Cruz River. However, beginning about A.D. 750, large, nucleated villages were established along the river or its major tributaries, with smaller settlements in outlying areas serving as seasonal camps for functionally specific tasks, such as hunting, gathering, or limited agriculture (Doelle and Wallace 1991). At this time, large, basin-shaped features with earthen embankments, called ballcourts, were constructed at a number of the riverine villages. Although the exact function of these features is unknown, they probably served as arenas for playing a type of ball game, as well as places for holding religious ceremonies and for bringing different groups together for trade and other communal purposes (Wilcox 1991; Wilcox and Sternberg 1983).

Between A.D. 950 and 1150, Hohokam settlement in the Tucson area became even more dispersed, with people utilizing the extensive bajada zone, as well as the valley floor (Doelle and Wallace 1986). An increase in population is apparent, and both functionally specific seasonal sites, as well as more per-

manent habitations, were now situated away from the river; however, the largest sites were still on the terraces just above the Santa Cruz. There is strong archaeological evidence for increasing specialization in ceramic manufacture at this time, with some village sites producing decorated red-on-brown ceramics for trade throughout the Tucson area (Harry 1995; Heidke 1988, 1996; Huntington 1986).

The Classic period is marked by dramatic changes in settlement patterns, and possibly in social organization. Aboveground adobe compound architecture appeared for the first time, supplementing, but not replacing, the traditional semisubterranean pithouse architecture (Haury 1928; Wallace 1995). Although corn agriculture was still the primary subsistence focus, extremely large Classic period rock-pile field systems associated with the cultivation of agave have been found in both the northern and southern portions of the Tucson Basin (Doelle and Wallace 1991; Fish et al. 1992).

Platform mounds were also constructed at several Tucson Basin villages sometime around A.D. 1275-1300 (Gabel 1931). These features are found throughout southern and central Arizona, and consist of a central structure that was deliberately filled to support an elevated room upon a platform. The function of the elevated room is unclear; some were undoubtedly used for habitation, while others may have been primarily ceremonial. Building a platform mound took organized and directed labor, and the mounds are thought to be symbols of a socially differentiated society (Doelle et al. 1995; Elson 1998; Fish et al. 1992; Gregory 1987). By the time platform mounds were constructed, most smaller sites had been abandoned, and Tucson Basin settlement was largely concentrated at only a half-dozen large, aggregated communities. Recent research has suggested that aggregation and abandonment in the Tucson area may be related to an increase in conflict, and possibly warfare (Wallace and Doelle 1998). By A.D. 1450, the Hohokam tradition, as presently known, disappeared from the archaeological record.

### **Protohistoric Period (A.D. 1450-1694)**

Little is known of the period from A.D. 1450, when the Hohokam disappeared from view, to A.D. 1697, when Father Kino first traveled to the Tucson Basin (Doelle and Wallace 1990). By that time, the Tohono O'odham were living in the arid desert regions west of the Santa Cruz River, and groups who lived in the San Pedro and Santa Cruz valleys were known as the Sobaipuri (Doelle and Wallace 1990; Masse 1981). Both groups spoke the O'odham language, and, according to historic accounts and archaeological investigations, lived in oval jacal surface dwellings rather than pithouses. One of the

larger Sobaipuri communities was located at Bac, where the Spanish Jesuits, and later the Franciscans, constructed the mission of San Xavier del Bac (Huckell 1993; Ravesloot 1987). However, due to the paucity of historic documents and archaeological research, little can be said regarding this inadequately understood period.

### **Spanish and Mexican Periods (A.D. 1694-1856)**

Spanish exploration of southern Arizona began at the end of the seventeenth century A.D. Early Spanish explorers in the Southwest noted the presence of Native Americans living in what is now the Tucson area. These groups comprised the largest concentration of population in southern Arizona (Doelle and Wallace 1990). In 1757, Father Bernard Middendorf arrived in the Tucson area, establishing the first local Spanish presence. Fifteen years later, the construction of the San Agustín Mission near a Native American village at the base of A-Mountain was initiated, and by 1773, a church was completed (Dobyns 1976:33).

In 1775, the site for the Presidio of Tucson was selected on the eastern margin of the Santa Cruz River floodplain. In 1776, Spanish soldiers from the older presidio at Tubac moved north to Tucson, and construction of defensive and residential structures began. The Presidio of Tucson was one of several forts built to counter the threat of Apache raiding groups, who had entered the region at about the same time as the Spanish (Thiel et al. 1995; Wilcox 1981). Spanish colonists arrived soon afterwards to farm the relatively lush banks of the Santa Cruz River, to mine the surrounding hills, and to graze cattle. Many indigenous settlers were attracted to the area by the availability of Spanish products and the relative safety provided by the presidio. The Spanish and Native American farmers grew corn, wheat, and vegetables, and cultivated fruit orchards, and the San Agustín Mission was known for its impressive gardens (Williams 1986).

In 1821, Mexico gained independence from Spain, and Mexican settlers continued farming, ranching, and mining activities in the Tucson Basin. By 1831, the San Agustín Mission had been abandoned (Elson and Doelle 1987; Hard and Doelle 1978), although settlers continued to seek the protection of the presidio walls.

### **American Period (1856-Present)**

Through the 1848 settlement of the Mexican-American War and the 1853 Gadsden Purchase, Mexico ceded much of the Greater Southwest to the United States, establishing the international bound-

ary at its present location. The U.S. Army constructed its first outpost in Tucson in 1856, and, in 1873, founded Fort Lowell at the confluence of the Tanque Verde Creek and Pantano Wash, to guard against continued Apache raiding.

Railroads arrived in Tucson and the surrounding areas in the 1880s, opening the floodgates of Anglo-American settlement. With the surrender of Geronimo in 1886, Apache raiding ended, and settlement in the region boomed. Local industries associated with mining and manufacturing continued to fuel growth, and the railroad supplied the Santa Cruz River valley with the commodities it could not produce locally. Meanwhile, homesteaders established numerous cattle ranches in outlying areas, bringing additional residents and income to the area (Mabry et al. 1994).

By the turn of the twentieth century, municipal improvements to water and sewer service, as well as the eventual introduction of electricity, made life in southern Arizona more hospitable. New residences and businesses continued to appear within an ever-widening perimeter around Tucson, and city limits stretched to accommodate the growing population. Tourism, the health industry, and activities centered around the University of Arizona and Davis-Monthan Air Force Base contributed significantly to growth and development in the Tucson Basin in the twentieth century (Sonnichsen 1982).

### **PREVIOUS HISTORIC CEMETERIES IN TUCSON**

Four historic cemeteries are known to have been used in the downtown Tucson area prior to 1875. The San Agustín Mission, located on the floodplain west of the Santa Cruz River near the base of A-Mountain, was established at an existing Piman village. A church was constructed at the site in the 1750s, and the mission complex was extensively remodeled in the late 1790s. Two cemeteries were present in the mission complex. The cemetery on the western side of the church was reserved for people of European ancestry, and the second cemetery along the interior of the northern side of the walled compound was the location of Native American burials (Hard and Doelle 1978; Thiel and Mabry 2006).

A protohistoric or perhaps early historic period Native American cemetery is located in the vicinity of W. 17th Street and S. 9th Avenue. At least three burials were located in 1954, during work on sewer lines. Two additional burials were found in 1995, during gas line replacement, a third during a home sewer installation, and two more in 2007, during utility work related to home construction. The burials are flexed, several have red ochre staining, the bones have a "fresh" appearance, and the individu-

als have both Native American and mixed Native American-Hispanic ancestry (Thiel and McClelland 2007; Thiel et al. 1997).

The Presidio San Agustín del Tucson was established in 1775, and a cemetery was located around and within the presidial chapel located on the eastern side of the fort, today beneath W. Alameda Street and adjoining areas west of N. Church Avenue. Burials were excavated in the cemetery in 1969, 1970, and 1991. Individuals were buried extended with their heads to the east or west, with more recent burials cutting through older burials, and the disturbed bones stacked up at the foot end of the new graves. Most individuals were not buried wearing clothing. Several children had wreaths of artificial flowers at their heads, represented by C-shaped pieces of copper wire. No coffins were used (Thiel et al. 1995).

The Alameda-Stone Cemetery, also called the National Cemetery, contained a military area, in use from 1862 to 1881, and a civilian area, probably used from the mid- to late 1850s until 1875. A large portion of the cemetery was excavated in 2007-2008, by Statistical Research, Inc., prior to construction of the Pima County Joint Courts. Archaeologists located 1,083 burial pits, which contained 1,006 burials, with the remains of 1,338 individuals. Between 1,800 and 2,200 burials were likely originally in the cemetery. Construction of the Tucson Newspaper building basement in the 1950s, within the southwestern corner of the cemetery, destroyed an unknown number of burials. Most of the burials in the cemetery were inside coffins ( $n = 909$ ), which were hexagonal (shouldered), rectangular, and trapezoidal (wider at head, narrower at feet) in shape. Most individuals were buried wearing clothing, represented by buttons, rivets, cloth, belts, shoes, and other items (Heilen et al. 2010). The civilian portion was closed at the end of May 1875, and the cemetery was subsequently developed for residential housing.

## THE COURT STREET CEMETERY

The Court Street Cemetery was established in 1875, on the northern outskirts of town (Figure 1.3). The cemetery was bounded on the west by N. Main Avenue, on the east by N. Stone Avenue, on the south by W. 2nd Street, and on the north by W. Speedway Boulevard. The Common Council of the Village of Tucson met on 18 May 1875, to plan the cemetery, whose location had been selected by the Committee on Cemeteries.

At a special meeting of the Common Council of the Village of Tucson, held on the 18<sup>th</sup> of May, 1875, it was Resolved, that on and after the 1<sup>st</sup> day of June, 1875, the new Cemetery will be open for the

burial of the dead, and that from said date no more interments will be permitted in the old cemetery. By order of the Council, C. H. Meyers, Recorder (*Arizona Daily Citizen* 1875).

The Common Council passed a resolution that established Blocks 8, 9, 14, and 15 (east of 10th Avenue) as the Catholic Church cemetery and Blocks 10, 11, 12, and 13 (west of 10th Avenue) for non-Catholics (Wallace n.d.).

When it was established and during its use, the cemetery did not have an official name. It later became known as the Court Street Cemetery, in reference to the north-south street dividing the cemetery. Today, this street is N. 10th Avenue. Burials within the cemetery began on 1 June 1875. The eastern half of the cemetery was the Catholic Cemetery, and the eastern half of the western half was the City Cemetery, although it was also called the Citizen's, County, Protestant, or Public Cemetery. Within the western half of the cemetery were smaller plots maintained by local organizations, including Negley Post No. 1 of the Grand Army of the Republic (GAR), the Tucson Volunteer Fire Department, the Independent Order of B'nai B'rith (IOBB), Pima Lodge No. 3 of the Independent Order of Odd Fellows (IOOF), Lodge 4 of the Ancient Free and Accepted Masons (AF & AM), the Tucson Lodge No. 9 of the Knights of Pythias, the Hall of Apache Lodge No. 8 of the Ancient Order of the United Workmen (AOUW), and Pima Lodge 10 of the Improved Order of Red Men. These plots appear to have been assigned in chronological order, beginning with the firemen, probably in 1875, and ending with the Red Men in 1898.

The initial appearance of the cemetery concerned some Tucson residents.

There is more or less complaint about the appearance and management or utter lack of management of the new burying ground north of town. It is represented that our departed friends are, to use homely and pointed language, "planted promiscuously." We have been to the ground a number of times and our impression is that such is the case. There is a portion of the ground occupied by the Catholic church and there they lay away their dear friends, perhaps with some order in arrangement of the respective believers graves. Outside of this, it seems to us, the dead are buried as chance or momentary choice may dictate the location. This is wrong. Everything in death as in life should be done decently and in order. Economy is a good thing but don't let it commence with the dead, for whom there is nothing left but a decent burial (*Arizona Weekly Citizen* 1876:3).

The editorial continues with a recommendation to survey the cemetery to establish lots and the creation of avenues.

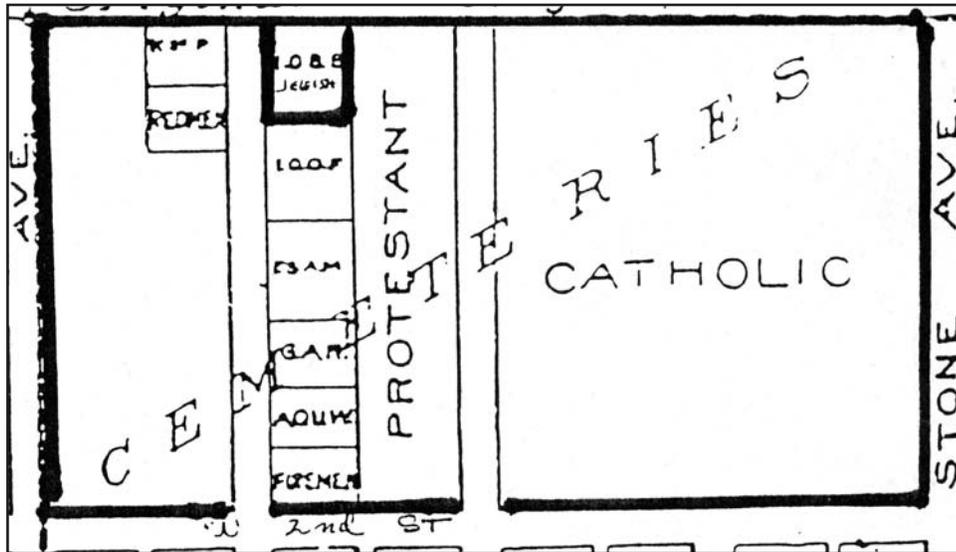


Figure 1.3. A 1905 map of the Court Street Cemetery, AZ BB:13:156 (ASM).

By 1877, editorials further suggested that leading residents thought the Court Street Cemetery was an eyesore and a nuisance. The *Arizona Weekly Citizen* (1877:3) reported:

The present cemetery is a drear bleak, desolate place and I deem it cruelty in the highest degree to compel parents, kindred and friends to entomb and take final leave of their dear departed ones in so drear and desolate place.

The author suggested that a new cemetery be laid out northeast of the city, in an area where trees and shrubs were present.

A Spanish language newspaper reported,

The cemetery is a disgrace. Coyotes dig up bodies and animals destroy tombs and the dirt is incredibly hard. It is terrible that our loved ones should have to rest in peace in this manner. We ask our bankrupt City Council to build a wall around our cemetery (*Las Dos Republicas* 1878:3:2).

The Mayor was directed to contract with W. O'Sullivan to place posts around the cemetery in May 1879, as a cost not exceeding \$1.50 per post (*Daily Arizona Citizen* 1879). Apparently, he worked too slow, and the Council subsequently ordered O'Sullivan to complete his contract as soon as possible (*Arizona Weekly Star* 1879). He eventually received \$112 for the work (*Arizona Citizen* 1879).

In February 1883, there was, "a great deal of complaint against parties unknown for their damnable practice in making targets of the head boards on the graves in the new cemetery. Such outrages deserve severe punishment" (*Arizona Daily Star* 1883).

It was written that:

The Cemetery Committee reported the following [part-time] Sexton's fees: For digging graves for persons over twelve years of age, \$4; under twelve years, \$3; any party may dig a grave for a relative or friend, under the supervision of the Sexton, for \$1. Adopted (*Arizona Weekly Citizen* 1883a:3).

Following the death of his daughter Annie,

Mr. Pedro Charouleau who recently had the misfortune to lose his little daughter, is building a family vault for the reception of her remains. The vault will be of cut stone and iron, and will be the first of this kind ever built in this country (*Arizona Daily Star* 1884:4).

In August 1885, the City Council was asked to provide a sexton for the cemetery. The city declined, stating it did not have funds to build the sexton a house to live in or to pay wages (*Arizona Daily Star* 1885). No full-time sexton was hired.

Tucson residents attended Memorial Day ceremonies at the cemetery in the 1880s. These ceremonies were sponsored by Negley Post No. 1 of the GAR, the local Civil War Union soldiers' group. Graves were decorated, and a procession marched to the cemetery. Included in the procession were troops from Fort Lowell, the fire department, Confederate soldiers, Union soldiers, the volunteer firemen, a floral wagon, citizens in carriages, and a "floral Committee of Ladies" (*Arizona Daily Star* 1889c). The GAR plot was marked by a large iron arch with the letters GAR in the center (MS 790, Arizona Historical Society). Fifteen headstones were placed on the graves of soldiers in early 1891 (*Prescott Morning Courier* 1891).

Other groups enhanced the cemetery. Dolores Aguirre de Samaniego raised money to erect a

wooden arch (*enverjado*) at the Catholic Cemetery (*El Fronterizo* 1887). The fire department attempted to raise money to place a fence around its lot in 1889 (*Arizona Daily Star* 1889a). The City of Tucson paid Mr. Babcock \$180 to build a fence around the City Cemetery (*Arizona Daily Star* 1889b). The last unfenced plot was the Masons, and in 1890, the Masonic fraternity enclosed their burial area with a redwood post fence. The entrance to their lot, which measured some 179 ft by 22 ft, was marked by a 10-ft-tall, 12-ft-wide gate. (*Arizona Daily Star* 1890).

In January 1890, the Pima County Board of Supervisors selected the Smith Brothers undertaking parlor to bury indigent dead from St. Mary's Hospital and Tucson, the dead to be placed in plain coffins (*Arizona Citizen* 1890).

Problems occasionally arose over use of the cemetery.

Violent acts have been committed against the gravedigger at the Catholic Cemetery by people wishing to bury their dead without following rules. The most recent incident, trying to force the gravedigger to bury someone at an inopportune time of the night. Acts that provoke order, morals and good education should not be committed over the graves of the dead (*El Fronterizo* 1892b:3:2).

The following week, the same paper reported that the police were investigating vandalism after the metal cross on Jesús Montaña's headstone was broken off and a vase smashed. "Those who don't respect the sacred place where the dead lay, show their most perverted sentiments" (*El Fronterizo* 1892a:3:3).

"There is some complaint about the bad smells that arise from the Old City Cemetery, and as the city is growing in that direction it is very likely that the council will be petitioned to move the burial grounds a few miles further east" (*Arizona Weekly Citizen* 1893b:4).

In 1902, city residents complained about the desert landscaping of the cemetery, "Cemeteries are weird enough at any stage of the game, but especially so without foliage of some sort" (*Tucson Citizen* 1902:5). The newspaper suggested a water main be extended to the cemetery so the area could be watered and a lawn planted. It was noted that, "The ground was not good for growing grass and trees and the appearance of the place has been unsightly" (*Tucson Daily Star* 1907:5).

Tucson grew steadily northward, and some members of the Tucson Council began to discuss moving the cemetery away from the edge of town, claiming that it depreciated city property and further, that the Court Street Cemetery was not large enough. In July 1904, the City Council had Mr. Griffith "report on a new site for the cemetery and removal of the old burial place" (*Tucson Citizen*

1904:8). In April 1906, councilman Mose Drachman organized a cemetery committee to look for a new cemetery location.

A petition by the Fraternal Order of Eagles, a Masonic order, for two lots in the cemetery adjoining the Red Men's burial ground appears to have renewed discussion of the topic, which had been debated several months before. At that time, it brought forth a storm of protests from secret societies and from persons superstitious about removing the dead. "Councilman Drachman stated that Tucson is rapidly growing. He said that residences are being put up in the vicinity of the cemetery and that these lots had greatly depreciated in value owing to their proximity to the cemetery" (*Tucson Citizen* 1906a:8). What Drachmann did not discuss was the fact that he owned the land on the northern side of Speedway Boulevard, and that the presence of the cemetery reduced the value of his land.

A letter to the editor of the paper, written by C. E. Darrow, appeared the following day in the *Tucson Citizen* (1906b). He stated that he had friends and relatives buried there, had spent money beautifying lots, and that the northern edge of town was "not likely in fifty years, if ever, to grow to the cemetery" (*Tucson Citizen* 1906b:5). A map was prepared in that year showing the internal divisions of the cemetery (see Figure 1.3).

In early 1907, Councilman Gustav Hoff motored out to the cemetery to inspect it. He was the chairman of the City Council's cemetery committee.

Any visitor to the cemetery will remark upon the apparent careless manner in which it has been kept. The fences are unpainted and weeds and rank undergrowth have been allowed to spring up until it is a very unsightly place (*Tucson Citizen* 1907g:5).

Hoff planned to have trees planted along the fence on the eastern side of the cemetery. He also planned to fill in an arroyo that ran through the cemetery (*Tucson Citizen* 1907g). The following month saw workers digging tree holes along the fence (*Tucson Citizen* 1907b). In May, the annual Memorial Day observation began with a march from the Carnegie Library headed by Mayor Neustatter and J. S. Hopley. The Union veterans arrived at the GAR plot to find that the graves had fresh flowers already placed by children. The University Cadets played taps at the plot (*Tucson Citizen* 1907d).

In July 1907, F. L. Culin again proposed the creation of a new cemetery along Mammoth Road (today's N. Oracle Road). He and a group of businessmen noted that the current cemetery was in the caliche zone, which made it difficult to beautify, while the new location was "beyond the caliche belt and easily irrigable" (*Tucson Citizen* 1907f:5). The

City Council viewed the proposed location of the new cemetery. Local businessmen purchased 240 acres and formed the Tucson Cemetery Association. Their offer to the city included the donation of 30 acres to be used as a pauper's cemetery and an offer to remove the dead from the pauper's area of the Court Street Cemetery. Another 30 acres was set aside so poor people could re-locate bodies, although they were to be charged \$50 a lot (\$1,300 in modern currency). The city passed an ordinance forbidding burial within city limits after 1 January 1908 (*Tucson Citizen* 1907c).

Many people were angry at the Common Council for the decision. Owen T. Rouse wrote a scathing letter published in the *Tucson Citizen*. He complained that there would be no oversight of the perpetual care fund for the cemetery, that there were no laws allowing a private corporation to operate a cemetery, and that poor people were going to be the victims of the greed of businessmen (*Tucson Citizen* 1907e).

A Common Council meeting held on 5 August 1907, saw E. J. Trippel, representing the fraternal organizations, complaining that the groups had plenty of room in their plots. Judge D. F. Glidden and A. W. Smith also testified in support of the fraternal groups. Councilman Gustav Hoff noted that the Catholic plot "is overcrowded even now." The meeting then got quite contentious, the mayor having to pound with his gavel to bring order (*Tucson Citizen* 1907a:5).

However, on 17 August 1907, the Tucson City Council passed an ordinance allowing burials to continue until 1 July 1909 (Ordinance 264 1/2). The men planning the new Evergreen and Holy Hope Cemeteries moved forward with their plans, and burials were placed in both the old and new cemeteries.

In May 1908, members of the Grand Army of the Republic decorated the graves of their departed members. "A squad from the University cadet corps acted as a guard of honor for the veterans... Following the reading of the regular G.A.R. ceremony, the cadet squad fired a salute and the buglers then sounded taps" (*Tucson Citizen* 1908a:5). The following month saw the burial of Southern Pacific engineer John S. Stockham in the Fireman's plot, "Following an old custom, the fire bell was tolled 74 times while the services were in progress, denoting the age of the deceased who had been for many years connected with the department" (*Tucson Citizen* 1908b:8). In July 1908, a monument for R. S. Ramirez was unveiled in the AOUW plot (*Tucson Citizen* 1908c).

Catholic burial records indicate burials began at Holy Hope Cemetery on 7 June 1909, and that the last burial in the old cemetery was on 30 June 1909.

People began to move burials from the various plots in the cemetery to either Evergreen Cemetery

or Holy Hope Cemetery. In October 1909, two councilmen visited the cemetery to determine if reports that exhumed graves had not been backfilled were accurate. They discovered that one grave in the Jewish section, seven in the City Cemetery, and four in the Catholic Cemetery were open. "

These were caused, it is explained, by the removal of bodies from the graves in the old cemetery to the new one, the sexton, it is stated, having failed to fill up the graves after the removal of the bodies. People had been claiming that bones were visible in one of the open graves in one of the coffins. "We went all over the cemetery," said Mr. Martin, "and found no grave. It is true that a number of the bones in which the coffins were buried have been left in the graves but no skeletons were found." Undertaker O. C. Parker today, in discussing the matter, explained that the removal of the old boxes to which the coffins had been buried, was, at times, impracticable, and that the undertakers were not to blame for the fact that they were left in the graves (*Tucson Citizen* 1909).

On Memorial Day 1910, services were again held at the GAR plot (*Tucson Citizen* 1910). John Stockham's son visited the cemetery in August 1912, and was horrified to see "that tombstones have been thrown down, graves tramped and small lamps and other such stone emblems on the tombstones have been defaced and broken." He noted that many people were still trying to save money to move the burials of their relatives and that the five year period for removal had not expired (*Tucson Citizen* 1912a:5).

The volunteer firemen held a meeting in September 1912, to discuss the movement of the burials in their plot. They planned to hire someone to do this (*Tucson Citizen* 1912b). In January 1913, two boys were being paid 20 cents to fill emptied graves. The boys were taking care of an elderly blind grandmother, and were stealing wooden headboards from the cemetery to use as firewood for their stove. Other children in the neighborhood were also taking headstones (*Tucson Citizen* 1913).

The Boy Scouts and members of the Women's Christian Temperance Union decorated the approximately 90 GAR graves in May 1915. About a dozen Union and Confederate soldiers rode in carriages out to the plot. Former Arizona governor L. C. Hughes read the Gettysburg Address as part of the ceremony (*Tucson Citizen* 1914).

In February 1915, the city began to consider the question of the ownership of those portions of the cemetery owned by fraternal groups. One of the groups had lost the paper copy of its deed and asked the city to replace it (*Tucson Citizen* 1915g). The meeting has held, and the city suggested an arrangement whereby the groups removed burials from their plots, and afterward, the city would provide them

with a new deed, allowing them to sell the land and raise money to recompense burial removal costs (*Tucson Citizen* 1915p). The city thought the cemetery land would be worth \$50,000 when emptied of burials (*Tucson Citizen* 1915j).

Local funeral homes offered to remove remains, with two different advertisements appearing in the *Tucson Citizen*. "The Tucson Undertaking Co. has competent men for the removal of bodies from the old cemetery to the new ones. Mr. Arturo Carrillo, manager of the firm, will superintend this work in person" (*Tucson Citizen* 1915f:4). "Removal of Bodies from old cemetery properly attended to by Tucson Undertaking Co. 150 S. Stone" (*Tucson Citizen* 1915b:8).

In May 1915, the city published advertisements stating that people had 30-40 days to remove bodies. Raymond Kilburn would later recall moving the tombstones in the GAR plot in 1915 (*Arizona Daily Star* 1961).

1 July 1915 was set as the deadline for the removal of burials. Four of the fraternal groups advertised in the *Tucson Citizen*. "NOTICE TO MASONS. All bodies will have to be removed from our plot in the old cemetery by July 1. Those having friends or relatives there, should arrange for their removal at once. O. C. Parker, Master" (*Tucson Citizen* 1915d:8). Ads by the other groups were nearly identical, placed by the Knights of Pythias (*Tucson Citizen* 1915c:8), the Cemetery Committee of Pima Tribe No. 10 of the International Order of Red Men (*Tucson Citizen* 1915e:2), and F. Ganz of the AOUW (*Tucson Citizen* 1915a:4).

In April 1915, the remains of Father Bartolome Suastagui were removed from the cemetery and transported to Holy Hope Cemetery (*Tucson Citizen* April 1915o). The following month, Councilman A. C. Bernard urged people who wanted their family members and friends removed privately to do so as soon as possible. The city was planning to hire a contractor for a bulk removal of bodies from unmarked or unclaimed graves as early as June 1915 (*Tucson Citizen* 1915h).

Records created by the fraternal group the Knights of Pythias are held by the Arizona Historical Society (AHS) in Tucson as Manuscript Collection 1325. The local lodge formed in the early 1880s, and raised money for charity, as well as providing sickness and funeral benefits for members. Receipts from the 1890s indicate the funeral benefit was about \$50 at that time, and by the 1910s, a Pythias publication noted that members would receive a \$100 funeral benefit. As the decision was made to sell off the Court Street Cemetery, the Knights of Pythias "advertised in both papers regarding the removal of bodies from the old to the new cemetery" (AHS/SAD, MS 1325, Box 28).

At the 14 June 1915 meeting, it was reported that:

On motion the cemetery committee was instructed and empowered to lay out the plot of Lodge in Evergreen Cemetery into plots and the K. of R.S. was instructed and empowered to provide for the necessary supervision and marking of the graves of those removed from the old to the new Cemetery. On motion Bros. Gus Hoff was given the privilege of having members of his family buried in the old Cemetery removed to the new K. of P. Cemetery.

The 13 September 1915 meeting saw the Tucson Undertaking Company agree to move the bodies at "\$9.00 a piece and all of the monuments for \$30." The offer was accepted, and by 27 September 1915, the Tucson Undertaking Company was paid by check \$173, suggesting they moved at least 15 burials. At that meeting the official minutes recorded that: "The Cemetery Committee reported that the removal of the bodies from the old cemetery to the new Cemetery has been completed (AHS/SAD, MS 1325, Box 28).

In July 1915, the plan for the cemetery subdivision was submitted to the city manager. It was to be divided into 128 lots, each measuring 184.8 ft by 66.0 ft (*Tucson Citizen* 1915i). In August 1915, the Old Fellows were to receive a deed for their plot, having complied with the removal of bodies (*Tucson Citizen* 1915l). The following month saw the city offering deeds to all the fraternal groups (*Tucson Citizen* 1915n). The city planned to sell the lots as is, with no plans to clean them. "The addition is laid out with streets and alleys. It should be rapidly built up after being placed on the market" (*Tucson Citizen* 1915k:8). On 6 March 1916, the Tucson City Council reviewed plans for the sale of the "old and abandoned cemetery," and the 88 lots were sold on 21 March 1916 (Wallace n.d.). In 1917, the cemetery committee reported that after the sale of lots, the city had made a \$5,000 profit (*Tucson Citizen* 1916b). The next month saw the grading of two streets within the old cemetery (*Tucson Citizen* 1916a).

Similar to the previously abandoned historic cemetery, the National Cemetery, also called the Alameda-Stone Cemetery, many burials were not moved between 1909 and 1916. Most of the undisturbed portion of the Alameda-Stone Cemetery was recently excavated by Pima County, and more than 90 percent of the burials had not been removed after the cemetery was closed (Heilen and Gray 2010b).

### Plots Within the Court Street Cemetery

The Court Street Cemetery was divided into 10 individual cemetery areas. Varying amounts of in-

formation are available for each of the areas. The following sections focus on the physical appearance of each cemetery area and notes the number of individuals that have been identified through research as being buried in each plot, as of January 2013. Additional research is expected to identify many other individuals, especially for the non-Catholic portion of the cemetery.

#### *Catholic*

The Catholic portion of the cemetery was bounded by W. Speedway Boulevard on the north, N. Stone Avenue on the east, W. 2nd Street on the south, and N. Court Street (today N. 10th Avenue) on the west. The front gate was located at about the intersection of N. 10th Avenue and W. 2nd Street, and it is likely that burials began in that area and expanded to the north and east.

In 1892, the Catholic Cemetery was described as:

here spread over a large acreage of ground, were hundreds of little crosses peering up over the graves and marble slabs and monuments and headstones marked the resting place of what appeared to be a city of the dead. One grave on a marble slab with the head pointing south and the feet north, bore the following inscription: 'Peter R. Brady, 1842' (*Arizona Weekly Citizen* 1892a:4).

To date, research has identified 5,518 persons buried in the Catholic portion of the cemetery.

#### *Citizen, City, County, Protestant, and Public*

The City Cemetery was located on the west side of N. Court Street (today's N. 10th Avenue) and extended one block to the west. This portion was called the Citizen, City, County, Protestant, and Public Cemetery in records.

In 1889, it was reported that:

Steps should be taken at once by the city authorities to fence and take proper care of the city cemetery. The state of affairs at present is absolutely disgraceful. Each of the plots assigned to the societies is nicely fenced, and the Catholic burying ground adjoining is fenced, but the city cemetery, which should be better taken care of than the others that are paid for out of private funds, is neglected; the graves are left as a possible highway for wagons, cattle, etc. Much has been said on this subject. On account of the fences now up, the city can fence their ground without much expense (*Arizona Weekly Citizen* 1889a:1).

The City Council decided to build the fence, and an advertisement for "Proposals to Build Fences" appeared in the *Arizona Weekly Citizen* (1889d).

Research utilizing death certificates and newspapers has identified many individuals buried in this portion of the cemetery: City ( $n = 456$ ), Citizen ( $n = 88$ ), County ( $n = 60$ ), Protestant ( $n = 2$ ), and Public ( $n = 13$ ). There may be some overlap – that is, a person may have been referred to as being in the City plot in one record and the Public lot in another – and research is ongoing to identify additional burials.

#### *Negley Post No. 1 of the Grand Army of the Republic (GAR)*

GAR was a veterans group that formed after the Civil War. In Tucson, this group provided assistance to Civil War veterans and their wives and children in times of need. Members could be buried in their plot, and the local GAR officers would order a tombstone through the U.S. government.

GAR surveyed their plot in June 1891. At that time, there was space for 162 graves, with 16 "filled with deceased members of the post" (*Arizona Weekly Citizen* 1891b:4).

GAR regularly ordered batches of government-provided headstones for their deceased comrades. One problem they faced was that a few veterans had been buried in other portions of the cemetery, and their location of burial had been lost (*Arizona Weekly Citizen* 1892b, 1893d).

Research has identified 76 persons buried in the GAR plot.

#### *Tucson Volunteer Fire Department*

The Tucson Volunteer Fire Department was founded in 1881 (Sonnichsen 1982:110). The firemen held a ball on 15 April 1889, to raise money to construct a fence around their plot (*Arizona Weekly Citizen* 1889c). In June 1889, the firemen advertised for bids for the fence, which was to consist of

wire netting No. 14 with one strand barb wire running along the top of same, and barb wire, red wood or mesquite posts 8 feet apart, size of posts 4x4, same height of the fence, corner posts 8x8, well braced, and two feet in the ground. Two gates fancy pickets, posts 8x8 well braced, locks and hinges; size of opening 12 feet. All wood work to be painted and finished in a workmanlike manner (*Arizona Weekly Citizen* 1889e:4).

Mr. Reed began construction of the fence in October 1889. One goal was to keep animals out of the plot (*Arizona Weekly Citizen* 1889b).

The entrance to the Fireman plot had an arched gate with "the name written over the emblem of the anchor and flag" (*Arizona Weekly Citizen* 1892a:4).

Research has identified only four people buried in this plot.

*Independent Order of B'nai B'rith (IOBB)*

The IOBB was a Jewish service organization. In Tucson, the group was led by prominent business leaders. The B'nai B'rith purchased Lots 2, 3, and 6 from the City of Tucson for \$1.00 in April 1883 (*Arizona Weekly Citizen* 1883b).

In this some were buried laying north and south, some east and west. The following epitaphs were noted upon some of the gravestones: 'Lilie, beloved daughter of S.H. and Jennie Drachman,' 'Rubie, infant son of S. H. and Jennie Drachman' (*Arizona Weekly Citizen* 1892a:4).

Research to date has identified 15 individuals buried in this plot.

*Pima Lodge No. 3 of the Independent Order of Odd Fellows (IOOF)*

The IOOF was a temperance organization, working to ban the sale of alcoholic beverages. It was quite popular in the late nineteenth and early twentieth centuries, and this group helped pass prohibition in Arizona, which took effect on 1 January 1915. The City of Tucson gave Lots 7, 10, and 11 of Block 10 for their cemetery (*Arizona Weekly Citizen* 1883c).

Research has identified 31 individuals buried in the IOOF plot.

*Ancient Free and Accepted Masons (AF & AM)*

The Masons were the last group to have an unfenced plot (*Arizona Weekly Citizen* 1889b). In 1890, however, a substantial wire fence was constructed (*Arizona Weekly Citizen* 1890). By February 1896, the Masons had dug a well, built a windmill and a 5,000-gallon tank, laid 300 ft of pipe for irrigation, and planted 100 trees (*Arizona Weekly Citizen* 1896a). The entrance to the Masonic plot was a gate with:

the compass and the square and in the center the letter G. Amongst other graves in this enclosure was one over which was erected a monument in beautiful marble bearing the inscription 'Born, Oct. 30<sup>th</sup>, 1857; died, March 21<sup>st</sup>, 1887, Sacred to the memory of Elizabeth Willett, wife of L. D. Chillson' (*Arizona Weekly Citizen* 1892a:4).

A total of 83 individuals buried in the Mason's plot have been identified.

*Tucson Lodge No. 9 of the Knights of Pythias (K of P)*

The Knights of Pythias was a fraternal organization whose members swore they were not professional gamblers or involved with drugs or alcohol,

as well as believing in a Supreme Being. In Tucson, the group provided financial assistance to paying members during times of sickness and at death.

The Knights of Pythias had purchased Lots 1 and 4, but mistakenly buried members in Lots 2 and 3. The City of Tucson subsequently switched ownership to avoid having the Knights of Pythias move their burials (*Arizona Weekly Citizen* 1891a).

The Knights of Pythias "are fixing up their cemetery and are preparing to fence it properly and have already a new gate with a handsome design ready to be put in place" (*Arizona Weekly Citizen* 1892a:4). The fence was completed by late August (*Arizona Weekly Citizen* 1892b).

Twenty-seven persons buried in the Knights of Pythias plot have been identified.

*Ancient Order of the United Workmen (AOUW)*

The AOUW was a fraternal group established in 1868, that provided social and financial support to members in need.

The AOUW hired Mexican men to grade their plot. They were also cutting ditches for trees and shrubbery to be planted. Further, they had plans to install a windmill to pump water for irrigation from a well (*Arizona Weekly Citizen* 1893a, 1893c). By January 1894, the windmill and a big tank had been erected. The pump was then put in. Several hundred ash and umbrella trees were ordered (*Arizona Weekly Citizen* 1894a). In June of 1894, it was reported that the trees were thriving (*Arizona Weekly Citizen* 1894b). The workmen held a dramatic and musical event at Reid's Opera House in January 1895, to raise more money to beautify their plot (*Arizona Weekly Citizen* 1895). W. H. Read was in charge of the cemetery, and offered to sell flowers and shrubs to people to decorate graves (*Arizona Weekly Citizen* 1896b).

A total of 47 persons buried in the AOUW plot have been identified.

*Pima Tribe No. 10 of the Improved Order of Red Men*

Pima Tribe No. 10 of the Improved Order of Red Men was formed in October 1897, in Tucson. This fraternal group was known for its "Smoker" get togethers, during which members smoked cigars, drank alcohol, sang songs, and gave speeches. The group purchased a plot on the north side of the cemetery in January 1899 (Thiel 2012a).

Research identified 16 individuals buried in the Red Men plot. Archaeological strip trenching of the Red Men Cemetery identified 20 graves, 18 for adults and two for children. There was evidence that some of the burials had been exhumed after the cemetery

was closed. The southwestern corner of the fence that enclosed the cemetery was also located (Thiel 2012a).

### How Many Total Burials?

The total number of burials interred in the Court Street Cemetery between 1875 and 1909 is unknown. In March 1915, Councilman Bernard testified at a council meeting that, “There are 2,194 bodies in the old cemetery, 1,649 of which are remains of people of Catholic faith and 394 Protestant” (*Tucson Citizen* 1915m:3). How he obtained these counts is not known, but other records indicate he dramatically underestimated the number of burials.

Catholic burial records for the period between 1 June 1875 and 30 June 1909, list 5,071 persons buried in the cemetery (Table 1.2). No similar list of burials exists for most of the Protestant portion of the cemetery, although GAR records at AHS suggest approximately 85 people were buried in that plot.

Desert Archaeology, Inc., is conducting research to create a list of individuals buried in the Court Street Cemetery using a variety of records, including the 1880 U.S. Census mortality schedule, Tucson newspapers, the Register of Funerals from the Parker Funeral Home, death certificates available online at <genealogy.az.gov>, tombstones moved to Evergreen Cemetery, and other sources. Counts of burials in the cemetery are provided in Table 1.3, sorted by plot, as reported in death certificates created by the City of Tucson between 1901 and 1908. Of particular note is that the number of burials reported for the Catholic Cemetery is consistently higher for death certificates than for the official burial register. Between 1900 and 1908, the register reported 1,315 burials, while death certificates reported 1,762 burials. Fully 25 percent of burials were not recorded in the register. In some cases, it is apparent that family members buried their relatives in the Catholic portion of the cemetery without a priest present. If this rate of underreporting was con-

**Table 1.2.** Catholic burials in the Court Street Cemetery, AZ BB:13:156 (ASM), 1875-1909.

Year	Number	Year	Number	Year	Number	Year	Number
1875	112	1884	122	1893	179	1902	178
1876	133	1885	116	1894	118	1903	121
1877	182	1886	142	1895	131	1904	162
1878	100	1887	131	1896	137	1905	163
1879	119	1888	171	1897	115	1906	194
1880	153	1889	94	1898	164	1907	195
1881	261	1890	129	1899	108	1908	183
1882	142	1891	124	1900	141	1909	106
1883	151	1892	175	1901	119	Total	5,071

**Table 1.3.** Number of burials reported in the Court Street Cemetery, AZ BB:13:156 (ASM), between 1901 and 1908.

Plot	1901	1902	1903	1904	1905	1906	1907	1908
Ancient Order of Workmen	4	6	5	3	8	3	5	1
Catholic	145	232	153	206	227	287	276	236
City	40	58	42	57	52	66	91	47
Firemen	-	-	-	-	-	1	-	3
Grand Army of the Republic	2	6	5	-	2	3	1	-
Odd Fellows	2	3	3	1	5	6	2	-
Jewish	1	-	-	2	1	2	1	2
Knights of Pythias	1	4	2	4	2	2	8	-
Masonic	3	11	9	9	7	7	7	-
Red Men	3	3	2	1	-	2	2	2
Unknown	52	37	37	21	14	25	30	54
Total	253	360	258	304	318	404	423	345

sistent through time, the total number of burials in the Catholic Cemetery was more than 6,300.

#### *Reported Burial Discoveries, 1949-1986*

The development of the Court Street Cemetery began in 1916, with cutting and filling of the ground surface and installation of water, gas, and sewer pipes below the ground surface (the exact date of pipe placement is not known). By 1924, more than 50 residential structures were present within the cemetery boundaries. Many burials were disturbed during the grading, infrastructure installation, and home construction (*Tucson Citizen* 1967a). Although burials were revealed during this work, their discovery apparently went unnoticed by the local media, and any remains apparently were left in place.

Beginning in 1949, numerous burials were located, and some were excavated by archaeologists and physical anthropologists (Table 1.4).

The first reported discovery took place in July 1949, when three coffins, stacked on top of each other, were located by archaeologist Julian Hayden (who also worked as a backhoe operator) during excavation of a sewer line at 1022 North "Penn" (probably Perry).

The upper coffin was in fragments...The lower coffin, apparently made of redwood, had collapsed. Hayden, who has studied archaeology, said the lower coffin held the body of a young man, judging by the bones. The upper coffin was apparently used for a woman, since a fragment of what seemed to be a dress was found in it (*Arizona Daily Star* 1949).

A third burial held a child (*Tucson Citizen* 1949). The burials were left in place.

In October 1961, a 6- to 7-ft-deep trench was excavated by Fisher Contracting Company on N. Queen Avenue near W. Speedway Boulevard for a waterline. "The outline of ten caskets lying beside each other then became visible about four feet below the ground, just north of W. 1<sup>st</sup>. Four additional graves were located a few yards south of Speedway Blvd. There were no traces of bodies found, only dust" (*Arizona Daily Star* 1961:B1). The trench cut through just the ends of the coffins, with 10 coffins in a 25-yard-long space and "the others scattered over the remainder of the block north of Speedway." A neighborhood resident, Oscar Alexander of 224 W. 1st Street, told a reporter that a few years earlier a grave had been found in a sewer trench south of his house. The city pathologist, Dr. Lewis Hirsch, was asked to inspect the graves and thought that it was "best to leave them be" (Longenbaugh 1961:43).

Burials found between 1967 and 1986, were disinterred or documented by osteologists and archaeologists from the University of Arizona. Little field documentation of the burials was prepared. A few handwritten notes and contemporary newspaper articles provide limited details. The human remains were inventoried by osteologists in 1997 and 1998. The following descriptions of Features 1-11 were prepared from these sources.

Two burials were discovered on 7 November 1967, at 1012 N. Perry Avenue by Russ Plumbing workmen digging a trench for a sewer line to Ed Adodeeley's new house (*Arizona Daily Star* 1967; *Tucson Citizen* 1967b). These were excavated by Walter Birkby and James Ayres of the University of Arizona. Burial Feature 1 was located 1.04 m west of the east curb of N. Perry Avenue, within the street surface in front of 1012 N. Perry Street. The top of the coffin was reported to be 94 cm below the modern ground surface. The coffin was constructed from hand-planed boards, one of which was 1 inch thick, 8 inches tall, and 20 inches long. Cloth was reported at the head end (western end) of the coffin, and some sort of metal items, perhaps coffin hardware, were present. The body lay in the coffin with the head to the west. The individual was a male, aged older than 50 years at death. The skeletal remains had osteophytes on the thoracic vertebrae and the sacrum, arthritis on the distal humerus and knees, and a lytic lesion on one of the first distal tarsal phalanges. Periodontal disease was noted, as were dental caries. No dental fillings or restorations were noted. Black hair was present.

Burial Feature 2 was located beneath the eastern curb and the adjacent lawn of 1012 N. Perry Street. The top of the coffin was 56 cm below the lawn surface. The eastern end of the coffin was 1.52 m east of the curb (the lower legs and feet were beneath the curb). The body lay in the coffin with the head to the east. The individual was a European male, aged 35-44 years old at death. The remains had a bregmatic ossicle, dental caries, an ossified zyphoid process, moderate lipping of most vertebrae, two thoracic vertebrae fused at the spinous process, and healed fractures of the left second rib and right clavicle. There was no evidence of dental fillings or restorations.

Features 3 and 4 were discovered by Jack Leonard of the J. L. Plumbing Company, during excavation of a sewer trench for a new home at 935 N. Queen Avenue, in September 1970. James Ayres and Walter Birkby subsequently excavated the remains. Feature 3 was a 4.5- to 5.5-year-old child, who had been previously disturbed by either a water or sewer line within N. Queen Avenue, suggesting the remains were found within the street. The child's left parietal

**Table 1.4.** List of burials located by utility workers and archaeologists in the Court Street Cemetery, AZ BB:13:156 (ASM).

Feature	Date Found	Section	Location	Single/ Double	Depth below ground surface to coffin or remains (m)	Sex	Age	Associated Artifacts, Comments	Reference
	July 1949	Catholic	1022 N. Perry	Double	-	Male	-	Not excavated	<i>Arizona Daily Star</i> 1949
	July 1949	Catholic	1022 N. Perry	Double	-	Female	-	Not excavated	<i>Arizona Daily Star</i> 1949
	July 1949	Catholic	1022 N. Perry	Single?	-	Child	-	Not excavated	<i>Tucson Citizen</i> 1949
	October 1961	Protestant	N. Queen, south of W. Speedway		-	-	-	14 coffins, not excavated	<i>Arizona Daily Star</i> 1961:B1; Longenbaugh 1961
1	7 November 1967	Catholic	1012 N. Perry	Double, with Feature 2	0.94	Male	50+	Coffin, preserved hair	<i>Arizona Daily Star</i> 1967; <i>Tucson</i> <i>Citizen</i> 1967b ASM notes
2	7 November 1967	Catholic	1012 N. Perry	Double, with Feature 1	0.56	Male	35-44	Coffin	ASM notes
3	September 1970	Protestant	935 N. Queen	Double, with Feature 4	-	Child	4.5-5.5	Also remains of child 7.5-8.5 years old	ASM notes
4	September 1970	Protestant	935 N. Queen	Double, with Feature 3	1.07	Male	40+	Coffin, second individual's femur	ASM notes
5	13 January 1981	Catholic	948 N. Perry	Double, with Feature 6	1.08	Female	35-40	Coffin, clothing	ASM notes
6	13 January 1981	Catholic	948 N. Perry	Double, with Feature 5	1.70	Female	-	Coffin wood, tacks, metal, cloth, crucifix	ASM notes
7	13 January 1981	Catholic	948 N. Perry	Unknown	-	Neonate	-	Wood and metal rosary, safety pin, cloth	ASM notes
8	3 May 1984	Protestant	N. Queen, between 1st and 2nd streets	Single	-	Male	-	-	<i>Arizona Daily Star</i> 1984
9	8 June 1984	Catholic	902 N. 10th Avenue	Single	-	Female	50+	Clothing, hair, nails	ASM notes
10	19 July 1986	Catholic	SW corner N. Perry and W. Speedway	Single	1.52	Male	15-16	Coffin with viewing window, clothing, hair	Revere 1986
11	27 September 1986	Catholic	151 W. Speedway	Single	-	Child	-	Coffin hardware, clothing	ASM notes
12	May 2005	Catholic	901 N. Perry	Single	-	Male	22-26	Coffin, clothing	Beck et al. 2005
13	12 October 2007	Catholic	904 N. Perry	Double, with Feature 14	0.57	Child	-	Coffin, clothing	Thiel and Margolis 2007

Table 1.4. Continued.

Feature	Date Found	Section	Location	Single/ Double	Depth below		Sex	Age	Associated Artifacts, Comments	Reference
					ground surface to coffin or remains (m)	remains (m)				
14	15 October 2007	Catholic	904 N. Perry	Double, with Feature 13	0.78	0.78	Male	-	Coffin, clothing, pocket contents	Thiel and Margolis 2007
15	2 December 2010	Protestant	W. 1st Street and N. Queen Avenue	Single	1.20	1.20	Male	40-45	Coffin, coffin hardware,	Maren et al. 2011
16	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	Coffin	Thiel et al. 2012
17	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
18	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	Coffin, clothing	Thiel et al. 2012
19	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	Coffin	Thiel et al. 2012
20	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
21	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
22	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
23	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
24	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
25	August 2011	Red Men	Salvation Army parcel	Single	-	-	Child	-	-	Thiel et al. 2012
26	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
27	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
28	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	Coffin	Thiel et al. 2012
29	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
30	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
31	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
32	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
33	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
34	August 2011	Red Men	Salvation Army parcel	Single	-	-	Adult	-	-	Thiel et al. 2012
35	August 2011	Red Men	Salvation Army parcel	Single	-	-	Child	-	-	Thiel et al. 2012
36	8 June 2012	Catholic	SW corner N. Stone and W. Speedway	Single	-	-	Male	40-45	Coffin, clothing	Thiel et al. 2013
37	11 June 2012	Catholic	SW corner N. Stone and W. Speedway	Single	-	-	Male	45-55	Coffin, clothing, embalming fluid bottles, bullet	Thiel et al. 2013
38	8 October 2012	Catholic	W. 1st Street east of N. 10th	Single	2.30	2.30	Male	19-30	Coffin, clothing, rosary	This report

Table 1.4. Continued.

Feature	Date Found	Section	Location	Single/ Double	Depth below ground surface to coffin or remains (m)			Age	Associated Artifacts, Comments	Reference
					Sex	Sex	Sex			
39	8 October 2012	Catholic	W. 1st Street east of N. 10th	Single	2.10	Female	30-40	Coffin, clothing, picture frame	This report	
40	8 October 2012	Catholic	W. 1st Street east of N. 10th	Single	1.54	Female	19-30	Coffin	This report	
41	8 October 2012	Catholic	W. 1st Street east of N. 10th	Single	1.57	Child	4-6	Coffin	This report	
42	19 October 2012	Catholic	Intersection W. 1st and N. Ash	Single	1.17	Female	15-23	Coffin, clothing	This report	
43	18 October 2012	Catholic	Intersection W. 1st and N. Ash	Single	0.91	Adult	-	Coffin	This report	
44	7 November 2012	Catholic	Alley s. w. 1st St, between N. Perry and N. 9th	Double, with Feature 47(?)	1.57	Adult	-	Coffin	This report	
45	8 November 2012	Catholic	Alley s. w. 1st St, between N. Perry and N. 9th	Unknown	-	Unknown	-	-	This report	
46	8 November 2012	Catholic	Alley s. w. 1st St, between N. Perry and N. 9th	Unknown	-	Unknown	-	-	This report	
47	8 November 2012	Catholic	Alley s. w. 1st St, between N. Perry and N. 9th	Double, with Feature 44(?)	-	Child	1-2	Coffin, clothing	This report	
48	16 November 2012	Catholic	Alley s. w. 1st St, between N. Perry and N. 9th	Unknown	1.80	Unknown	-	Coffin	This report	

showed eight pits. A left rib was severely fractured at, or near, the time of death. Mixed with the remains of this child are a left tibia, fibula, and scapula of a second child, aged roughly 7.5-8.5-years at death.

Feature 4 was located 1.07 m below the modern ground surface. The coffin was orientated east-west, and only the northern portion of the coffin was intact. The individual was a male, aged older than 40 years at death. The remains had spinal osteophytosis, compression fractures of the ninth through twelfth thoracic vertebrae, and spondyl nodes on the sixth through twelfth thoracic and all five lumbar vertebrae. Lytic lesions were present on the sacroiliac surfaces, on the medial right clavicle, and the left distal right tarsal phalanges. Periosteal reactive bone was visible on the shafts of the left ulna and radius. Two tarsal phalanges were fused. Arthritis was present on both gleno-humeral joints and the knees. A silver filling was present on a left maxillary molar, and three teeth had been lost prior to death, the right first and second premolars and the left mandibular third molar. The estimated height of this individual was 5 ft 8 inches. A robust, probably male, femur was also found with this burial.

Features 5, 6, and 7 were located on 13 January 1981, during sewer work in the front yard of 948 N. Perry Avenue (*Arizona Daily Star* 1981). The burials were excavated by Walter Birkby and Madeleine Hinkes. The Feature 5 coffin lid was located 1.08 m below the modern ground surface. The coffin was 1.8 m long and 37 cm wide. The individual was buried with their head at the western end of the coffin, with the right hand on the chest next to the chin and the left hand lying on the right side of the chest. The individual was a female, aged 35-40 years old at death. The individual had mild vertebral osteophytes, arthritis at the gleno-humeral joint, the proximal ulna and radius, and the right foot phalanges, and a possible fracture of a left rib. The woman had lost her mandibular molars prior to death, had periodontal disease, and displayed heavy dental calculus. Glass buttons and coffin nails were recovered from the grave.

The lid of the Feature 6 coffin was located 38 cm below the base of the Feature 5 coffin. The lid was reported to be 1.7 m below the modern ground surface. The coffin was 1.72 m long and was 35 cm wide at the head, narrowing to 30 cm at the waist. Tacks were present along the exterior of the coffin, with fabric impressions noted. The individual was reported to have their hands crossed and lying on the lower chest area. The remains were an older female. She was reported to have periodontal disease, osteophytes on the lumbar vertebrae, and arthritis on a proximal metatarsal. A metal crucifix was present beneath the skull of this individual (*Arizona Daily Star* 1981).

Feature 7 was a neonate aged up to 6 months at death. Artifacts recovered from the burial included a wooden and metal rosary, a metal safety pin, and fragments of cloth.

Feature 8 was found on 3 May 1984, beneath N. Queen Avenue between W. 1st and W. 2nd streets by a backhoe operator digging a trench (*Arizona Daily Star* 1984). The burial was excavated by Walter Birkby and Mark Baumler. This individual was a mature male, who had dental caries.

Feature 9 was located on 8 June 1985, at 902 N. 10th Avenue. The burial was excavated by Walter Birkby and James Ayres. This female was older than 50 years at death. Numerous pathologies are visible on the remains. Abscesses are present on the maxilla and mandible, in addition to numerous dental caries and worn teeth. Lipping was noted on vertebrae and sacrum, as well as on the proximal ulnae and radii. The distal right radius and ulna were deformed from a healed fracture. Osteoporosis was also noted. Hair was present, and two buttons, fabric, and a nail were recovered from the grave,

Feature 10 was located by workers for Maya Construction on 19 July 1986, at the southwestern corner of N. Perry Avenue and W. Speedway Boulevard (Revere 1986). It was excavated by Walter Birkby, Donna Windham, and Michelle Napoli. The coffin was reported to be 1.52 m below the ground surface, and had a glass viewing window and crucifixes on the lid. The individual was a male, aged mid- to late teens at death, European, and about 5 ft 6 inches tall. The individual's third molars were erupting, but were crowded toward the lingual plane. He had dark hair and was buried in a suit.

A child burial, Feature 11, was discovered on 27 September 1986, in the alley opening onto Speedway, just east of 151 W. Speedway Boulevard. It was excavated by Walter Birkby, Donna Windham, and Michelle Napoli of the University of Arizona. The coffin was 1.12 m long and at least 33 cm wide, measured at the knee area. The coffin was painted, and some escutcheons were present. The body lay with its head to the west. The child was 5-6 years old at death. Human hair, 2 white milk glass buttons, 1 shell button, 1 snap, 4 possible nails, and 1 piece of unidentified metal were recovered. A fragment from a juvenile distal femur was present with these remains, although it is not known where it originated.

Another set of partial remains, reportedly excavated by Walter Birkby and James Ayres in September 1970, was never assigned a feature number. No notes are known describing the location of the remains, although these were recovered at the same time as those from 935 N. Queen Avenue. The remains are from a male, aged 22-29 years old at death. The remains consist of the right mandible, left and right humerus, the left innominate, femur, and tibia,

and the right femur and tibia. The right second and third mandibular molars have caries and silver fillings. A lesion is visible on the left tibia below the nutrient foramen.

#### *Recently Located Burials*

Burials continue to be located in the Court Street Cemetery as utility repairs take place, as homeowners dig holes on their properties, or when vacant land is examined.

On 5 June 2005, the homeowner at 901 N. Perry Street was replacing his mailbox and located human remains in the posthole he was digging. The remains were subsequently excavated by Lane Beck and John McClelland of the University of Arizona and Homer Thiel of Desert Archaeology, Inc. Feature 12 was an adult European male, aged 22-26 years old at death. Osteological analysis revealed evidence for work-related stress on the arms and right knee. Three lesions were present on the interior of the skull, and may suggest meningitis or some other soft tissue inflammation. The male had calculus build-up on his teeth and crowding. He was buried in a plain pine wood coffin (the shape could not be determined) held together by nails. No thumbscrews, escutcheons, or handles were present. The individual was buried wearing clothing, and 3 brass pants rivets, 1 suspender or vest buckle, 2 white milk glass buttons, and 4 shell buttons were recovered. The buttons probably came from a shirt and underclothing (Beck and McClelland 2005).

On 1 October 2007, a homeowner at 904 N. Perry Avenue discovered a sinkhole after a heavy rainstorm. After finding human bone and coffin parts in the hole, he contacted Desert Archaeology. The remains were within the City of Tucson's right-of-way, and the decision was made to remove the burial. Excavation took place on 12 and 15 October 2007. Two burials, Features 13 and 14, were located, both orientated north-south. The remains were in hexagonal coffins with identical hardware. A child's burial, Feature 13, was located 60 cm below the modern ground surface. This individual was 3-5 years old at death, and appeared to be Hispanic. A large number of buttons from several different pieces of clothing were discovered at the foot of the coffin, perhaps indicating an effort to dispose of the items.

Feature 14 was directly below, and was a Hispanic male, aged 25-35 years old. The skeletal remains exhibited numerous pathological conditions. These included third molars that were congenitally absent, a probable healed fracture of his left proximal ulna, fused toe phalanges on his right foot, an extra thoracic vertebrae, and an extra set of ribs. The man was buried wearing clothing that included a shirt, jacket, suspenders, and a pair of pants. His

pockets contained three coins, a comb, a jackknife, and a change purse. This is very unusual, and suggests he was buried without having his pockets checked. The presence of extra clothing in the child's burial and the man with pocket contents may suggest the two died from an infectious disease (Thiel and Margolis 2007).

On 2 December 2010, KE&G workers repairing a broken sewer pipe encountered human remains beneath the intersection of N. Queen Avenue and W. 1st Street. Feature 15 was an adult male buried in a coffin, with his head at the western end of the grave, which was located within the Protestant, or City, Cemetery. The individual was 40-45 years old, had lost three molars prior to death, had calculus build-up on his teeth, and had suffered extensive injuries to his spinal column during his life. He was buried wearing a shirt with an attachable collar, possibly a vest, suspenders, pants, and a belt. The hexagonal coffin had been painted yellow, and was lined with red cloth attached by brass tacks. Thumbscrews and escutcheons that had been used to screw the coffin lid down were recovered, as were a pair of hinges, coffin wood, and nails (Hopkins et al. 2011).

Desert Archaeology, Inc., conducted archaeological testing of two parcels located on the western side of the Court Street Cemetery between 18 August and 1 September 2011. Strip trenching of the vacant parcel at the northeastern corner of N. Main Avenue and W. 1st Street failed to locate any burials, and the presence of a large wash running through the middle of the parcel probably indicates the land was never used for human burials. In contrast, the area on the eastern side of N. Alder Avenue, north of the present Salvation Army building, contained 20 burials associated with Pima Lodge No. 10 of the Improved Order of Red Men. This fraternal group received the burial plot in 1898, from the City of Tucson. Documentary research identified 16 individuals buried in the plot between 1901 and 1908, including two women and two children. The 20 burials were assigned Features 16-35. They were not excavated. Portions of five coffins were visible, and all appeared to be rectangular; at least three of the burials apparently had plate glass viewing windows. A 1924 aerial photograph suggests that many were probably exhumed after the cemetery closed. Tombstones for at least four of the individuals are currently in Evergreen Cemetery (Thiel 2012a).

A portion of the parcel at the southwestern corner of N. 10th Avenue and W. Speedway Boulevard was examined by Harris Environmental Group, Inc., in November 2011. The foundation trenches for a planned building were excavated by backhoe while an archaeologist monitored, later examining the walls of the trench. No burials were located (Quinn 2011).

In August 2012, Feature 36 and 37 were located on the city-owned parcel at the southwestern corner of N. Stone Avenue and W. Speedway Boulevard. The two men were buried in coffins with matching handles. The Feature 36 male was in a rectangular coffin, was wearing clothing when buried, and was missing his cranium, perhaps removed by burrowing animals. The Feature 37 male was also in a rectangular coffin. This burial had been partially exhumed by funeral home workers, who dumped 11 embalming fluid bottles and other items into his coffin. A fired lead bullet found in the grave may suggest this individual met a violent death. These two burials are located several hundred meters east of the nearest known burials. These two men may have been treated differently, perhaps placed away from the rest of the Catholic burials, based on their actions while alive or their cause of death (Thiel et al. 2013).

During the current project, Desert Archaeology monitored sewer line repairs in the cemetery for Pima County. A total of 11 burials, Features 38-48, was located in four areas within the Catholic Cemetery.

The entire cemetery has been designated by ASM as site AZ BB:13:156 (ASM) in 1983.

### **Post-cemetery Use of the Project Area**

The cemetery area was surveyed and laid out for redevelopment prior to the sale of lots in 1916. The cemetery was divided into two rows of four blocks. The modern road and alley alignments were also laid out, and City of Tucson water and Pima County sewer pipes were installed at that time. The cemetery area was fairly flat, north to south, but sloped downward to the west, and extensive cutting and filling took place to level the area for development (Figure 1.4). The current elevation on the eastern side of the cemetery is 724.87-725.65 m above sea level, while the west side is 718.44-719.02 m above sea level.

A 1924 aerial photograph shows the Court Street Cemetery area (Figure 1.5). In the eight years after the cemetery was opened for development, 57 homes were constructed within the boundaries of the cemetery, mostly in the Catholic Cemetery. A large wash is visible running east to west at a slightly northwestern course. The locations of the fraternal plots are visible due to the presence or absence of vegetation, fencelines, and disturbed areas where bodies had probably been exhumed (Figure 1.6).

In the years since 1924, residential development has continued throughout the Court Street Cemetery area. Beginning in the 1930s, businesses opened along the N. Stone Avenue side of the cemetery, including a service station, a travel court, a bank, an apartment complex, and a motel. Burials were not reported to have been found during construction of these buildings; however, Feature 36 and 37 were found beneath the footprint of the former bank and had survived construction and demolition of this building intact.

### **SUMMARY**

The Court Street Cemetery, AZ BB:13:156 (ASM), was used between 1875 and 1909, as what was envisioned as the final resting place for perhaps 8,000-9,000 Tucson residents. Efforts to enhance the physical appearance of the cemetery were thwarted by the high caliche, the lack of water, and the apathy of residents. As Tucson grew northward, businessmen and the Catholic Church opted to open new cemeteries and use the old land for residential and commercial development. Efforts to move bodies were difficult due to the high cost, the difficulty in locating some graves, and the lack of interested relatives and friends. Consequently, many bodies were left behind. Since 1949, archaeologists have documented 48 burials (Figure 1.7).

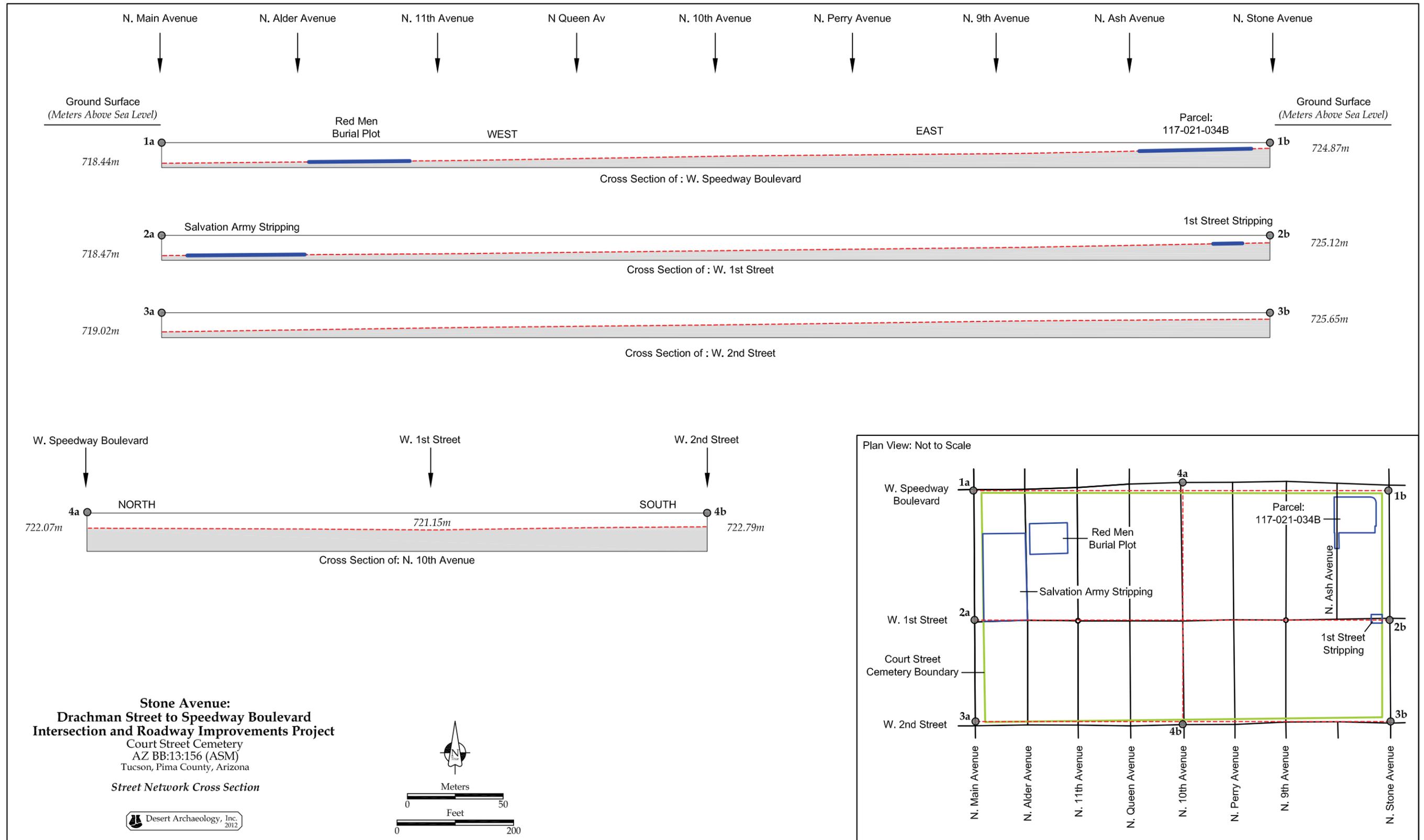


Figure 1.4. Modern topography of the Court Street Cemetery, AZ BB:13:156 (ASM).



Figure 1.5. A 1924 aerial photograph of the Court Street Cemetery, AZ BB:13:156 (ASM).



Figure 1.6. The 1924 aerial photograph with visible cemetery features noted.

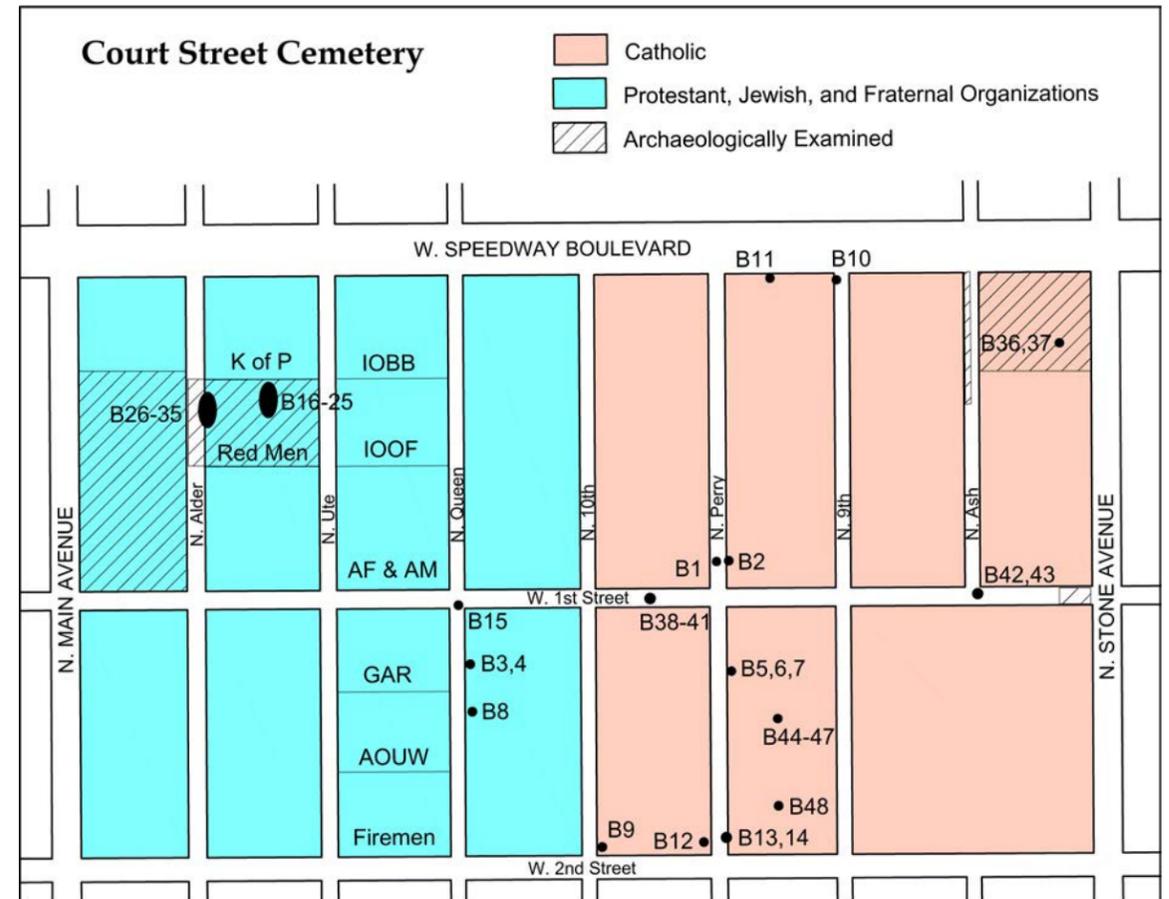


Figure 1.7. Location of all burials documented by archaeologists between 1949 and 2012, within the Court Street Cemetery, numbered in chronological order by date of discovery.

# ARCHAEOLOGICAL MONITORING, BURIAL IDENTIFICATION, AND BURIAL EXCAVATION WITHIN THE COURT STREET CEMETERY FOR THE SPEEDWAY TO MAIN MONITORING PROJECT

*J. Homer Thiel, Desert Archaeology, Inc.  
James Watson and Emily Graff, University of Arizona*

Archaeological monitoring for the Speedway to Main Monitoring project began on 2 October 2012, and continued through 16 November 2012. The sewers within the Court Street Cemetery, AZ BB:13:156 (ASM), were installed sometime around 1916, prior to construction of homes in the area. These sewer pipes were 10-inch diameter ceramic pipes, and the trench dug at that time was only slightly wider, the depth varying between 5-6 ft below the modern ground surface. The pipes are beginning to crack as they age, and rather than replace all the pipes, Pima County chose to line the interior of the pipes with a special plastic liner that is cured in place. However, several sections of the ceramic sewer pipe had to be replaced because the pipe was cracked or deformed, and the small robot used by the lining company could not operate in these sections of pipe. As part of the project, two new manholes were to be added, and a number of old manholes repaired. In one location, a new clean-out was also placed.

During the project, 11 different locations within, or adjacent to, the Court Street Cemetery were monitored (Figure 2.1). Trench numbers, Trenches 100-104, were assigned only to the five locations where human remains or grave shafts were discovered. Trench numbers were not assigned to the six locations where remains were not found. Fieldwork followed the protocols established in the "Order Permitting Disinterment and Reinterment of Human Remains" issued by the Superior Court of the State of Arizona in and for the County of Pima, Case No. C20120994, issued on 2 April 2012. This included the screening of soil through 1/8-inch mesh, the collection and retention of soil containing very small pieces of human bone or coffin wood, and the preparation of field maps and digital photographs of each burial. Desert Archaeology has established a vertical datum on the northwest corner of the wall surrounding De Anza Park, at the southeast corner of the intersection of N.

Stone Avenue and W. Speedway Blvd. The datum allows elevations to be calculated in meters above sea level (MASL) for burials within the Court Street Cemetery. Measurements were taken for the top and base of each coffin where possible.

Prior to the start of the project, a meeting was held with employees of Pima County Regional Wastewater Reclamation Department, KE&G, Inliner Technologies, Pima County Office of Sustainability and Conservation's Cultural Resource and Historic Preservation Division, and Desert Archaeology, Inc. It was agreed that all ground disturbances within the cemetery would be monitored by an archaeologist. Early in the project, one trench was excavated by KE&G without an archaeologist present, resulting in the discovery of human remains and the partial disturbance of a burial. After this, KE&G ensured that an archaeologist monitored all ground-disturbing work.

Eleven burials were identified within four trenches, and were assigned feature numbers 38-48. Of these 11 burials, seven were excavated; four were left in place, unexplored, because these burials extended beyond the trench area and would not be disturbed by the subsequent sewer pipe work. Backdirt from three of the trenches was screened to recover human bone, associated artifacts, and coffin parts. Isolated human bones were found in a fifth trench, with no evidence for in situ remains at this location.

Human remains recovered during the project were analyzed under the direction of James Watson at the University of Arizona. These remains were recovered from features and trench fill, and represent the 18th to 24th individuals from the Court Street Cemetery located and recovered since 1949 (Thiel and Margolis 2007). All the burials identified during the project were located within the Catholic portion of the cemetery.

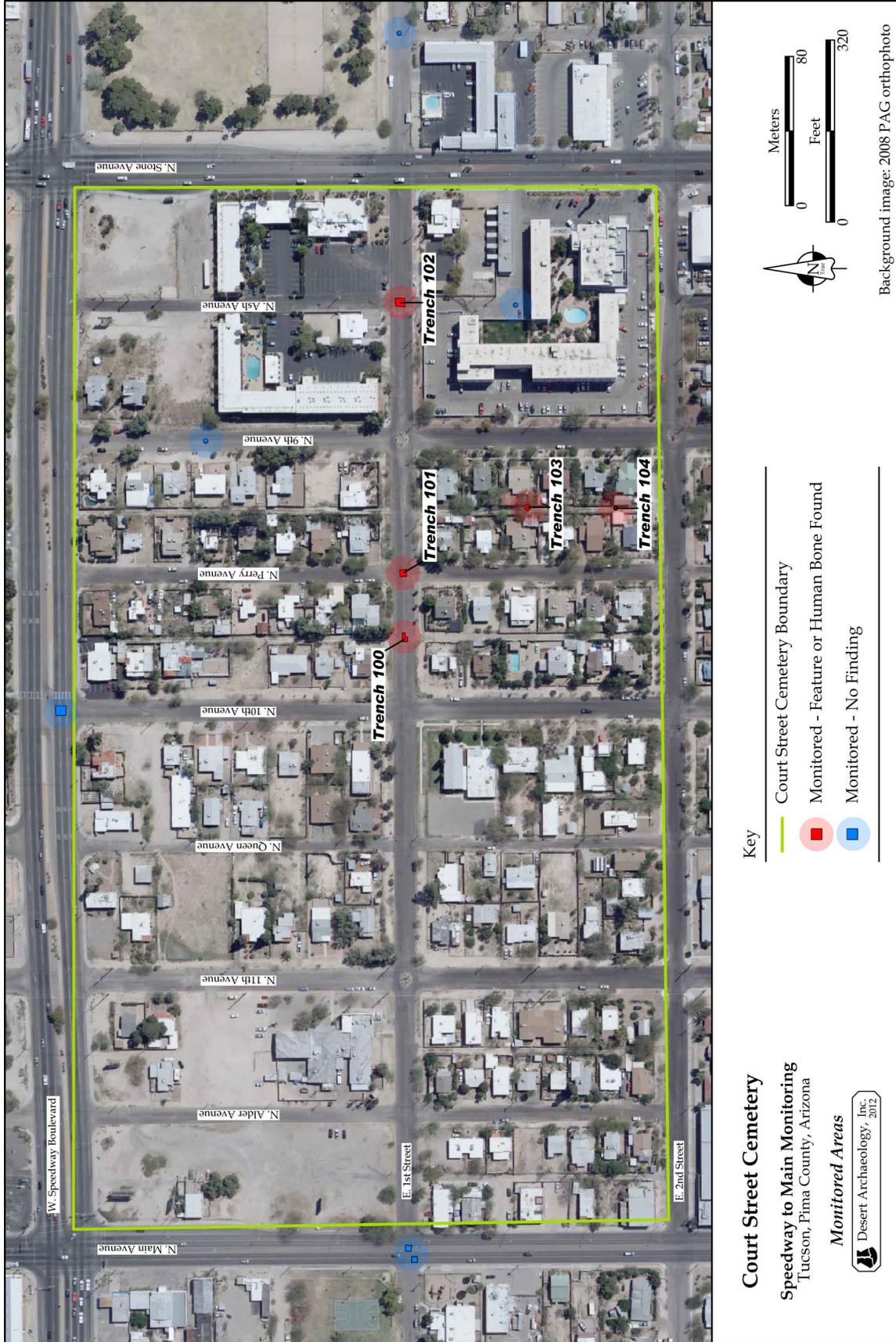


Figure 2.1. Location map showing areas monitored during the Court Street Cemetery, AZ BB:13:156 (ASM), project.

The remains and associated funerary objects were transferred from the offices of Desert Archaeology, Inc., to the Bioarchaeology Laboratory at the Arizona State Museum, University of Arizona, on 18 February 2013 (ASM Accession #2012-322). Analysis and documentation were conducted by Emily Graff and James Watson between 21 February and 30 April 2013. Observations were limited to non-destructive methods outlined in Buikstra and Ubelaker (1994), and included: (1) an element inventory and condition assessment; (2) estimate of age and sex; and, (3) documentation of bone morphology, including observations of pathology and activity markers, metric variables, and developmental variants. The summary results of this documentation are presented in Table 2.1.

The small number of associated clothing artifacts was analyzed by J. H. Thiel. Analysis of the coffin hardware is presented as Chapter 3 (this volume), and the number of coffin hardware elements found in each burial and in the trenches is summarized in Table 2.2. Robert Ciaccio of Desert Archaeology photographed the associated artifacts and coffin hardware. Tyler Theriot drafted the maps that illustrate the burials in this chapter.

**TRENCH 100**

Trench 100 was located within W. 1st Street, east of N. Perry Avenue (Figure 2.2). The L-shaped trench

was 3.9 m long (east-west), 2.35 m wide (north-south), and 2.4 m deep at its deepest point. A section of the ceramic pipe was damaged and had to be replaced. The KE&G crew began excavating a trench over the 1910s sewer trench, with the modern trench slightly wider than the old trench. After the discovery of a human humerus, the crew stopped and called Desert Archaeology. Inspection of the trench suggested the old 1910s trench had cut through at least two burials (Figure 2.3). KE&G workers removed the 1910s ceramic pipe and began removing soil within the base of the trench. Additional human bone was discovered, and it was determined to be a partially in situ burial; work was halted. It was decided to excavate the burials disturbed by the modern trench. Three burials were excavated (Features 38, 39, and 40), while a fourth was left in place in the trench wall (Feature 41). All the trench backdirt was screened to recover human remains and coffin parts.

**Feature 38**

Feature 38 was an adult burial located at the base of Trench 100 (Figure 2.4). The burial had been disturbed historically during installation of the 10-inch-diameter ceramic sewer pipe, which probably removed most of the burial. During the 2012 sewer pipe repair work, the backhoe bucket struck the burial again, removing the chest and upper arm area.

**Table 2.1.** Summary of human remains recovered during the 2012 Speedway to Main Monitoring fieldwork within the Court Street Cemetery, AZ BB:13:156 (ASM).

Feature	Status of		Clothing	Artifacts	Trench
	Remains	Coffin			
38	Excavated	Decorated	Yes	Picture frame	100
39	Excavated	Plain	No	Rosary	100
40	Excavated	Decorated	Yes	Wire	100
41	Not located	Present	Unknown	-	100
42	Excavated	Plain	Yes	-	102
43	Excavated	Decorated	No	-	102
44	Excavated	Decorated	Yes	-	103
45	Not located	Unknown	Unknown	-	103
46	Not located	Unknown	Unknown	-	103
47	Excavated	Decorated	Yes	-	103
48	Not located	Present	Unknown	-	104
Tr 100	Backdirt	Decorated, but not clearly associated with remains	Yes, but not clearly associated with remains	-	100
Tr 101	Backdirt	None	No	-	101
Tr 102	Backdirt	Decorated, but not clearly associated with remains	No	-	102
Tr 103	Backdirt	Decorated, but not clearly associated with remains	No	-	103

**Table 2.2.** Number of coffin hardware parts recovered during the 2012 Speedway to Main Monitoring fieldwork within the Court Street Cemetery, AZ BB:13:156 (ASM).

Feature/ Trench	Handle	Thumbscrew	Escutcheon	Caplifter	Ornament	Tack	Screw	Nail	Upholstery Tacks	Plain Screws	Dowels and Braces	Top Fastener Sets
38	-	-	-	-	-	3	3	7	-	-	-	-
39	-	-	-	-	-	-	-	41	32	-	-	-
40	4	-	-	-	1	2	-	15	-	-	-	-
42	-	-	-	-	-	-	-	32	30	-	-	-
43	6	-	-	-	-	-	-	29	3	3	25	-
44	4	3	3	2 <sup>a</sup>	-	-	-	20 <sup>a</sup>	-	-	8	3
47	5	4	5	-	-	-	-	-	-	-	-	-
TR 100	1	5	1	-	2	4	8	33	-	-	-	-
TR 102	1	1	1	-	-	-	-	-	-	-	-	-
TR 103	3	-	-	-	-	-	-	14	-	-	1	-

Note: No hardware was found with Features 41, 45, 46, and 48, or in Trenches 101 and 104.

<sup>a</sup>Nails, two caplifters, and window glass were found with Features 44 and 47, and it is uncertain which coffin they belonged to.

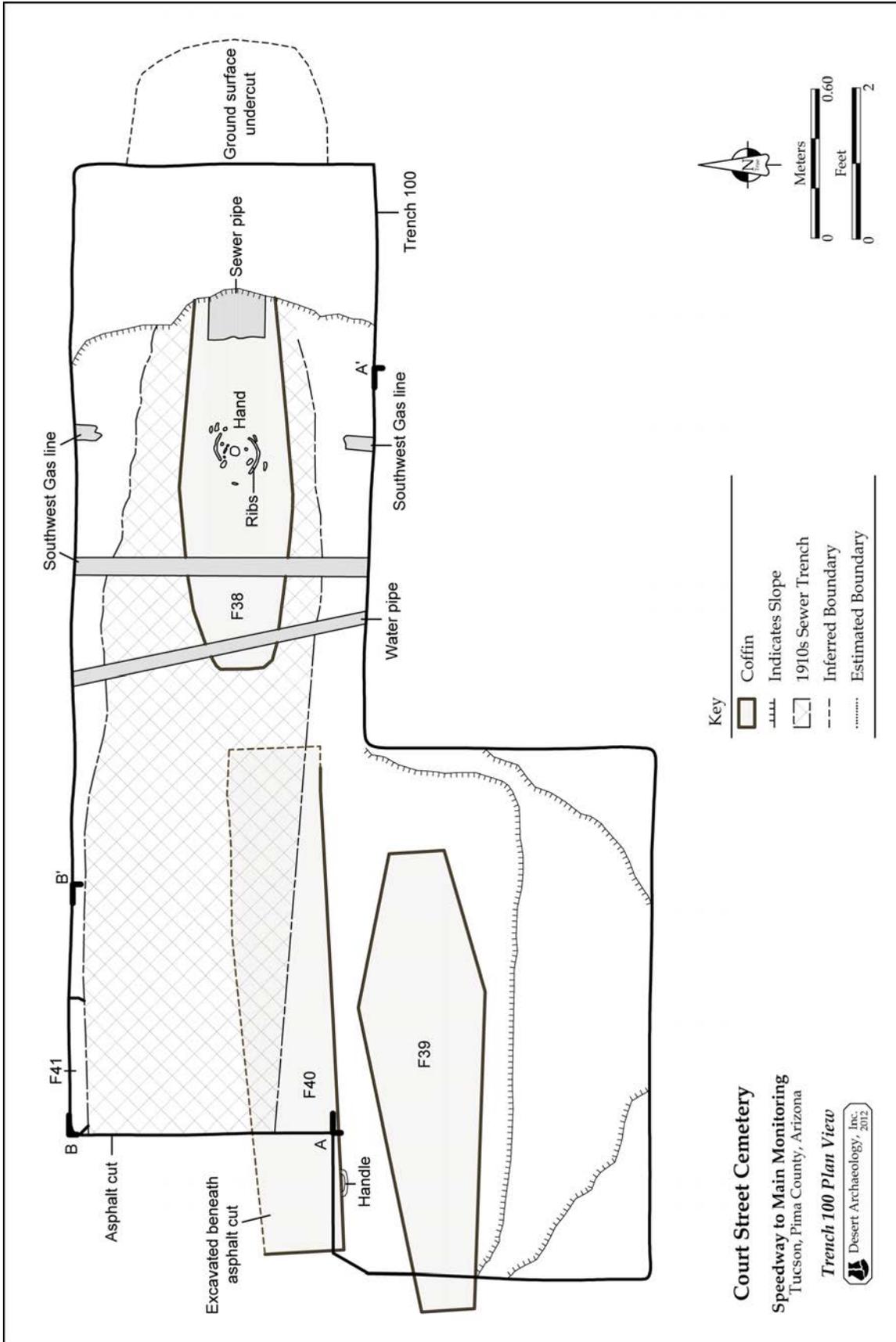


Figure 2.2. Plan view map of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).

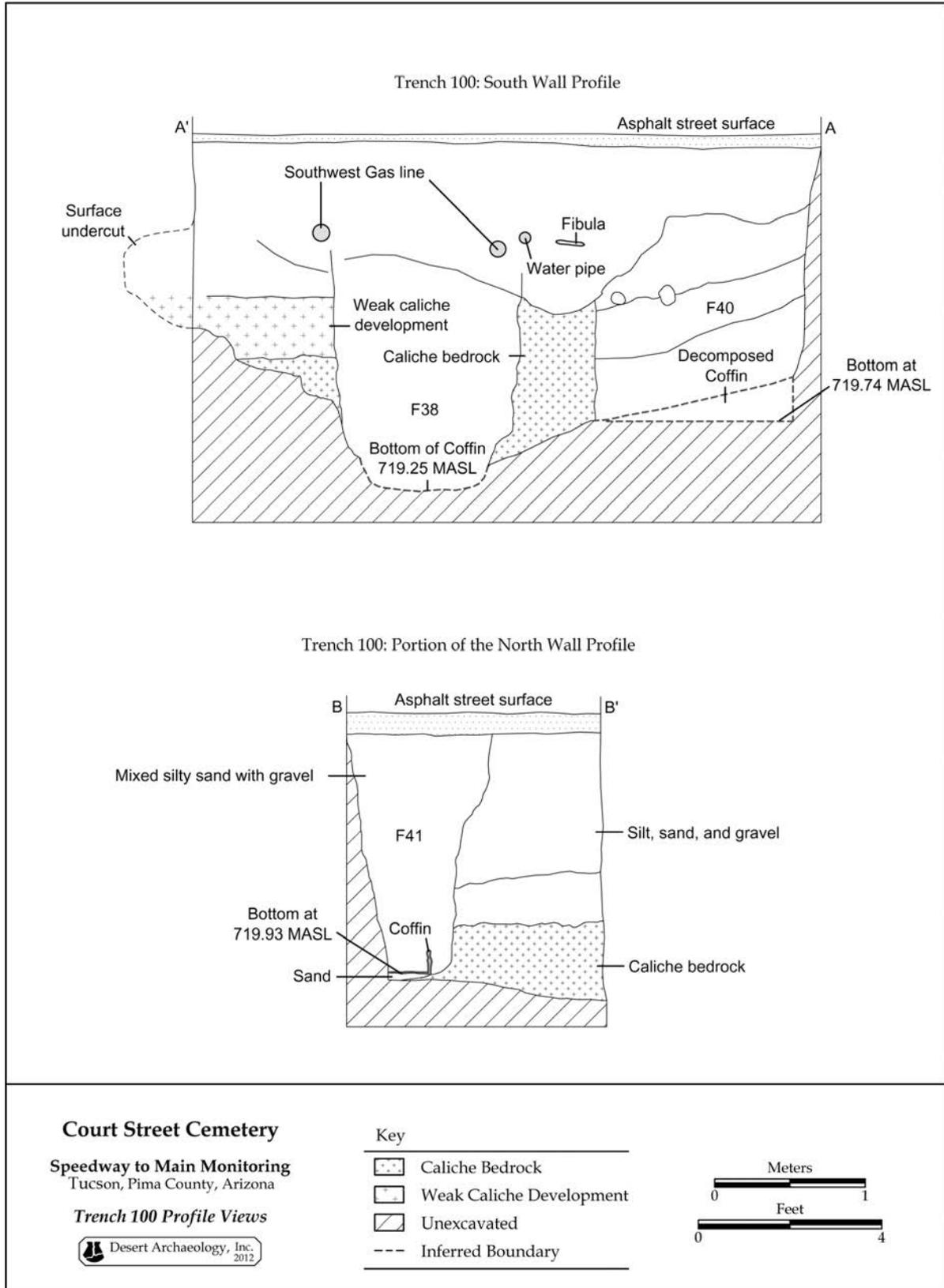


Figure 2.3. Profile drawings of the south and north walls of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).

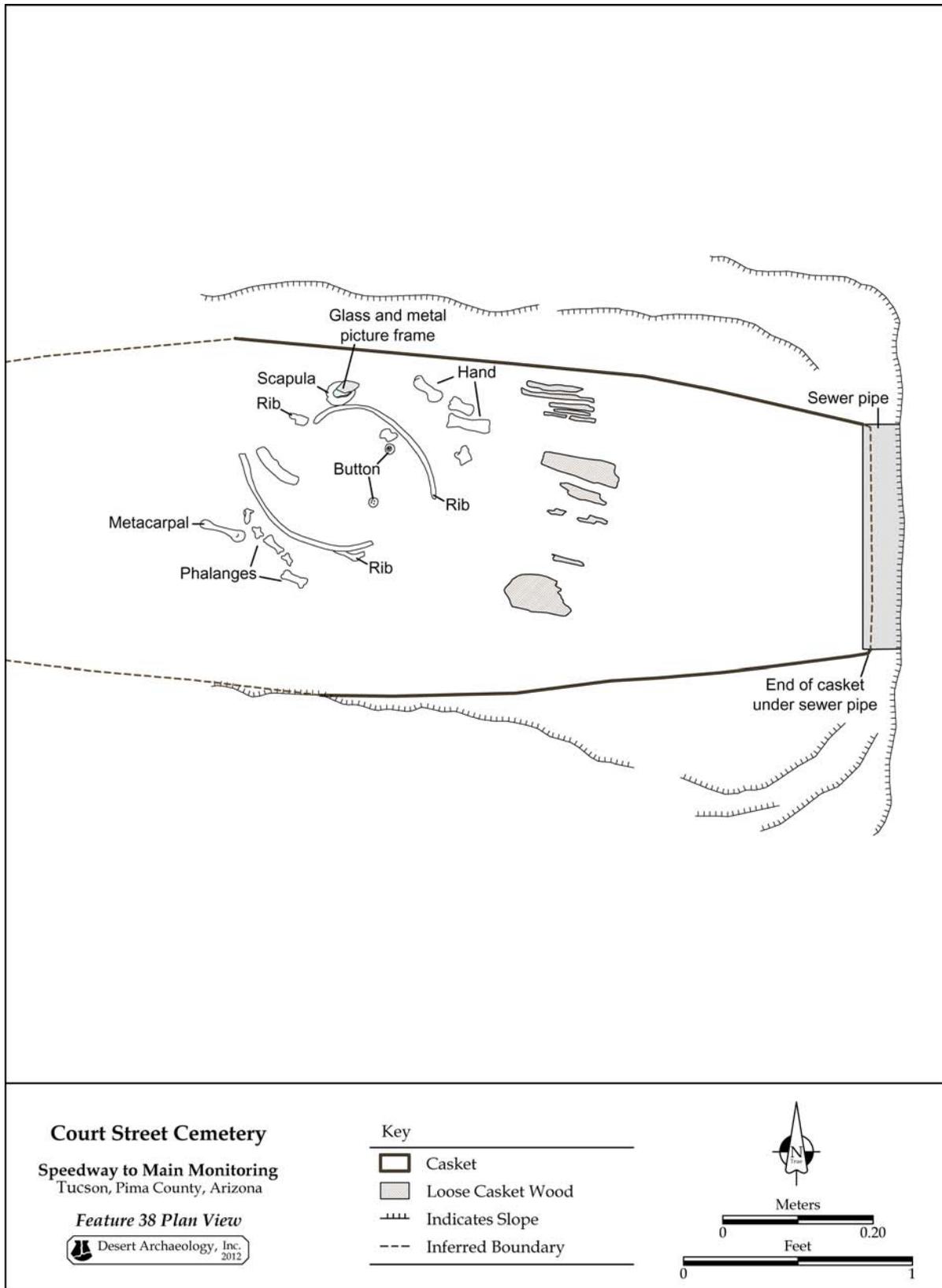


Figure 2.4. Plan view drawing of Feature 38, Court Street Cemetery, AZ BB:13:156 (ASM).

What remained of the burial was excavated between 8 October and 12 October 2012, by Homer Thiel, Robert Ciaccio, and Mario Arechederra.

Excavation proceeded by removing the fill of the trench and exposing the in situ remains, which were mapped and removed. The back of the rib cage, portions of the hands, several artifacts, and wood from the base of the coffin were in place. The existing ceramic sewer pipe was then cut and the area excavated down to the coffin base. The top of the burial was about 2.30 m below the asphalt surface, and the base was about 2.40 m, 719.55 to 719.34 MASL. The shaft cut, visible in the south profil, was at least 1.25 m long, representing the southern edge of the burial shaft. The original shaft was probably about twice as long, but had been largely removed within the trench.

### *Coffin*

The wooden base of the hexagonal coffin survived as fragments. At its widest point, the coffin was 46 cm wide, and the surviving portion was 92 cm long. The coffin was probably originally at least 1.8 m long. Wood from the coffin was identified as *Pinus* sp. (pine).

Seven coffin nails were recovered. None were complete, and each was so rusty that the manufacturing method could not be determined. The nails probably attached the base of the coffin to the sides.

Three coffin screws were recovered. Three fragments from one or more pressed brass items were recovered. The largest piece has a serrated, leaf-like edge. The item may have been an ornamental tack, or perhaps a stamped brass crucifix; however, the small size of the fragment prevented a positive identification.

### *Human Remains*

Most of the human remains had been disturbed by either the 1910s ceramic sewer pipe or were removed by the backhoe bucket. The ribs, thoracic vertebrae, and a humerus were recovered from the backdirt pile. Ribs, a scapula fragment, and portions of the left and right hands were found in situ. The proximal ends of several ribs were on the western end, indicating the individual was originally buried with their head to the west and feet to the east.

The remains of the individual associated with Feature 38, due to their size and color, including elements found in the trench fill, represent a fragmentary skeleton of an adult male. The elements belonging to this individual are mixed with those from the individual associated with Feature 40; therefore, it is unclear in some instances which element belongs

to which individual. However, most of the elements appear to belong to Feature 38. Elements likely associated with this individual include a left maxillary lateral incisor, several vertebrae (3 cervical, 4 thoracic, 5 lumbar), a fragment of the sacrum, a complete left clavicle, the diaphyses of both humeri, the left radius and ulna, portions of the right femoral diaphysis, fragments of both fibulae and tibiae, and parts of both feet. The remains are generally in good condition, although damaged and fragmented.

*Assessment of Age, Sex, and Stature.* Age of this individual is estimated between approximately 19 and 30 years of age at death, based on epiphyseal fusion, dental wear, and arthritic changes in the joints (Ubelaker 1989). The individual is estimated to be male, based on large bone size and robust muscle markings.

*Osteological Observations.* Wear on the tooth is moderate, but is at a slight angle toward the distal side. There is a large carious lesion at the cemento-enamel junction on the labial surface. A small enthesial pit is located adjacent to the acromial articular facet on the scapula, suggesting some stress at that joint. Some minor osteoarthritic lipping is present on several small joint surfaces, including several articular facets of the vertebrae. No other bony lesions are present on the elements that were complete enough for observation.

*Assessment of Ancestry.* Estimation of ancestry is limited in this individual, as the cranium is missing.

### *Associated Artifacts*

Six buttons were found with this burial (Figure 2.5). Three buttons were found in situ, and would have originally been on the back of the body in the lower back area. Three other buttons were found in the screen from soil removed from within the burial. Four types of buttons were found. One shell button, button #1, had four holes, an inset center, and was 3/8-inch in diameter. Button #2 was a 4-hole shell button with an inset center; it was also 3/8-inch in diameter. These two were almost certainly underwear buttons, positioned on the backside, perhaps from a union suit. Button #3 was found in the lower back area and Buttons #5 and #6 were identical and were found in the screen. All three were shell, had four holes, and were 5/16-inch in diameter. Button #4 was a ferrous metal 4-hole pants button found in the rib area that was 3/4-inch in diameter.

A small picture frame was discovered along the left side of the body (Figure 2.6). The ferrous metal frame has a thin glass insert and may have had a clasp on its top. It measured 1½ inches wide (the length could not be measured). Remnants of fabric adhered to the back of the frame, which probably



**Figure 2.5.** Three shell buttons and one metal button from Feature 38, Court Street Cemetery, AZ BB:13:156 (ASM).

held a religious image. Nineteen similar frames were recovered from 18 burials at the Alameda-Stone Cemetery (Sewell, Linde, and Heilen 2010:314).

Ten pieces of ferrous metal were recovered. None were identifiable, although one may be a portion of a suspender buckle. Woven fabric impressions are visible in the largest piece. Some of the pieces may not be burial related, however, because the upper portion of the burial was disturbed by the 10-inch-diameter ceramic sewer pipe, and refuse could have been deposited when the pipe was put in place.

### Feature 39

Feature 39 was located when Trench 100 was expanded to the south to allow excavation of Feature 40, which had been exposed in the wall and floor of the backhoe trench (Figure 2.7). The burial was excavated on 10 and 11 October 2012, by Homer Thiel, Robert Ciaccio, and Mario Arechederra.

The fill within the expanded area, which measured 2.15 m by 1.15 m, was removed by the backhoe until disarticulated human remains were located. Hand-excavation continued, and additional human remains and coffin hardware were recovered until the disturbance zone was completely removed, at about 1 m below the modern road surface, with this fill designated Level 1. All the fill was screened to recover human remains and coffin parts. Metal shoring was installed to meet OSHA regulations. The shaft of Feature 39 became visible, and excavation continued down to the lid of the coffin, with this fill



**Figure 2.6.** Glass and metal picture frame from Feature 38, Court Street Cemetery, AZ BB:13:156 (ASM) (FN 2205).

designated Level 2. The interior of the coffin was then excavated, starting at the eastern end, where the head was located. Due to the cramped space available, the burial was excavated in three portions, with each portion mapped and the remains removed prior to the next portion being excavated. Following the removal of the remains and the coffin wood and nails, the fill between the coffin wood and the shaft was excavated to ensure complete recovery of all coffin parts. The coffin did not have handles, decorative tacks, or lid hardware.

### Coffin

The top of the hexagonal coffin was at 2.10 m below the modern asphalt street surface, and the base was at 2.31 m, 719.55 to 719.34 MASL, indicating the coffin was only 21 cm tall. It was 1.65 m long. Due to the hexagonal shape of the coffin, it varied in width. At the head end, it was 20 cm wide, at the shoulder of the coffin, it was 41 cm wide, and at the foot end, it was again 20 cm wide.

At least 41 coffin nails, including portions with the head intact, were used in the coffin. The complete examples were all 2¼ inches long. Another 49 fragments were lacking their head. Small tacks, presumably used to attach fabric to the coffin, were represented by 32 examples, each about 5/8 inches long. Several of the tacks were in pairs, rusted together, and were quite close to each other on the coffin. The

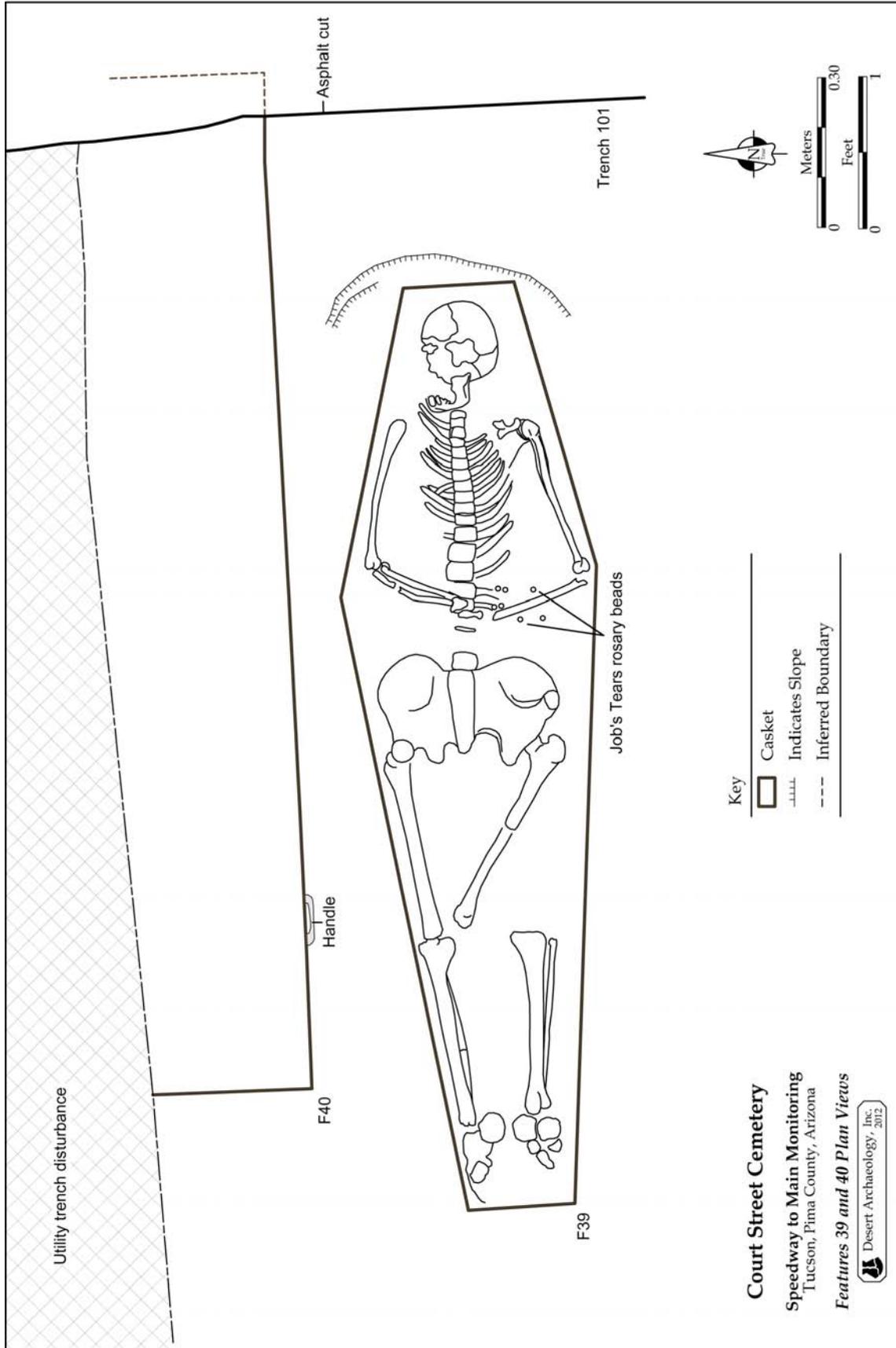


Figure 2.7. Plan view drawing of Features 39 and 40, Court Street Cemetery, AZ BB:13:156 (ASM).

tacks appeared to have been present in the interior of the coffin.

#### *Human Remains*

The remains of the individual recovered from Feature 39 represent a complete skeleton of an adult female. Several elements are heavily fragmented, including the vertebrae, but the only missing elements are the lumbar vertebrae. The condition of the remains varies; many elements are damaged and fragmented. Roots, soil, and soft tissue still adhere to several elements.

*Assessment of Age, Sex, and Stature.* Age of this individual is estimated as between approximately 30 and 40 years of age at death based on morphology of the pubic symphysis (Brooks and Suchey 1990) and dental wear (Übelaker 1989). The individual is estimated to be female, based on primary sex characteristics of pelvic morphology (open features) and secondary sex characteristics of gracile cranial morphology and muscle markings. The vertical diameter of the left humeral head measures 39 mm, and falls within the range expected for females (< 42.5 mm), as reported by Stewart (1979). The individual had shoulder-length black hair.

Stature for the individual is estimated at approximately 161.10 cm±4.45 (between 5'1" and 5'4"), using a formula developed by Trotter and Gleser (1952), based on maximum humeral length for American white females.

*Osteological Observations.* Wear on the teeth is moderate to heavy, particularly the incisors. All three of the left mandibular molars were lost antemortem. Occlusal surface caries are present on the right second and third maxillary molars and the right third mandibular molar. Additionally, a small carious lesion is present on the buccal side of the cemento-enamel junction on the right first mandibular molar.

Many of the remains are fragmented, preventing observations of pathology, although a few bony lesions are present. Minor osteoarthritic lipping is present on the medial articular surface of the right clavicle. Schmorl's nodes were observed on the inferior body surface

of a middle thoracic vertebra, and several small osteophytes are present along the border of some of the vertebral bodies.

*Assessment of Ancestry.* Estimation of ancestry is limited in this individual, because the entire cranium is fragmented. However, the absence of shoveling on the upper incisors is generally consistent with an individual of European ancestry. It is important to note, however, that caution should be used when estimating ancestry from single or limited traits. These limited biological markers should be used as evidence to support contextual assertions for the estimation of ancestry among individuals.

#### *Associated Artifacts*

A rosary was present beneath the right hand of the interred individual (Figure 2.8). It consisted of a very poorly preserved brass medallion or crucifix, a single faceted hexagonal black glass bead, and at



**Figure 2.8.** A rosary found beneath the right hand in Feature 39, Court Street Cemetery, AZ BB:13:156 (ASM) (FN 2226).

least 35 seed beads. The seed beads were made from the seeds of Job's Tears, *Coix lacryma*. Approximately 13 appear to have been dyed brown or black, or perhaps were stained by coffin wood, fabric, or the human remains. The beads were very fragile, and other beads had completely decomposed; therefore, the original number is uncertain (most rosaries have 50-53 beads).

A small, ¼-inch-diameter iron blob was found in the upper chest area. The item could not be identified, and may be a bit of rust that fell from the coffin lid onto the body.

#### Feature 40

Feature 40 was located in Trench 100 in the south wall, where the shaft was visible cutting through the native caliche, and in the base of the trench, where the southern and eastern end of a wooden coffin were partially visible (see Figure 2.7). The burial was disturbed during the installation of the 10-inch-diameter ceramic sewer pipe, probably in the 1910s, and during the 2012 sewer work. In an effort to expose the top of Feature 40, the asphalt on the south side of Trench 100 was cut and the upper fill removed. This resulted in the exposure and excavation of Feature 39. However, a coffin handle and the southern side of the coffin for Feature 40 were visible in the north wall of the shaft for Feature 39. Feature 40, then, was likely placed after the Feature 39 burial.

The burial was subsequently excavated on 11 October 2012, by Homer Thiel, Robert Ciaccio, and Mario Arechederra, by removing the portion visible in the backhoe trench and then burrowing into the side wall, removing the surviving portion of the coffin and the interior fill. At least half the coffin had been cut through by the 1910s sewer trench.

The burial was either exhumed in the 1910s, prior to installation of the sewer pipe, or the contents of the coffin fell out during excavation of the original sewer trench. The lid from the coffin was missing, as shown by the lack of thumbscrews and escutcheons in the surviving portion of the coffin. This suggests the body was exhumed, although it is also possible that the coffin lid simply fell out into the trench. Excavation of the interior of the coffin yielded a single toe phalange and a button toward the eastern end of the coffin.

#### Coffin

The top of the rectangular coffin was 1.54 m below the asphalt road surface, and its base was at 1.91 m, 720.11 to 719.74 MASL, indicating the coffin was originally about 37 cm tall. It was 2.00 m long. The

width could not be determined. One coffin handle and a decorative diamond-shaped tack were in place along the southern (right) side of the coffin. A thin, machine-stamped brass crucifix and a decorative tack were present on the western (head) exterior end of the coffin. Fragments of black machine-woven cotton cloth were present between the tacks and the coffin wood, indicating the exterior of the coffin was covered with fabric. Yellow paint survived on a few fragments of the interior side of the coffin. Wood from the coffin was identified as pine (*Pinus* sp.).

At least 15 nails were recovered, represented by nail heads. The only complete example was 2½ inches long. Another 38 nail fragments were present. Two small, ½-inch-long, iron tacks were also found, which were probably used to attach fabric to the coffin.

A complete double-lug, short bar handle was found in situ on the center of the southern side of the coffin. Three additional identical lugs were recovered from the screened trench backdirt and probably come from this coffin. The handles featured gilt paint, which would have contrasted sharply with the fabric that once covered the coffin.

The two decorative tacks had embossed crosses, as did the crucifix at the head end of the coffin (a matching crucifix was found in the trench backdirt and may have come from the foot of this coffin). No thumbscrews or escutcheons were recovered from this burial, which was not surprising because the coffin lid was missing. Some of the thumbscrews and escutcheons found in the Trench 100 backdirt may be associated with this burial.

#### Human Remains

The remains of the individual recovered from Feature 40, including elements found in the trench fill, represent a fragmentary skeleton of an adult female. The elements belonging to this individual are mixed with those from the individual associated with Feature 38; therefore, it is unclear in some instances which element belongs to which individual. Most of the elements appear to belong to Feature 38. Elements likely associated with this individual include five teeth (right I<sup>2</sup>, C<sup>1</sup>, P<sup>2</sup>, I<sub>1</sub>, and P<sub>1</sub>), several ribs, a fragment of the sternum, both clavicles, and a few hand bones. The remains are generally in good condition, although damaged and fragmented.

*Assessment of Age, Sex, and Stature.* The age of this individual is estimated between approximately 19 and 30 years of age at death, based on epiphyseal fusion and dental wear (Ubelaker 1989). The individual is estimated to be female, based on small bone size and gracile muscle markings.

*Osteological Observations.* Wear on the teeth is moderate. There is a small carious lesion on the lin-

gual surface of the right lateral maxillary incisor. No bony lesions are present on the elements that are complete enough for observation.

*Assessment of Ancestry.* Ancestry for this individual could not be determined, as the cranium is missing.

#### *Associated Artifacts*

A few clothing remnants were recovered from inside the coffin. One 2-hole shell button with a small inset center, ½ inch in diameter, was found toward the eastern end of the coffin (Figure 2.9). A piece of black machine-woven cloth was found inside the coffin, and is either a piece of cloth that lined the coffin or a fragment of clothing. The cloth is sewn together with thread that is possibly brown or red.

Eleven pieces of thin wire were also found in Feature 40 (Figure 2.10). These pieces may represent the remnants of a floral crown. These were commonly found at the Alameda-Stone Cemetery, where 115 juveniles were buried wearing this type of item. Catholic (Hispanic and Native American) and Yaqui children and young unmarried adults may be buried with the wreaths, which are thought to celebrate the innocence of the deceased and their passage into heaven (Sewell, Linde, and Heilen 2010).

#### **Feature 41**

Feature 41 was located in the north wall of Trench 100, along the western end of the trench. The eastern end and the base of the wooden coffin were visible in the profile of the trench. The burial was cut into by the 1910s sewer trench. The decision was made to leave this burial in place, because the modern trench had not disturbed the feature.

The top of the coffin was at 1.57 m below the asphalt surface, and the base of the coffin was at 1.72 m below the asphalt surface, from 720.08 to 719.93 MASL. The shallow height of the coffin suggested it was for a child. Approximately 30 cm of the eastern end of the coffin was visible in the profile.

#### *Human Remains*

A few bones from a child were found close to the coffin in the 1910s sewer trench fill. It is unclear if these are associated with this coffin. They were, however, assigned to this feature number, because the



**Figure 2.9.** A shell button from Feature 40, Court Street Cemetery, AZ BB:13:156 (ASM) (FN 2233).

remains obviously did not belong to the other three burials. The remains may represent another burial, perhaps one that was partially removed by the 1910s sewer trench.

The remains of the individual possibly associated with Feature 41 represent the fragmented skeleton of a child. The remains are in generally good condition, but they are fragmented and consist of two deciduous teeth (right  $i^2$  and  $m^1$ ), several fragments of the cranial vault, three rib fragments, several fragments of cervical and thoracic neural arches, both scapulae, the diaphysis of the right tibia, and five metacarpals. Age is estimated at 4-6 years old at death, based on epiphyseal fusion (Ubelaker 1989).



**Figure 2.10.** Fragments of wire found with Feature 40, Court Street Cemetery, AZ BB:13:156 (ASM).

No elements present could be used to estimate ancestry, and the limited and fragmentary nature of the remains limit assessments of pathology or other skeletal observations.

### Trench 100 Fill

All the trench backdirt from Trench 100 was screened, as was the disturbed fill above Feature 39. After the discovery of the human remains, a sample of the backdirt was screened through nested ¼-inch and 1/8-inch screens, with no human remains or associated artifacts recovered. The remainder of the soil was turned over using a flat-nosed shovel and no additional remains were located. Coffin parts, a button, human bone, and some discarded household trash were found in this material. Some of the coffin parts may have come from Features 38, 40, and 41, while some of the human bone was associated with Features 38, 40, and 41.

#### *Coffin Parts*

A double-lug, swing bail handle was found in the disturbed fill above Feature 39. Three styles of thumbscrews were found in the Trench 100 backdirt. Three had an abstract crown design, one had a tent-like top, and another was apparently for a child's coffin and was poorly preserved.

A fragmentary base metal escutcheon found in the backdirt matched the three thumbscrews with the abstract crown design, also found in the backdirt. These likely came from the same coffin.

Four different types of stamped-brass decorative tacks were found in the trench backdirt and the disturbed fill above Feature 39. Another complete example matched the decorative stud found on the Feature 40 coffin. Twelve smaller fragments were also recovered, with one or two matching the Feature 40 stud and the others matching the third type described above.

Eight coffin screws were found in the trench backdirt. Sixty-three coffin nail fragments were found in the disturbed fill above Feature 39 or in the trench fill. Thirty-three nail heads were present. The complete nails ranged from 2½-2-5/8 inches long. One other nail was imbedded in coffin wood found in the dirt above Feature 39, wood that could either have come from Feature 39 or Feature 40. A fragment of black, finely woven cloth was found with the wood.

A stamped brass crucifix with adhering finely woven black cotton cloth was found in the disturbed fill above Feature 39. It was identical to the crucifix found attached to the Feature 40 coffin.

Three fragments of a base metal religious scene, once attached to a coffin, were recovered from the backdirt. The scene depicts a woman kneeling to the left of a crucifix with her arms raised in prayer.

#### *Human Remains*

While some of the human remains found in the screened trench backdirt could be associated with Features 38, 40, and 41, other skeletal elements comprise the fragmentary remains of an adult male individual. The remains consist of rib fragments representing a minimum of six ribs (four right, two left), seven fragments of thoracic articular facets, numerous fragments of long bone diaphyses representing nearly all the limb bones, fragments of both clavicles, sternal elements, the right ischium, the right lunate, and fragments of the right calcaneus and cuboid. The elements are in poor condition and are heavily fragmented. The combination of large bone size and robust muscle markings, as well as a narrow sub-pubic angle, are indicative of a male individual. All the observable epiphyses are fused, indicating an adult individual. No elements present could be used to estimate ancestry, and the fragmentary nature of the remains limit assessments of pathology or other skeletal observations.

#### *Associated Artifacts*

One 4-hole shell button was recovered from the trench backdirt. The button was 3/8-inch in diameter.

#### *Miscellaneous Artifacts*

Fragments from two tin cans were found in the disturbed fill above Feature 39. The better preserved example was 4.45 inches in diameter. Both probably held food, and were likely discarded as trash when utilities were installed in the 1910s. Two identified strips of iron, each about 3/8-inch long, were found in the disturbed fill above Feature 39.

Two fragments of base metal, 4 pieces of wire, 154 fragments of tinned metal, and approximately 20 rusted blobs were found in the trench backdirt. The tinned pieces are probably from the tin cans. The base metal fragments are from coffin hardware, but were too damaged to identify which portion. A brass pencil ferrule was also recovered.

### TRENCH 101

Trench 101 was located at the intersection of W. 1st Street and N. Perry Avenue. It was roughly 4 m<sup>2</sup>

and 1.25 m deep. The upper portion of a manhole was being replaced. A backhoe excavated a trench around the perimeter of the manhole. Robert Ciaccio monitored the excavation, and several isolated human bone fragments were recovered from the surface of the backdirt pile. No shafts were observed cutting through the caliche in this area.

After locating the two rib fragments, a large sample of the soil was screened through nested ¼-inch and 1/8-inch screens. No additional remains, coffin hardware, or associated artifacts were recovered. It is likely that the remainder of the child's burial is located deep within the trench, either still largely in place within a coffin, or possibly disturbed and scattered throughout other portions of the 1910s sewer trench.

### Human Remains

The skeletal elements recovered from the trench backdirt consist of two rib fragments from a child, based on size (Schaefer et al. 2009). The elements are in excellent condition, but do not allow for an estimate of ancestry, or assessments of pathology and other skeletal observations.

### TRENCH 102

Trench 102 was located at the intersection of W. 1st Street and N. Ash Avenue. The trench was 4 m long (east-west), 3.9 m wide (north-south), and 1.25 m deep. A manhole at this location needed to be repaired, and during excavation of a trench around the existing manhole, the backhoe cut into the edge of a human burial. Subsequent investigation of the area revealed a second burial on the southern side of the manhole (Figure 2.11). Both burials were likely to be disturbed by the repair work, and it was decided to excavate both.

### Feature 42

Feature 42 was located on the northern side of the manhole (Figure 2.12). The backhoe bucket sliced through the upper right side of the body, removing a portion of the skull, the right side of the chest, the right humerus, and most of the forearm. The burial was excavated on 19 October 2012, by Rachel Byrd, Alex Tuggle, Homer Thiel, Robert Ciaccio, and Mario Arechederra.

The top of the burial was located at 1.17 m below the modern street surface, while the base of the coffin was at 1.40 m below the modern street sur-

face, from 722.78 to 722.55 MASL. The burial shaft was 2.0 m long and 58 cm wide.

### Coffin

The Feature 42 coffin was trapezoidal and was 198.0 cm long, 30.5 cm wide, and 25.5 cm tall. Wood from the coffin was identified as either pine (*Pinus* sp.) or Douglas fir (*Pseudotsuga* sp.).

No coffin hardware or decorative hardware was present. Three types of nails had been used to hold the coffin together. There were at least 16 large nails, ranging in length from 1¼ inches to 2-3/8 inches in length. At least 16 finishing nails, about 1-1/8 inch long, were present. Another 189 nail fragments were also recovered, in addition to dozens of small blobs of rust. Tacks, probably used to attach lining to the interior and/or exterior of the coffin, were represented by 30 examples, with most about ¾-inch long.

### Human Remains

The remains of the individual recovered from Feature 42 represent a mostly complete skeleton of an adult female. Several elements are heavily fragmented, including all the vertebrae; several elements are missing. Missing elements include portions of the cranial base and right side of the face, large portions of the ribs and scapulae, and several foot digital bones. The condition of the remains is variable; a few elements are damaged and fragmented, and the femora exhibit some warping. Soil still adheres to several elements, and some exhibit staining from coffin wood.

*Assessment of Age, Sex, and Stature.* The age of this individual is estimated as between approximately 15 and 23 years of age at death, based on epiphyseal fusion and dental eruption (Ubelaker 1989). The individual is thought to be female, based on primary sex characteristics of pelvic morphology (open features) and secondary sex characteristics of gracile cranial morphology and muscle markings. The vertical diameter of the left femoral head measures 38.5 mm and falls within the range expected for females (< 42.5 mm) as reported by Stewart (1979).

Stature for the individual is estimated at approximately 153.73 cm±4.45 (between 4'9" and 5'2"), using a formula developed by Trotter and Gleser (1952) based on maximum humeral length for American white females.

*Osteological Observations.* Wear on the teeth is minor, but the left mandibular canine is chipped on the distal occlusal border. Several teeth are missing postmortem, but the right maxillary third molar is still developing (root half formed). There is no evidence of carious lesions or calculus buildup.

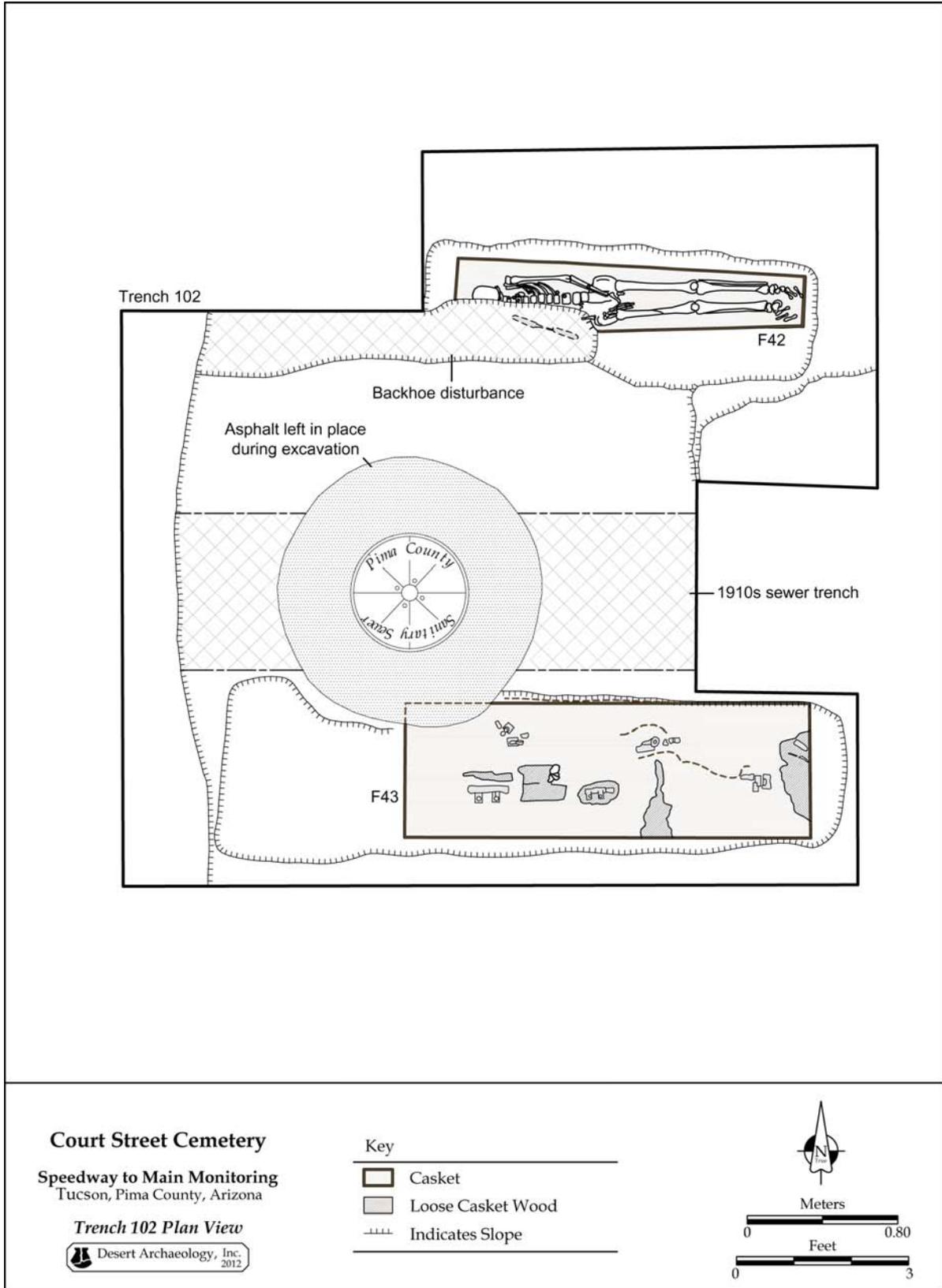


Figure 2.11. Plan view map of Trench 102, Court Street Cemetery, AZ BB:13:156 (ASM).

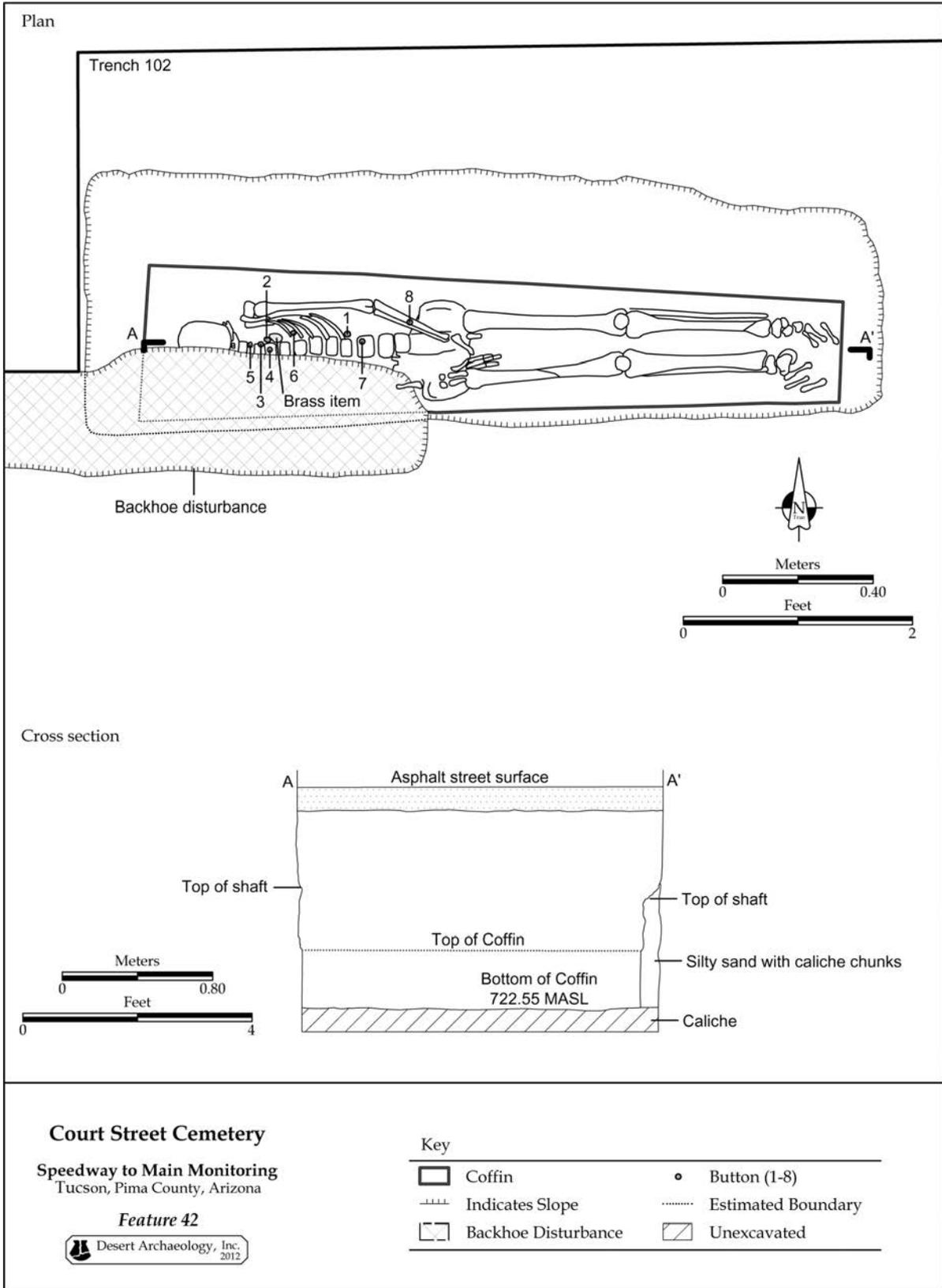


Figure 2.12. Plan view and cross section of Feature 42, Court Street Cemetery, AZ BB:13:156 (ASM).

No bony lesions are present on those elements complete enough for observation; however, the fragmented nature of several elements limits the observation of pathology and other skeletal observations.

*Assessment of Ancestry.* Estimate of ancestry is limited in this individual, as the entire cranium is fragmented.

#### *Associated Artifacts*

The individual in Feature 42 was buried wearing a garment with eight identical buttons (Figure 2.13). The shell buttons had two holes, a small inset center, and were ½-inch in diameter. Button #1 was found on the vertebral column. Button #2 was on the lower sternum and had a green stain from a brass item found in the same area. Button #3 was found on top of the thoracic portion of the vertebral column. Buttons #4 and #5 were found beneath the thoracic vertebrae. Button #6 was inside the rib cage, and was originally on the front of the garment. Button #7 was below the first or second lumbar vertebrae, and was on the back of the garment. Button #8 was on top of the middle left forearm, and was probably on the sleeve of the dress.

A small brass artifact was on the sternum of the individual. It was roughly oval in shape and was probably a safety pin, although this is not certain. Button #2 was either underneath or on top of the item. Fragments of white, machine-woven fabric are present on the underside of the brass item.

#### **Feature 43**

Feature 43 was located in Trench 102 when KE&G workers were using a backhoe to clear dirt from around a manhole. Clearing the dirt on the south side of the manhole at the base of the backhoe cut exposed the top edges of a wooden coffin (Figure 2.14). The burial was excavated on 18 October 2012, by Robert Ciaccio, Homer Thiel, and Mario Arechederra.

Excavation revealed that the long sides of the rectangular coffin had collapsed inward, with the southern side lying beneath the northern side. Excavation proceeded by exposing the hardware on the upper collapsed side, then the hardware on the lower collapsed side, and finally exposing the interior. The body associated with this burial had been exhumed, leaving behind a few ankle bones. After the coffin was completely removed, the soil between the coffin and the shaft edge was completely excavated. The top of the burial was identified at 81 cm below the modern street surface, and the base was at 1.29 m below the street surface, from 723.14 to 722.66 MASL.



**Figure 2.13.** A button from Feature 42, Court Street Cemetery, AZ BB:13:156 (ASM) (FN 2266).

#### *Coffin*

The burial shaft for Feature 43 was 2.55 m long (east-west) and 86 cm wide. It cut through the native caliche, and the fill outside the coffin consisted of brown silty sand and small chunks of caliche.

The rectangular wooden coffin was 213.0 cm long, 71.0 cm wide, and 40.5 cm tall. Wood from either pine (*Pinus* sp.) or Douglas fir (*Pseudotsuga* sp.) was used to construct the coffin. The lid of the coffin had been removed when the body was exhumed, and was not returned to the grave afterwards. Three handles were attached to each side.

Many iron nails were used to attach the sides and base of the coffin together. Twenty-nine nail heads and 111 nail fragments were recovered. The nails ranged in length from 1-5/8 inches to 3 inches in length. Three iron tacks were also found. The complete example was ¾-inch long. Four screws were present, one of which was 1¼ inches long.

Six matching double-lug, short bar handles were recovered. Five complete handles were inside the coffin attached to the fallen sides, and one lug was recovered from the trench back dirt.

Twenty-five ferrous metal dowels and braces were found, which were used to support the placement and hinging of the coffin lid and to help in the coffin construction. Eighteen of these were rectangular, three had rounded edges, and four had screws extending through them. Most were ¼-inch to ½-inch wide.

#### *Human Remains*

The Feature 43 burial had been exhumed sometime between 1907 and 1916. The remains left be-

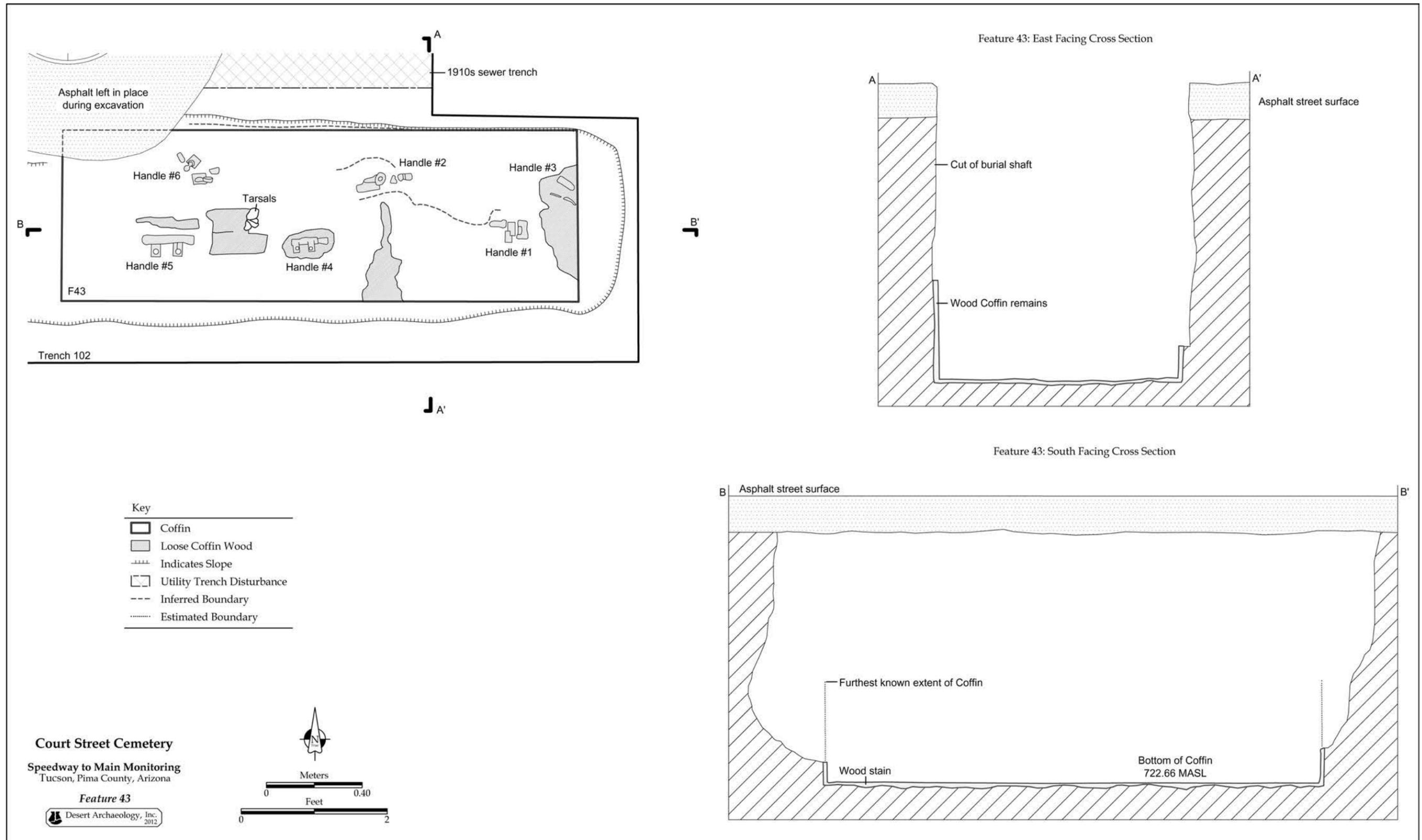


Figure 2.14. Plan view and cross sections of Feature 43, Court Street Cemetery, AZ BB:13:156 (ASM).

hind consisted of a few elements from the left foot. These include the cuboid, navicular, medial cuneiform, intermediate cuneiform, and lateral cuneiform. These few elements are in excellent condition, complete and undamaged. All the epiphyses observable are fused, indicating an adult individual. However, they do not allow for estimates of specific age, sex, or ancestry, or assessments of pathology and other skeletal observations.

#### *Associated Artifacts*

No clothing artifacts were recovered from this burial.

#### **Trench 102 Fill**

A large portion of the backdirt pile from Trench 102 was screened through ¼-inch mesh to recover human remains and artifacts. In this location, the wet nature of the soil precluded use of the 1/8-inch mesh screen. A third burial was likely once located in either the 1910s sewer trench or the manhole area, and the additional coffin parts and human remains are from that burial. No clear evidence for this could be found, however, and these items were not assigned to a distinct feature number.

#### *Coffin Parts*

A base metal double-lug, swing-bail handle was recovered, as were a base metal thumbscrew and a matching thumbscrew escutcheon.

#### *Human Remains*

The skeletal elements recovered from the trench consist of the middle and distal portions of the right fibula diaphysis, the right 2nd and 5th metatarsals, and 2nd proximal phalanx. The elements are in excellent condition, are very large, and exhibit robust muscle markings, all indicative of an adult male individual. Unfortunately, the limited nature of the remains prevents an estimate of ancestry, or assessments of pathology or other skeletal observations.

#### *Associated Artifacts*

A fragment of machine-woven brown or black cloth was recovered. Two pieces of fabric are present, apparently sewn together. The piece is probably from clothing rather than coffin lining. It almost certainly originated from Feature 43 or from a burial disturbed by the 1910s sewer trench.

#### *Miscellaneous Artifacts*

Five fragments of tin cans were found in the trench backdirt. A piece of grayish-blue phyllite rock measuring 6½ inches long by 5¾ inches wide was also recovered. This type of rock is often found in the Catalina Mountains. The rock may have formed part of a grave marker.

#### **TRENCH 103**

A section of sewer pipe beneath the alley between N. 9th Avenue and N. Perry Avenue, south of W. 1st Street, was deformed, making it impossible to run a robot safely through the pipe in this area. A trench was subsequently excavated over the existing 1910s sewer trench. The trench was 2.8 m long (east-west), 2.7 m wide (north-south), and was 2 m deep. During the excavation, several shafts cutting through the caliche layer were noted. At the base of the trench, hardware from several coffins was discovered. In situ coffin wood was noted in the wall of the trench, and it was decided to excavate this burial (Figure 2.15). Work was conducted on 6 and 7 November 2012, with Homer Thiel, Robert Ciaccio, Mario Arechederra, and Allen Denoyer excavating the burial.

#### **Feature 44**

The shaft for Feature 44 was visible in both walls of the trench. The 1910s sewer trench had cut through the burial, and an additional portion was disturbed when the trench was enlarged along the western side. Coffin wood and hardware were dislodged by the backhoe and were recovered by screening the backdirt. Excavation of the feature began by removing the shaft fill on the western side of the trench until wood was located. This material, primarily pulverized caliche, was not screened. Rather, screening began after wood was located. It quickly became evident that the burial had been exhumed and that pieces of two coffins had been tossed into the feature.

The rectangular box may have been a vault instead of a coffin. No coffin hardware was attached to the exterior of the box. Three sets of coffin hardware were found inside the box or the trench. One set was assigned to Feature 44. A child's coffin was designated as Feature 47. The third set of coffin hardware was assigned to the trench and may be associated with one of the two other burial shafts noted in the trench walls.

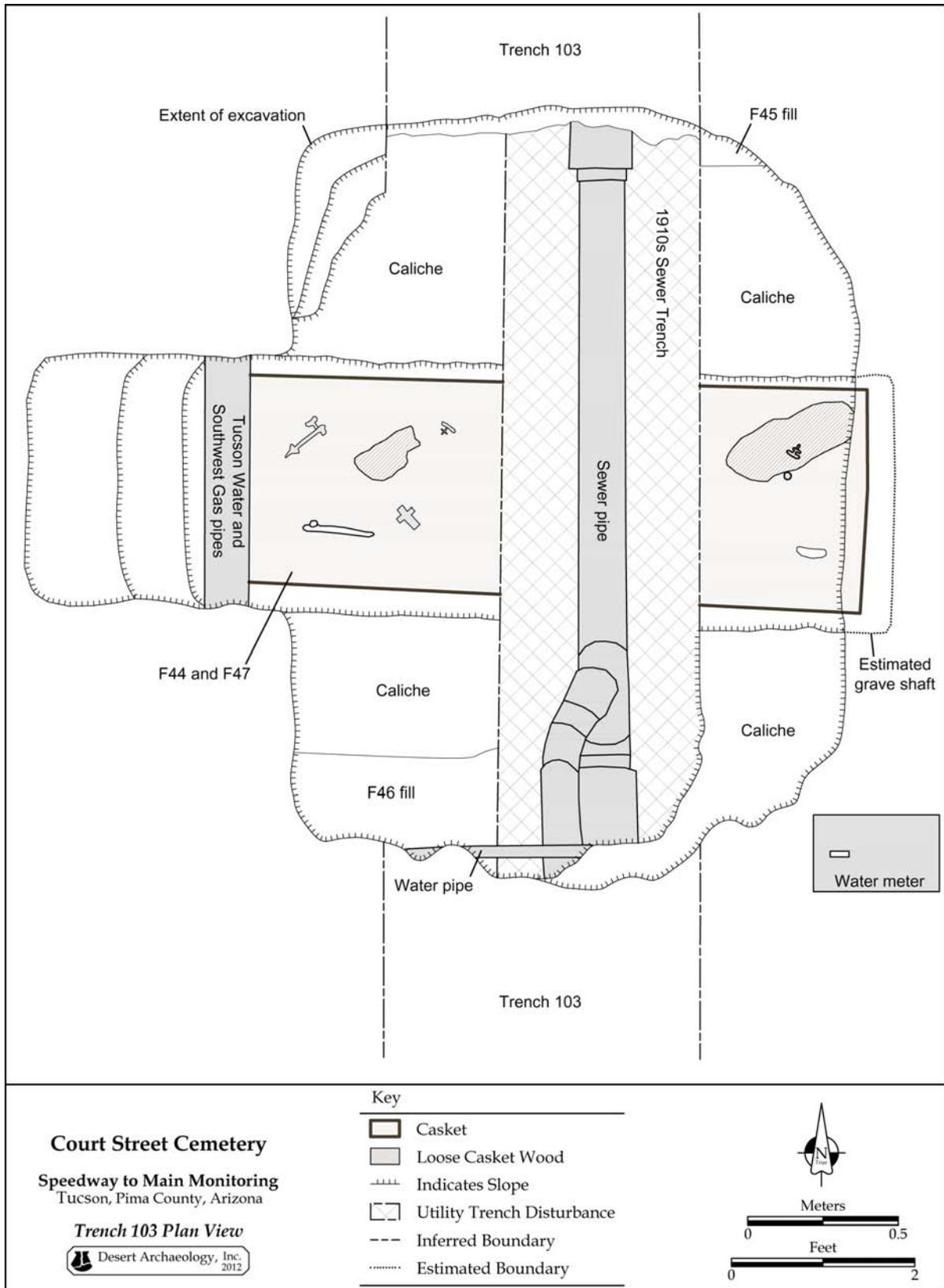


Figure 2.15. A plan view of Trench 103, Court Street Cemetery, AZ BB:13:156 (ASM).

*Box and Coffin*

A rectangular box was present at the base of the Feature 44 shaft (Figure 2.16). The box was 2.24 m long, 70 cm wide, and 38 cm tall. The wood was 1/2-inch thick. The top of the box was 1.57 m below the modern ground surface, and the base was at 1.97 m below, from 722.30 to 721.90 MASL. No hardware was attached to the exterior of the box. It was nailed together with iron nails at the sides and base. The wood from either the box or the coffin was pine (*Pinus* sp.).

Scattered about the base of the box were portions of two coffins, one for an adult and one for a child. A small amount of human bone was found inside the box, again from an adult and a child. The adult coffin parts were assigned to Feature 44.

Four cross-shaped coffin handles were located, three sets in the trench backdirt and one set inside the coffin. These were for an adult-sized coffin. Three cross-shaped thumbscrews and three matching escutcheons were also recovered.

Two caplifters were found inside the Feature 44 coffin; however, it is uncertain if they were part of the Feature 44 or the Feature 47 coffin. Fifteen ferrous metal coffin parts were recovered. These probably originated from the Feature 47 coffin. Eight iron dowels were found, used in supporting and placement of a coffin lid. Three different types were present. Four were oval, had nail holes at each end, and were 2 1/2 inches long and 3/4-inch wide. Two of these were bent and may have been placed at the shoulder portion of a coffin. (If so, these probably came from Feature 47.) Three dowels were oval, thicker, measured 1 3/4 inches long by 3/4-inch wide, were rounded in cross-section, and had nails at each end. The last example was oval, had one end bent at an angle, was attached to the coffin by a single nail or screw, and was 1 3/4 inches long and 1/2-inch wide.

Three sets of top fasteners were found. There would have originally been four sets, two at the head end and two at the foot end. Half of each set was a rectangular plate with a tabbed opening at one end and a triangular projection at the other end. It was attached to wood by a pair of screws or short nails. It is 3 1/2 inches long by 3/4-inch wide. The other part was shaped like an exclamation point. The rounded end featured a projection that fits through the tabbed opening of the other piece. The piece has a nail opening at one end and three nails or screws on the other, rounded end.

An iron oval-shaped object was found inside the Feature 44 coffin (Figure 2.17). The function of the item is not known. It was 2 inches long, 1 1/2 inches wide, and 1/5-inch thick. A similar iron ring was found in a burial at the Alameda-Stone Cemetery, and was thought to be an undertaker's tool (Sewell, Pye, Heilen, Linde, and Unverzagt 2010:215).

*Human Remains*

The remains of the individual associated with Feature 44 represent a few arbitrary elements. These include six fragments of cranial vault, the right horn of the hyoid, three vertebral articular facets, one transverse process of a thoracic vertebra, four rib elements (including both left and right 12th rib), the distal third of the right fibula, the right triquetral, and several elements from the hand (1st, 2nd, 4th, and 5th proximal phalanges and the 2nd and 3rd distal phalanges). All the epiphyses observable are fused, indicating an adult individual. These few elements are in excellent condition, but do not allow for estimates of specific age, sex, or ancestry, or assessments of pathology and other skeletal observations.

*Associated Artifacts*

Fragments of brown machine-woven cloth were found in the Feature 44 coffin. This likely came from a piece of clothing, probably worn by the adult individual originally buried in the coffin.

A brass-headed item was found in the Feature 44 coffin (Figure 2.18). The head was 3/8-inch in diameter, and the iron point was also 3/4-inch long. The function of the item is uncertain; it may be a tack, or possibly a clothing item, such as a hatpin.

Many nails were found in the Feature 44 coffin, many of which probably came from Feature 47. Twenty complete nails were recovered, with two sizes present. Eleven nails were 1 3/4 inches long, and nine were 3.00 inches long. Most of the nails had square heads. Thirty-eight nail heads were present. Ninety-six nail fragments were also recovered. Two screw tips, a 1/2-inch-long tack, and a pair of finishing nails were also found.

*Miscellaneous Artifacts*

Six tin can fragments were found inside the Feature 44 coffin, dropped in after the body was exhumed.

**Feature 45**

Feature 45 was a burial shaft located in the east wall of Trench 103. The shaft was visible as a vertical cut through the caliche layer. The shaft had been cut by the 1910s sewer trench. No coffin wood or human bone were visible, and the burial was not excavated.

**Feature 46**

Feature 46 was a burial shaft located in the west wall of Trench 103, south of Features 44 and 47. The

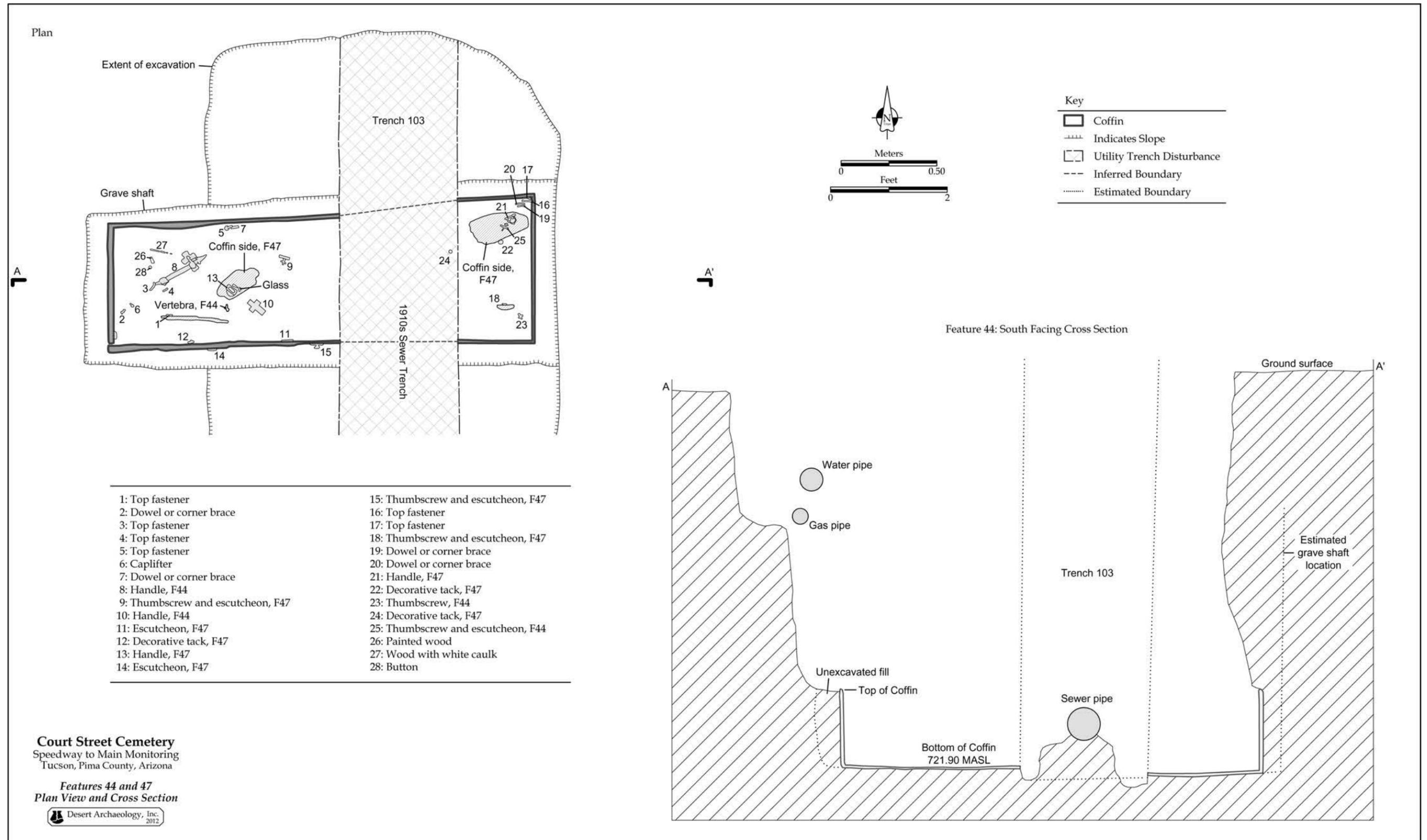


Figure 2.16. Plan view and cross section of Features 44 and 47, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 2.17.** An unidentified iron ring from either Feature 44 or Feature 47, Court Street Cemetery, AZ BB:13:156 (ASM).

shaft was visible as a vertical cut through the caliche layer. A void was visible about 1 m before the modern ground surface, extending at least 30 cm into the wall of the trench. The shaft was not visible in the east wall of the trench. No human bone or coffin wood was visible, and this burial was not excavated.

#### Feature 47

Feature 47 was located inside the Feature 44 coffin, and was excavated on 7 November 2012, by Homer Thiel, Robert Ciaccio, Allen Denoyer, and Mario Arechederra. The burial consisted of the remnants of a coffin and a small amount of bone from a child (see Figure 2.16). The child's coffin could have originally been placed in the same shaft as Feature 44, and dropped into the Feature 44 coffin after both had been exhumed, or Feature 47 may have been in an adjacent shaft and was tossed into the Feature 44 coffin after exhumation.

#### Coffin

The Feature 47 coffin lay in pieces on the base of the Feature 44 coffin. Fragments of the lid and both sides were identified, with some portions removed by the old sewer trench and other pieces dislodged by the modern trench and recovered in the backdirt.



**Figure 2.18.** A brass tack or jewelry piece from Feature 44, Court Street Cemetery, AZ BB:13:156 (ASM) (FN 2288).

Due to the fragmentation, the coffin could not be measured.

The hexagonal-shaped coffin was painted white on its exterior (Figure 2.19). A white caulk was used to seal the boards of the coffin prior to painting. The edges of the coffin were beveled, and one fragment had a thumbscrew and escutcheon still attached (Figure 2.20). Wood from either pine (*Pinus* sp.) or Douglas fir (*Pseudotsuga* sp.) was used to construct the coffin.

A total of five base metal single-lug, swing bail handles were recovered, two from the trench backdirt and three attached to side fragments. The handle was decorated with a lamb, befitting the use in a child's coffin. Four base metal thumbscrews and five escutcheons were recovered. Six decorative tacks were apparently part of the coffin, based upon the presence of white paint on the base of one of the tacks.

Nine fragments of window glass were found on the floor of the Feature 44 coffin. The pieces lay in close proximity to the white-painted coffin wood of the Feature 47 coffin. These are likely pieces of a viewing window in the lid of the coffin.

#### Human Remains

The remains of the individual associated with Feature 47 consist of three elements: the diaphyses



Figure 2.19. Coffin wood from Feature 47, Court Street Cemetery, AZ BB:13:156 (ASM) (FNs 2322 and 2326).

of the right radius and ulna and the left neural arch of a middle thoracic vertebra. These represent the remains of an infant, approximately 1-2 years old at the time of death, based on fusion of the vertebra (Schaefer et al. 2009). These few elements are in excellent condition, complete and undamaged. However, they do not allow an estimate of ancestry, or assessments of pathology and other skeletal observations.

#### *Associated Artifacts*

A piece of white cloth was located at the southeastern corner of the Feature 44 coffin and was likely associated with the Feature 47 burial. The cloth was very poorly preserved. Three brass grommets with adhering leather, three small brass straight pins (the longest fragment was  $\frac{3}{4}$ -inch long), and a brass safety pin were associated with the cloth. One of the straight pins was pushed through a grommet. The item was probably some sort of shoe or slipper, but this remains uncertain.

#### **Trench 103 Fill**

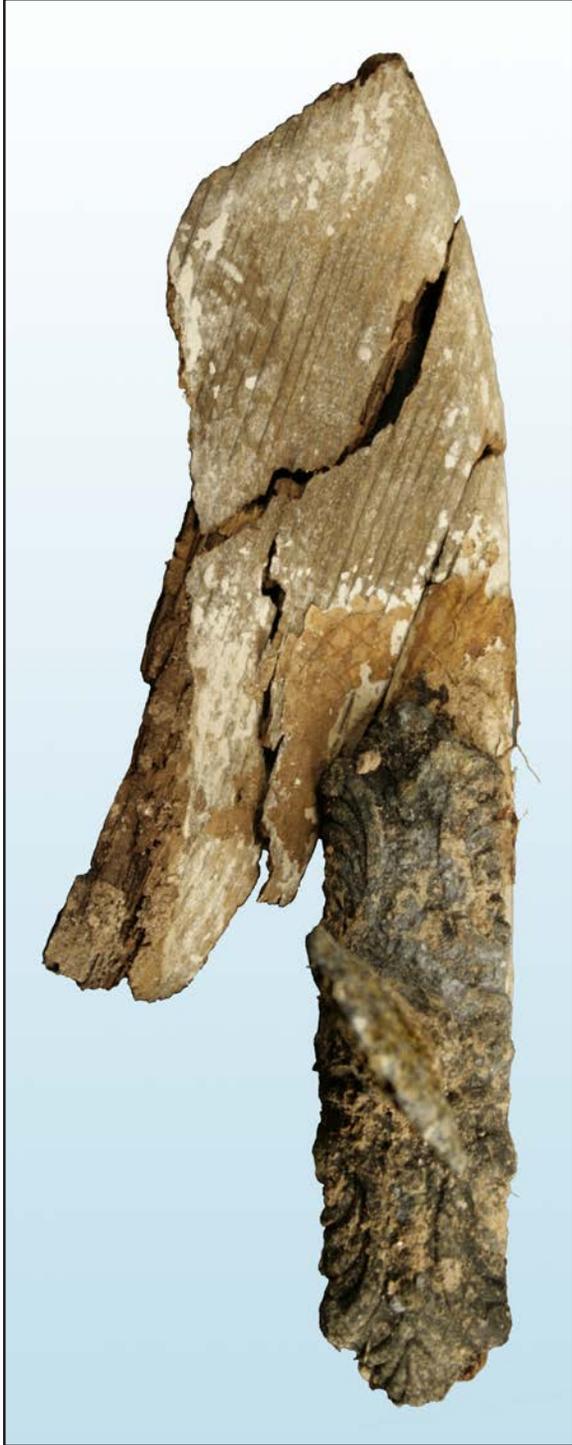
A small amount of soil toward the base of the old 1910s sewer trench contained coffin hardware from a coffin that did not match either the Feature 44 or Feature 47 coffins. These may have come from the burials in the Feature 45 or 46 shafts, or from another burial nearby.

#### *Coffin Parts*

Three base metal matching cross-shaped handles were recovered, as was a bracket or dowel fragment. Fourteen nails with heads, 14 nail shaft fragments, and 5 rusty blobs were also recovered from the trench fill. The three complete nails were 2-1/8 inches long (two examples) and 2 $\frac{3}{4}$  inches long. At least four of the nails were machine-made and had round heads. Some of the nails may represent trash tossed into the 1910s sewer trench, and may not be associated with burials.

#### **TRENCH 104, FEATURE 48**

Trench 104 was located in the alley between N. Perry Avenue and N. 9th Avenue, north of W. 2nd Street (Figure 2.21). A sewer clean-out needed to be replaced, and the work occurred on 16 November 2012, with Homer Thiel monitoring excavation of a 3-m-long trench. The trench ranged in width between 1.25 m and 1.65 m and was 1.80 m deep. As the trench widened along its western side, a shaft became visible cutting down into the caliche. The top of the shaft was 80 cm below the modern alley surface, and the shaft continued past 1.8 m. At the very base of the shaft, a few pieces of coffin wood became visible at 723.02 MASL. The shaft was 71 cm wide. Because the burial was not disturbed by the utility work, it was left unexcavated.



**Figure 2.20.** Thumbscrew and escutcheon still attached to coffin wood from Feature 47, Court Street Cemetery, AZ BB:13:156 (ASM) (FN 2317).

### Depths of Burials within the Court Street Cemetery

Table 2.3 lists the top and base elevations for coffins encountered within the Court Street Cemetery

for burial Features 36 and 37, excavated in the City of Tucson's property at the southwest corner of N. Stone Avenue and W. Speedway Boulevard (Thiel 2013), and burial features encountered during the current project. No coffin wood was observed for either Features 45 or Feature 46, while the base of the Feature 48 coffin was not located.

The highest point for the modern ground surface within the historic cemetery boundary is 725.65 at the southeast corner (intersection of N. Stone Avenue and W. 1st Street) (see Figure 1.4). The lowest point is 718.44 at the northwest corner (intersection of N. Main and W. Speedway Boulevard). The cemetery slopes slightly downward from south to north, by between 58 and 72 cm, and slopes downward from the southeast corner to the northwest, by 7.21 m.

It was expected that although the modern ground surface represents the cutting and filling activities that took place during lot preparation in 1916 and afterward, the bottom elevation of burials should be deeper to the west due to the slope of the land. This proved to be the case. The base of the easternmost two burials (Features 36 and 37) were at least 724.05 and 724.10 MASL. The farthest west set of burials (Features 38 to 41) ranged in depth from 719.83 to 719.25 MASL. The top elevations for coffins were similar, trending higher at the east end of the cemetery and lower at the west end.

In terms of depth below the modern ground surface, the top of burials have been found to range from between 57 cm below the modern ground surface (Feature 13) to 2.30 m below the modern ground surface (Feature 38) (see Table 1.4). It is suspected that the depth to the tops of burial Features 12, 36, and 37 were even shallower, but no depth measurements below ground surface were taken for Feature 12 at the time of excavation, and the surface of the land in the vicinity of Features 36 and 37 had been heavily impacted by the removal of the bank building that once stood over the burials.

Future ground disturbances within the cemetery should be carefully monitored, since it is obvious that burials are present very close to the modern ground surface.

### SUMMARY

Archaeological monitoring was conducted at 11 mechanically excavated trenches excavated by KE&G within or immediately adjacent to the Court Street Cemetery as part of the repair work on the sewer system originally installed around 1916. Six of the trenches contained no human remains or grave shafts. One trench location yielded a few isolated human bones. Four other trenches contained 11 burial features from the Catholic portion of the

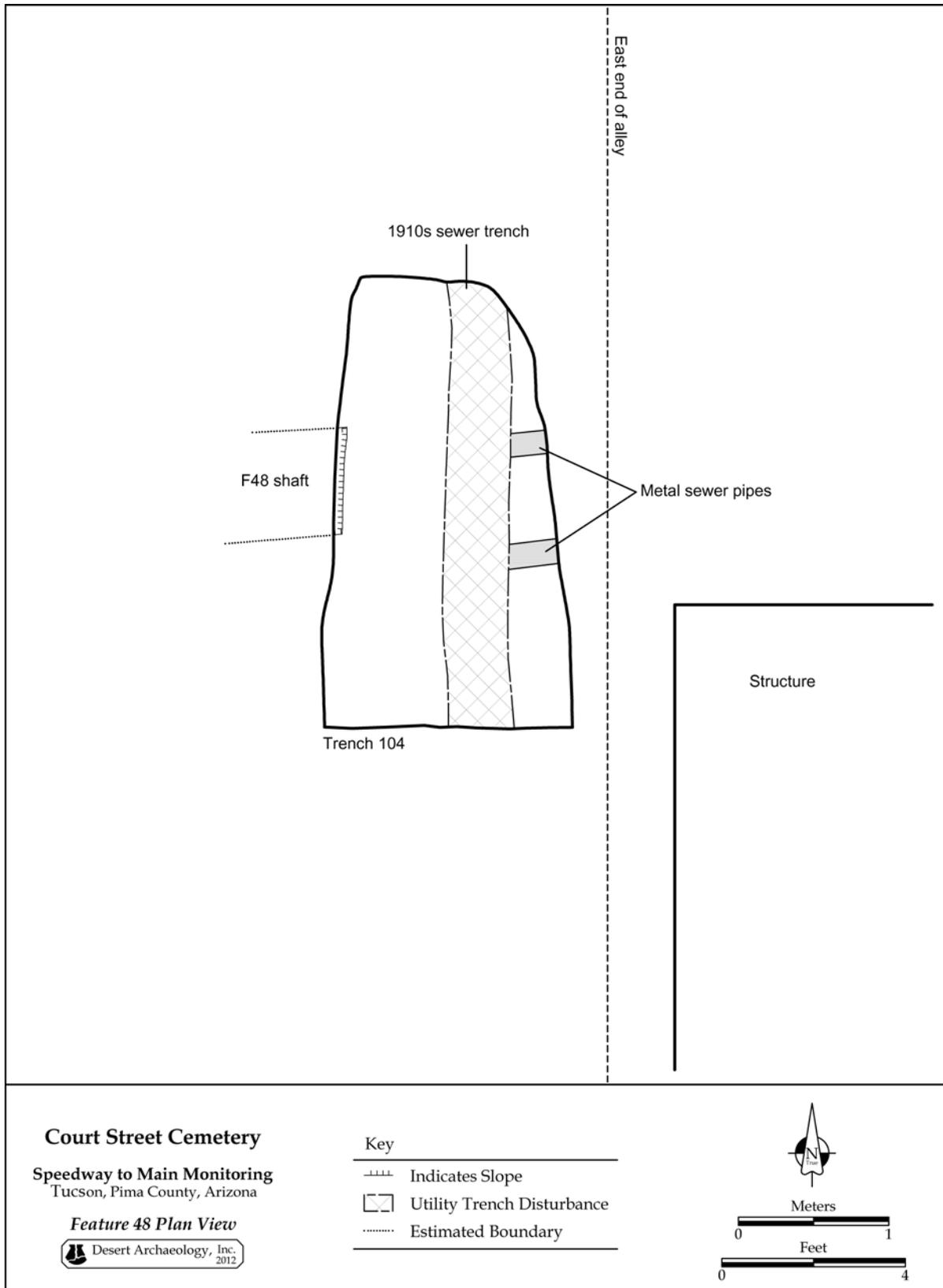


Figure 2.21. Plan view of Trench 104, showing the location of Feature 48, Court Street Cemetery, AZ BB:13:156 (ASM).

**Table 2.3.** Depth of the top and base of coffins in meters above sea level (MASL) for selected burials in the Court Street Cemetery, AZ BB:13:156 (ASM).

Feature	Top of Coffin	Base of Coffin
36	724.35	724.05
37	724.51	724.10
38	719.35	719.25
39	719.55	719.34
40	720.11	719.74
41	720.08	719.93
42	722.78	722.55
43	723.14	722.66
44 and 47	722.30	721.90
48	723.02	Unknown

Court Street Cemetery, which was in use from 1875 to 1909.

Two complete burials were located (Features 39 and 42). A third burial had been extensively disturbed by placement of the 1916 sewer pipe (Feature 38). Four burials had been exhumed during the timespan burials were removed from the cemetery,

between 1907 and 1916 (Features 40, 43, 44, and 47). In each case, some human remains were left behind inside the coffin, as well as clothing remnants and the coffin itself. Four other graves were located but were not explored because they would not be disturbed by the current work (Features 41, 45, 46, and 48). It is not known whether these graves contain human remains or associated artifacts such as coffin wood, coffin hardware, or clothing items (coffin wood was noted for Features 41 and 48). Remains recovered from the original sewer trench fill came from another three individuals, an adult male (Trench 100), a child (Trench 101), and another adult male (Trench 102). A more detailed summary of each feature is included in Chapter 4.

All of the burials discovered during the course of the current project were within the Catholic half of the cemetery. Two burials, Features 28 and 39, contained religious items typically used by Catholics (a rosary and a framed picture, presumably of a saint). Historic records suggest that the Catholic church had control over their portion of the cemetery, and the likelihood of non-Catholic individuals were buried in the Catholic portion of the cemetery is very low.

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## TYOLOGY AND ANALYSIS OF BURIAL CONTAINER HARDWARE RECOVERED FROM THE COURT STREET CEMETERY, AZ BB:13:156 (ASM), TUCSON, ARIZONA

*Jeremy W. Pye*  
*University of Florida*

Analysis of historic burial container hardware recovered during monitoring and excavations within the Court Street Cemetery, AZ BB:13:156 (ASM), Pima County, Arizona, is provided here. During fieldwork, 11 burials were identified, and burial container hardware was recovered from seven of those. Additional hardware was found in the backdirt of a sewer trench originally excavated in the mid-1910s (Table 3.1).

The collection of burial container hardware for which analysis was initially sought consisted of 7 primary handle types, 4 thumbscrew types, 3 escutcheon types, 1 caplifter type, 5 ornamental tack types, and 2 ornament types. Through analysis and comparison of this hardware collection to U.S. patent records ( $n = 2,615$ ), period manufacturers' trade catalogs ( $n = 406$ ), and archaeological cemetery excavation literature ( $n = 206$ ), these artifacts suggest the seven interments containing hardware, as well as the hardware from disturbed interments, occurred sometime between 1877 and 1909.

Subsequent to this initial analysis, an additional collection of hardware from the same burials was presented. This collection consisted of 2 thumbscrews, 1 thumbscrew escutcheon, 3 types of coffin screws/tacks, 1 top fastener, 1 caplifter, at least 1 dowel, and at least 2 corner braces. More information was also provided about the lining tacks, nails, and plain wood screws used in construction of the burial containers. For this additional collection, the artifacts were not compared to the full compendium of available literature. Instead, a description of the artifact was provided, and a targeted search of period trade catalogs was conducted to find at least one match for comparative purposes.

It is likely that most of the deceased individuals buried in the Court Street Cemetery were interred in coffins. These containers ranged from simple wooden boxes, lacking hardware or cloth lining, to those that were painted, had hardware

and decorative pieces, and had cloth lining on their exterior and interior. These differences may reflect the socioeconomic status of the deceased and those individuals who were paying for the coffin. They may also reflect a specific religious group's attitudes about death. Coffins for Christians may be adorned with crucifixes, as an example. Archaeologists can examine coffins to glean information about the individuals interred inside them. Exact identification of types and styles of burial container hardware and other mortuary artifacts is vital in defining the chronology of burial, particularly when dated grave markers are absent, or when markers have been displaced. Variations in hardware styles and forms, as well as materials of manufacture, indirectly reflect aspects of socioeconomic class, status, and/or community involvement in the funeral process (Davidson 1999, 2004; Little et al. 1992; Pye 2007). Further, more specialized and sometimes proprietary types of burial container hardware introduced into the archaeological record in late nineteenth and early twentieth centuries contexts reveals the increasing control of the professional funeral industry in the production and distribution of funeral merchandise.

While monitoring sewer line repairs within the boundary of Court Street Cemetery, Tucson, Arizona, Desert Archaeology, Inc., archaeologists encountered 11 historic burials. The burials encountered during this recent work were numbered Burial 38-48, as 37 burials had previously been archaeologically documented or relocated from Court Street Cemetery. The analysis and study of burial container hardware and other mortuary artifacts is crucial in establishing a useful discourse between multiple lines of evidence recorded and recovered in historic cemetery investigations. The analysis presented here investigates the burial container hardware recovered during these recent excavations in Court Street Cemetery.

**Table 3.1.** Coffin hardware recovered during the 2012 Speedway to Main Monitoring project fieldwork within the Court Street Cemetery, AZ BB:13:156 (ASM).

Feature/ Trench	Handle	Thumbscrew	Escutcheon	Caplifter	Ornament	Tack	Screw	Nail	Upholstery Tacks	Plain Screws	Dowels and Braces	Top Fastener Sets
38	-	-	-	-	-	3	3	7	-	-	-	-
39	-	-	-	-	-	-	-	41	32	-	-	-
40	4	-	-	-	1	2	-	15	-	-	-	-
42	-	-	-	-	-	-	-	32	30	-	-	-
43	6	-	-	-	-	-	-	29	3	3	25	-
44	4	3	3	2 <sup>a</sup>	-	-	-	20 <sup>a</sup>	-	-	8	3
47	5	4	5	-	-	-	-	-	-	-	-	-
100	1	5	1	-	2	4	8	33	-	-	-	-
102	1	1	1	-	-	-	-	-	-	-	-	-
103	3	-	-	-	-	-	-	14	-	-	1	-

Note: No hardware was found with Features 41, 45, 46, and 48, or in Trenches 101 and 104.

<sup>a</sup>Present; nails, two caplifters, and window glass were found with Features 44 and 47, and it is uncertain which coffin they belonged to.

## **TPOLOGY, METHODOLOGY, AND COMPARATIVE METHODS**

The methods established by Davidson (1999) for the classification of hardware from the Freedman's Cemetery project, Dallas, Texas, have been applied to the Court Street Cemetery materials. A new type is designated when a different artifact form/style, or combination of elements, is encountered. Davidson (2006:120-121) provides the example, "the first thumbscrew ... was given the type designation Thumbscrew Type 1....if the next burial excavated contained a thumbscrew with an even slightly different design motif, [then] it was assigned a new type number (e.g., Thumbscrew Type 2)." Size variants—for example, adult-sized handles versus child-sized handles—were designated by numerical suffixes (such as, Handle Type 12.1).

Following Davidson (1999, 2006:121), these artifacts should be dated and contextualized through three lines of evidence: patent dates, dates derived from period hardware catalogs, and known dates of cemetery use. A fourth line of evidence, the estimated interment ranges of burials from previously excavated cemeteries, can be included, but must be critically analyzed based on the previous lines of evidence.

### **United States Patent Records: Utility Patents (1839-1965)**

In total, 2,160 utility patents related to burial containers, burial container hardware, and other types of mortuary merchandise that dated between 1839 and 1965, were viewed through the U.S. Patent Office online database for this analysis. Searches were restricted to 1800-1965, and the primary search terms "casket" and "coffin" were used. Pertinent patents have likely escaped the search due to simplicity of the search terms, flaws in the PDF OCR process, and human error in database entry. Exact and similar matches to recovered hardware from the Court Street Cemetery burial excavations are presented in the artifact comparison table (Appendix C, this volume).

### **United States Patent Records: Design Patents (1843-1965)**

In all, 455 design patents related to burial containers, burial container hardware, and other types of mortuary merchandise that dated between 1843 and 1965, were viewed through the U.S. Patent Office online database for this analysis. Searches were restricted to 1800-1965, and the primary search terms "casket" and "coffin" were used. Pertinent patents

have likely escaped the search due to simplicity of the search terms, flaws in the PDF OCR process, and human error in database entry. Exact and similar matches to recovered hardware from the Court Street Cemetery burial excavations are presented in the artifact comparison table (see Appendix C).

### **Manufacturers' Trade Catalogs**

For this study, 406 period mortuary hardware trade catalogs and price lists dating between 1797 and the present were examined for comparative purposes. These catalogs (Appendix A, this volume) were either viewed at a number of different libraries, museums, or companies throughout the country, or are contained within personal collections. Most catalogs utilized were complete; however, some were only partial copies. Care should be taken in historic mortuary artifact analysis to identify exact stylistic matches before making definitive statements about possible temporal range or manufacturer. Sometimes, however, in the absence of exact matches, similar types may be identified. Highlighting similar forms can shed light on a general time period for a particular type. Exact and similar matches to recovered hardware from the Court Street Cemetery burial excavations are presented in the artifact comparison table (see Appendix C).

### **Previous Historic Cemetery/Burial Excavation Reports**

In total, 206 reports of excavated historic cemeteries were consulted (Appendix B, this volume). When possible, identical matches to each artifact type are listed here (see Appendix C). This line of evidence is the least reliable or informative for several reasons. First is that mortuary artifacts recovered from burial contexts are often poorly preserved. Poor preservation masks stylistic and form differences, and often makes it difficult for definitive comparisons. A second important reason is that many older, and even some recent, archaeological cemetery relocation reports either do not provide clear pictures or illustrations of recovered hardware and other artifacts, or they do not provide any pictures at all. To simply note that a burial contained six thumbscrews and four handles is not helpful for comparative purposes.

It is rare for death or interment dates to be known in historic cemetery relocations. Circumstances leading up to the necessary removal of historic burials often involve a break in the social memory of the cemetery or burial, loss of historic

record of the cemetery or burial, erasure of the aboveground presence of the cemetery or burial, and/or potentially, the marginalization and discrimination of the cemetery population. Assuming that preservation of mortuary artifacts is fair to good, and pictures or illustrations are presented in archaeological reports, scholars then become dependent on the knowledge of the individual cemetery researchers to make accurate observations of artifacts and to derive appropriate chronologies for burials. Many archaeologists conducting historic cemetery projects for the first time, or who conduct such projects infrequently, are not knowledgeable enough about the mortuary artifacts, or do not have access to historic mortuary catalogs, to make good temporal estimations. In recent years, with greater accessibility of patent records online and construction of a larger library of period mortuary merchandise catalogs, our ability to make reliable temporal estimates have increased greatly.

### MORTUARY ARTIFACT DESCRIPTIONS AND TYPOLOGY

No attempt will be made here to describe the history and various iterations of all mortuary artifact forms. For more descriptive information about many of the nineteenth and early twentieth century general hardware types, see Davidson (1999, 2004) and Mainfort and Davidson (2006). However, for general purposes, a contextual discussion of each mortuary artifact form encountered during the cemetery excavations is presented, followed by descriptive discussions of each type as constructed within the current typology.

#### Internal Burial Container Elements

Internal burial container hardware elements are extremely important to examine critically when conducting an analysis of historic cemetery artifact collections. Structurally, these elements held the burial container together, and therefore, they elucidate key aspects of change and variation in construction technique. As these changes in construction took place over time due to technological innovation, internal hardware is often a valuable temporal indicator.

Within historic archaeology and material culture studies, a vast literature exists on the production and history of nails (see Adams 2002; Baackes 1896; Benson 1983; Edgerton 1897; Edwards and Wells 1993; Epstein 1981; Fontana 1965; Fontana and Greenleaf 1962; Journey 1987; Loveday 1983; Michael 1974; Nelson 1963, 1968; Phillips 1989; Priess 1970, 1973; Wells 1993, 1998; Young 1991). Rarely, how-

ever, are nails (or tacks) given appropriate respect in historic mortuary archaeology reports.

Even less attention is given to the various esoteric complex fastening devices and other internal hardware used by professional burial container manufacturers in the late nineteenth and twentieth centuries. These devices were used to secure the lid of the coffin or casket, secure the viewing window cover, allow for the viewing window to slide and lock closed, secure the closure of drop casket sides, and support the opening and hinging of burial container lids. An 1883 advertisement (Figure 3.1) from the Stein Manufacturing Company of Rochester, New York, presents, "The Most Serviceable Invention of the Age...Our 'Patent Fastener,' For Casket Tops." While it is not clearly evident from the illustration or from patent research about which fastener they are referring, the ad attests to the fact that this "perfect boon to the funeral director" was a major turning point in the industry. Therefore, it should be addressed in greater detail.

The few authors of historic cemetery excavation reports who attempt to responsibly address complex internal hardware elements are hindered by the general lack of preservation of ferrous materials, or by a lack of knowledge of hardware function and/or hardware terminology. These complex internal hardware are often classified collectively as latches (Dockall, Boyd, Freeman et al. 1996), iron closures (Davidson 1999), or even, in some cases, as miscellaneous hardware (Davidson 2006). Davidson (2006) made a concerted effort to present adequate discussions of the few complex internal hardware elements recovered from burials in the Becky Wright and Eddy cemeteries near Fort Smith, Arkansas; unfortunately, he did not have access to any catalogs of internal hardware or patents to assist in his work. The most informed discussions of internal hardware come from Trinkley et al. (2011) and Pye (2011b). The following description of the Court Street Cemetery internal hardware elements will add to the growing body of knowledge about these various historic artifacts.

#### *Nails*

Nails were an essential and ubiquitous form of construction hardware used in the production of burial containers in the nineteenth and early twentieth centuries. Three general types of nails were used in various regions and times in the nineteenth century: hand-wrought, square-cut, and wire. Hand-wrought nails were commonly used during the seventeenth and eighteenth centuries until the introduction of the cut nail around 1800 (Davidson 2006: 115-116). Cut nails declined in use toward the end of the nineteenth century, when wire nails hit the

The Most Serviceable Invention of the Age.

Out "Patent Fastener,"  
FOR CASKET TOPS.

A Perfect Bona to the Funeral Director!

STEIN MANUFACTURING CO.  
ROCHESTER, N. Y.

BRANCH HOUSES:

NEW YORK.  
13 Bond Street.

BOSTON.  
81 Union Street.

Figure 3.1. 1883 advertisement for Stein Manufacturing Company's "Patent Fastener" for casket tops.

market and become more widely used in the casket industry.

Based on, among other reliable sources, Fontana and Greenleaf (1962), Fontana (1965), and Edgerton (1897), Davidson (2006) has placed the introduction of wire nails to common usage in the funeral industry between 1890 and 1900. In estimates of burial chronology, this date has been conventionalized to circa 1895. The period prior to this date should be characterized by the exclusive use of cut nails, or the absence of wire nails. This dating has held true for comparable burials accurately dated by other artifact associations or historical record from Arkansas (Cande 1995:161-168, 249-251), Freedman's Cemetery in Dallas, Texas (Peter et al. 2000), Meadowlark Cemetery, Kansas (Pye 2007), and elsewhere. Turn-of-the-century hardware catalogs, however, attest to the fact that while wire nails became more popular, cut nails continued to be sold into the twentieth century (Figures 3.2-3.4).

The archaeological literature (see Appendix B) suggests the most common sizes of nails used in the construction of coffins and caskets were smaller nails—that is, 4d, 6d, and 8d—while larger nails, such as 10d and above, were more likely to be used in shipping containers for the transport of mass-produced burial containers (Davidson 1999, 2006). It is reasonable to expect that there would be a certain degree of uniformity in the sizes of nails used for mass-produced coffins and caskets, and in fact, the most common nails listed in the archaeological literature have been 6d and 8d cut nails, with a bias toward the use of 6d nails in both the cut and wire varieties through time (Davidson 2006:101).

No in-depth analyses of nails from the Court Street Cemetery excavations were conducted. This was due primarily to the poor preservation of the recovered nails and nail fragments. It should be noted, however, that nails appeared to have been present in all features. Cut nails were definitely present in the collection, indicating a burial date prior to 1895. There is a possibility, however, that wire nails were also present.

#### *Lining Tacks*

The primary function of lining tacks was to affix cloth lining within the interior of the burial container, to affix cloth covering to the exterior of the container, or sometimes the tacks were arranged in a decorative pattern on the surface of the container. These tacks are typically small, with an iron shank and head (flat iron, domed iron, domed brass, domed china, or domed lead/white metal) (Figure 3.5). The iron shank often deteriorates or becomes detached, leaving only the heads (Davidson 1999). Because the presence or absence of lining or cloth covering is a

basic economic indicator, the ability to identify lining tacks is important. Linings do not typically preserve except when lying in association with cuprous hardware, and even then it is difficult to distinguish cloth lining from clothing remnants. Therefore, the recovery of lining tacks provides a more concrete indicator (Davidson 2004:418).

No in-depth analyses of tacks from the Court Street Cemetery burials were conducted. However, a variety of tacks were present in the Court Street burials. Figure 3.6 shows the domed-headed and flat-headed iron tacks that were recovered from Feature 42. The simple flat-headed tack is a ubiquitous form of lining tack, and it is present in at least 20 trade catalogs between 1865 and 1912. It is unknown when these were first marketed, but they likely have a very long history intimately connected with the history of the nail. In most archaeological cemetery excavation reports, not much attention is given to lining tacks, particularly simple iron tacks that are often mistaken for nail fragments. Therefore, it is very difficult to determine, with any certainty, the frequency with which this type of tack appears in the archaeological record.

#### *Screws*

Davidson (2006:144-145) reports that wood screws, in some form, have been around since the time of the ancient Greeks; however, prior to the nineteenth century, most screws had blunt points and could not self-start. The introduction of the gimlet wood screw, a screw that has a tapered body and a pointed tip, has been attributed to Thomas J. Sloan, who was issued a U.S. Utility Patent (No. 4,704) in 1846 (Figure 3.7). The mass production of these gimlet screws was initiated the same year by Sloan's introduction of the machine capable of producing said screws (U.S. Utility Patent No. 4,864). While technically, a gimlet form had been introduced 10 years earlier by Thomas W. Harvey of Poughkeepsie Screw Company, as well as a machine capable of producing wood screws in 1834, most early gimlet and blunt-tip forms had to be hand-turned, and therefore, were more costly to consumers than later machine-made screws (Davidson 2006:145).

Plain gimlet screws were commonly utilized as burial container lid closures in the nineteenth century, although the earliest mention of some type of screw being used in mortuary contexts dates to 1748 (Davidson 2006:145; Tharp 1996:226). In the known sample of general hardware and mortuary catalogs available for comparison, flat-, round-, oval-, and fillister-headed gimlet screws were prominently advertised for sale (Figure 3.8). After critical examination of archaeological literature of pre-1850 cemeteries, Davidson (2006:145) concludes that the pres-

-1233-

## STANDARD WIRE NAILS.

In Kegs.

Price List Adopted December 1st, 1896.

We do not carry any Standard Wire Nails in Half Kegs.

Size	Fine Blued.		Fine.		Common.						
	2d	3d	2d	3d	2d	3d	4d	5d	6d	7d	8d
Length, inches	1	1 1/4	1	1 1/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2
Number of Nails to the pound	1440	810	1160	810	875	615	325	251	200	151	100
Add to Base Price, per Keg	\$1.25	.75	1.00	.50	.70	.45	.30	.30	.30	.30	.19

Common.										
Size	2d	3d	4d	5d	6d	7d	8d	9d	10d	11d
Length, inches	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7
Number of Nails to the pound	62	74	87	100	112	125	140	155	170	185
Add to Base Price, per Keg	\$0.19	.45	.55	.65	.75	.85	.95	1.05	1.15	1.25

Cut to Full Size.

Figure 3.2. Selection of wire nails offered for sale on page 1837 of the 1903 Simmons Hardware Company general catalog.

-1294-

## STANDARD WIRE NAILS,

In Kegs.

Price List Adopted December 1st, 1896.

We do not carry any Standard Wire Nails in Half Kegs.

Casing.				Finishing.				Fence.			
Size	Number of Nails to the lb.	Length of Nails	Add to Base price, per Keg.	Size	Number of Nails to the lb.	Length of Nails	Add to Base price, per Keg.	Size	Number of Nails to the lb.	Length of Nails	Add to Base price, per Keg.
4	11	1 1/2 in.	\$1.20	4	94	1 1/2 in.	\$1.05	6	114	2 in.	\$0.90
6	16	2 in.	.75	6	80	2 in.	.45	8	72	2 1/2 in.	.35
8	17	2 1/2 in.	.35	8	100	2 1/2 in.	.25	10	47	3 in.	.25
10	20	3 in.	.15	10	124	3 in.	.15				

## STANDARD WIRE BARREL NAILS.

In Kegs.

3/4 in.	175	\$1.00
7/8 in.	95	.50
1 in.	74	.30
1 1/8 in.	50	.20
1 1/4 in.	34	.10

Figure 3.3. Selection of wire nails offered for sale on page 1838 of the 1903 Simmons Hardware Company general catalog.

— 1938 —

**STEEL CUT NAILS, IN KEGS.**

Price List Adopted December 1st, 1896.

We do not carry any Steel Cut Nails in Half Kegs.

Common Nails.

Iron Cut Edge Grip Shingling Nails, Large Head.

Casing Nails.

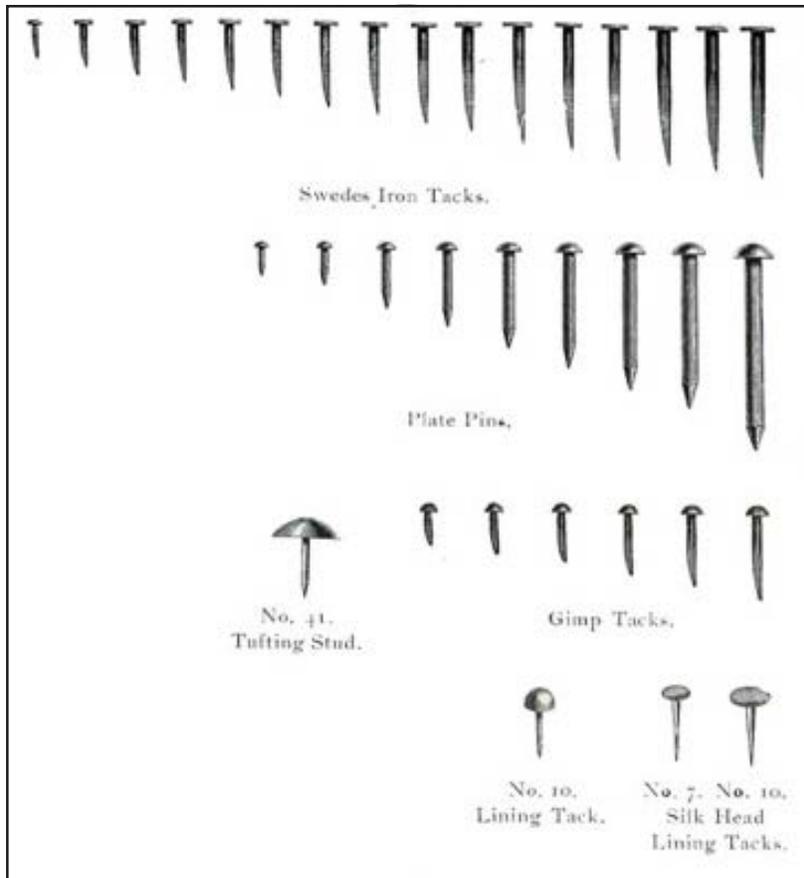
Large Head Clinch Nails.

Size.	Description.	Number of Nails to the Pound.	Length of Nails.	Add to Base Price, Per Keg.	Size.	Description.	Number of Nails to the Pound.	Length of Nails.	Add to Base Price, Per Keg.
3d	Common	464	1½ in.	45c.	6d	Casing	224	2 in.	35c.
4d	Common	296	1½ "	30c.	8d	Casing	130	2½ "	25c.
6d	Common	175	2 "	20c.	10d	Casing	91	3 "	15c.
8d	Common	88	2½ "	10c.	6d	Clinch	100	2 "	.65
10d	Common	60	3 "	5c.	8d	Clinch	72	2½ "	.55
12d	Common	48	3½ "	5c.	10d	Clinch	54	3 "	.45
16d	Common	36	3½ "	5c.	Iron Cut Shingle Nails, Large Heads.				
20d	Common	24	4 "	Base.	Size,		3d		4d
30d	Common	17	4½ "	Base.	Number of Nails to the pound,		455		285
40d	Common	14	5 "	Base.	Length of Nails, inches,		1½		1½
					Per Keg.		8		

100 lbs. in a Keg.

— 1938 —

Figure 3.4. Selection of cut nails offered for sale on page 1238 of the 1903 Simmons Hardware Company general catalog.



**Figure 3.5.** Selection of lining tacks illustrated on page 105 of the 1901 Gate City Coffin Company catalog.

ence of screws, particularly gimlet screws, was relatively rare. Additionally, in those burial containers where utilitarian gimlet screws were used as the primary means of lid closure, there was an absence of formal coffin hardware, such as coffin screws or thumbscrews. Forms of ornamental tacks, however, were often utilized to mask the use of ordinary screws (Davidson 2006:146).

No in-depth analyses of screws from the Court Street Cemetery burials were conducted, due primarily to the poor preservation of the excavated ferrous materials. Plain gimlet screws were not common in the selection of burials represented during the current excavations. This may be due to the greater availability and use of thumbscrews.

#### *Joining Plates*

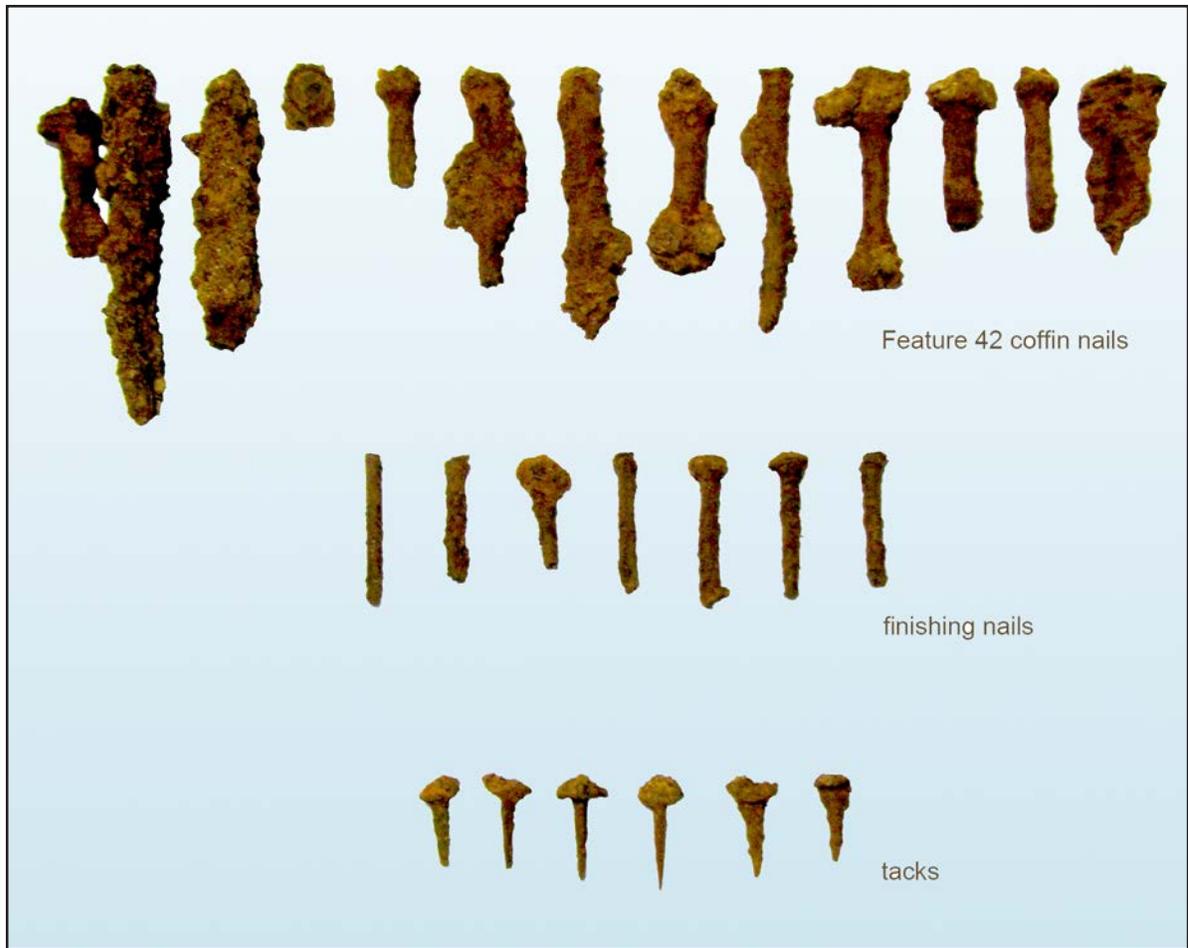
The arbitrary term joining plate refers to thin, rectangular, ferrous metal plates used to join two boards together in the construction of a burial container. These may be represented in the Court Street burials—specifically Feature 43—by the four objects shown in the bottom row of Figure 3.9. Joining plates can come in a variety of sizes, and typically exhibit

multidirectional wood grains on one or both faces that join at a centerline. This suggests they may have been used as biscuits at a mitered corner joint. No nails or screws are associated with these plates, making it likely that they were secured with some type of adhesive, or by the tightness of the fit within a joint. Identification of joining plates speaks to the construction technique and skill of the carpenter, availability of other resources for construction, and possibly even the cost of the burial container. Joining plates have not been identified in any period trade catalogs and are only known to have been recovered from one historic cemetery excavation, New Home Cemetery, an early to mid-twentieth century cemetery in Sugarland, Texas (Pye 2011b).

#### *Dowels*

Dowels are a versatile and esoteric hardware item that could have been used in a variety of purposes within the casket. Few have been reported in the archaeological literature, though, so information from contextual relationships is scant. Given their form, they could have been used as stops or catches in securing the casket lid or in a similar capacity with other hardware in construction of the burial container. The circa 1920s-1930s Langenau Manufacturing Company, Cleveland, Ohio, internal specialty hardware catalog is the only extant period catalog available to me for comparison. Only one other extant internal hardware catalog, the undated Weber-Knapp Company's, *Shell Hardware for Caskets, Catalog No. 52*, is known to exist. It is owned by Michael Trinkley of the Chicora Foundation, Columbia, South Carolina.

One important distinguishing feature of most dowels is that screws were only inserted into the bases. Most exhibit an angled projection that does not contain a screw. At least one type of dowel was recovered from burials excavated in Court Street Cemetery. The right-most artifact shown in Figure 3.10 appears to be a dowel with a squared or rounded projection extending from the base at an angle and two screws inserted through the base. The first and third items in the image might also be



**Figure 3.6.** Nails and lining tacks recovered from Feature 42, Court Street Cemetery, AZ BB:13:156 (ASM).

dowels, although it is not clear from the photographs. As can be seen in Figure 3.11, Langenau Manufacturing Company offered a wide variety of dowels in their catalogs. While the Court Street Cemetery dowel(s) may be present in the Langenau Manufacturing Company catalog, no effort was made to specify individual types in the comparative literature.

#### *Corner Braces*

Corner braces are a type of internal burial container hardware used in the construction of coffins, and less commonly, in the construction of caskets. As the name implies, these items were used to brace, or join, the corners of the burial container, joining the side boards to the head or footboard, or sometimes to join the shoulders of a hexagonal coffin. As can be seen in Figure 3.12, Langenau Manufacturing Company offered a variety of corner braces for sale, which could be made to bend to any angle desired. Standard angles of corner braces likely correspond with standardized burial container forms

mass manufactured by the funeral industry. At least two different types of corner braces were recovered from burials at the Court Street Cemetery (see second and fourth artifacts in Figure 3.10). However, no effort was made to distinguish the specific types in relationship to hardware present in the comparative literature.

#### *Top Fasteners*

Top fasteners are a form of complex burial container lid closure consisting of eight pieces in a full set: 2 foot plates, 2 foot hooks, 2 head body plates, and a left and a right spring. The springs and foot hooks are positioned along the sides of the lid, with the springs toward the head and the foot hooks toward the foot end of the burial container. The head and foot body plates are positioned on the sides of the burial container itself, in locations to match with the elements secured to the lid. The foot hooks insert into holes in the foot plates and recesses cut into the top of the side wall below the plates. When the lid is secured, the spring hooks insert just as the

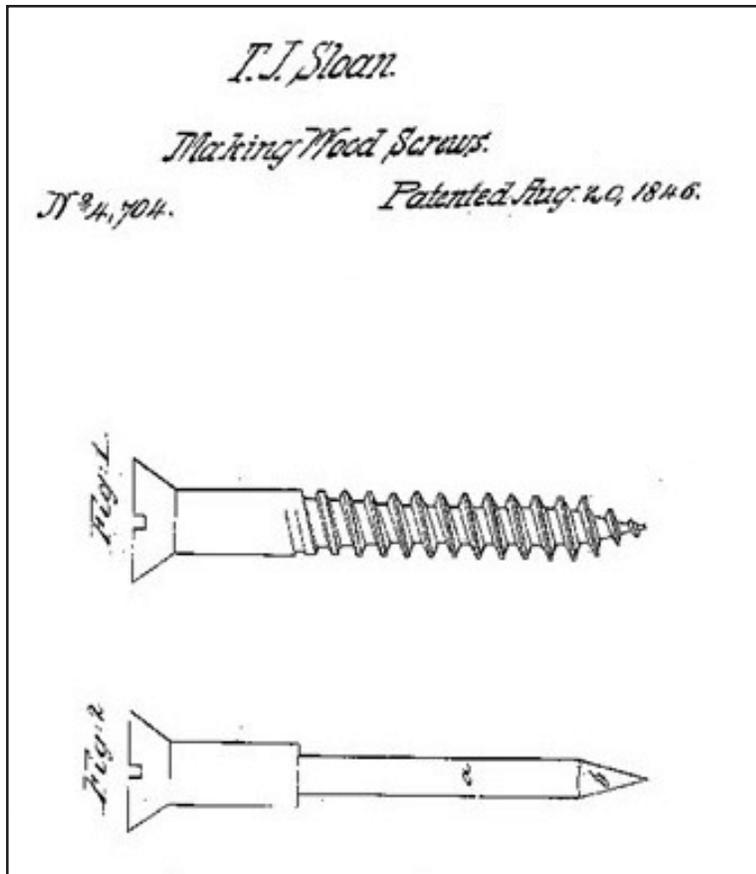


Figure 3.7. U.S. Utility Patent No. 4,704, assigned to Thomas J. Sloan in 1846, for a wood screw.

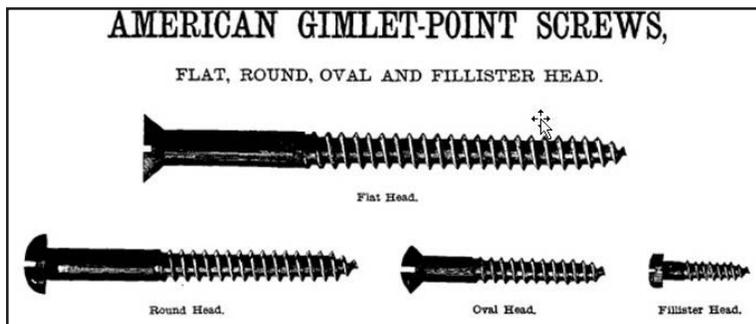


Figure 3.8. Selection of American gimlet screws offered for sale on page 126 of the 1865 Russell & Erwin Company general catalog.

foot hooks do, but the level end of the spring either fits onto a projecting fin on the base plate, or it descends into a recess cut into the top of the side wall, which limits horizontal movement of the lid.

The first known patent for a top fastener (U.S. Utility Patent No. 377,325) was granted to William J. Noble on 31 January 1888 (Figure 3.13), with a second soon following in May of the same year (U.S. Utility Patent No. 383,235). While these were the first known patents to be issued, they were not the first

top fastener patents for which an application was filed. Although the patent was not granted until 16 April 1889, William A. Sparks of Rochester, New York, submitted his application for a “coffin-fastener” (U.S. Utility Patent No. 401,663) (Figure 3.14) on 4 November 1886, well before the Noble applications were filed. Modern-day caskets do not use top fasteners, although it is not known when top fasteners fell out of favor. The circa 1920s-1930s Langenau Manufacturing Company, Cleveland, Ohio, internal specialty hardware catalog is the only extant period catalog available to me for comparison. Only one other extant internal hardware catalog, the undated Weber-Knapp Company, *Shell Hardware for Caskets, Catalog No. 52*, is known to exist. It is owned by Michael Trinkley of the Chicora Foundation, Columbia, South Carolina.

*Top Fastener Type 1.* Top Fastener Type 1 is represented by a partial set of only six items recovered from Feature 44, one of the disturbed burials, in the Court Street Cemetery. Only the springs and headplate from the Court Street Cemetery example are adequately preserved and illustrated (Figures 3.15-3.16); descriptions of the foot hook and plate have been derived from comparative sources. The foot hook is gently curved, and the plate is secured with three screws. The foot hook is roughly circular, with a small triangular notch on the side under the base of the hook. The hook itself is hollow on the underside, and it extends from the center of the circular base. The foot plate is rectangular, with two screw holes at either end. There is also a wide flute running down the center, with a hole meant to accept the foot hook, toward one end of the plate. One end of the hole is gently curved while the other end has a similarly curved finger, which is bent slightly down and extends into the hole.

The head spring (see Figures 3.15-3.16) has a left and a right variety, but these are identical in form, with the only difference being the release tab being on one side or the other, depending on placement.



**Figure 3.9.** Possible joining plates and fasteners recovered from Feature 43, Court Street Cemetery, AZ BB:13:156 (ASM).

The springs have a circular hook base with three screw holes. The neck of the spring is constricted near the circular base and tapers slightly out for a short distance before widening and continuing to

taper to the rounded end. An elongated triangular hole with a curved short side lies in this wider end portion of the spring. The spring release tab is also located at this end. The head plate is attached via two screws, one at each end. It is similarly designed as the foot plate, with two exceptions. It is much longer than the foot plate. In addition to the hook hole on one end, the opposite end has a small rectangular hole and an elongated triangular beak, which matches the hole on the wide end of the spring.

Top Fastener Type 1 has only been identified in one mortuary catalog, the circa 1920s-1930s catalog from the Langenau Manufacturing Company (Figure 3.17). There is no known exact patent match to this variety of top fastener, although it is very similar to the fastener illustrated in Sparks' patent (see Figure 3.14). Potential exact matches, or at least similar matches, to this top fastener have also been reported in five historic cemetery excavations: two in Georgia, and one each in Alabama, Texas, and Ontario, Canada. Except the burials from Canada, which were not well-dated, all the burials containing top fasteners date between 1900 and the 1930s (see Appendix C).

### External Burial Container Elements

External burial container elements can be seen by mourners during the funeral, and therefore, they play a key role in social perception of the event, and, by extension, the social and economic status of the deceased and the deceased's family (Pye 2007). Further, changes in the type of external elements can reflect changes in consumer culture, as well as changes in, or adherence to, certain

social and religious ideologies. For the keen archaeologist, identification of changes in the patterns of external elements can also provide important clues to chronology (Davidson 1999).

## Handles

Davidson (2006:122-123) states that the earliest burial container handles were either made specifically for mortuary contexts (citing Rauschenburg



Figure 3.10. Items representing dowels and corner braces recovered from Feature 44 or Feature 47, Court Street Cemetery, AZ BB:13:156 (ASM).

1990:43-44), or were utilitarian furniture hardware used in a mortuary setting. Utilitarian handles have been noted in a burial in Delaware dating to 1780-1820 (DeCunzo et al. 1992:199). This practice is also noted in nineteenth century Tucson, Arizona (Pye 2010a), and likely in other locales where necessity or scarce resources required creativity. The use of handles specifically designed for mortuary purposes dates back to at least the eighteenth century. Tharp (1996:81-88) notes that British coffin handles were being imported and advertised for sale in the American colonies as early as 1738.

Handles on burial containers serve multiple functions. A primary function of handles is to provide a way for the burial container to be carried to the gravesite from the home or from whatever transportation device was used to con-

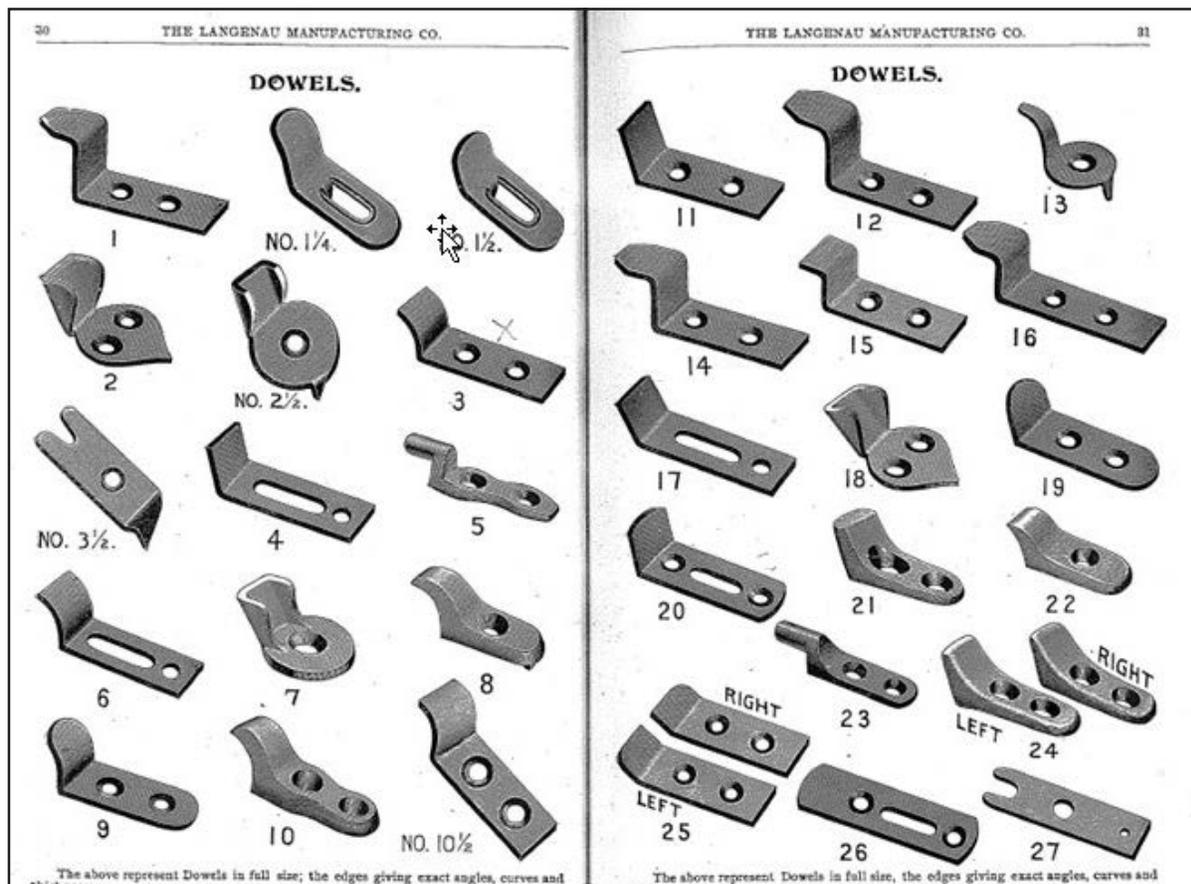


Figure 3.11. Selection of dowels, as illustrated on pages 30 and 31 of the 1920s-1930s Langenau Manufacturing Company catalog.

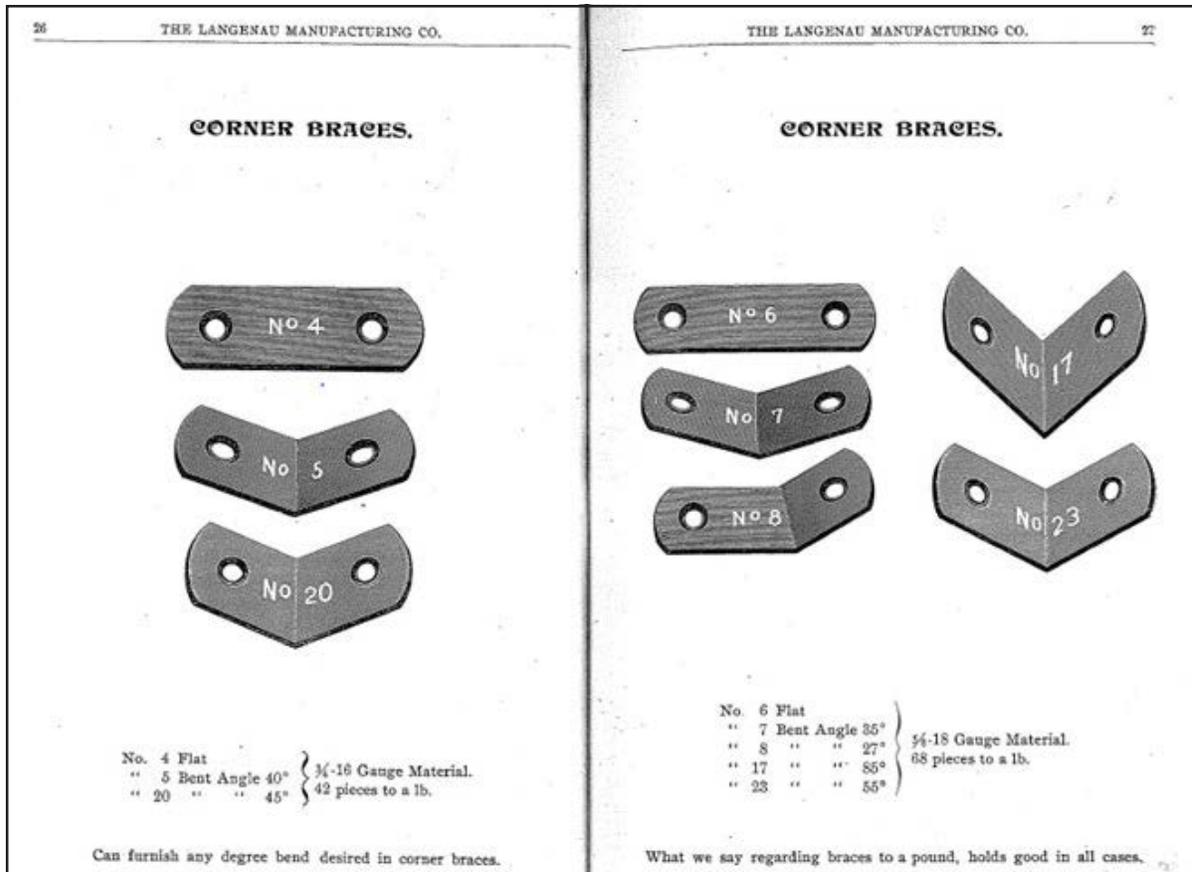


Figure 3.12. Selection of corner braces, as illustrated on pages 26 and 27 of the 1920s-1930s Langenau Manufacturing Company catalog.

vey the deceased to the burial locale (Davidson 1999:535). The nineteenth and early twentieth centuries saw great innovation in material, form, and style (the extent of which cannot yet be quantified) that cannot be explained by the transportation function. It should not be taken for granted that burial container handles serve broader social and ideological functions.

*Double-Lug, Swing-Bail Handles.* The double-lug, swing-bail handle is one variant of the general swing-bail form. It is comprised of three elements: two lugs, which are affixed via screws, or occasionally nails, to the side of the coffin, and the bail, which forms the gripping portion of the handle. The bail is mounted into the lugs by the insertion of two metal pins (of iron or steel wire) at either end. Davidson (1999, 2004:407) reports that swing-bail handles have been in production since the eighteenth century. Their prominence did not wane until short-bar, and later, the extended bar, handles became more popular in the late nineteenth and early twentieth centuries, but the form has never entirely disappeared.

*Handle Type 1.* Handle Type 1 (Figure 3.18) was found in the disturbed fill in Trench 100 above

Feature 39. It consists of a double-lug, swing-bail handle made of white metal. Each of the lugs, which are shaped like oak leaves, measure 2½ inches long by 2½ inches wide, and are attached to the burial container via two screws. The bail pin housing is shaped like an acorn, and the bail pin inserts into the cupule of the acorn. The bail is U-shaped and solid, measuring 4¼ inches long, likely with a ferrous inner bar upon which the white metal was cast. A floral motif extends across the lower portion of the bail, emanating from a central raised oval shape. A thin vine and leaf pattern, possibly more oak leaves, continue up both sides of the bail. Behind all the floral patterns, the bail appears to have a cross-hatched background.

The handle shown in Figure 3.18 was missing one lug and large portions of the second lug. The bail was also not complete, and stylistic details were obscured by corrosion and soil. The poor quality of the piece makes accurate comparison difficult, although there appear to be no known patent or exact catalog matches to this handle. The oak leaf handle motif was fairly common in period catalogs; roughly similar types of handles could be found on the market from at least 1880 until the 1920s.

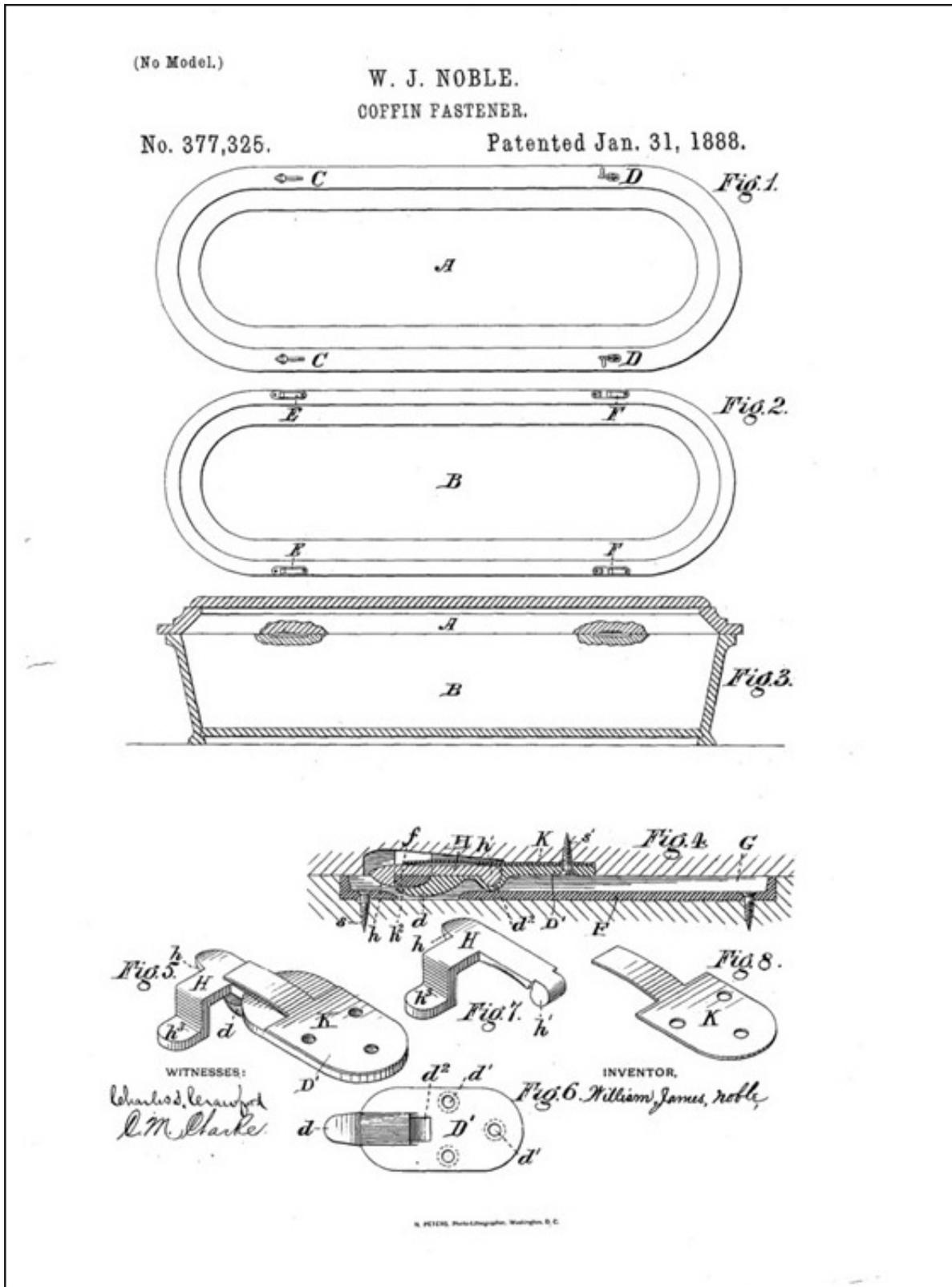


Figure 3.13. U.S. Utility Patent No. 377,325, assigned to William J. Noble in 1888, for a coffin fastener.

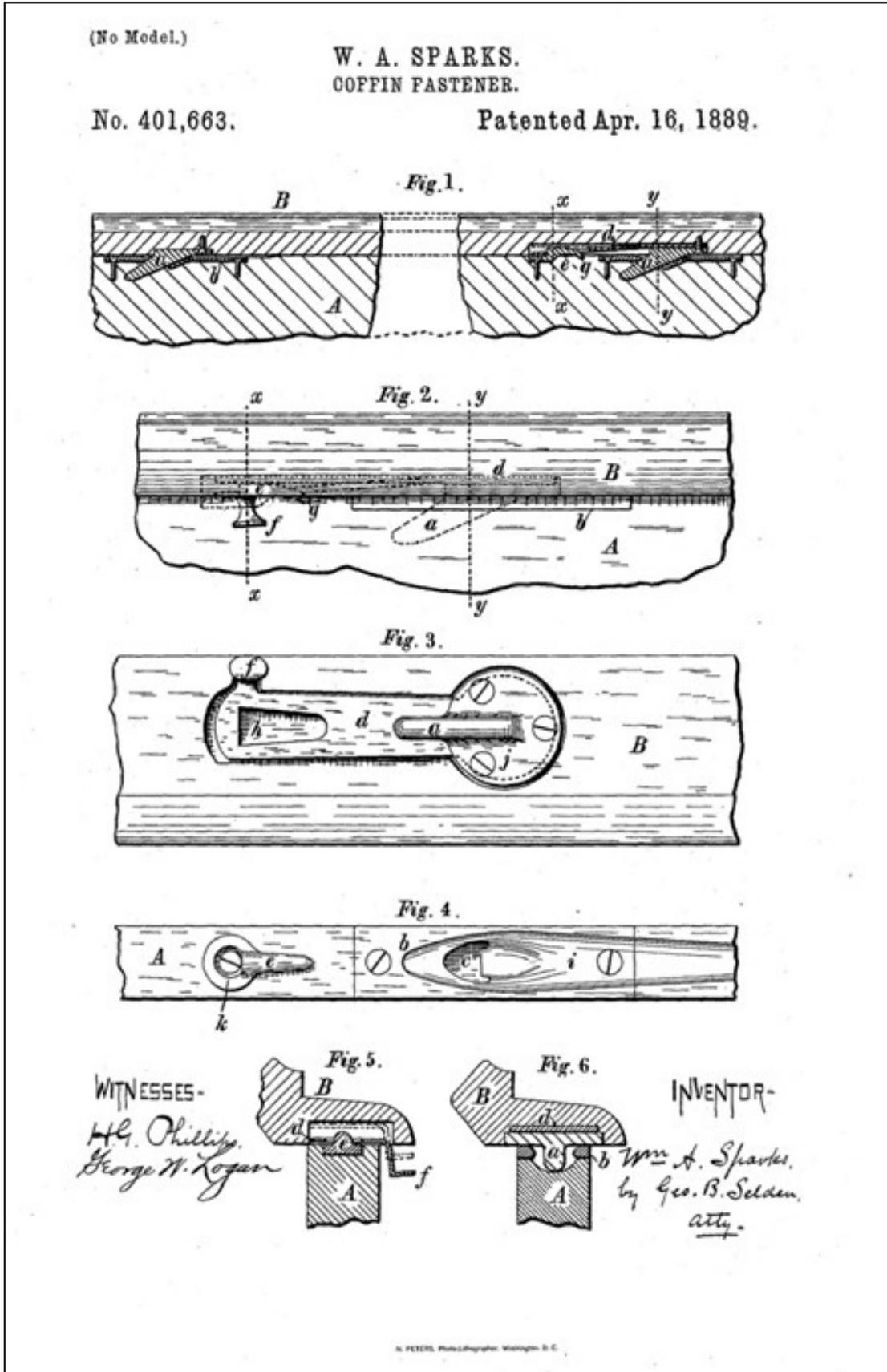


Figure 3.14. U.S. Utility Patent No. 401,663, assigned to William A. Sparks in 1889, for a coffin fastener.



**Figure 3.15.** Spring of Top Fastener Type 1 recovered from Feature 44, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.16.** Head plate and spring of Top Fastener 1 recovered from Feature 44, Court Street Cemetery, AZ BB:13:156 (ASM).

The bail on this particular handle could not be located in period catalogs, although a similar type of lug was located in three catalogs dating between 1880 and 1906 (Figure 3.19; see also Appendix C). This exact handle has been recovered in one historic cemetery archaeological excavation in Georgia, with dates ranging from 1875 to 1930. A similar type handle was also recovered from excavations at a historic cemetery in New Mexico, which dated between 1873 and 1899 (see Appendix C).

*Handle Type 2.* Handle Type 2 was discovered in the backdirt of Trench 102 (Figure 3.20). It is a double-lug, swing-bail handle made of a white metal alloy. Either the chemical preservation of the metal is very good, or this piece may have been made of a Britannia, or tin-based alloy, rather than a lead-based alloy.

The handle lugs are attached to the burial container via two screws, and then attached to a squared, U-shaped bail exhibiting rounded ears on the lower sides. The bail portion was  $4\frac{1}{4}$  inches long and 2 inches tall. A beaded decoration runs along

the bottom edge of the bail between the two ears, and the remainder of the bail surface is filled with a raised floral pattern, seemingly emanating from the top center of the bail. The terminations of the bail have raised border square blocks in which there appears to be a prominent "X" pattern with single raised dots on all four sides of the line. Neither of the lugs were complete, but they appear to have the same general stylistic motif as the bail. The basic form of the lug is an oval, measuring  $2\text{-}5/8$  inches tall and 2 inches wide, with a beaded border. Each of the four corners of the oval, however, has a rounded ear like those on the bail. On the interior of the oval lug is a raised border of a shield or crest, with similar floral patterns as the bail.

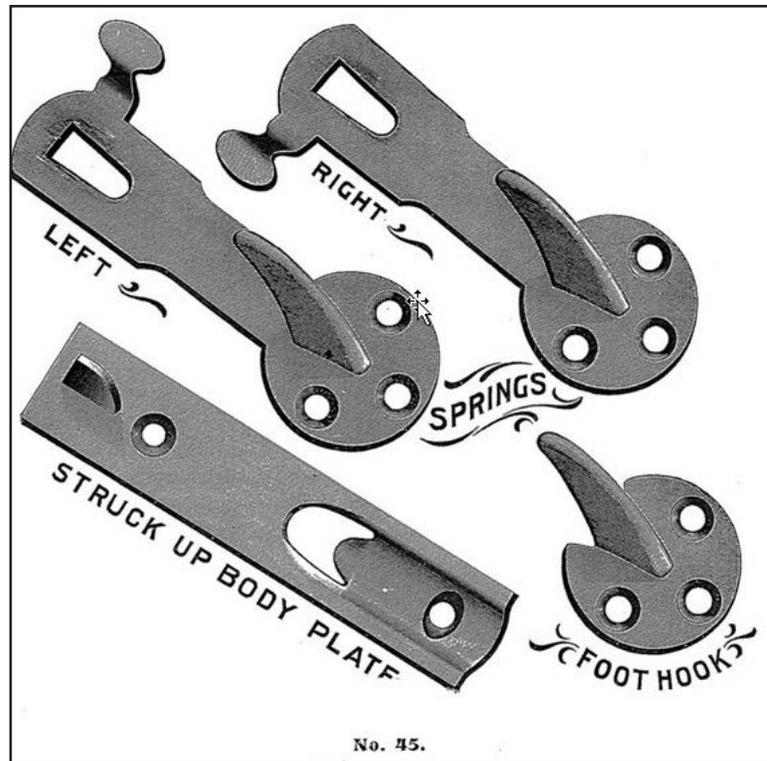
There are no known patent or catalog matches to this handle. Similarly, there were no matches to this handle from any of the archaeological cemetery excavations or period hardware catalogs used as comparatives in this analysis (see Appendix C).

*Handle Type 3.* Handle Type 3 was found in the backdirt of Trench 103 (Figure 3.21). It consists of a double-lug, swing-bail handle made of white metal measuring 8 inches wide. The lugs are attached to the burial container via two screws, and are in the shape of a trefoil cross measuring 4 inches long and 3 inches wide. The border of the cross is raised, with hatched lines running around the perimeter. The background of the cross has crosshatching under a type of floral motif, although the motif itself is not clear due to corrosion. The stylistic element in the bottom quarter of the cross appears to be a vertical stalk or vine upon which extends at least two sets of paired leaves. The pin housing is shaped like a draped pulpit, and upon which an open book sits (likely representing the Bible). The bail is an incurvate U-shaped bail. It is heavily corroded, and measures  $4\frac{1}{4}$  inches long and 2 inches tall. The center of the bail has a raised band running around it. The sides of the raised band appear to be jagged or undulating, but the element is light. Some horizontal lines appear on the front face of the upper extensions of the bail, and diagonal hatched lines make up the background of at least the interior margin of the bail extensions.

There are no known patent or exact catalog matches to this handle, although roughly similar types of handles were present in seven hardware catalogs from circa 1890-1912. Similar items in these catalogs are generally limited to the trefoil cross shape rather than to the specific stylistic elements. The exception to this is the trefoil cross handle sold in the 1908 Mound Coffin Company catalog (Figure 3.22), which includes a bail with a suspiciously similar central pattern. This handle has not been recovered in any archaeological cemetery excavations used as comparatives (see Appendix C).

*Single-Lug, Swing-Bail Handles.* Single-lug, swing-bail handles are a variant of the general swing-bail type and were in common use by the 1850s. This type of handle consists of a single lug and a single bail. According to Davidson (2004:410), these types of handles were more frequently associated with child coffins or caskets, even into the 1950s. It should be noted, however, that he is referring to certain stylistic motifs, such as the “lamb” handles, that were almost exclusively made for children. This type of handle could be found on coffins across demographic categories.

*Handle Type 4.* Handle Type 4 was recovered from Feature 47 (Figure 3.23). It is a single-lug swing-bail handle made of white metal, and it was affixed to the burial container via two screws on the lug. This handle shows heavy corrosion and erosion of the surface stylistic elements. Additionally, the lower left portion of the lug is broken. The primary focus of the lug is a lamb lying down with its head turned to the right. Flowers grow on either side of the lamb from a platform shaped like a flower blossom, with a beaded top border under which a border of acanthus leaves appears. A sunburst is behind the lamb on a semicircular disc. Three arms of a cross alisee, possibly representing a crown, sit behind the sunburst disc. Two crown-shaped floral blossoms are between the arms of the cross. The



**Figure 3.17.** Top Fastener No. 45, which is similar to Top Fastener Type 1, as illustrated on page 77 of the 1920s-1930s Langenau Manufacturing Company catalog.



**Figure 3.18.** Handle Type 1, double-lug, swing-bail handle, discovered in the disturbed fill in Trench 100 above Feature 39, Court Street Cemetery, AZ BB:13:156 (ASM).

lug portion was attached to the side of the coffin by two iron screws at the base of the lug. The bail of the handle is roughly rectangular in shape, with the grip being thicker than the extension arms and concave on the bottom edge. Circular ears extend out from the two lower sides of the bail. A cord



**Figure 3.19.** Similar handle to Handle Type 1, as shown in the 1880 Warfield & Rohr Company catalog.



**Figure 3.20.** Handle Type 2, double-lug, swing-bail handle, discovered in the backdirt of Trench 102, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.21.** Handle Type 3, double-lug, swing-bail handle recovered from Trench 103, Court Street Cemetery, AZ BB:13:156 (ASM).

pattern appears on the face of the bail. The bail portion was  $3\frac{1}{2}$  inches long and 2 inches tall.

No known patent matches this specific handle, and no handles of this type are known to have been recovered from other archaeological cemetery excavations. An exact match to this handle was found in the 1905 illustrated catalog and associated price list of the Chattanooga Coffin Company (Figure 3.24). The catalog match indicates that this type of handle was in use in the early twentieth century. It is not known, however, when the handle entered the market, or when it declined in popularity.

*Double-Lug, Short-Bar Handles.* The double-lug short-bar handle is a variant of the short-bar concept, the history of which is outlined in Davidson (2006:122-128). This variety is more complex than earlier swing-bail forms, and can consist of up to nine parts: 2 lugs, 2 arms, 2 pins, 1 bar/tube, and 2 tips. The earliest patent dates for elements of the short-bar handle appear in 1866, with numerous stylistic variants – for example, C. Strong’s 1869 Coffin Handle, U.S. Utility Patent No. 97,827 (Figure 3.25) – being patented through the 1870s and 1880s (Davidson 2006:125-126). Based on period trade catalogs available for current study, it is evident that early form, short-bar handles were for sale in 1871, as advertised in the 1871 H.E. Taylor & Company illustrated catalog. These handles grew in popularity in the 1880s, and comprise a fair majority of the handles available in catalogs through the early twentieth century.

*Handle Type 5.* Handle Type 5 was recovered from Feature 43 (Figure 3.26). It consists of a fragmented double-lug, short-bar handle. The lugs, arms, and finials are made of a white metal, while the round bar is made of a thin ferrous metal placed over a wooden core. The lugs of this handle are roughly rectangular, with a raised oval platform in the center. Narrow bands of ridges extend outward on

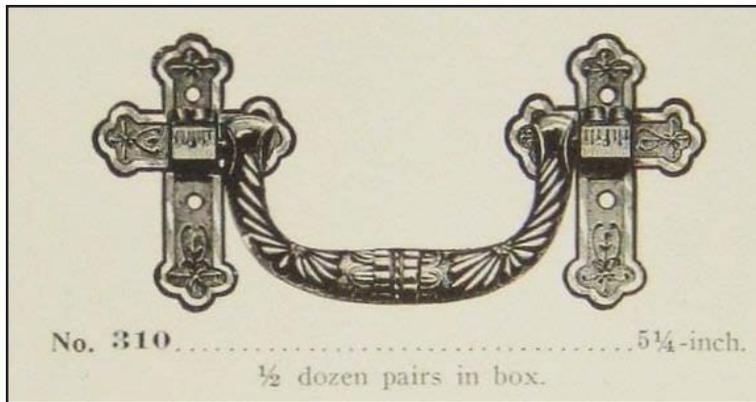


Figure 3.22. Similar handle to Handle Type 3, as shown on page 347 of the 1908 Mound Coffin Company catalog.



Figure 3.23. Handle Type 4, single-lug, swing-bail handle recovered from Feature 47, Court Street Cemetery, AZ BB:13:156 (ASM).

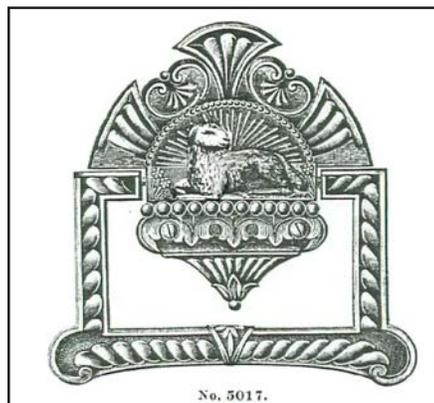


Figure 3.24. Exact match to Handle Type 4, as shown on page 97 of the 1905 Chattanooga Coffin Company catalog.

the four sides. The lugs measured 2¼ inches tall and 1½ inches wide. They were attached to the coffin by two screws, one on either side of the arm. The body of each arm does not contain any apparent stylistic elements. A raised oval marks the face of the arm where it wraps around the bar. From this oval, ridges extend both above and below, like tufts of grass growing from a central point but parted down the middle and bent over in opposite directions. The arms were 2 inches long, and were secured to the backside of the bar by an iron screw. The bar was hollow with a

wooden core, and it measured 3 inches in length. The finials on the end of the bar are long, with a raised base ring leading into a slightly constricting neck, a second ring, and finally, flaring out into a crown-like shape forming a ridge and a small dome at the apex of the crown.

There are no known patent matches to this specific handle, and no handles of this type are known to have been recovered in other archaeological cemetery excavations. An exact match to this handle was, however, found in the 1901 illustrated catalog of the Gate City Coffin Company (Figure 3.27) (see Appendix C). The catalog match indicates this type of handle was in use in the early twentieth century. It is not known, however, when the handle entered the market, or when it declined in popularity. This handle may have been introduced as early as 1880, when short-bar handles became popular, and it likely dates to no later than 1910 or 1920, when short-bar handles were largely replaced with extension bars.

*Handle Type 6.* Handle Type 6 was recovered from Feature 40 (Figure 3.28). It consists of a double-lug, short-bar handle. The lugs, arms, and finials are made of a white metal with gold-colored silver electroplating, while the round bar is made of a ferrous metal. The lugs of this handle are roughly rectangular in shape, and they measure 3 inches long and 2¼ inches wide. Specific stylistic elements of the lugs are unclear due to corrosion, but various loops, whorls, and possibly floral designs are present. The arms are narrow, and a crossing vine pattern is present. The face of the arm's bar loop exhibits a prominent flower set within a circular depression surrounded by a ridge, a stippled ring, and another raised ridge. The finials extend from the just outside the arm attachment point and increase in diameter to a ringed groove before the dome's apex of the cap. Indistinct floral designs are also present on the finials. The domed ends appear to have a series of ridges. The bar is made of fer-

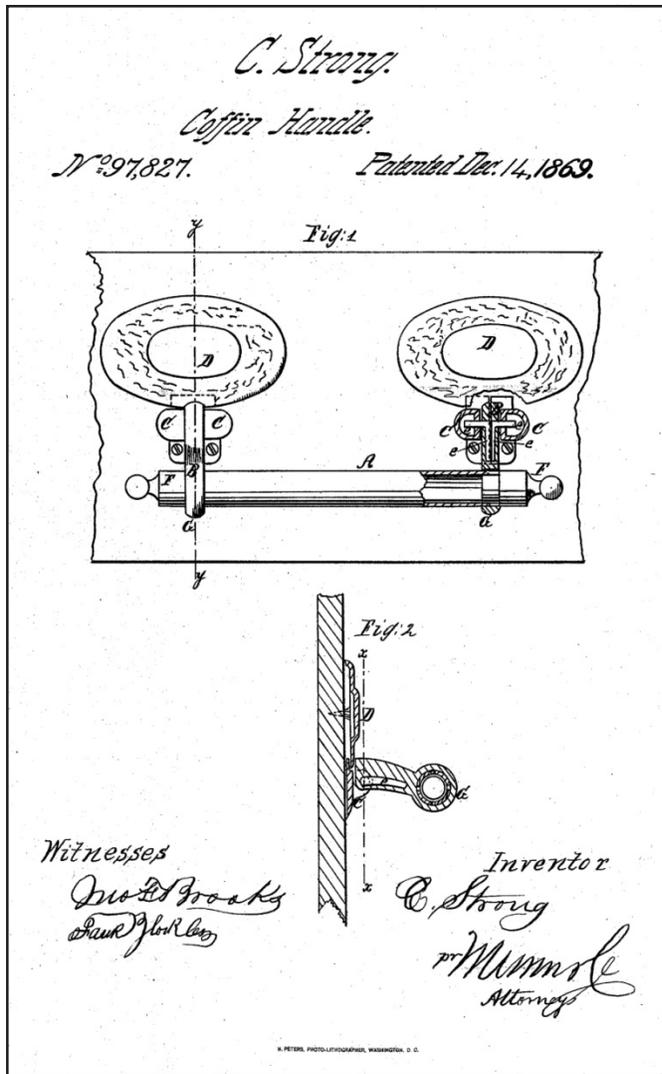


Figure 3.25. U.S. Utility Patent No. 97,827, assigned to C. Strong in 1869, for a coffin handle with early components of a short-bar handle.



Figure 3.26. Handle Type 5, double-lug, short-bar handle recovered from Feature 43, Court Street Cemetery, AZ BB:13:156 (ASM).

rous metal and is hollow, once possibly containing a wooden core, and measuring 6 inches in length.

There are no known patent or catalog matches to this handle, although corrosion obscured many of the potentially diagnostic attributes of the design. This handle is not known to have been recovered in any archaeological cemetery relocations used for comparative purposes (see Appendix C). This handle can be roughly dated to between 1880 and the early twentieth century.

*Handle Type 7.* Handle Type 7 was recovered from Feature 44 (Figure 3.29). It consists of a double-lug, short-bar handle. The lugs, arms, and finials are made of a white metal. The bar is made of a ferrous metal, likely had a wooden core, and measured 4¼ inches in length. The lugs were affixed to burial containers via two screws, one above and one below the arm fulcrum pin housing. Excavators noted that the mold number "41" appeared on the back of the lugs. The lugs are shaped like crosses with insteps on each edge along the perimeter, and are 4¼ inches long and 3¼ inches wide. The front face of the cross is beveled along the perimeter, rising up to a smooth-sided cross platform with a raised border. Floral designs and triangles extend from the raised border of the interior cross and from the pin housing inside the interior cross. A row of diamonds and floral blossoms, flanked by a corded border, runs down the front of the arm, which measures 2 inches in length. The bar loop of the arm wraps around the base of the finial, which is 3 inches long. Milled or reeded bands comprise this part of the finial extending a short distance on either side of the arm. A second band of ridges extends outward and constricts slightly. A third band of milling tapers outward to a corded ridge and tapers back in. This inward taper has triangle designs. A smaller set of similar bands sits outside the set just described. The finial ends in an elongated cone with a blunt tip. The cone exhibits bands of triangles and panels of leaf impressions.

There are no known patent matches to this handle, and no such handles have been recovered in any of the archaeological cem-

etary relocation projects used for comparisons. This exact handle was found in three period hardware catalogs (and one associated price list) dating between 1895 and 1905 (Figure 3.30). Very similar handles with shorter finials were found in two catalogs dating as early as circa 1885 (see Appendix C). Although there are no patent records for this type of handle, it was probably invented in the early 1880s, and was sold through the first decades of the twentieth century.

*Coffin Screws and Coffin Tacks*

The general hardware category of coffin screws consists of a form of hardware with a white metal screw cap affixed to a ferrous screw shaft. The top of the white metal cap typically has a slot to accept a screwdriver for mounting (Davidson 1999, 2004:400). Davidson (2006: 141) suggests that coffin screws were commonly used in sets of four or six, with one screw placed at each corner of the coffin, and an extra set potentially being mounted at either the shoulder or the waist of the coffin. It should be noted, however, that when only a set of two is present, these screws are often mounted at the head and the foot ends of the coffin (Pye 2007).

Coffin screws were in common usage by the 1850s; they are first known in the 1853 Peck and Walter Manufacturing Company catalog. A U.S. patent was granted to W. H. Nichols for this type of screw on 26 July 1859 (U.S. Letter Patent No. 24911) (Figure 3.31). Coffin screws were largely replaced by thumb-screw forms in the 1870s and 1880s, and by the late 1880s, were carried only by general hardware suppliers and jobbers (Davidson 2006: 141). The overall temporal range of coffin screws, however, extends from about 1850-1910.

The term coffin tack refers to a specific kind of ornamental tack with a white metal screw head affixed to a small ferrous tack shaft.

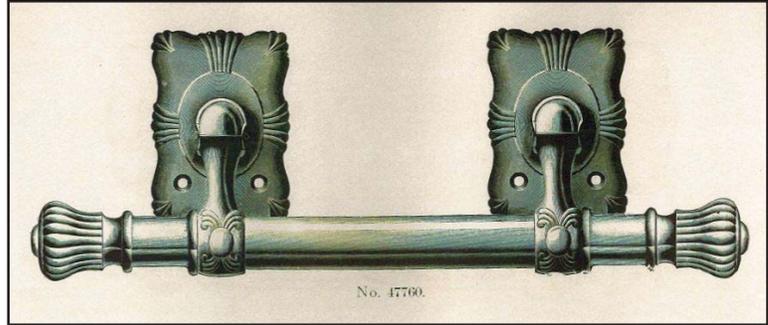


Figure 3.27. Exact match to Handle Type 5, as shown on page 41 of the 1901 Gate City Coffin Company catalog.



Figure 3.28. Handle Type 6, double-lug, short-bar handle recovered from Feature 40, Court Street Cemetery, AZ BB:13:156 (ASM).



Figure 3.29. Handle Type 7, double-lug, short-bar handle recovered from Feature 44, Court Street Cemetery, AZ BB:13:156 (ASM).

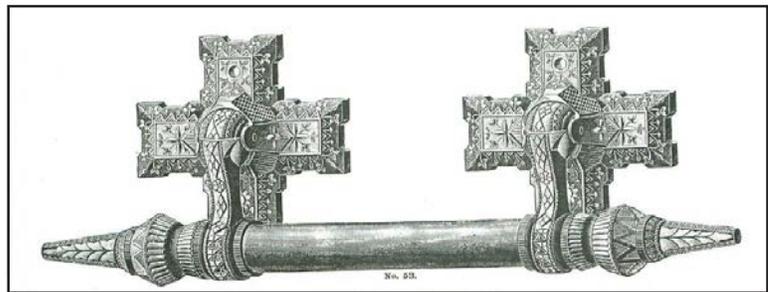


Figure 3.30. Exact match to Handle Type 7, as shown on page 98 of the 1905 Chattanooga Coffin Company catalog.

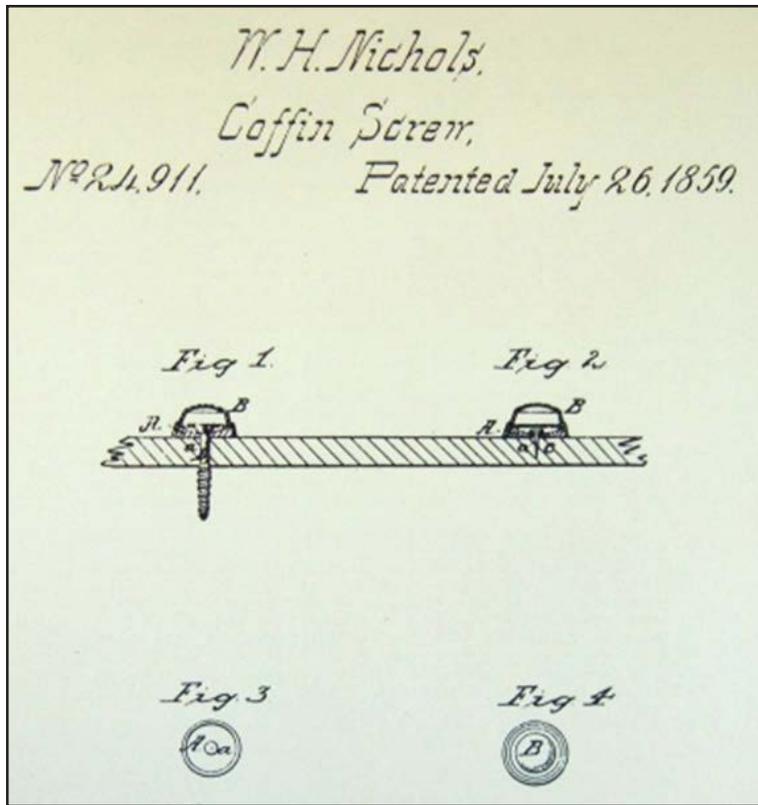


Figure 3.31. W. H. Nichols 1859 Patent No. 24,911 for coffin screws and coffin tacks.

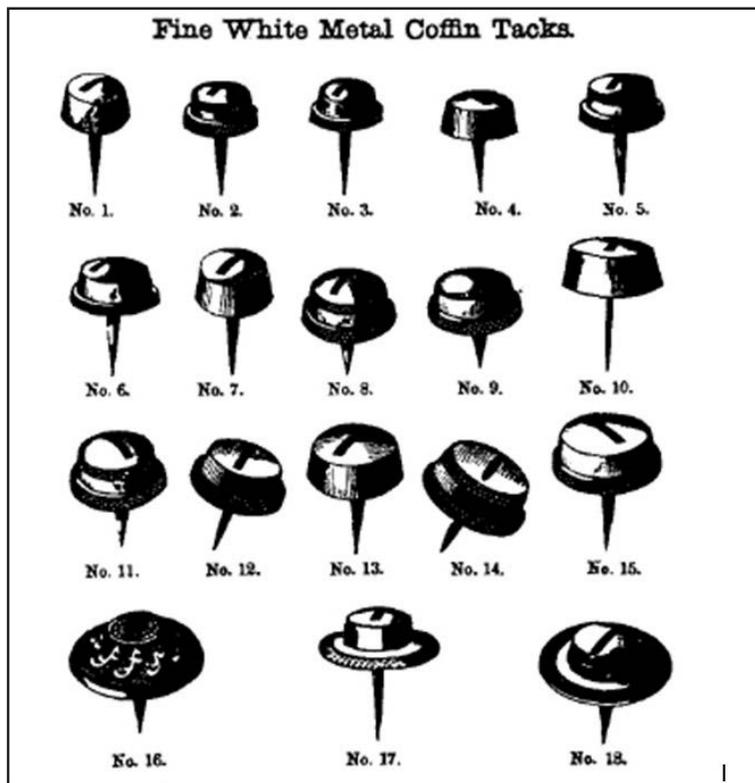


Figure 3.32. Selection of coffin tacks offered for sale on page 331 of the 1865 Russell & Erwin Manufacturing Company catalog.

They are commonly used in conjunction with true coffin screws to give the illusion that more true screws were used in construction of the coffin. For this reason, coffin tacks are often referred to as dummy screws (Davidson 1999, 2004:402-403). Coffin tacks were available for sale in some locations from the 1850s well into the 1900s, but were most popular between the 1850s and the 1880s.

Coffin tacks (Figure 3.32) were typically produced in the exact same styles as coffin screws (Figure 3.33) so they could be used together. Because less material was required, coffin tacks were cheaper. Thus, it was common for people to use limited numbers of coffin screws and fill the perimeter of the burial container with many coffin tacks. Archaeologically, corroded and dirt-packed coffin tacks sometimes look like coffin screws with broken shafts. Many archaeological reports of cemetery excavations misidentify coffin tacks. Greater care should be taken to distinguish between these two classes of artifacts, because there is a subtle, yet important, economic implication in their use.

Identification of stylistic variation among coffin screws and coffin tacks is problematic from both the historical perspective and the archaeological perspective. Illustrations are often not great in period catalogs, thereby confusing in their variations. Additionally, with few exceptions, the size ranges of coffin screw/tack heads are not provided in catalogs. Similarly, many archaeological reports do not give measurement data and do not show profile views, further inhibiting identification. Future analyses of these artifacts will depend on careful comparison of measurements with other well-documented archaeological materials and useful trade catalogs. The photographs of the artifacts recovered from Court Street Cemetery show three different styles of artifacts, which fell into these general

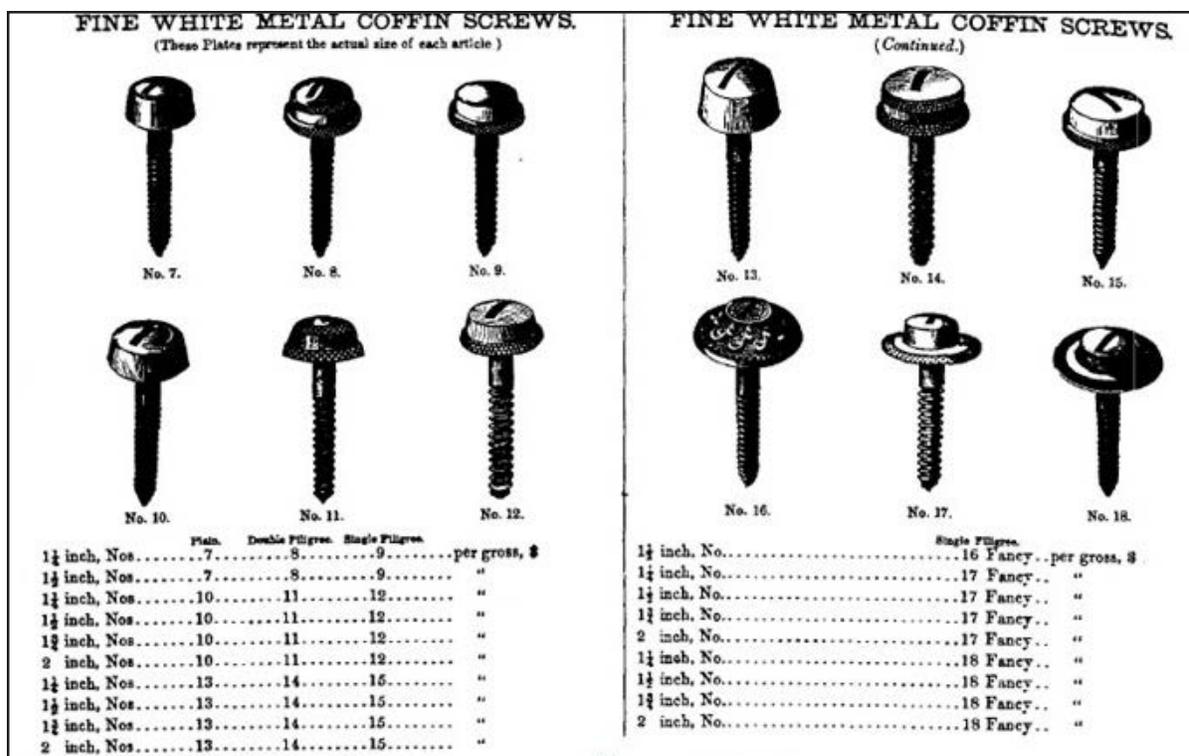


Figure 3.33. Selection of coffin screws offered for sale on page 332 of the 1865 Russell & Erwin Manufacturing Company catalog.

categories of hardware. One of the items was clearly a coffin screw, as it had an intact screw shank. The other two items had no evident screw shank. While they are probably coffin tacks, there remains a possibility that they could have been screws with the shank broken off in such a way as to make them look more like tacks.

*Coffin Tack Type 1.* Coffin Tack Type 1 (Figure 3.34) was recovered from Feature 38 in the Court Street Cemetery. These had domed, cylindrical, slotted, non-ferrous, white metal heads with evidence of a ferrous shaft. The item depicted in photographs looks to have a shaft narrower than that of the Coffin Screw Type 1, and thus, this is likely a coffin tack rather than a coffin screw. This artifact type had a single filigree decorative form, with a primarily flattened dome, slanted sides, and a squared filigreed collar. No systematic search of comparative materials was conducted (see Appendix C). The stylistic form of this tack type appears similar to Coffin Tack No. 12, as illustrated in the 1865 Russell and Erwin Manufacturing Company catalog (see Figure 3.32). The size of the tack depicted in the catalog is not given, however, making it impossible to definitively state that a match is present. The temporal span of these tacks can be assigned to the general span of use for coffin tacks.

*Coffin Tack Type 2.* Six identical artifacts were recovered from the Trench 100 backdirt and labeled



Figure 3.34. Coffin Tack Type 1 recovered from Feature 38, Court Street Cemetery, AZ BB:13:156 (ASM).

as Coffin Tack Type 2 (Figure 3.35, left side). These had domed, cylindrical, slotted, non-ferrous, white metal heads with evidence of a ferrous shaft. The tack depicted in photographs looks to have a shaft narrower than that of the adjacent Coffin Screw Type 1, and thus, this is likely a coffin tack rather than a coffin screw. This artifact type had a double filigree decorative form, with the sides of the dome slightly slanted and the lower filigreed collar squared. The head of this artifact type was 5/8-inch in diameter and 1/4-inch tall.

The style and size of this type of screw/tack matches that labeled Ornamental Tack Type 1.1 from artifacts recovered from the Alameda-Stone Cemetery, the cemetery that was used prior to opening of the Court Street Cemetery (Pye 2010a). While it cannot be definitively stated that Coffin Screw/Tack Type 2 is actually a tack like that at the Alameda-Stone Cemetery project, this type of coffin screw/tack style would have been offered for sale between circa 1850 and circa 1890 (see Appendix C). An example of a probable period catalog match for this type of coffin tack is shown in Figure 3.36.

*Coffin Screw Type 1.* Two examples of Coffin Screw Type 1 (see Figure 3.35, right side) were recovered from the Trench 100 backdirt. This screw type consists of a domed, cylindrical, slotted, non-ferrous, white metal head with a flanged brim and a ferrous shaft. The head is 7/8-inch in diameter and slightly more than 1/4-inch tall. The sides of the dome were relatively straight, curving slightly at the interface with the brim, and the dome was gently curved. Screws of this type could have a brim with a filigreed decorative band around the entire width of the brim, only along the outer half of the brim, or an undecorated brim. The artifact representing this artifact group and depicted in photographs was heavily corroded, and although it appears a filigreed design was present on the flange, it was not possible to determine the extent of the decoration. Consequently, it is not possible to make definitive matches to period catalogs or archaeological examples (see Appendix C). However, the appearance of Coffin Screw Type 1 is roughly similar to Coffin Screw No. 17, as depicted in the 1865



**Figure 3.35.** Coffin Tack Type 2 and Coffin Screw Type 1 recovered from the Trench 100 backdirt, Court Street Cemetery, AZ BB:13:156 (ASM).

Russell and Erwin Manufacturing Company catalog (see Figure 3.33). As mentioned, coffin screws were most popular between the early 1850s through to the 1880s, but were sold well into the twentieth century.

#### *Thumbscrews*

Thumbscrews evolved from earlier forms of coffin screws, with the first identified iteration appearing in an 1859 patent issued to Mr. H. Marshall for an innovative type of rectangular metal casket (U.S. Utility Patent No. 25,659). The flat-bodied forms, like those recovered from the Court Street Cemetery excavations, first appear with an 1874 patent issued to W. M. Smith (U.S. Utility Patent No. 7,797) for a flat bodied, urn-shaped design. These new types of thumbscrews began to appear in catalogs in 1875. Thumbscrews provide good temporal diagnostics, because continued advancements and variations in designs yielded further registered patents up to 1884. Further, companies and individuals continued to produce new forms (although few were patented) into the twentieth century (Davidson 2006:133-134). Due to the increased use of complex lid fasteners, such as those discussed here, the popularity of thumbscrews as



**Figure 3.36.** Match to Coffin Tack Type 2, as illustrated in the 1865 Markham and Strong Company catalog.

lid fasteners decline in the first two decades of the twentieth century. As evidenced by the presence of only two forms of thumbscrews in the 1959 Victor Casket Hardware Company catalog, a greatly reduced and simplified selection of thumbscrews was sold until the 1960s, primarily as outer box fasteners.

*Thumbscrew Type 1.* Thumbscrew Type 1 was recovered from the Trench 100 backdirt (Figure 3.37). It is associated with Escutcheon Type 1, which was also recovered from the Trench 100 backdirt. The thumbscrew consists of a flat-bodied head made of white metal cast upon an iron screw shank. The head has a tri-lobed crown motif, with the central triangular projection. The head has a thick raised border and a cross-hatched interior. Three triangular projections of the raised border drop down from the top border of the crown, and two triangles rise up from the bottom. From the tops of these two bottom triangles extends another triangular projection. A single floral motif with three leaves sits just below the base of the crown on the neck of the screw. A narrow zig-zagged raised line runs around the base of the screw. The thumbscrew was 1¼ inches long. No matches have been made to patent



**Figure 3.37.** Thumbscrew Type 1 recovered from the backdirt of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.38.** Thumbscrew Type 2 recovered from the backdirt of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).

records, catalogs, or archaeological cemetery relocations reports available for comparison (see Appendix C).

*Thumbscrew Type 2.* Thumbscrew Type 2 was recovered from the Trench 100 backdirt (Figure 3.38). It is made of white metal cast upon an iron screw shank. The head shape of these white metal thumbscrews is reflective of a tent. A triangular projection drops down from the top of the tent in the center of the screw head. The lines of the triangle extend across

the interior of the screw like the flaps on a tent. A field of pyramidal stippling is below these lines. A row of diamonds extends around the base of the screw head. The thumbscrew is 1¼ inches long.

Exact matches to this thumbscrew have been not been located in any patent records or period trade catalogs. However, this screw was recovered previously in the Court Street Cemetery from Burial 15 (Hopkins et al. 2011:22).

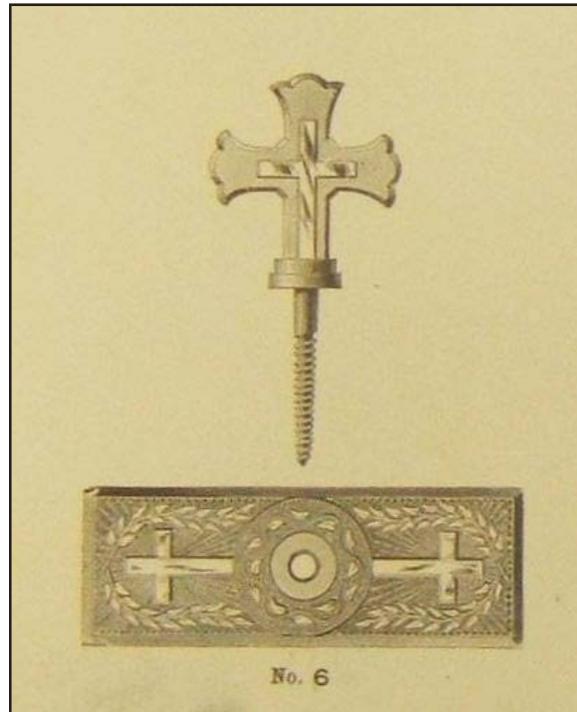
*Thumbscrew Type 3.* Thumbscrew Type 3 was recovered from the Feature 44 burial (Figure 3.39), and it measures 1½ inches tall and 1½ inches wide. It is a flat-bodied thumbscrew made of white metal cast upon an iron screw shank. It was associated with thumbscrew Escutcheon Type 2. The head shape of this screw can be described as a Celtic cross set within a cross patonce. As is typical of a cross patonce, the ends of three arms are trifurcated into leaf shapes and gently widen from the center before reaching the trifurcated ends. The perimeter of the cross is marked by raised dots, and the background of the cross consists of a field of low-relief stippling. What deviates from the cross patonce pattern is the presence of a raised, finely milled circle set behind a smooth-sided plain cross in the style of the Celtic cross. The top edge of the screw base is beveled, while the lower portion of the base is rounded and milled.

Exact matches to this thumbscrew have not been located in any patent records or period trade catalogs. Very similar items have been found in two period catalogs, as well as one associated price list dating between 1905 and 1912 (Figure 3.40) (see Appendix C). The difference between the illustrated thumbscrew in these catalogs and the one recovered from the Court Street Cemetery is that the catalog thumbscrew does not have the ring of the Celtic cross or the stippling and raised dots on the cross patonce. Exact matches to Thumbscrew Type 3 have been recovered in archaeological excavations at two other historic cemeteries in Texas, Freedman's Cemetery (Dallas) and Third New City Cemetery (Houston). The Third New City Cemetery example was dated between 1875 and 1905. The burial in Freedman's Cemetery, Texas, containing this screw type were more tightly dated to between 1885 and 1899 (see Appendix C). Additionally, five burials, dating between 1877 and 1935, in Elmbank Cemetery, Ontario, Canada, contained a similar type of screw. The period catalog similar matches, in conjunction with the tightly dated Freedman's examples, are at least suggestive that this screw appeared sometime in the late 1890s, and was most popular in the first decade of the twentieth century. When its use declined is unclear.

*Thumbscrew Type 4.* Thumbscrew Type 4 was recovered from Feature 47 (Figure 3.41). It is a flat-bodied thumbscrew made of white metal cast upon



**Figure 3.39.** Thumbscrew Type 3 recovered from Feature 44, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.40.** Thumbscrew and escutcheon set somewhat similar to Thumbscrew Type 3 and Escutcheon Type 2, as shown on page 257 of the 1906 Cincinnati Coffin Company catalog.

a iron screw shank. It was associated with thumbscrew Escutcheon Type 3. The thumbscrew is vaguely fan-shaped and appears to be dominated by a stylized lotus-like flower emerging from the base, with radians extending up and outward. These radians may represent other portions of the flower



**Figure 3.41.** Thumbscrew Type 4 recovered from Feature 47, Court Street Cemetery, AZ BB:13:156 (ASM).

or the sun rising over the top of it. The radians were raised against a backdrop of hatch marks. The base was rounded and was covered with foliage extending down from the lotus bloom. The thumbscrew was  $1\frac{1}{4}$  inches long and  $1\frac{1}{4}$  inches wide. The iron screw that attached the thumbscrew to the escutcheon and screw was  $\frac{3}{4}$ -inch long.

The basic design for this fan-shaped thumbscrew dates to the issuance of Design Patent No. 15,044 to W. M. Smith on 3 June 1884 (Figure 3.42). While the patent image does not share the lotus flower pattern, it is close enough to give an approximate TPQ for this thumbscrew type. Exact matches to this thumbscrew have been located in two period trade catalogs and one associated price list dating between circa 1895 and 1905 (Figure 3.43). Ten exact matches of this screw and one similar match have been recovered in the archaeological excavations of historic cemeteries: 1 in Virginia, 2 in Ontario, Canada, 3 in Texas, 1 in Illinois, 1 in Kentucky, and 3 in Georgia. Additionally, the screw was also found in a hardware collection recovered from the A. L. Calhoun General Store in South Carolina (see Appendix C). The dates associated with the features in which these screws were located range from 1870 until 1960 collectively. This is, however, due in large part to the fact that many of the burials in these various cemetery relocations are not tightly datable, and therefore, they are given the date range of the entire cemetery.

*Thumbscrew Type 5.* Thumbscrew Type 5 (Figure 3.44) was recovered from the backdirt of Trench 102 in the Court Street Cemetery. It is a flat-bodied thumbscrew made of white metal cast upon an iron screw shank. It was associated with, and appears to be a stylistic match to, Thumbscrew Escutcheon

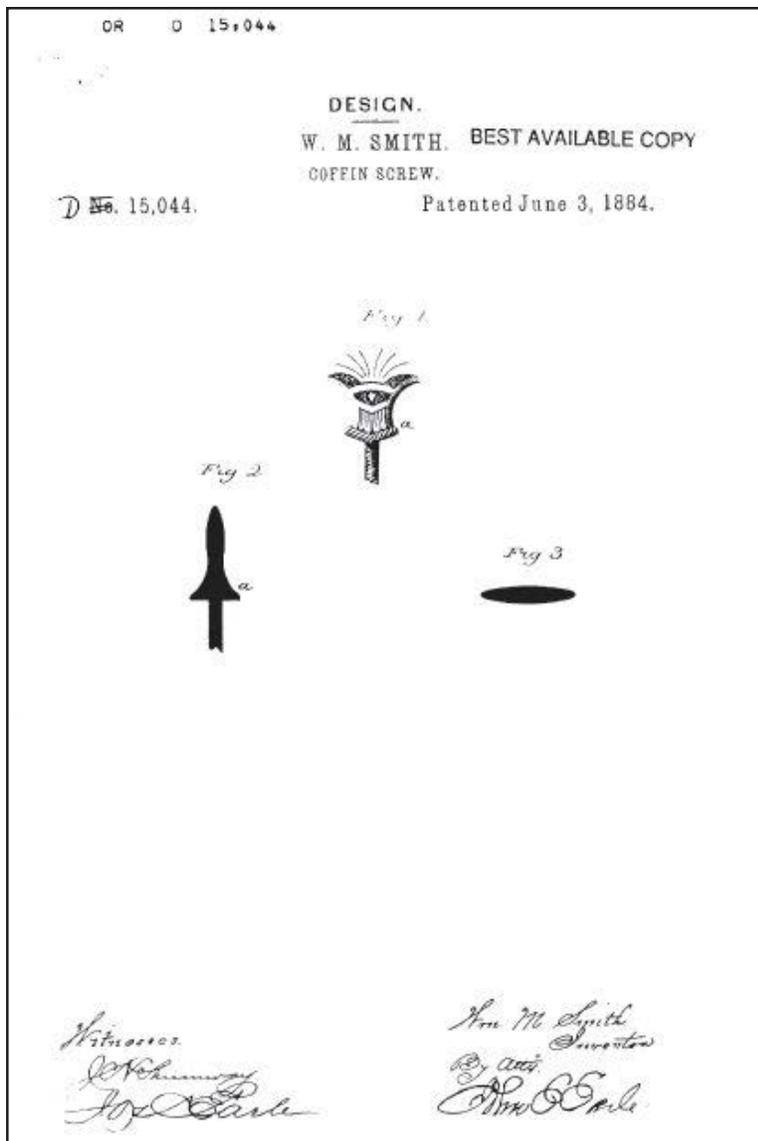
Type 3. The screw shaft is missing, as is a portion of the upper right thumbscrew body and the left margin. Two raised lines extend upward and inward from the sides of the thumbscrew base. They join in a trefoil platform just below the center of the thumbscrew face. A raised dot appears above the trefoil in the center of the screw. While only part of it remains, it seems as though the lower trefoil design is mirrored on the top of the screw. A raised arc extends from the lower shoulder of the screw to the upper corner. The background of the screw looks to exhibit a milled pattern. Other elements are present, but are fully or partially obscured by damage and/or corrosion. No systematic search for this thumbscrew in patent records or the archaeological literature was conducted. A targeted search of period catalogs was undertaken, but no matches were found (see Appendix C).

*Thumbscrew Type 6.* Thumbscrew Type 6 (Figure 3.45) was recovered from the backdirt of Trench 100 in the Court Street Cemetery. It is a flat-bodied thumbscrew made of white metal cast upon an iron screw shank. It was associated with Thumbscrew Escutcheon Type 4. The screw is intact, although there is some corrosion present on the thumbscrew head and shaft. The design consists of a slightly domed central disc. Along the left and right sides of the disc are floral inspired lines with tendrils at each end. Outside of these lines are what appear to be vines or petals in the background of the screw face emulating a large-bodied flower, such as a sunflower. Larger floral vines extend around the petal border with tendrils at the top and bottom. Small clusters of leaves or the ends of the vines are present at the top and bottom corners of the screw, and a ball sits at the apex of the screw.

No systematic search for this thumbscrew was conducted in patent records or the archaeological literature. A targeted search of period catalogs was undertaken, and a match to this thumbscrew was located in two period trade catalogs and one associated price list from the Cincinnati Coffin Company dating between 1905 and 1912 (Figure 3.46) (see Appendix C). Although no systematic search of period trade catalogs was conducted, this type is likely to have been brought to the market sometime in the 1890s or 1900s, because it did not appear in earlier Cincinnati Coffin Company catalogs and price lists available for review.

#### *Thumbscrew Escutcheons*

The term escutcheon refers to decorative screw plates with a central hole through which a thumbscrew can pass for mounting. These accessories were first known to have been illustrated on page 331 of the 1865 Russell & Erwin Manufacturing Company



**Figure 3.42.** U.S. Design Patent No. 15,044, assigned to W. M. Smith in 1884, for a coffin screw similar to Thumbscrew Type 4.

hardware catalog. These early varieties consisted largely of simple diamond-shaped forms. It was not until the widespread introduction of thumbscrews in the 1870s that escutcheon designs also began to evolve so that they could be sold with thumbscrews as matched sets. This type of artifact has a broad temporal range of approximately 1865 to the 1920s (Davidson 2006:147).

*Thumbscrew Escutcheon Type 1.* Thumbscrew Escutcheon Type 1 was recovered from the backdirt of Trench 100 (Figure 3.47). It is made of white metal, and was found in association with Thumbscrew Type 1. It is in poor condition, with half missing; the other half shows pockmarking and corrosion. That said, it shares some stylistic elements with its associated thumbscrew, and these likely came as a

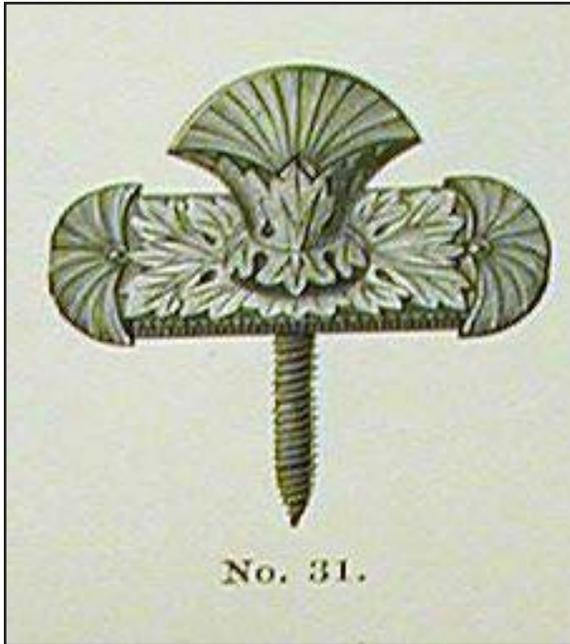
set. The overall shape of the piece is unclear due to its condition, but a circular platform is evident around the central screw hole. Two elongated triangular raised projections extend from this platform, much like those on the thumbscrew itself. The escutcheon has a raised perimeter border, and the interior background of the piece exhibits a cross-hatched pattern. The escutcheon was originally about  $\frac{3}{4}$ -inch long and  $\frac{3}{4}$ -inch wide. No matches to this escutcheon have been located in period trade catalogs, patent records, or in archaeological cemetery relocation reports (see Appendix C).

*Thumbscrew Escutcheon Type 2.* Thumbscrew Escutcheon Type 2 was recovered from Feature 44 (Figure 3.48). It is made of white metal, and was found in association with Thumbscrew Type 3. Although the escutcheon is mostly complete, it is very poorly preserved. Much of the stylistic motif is obscured by corrosion and chunks of the metal eaten away from the edges. After significant enhancement, a number of stylistic elements became evident, including a raised circular platform around the central screw hole, and raised crosses extending from either side of the central platform. Additionally, the escutcheon appears to have a beaded or corded border and some type of leaf or floral motif extending around the sides of the crosses. The escutcheon

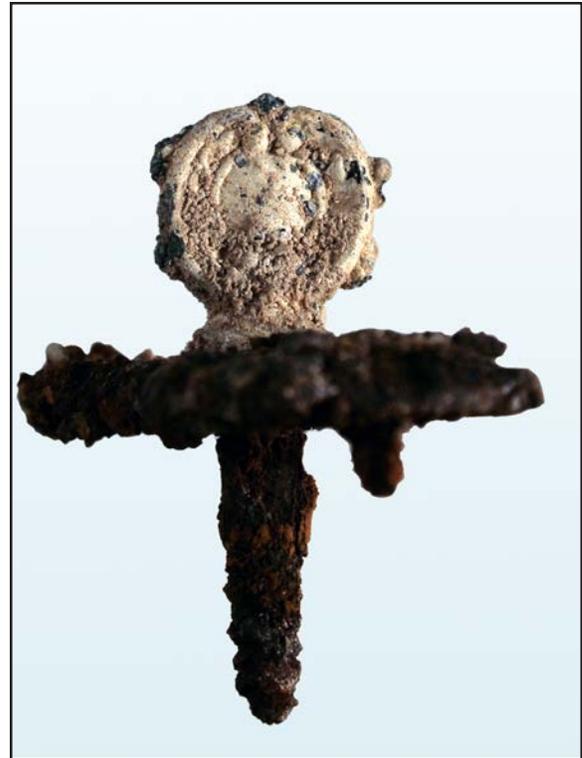
was  $2\frac{3}{4}$  inches long and  $7/8$ -inch wide. It had been attached to the coffin lid by a pair of iron screws.

While a definitive match is not possible due to condition, this escutcheon is probably the same, or very similar to that shown in Figure 3.40. If that is the case, it can be said that similar versions of this escutcheon have been located in two period trade catalogs and one associated price list dating between 1905 and 1912. Additionally, it was recovered from several burials in one cemetery in Ontario, Canada, dating between 1877 and 1935. No matches to patent records have been located (see Appendix C).

*Thumbscrew Escutcheon Type 3.* Thumbscrew Escutcheon Type 3 was recovered from Feature 47 (Fig-



**Figure 3.43.** Exact match to Thumbscrew Type 4, as shown on page 312 of the circa 1895 Kregal Casket Company catalog.



**Figure 3.45.** Thumbscrew Type 6 recovered from the backdirt of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.44.** Thumbscrew Type 5 recovered from the backdirt of Trench 102, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.46.** Exact match to Thumbscrew Type 6, as shown on page 258 of the 1906 Cincinnati Coffin Company catalog.

ure 3.49). It is made of white metal, and was found in two separate contexts in association with Thumbscrew Type 4 and Thumbscrew Type 5. The escutcheon exhibits corrosion, which partly obscures the stylistic elements present on the surface. It is roughly rectangular, although the corners are clipped and concave, forming a rounded point at the ends. The edges constrict slightly from the corners moving toward the center and then bulge before returning



**Figure 3.47.** Thumbscrew Escutcheon Type 1 recovered from the backdirt of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.48.** Thumbscrew Escutcheon Type 2 recovered from Feature 44, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.49.** Thumbscrew Escutcheon Type 3 recovered from Feature 47, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.50.** Thumbscrew Escutcheon Type 4 recovered from the backdirt of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).

to a similar line and joining a gentle arc around the center of the edge. From the sides of the gentle side arcs are raised lines extending inward and curving outward, joining at a trefoil platform, much like Thumbscrew Type 5. Beyond the trefoil is a single raised dot along the midline of the escutcheon long axis. The tips of the escutcheon exhibit a fan or scalloped pattern. Each side quadrant of the escutcheon contains a semicircular floral vine with tendrils at the ends and a series of leaves or ridges inside. No matches to this escutcheon have been located in period trade catalogs, patent records, or in archaeological cemetery relocation reports (see Appendix C).

*Thumbscrew Escutcheon Type 4.* Thumbscrew Escutcheon Type 4 was recovered from the backdirt of Trench 100, and was found in association with Thumbscrew Type 6 (Figure 3.50). It is made of white metal, and exhibits heavy corrosion on its surface, which is completely obscuring any stylistic elements present on the surface. It is roughly

rectangular, although each side bulges slightly and is gently rounded. The escutcheon may be the stylistic match to its associated thumbscrew depicted in Figure 3.45, although this cannot be definitely determined due to the corrosion. It was also not possible to locate any exact matches in patent records or archaeological cemetery relocation reports (see Appendix C).

#### *Caplifters*

Caplifters are a class of burial container hardware designed to be affixed to the panel covering a viewing window on a burial container. They acted as a pull that would facilitate removing the cover to expose the window glass and view the enclosed decedent. Many caplifters were not remarkably different from the vast majority of thumbscrews; in fact, thumbscrews were sometimes used as caplifters and vice versa. Davidson (2006:163) notes that the earliest caplifter forms can be found on the metallic caskets and burial cases of the 1850s and 1860s, such as those produced by Crane, Breed & Company, but these were not referred to by name. The earliest catalog known to exist where caplifters are offered for sale as a separate hardware class is the 1875 H. E. Taylor & Company catalog. Within this catalog the "Rose-Leaf Lifter" was described as being used for "Panels, etc." Caplifters became common throughout the catalogs of the late 1870s, and fell out of use in the 1920s (Davidson 2006:164).

*Caplifter Type 1.* Caplifter Type 1 was recovered from the backdirt of Trench 103 (Figure 3.51). It is made of white metal and composed of two parts, a caplifter head with attached iron screw shaft and a caplifter base. The head was cast in the shape of a stylized flower or mushroom, with gentle convex petals or hood extending down from a central dome at the apex. The end of each petal is rounded, forming a scalloped edge pattern. The base is rounded, and the surface appears smooth. There is a conical projection in the center, which extends up under the umbrella of the caplifter head. The caplifter is 2 inches tall and 1-3/8 inches in diameter. An iron screw attached it to the lid.

Exact matches to this caplifter have been not been located in any patent records, but a match has been located in one period trade catalog from 1900, as well as an associated price list dated 1900 (Figure 3.52). This caplifter has also been recovered in the archaeological excavations of two other historic cemeteries, one in Texas, from a burial dating between 1875 and 1907, and one in Georgia, from a burial dating between 1870 and 1916. Additionally, this escutcheon was recovered from the 1894-1926 A. L. Calhoun General Store collection in South Carolina (see Appendix C).



Figure 3.51. Caplifter Type 1 recovered from the backdirt of Trench 103, Court Street Cemetery, AZ BB:13:156 (ASM).

as well as around the upper margin of the urn. The top of the urn rises steadily from the margin to the central ball finial. No systematic search of patent records or archaeological comparative literature was conducted. A targeted search of period trade catalogs was undertaken, but no exact matches were located (see Appendix C).

This artifact was referred to as a caplifter in this analysis based on its context within the burial in which it was recovered. It should be noted, however, that similar types of screws in period trade literature were labeled as thumb-screws, or more specifically, as urn screws, from as early as the

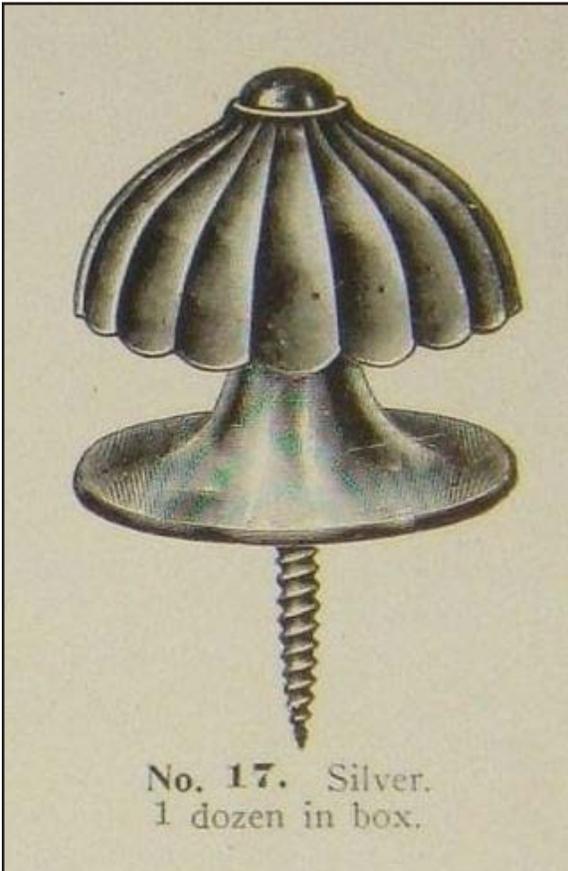


Figure 3.52. Exact match to Caplifter Type 1, as shown on page 447 of the 1908 Mound Coffin Company catalog.

*Caplifter Type 2.* Caplifter Type 2 was recovered from the backdirt of Trench 103 (Figure 3.53). It is made of white metal and is an urn-shaped form. A filigreed band extends around the band of the base,



Figure 3.53. Caplifter Type 2 recovered from Feature 44, Court Street Cemetery, AZ BB:13:156 (ASM).

1870s. These full-bodied urn screws were occasionally marketed as caplifters in subsequent decades, perhaps reflecting the change in use by burial container manufacturers or by local undertakers. The urn screw or urn-shaped caplifter was largely absent in period catalogs by the early 1900s.

#### *Ornamental Tacks*

Ornamental tack refers to a general class of artifact that includes a number of different forms, and is referred to by several different terms, such as coffin tack, dummy screw, stud, diamond tack, and so forth. These items usually have floral or geometric motifs, but can also be representational ornaments of sorts, such as the cross-shaped or bow stud. The more substantial coffin tacks, such as dummy screws, are made of a white metal, while the stud forms are comprised of thin, lightweight, pressed metal. In all instances, a ferrous tack shaft is affixed to the underside of the main body. These ornamental tacks are usually placed along the perimeter of the coffin lid, or on the sides of the coffin itself. As a general artifact class, the ornamental tack is commonly found in catalogs from the 1850s to circa 1920+ (Davidson 1999, 2004:419-420; Mainfort and Davidson 2006:153).

#### *Decorative Studs*

Decorative studs are a specific type of ornamental tack, which includes geometric forms, such as diamond- and star-shaped studs, as well as representational forms, such as flowers, lambs, bells, crosses, etc. (Davidson 1999; 2004:420). These types of decorative studs, like the larger ornamental tack category, are commonly found in catalogs from the 1850s to ca. 1920+; however, many of these forms occur in the latter portion of this time range (Davidson 1999, 2004:419-420; Mainfort and Davidson 2006:153).

*Ornamental Tack Type 1.* Ornamental Tack Type 1 was recovered from Feature 40 (Figure 3.54). It is a decorative stud made of a stamped cuprous metal. It is generally a diamond form; however, the two side extensions have smooth curvilinear sides, which are roughly leaf shaped, and the central portion is an equilateral diamond (square) with slight bulges along the center of each line. The stud has a central dome that is topped with a raised cross like a stylized canted-corner cross pattée. Between the base of the central dome, the raised perimeter of the piece, and the ends of the cross arms are four raised stippled points. In the side extensions of the stud beyond the ends of the cross arms are raised platforms shaped like projectile points with concave



**Figure 3.54.** Ornamental Tack Type 1 recovered from Feature 40, Court Street Cemetery, AZ BB:13:156 (ASM).

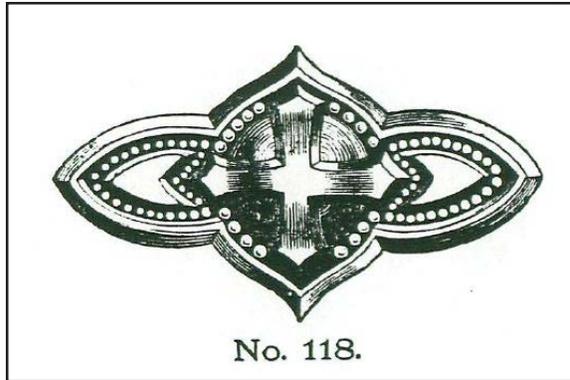
bases. These platforms are also surrounded by a line of stippled points.

No patent records depicting this ornamental tack type have been located. Similarly, this decorative tack has not been reported in any archaeological cemetery relocations that have been used as comparatives in this analysis. That said, this exact stud did appear in six period trade catalogs and three associated price lists dating between circa 1880 and 1905 (Figure 3.55). (see Appendix C).

*Ornamental Tack Type 2.* Ornamental Tack Type 2 was recovered from the backdirt of Trench 100 (Figure 3.56). It consists of a decorative stud made from a stamped cuprous metal. It is in the shape of a six-pointed star. A central dome is topped with a second raised six-pointed star encircled by an incised line. The base of the central dome appears to have a milled edge. There appears to be some type of faint design outside the star on the top of the dome, but the pattern is not clear. Within each of the arms of the larger star are floral patterns that look like fern fronds with two courses of paired leaves and a single leaf at the top.

No patent records depicting this ornamental tack type have been located; however, an exact match to this stud did appear in nine period trade catalogs and two associated price lists dating between 1877 and circa 1906 (Figure 3.57). Additionally, a very similar variety of star-shaped stud was offered for sale in another 1877 trade catalog. This artifact type has also been recovered in four historic cemetery relocations used as comparisons in this research. These cemeteries collectively dated between 1850 and 1922. Two were located in California, one was in New Mexico, and the last was in South Carolina (see Appendix C).

*Ornamental Tack Type 3.* Ornamental Tack Type 3 was recovered from the Trench 100 backdirt (Figure 3.58). It consists of a decorative stud made from a stamped cuprous metal. This type of tack is commonly referred to as a bell-shaped stud. It has a



**Figure 3.55.** Exact match to Ornamental Tack Type 1, as shown on page 7 of the circa 1880 C. Sidney Norris & Company catalog.



**Figure 3.56.** Ornamental Tack Type 2 recovered from the backdirt of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).

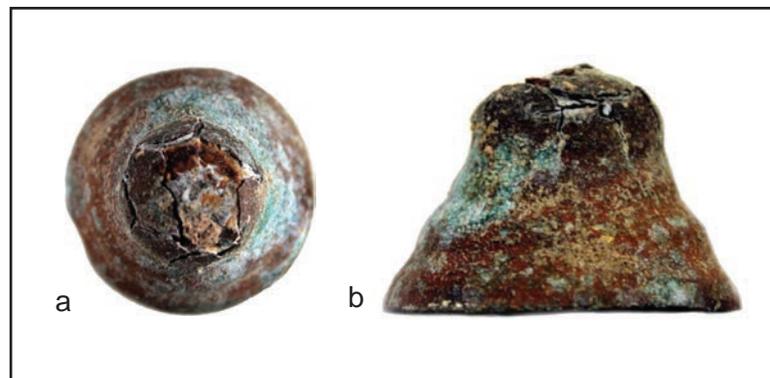


**Figure 3.57.** Exact match to Ornamental Tack Type 2, as shown on page 315 of the circa 1895 Kregel Casket Company catalog.

central dome, and it tapers out toward the base over the course of three tiers.

No patent records have been located that depict bell-shaped studs, although they were common in period trade catalogs from the late nineteenth and early twentieth centuries. Forms varied considerably, often having only minor differences in the angle or height of the tiers and the width of the dome and base. Therefore, it is difficult to make definitive matches. An apparent match to Ornamental Tack Type 3 was located in seven period trade catalogs and three associated price lists dating between 1895 and 1912 (Figure 3.59). Very similar tacks were observed in six other catalogs and one other price list dating between 1875 and 1894, but in all of these cases, at least one feature of the stud did not seem to match Ornamental Tack Type 3. Because no overlap of exact and similar matches seems to have occurred, the variant may have been first introduced into the market in the mid-1890s, and may have replaced the stud that was noted as similar. Further support for this assumption comes from the four matches of this tack type to artifacts recovered from archaeological cemetery relocations. The same type of tack was recovered from one cemetery in South Carolina, one in Texas, and two in Tennessee. Collectively, these cemeteries date between 1895 and 1933. The burial from which this tack was recovered in South Carolina was dated 1908, and the five burials in Texas were dated between 1907 and 1908 (see Appendix C).

*Ornamental Tack Type 4.* Ornamental Tack Type 4 was recovered from the backdirt of Trench 100 (Figure 3.60). It is in a basic diamond stud form, and is made of stamped cuprous metal. It has a central dome, with a flower motif with four curvilinear radians extending outward over the dome from beneath the flower like a stylized swastika. The perimeter of the diamond is raised with inward-facing scalloped edges, which are thickest at the ends



**Figure 3.58.** Top and side view of Ornamental Tack Type 3 recovered from the backdirt of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.59.** Exact match to Ornamental Tack Type 3, as shown on page 162 of the circa 1905 Chattanooga Coffin Company catalog .

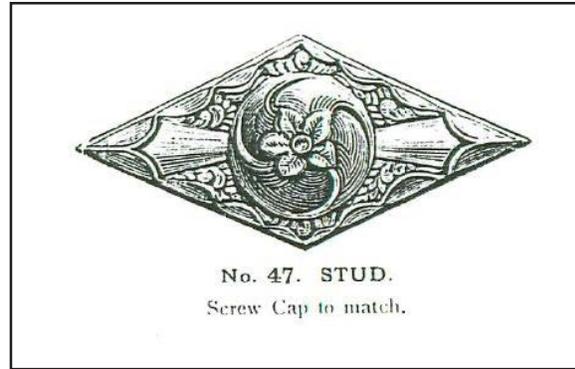


**Figure 3.60.** Ornamental Tack Type 4 recovered from the backdirt of Trench 100 backdirt, Court Street Cemetery, AZ BB:13:156 (ASM).

along the long axis of the stud. Raised, inwardly tapering platforms extend from the joining of the two end scallops and terminate at the central dome. The background between the scalloped edging, central dome, and connecting platforms are filled with various leaf and bloom floral patterns.

No patent records were located for this particular ornamental tack type. However, this stud was located in 19 period trade catalogs and five associated price lists dating from 1877 to 1912 (Figure 3.61). This stud has been recovered from one historic cemetery relocation in Georgia, from a burial dating between 1870 and 1916. Additionally, this stud was recovered from the 1894-1926 A. L. Calhoun General Store collection in South Carolina (see Appendix C).

*Ornamental Tack Type 5.* Ornamental Tack Type 5 was recovered from the Trench 100 backdirt (Figure 3.62). It appears to be a thick-bodied decorative stud made of white metal, but is poorly pre-



**Figure 3.61.** Exact match to Ornamental Tack Type 4, as shown on page 8 of the 1894 W. D. Wilmarth & Company catalog.



**Figure 3.62.** Ornamental Tack Type 5 recovered from the backdirt of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).

served. At least half the object is missing, and the remaining portion has pieces missing from along its edge. What is evident is that there is a smooth central dome with a beaded base. The background of the stud is a stippled field over which there extend what appear to be arrow shapes from three projections of the stud (one of them missing). The projections themselves have a raised border and three small lobes along the perimeter, two on either side and one at the apex. Due partly to the poor condition, no matches were found for this ornamental tack type to any patent, period catalog, or archaeological relocation comparative references (see Appendix C).

### Ornaments

Ornaments are typically large and elaborate in design. They are reminiscent of ornamental tacks, but are usually constructed of more substantial materials than the thin cuprous decorative studs. Ornaments are always representational, compared to plaques, which often contain words or phrases, such as “our Darling,” “Rest in Peace,” or “At Rest.” Common ornaments include crosses, crowns, doves, specific floral motifs (for example, calla lilies, floral bouquets, sheaves of wheat, a hand holding a rose, and so on), as well as fraternal orders symbols (for example, Masons, Odd Fellows). Ornaments were typically mounted on the burial container lid along the longitudinal axis of the coffin lid, commonly placed directly over the thorax, pelvis, or occasionally over the lower legs of the body (Davidson 1999). When multiple smaller ornaments were used, these were sometimes placed on the ends or sides of the burial container.

*Ornament Type 1.* Ornament Type 1 was recovered from the head end of the Feature 40 coffin, with a second example found in the Trench 100 backdirt (Figure 3.63). It is made of a stamped cuprous metal and was attached to a burial container covered in a black cloth, which is still adhering to the back of the ornament. The ornament is not complete; pieces are missing from both the lower half and the upper right quarter of the piece. The design of the ornament focuses on the crown and cross motif. The cross has a raised border and a reeded interior with an “x” pattern in the center, mimicking lashing to hold the arm of the cross to the vertical post. The crown sits atop the cross and has three diamond-shaped projections, alternating with four ball-tipped rod projections. Behind the crown is a sunburst type pattern, or possibly a mantle, atop a traverse rod from which a curtain drapes behind the lower half of the cross.

No patent records have been located that depict this type of ornament, nor has it been recovered in any archaeological cemetery relocation used as comparatives in this analysis. However, it was present in a number of period trade catalogs from the late nineteenth and early twentieth centuries.

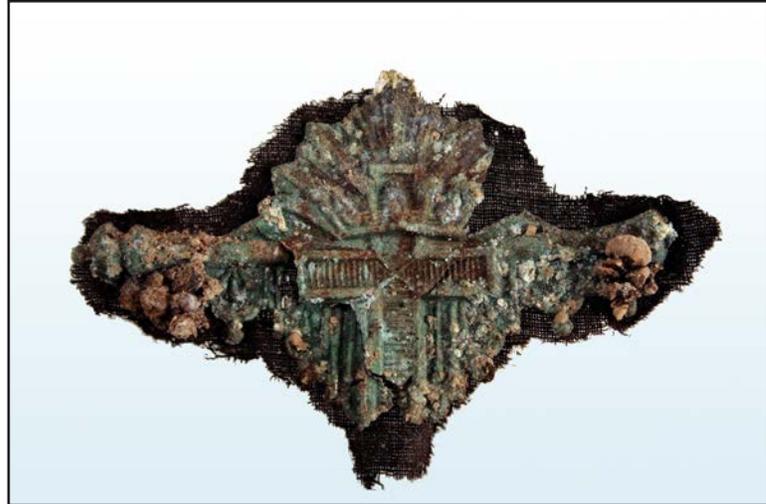


Figure 3.63. Ornament Type 1 recovered from the head end of the Feature 40 coffin, Court Street Cemetery, AZ BB:13:156 (ASM).

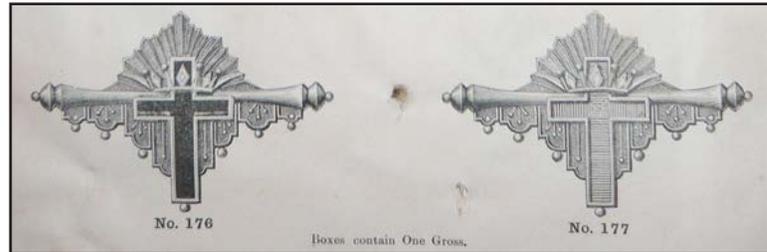


Figure 3.64. Similar and exact matches to Ornament Type 1, as shown on page 52 of the circa 1881 F. H. Hill & Company catalog.

Two similar forms were present in the catalogs, a “black cross” and a “white cross” (Figure 3.64). These two forms were essentially the same except that the interior of the cross in the black cross variety was black and smooth, while the white cross variety exhibited the reeded pattern seen in the Court Street Cemetery example. The reeded variety was located in four period trade catalogs and one associated price list dating between 1877 and 1894. In most cases, the black cross was also sold in the same catalog. However, only the black cross appeared in an additional five catalogs and two price lists dated between 1884 and 1908. Because most of the instances in which only the black cross was sold were dated later than the appearance of the white cross, it could be that the reeded variety fell out of popularity in the market in the 1890s (see Appendix C).

*Ornament Type 2.* Ornament Type 2 was represented by three fragments of white metal ornament of an unclear motif recovered from the Trench 100 backdirt (Figure 3.65). Two pieces fit together and depicted some fern fronds on the right and possibly an arm or a leg draped in cloth to the left. The

third fragment of the ornament appears to be the intersection of a cross arm. It shows a raised border with a diamond pattern interior and a raised perimeter clover pattern in the center, with a sunburst pattern surrounding the central pin hole.

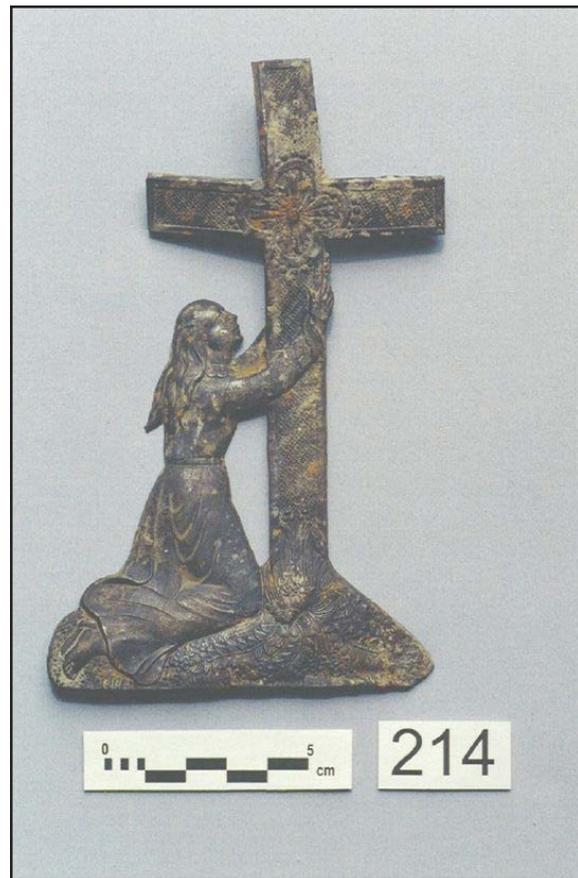
The fact that most of the ornament was missing and the design motif was unclear made it difficult to find a match. However, perusal of the comparative database of archaeologically recovered burial container hardware located an intact match to Ornament Type 2 recovered from four burials in Elmbank Cemetery, Ontario, Canada (Figure 3.66). This cemetery contained burials dated between 1877 and 1935. An important feature of the Elmbank example was the patent date stamped on the back of the cross, which read, "PATENTED JAN 8 1878" (Figure 3.67). A search of patent records for that date produced Design Patent No. 10,396, a patent for a funeral ornament issued to W. M. Smith. However, the patent illustration (Figure 3.68) does not match the design of Ornament Type 2. Therefore, it can be assumed that the specific design was not as important as the elements of the woman and the cross. Both the Ornament Type 2 variety and the variety depicted in the patent illustration were sold on the market. Ornament Type 2 was located in two period trade catalogs and one associated price list dating between circa 1880 and 1886 (Figure 3.69). Figure 3.70 depicts the Court Street Cemetery fragments (Ornament Type 2) overlain on the catalog illustration of this type of ornament.

## CONCLUSIONS

In this report, the types of burial container hardware recovered by Desert Archaeology, Inc., during the September 2012, recovery of historic burials located in Court Street Cemetery, Tucson, Arizona, are explored. The complete collection contained 7 handle types, 6 thumbscrew types, 4 thumbscrew escutcheon types, 2 caplifter types, 2 coffin tacks, 1 coffin screw, 1 top fastener, 5 ornamental tack types, 2 types of ornaments, as well as several dowels and corner braces. Artifacts were compared with U.S. patent records, period mortuary hardware catalogs, and reports of other archaeologically relocated historic cemeteries and isolated burials (see Appendix C). Based on the matches lo-



**Figure 3.65.** Ornament Type 2 fragments recovered from the backdirt of Trench 100, Court Street Cemetery, AZ BB:13:156 (ASM).



**Figure 3.66.** Exact match of Ornament Type 2, recovered from Burial #214 at Elmbank Cemetery, Ontario, Canada.

cated between the recovered hardware and this compendium of comparative materials and the known period of use for the cemetery, the burials collectively appear to date between 1877 and 1909.



Figure 3.67. Patent mark on the back of the Elmbank ornament.

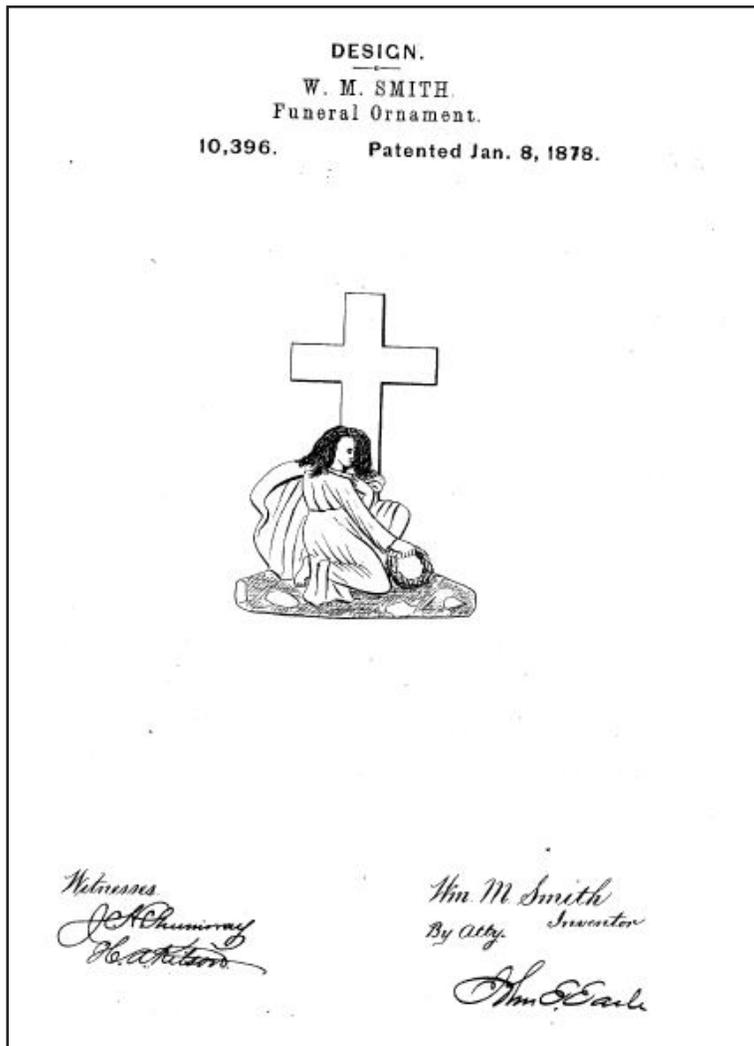


Figure 3.68. U.S. Design Patent No. 10,396, assigned to W. M. Smith for a funeral ornament in 1878.

When considered separately, however, individual interments could be more narrowly estimated. For example, the burial containing Thumbscrew Type 4 could not date earlier than 1884, when its associated patent was issued. While this task was outside of the scope of the current analysis, it could easily be accomplished by considering the earliest and latest known dates of each artifact contained within a given burial followed by the estimation of interment. Another aspect of the mortuary context at the Court Street Cemetery not discussed here is socioeconomic. When possible, prices for burial container hardware types were given in Appendix C. The costs of individual hardware pieces could be added together for an estimated cost of hardware per burial. Total costs per burial container could be calculated if the costs of other materials involved in the construction of the burial container at a given time were known. To make larger scale observations about socioeconomic within this cemetery population, however, a much more robust sample would be needed.

#### Comparisons with Alameda-Stone Cemetery

Decorative coffin hardware was recovered from 38 of the 909 burial containers located at the Alameda-Stone Cemetery (Heilen et al. 2010). The items included nine types of handles, six types of ornamental tacks and studs, and five types of screws. Many coffins had matching hardware, suggesting that whoever constructed the coffins had ordered sets of hardware from manufacturers in the eastern United States. Most of the burials predated the 1880 railroad arrival, so the hardware would have arrived in Tucson via freight wagon. The two latest burials in the military portion of the cem-

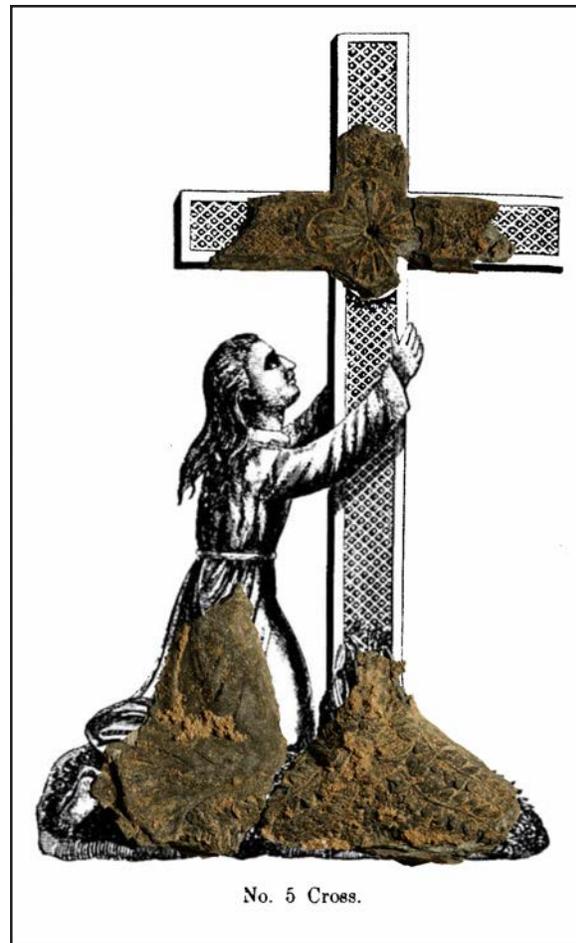


**Figure 3.69.** Exact match to Ornament Type 2, as shown on page 112 of the circa 1880 Warfield & Rohr Company catalog.

etry, dating to 1880 and 1881, contained matching hardware. These date to after the 1880 railroad arrival, when it would have been relatively easy to import coffin hardware.

Thirteen coffins have been excavated within the Court Street Cemetery since 2005 (Beck et al. 2005; Hopkins et al. 2011; Thiel and Margolis 2007; Thiel et al. 2013). Of these, three were plain coffins, lacking decorative hardware. The other 10 had decorative hardware, including handles, tacks and studs, screws, thumbscrews and escutcheons, and crucifixes. It seems clear that after the 1880 railroad arrival, coffins were more elaborately decorated.

Two sets of paired burials had matching coffin hardware (Features 13 and 14, Features 36 and 37).



**Figure 3.70.** Ornament Type 2 fragments, found in the Trench 100 backdirt, overlaid on circa 1880 Warfield & Rohr Company catalog illustration, Court Street Cemetery, AZ BB:13:156 (ASM).

Once pair was stacked and one pair was immediately adjacent to each other. It is likely that the paired burials were interred at the same time, the coffins manufactured by the same carpenters. A thumbscrew from the Trench 100 backdirt also matched an example from Feature 15 (Hopkins et al. 2011). One tack type found during the current project may match one tack type found at the Alameda-Stone Cemetery; however, the poor preservation of the tack makes this uncertain.

The sample is too small to determine whether individuals were treated differently based upon their sex, age, ethnicity, and religious or fraternal membership.

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## CONCLUSIONS

*J. Homer Thiel  
Desert Archaeology, Inc.*

Archaeological monitoring of 11 trench locations within, or adjacent to, the boundaries of the Court Street Cemetery, AZ BB:13:156 (ASM), resulted in the discovery of 11 burials within four of the trenches and some isolated human bone in a fifth trench. Archaeologists excavated seven of the burials; four others were left in place, as the sewer repair work would not disturb them.

Archaeologists have now documented 48 burials within the boundaries of the Court Street Cemetery since 1967 (see Table 1.4). Of these, 24 have been excavated. Twenty burials found within the Red Men plot are currently still in place, along with the four located during the current project.

The recovered individuals represent residents of Tucson and the surrounding region who died between 1875 and 1909, a time period that saw the community rapidly evolving as the railroad arrived in 1880. Further, Tucson suffered from the nationwide recession of the 1890s, with an influx of new residents searching for opportunities and, in many cases, a cure from tuberculosis. This timespan also saw undertaking businesses opening in Tucson, and the greater elaboration of the treatment of the dead.

One of the two oldest cemeteries is located in the Barrio Libre and has been designated site number AZ BB:13:495 (ASM). The Barrio Libre Cemetery is beneath and adjacent to S. 9th Avenue, south of W. 17th Street. Since the mid-1990s, five burials have been located, with other burials uncovered in the 1950s for which no documentation survives. Four of the five recently discovered burials were excavated by archaeologists, while the fifth was found during work in a new sewer trench and was removed by workers before archaeologists arrived.

The cemetery contains flexed burials of individuals with Native American ancestry or mixed Native American-European ancestry. Several of the remains had red ochre stain, but no other associated artifacts were present. None were buried in coffins. It is likely that the cemetery contains O'odham or possibly Apache individuals (Thiel and McClelland 2007). The exact date of the cemetery's use is not known, but the condition of the skeletal remains indicates they are from the historic period.

The Mission of San Agustín is located east of Sentinel Peak and is part of the Clearwater site, AZ BB:13:6 (ASM). It was the Piman and O'odham vil-

lage of S-cuk Son at the time Father Eusebio Kino visited the Tucson Basin in the late 1690s. A church was constructed at the village in 1751, with additional buildings completed in the late 1790s or early 1800s. Three cemeteries were present. A protohistoric cemetery was discovered a short distance south of the mission complex southern wall during the Rio Nuevo data recovery fieldwork. It contained both flexed and extended burials lacking grave goods. This may have been the cemetery used at the time Kino first visited the community.

Two other cemeteries were present within the walled Mission Complex. One was immediately adjacent to the church and reportedly contained burials of individuals with European ancestry. Portions of this cemetery were excavated in the 1950s by the University of Arizona. The area was then destroyed during landfill activities conducted by the city between 1956 and 1960. The second cemetery was located along the interior of the northern wall of the mission. Portions of this cemetery were also excavated. The cemetery was relocated during the Rio Nuevo data recovery project and the 13 burials found were left in place as required by the project Burial Agreement (Thiel and Mabry 2006).

The two mission cemeteries held individuals buried in the extended position. The orientation of the head varied, with no obvious pattern visible. Grave goods recovered included beads, religious medallions, and a crucifix. None of the burials were interred in coffins. It appears that some of the people were wrapped in shrouds at the time of burial (Wasley 1956).

The location of the Tucson Presidio was selected on the terrace east of the Santa Cruz floodplain in 1775 and is now site AZ BB:13:13 (ASM). Soldiers moved north from Tubac in 1775. The Presidio San Agustín del Tucson cemetery was in use from about 1776 until the mid- to late 1850s. Burials were placed beneath the floor of the presidial chapel, with a walled cemetery apparently present either to the north or south of the presidial chapel (probably on both sides). Today, the cemetery is located beneath W. Alameda Street and adjoining areas, a short distance west of N. Church Avenue.

Some burials were removed from the cemetery during the Urban Renewal Project in 1969 and 1970. Documentation for these burials is sparse. In 1991,

a trench was cut along the south side of W. Alameda Street and 20 complete burials were excavated.

The Presidio Cemetery saw the same burial plots used repeatedly. Each of the excavated complete burials contained the remains of other individuals who were disturbed during the digging of the latest burial. The disturbed bones were usually placed in the knee region of the new burial. The cemetery was in use for about 90 years in a community that had between 400 and 500 individuals. The burial records for the community have been lost, so the exact number of people buried in the cemetery cannot be determined. Child mortality was certainly quite high, and an epidemic in 1851 killed a quarter of the community's residents (about 120) (Officer 1989). The consecrated cemetery area was likely quite small, leading to the disturbance of earlier burials seen in the examples excavated in 1991.

Most of the excavated burials were apparently wrapped in shrouds. Only one person had evidence for clothing (a button), while two individuals had beads. Two children were buried with copper wire, apparently for a floral wreath placed on their heads. Only two burials had evidence for a coffin, consisting of wood fragments and nails. Three individuals were buried with lime, apparently used as a disinfectant. (Thiel et al. 1995).

The Alameda-Stone Cemetery (also called historically the National Cemetery) was in use from the mid- to late 1850s until 1875 for the civilian portion, and from 1862 to 1881 for the military portion (Heilen et al. 2010). It was located at the northeastern corner of N. Stone Avenue and E. Alameda Street. It likely once held the remains of between 1,800 and 2,100 individuals. The majority of the cemetery was excavated by Statistical Research, Inc., between 2006 and 2008 prior to the construction of the new Pima County Courthouse.

A total of 1,083 grave features, containing the remains of 1,386 individuals, were excavated. Numerous cases of graves containing more than one individual were encountered. In some cases, two or more people were buried at the same time. In other cases, graves were reopened and additional interments placed in them. In one specific area, which appeared to be an enclosed consecrated burial plot similar to the Presidio Cemetery, later graves had been dug into earlier graves.

The vast majority of the grave pits were oriented in a general east-west direction. About twice as many people were buried with their heads at the east end of the grave (east end  $n = 528$ , west end  $n = 231$ ). Most were supine (on their backs). A few people appear to have been wrapped in shrouds or swaddling clothes ( $n = 37$ ). Most people were buried wearing clothing, although only five percent had shoes. A small number had jewelry and 108 had religious

items (crucifixes, medallions, and rosaries). A few graves had other items (bottles, coins, a smoking pipe, ammunition). Lime was used in 54 interments. Artificial flowers were present in about one-quarter of the burials. The vast majority of burials had been placed inside coffins ( $n = 909$ ); however, only 38 coffins had decorative hardware (handles, coffin screws, tacks, and studs) (Heilen et al. 2010). It seems likely that prior to the 1880 railroad arrival, little coffin hardware was being brought into Tucson.

Civilians were asked to remove the remains of their family members and friends. For the military cemetery, the United States military hired a doctor to disinter burials and other individuals were removed by relatives and friends. Statistical Research's work suggests that 90 percent of the military burials were exhumed but only 10 percent of the civilians.

To date, archaeologists have located or excavated 48 burials within the Court Street Cemetery. Twenty of these were found in the Red Men plot and have not been excavated, although it is obvious that these are in a west-east orientation (Thiel 2012a).

Of the remaining 28, 24 have been excavated. Four were located in the City portion of the cemetery, where non-Catholics were buried. The other 20 were within the Catholic half of the cemetery. Fourteen were single burials, with only one set of remains; while the other 10 were double burials, with two coffined burials in the same shaft. Most were buried oriented east-west, although two burials were in a north-south shaft. Most had their heads to the west, although at least two had their heads to the north and one individual was buried with their head to the east. At least 22 of the burials were placed in coffins, as shown by wood, nails, and coffin hardware recovered from the graves. At least fourteen were buried wearing clothing. Several individuals had personal effects with them, including rosaries, a picture in a frame, coins, a coin purse, a jackknife, and a comb.

At this point, comparisons with the Alameda-Stone Cemetery may be preliminary, but a few differences are observable. The well-documented burials are all in coffins. Of those excavated since 2005 ( $n = 11$ ), eight had decorative coffin hardware and three were in coffins lacking this hardware, although two of these three had fabric lining either the interior or exterior, as shown by the small tacks recovered.

Why are there more elaborate coffins in the Court Street Cemetery? Three factors may be at play. In March 1880, the Southern Pacific Railroad tracks were laid into Tucson, linking the community to the west coast of the United States. Within a few months, the railroad was extended eastward to El Paso, Texas, and then linked to the eastern United States. Milled lumber could be easily shipped to Tucson from northern California. Coffin hardware manu-

factured in the eastern United States could also be easily shipped to the community. Freight costs dropped dramatically. At the same time, mass production of coffin hardware was taking place, and manufacturers were sending out catalogs of coffin hardware, both utilitarian and decorative.

Professional undertakers opened business in Tucson. Prior to their arrival, the preparation of a body for burial and funeral arrangements were handled by family members and friends. By 1880, Edward J. Smith had opened an undertaking parlor in Tucson. He provided embalming, body preparation, coffins, a hearse, and carriages to take mourners to funeral services and graveside services.

The last half of the nineteenth century saw an elaboration in mourning and funeral rituals, including the wearing of mourning attire, increased use of decorations on coffins, and the placement of more permanent markers on graves. Tucson followed these new customs, and the few descriptions of the Court Street Cemetery suggest an increased concern with the care of graves and the memorialization of the deceased.

## RESULTS OF THE CURRENT MONITORING PROJECT

The remains of as many as 11 individuals were recovered during the current project, including: 2 fairly complete burials, Features 39 and 42; 1 disturbed burial, Feature 39; 4 exhumed burials, Features 40, 43, 44, and 47; and the remains of other people found in the fill of the original 1910s sewer trench. The recovered remains include males, females, and children. No particularly unique skeletal pathologies were noted. Preservation was variable, with the Feature 39 female having preserved hair and tissue.

Brief descriptions of each burial or disturbed remains is presented below.

Feature 38 was largely disturbed by the placement of a sewer pipe around 1916 and also during the current trenching. This was an adult male aged between 19 and 30 years at death. He was buried in a coffin that had decorative hardware. The man was wearing underwear, probably a union suit, and a pair of pants when he was buried. He may have also had a pair of suspenders. A glass and metal frame found near his left hand probably once contained a saint's picture. Ancestry could not be determined.

Feature 39 was a well-preserved adult female who was between 30 and 40-years-old at death. No evidence of clothing was found with this woman. She was holding in her right hand a rosary made from Job's Tears beads and a brass medallion or crucifix. Her coffin was plain and contained no orna-

mental hardware. The woman appears to have had European ancestry.

Feature 40 had been exhumed at the time burials were removed from the cemetery, sometime between 1907 and 1916. The burial was an adult female burial aged between 19 and 30 years at death. A single shell button was recovered, indicating the woman was wearing clothing. Fragments of wire found in the coffin may be from an artificial flower wreath often interred with children and young unmarried adults. The coffin had ornamental hardware.

Feature 41 was located in the north wall of Trench 100, and was not excavated. The height of the coffin, only about six-inches-tall, suggests this was a child. The remains of a child aged between four and six years at death were found in the adjacent trench full. Ancestry could not be determined.

Feature 42 was a fairly well-preserved burial of a female aged between 15 and 23 years at death. Her ancestry could not be determined. The woman was apparently buried wearing a dress that buttoned up the back and front, or possibly a dress and a slip, and may have had a safety pin attached to the front of her dress. The coffin lacked decorative hardware but was probably lined with cloth.

Feature 43 was an exhumed grave containing a few adult foot bones. Ancestry could not be determined. No clothing artifacts were present. The coffin had decorative hardware.

Feature 44 was an exhumed grave that contained skeletal elements from an adult whose age, sex, and ancestry could not be determined. Fragments of cloth and a possible hatpin were present. The coffin had decorative hardware and had been placed inside a plain wooden box.

Feature 45 was a burial shaft visible in the wall of Trench 103. No coffin wood or human remains were visible and it was left unexcavated. It is not known whether the burial associated with this grave shaft had been previously exhumed.

Feature 46 was another burial shaft visible in the wall of Trench 103. No coffin wood or human remains were visible and it was left unexcavated. It is not known whether the burial associated with this grave shaft had been previously exhumed.

Feature 47 was commingled with Feature 44. An infant aged between one- and two-years-old at death had been buried in a white garment and possibly a pair of shoes or slippers. Three straight pins and a safety pin appear to be associated with the child. Ancestry could not be determined. The child's coffin was painted white and had decorative hardware.

Feature 48 was a burial shaft located in the wall of Trench 104. A few pieces of coffin hardware were visible, but no human bone was located. It is not known whether the burial associated with this grave shaft had been previously exhumed.

The disturbed fill of Trench 100 yielded the remains of an adult male whose ancestry could not be determined. A shell button and decorative coffin hardware were also recovered from this trench, but it is not known whether these came from the same burial feature.

A pair of rib fragments from a child were recovered from Trench 101. Ancestry could not be determined. No coffin hardware or clothing artifacts were found in this trench.

The fill of Trench 102 contained a few adult male skeletal elements. Ancestry could not be determined. A piece of decorative coffin hardware was also found; however, it is not known whether these are associated with the skeletal remains.

Trench 103 yielded decorative coffin hardware that was not associated with Features 44 or 47. It may have come from Features 45 or 46, or perhaps from another disturbed burial.

The burials located during this project add to current understanding of the mortuary customs of the late nineteenth and early twentieth centuries in Tucson. All the excavated burials, and at least two of the four unexcavated burials, were placed in wooden coffins. Coffin shape varied, with three hexagonal-shouldered coffins, two rectangular coffins, and a trapezoidal coffin, the latter wider at the head than the feet. These were constructed from either pine or Douglas fir.

Exterior treatment of the coffins included one with white paint, Feature 47, and one covered with cloth, Feature 40. Features 38 and 40 had decorative studs on their exteriors, perhaps indicating Feature 38 was also fabric covered. Elaborate handles were present on four coffins, Features 40, 43, 44, and 47. Two coffins, Features 39 and 42, were quite plain and lacked decorative hardware.

Coffin lids were attached to the coffin body by nails or screws, as in Features 39 and 42, or by patented closure devices, as in Features 43 and 44. Decorative thumbscrews and escutcheons were used to attach the lids for at least two coffins, Features 44 and 47. One coffin, Feature 47, probably had a glass viewing plate.

One coffin had yellow paint on its interior, Feature 40, and several, including Features 39 and 42, apparently had cloth lining, as suggested by the presence of large numbers of tacks.

All the individuals were buried wearing clothing, although footwear was noticeably absent. Two persons had personal possessions. The Feature 38 man had been buried with a glass picture frame that likely once held a photograph or a picture of a saint. The Feature 39 woman was holding a seed bead rosary in her hand.

All the burials encountered during the current project were buried in a west-east orientation. The

three burials whose orientation could be determined, Features 38, 39, and 42, were buried with their heads at the western end of the grave, similar to most of the previously excavated burials.

Four of the seven excavated burials, Features 40, 43, 44, and 47, had been exhumed between 1907 and 1915. In each case, human remains, associated clothing items, and coffin hardware were left behind. Additional human remains, clothing items, and coffin hardware were present within the fill of the trench that was excavated around 1916, for placement of 10-inch-diameter sewer mains running beneath streets and alleys. The original excavation of these trenches likely disturbed numerous burials.

## IDENTIFYING THE DEAD

The Catholic Diocese of Tucson burial records list more than 5,000 individuals buried in their plot. Death certificates filed with the State of Arizona suggest at least another 1,000 people were buried in the Catholic plot. While osteological analyses can identify the sex and approximate age at death for the recovered burials, the sex for children is usually not possible to determine through visual examination of the skeletal remains, and adults can often only be placed in broad age ranges.

No detailed map of the Catholic plot is known, and no historical records have been located to indicate one was ever made. All the grave markers once present were either moved to Holy Hope Cemetery, or, in the case of wooden crosses known to have been present, destroyed. To date, none of the excavated burials have included an inscribed label or marker commonly used in modern burials.

Attempts to identify an individual are therefore difficult, if not impossible. No evidence survived to suggest the cause of death of the recovered individuals, and in most cases, the reported cause of death in records would leave no visible trace on skeletons, such as fever or drowning, or the records themselves failed to report the cause of death. For example, the woman from Feature 42 was estimated to be between 15 and 23 years old at death. Catholic Diocese burial records list 183 women aged 15-23 buried in the cemetery. The Feature 38 male was aged between 19 and 30 years old at death, and 254 males within this range were listed in the diocese records. As noted, diocese records underreport the number of individuals buried in the Catholic plot by as much as one-quarter; therefore, the actual number of individuals within these age ranges was likely higher.

Consequently, unless there is some very distinct cause of death described in newspaper or inquest accounts, it will likely be impossible to identify a

specific individual in the Catholic portion of the Court Street Cemetery using analyses of the skeletal remains. Coffin hardware with known patent dates may narrow the time span of burial, as would the occasional inclusion of datable artifacts, such as coins. However, even with this additional information, the overall number of candidates would still be large. In contrast, individuals buried in some of the smaller fraternal plots may be identifiable, due to the smaller number of potential candidates (for example, see Thiel 2012).

In the future, should DNA testing become more affordable, and if descendant populations desire this sort of testing, it may be possible to identify specific individuals, or at least place them within a certain family group.

### CULTURAL AFFINITY

Tucson and Pima County were home to a diversity of people during the years the Court Street Cemetery was open, between 1875 and 1909. Desert Archaeology, Inc., is compiling a database of individuals buried in the cemetery. Among the over 6,000 identified to date are African-Americans, Apache, Chinese, European-Americans, Mexican-Americans, one man from the Middle East, people of various mixed ancestry (Mexican and European, Mexican and African, Mexican and Chinese, and Mexican and Native American), Native American, Navajos, O'odhams, Pimas, Puerto Ricans, a possible Seri man, and Yaquis.

As noted above, no maps exist for the cemetery. None of the original tombstones are in place. Among the excavated burials there have been no items that clearly identify a person. There have also been no items that clearly identify a person to a specific racial or ethnic group. Several persons buried in the Catholic Cemetery had religious items that confirm they were in fact Catholic.

Among the burials or isolated remains recovered during the current project, the cultural affinity was determined only for Feature 39, who was a woman of European ancestry. The remaining remains were too poorly preserved or were incomplete to identify which cultural group they belonged to during life. No individuals with Native American ancestry were identified.

### RECOMMENDATIONS

Historical research and archaeological excavation of burials within the Court Street Cemetery are revealing new information about the layout of the cemetery, the number of people interred in specific plots, and the rituals and expenses involved in burying family members and friends in the American Territorial period. As the number of burials recovered increases and new documentary research is conducted, a better understanding of the cemetery will almost certainly be developed.

Desert Archaeology, Inc., recommends that all future subsurface utility work within the Court Street Cemetery boundaries be monitored by a qualified archaeologist. While the relining of the aging ceramic sewer pipes has extended their use-life, other repairs and new sewer hook-ups are likely to take place. Aging iron water pipes, gas lines, and underground communication lines are also likely to be replaced or repaired in the future. A few vacant lots and backyard areas could also be developed.

If burials are located in the future, work should be immediately halted and the Arizona State Museum Repatriation Coordinator be contacted, as required by Arizona Revised Statute § 41-844, and the protocols outlined in the Order Permitting Disinterment and Reinterment of Human Remains be followed (Case No. C20120994, by the Superior Court of the State of Arizona for Pima County, dated 2 April 2012).



APPENDIX A

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**MORTUARY AND GENERAL  
HARDWARE CATALOG DATA**

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**Table A.1.** Mortuary and general hardware catalogs consulted for comparison (*n* = 406).

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1797 (circa)	Unnamed	England	[Book of coffin plates, handles, ornaments, 119 etc. (dated by a 1797 watermark)]	119	Winterthur Museum, Winterthur, DE	Complete
1853	Peck & Walter Manufacturing Co.	New Britain, CT	Illustrated price list of builders' and home owners furnishings...	[2]	Connecticut Historical Society, Hartford	Partial
1859	Corbin, P. & F.	New Britain, CT	P. & F. Corbin's illustrated catalogue and price list: manufacturers ...of coffin trimmings	[3]	University of Delaware, Newark	Partial
1861	Sargent & Co.	New Britain, CT	Price list of Sargent & Co.	9	Personal collection, Jeremy W. Pye, University of Florida, Gainesville; Chicora Foundation, Columbia, SC	Partial
1865	Crane, Breed & Co.	Cincinnati, OH	Wholesale prices of plain cases, Crane's metallic burial casket, etc.	4	Hagley Museum, Wilmington, DE	Complete
1865	Mankhan & Strong	E. Hampton, CT	Revised price list of goods	47	Connecticut State Historical Society, Hartford	Complete
1865	Russell & Erwin Manufacturing Co.	New Britain, CT	Illustrated Catalog of American Hardware of the Russell & Erwin Manufacturing Co.	-	reprint 1980	Complete
1866	P. & F. Corbin	New Britain, CT	P. & F. Corbin's price list: manufacturers of ... coffin trimmings...	4 (trimmings)	University of Delaware, Newark	Complete
1866	Sargent & Co.	New Haven, CT	Prices of hardware	26	Connecticut State Library, Hartford	Partial
1867	Crane, Breed & Co.	Cincinnati, OH	Wholesale price list of patent metallic burial cases and caskets, hearses, name plates and handles, plumes and sockets, etc.	56	Winterthur Museum, Winterthur, DE	Complete
1869	Meriden Britannia Co	Meridan, CT	Illustrates and descriptive price list of coffin and casket trimmings	27	Personal collection, Jeremy W. Pye, University of Florida, Gainesville; Chicora Foundation, Columbia, SC	Complete
1869	Sargent & Co.	New Haven, CT	Appendix to illustrated catalog	48 [2]	Connecticut Historical Society, Hartford	Partial
1869	Shanahan, James M. (Firm)	New York, NY	Price list of undertakers' hardware	3	Smithsonian Institution (Museum of American History), Washington, DC [Trade Catalogs from Shanahan, James M.]	Complete
1869 (circa)	Shanahan, James M. (Firm)	New York, NY	Illustrated catalogue of undertakers' hardware and trimmings	36	Smithsonian Institution (Museum of American History), Washington, DC [Trade Catalogs from Shanahan, James M.]	Complete
1870	Johnston, Wettach & Co.	Alleghany, PA	Wholesale prices of untrimmed coffins and caskets	21	Smithsonian Institution (Museum of American History), Washington, DC [Trade Catalogs from Johnston, Wettach & Co.]	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1870 (circa)	Paxson, Comifort & Co.	Philadelphia, PA	Illustrated catalogue of wood and metallic burial caskets, coffins, corpse preservers and linings		Private collection (Ebay buyer)	Partial
1871	Ives & Allen Co.	Montreal, Québec, Canada	Price list and illustrated catalogue of hardware	[17]	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1871	Sargent & Co.	New Haven, CT	Price list and illustrated catalogue of hardware manufacturing and for sale by Sargent & Co.	[23]	Library of Congress, Washington, DC; Chicora Foundation, Columbia, SC; Hagley Museum, Wilmington, DE; State Library of Pennsylvania, Harrisburg; New York State Library, Albany; University of Massachusetts-Amherst, Amherst; Boston Athenaeum, Boston	Partial
1872 (circa)	Cleveland Burial Case Co.	Cleveland, OH	Revised Cleveland Burial Case Co. catalog	42	Smithsonian (Museum of American History) [Trade Catalogs from Cleveland Burial Case Co.]	Complete
1872	Taylor & Co.	Bowery, NY	The undertakers' guide	79	Library of Congress, Washington, DC	Complete
1872	Taylor & Co.	Bowery, NY	Illustrated catalogue of caskets, coffins, shrouds, trimmings, etc.	48	Library of Congress, Washington, DC	Complete
1874	Sargent & Co.	New Haven, CT	Price list and illustrated catalogue of hardware manufacturing and for sale by Sargent & Co.	812 [42]	Library of Congress, Washington, DC; Strong National Museum of Play, Rochester, NY	Partial
1874	Wayne Hardware Co.	Cincinnati, OH	Illustrated catalogue of casket and coffin trimmings...	71	Personal collection, Jeremy W. Pye, University of Florida, Gainesville; Ohio Historical Society, Columbus	Complete
1875	Crane, Breed & Co.	Cincinnati, OH	Illustrated catalogue and price list of patent metallic burial cases and caskets	64	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1875	Keystone Coffin & Casket Works	Alleghany City, PA	Illustrated catalogue and price list of coffins and caskets...	10	Personal collection, Karissa Basse, PBS&J, Houston, TX	Complete
1875	Taylor, H. E. & Co.	New York, NY	Illustrated catalogue of undertaker's sundries	172	Library of Congress, Washington, DC	Complete
1876	Cincinnati Coffin Co.	Cincinnati, OH	Reduced wholesale price-list [June 1, 1876]	4	Smithsonian Institution (Museum of American History), Washington, DC	Complete
1876	Meriden Britannia Co	West Meriden, CT	Second 1876 supplement of Wm. M. Smith's original designs of casket trimmings	22	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1876	Todd, Pollock & Granger	Burlington, IA	Tenth annual illustrated catalogue and wholesale pricelist of furniture, etc., manufactured and sold by Todd, Pollock & Granger	156	Private collection (Ebay buyer)	Partial

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1877	Cincinnati Coffin Co.	Cincinnati, OH	Illustrated catalogue of coffin hardware, robes, head linings, etc.	64	Newberry Library, Chicago, IL [Helen Sclair Collection]	Complete
1877	Crane, Breed & Co.	Cincinnati, OH	Illustrated catalogue of undertakers' goods	234	Library of Congress, Washington, DC	Complete
1878 (circa)	Paxson, Comfort & Co.	Philadelphia, PA	Illustrated catalogue of undertaker's supplies	192	Private collection (Ebay buyer)	Partial
1878	Taylor, H. E. & Co.	New York, NY	Supplementary list: undertakers' sundries	32	Benson Ford Research Center, The Henry Ford Museum, Dearborn, MI	Complete
1878 (circa)	Warfield & Rohr	Baltimore, MD	Illustrated catalogue of undertaker's supplies	105	Private collection (Ebay buyer)	Partial
1878 (circa)	Warfield & Rohr	Baltimore, MD	Wholesale price list of undertakers' supplies		Private collection (Ebay buyer)	Partial
1879 (circa)	Cleveland Burial Case Co.	Cleveland, OH	Illustrated catalogue of undertakers' silver plated hardware, robes, linings and undertakers' dry goods	90	Smithsonian (Museum of American History) [Trade Catalogs from Cleveland Burial Case Co.]; personal collection, James Davidson, University of Florida, Gainesville	Complete
1879	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Price list (June 20, 1879)	4	University of Delaware, Newark	Complete
1879	Hutton, J.M. Co.	Richmond, IN	Revised order blank and price list (November 12, 1879)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1880	Hamilton, Lemmon, Arnold & Co.	Alleghany, PA	Reduced price list of hardware and trimmings (June 23, 1880)	1	University of Delaware, Newark	Complete
1880 (circa)	Hill, F. H. & Co.	Chicago, IL	Price list to accompany illustrated catalogue of 1880	Broadside	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1880	Meriden Britannia Co	West Meriden, CT	Illustrated catalogue of William M. Smith's fine silver, bronze, etc. casket trimmings	48	Winterthur Museum, Winterthur, DE; Yale University Library, New Haven, CT	Complete
1880 (circa)	Norris, C. Sidney & Co.	Baltimore, MD	Illustrated catalogue of coffin handles and undertakers' trimmings	68	University of Delaware, Newark	Complete
1880 (circa)	Norris, C. Sidney & Co.	Baltimore, MD	Price list of coffin handles and undertakers' trimmings	4	University of Delaware, Newark	Complete
1880	Paxson, Comfort & Co.	Philadelphia, PA	Illustrated catalogue of hearse trimmings and undertakers' specialties	47	Private collection (Ebay buyer)	Partial
1880	Paxson, Comfort & Co.	Philadelphia, PA	Price list of hearse trimmings and undertakers' specialties		Private collection (Ebay buyer)	Partial
1880	Stolts, Russell & Co.	New York, NY	Illustrated and descriptive catalogue of undertakers' supplies		Strong National Museum of Play, Rochester, New York	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1880	Warfield & Rohr	Baltimore, MD	Illustrated and descriptive catalogue of undertakers' trimmings and cabinet hardware	141	University of Delaware, Newark	Partial
1880 (circa)	Warfield & Rohr	Baltimore, MD	Wholesale price list of undertakers' supplies		Private collection (Ebay buyer)	Partial
1880	Zanesville Coffin Co.	Zanesville, OH	Illustrated catalogue of wood coffins and caskets, undertakers' hardware, robes, linings and sundries	53	Smithsonian Institution (Museum of American History), Washington, DC	Complete
1881	Cincinnati Coffin Co.	Cincinnati, OH	Reduced wholesale price list (January 1881)	22	Smithsonian Institution (Museum of American History), Washington, DC; University of Delaware, Newark	Complete
1881	Cincinnati Coffin Co.	Cincinnati, OH	Supplementary price list (July 1881)	9	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1881	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Revised price list of the Excelsior Coffin and Casket Works (March 8, 1881)	2	University of Delaware, Newark	Complete
1881	Hill, F. H. & Co.	Chicago, IL	Illustrated catalogue of burial cases and caskets, and undertakers' supplies	75	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1881	Lockhart, Wm. L. (firm)	East Cambridge, MA	Wholesale price list of caskets and coffins	31	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1881	Paxson, Comfort & Co.	Philadelphia, PA	Illustrated and descriptive catalogue of wood, metallic, and cloth covered burial caskets and coffins		Mitchell Family Funeral Home, Marshalltown, IA	Partial
1881	Taylor, H. E. & Co.	New York, NY	[H. E. Taylor & Co.'s Fashion Quaterly]	> 32	Private collection (Ebay buyer)	Partial
1881	Union Casket Co.	Boston, MA	Telephonic and telegraphic key and wholesale price list combined, of untrimmed and cloth covered caskets	30	Hagley Museum, Wilmington, DE	Complete
1882	Cincinnati Coffin Co.	Cincinnati, OH	Wholesale price list (January 1882)	20	University of Delaware, Newark; personal collection, James Davidson, University of Florida, Gainesville	Complete
1882	Cleveland Burial Case Co.	Cleveland, OH	Illustrated catalogue of wood, cloth covered and metallic caskets	48	Personal collection, Jeremy W. Pye, University of Florida, Gainesville; Chicora Foundation, Columbia, SC	Complete
1882	Columbus Coffin Co.	Columbus, OH	Illustrated catalogue wood and cloth covered coffins and caskets, undertakers' hardware and sundries, robes, linings, and general supplies	67	Winterthur Museum, Winterthur, DE	Partial
1882	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Illustrated catalogue of varnished and cloth covered burial cases and casket	85	Personal collection, James Davidson, University of Florida, Gainesville	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1882	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Excelsior Coffin and Casket Works price list of hardware, robes, linings, trimmings, etc. (March 1, 1882)	32	University of Delaware, Newark	Complete
1882	Stein Manufacturing Co.	Rochester, NY	Art Designs of Fine Funeral Furniture as originated by the Stein Manufacturing Co.	36	Rochester Public Library, Rochester, NY	Complete
1882	Stein Manufacturing Co.	Rochester, NY	Telegraphic key and revised wholesale price list and catalogue of untrimmed caskets	80	Smithsonian Institution (Museum of American History), Washington, DC	Complete
1882	Sunbury Coffin & Casket Works	Sunbury, PA	Wholesale price list of untrimmed coffins and caskets (April 1, 1882)	14	University of Delaware, Newark	Complete
1883	Cincinnati Coffin Co.	Cincinnati, OH	Price list (March 1, 1883)	4	University of Delaware, Newark	Complete
1883	Lockhart, Wm. L. (firm)	East Cambridge, MA	Price list and telegraph key of solid mahogany and cloth covered caskets...	20	New York State Library, Albany; University Publications of America, MD; Winterthur Museum, Winterthur, DE	Complete
1883	Sargent & Co.	New Haven, CT	Appendix to illustrated catalog of coffin and casket trimmings	43	Personal collection, Alexandra Bybee, Cultural Resource Analysts, Inc., Lexington, KY	Complete
1883	Stein Manufacturing Co.	Rochester, NY	The most serviceable invention of the age: our "patent fastener" for casket tops	4	Strong National Museum of Play, Rochester, NY	Complete
1883	Sunbury Coffin & Casket Works	Sunbury, PA	Wholesale price list of untrimmed coffins and caskets (March 1883)	18	University of Delaware, Newark	Complete
1884	Chappell, Chase, Maxwell & Co.	Oneida, NY	Illustrated catalogue of cloth, velvet-covered, and wood finished burial caskets	105	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1884	Chicago Coffin Co.	Chicago, IL	Illustrated catalog of undertakers' goods	57	Smithsonian Institution (Museum of American History), Washington, DC	Complete
1884	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Excelsior Coffin and Casket Works price list of hardware, robes, linings, trimmings, manufactured by Hamilton, Lemmon, Arnold & Co.		Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1884	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Revised wholesale price list of varnished and cloth-covered burial cases and caskets (January 16, 1884)	18	New York State Library, Albany; University Publications of America, MD; Winterthur Museum, Winterthur, DE; Cleveland Public Library, Cleveland, OH; Yale University Library, New Haven, CT; Boston Public Library, Boston	Complete
1884	Hawley Bros. Hardware Co.	San Francisco, CA	No. 15 price list and illustrated catalog of hardware and agricultural implements	5 (trimmings)	Jackson Business Library, Stanford University, Stanford, CA	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of		Location of Catalog	Partial/ Complete
				Pages	Pages		
1884	Hill, F. H. & Co.	Chicago, IL	Prices of wood burial cases and caskets (associated with the No. 15 Catalogue) (January 16, 1884)	Broadside		Personal collection, James Davidson, University of Florida, Gainesville	Complete
1884	Hill, F. H. & Co.	Chicago, IL	Reduced prices of wood burial cases and caskets (associated with the No. 15 catalogue) (May 20, 1884)	Broadside		Personal collection, James Davidson, University of Florida, Gainesville	Complete
1884	Paxson, Comfort & Co.	Philadelphia, PA	Illustrated and descriptive catalogue of wood, metallic, and cloth covered burial caskets	36		Hagley Museum, Wilmington, DE	Complete
1884	Paxson, Comfort & Co.	Philadelphia, PA	Undertakers; reduced wholesale price-list, 4 to accompany illustrated catalogue of December, 1881 (March 1884)	4		Personal collection, James Davidson, University of Florida, Gainesville	Complete
1884	Taylor, H. E. & Co.	New York, NY	Robes and linings	37		New York State Library, Albany; University Publications of America, MD; Winterthur Museum, Winterthur, DE; Cleveland Public Library, Cleveland, OH; Yale University Library, New Haven, CT; Boston Public Library, Boston	Complete
1885	Chicago Coffin Co.	Chicago, IL	Reduced price list of undertakers' supplies (November 1, 1885)	8		Smithsonian Institution (Museum of American History), Washington, DC	Complete
1885 (circa)	Harrisburg Burial Case Co.	Harrisburg, PA	Illustrated catalogue of coffins, caskets, and undertakers supplies	85		Hagley Museum, Wilmington, DE	Complete
1885 (circa)	Stein Manufacturing Co.	Rochester, NY	Incontrovertible metallic facts [cloth covered metallic caskets]	27		Benson Ford Research Center, The Henry Ford Museum, Dearborn, MI	Complete
1885	Stein Manufacturing Co.	Rochester, NY	Supplement to our book of designs	23		Personal collection, James Davidson, University of Florida, Gainesville	Complete
1886	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Price list of wrappers, robes, linings, trimmings, etc. (Excelsior Coffin and Casket Works) (November 1, 1886)	25		Strong National Museum of Play, Rochester, NY	Complete
1886	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Revised price list of coffin and casket hardware (Excelsior Coffin and Casket Works) (November 1, 1886)	15		University of Delaware, Newark	Complete
1886	Paxson, Comfort & Co.	Philadelphia, PA	Supplementary catalogue of undertakers' hardware	35+		Alaska, private collection (Ebay buyer)	Partial
1886	Warfield & Rohr	Baltimore, MD	Wholesale price-list of coffin and casket trimmings, linings, robes and wrappers	12		University of Delaware, Newark	Complete
1887	Crane & Breed Mfg. Co.	Cincinnati, OH	Price list of cloth covered caskets (September 1, 1887)	4		Private collection (Ebay buyer)	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1887	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Price list and telegraph key of varnished and cloth covered burial cases and caskets (Jan. 1, 1887)	34	Personal collection, James Davidson, University of Florida, Gainesville; University of Delaware, Newark	Complete
1887	Maryland Burial Case Co.	Baltimore, MD	Price list - wood coffins and caskets	29	Smithsonian Institution (Museum of American History), Washington, DC	Complete
1887	Stein Manufacturing Co.	Rochester, NY	Revised price list and telegraphic key of textile covered caskets	64	Private collection (Ebay buyer)	Partial
1888	Dorntee Casket Co.	Boston, MA	Designs 1888-1889	100	Smithsonian Institution (Museum of American History), Washington, DC [Warshaw Collection]	Complete
1888	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Price list of wrappers, robes, linings, trimmings, etc. (Feb. 1, 1888)	33	Personal collection, James Davidson, University of Florida, Gainesville; University of Delaware, Newark	Complete
1888	Hamilton, Lemmon, Arnold & Co.	Pittsburgh, PA	Revised price list of coffin and casket hardware (Excelsior Coffin and Casket Works) (Feb. 1, 1888)	15	University of Delaware, Newark	Complete
1888	Sargent & Co.	New Haven, CT	Sargent & Co. hardware [general catalog]	1,024 [1]	Newman Library, Virginia Tech, Blacksburg	Partial
1888	Sauter, William (firm)	Baltimore, MD	Wholesale price list (April 1888)	20	University of Delaware, Newark	Complete
1889	Paxson, Comifort & Co.	Philadelphia, PA	Wholesale price list of untrimmed coffins and caskets	4	New York State Library, Albany, NY; Winterthur Museum, Winterthur, DE	Complete
1890	Chappell, Chase, Maxwell & Co.	Rochester, NY	Designs	185	Strong National Museum of Play, Rochester, NY; personal collection, Michael Beardsley, Chittenango, NY	Complete
1890	Cincinnati Coffin Co.	Cincinnati, OH	Catalogue of wood cases, wood caskets, cloth-covered caskets, metal caskets and air-tight metallic linings	185	Smithsonian Institution (Museum of American History), Washington, DC [Warshaw Collection]	Complete
1890 (circa)	Cincinnati Coffin Co.	Cincinnati, OH	[Sample book of coffin/casket linings and cloth covering]	3	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1890 (circa)	Cincinnati Coffin Co.	Cincinnati, OH	Illustrated Casket Catalogue "D6"		Howard C. Raether Library, National Funeral Directors Association, Brookfield, WI	Partial
1890 (circa)	Cincinnati Coffin Co.	Cincinnati, OH	Catalogue "D7" - Paramount	191	Commonwealth Institute of Funeral Service, Houston, TX	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1890 (circa)	Cleveland Burial Case Co.	Cleveland, OH	Illustrated catalogue of undertakers' silver plated hardware, casket and coffin handles, name plates, thumb screws, thumb screw plates, tacks, ornaments, escutcheons and hardware sundries, robes, linings, and undertakers' dry goods		Private collection (Ebay buyer)	Partial
1890 (circa)	Colorado Casket Co.	Denver, CO	Casket Catalog No. 12	288	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1890 (circa)	Manger, E. C. & Son Co.	Green Bay, WI	Catalogue No. 2 illustrating casket hardware, dry goods and sundries	112	Wisconsin Historical Society, Madison	Partial
1890 (circa)	Northern Casket Co.	Fond du Lac, WI	High grade cloth covered caskets	71	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1890 (circa)	Paxson, Comfort & Co.	Philadelphia, PA	Price list of elegant emblems made from natural flowers, also preserved flowers and prepared Italian wheat adapted especially for funeral purposes.		Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1890 (circa)	Paxson, Comfort & Co.	Philadelphia, PA	Catalogue of burial caskets for sale to the trade only by Paxson, Comfort & Co.	107	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1890 (circa)	Paxson, Comfort & Co.	Philadelphia, PA	Wholesale pricelist of burial robes, wrappers, dresses, suits, habits, manufactured by Paxson, Comfort & Co.	-	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1890 (circa)	Rock Falls Mfg. Co.	Sterling, IL	Columbian Catalogue No. 7, Rock Falls Mfg. Co., manufacturers of hearses, caskets and undertakers' supplies	-	Private collection (Ebay buyer)	Partial
1890 (circa)	Stein Manufacturing Co.	Rochester, NY	[Catalog of Casket Designs] (Title page missing)	-	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1890 (circa)	Warfield & Rohr	Baltimore, MD	Illustrated catalogue of Warfield & Rohr: manufacturers and jobbers of wood coffins and ....	-	Strong National Museum of Play, Rochester, NY; University of Delaware, Newark	Complete
1890 (circa)	Warfield & Rohr	Baltimore, MD	Wholesale price list of untrimmed wood coffins and caskets, cloth covered caskets, metallic coffins and caskets, lining wood coffins, caskets and cloth covered caskets	3	University of Delaware, Newark	Complete
1890 (circa)	Warfield & Rohr	Baltimore, MD	Illustrated catalogue	74	University of Delaware, Newark; personal collection, James Davidson, University of Florida, Gainesville	Complete
1892	Belknap, W. B. & Co	Louisville, KY	Importers and jobbers of hardware	923 (2 pages trimmings)	Private collection (Ebay buyer)	Partial

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1893	Louisville Coffin Co.	Louisville, KY	Price list wood burial cases and caskets and cloth covered caskets (February 15, 1893)	4	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1893	National Casket Co.	Rochester, NY	National Casket Co. Bulletin, vol. 1, no. 7-8, July-August	-	Private Collection (Ebay buyer)	Partial
1893	Paxson, Comfort & Co.	Philadelphia, PA	Illustrated and descriptive catalogue of wood, metallic, and cloth covered burial caskets and coffins	54	Private collection (Ebay buyer)	Partial
1893	Warfield & Rohr	Baltimore, MD	Revised price-list of coffin and casket hardware, robes, linings, and undertakers' sundries (November 1, 1893)	23	University of Delaware, Newark	Complete
1894	Wilmarth, W. D. & Co	Attleboro, MA	Illustrated and descriptive catalogue of coffin and casket trimmings	58	Library of Congress, Washington, DC	Complete
1895	Belknap, W. B. & Co	Louisville, KY	Importers and jobbers of hardware	(3 pages of trimmings)	Chicora, Foundation, Columbia, SC	Partial
1895 (circa)	Cincinnati Coffin Co.	Cincinnati, OH	[Catalog] (some pages missing or defaced - used as scrapbook)	173	Personal collection, Michael Beardsley, Chittenango, NY	Complete
1895	Crane, Breed & Co.	Cincinnati, OH	Catalogue and price list of hearse mountings	48	University of Delaware, Newark; Private collection (Ebay buyer)	Partial
1895	Kregel Casket Co.	St. Louis, MO	Illustrated catalog	368	Strong National Museum of Play, Rochester, NY	Partial
1895 (circa)	Louis J. Lamb (firm)	Attleboro, MA	Catalog of sheet metal coffins and ornaments	53	Personal collection, James Davidson, University of Florida, Gainesville; Winterthur Museum, Witherthur, DE	Complete
1895 (circa)	Louis J. Lamb (firm)	Attleboro, MA	No. 2 price list of sheet metal coffin hardware	10	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1896	Chicago Coffin Co.	Chicago, IL	Pocket Catalogue No. 18	192	Library of Congress, Washington, DC; Strong National Museum of Play, Rochester, NY	Complete
1896	National Casket Co.	New York, NY	Complete price list of burial robes, linings, and miscellaneous dryg	49	University of Delaware, Newark	Complete
1896 (circa)	National Casket Co.	New York, NY	Supplement to Pocket Edition of Casket Catalogue B	20	Benson Ford Research Center, The Henry Ford Museum, Dearborn, MI	Complete
1896 (circa)	Powers & Walker Casket Co.	Grand Rapids, MI	Catalogue C, high-class cloth covered and varnished caskets	65	Private collection (Ebay buyer)	Partial
1897 (circa)	Boyetown Casket Co.	Boyetown, PA	[Catalogue]	338	Private collection (Ebay buyer)	Partial
1897	National Casket Co.	New York, NY	Catalogue No. 12, illustrating undertakers' hardware	170	Personal collection, James Davidson, University of Florida, Gainesville	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1898	Paxson, Comfort & Co.	Philadelphia, PA	Illustrated and descriptive catalogue of wood, cloth-covered and metallic burial caskets and coffins for sale to the trade only by Paxson, Comfort & Co.		Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1899	National Casket Co.	New York, NY	National Casket Co. complete price list and telegraph code accompanying Pocket Catalog "D"	-	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1900 (circa)	Boyertown Casket Co.	Boyertown, PA	[Catalogue]	-	Private collection (Ebay buyer)	Partial
1900 (circa)	Chicago Casket Co.	Chicago, IL	Casket Catalogue "B"	255	Private collection (Ebay buyer)	Partial
1900 (circa)	Crawfordsville Casket Co.	Crawfordsville, IN	Illustrated Catalog No. 9 of coffins, caskets, dry goods, hardware, etc.	244	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1900 (circa)	Hazleton Mfg Co.	Hartford, CT	[Catalog of caskets]	186	Private collection (Ebay buyer)	Partial
1900 (circa)	Mitchell Casket Co.	Mitchell, IN	Cloth covered caskets	35	Benson Ford Research Center, The Henry Ford Museum, Dearborn, MI	Complete
1900	Mound Coffin Co.	St. Louis, MO	Price list H of undertakers' supplies (October 15, 1900)	38	Private collection (Ebay buyer)	Complete
1900 (circa)	Murphy, John & Co.	Pittsburgh, PA	[Catalogue]	82	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1900 (circa)	Murphy, John & Co.	Pittsburgh, PA	Price list of hardware, robes, linings, and undertakers' supplies	18	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1901	Belknap, W. B. & Co	Louisville, KY	Catalogue No. 29 importers and jobbers of hardware (general hardware, with coffin trimmings)	(2 pages of trimmings)	Chicora Foundation, Columbia, SC	Partial
1901	Gate City Coffin Co.	Atlanta, GA	Catalogue F	119	Personal collection, Karissa Basse, PBS&J, Houston, TX	Complete
1901	St. Louis Coffin Co.	St. Louis, MO	Souvenir Catalog No. 20, illustrating highest types of our art	290	Library of Congress, Washington, DC	Complete
1901 (circa)	St. Louis Coffin Co.	St. Louis, MO	The standard estimated undertaker's selling prices for coffins, caskets, robes, flowers, etc. applying to Art Book No. 20	30	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1901	Wisconsin Furniture & Coffin Co.	Lincoln, NE	Wholesale price list applying to Catalogue "E" (January 1, 1901)	25	Private collection (Ebay buyer)	Complete
1902	Simmons Hardware Co	St. Louis, MO	Catalogue No. 421. Builders hardware (general hardware, with some coffin trimmings)	[2]	Library of Congress, Washington, DC	Partial
1903	Cincinnati Coffin Co.	Cincinnati, OH	Revised price list of metal linings (June 25, 1903)	1	Personal collection, James Davidson, University of Florida, Gainesville	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1903	Cincinnati Coffin Co.	Cincinnati, OH	Revised prices on children's caskets (June 25, 1903)	1	Personal collection, James Davidson, University of Florida, Gainesville, FL	Complete
1903	National Casket Co.	New Haven, CT	Illustrated price list of caskets and sundries (October 15, 1903)	96	National Museum of Funeral History, Houston, TX	Complete
1903	Simmons Hardware Co	St. Louis, MO	Catalogue No. 443, builders hardware (general hardware, with some coffin trimmings)	[2]	Library of Congress, Washington, DC	Partial
1904 (circa)	Gate City Coffin Co.	Atlanta, GA	Catalogue No. G, illustrating coffin and casket hardware and undertakers' supplies, embalming instruments, etc.	228	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1904	St. Louis Coffin Co.	St. Louis, MO	Combined buying and selling price list and catalog (may be used in connection with or independent of our Art Catalogue No. 20) (March 1, 1904)	76	Chicora Foundation, Columbia, SC	Complete
1905 (circa)	Bliss-Holbrook Company, Inc.	Attleboro, MA	Catalogue of coffin studs, plates and ornaments manufacturing by Bliss-Holbrook Company, Inc.	11	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1905	Chattanooga Coffin & Casket Co	Chattanooga, TN	Catalogue No. 4, illustrated catalog of undertakers' hardware, embalming instruments, etc	188	Library of Congress, Washington, DC	Complete
1905	Chattanooga Coffin & Casket Co	Chattanooga, TN	Wholesale pricelist of undertaker's hardware, embalming instruments and sundry supplies (May 1, 1905)	31	Library of Congress, Washington, DC	Complete
1905	Cincinnati Coffin Co.	Cincinnati, OH	Revised hardware price book, for use in connection with casket hardware Catalogue "F.3" and June supplement (December 12, 1905)	29	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1905 (circa)	National Casket Co.	New York, NY	Catalogue "K"	384	Personal collection, James Davidson, University of Florida, Gainesville; Chicora Foundation, Columbia, SC	Complete
1905 (circa)	Schmid Manufacturing Co.	Dubuque, IA	Catalogue of coffin studs, plates and ornaments	11	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1906	Cincinnati Coffin Co.	Cincinnati, OH	Catalogue "F.4" illustrating casket hardware and sundry undertakers' supplies	306	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1906	Western Casket Co.	Oakland, CA	Price list, Catalogue No. 1	15	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1908 (circa)	Mound Coffin Co.	St. Louis, MO	Illustrated Catalogue "K"	535	Kibbe Hancock Heritage Museum, Carthage, IL; Mitchell Family Funeral Home, Marshalltown, IA	Complete
1908	National Casket Co.	Pittsburgh, PA	Catalogue "L"	442	Personal collection, James Davidson, University of Florida, Gainesville; Mitchell Family Funeral Home, Marshalltown, IA; University of Minnesota, Wangensteen Library, Minneapolis	Complete
1908	National Casket Co.	Boston, MA	Catalogue "L"	400	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1909	Cincinnati Coffin Co.	Cincinnati, OH	Embalmers' instruments and supplies	104	Newberry Library, Chicago, IL [Helen Sclair Collection]	Complete
1910	Crane & Breed Mfg. Co.	Cincinnati, OH	Catalogue "D" burial garments, robes, casket linings, pillow and lining sets, door crapes	215	Personal collection, Jeremy W. Pye, University of Florida, Gainesville; Howard C. Raether Library, National Funeral Directors Association, Brookfield, WI	Complete
1910 (circa)	Marsellus, John Casket Co.	Syracuse, NY	Catalog W - caskets of quality: magogany, walnut, quartered oak, cypress, birch and chestnut	112	Smithsonian Institution (Museum of American History), Washington, DC [Trade Catalogs from John Marsellus Casket Company]	Complete
1910	Mound Coffin Co.	St. Louis, MO	Price list pertaining to our handy book No. 16 3 listing caskets and coffins complete full-lined and with a suitable set of hardware (February 1, 1910)	16	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1910	National Casket Co.	Chicago, IL	Wholesale price list "W": for goods shown in Casket Catalogue "L," varnished cases and caskets, cloth covered caskets, metallics, metal linings, boxes, etc. (January 1, 1910)	47	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1910 (circa)	Schmid Manufacturing Co	Dubuque, IA	Illustrated catalogue of casket hardware	40	(Amy Earls)	Complete
1911 (circa)	Hearne Brothers & Co.	Whitakers, NC	Catalogue H-6 illustrating coffin and casket hardware and funeral sundries - Hearne Bros. & Co.	99	Chicora Foundation, Columbia, SC; East Carolina University, Special Collections, Greenville, NC [Lawrence-Gulley General Store Records, 1903-1954]	Complete
1911 (circa)	Milwaukee Casket Co.	Milwaukee, WI	Casket Catalogue D: manufacturers & jobbers of a complete line of....		Library of Congress, Washington, DC	Partial

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1911 (circa)	National Casket Co.	New York, NY	Casket Catalogue "M"	226	Winterthur Museum, Winterthur, DE; Yale University Library, New Haven, CT; Boston Public Library, Boston; Cleveland Public Library, Cleveland, OH	Partial
1911 (circa)	St. Louis Coffin Co.	St. Louis, MO	Catalog No. 22	329	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1912	Cincinnati Coffin Co.	Cincinnati, OH	Casket hardware catalogue F5	267	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1912	Des Moines Casket Co.	Des Moines, IA	Price list of cloth-covered, oak and mahogany caskets, metal linings, grave vaults (May 1912)	16	Private collection (Ebay buyer)	Complete
1912 (circa)	Des Moines Casket Co.	Des Moines, IA	[Catalogue]	175	Private collection (Ebay buyer)	Partial
1915	Cincinnati Coffin Co.	Cincinnati, OH	Paramount metal caskets	6	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1918	Atlantic Coffin & Casket Co.	Rose Hill, NC	Catalogue "B"	24	University of North Carolina, Chapel Hill	Complete
1918	Marsellus, John Casket Co.	Syracuse, NY	Price list of caskets, vaults, and casket boxes, applying to Catalog "U" (February 4, 1918)	16	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1918	Marsellus, John Casket Co.	Syracuse, NY	Price list of caskets, vaults, and casket boxes, applying to Catalog "U" (April 10, 1918)	16	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1918	Simmons Hardware Co	Philadelphia, PA	Catalogue No. P, complete catalog (general hardware, with a page of coffin trimmings)	[1]	Library of Congress, Washington, DC; Chicora Foundation, Columbia, SC	Partial
1918	St. Louis Coffin Co.	St. Louis, MO	The St. Louis patented copper-bearing steel caskets (August 1, 1918)	67	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1919	Boyetown Burial Casket Co.	New York, NY	Catalogue "I"	300	Commonwealth Institute of Funeral Service, Houston, TX	Complete
1919	Boyetown Burial Casket Co.	New York, NY	Revised price list of pedestals made of brass tubing (November 17, 1919)	2	Commonwealth Institute of Funeral Service, Houston, TX	Complete
1919	Des Moines Casket Co.	Des Moines, IA	Price list on caskets (October 1, 1919)	2	Private collection (Ebay buyer)	Complete
1919 (circa)	Des Moines Casket Co.	Des Moines, IA	[Catalog]	159	Private collection (Ebay buyer)	Partial
1920	Cleveland Burial Case Co.	Cleveland, OH	Price list - pedestals and candelabras (April 1, 1920)	1	Commonwealth Institute of Funeral Service, Houston, TX	Complete
1920	Marsellus, John Casket Co.	Syracuse, NY	Price list of caskets, casket boxes, and vaults, applying to Catalogue "U" (April 1, 1920)	15	Kibbe Hancock Heritage Museum, Carthage, IL	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1920	Marsellus, John Casket Co.	Syracuse, NY	Price list of caskets, casket boxes, and vaults, applying to Catalogue "U" (July 15, 1920)	15	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1920	Miller Casket Co.	Scranton, PA	[Price list] (June 4, 1920)	1	Private collection (Ebay buyer)	Complete
1920 (circa)	Mound Coffin Co.	St. Louis, MO	[Catalog]	88	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1920	Mountain States Casket Co	Denver, CO	The northern covered line: price list effective June 10, 1920	4	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1920 (circa)	Owosso Casket Co.	Owosso, MI	Catalog of hardwood & finished caskets	74	Wisconsin Historical Society, Madison	Partial
1920	Owosso Casket Co.	Owosso, MI	Wholesale price list (September 20, 1920)	20	Wisconsin Historical Society, Madison	Complete
1920 (circa)	Springfield Metallic Casket Co.	Springfield, OH	Metallic Casket Catalog No. 210	189	Private collection (Ebay buyer)	Partial
1921	Freedom Casket Company	Freedom, PA	Revised price list applying to Catalog "E" (May 2, 1921)	13	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1921	Marsellus, John Casket Co.	Syracuse, NY	Price list of caskets, casket boxes, and vaults, applying to Catalog "W" (September 15, 1921)	16	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1921	Owosso Casket Co.	Owosso, MI	Wholesale price list (April 18, 1921)	20	Wisconsin Historical Society, Madison	Complete
1921	Owosso Casket Co.	Owosso, MI	List of reduced prices of oak, mahogany, walnut, cypress and other finished caskets (September 20, 1921)	2	Wisconsin Historical Society, Madison	Complete
1921 (circa)	Sargent & Co.	New Haven, CT	Catalogue No. 17: casket hardware, box hardware, and miscellaneous goods used by casket manufacturers...	205	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1921	Springfield Metallic Casket Co.	Springfield, OH	Funeral directors' wholesale list - Springfield grave vaults (effective November 28, 1921)	15	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1921 (circa)	Undertakers' Supply Co.	Chicago, IL	Catalogue No. 2	133	Vintage Literature Reproductions < <a href="http://www.vintage literature.ca">http://www.vintage literature.ca</a> >	Complete
1922	-	-	Price list (August 1, 1922)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1922	Marsellus, John Casket Co.	Syracuse, NY	Price list of caskets, casket boxes, and vaults, applying to Catalog "W" (August 7, 1922)	16	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1922 (circa)	Monroe Casket Co., Inc.	Webster, NY	[Fold-out casket brochure] (P.L. 5-1-22)	Broadside (12)	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1922	National Casket Co.	Baltimore, MD	Catalogue "Q"	231	Commonwealth Institute of Funeral Service, Houston, TX	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1922	National Casket Co.	Pittsburgh, PA	Price list applying to Catalogue "Q" (March 23, 1922)	30	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1922	National Casket Co.	Pittsburgh, PA	[Supplement] new pine box prices (October 30, 1922)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1922	National Casket Co.	Pittsburgh, PA	Price list applying to Catalogue "Q" (November 1, 1922)	30	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1922	United States Casket Company	Pittsburgh, PA	[Supplement] notice: outside box prices reduced (March 20, 1922)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1922	United States Casket Company	Pittsburgh, PA	Price list applying to Catalogue "D" (May 25, 1922)	18	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1922	United States Casket Company	Pittsburgh, PA	[Supplement] price changes (November 1, 1922)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1922	United States Casket Company	Pittsburgh, PA	Price list applying to Catalogue "D" (December 1, 1922)	16	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1923	Boytown Burial Casket Co.	Boytown, PA	Metal catalogue, number 4	50	Commonwealth Institute of Funeral Service, Houston, TX; Nelville Public Museum of Brown County, Green Bay, WI	Complete
1923 (circa)	Boytown Burial Casket Co.	Philadelphia, PA	Catalogue "J"	314	Commonwealth Institute of Funeral Service, Houston, TX	Complete
1923 (circa)	Boytown Burial Casket Co.	New York, NY	Catalogue "J"	323	Private collection (Ebay buyer)	Partial
1923	Freedom Casket Company	Freedom, PA	Revised price list applying to Catalogue "E" (February 26, 1923)	13	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1923 (circa)	Hill, F. H. & Co.	Chicago, IL	Bronze, copper, steel, hardwood and cloth covered caskets, casket hardware, metal linings, dry goods and vaults	45	Wisconsin Historical Society, Madison	Complete
1923	Marsellus, John Casket Co.	Syracuse, NY	Price list of caskets, casket boxes and vaults, applying to Catalog "W" (January 1, 1923)	16	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1923	Minnesota Casket Co	Minneapolis, MN	Catalogue "B," manufacturers of caskets of redwood, resist decay	143	Personal collection, James Davidson, University of Florida, Gainesville; Minnesota Historical Society, St. Paul	Complete
1923	Murphy, John & Co.	Pittsburgh, PA	Price list applying to 1922 catalogue (February 9, 1923)	16	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1923	National Casket Co.	Albany NY	Bronze sarcophagi, illustrating and describing some ancient customs, past masterpieces and present tendencies in the finest types of burial enclosures	29	National Museum of Funeral History, Houston, TX	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1923	National Casket Co.	Pittsburgh, PA	[Supplement] [casket and outer box prices] (January 29, 1923)	2	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1923	National Casket Co.	Pittsburgh, PA	[Supplement] [burial robes and linings prices] (February 12, 1923)	6	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1923	National Casket Co.	Pittsburgh, PA	Price list applying to Catalogue "Q" (June 11, 1923)	30	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1923	National Casket Co.	Pittsburgh, PA	Price list applying to Catalogue "Q" (October 1, 1923)	30	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1923	Undertakers' Supply Co.	Chicago, IL	Catalogue No. 4	128	Smithsonian Institution (Museum of American History), Washington, DC	Complete
1923	United States Casket Company	Pittsburgh, PA	Price list applying to Catalogue "D" (July 1, 1923)	16	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1923	United States Casket Company	Pittsburgh, PA	Price list applying to Catalogue "D" (November 1, 1923)	16	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1924	Abernathy Furniture Co.	Kansas City, MO	Price list, applying to Catalogue E: casket hardware, burial garments, and undertakers' sundries (April 1924)	32	Personal collection, Karissa Basse, PBS&J, Houston, TX	Complete
1924 (circa)	House-Hasson Hardware Co.	Knoxville, TN	[Illustrated general catalog]	[1]	Private collection (Ebay buyer)	Partial
1924	Marsellus, John Casket Co.	Syracuse, NY	Price list of caskets, casket boxes, and vaults, applying to Catalog "W" (January 1, 1924)	16	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1924	Monroe Casket Co., Inc.	Webster, NY	Price list (September 1, 1924)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1924 (circa)	Monroe Casket Co., Inc.	Webster, NY	[Fold-out casket brochure] (L.L. 9-1-24)	Broadside (4)	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1924 (circa)	Monroe Casket Co., Inc.	Webster, NY	[Fold-out casket brochure]	Broadside (10)	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1924	Mound Coffin Co.	St. Louis, MO	Wholesale price list (for) metal, cloth and varnished coffins; metal linings; funeral dry goods, sundries, etc. (January 1924)	43	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1924	National Casket Co.	Pittsburgh, PA	Price list applying to Catalogue "Q" (February 23, 1924)	30	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1924	National Casket Co.	Pittsburgh, PA	Price list applying to Catalogue "Q" (December 1, 1924)	30	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1924	United States Casket Company	Pittsburgh, PA	Price list applying to Catalogue "D" (March 25, 1924)	16	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1925	Belknap Hardware and Mfg. Co.	Louisville, KY	Catalog No. 78 [general catalog]	(1 page of casket hardware)	Private collection (Ebay buyer)	Partial
1925	Marsellus, John Casket Co.	Syracuse, NY	Price list no. 25, applying to Catalogue "W" (March 1925)	16	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1925	Monroe Casket Co., Inc.	Webster, NY	[Letter price list] (March 1, 1925)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1925	Monroe Casket Co., Inc.	Webster, NY	Price list of covered caskets, handles, boxes (April 1925)	8	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1925	National Casket Co.	Pittsburgh, PA	Dry goods price list (April 1, 1925)	21	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1925 (circa)	Sargent & Co.	New Haven, CT	Catalogue No. 18: casket hardware, box hardware, and miscellaneous goods used by casket manufacturers...	76	Sargent Manufacturing Company, Legal Department Archives, New Haven, CT	Complete
1925	United States Casket Company	Pittsburgh, PA	Price list applying to Catalogue "D" (June 20, 1925)	16	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1926	Boyertown Burial Casket Co.	Boyertown, PA	Revised price list, applying to Catalogue "J" and metal Catalogue No. 3 (January 4, 1926)	47	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1926	Marsellus, John Casket Co.	Syracuse, NY	Price list No. 26, applying to Catalogue "W"	16	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1926	Monroe Casket Co., Inc.	Webster, NY	[Covered handles price list] (February 10, 1926)	2	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1926	Monroe Casket Co., Inc.	Webster, NY	[Covered handles price list] (November 1926)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1926	Undertakers' Supply Co.	Chicago, IL	Catalog No. 7 - The Superior Line	160	Private collection (Ebay buyer)	Partial
1927	Belknap Hardware and Mfg. Co.	Louisville, KY	Catalog No. 80 [general catalog]	3,600 (1 page of casket hardware)	Private collection (Ebay buyer)	Partial
1927	Boyertown Burial Casket Co.	Philadelphia, PA	Catalog "K"	297	Personal collection, Michael Beardsley, Chittenango, NY; Mitchell Family Funeral Home, Marshalltown, IA; Commonwealth Institute of Funeral Service, Houston, TX	Complete
1927	Monroe Casket Co., Inc.	Webster, NY	Hardwood finished caskets (April 1927)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1927	Monroe Casket Co., Inc.	Webster, NY	[Price list] (February 1927)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1927	National Casket Co.	Baltimore, MD	Price list applying to Catalogue Q (effective December 27, 1927)	22	National Museum of Funeral History, Houston, TX	Complete
1928	Monroe Casket Co., Inc.	Webster, NY	Price list Casket No. 3245 and Handle No. 32 (January 1928)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1928	Monroe Casket Co., Inc.	Webster, NY	Covered handles (March 1928)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1928	National Casket Co.	Syracuse, NY	Price list applying to Catalogue Q (effective January 6, 1928)	30	Personal collection, Michael Beardsley, Chittenango, NY	Complete
1928	National Casket Co.	Dallas, TX	Catalog "RC," covered and hardwood caskets	182	Commonwealth Institute of Funeral Service, Houston, TX	Complete
1928	National Casket Co.	Louisville, KY	Catalog "RH," hardwood caskets	92	Newberry Library, Chicago, IL [Helen Sclair Collection]; Mitchell Family Funeral Home, Marshalltown, IA	Complete
1928	National Casket Co.	various	Catalog "RH," hardwood caskets	157	Personal collection, Michael Beardsley, Chittenango, NY	Complete
1928	National Casket Co.	Louisville, KY	National seamless, solid copper caskets	7	Newberry Library, Chicago, IL [Helen Sclair Collection]	Complete
1929	Monroe Casket Co., Inc.	Webster, NY	Price list of covered caskets, handles, boxes (April 1925 cross out, handwritten Feb. 4, 1929 because of pasted in price updates)	8	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1930 (circa)	Abernathy Casket Co.	Kansas City, MO	Casket Catalogue "H"	190	Commonwealth Institute of Funeral Service, Houston, TX	Complete
1930	Belknap Hardware and Mfg. Co.	Louisville, KY	Catalog No. 83 [general catalog]	3,328 (1 page of casket hardware)	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1930 (circa)	Meredith Casket Co.	Meredith, NH	Cloth covered and hardwood caskets, robes, linings, hardware; cypress and chestnut boxes, steel vaults	42	New Hampshire Historical Society	Partial
1930	National Casket Co.	Syracuse, NY	Catalogue "RHC," hardwood and covered caskets	205	Chicora Foundation, Columbia, SC; personal collection, Michael Beardsley, Chittenango, NY	Complete
1930	National Casket Co.	Pittsburgh, PA	[Supplement] new numbers for caskets shown in metal casket Catalog RM (December 1, 1930)	3	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1931	Chicago Casket Co.	Chicago, IL	General price list (July 10, 1931)	16	Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1931	Meredith Casket Co.	Meredith, NH	Price list (August 1, 1931)		Private collection (Ebay buyer)	Partial

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1931	Monroe Casket Co., Inc.	Webster, NY	[Letter price list #1] (February 1931)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1931	Monroe Casket Co., Inc.	Webster, NY	[Letter price list #2] (February 1931)	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1931	National Casket Co.	Pittsburgh, PA	[Supplement] new numbers for caskets shown in catalogs RC and RH (February 10, 1931)	4	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1931	National Casket Co.	Pittsburgh, PA	Price list - casket catalogues RC, RH, and RM (February 15, 1931)	56	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1931	National Casket Co.	New York, NY	Price list - casket catalogues RC, RH, and RM (February 24, 1931)	44	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1932	Belknap Hardware and Mfg. Co.	Louisville, KY	Catalog No. 86 [general catalog]	3,024 (1 page casket hardware)	Chicora Foundation, Columbia, SC	Partial
1932 (circa)	Oregon Casket Co.	Portland, OR	Catalogue "G"	58	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1934	Boyetown Burial Casket Co.	Boyetown, PA	Boyetown's Revised Economy Line (green cover, contains letter dated July 16, 1934)	69	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1934	Champion Company	Springfield, OH	Champion Sundry Catalog No. 24	160	Private collection (Ebay buyer)	Partial
1934	Champion Company	Springfield, OH	Price list for Champion Sundry Catalog No. 24	6	Private collection (Ebay buyer)	Partial
1934 (circa)	Schmid Manufacturing Co.	Dubuque, IA	Illustrated catalogue of casket hardware, Catalog No. 29		Private collection (Ebay buyer)	Partial
1934	Springfield Metallic Casket Co.	Springfield, OH	Catalog No. 235, metallic caskets and vault	192	Private collection (Ebay buyer)	Partial
1935	Boyetown Burial Casket Co.	Boyetown, PA	Supplement casket group to green catalogue issued July 1934 (May, 1935)	Broadside (14)	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1935	Boyetown Burial Casket Co.	Columbus, OH	[Brochure - "Substitution of Volume and Quantity Discount Plan to Dollar Volume Basis"] (effective March 1, 1935)	3	Commonwealth Institute of Funeral Service, Houston, TX	Complete
1935 (circa)	Chicago Casket Co.	Chicago, IL	Hardwood and cloth covered caskets, Catalog No. 25	55	Kibbe Hancock Heritage Museum, Carthage, IL; personal collection, Michael Beardsley, Chittenango, NY	Complete
1935 (circa)	Globe Casket Manufacturing Co.	Kalamazoo, MI	Casket Catalogue No. 12	275	Private collection (Ebay buyer)	Complete
1935 (circa)	Imperial Casket Co.	Kansas City, MO	[Catalog]	101	Commonwealth Institute of Funeral Service, Houston, TX	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1935	Imperial Casket Co.	Kansas City, MO	Price list: wood burial caskets, metal caskets, hardwood caskets, vault, burial garments (April 18, 1935)	24	Commonwealth Institute of Funeral Service, Houston, TX	Complete
1935 (circa)	Royal Bond, Inc.	St. Louis, MO	Royal Bond Catalog No. 3	157	Private collection (Ebay buyer)	Complete
1936	Boyertown Burial Casket Co.	Boyertown, PA	Catalog "L" hardwood and covered caskets	259	Commonwealth Institute of Funeral Service, Houston, TX; Smithsonian Institution (Museum of American History), Washington, DC [Trade Catalogs from Boyertown Burial Casket Co.]; personal collection, Michael Beardsley, Chittanooga, NY; Library of Congress, Washington, DC	Complete
1936	Boyertown Burial Casket Co.	Boyertown, PA	Catalog "L" metal caskets	175	Library of Congress, Washington, DC; Mitchell Family Funeral Home, Marshalltown, IA; personal collection, Michael Beardsley, Chittanooga, NY	Complete
1936	Boyertown Burial Casket Co.	Boyertown, PA	Catalog "LX" supplement to Catalog "L"	43	Chicora Foundation, Columbia, SC; Commonwealth Institute of Funeral Service, Houston, TX; personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1936	Marsellus, John Casket Co.	Syracuse, NY	Marsellus Caskets of Mahogany	56	Smithsonian Institution (Museum of American History), Washington, DC [Trade catalogs from John Marsellus Casket Company]; personal collection, Michael Beardsley, Chittanooga, NY; National Museum of Funeral History, Houston, TX; Onandaga Historical Association, Syracuse, NY (Marsellus Casket Company, Records 1888-1896); Kibbe Hancock Heritage Museum, Carthage, IL	Complete
1937	Belknap Hardware and Mfg. Co.	Louisville, KY	Catalog No. 88 [general catalog]	3,330 (2 pages casket hardware)	Newberry Library, Chicago, IL; personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1937	National Casket Co.	Syracuse, NY	Catalog "SMHC," metal, hardwood, and cloth covered caskets	216	Commonwealth Institute of Funeral Service, Houston, TX; Howard C. Raether Library, National Funeral Directors Association, Brookfield, WI; personal collection, Michael Beardsley, Chittanooga, NY	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1938	Boyertown Burial Casket Co.	Boyertown, PA	Catalog "L-16," 16-gauge metal caskets	31	Commonwealth Institute of Funeral Service, Houston, TX; Kibbe Hancock Heritage Museum, Carthage, IL; personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1938	Boyertown Burial Casket Co.	Boyertown, PA	Folder "M" (effective September 8, 1938)	Broadside (12)	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1938	Boyertown Burial Casket Co.	Boyertown, PA	Price list applying to hardwood & covered caskets, also metal caskets, Catalogs "L," "LX," and "L-16" (effective December 15, 1938)	125	Chicora Foundation, Columbia, SC; personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1938	Boyertown Burial Casket Co.	Boyertown, PA	Revised supplementary price list (effective December 15, 1938)	4	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1938	Metal Products Co.	Fredericksburg, VA	[Product sheet] (April 15, 1938)	2	Private collection (Ebay buyer)	Partial
1938	National Casket Co.	Boston, MA	Catalog "TM," metal caskets	175	National Art Library, Victoria & Albert Museum, London; personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1938	National Casket Co.	Boston, MA	Catalog "THC," hardwood and covered caskets	237	National Art Library, Victoria & Albert Museum, London	Partial
1940	Belknap Hardware and Mfg. Co.	Louisville, KY	Catalog No. 100 [general catalog]	3,226 (1 page casket hardware)	Private collection (Ebay buyer)	Partial
1940	Boyertown Burial Casket Co.	Boyertown, PA	Price list applying to hardwood & covered caskets, also metal caskets, Catalogs "L," "LX," and "L-16" (effective February 19, 1940)	133	Kibbe Hancock Heritage Museum, Carthage, IL; Chicora Foundation, Columbia, SC; personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1940	Boyertown Burial Casket Co.	Boyertown, PA	"To Remind You of...Our 3900 Line..." (effective January, 1940)	Broadside (18)	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1940	Dominion Manufacturers, Limited	Toronto, Ontario, Canada	Dominion equipment and sundries	235	Personal collection, Karissa Basse, PBS&J, Houston, TX	Complete
1940 (circa)	Hamilton Casket Co., Inc.	Chicago, IL	[Casket advertising sheet]	8	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1940	National Casket Co.	Philadelphia, PA	Catalog "T" metal, hardwood, and covered caskets	195	Library of Congress, Washington, DC	Partial
1941	Boyertown Burial Casket Co.	Boyertown, PA	Booklet "L-S" - a group of "special" caskets	19	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1941	Champion Company	Springfield, OH	Champion Junior Catalog (Spring 1941)	24	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1947	Ohio Burial Case Co.	Cleveland, OH	[Letter price list for burial clothes] (September 1, 1947)	2	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1947 (circa)	Ohio Burial Case Co.	Cleveland, OH	[Loose burial clothes ads associated with September 1, 1947 price list]	32	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1947	Parson's Casket Hardware Co.	Belvidere, IL	49th Annual Edition Catalogue	146	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1948 (circa)	Marsellus, John Casket Co.	Syracuse, NY	Semi-centennial Catalog	204	Commonwealth Institute of Funeral Service, Houston, TX; Waterloo Historical Society, Waterloo, NY [Genung Collection]	Complete
1949	National Casket Co.	New York, NY	Price list (effective April 28, 1949)	14	Personal collection, Michael Beardsley, Chittenango, NY	Complete
1949	Parson's Casket Hardware Co.	Belvidere, IL	New prices (October 24, 1949)	16	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1949	Philadelphia Mfg. Co.	Philadelphia, PA	Casket Hardware by Philadelphia	140	Commonwealth Institute of Funeral Service, Houston, TX	Complete
1950	Belknap Hardware and Mfg. Co.	Louisville, KY	Catalog No. 111 [general catalog]	3,548 (1 page of casket hardware)	Henry Ford Museum Greenfield Village Library, MI; personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1950 (circa)	Philadelphia Mfg. Co.	Philadelphia, PA	Casket hardware	109	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1950 (circa)	Royal Bond, Inc.	St. Louis, MO	Royal Bond Catalog No. 7		Private collection (Ebay buyer)	Partial
1954	Merit Company	Chicago, IL	Metal caskets (November 15, 1954)	9	National Museum of Funeral History, Houston, TX	Complete
1955	National Casket Co.	various	National cast bronze sarcophagi and seamless solid copper deposit caskets Catalog No. 6	20	Personal collection, Michael Beardsley, Chittenango, NY	Partial
1956	Victor Casket Hardware Co.	Galesburg, IL	Catalog No. 6	252	Chicora Foundation, Columbia, SC; personal collection, James Davidson, University of Florida, Gainesville	Partial
1959	Victor Casket Hardware Co.	Galesburg, IL	Price list applying to Catalogue No. 6 (May 20, 1959)	34	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1961 (circa)	Champion Company	Springfield, OH	Champion embalming chemicals	>30	Personal collection, Derrick Oatmeyer, Miller Funeral Home, Folsom, CA	Partial
1961 (circa)	Champion Company	Springfield, OH	Sundry products by Champion	36	Private collection (Ebay buyer)	Partial

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1963	Dodge Chemical Company	Boston, MA	Catalogue of embalming chemicals cosmetics, instruments and supplies	104	Personal collection, Jeremy W. Pye, University of Florida, Gainesville; personal collection, Derrick Oatmeyer, Miller Funeral Home, Folsom, CA	Complete
1963	Dodge Chemical Company	Boston, MA	Supplementary price list (October 1, 1963)	4	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1965	Dottridge Brothers, LTD.	London, England	Coffin furniture (separate illustrations with price list)	4 (16)	Personal collection, James Davidson, University of Florida, Gainesville	Complete
1966	Eureka Fluid Works	San Francisco, CA	[Catalog]	93	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1966	Eureka Fluid Works	San Francisco, CA	Price list (October 1, 1966)	6	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1966 (circa)	Royal Bond, Inc.	St. Louis, MO	Royal Bond Catalog No. 8	190	Commonwealth Institute of Funeral Service, Houston, TX; personal collection, Derrick Oatmeyer, Miller Funeral Home, Folsom, CA	Complete
1966	Superior Funeral Supply Corp.	Cleveland, OH	1966 catalog, Superior Funeral Supply Corp.	234	Howard C. Raether Library, National Funeral Directors Association, Brookfield, WI; personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1968	Superior Funeral Supply Corp.	Cleveland, OH	23rd Anniversary Catalog	259	Private collection (Ebay buyer)	Partial
1974	Dodge Chemical Company	Cambridge, MA	Catalog of embalming chemicals and supplies	111	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1974	Puckett Supply Company, Inc.	Greensboro, NC	Catalog No. 74-19	148	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1975	Dodge Chemical Company	Cambridge, MA	Price list (February 1, 1975)	4	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1976 (circa)	Belmont Casket Mfg. Co.	Columbus, OH	[Casket advertising cards]	56	Private collection (Ebay buyer)	Partial
1976	Royal Bond, Inc.	St. Louis, MO	Your Professional Catalog	> 500	Personal collection, Derrick Oatmeyer, Miller Funeral Home, Folsom, CA	Partial
1976	Royal Bond, Inc.	St. Louis, MO	Price list (January 2, 1976)		Personal collection, Derrick Oatmeyer, Miller Funeral Home, Folsom, CA	Partial
1979	Royal Bond, Inc.	St. Louis, MO	"In Stock" 50th Anniversary Royal Bond Catalog	96	Personal collection, Derrick Oatmeyer, Miller Funeral Home, Folsom, CA	Partial
1979	Royal Bond, Inc.	St. Louis, MO	Price list (November 1979)	6	Personal collection, Derrick Oatmeyer, Miller Funeral Home, Folsom, CA	Partial

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
1990	Mathews International Corp.	Pittsburgh, PA	Sketchbook of monument ideas	39	Newberry Library, Chicago, IL [Helen Sclair Collection]	Complete
1990 (circa)	Marsellus Casket Co.	Syracuse, NY	Marsellus caskets	85	Private collection (Ebay buyer)	Partial
1993	Batesville Casket Co.	Batesville, IN	Batesville caskets	> 170	Private collection (Ebay buyer)	Partial
1997	Batesville Casket Co.	Batesville, IN	[Catalog of casket advertising cards]	31	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1998	Batesville Casket Co.	Batesville, IN	[Catalog of casket advertising cards]	79	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1999	Batesville Casket Co.	Batesville, IN	[Catalog of casket advertising cards]	9	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1999 (circa)	Aurora Casket Company, Inc.	Aurora, IN	[Catalog of casket advertising cards]	121	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
1999	Aurora Casket Company, Inc.	Aurora, IN	[Price list]	9	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
2002	Aurora Casket Company, Inc.	Aurora, IN	Aurora Cremation Products 2003-2004	74	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
2002	Kelco Supply Company	Minneapolis, MN	A comprehensive source for the deathcare profession (Directories A-E)	368	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
2002	Kelco Supply Company	Minneapolis, MN	Directory F - material safety data sheets	74	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
2002	Kelco Supply Company	Minneapolis, MN	Directory G - general supply price guide	32	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. (1990s)	Astral Industries, Inc.	Lynn, IN	[Casket advertising cards]	21	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. (1990s)	Batesville Casket Co.	Batesville, IN	Monoseal	20	Private collection (Ebay buyer)	Partial
n.d. (1950s)	Belmont Casket Mfg. Co.	Columbus, OH	[Catalog]	46	Private collection (Ebay buyer)	Partial
n.d.	Boyertown Burial Casket Co.	Boyertown, PA	"The Pure Cast Iron ~ Alloyed with Copper ~ Casket No. 5"	16	National Museum of Funeral History, Houston, TX	Complete
n.d. (< 1910s)	Boyertown Burial Casket Co.	Boyertown, PA	[Catalogue] (Boyertown and Philadelphia)	199	National Museum of Funeral History, Houston, TX	Complete
n.d. (1880-1910)	Carr, W. S. & Co	Baltimore, MD	Price list of undertakers hardware, W. S. Carr & Co, manufacturers	7?	Private collection	Partial
n.d. (> 1919)	Central Burial Casket Co.	Guthrie, OK	Catalogue "A" - high-grade burial caskets	12	Commonwealth Institute of Funeral Service, Houston, TX	Complete
n.d.	Champion Company	Springfield, OH	"A Lasting Tribute... Champion Metal Burial Vault" [vault ads]	4	National Museum of Funeral History, Houston, TX	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
n.d. (1920s)	Cincinnati Coffin Co.	Cincinnati, OH	Metal caskets	63	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. (circa 1890s)	Constantine Casket Co.	Constantine, MI	Illustrated and descriptive catalogue of fine cloth covered burial cases	93	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. 1900-1920	Crane & Breed Mfg. Co.	Cincinnati, OH	Illustrated Catalogue A-6 of varnished and cloth covered wood and metallic caskets		Private collection (Ebay buyer)	Partial
n.d. (circa 1910)	Dallas Coffin Co.	Dallas, TX	Catalogue "G" (missing several pages and back cover)	[242]	Commonwealth Institute of Funeral Service, Houston, TX	Complete
n.d. (1936-1950)	Dickey-Grabler Co.	Cleveland, OH	Steel casket and vault hardware	14	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d.	Doddridge, John E., Inc.	Richmond, IN	[Casket advertising cards]	55	Commonwealth Institute of Funeral Service, Houston, TX	Complete
n.d. (> 1950)	Dodge Chemical Company	Boston, MA	The De-Ce-Co catalogue of chemicals, cosmetics, derma-surgical preparations, instruments, leather goods, rubber goods, operating room furniture, and sundries	184	Private collection (Ebay buyer)	Partial
n.d. (> 1906)	Dominion Manufacturers, Limited	Toronto, Ontario, Canada	Catalogue No. 30 illustrating casket hardware designed and manufactured by....	48	Private collection	Complete
n.d. (1930s/1940s)	Dottridge Brothers, Ltd.	London, England	Wholesale coffin furniture and drapery list	24	Personal collection, James Davidson, University of Florida, Gainesville	Complete
n.d. (1930s/1940s)	Dottridge Brothers, Ltd.	London, England	Wholesale coffin furniture and drapery list [price list]	5	Personal collection, James Davidson, University of Florida, Gainesville	Complete
n.d. (1930s/1940s)	Dottridge Brothers, Ltd.	London, England	Wholesale coffin list	40	Personal collection, James Davidson, University of Florida, Gainesville	Complete
n.d. (1930s/1940s)	Dottridge Brothers, Ltd.	London, England	Price list of finished coffins, List No. 1058	4	Personal collection, James Davidson, University of Florida, Gainesville	Complete
n.d.	Durfee Embalming Fluid Co.	Grand Rapids, MI	Cemetery tents and accessories	Broadside (8)	Private collection (Ebay buyer)	Complete
n.d. (1920s)	Eastern Casket Hardware Co.	Springfield, MA	Eastern Casket Hardware Co., manufacturers of quality casket hardware	28	Smithsonian Institution (Museum of American History), Washington, DC	Complete
n.d. (1910s-1930s)	Elgin Metal Casket Co.	Elgin, IL	[Casket advertising cards in leather salesman's binder]	24	Private collection (Ebay buyer)	Partial
n.d. (1880-1900)	Globe Casket Manufacturing Co.	Kalamazoo, MI	Illustrated catalogue of cloth covered burial caskets	40	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. (1910s)	Great Northern Casket Co.	Portland, OR	[Catalog]	147	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
n.d. (circa 1890)	Hazleton Mfg. Co.	Hazleton, PA	[Catalog of coffin plates]	[19]	Smithsonian Institution (Museum of American History), Washington, DC [Trade Catalogs of the Hazleton Mfg. Co.]	Partial
n.d. (> 1880)	Hatcher, J. & Co.	Zanesville, OH	Illustrated catalogue and wholesale price list of wood burial cases and caskets, manufactured by J. Hatcher & Co.	14	Smithsonian Institution (Museum of American History), Washington, DC [Trade Catalogs from Hatcher, J. & Co.]	Complete
n.d. (1990s)	Haven Line Industries	Schuylkill Haven, PA	[Casket advertising cards]	86	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. (> 1900)	Hill, F. H. & Co.	Boston, MA	Price list of metal, hardwood, cloth covered, child's caskets, boxes and vault	29	Private collection (Ebay buyer)	Partial
n.d. (1960s)	Hydrol Chemical Company	Philadelphia, PA	Hydrol Catalog No. 60	113	Private collection (Ebay buyer)	Partial
n.d. (1920s)	Manger, E. C. & Son Co.	Green Bay, WI	Casket Catalog "C"	111	Mitchell Family Funeral Home, Marshalltown, IA; Howard C. Raether Library, National Funeral Directors Association, Brookfield, WI	Partial
n.d. (1920s)	Miller Casket Co.	Scranton, PA	Casket Catalog "A"	241	Chicora Foundation, Columbia, SC	Complete
n.d. (1920s)	Monroe Casket Co., Inc.	Webster, NY	[Price list - page of hardwood caskets]	1	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. (1910-1930)	Monroe Casket Co., Inc.	Webster, NY	[Casket catalog]	123	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. (1910-1930)	Monroe Casket Co., Inc.	Webster, NY	[Loose casket advertisement cards and catalog pages]	12	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. (< 1900)	Mound Coffin Co.	St. Louis, MO	Pocket Edition Coffin and Casket Catalogue "F"	247	Private collection (Ebay buyer)	Complete
n.d. (> 1936)	National Casket Co.	New York, NY	[Casket advertising cards]	>36	Private collection (Ebay buyer)	Partial
n.d.	National Metal Products Co.	Connersville, IN	[Casket hardware advertising cards]	3	Commonwealth Institute of Funeral Service, Houston, TX	Complete
n.d.	Owosso Casket Co.	Owosso, MI	[Catalog of metal caskets]	124	Private collection (Ebay buyer)	Partial
n.d. (> 1899)	Rockwell Casket Company	Rockwell, NC	[Advertising card of standard measurements for caskets, outside boxes and vaults]	3	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. (circa 1890)	Sargent, S. B.	Tilton, NH	[Book of epitaphs]	31	Personal collection, Peggy B. Perazzo, Antioch, CA	Complete
n.d. (1990s)	Thacker Caskets, Inc.	Clinton, MD	[Casket advertising cards]	50	[ <a href="http://quarriesandbeyond.org/">http://quarriesandbeyond.org/</a> ]	Complete
n.d.	Townsend & Townsend & Co.	Richfield Springs, NY	Italian art statuary	99	University of Florida, Gainesville Cleveland Public Library [Trade Catalogs of headstones, mausoleums, and accessories]	Complete

Table A.1. Continued.

Date	Company Name	Location	Title of Catalog	Number of Pages	Location of Catalog	Partial/Complete
n.d. (> 1964)	Tri-State Electric & Novelty Supply Co.	Bronx, NY	Catalog of funeral supplies	152	Private collection (Ebay buyer)	Partial
n.d. (1965-1979)	Tri-State Industries, LTD.	Bronx, NY	Catalog No. 16	90	Personal collection, Jeremy W. Pye, University of Florida, Gainesville	Complete
n.d. (1930s)	Undertakers' Supply Co.	Chicago, IL	[Catalog] (cover through page 2 are missing)	184	Commonwealth Institute of Funeral Service, Houston, TX	Complete
n.d. (1930s)	Undertakers' Supply Co.	Chicago, IL	Red Catalogue No. 13 - The Superior Line	130	Commonwealth Institute of Funeral Service, Houston, TX	Complete
n.d. (circa 1900)	Wisconsin Furniture & Coffin Co.	Lincoln, NE	Casket catalogue	199	Private collection (Ebay buyer)	Complete



**SUPPLEMENTAL HISTORIC  
CEMETERY DATA**

*Jeremy W. Pye  
University of Florida*



Table B.1. Historic cemetery reports consulted for comparison ( $n = 206$ ).

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals		Location	Year Excavated	Reference
				Exhumed	Exhumed			
Ravenscraft Cemetery	Euro-American	1800-1825	7	7	Pennsylvania	1954	Swauger 1959	
Wealthy Indian Burial site	Native American	1830-1840	2	2	Oklahoma	1968	Wilson 1968	
Snow Beach site	Native American	1633-1704	7	7	Florida	1967-1968	Magoon et al. 2001	
Rabbit Hill site	Native American	1865-1885	1	1	Oklahoma	1971	Pearson 1978	
Las Vegas Gravel Pit Cemetery, New Mexico	Euro-American/ Hispanic	1880s-1940s <sup>a</sup>	17	17	New Mexico	1972	Mills 1979	
General Moultrie's Grave	Euro-American	1805	1	1	South Carolina	1977	South 1979	
Oakland Cemetery	African-American	1866-1884	17	17	Georgia	1978	Blakely and Beck 1982	
Littler's Cemetery	<sup>a</sup>	1860-1908	5	5	North Carolina	1978	Ward and Graham 1978	
Cemetery 2	Euro-American	1860-1900	6	6	North Carolina	1978	Ward and Graham 1978	
Cemetery 3	<sup>a</sup>	1860-1900	23	23	North Carolina	1978	Ward and Graham 1978	
St. Andrew's Roman Catholic Cemetery	Euro-American	Pre-1900	1	1	Ontario, Canada	1979	Heringer and Haywood 1980	
Catoctin Furnace Cemetery	African-American	1790-1840	35	35	Maryland	1979-1980	Burnston and Thomas 1981	
Applegate Lake Project (two cemeteries)	Euro-American	1886-1914	13	13	Oregon	1980	Brauner and Jenkins 1980	
Laredo Cemetery	Euro-American	1880-1920	22	23	Texas	1980	McReynolds 1981	
Fort Brooke's Cemetery	Euro-American	1825-1838	126 (excavated)	126 (excavated)	Florida	1980	Piper and Piper 1982	
Millwood Plantation Cemetery	Euro-American	1880-1930	263	263	South Carolina	1980-1981	Orser et al. 1987	
First African Baptist Church (8th and Vine)	African-American	1823-1842	140	140	Pennsylvania	1981-1984	Parrington et al. 1989	
Irish Cemetery	Euro-American	1848-1871	14	14	Illinois	1981	Goldstein and Buikstra 2004	
Choke Canyon project (five cemeteries)	Euro-American	circa 1860-1911	34	34	Texas	1981-1982	Fox 1984	
Stirrup Court Cemetery	Euro-American	1840-1890	27	27	Ontario, Canada	1982	Woodley 1992	
Cedar Grove Cemetery	African-American	1900-1915	79	80	Arkansas	1982	Rose 1983, 1985	
Scisson Family Cemetery	Euro-American	1862-1911	3	3	South Dakota	1982	Berg 1990	
McGee Creek Cemetery	Euro-American	circa 1900-1924	11	11	Oklahoma	1983	Ferguson 1983	
Carmouche Cemetery	African-American	1850-1881	26 (5 excavated)	26 (5 excavated)	Georgia	1983	Schnell 1983; Wood et al. 1984	
Mount Pleasant Cemetery	Euro-American	1850-1910	35	37	South Carolina	1984	Trinkley and Hacker-Norton 1984	
Nancy Creek Cemetery	African-American	1850s-1979	56	56	Georgia	1984	Garrow et al. 1985	

Table B.1. Continued.

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals		Location	Year Excavated	Reference
				Exhumed	Reference			
Morgan Chapel Cemetery	Euro-American	1891-1924	21	21	Texas	1984	Taylor et al. 1986	
Mount Gilead Cemetery	Euro-American	1832-circa 1900	31	31	Georgia	1984	Wood et al. 1986	
Rincon Cemetery	Euro-American	1889-1935	4 (excavated)	4 (excavated)	California	1984	Brock and Schwartz 1991	
First Cemetery (New Orleans)	Euro-American	1721-1789	32	32	Louisiana	1984	Owsley et al. 1985	
Blackburn Cemetery	Euro-American	1818-1910 <sup>a</sup>	10	10	Tennessee	1985	Atkinson and Turner 1987	
Blackburn Cemetery (early graves: Nos. 5, 6, 8, 9)	Euro-American	1818-1850	4	4	Tennessee	1985	Atkinson and Turner 1987	
Blackburn Cemetery (later graves: Nos. 1, 2, 3, 4)	Euro-American	circa 1900-1925	4	4	Tennessee	1985	Atkinson and Turner 1987	
Uxbridge Almshouse Burial Ground	Euro-American	1831-1872	31	32	Massachusetts	1985	Elia and Wesolowsky 1991	
St. Joseph's Cemetery	Hispanic	1850-1893	11	11	New Mexico	1985	Boudreaux n.d.	
Talbot County (Big Lazer Creek) Cemetery	Euro-American	1825-1900	6	6	Georgia	1986	Garrow and Symes 1987	
Tucker Cemetery	Euro-American	1880-1942	16	16	Texas	1986	Lebo 1988	
Battle of Glorieta Pass	Euro-American	1862	31	31	New Mexico	1987	Owsley 1994	
Voegtly Cemetery	Euro-American	1833-1861	727	727	Pennsylvania	1987	Beynon 1989	
Elko Switch Cemetery	Euro-American	1850-1920	56	56	Alabama	1987-1988	Shogren et al. 1989	
Stoltz site	Euro-American	1830-1880	5	5	Wisconsin	1988	Meer 1990	
Cedar Keys Lions Club Lot	Euro-American	Pre-1895	2 (historic burials)	2 (historic burials)	Florida	1988	Jones 1992	
Seven Rivers Cemetery	Euro-American/ Hispanic	1873-1899	54	54	New Mexico	1988	Ferguson et al. 1993	
Harvie Family Burying Ground	Euro-American	1825-1894	15	15	Ontario, Canada	1988	Saunders and Lazenby 1991	
Wise Family Pioneer Cemetery	Euro-American	1815-1858 <sup>a</sup>	6	6	Ontario, Canada	1988-1989	Pearce 1989	
Hopewell Baptist Church Cemetery	African-American/ Euro-American <sup>a</sup>	1850-1920	150	150	Georgia	1988-1989	Garrow 1989b	
Drennan Family Cemetery	<sup>a</sup>	1900-1910	1	1	Georgia	1989	Garrow 1989a	
Bethany Cemetery	Euro-American	1860-1900	1 (excavated)	1 (excavated)	Georgia	1989	Elliott and Elliott 1989	
Weir Family Cemetery	Euro-American	1830s-1907	24	24	Virginia	1989	Little et al. 1992	

Table B.1. Continued.

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals Exhumed	Location	Year Excavated	Reference
Madam Felix/Hettick Cemetery	Euro-American	1852-1900	3	3	California	1989	Costello 1991
Sinclair Cemetery	Euro-American/ African-American	1850s-1880s	16	16	Texas	1989	Winchell et al. 1992
O.H. Ivie Reservoir (Boothill Cemetery)	Euro-American	1870s-1880s	11	11	Texas	1989-1990	Earls et al. 1991
O.H. Ivie Reservoir (Coffey Cemetery)	Euro-American	1870s-1880s	2	2	Texas	1989-1990	Earls et al. 1991
Spartanburg County, S. C. (38Sp105)	Euro-American	1870-1910	15	15	South Carolina	1989-1990	Joseph et al. 1991
Spartanburg County, S. C. (38Sp106)	Euro-American	1830s-1880s	61	61	South Carolina	1989-1990	Joseph et al. 1991
Patuxent Point (18CV271)	Euro-American	1658-1680s	18	18	Maryland	1989-1990	King and Ubelaker 1996
Sandy Creek Cemetery	Euro-American	1841-1920s	13	13	Georgia	1990	Garrow 1990
Piggery Point Burials	Euro-American	1840-1890	28-37	28-37	Massachusetts	1990	King and Miller 1991
First African Baptist Church (10th Street, 36PH72)	African-American	1810-1822	89	89	Pennsylvania	1990	Crist et al. 1996
Cheyne Cemetery	Euro-American	1844-1906	3	3	Ontario, Canada	1991	Archaeological Services, Inc. 1992
Phillips Memorial Cemetery	African-American	1884-1927	53	53	Texas	1991-1992	Dockall, Powell, and Steele 1996
Freedman's Cemetery	African-American	1869-1907	1,150	1,157	Texas	1991-1994	Condon et al. 1998; Peter et al. 2000
Freedman's Cemetery (Early period)	African-American	1869-1884	64	64	Texas	1991-1994	Condon et al. 1998; Peter et al. 2000
Freedman's Cemetery (Middle period)	African-American	1885-1899	170	171	Texas	1991-1994	Condon et al. 1998; Peter et al. 2000
Freedman's Cemetery (pre-1900 period)	African-American	1869-1899	37	37	Texas	1991-1994	Condon et al. 1998; Peter et al. 2000
Freedman's Cemetery (Late period)	African-American	1900-1907	878	884	Texas	1991-1994	Condon et al. 1998; Peter et al. 2000
Milwaukee County Poor Farm Cemetery	Euro-American	1882-1925	1649	1649	Wisconsin	1991-1992	Richards 1997; Richards and Kastell 1993

Table B.1. Continued.

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals Exhumed	Location	Year	
						Excavated	Reference
Deepstep A.M.E. Church	African-American	1860s-1920s <sup>a</sup>	79	79	Georgia	1992	Braley 1992
Deepstep A.M.E. Church	African-American	1860s-1900 <sup>a</sup>	39-40 <sup>a</sup>	39-40 <sup>a</sup>	Georgia	1992	Braley 1992
Deepstep A.M.E. Church	African-American	1900-1920s <sup>a</sup>	39-40 <sup>a</sup>	39-40 <sup>a</sup>	Georgia	1992	Braley 1992
Sussex City Cemetery (site 75F68)	Euro-American	1752-1799	9	9	Delaware	1992	LeeDecker et al. 1995
Cross Family Cemetery (Springfield, Illinois)	Euro-American	1829-1849	29	29	Illinois	1992	Craig and Larsen 1993
Cemetery 2, Colorado Mental Health Institute	Euro-American	1879-1899	131	131	Colorado	1992	Painter et al. 2002
St. James Episcopal Church Cemetery (Brandy Station)	Euro-American	1862-1900s <sup>a</sup>	7	7	Virginia	1992 <sup>a</sup>	Owsley et al. 1992
Cope Family Cemetery	<sup>a</sup>	1850-1900	27	27	North Carolina	1993	Garrow 1993
Venable Lane Cemetery	Euro-American	1860-1900	12 (not fully excavated)	12 (not fully excavated)	Virginia	1993	Grey et al. 1993
Fowler Street Cemetery (U.S. Military Cemetery 1851)	Euro-American	1841-1865	20	17	Florida	1993	Deming et al. 1993
Former Wesleyan Methodist Church Cemetery	Euro-American	1821-1900	135 graveshafts	157	Ontario, Canada	1993	Kogon and Mayer 1995
Dement Family Cemetery, Arkansas	Euro-American	1890, 1896	2	2	Arkansas	1993	Cande 1995
Quaker Burying Ground	Euro-American	1784-1890s	66 impacted (159 identified)	66	Virginia	1993-1995	Bromberg et al. 2000
Edwards-Attaway Cemetery	Euro-American/ Native American	1840-1948	63	63	Georgia	1994	Garrow and Jones 1996
Martin Cemetery	Euro-American	1830s	6	6	Georgia	1994	Garrow et al. 1994
Redfield Cemetery	Euro-American	1875-1930	80	80	Georgia	1994	Braley and Moffat 1995
Henry Lehman Family Cemetery	Euro-American	1844-1862	15	15	New York	1994	Raemisch and Bouchard 2000
Texas State Cemetery (Confederate Section)	Euro-American	1884-1951	57	57	Texas	1995	Dockall, Boyd, Freeman et al. 1996
Grafton Cemetery	Euro-American	1834-1873	252	252	Illinois	1995	Buikstra et al. 2000
Mother UAME Church	African-American	1855-1908	352	352	Delaware	1996	Thomas et al. 2000
Dunning Cemetery No. 2	Euro-American	1860-1880	26	103	Illinois	1996	Trubitt et al. 1999
Cool Branch Cemetery	Euro-American	1800-1830	5	5	Tennessee	1996	Matternes 1998

Table B.1. Continued.

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals Exhumed	Location	Year		Reference
						Excavated	Reference	
Meridan School for Boy Cemetery	Euro-American	1853-1900	1 (partial excavation)	1 (partial excavation)	Connecticut	1996		Walwer 1996
Givens Grave site	Euro-American	1884	1	1	Texas	1996		Miller 1996
Morrow Cemetery	<sup>a</sup>	1867-1873	3	3	Georgia	1996		Jones et al. 1996
Unnamed Grave site (9ME509)	African-American	1890-1910	4 (1 excavated)	4 (1 excavated)	Georgia	1996-1997		Gardner 1997
Shockley Cemetery	Euro-American	1840-1884	23	23	Georgia	1997		Wilson 1997
Fuller Cemetery	Euro-American	1856-1920	46	46	Georgia	1997		Wilson 1998a
Pine Ridge Cemetery	Euro-American	1800-1850 <sup>a</sup>	14	14	Georgia	1997		Wilson 1998d
Oliver Family Cemetery	Euro-American	1831-1865 <sup>a</sup>	11	11	Virginia	1997		Wilson 1998b
Robinson Cemetery	African-American	1700s-1875	47	47	Virginia	1997		McDonald and Meacham 2001
Beardstown Cemetery	Euro-American	1831-1914	47	47	Illinois	1997		McDowell 2000
Kaskaskia Island Cemetery	Euro-American	1853-1880	10	10	Illinois	1997		Cobb et al. 2000
Turner Cemetery	Euro-American	1840-1900 <sup>a</sup>	12	12	Mississippi	1998		Wilson 1998e
Pleasant Hill Baptist Church Cemetery	<sup>a</sup>	1950-1981	13 (relocated)	13 (relocated)	Georgia	1998		Wilson 1998c
Ridley Cemetery	African-American	1885-1940	47	47	Tennessee	1998		Buchner et al. 1999
Third New City Cemetery (Allen Parkway Village)	African-American	1875-1905 <sup>a</sup>	355 <sup>a</sup>	355	Texas	1998		Foster and Nance 2002
Unmarked Historic Cemetery (44CF568)	African-American	1840-1940	6	6	Virginia	1998		Bowden 1999
Brunson-Sisson Cemetery	Euro-American	1836-1892	17	19	Illinois	1998		Cobb 1999
Vandaworker's Corners	Euro-American	1850-1880	10	10	Illinois	1999		Bird 2000
Main Street Cemetery	Euro-American	1858-1882	2	2	Illinois	1999		Demel et al. 2000
Sam Goode Cemetery	African-American	1840-1920 <sup>s</sup>	155	155	Virginia	1999		Crist et al. 2000
Pioneer Cemetery (Dallas, Texas)	Euro-American	1880-1910	15	15	Texas	1999		Cooper et al. 2000
Amis Cemetery	<sup>a</sup>	1869, 1881	2	2	Georgia	1999		B. Thomas 2000
Brassell Cemetery	Euro-American	1872-1874 <sup>a</sup>	4	4	Georgia	1999		Gresham and Martin 1999
Fox-Abbott Family Cemetery	Euro-American/ African-American	1830-1870	6	6	Georgia	1999		Wild 2001

Table B.1. Continued.

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals Exhumed	Location	Year Excavated	Reference
Connally I. S. D. School Tract Abandoned Cemetery	Euro-American	Late 1800s- Early 1900s <sup>a</sup>	4	4	Texas	1999	Bradle et al. 2002
Howard Cemetery (39MN7)	Euro-American	1850s-1920s <sup>a</sup>	5	5	South Dakota	1999-2000	Boen and Taft 1999
Manzanar National Historic Site Cemetery	Chinese	1942-1945	15	6	California	1999-2000	Burton et al. 2001
Droke Cemetery	Euro-American <sup>a</sup>	1860s-1870s <sup>a</sup>	4	4	Arkansas	2000	Hilliard et al. n.d.
Cemetery 2, Colorado Mental Health Institute	Euro-American	1879-1899	31	31	Colorado	2000	Painter et al. 2002
Kniseley Family Cemetery	Euro-American	1830s-1850s <sup>a</sup>	6	6	Ontario, Canada	2000	Garner et al. 2001
Trinity Anglican Church Cemetery	Euro-American	circa 1870	1 (excavated)	1 (excavated)	Ontario, Canada	2000	Archaeological Services, Inc. 2000
Nix Family Cemetery	Euro-American	1884, 1888	2	2	Georgia	2000	L. Thomas 2000
Craddock Cemetery	Euro-American	1860-1911	6	6	Texas	2000	Turpin and Bement 2002a
St. Francis Regis Cemetery	Euro-American/ African-American/ Native American	1845-1876	47	32	Missouri	2000	Powell 2000
Lucy Kimball Mead Tomb	Euro-American	1822-1852	3	3	Massachusetts	2000-2003	Sutherland 2006
Elmbank Roman Catholic Cemetery (Fifth Line Cemetery)	Euro-American <sup>a</sup>	1832-1937	634	622	Ontario, Canada	2000-2001	Lipovitch et al. 2003
St. Paul's Pioneer Cemetery	Euro-American <sup>a</sup>	circa 1870	1 (excavated)	1 (excavated)	Ontario, Canada	2001	Miklavcic 2001
Anderson Cemetery (41RT350)	Euro-American	1875 <sup>a</sup> -1902	4	4	Texas	2001	Turpin and Bement 2002b
Nisbett Cemetery (41RT189)	Euro-American	1870 <sup>a</sup> -1882	10	10	Texas	2001	Turpin and Bement 2002b
Varnell Family Cemetery	Euro-American	1860s-1880s <sup>a</sup>	20	20	Texas	2001	Gadus et al. 2002
Manslick Road Cemetery, Burial #34	Euro-American	1907-1910	1	16	Kentucky	2001	Spencer 2002
Reynolds Cemetery (46Ka349)	Euro-American	1832-1900	31	31	West Virginia	2001	Bybee 2002
Eddy Cemetery	Euro-American	1870-1900	16	16	Arkansas	2001	Mainfort and Davidson 2006
Becky Wright Cemetery	Euro-American	1870-1900	10	10	Arkansas	2001	Mainfort and Davidson 2006
Potter's Field/Greenwood Cemetery	Euro-American	1878-1911	14	14	Texas	2001	Tiné et al. 2002
Matagorda Cemetery	Euro-American	1830-1860 <sup>a</sup>	6	6	Texas	2001	Crow 2004; Thoms 2001
Thurston Cemetery	Euro-American	1848-1900	22	22	Illinois	2001	Bird et al. 2003

Table B.1. Continued.

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals Exhumed	Location	Year		Reference
						Excavated	Reference	
Nansemond Ordnance Station Burial	African-American	circa 1800	1	1	Virginia	2001		Cultural Resources, Inc. 2002
Terre Haute Cemetery	African-American	1790s-1865	117	116	Virginia	2001-2002		Jones et al. 2006
City of Charleston Potters' Field	<sup>a</sup>	1800-1825	33	33	South Carolina	2001-2003		Shuler and Hendrix 2004
Burning Springs Branch Cemetery	Euro-American	1795-1818	9	8	West Virginia	2002		Bybee 2003a
Unmarked Historic Cemetery (15CP61)	Euro-American <sup>a</sup>	1830-1900	15	15	Kentucky	2002		Bybee 2003b
Bulkeley Tomb	Euro-American	1775-1832	27	21	Connecticut	2002		Bastis 2006
15Mm137	Euro-American/ African-American <sup>a</sup>	circa1830-1900	17	17	Kentucky	2002		Bybee and Richmond 2003
Stellwagen Cemetery	Euro-American	1865-1890	21	15	Illinois	2002		Kreisa et al. 2004
Hosler Family Cemetery	Euro-American	1846-1870	4	4	Ohio	2002		Lee 2002
Richmond County Cemetery	African-American <sup>a</sup>	1850-1900 <sup>a</sup>	14	14	Georgia	2002		Beaty and Atz 2002
Nancy Creek Baptist Church Cemetery	African-American	?	5 (excavated)	5 (excavated)	Georgia	2002		Wild 2002
Obringer Cemetery	Euro-American	1880-1890	5	5	Illinois	2002-2003		Shah and Lence 2003
The Soldier's Plot, Emmanuel Lutheran Church Cemetery	Euro-American	circa 1897 <sup>a</sup>	5	5	Virginia	2003		Owsley et al. 2003
Michigan City Old Graveyard (12LE348)	Euro-American	1835-1864	15	15	Indiana	2003		Strezewski 2003
Pioneer Cemetery (41BO202)	African-American	1853-1910	4	4	Texas	2003		Tiné and Boyd 2003
Oscar Abstein Cemetery	African-American	1850s <sup>a</sup> -1884	3	4	Texas	2003		Broehm et al. 2004
St. Peter's Anglican Church Cemetery	Euro-American <sup>a</sup>	1828-circa1850	25	29	Ontario, Canada	2003		Crawford 2003
Providence Baptist Church Cemetery (40SY619)	African-American	1899-1933	65	65	Tennessee	2003		Oster et al. 2005
Samuel Robinson Cemetery	Euro-American	1830-1900	12	12	Kentucky	2003		Bybee 2003c
Upper Prater Cemetery	Euro-American	1830-1920	8	8	Kentucky	2003		Bybee 2003c
Old Branham Cemetery	Euro-American/ African-American <sup>a</sup>	circa 1825-1900	24	24	Kentucky	2003		Bybee 2004
Shippenville Borough State Road 0322 Project Cemetery	Euro-American <sup>a</sup>	1860-1890	28	28	Pennsylvania	2003		Espenshade 2004

Table B.1. Continued.

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals Exhumed	Location	Year Excavated	Reference
Stewart County Family Cemetery	Euro-American	1850-1880	6	6	Georgia	2003	Pomfret 2003
St. Mary's Cemetery	Euro-American	1868-circa 1870	13	13	Louisiana	2003-2004	Williamson 2005
Pea Hill site	Euro-American	1860-1900	2	2	Ontario, Canada	2004	Archaeological Services, Inc. and Warrick 2005
Former Sacramento County Hospital Burying Ground	Euro-American	1891-1927	78	72	California	2004	Edwards et al. 2005
Meadowlark Cemetery	Euro-American	1860-1900	17	13	Kansas	2004	Pye 2007
Magnolia, Confederate Navy, and Charleston's Port Society Cemeteries (Johnson Hagood Stadium Lot)	Euro-American <sup>a</sup>	1851-1919	356	341	South Carolina	2004	Shuler et al. 2005
Crawford Cemetery	Euro-American	1851-1880	5	5	Georgia	2005	Atz 2005
Roughton-Browne Cemetery	African-American	1850-1900	15	15	Georgia	2005	Atz and Weaver 2006
Dove Cemetery	Hispanic/Euro-American/ Native American	1860-1900	18	18	California	2005	Sewell and Stanton 2008
St. Clair County, Alabama (15C320)	Euro-American	1840s-1880s	19	19	Alabama	2005	Matternes and Serio 2005
Neal (Big Cove) Cemetery	Euro-American	1880s-1920s	68	68	Alabama	2005	Trudeau 2005
Court Street Cemetery (burial 12)	Hispanic	1875-1907	1 (excavated)	1 (excavated)	Arizona	2005	Beck et al. 2005
Pepper Hill I (site 22LO998)	African-American	circa 1850-1956	17	17	Mississippi	2005	Hogue and Alvey 2006
Eastern State Hospital (Mass Grave)	<sup>a</sup>	1839-1861	11	11	Kentucky	2005	Favret 2006
Lone Fir Cemetery (Morrison Lot)	Chinese	1866-1910	1	1	Oregon	2005	Smits and Reese 2005
McBride Family Cemetery	Euro-American	1839-1870	11	11	Illinois	2005	Hjelsand et al. 2005
Williams-Green Cemetery	Euro-American <sup>a</sup>	circa 1800-1880	34	32	Virginia	2005-2006	Ezell and Huston 2006b
Quantico Corporate Center Tract Burials (site 445T0623)	Euro-American	1850-1900	5	5	Virginia	2006	Ezell and Huston 2006a
Historic Los Angeles Cemetery (HLAC)	Chinese	1880s-1922	118	131	California	2006	Gust et al. 2006

Table B.1. Continued.

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals Exhumed	Location	Year Excavated	Reference
Evans Cemetery	Euro-American <sup>a</sup>	1875-1988	106 (15 archaeologically recovered)	106 (15 archaeologically recovered)	West Virginia	2006	Bybee 2007b
Mitchell Road Cemetery	Euro-American	1850-1900	18	19	Illinois	2006	McGowan et al. 2009
Tallyns' Reach Burial	Euro-American	circa 1850	1	1	Iowa	2006	Schermer et al. 2006
Filhiol/Gerson Mound (16OU2)	Euro-American	1900-1920	15	16	Louisiana	2006	Jones and Shuman 2007; Manhein and Listi 2007
Lance Hall Cemetery	Euro-American	1844-1860	11	11	South Carolina	2006	Shuler 2007
Guinea Road Cemetery	African-American	1850-1875	35	35	Virginia	2006-2008	Rinehart et al. 2009
Alameda-Stone Cemetery	Euro-American/ Hispanic/Native American/African American	1860-1881	1,006	1,386	Arizona	2006-2008	Heiten and Gray 2010a; Pye 2010a
Court Street Cemetery (burials 13-14)	Hispanic	1875-1909	2 (excavated)	2 (excavated)	Arizona	2007	Thiel and Margolis 2007
Barrio Libre Cemetery	Native American	1600-1800	1(excavated)	1(excavated)	Arizona	2007	Thiel and McClelland 2007
Wright-Whitesell-Gentry Family Cemetery	Euro-American	1840-1870	30	30	Indiana	2007	Ross-Stallings et al. 2009
Alderson-Jackson Cemetery	Euro-American	1833-1834	2	2	Kentucky	2007	Bybee 2007a
Rudy Cemetery	Euro-American	1836-1850	1	1	Kentucky	2007	Bybee 2007c
Drafts Cemetery	African-American	1881-1950	2 (disturbed)	2 (disturbed)	South Carolina	2007	Hacker and Trinkley 2007
Don Jail Cemetery	Euro-American <sup>a</sup>	1872-1930	3	3	Ontario, Canada	2007	Veilleux and Robertson 2008
Don Jail Cemetery	Euro-American <sup>a</sup>	1872-1930	15	15	Ontario, Canada	2007-2008	Crawford et al. 2008
Area 1 Cemetery (9CH1168) - Hunter Army Airfield	African-American	1870-1916	36	40	Georgia	2007-2008	Matternes et al. 2010
Area 2 Cemetery (9CH875) - Hunter Army Airfield	African-American	1870-1916	330	346	Georgia	2007-2008	Matternes et al. 2010
Church of the Assumption of Our Lady Cemetery	Euro-American <sup>a</sup>	1861-1967	2	2	Ontario, Canada	2008	Hutcheson et al. 2008
Wrenn-Hutchinson Cemetery	Euro-American	1831-1961	60	60	Virginia	2008	LeeDecker et al. 2009
Lackey Cemetery	African-American	1855-1895	32	32	Virginia	2008	Tippet et al. 2009
Barnes Cemetery	<sup>a</sup>	1850-1907	13	13	Georgia	2008	Wood 2008
Stevens Family Cemetery	Euro-American	1854-1879	12	4	Oregon	2008	Connolly et al. 2008, 2010
Handsmill Cemetery	Euro-American	1860-1908	11	11	South Carolina	2008	Lansdell and Gillard 2009

Table B.1. Continued.

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals		Location	Year Excavated	Reference
				Exhumed	Exhumed			
Ward Hall Cemetery	African-American	1830-1900	9	9	Kentucky	2008	Bybee 2009	
Horse Park Cemetery	Euro-American/ African-American	1800-1860	34	34	Kentucky	2008-2009	Pollack et al. 2011	
Pioneer Cemetery	African-American	1853-1910	12 (excavated)	12 (excavated)	Texas	2008-2009	Pye 2011a	
Gee-Cabbage Cemetery	<sup>a</sup>	1800-1874	9	9	Indiana	2009	Bybee 2010	
Bennett Cemetery	Euro-American/ African-American/ Native American	1871-1940	57	57	Kentucky	2009	Bybee 2011a	
Union Bethel AME Church Cemetery	African-American	1850-1950 <sup>a</sup>	343	343	Georgia	2009	Gardner 2009	
Hampstead Cemetery	Euro-American	1840-1860	437	437	South Carolina	2009	Bailey et al. 2009	
St. Johannes Cemetery	Euro-American	1902-1920	4 (excavated)	4 (excavated)	Illinois	2009	Trinkley et al. 2009	
Read Family Cemetery	Euro-American/ African-American	1830-1870	27	27	Tennessee	2009	McKee and Sterbinsky 2012	
Avondale Burial Place	African-American	1820-1960	101	101	Georgia	2009-2010	Matternes et al. 2012	
Court Street Cemetery (burial 15)	Euro-American	1875-1909	1 (excavated)	1 (excavated)	Arizona	2010	Hopkins et al. 2011	
St. Johannes Cemetery	Euro-American	1902-1920	1 (excavated)	1 (excavated)	Illinois	2010	Trinkley et al. 2010	
Bowling Cemetery	Euro-American/ African-American/ Native American	1813-1901	199	199	Illinois	2010	Bybee and Hope 2011	
Douthitt Cemetery	<sup>a</sup>	1830-1900	11	11	Indiana	2010	Bybee 2011b	
Rambo Cemetery	Euro-American	1853-1910	5	5	Georgia	2010	Pye 2010b; Reynolds and Kane 2010	
Diuguid/Slack Cemetery	Euro-American	1840-1891	7	7	Kentucky	2010	Pokrant et al. 2011	
Callender Court site (40SU251)	African-American	1817-1880	21 (excavated)	21 (excavated)	Tennessee	2010	Weaver et al. 2010	
Callender Court site (40SU251)	African-American	1817-1880	2 (excavated)	2 (excavated)	Tennessee	2011	Weaver et al. 2011	
Mount Olive Cemetery	African-American	1870-1900	1 (excavated)	1 (excavated)	Virginia	2010	Hacker and Trinkley 2010	
Court Street Cemetery (burials 16-35)	Euro-American/ Hispanic	1875-1909	20 (excavated)	20 (excavated)	Arizona	2011	Thiel 2012	

Table B.1. Continued.

Project	Affiliation	Temporal Range	No. of Graves Encountered	No. of Individuals		Location	Year Excavated	Reference
				Exhumed	Reference			
Son Cemetery	Euro-American	1860-1976	11	11	South Carolina	2011	Trinkley et al. 2011	
New Home Cemetery	African-American	1895-1960s	24	24	Texas	2011	Pye 2011b	

<sup>a</sup>Indicates data are unknown or questionable for various reasons.



## ARTIFACT COMPARISONS

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Table C.1. Artifact comparisons.

Artifact Type	Patent Comparisons				Catalogue Comparisons						Cemetery Comparisons					
	Patent No.	Patent Issue Date	Patent File Date	Inventor(s)	Matches	Catalog	Page (Item No.)	Dating	Price/Unit	Source	Matches	Cemetery	No. of Burials	Dating	Reference	
Dowels		No systematic comparison conducted					No systematic comparison conducted						No systematic comparison conducted			
Corner Braces		No systematic comparison conducted					No systematic comparison conducted						No systematic comparison conducted			
Top Fastener Type 1	401663	04/16/1889	11/04/1886	William A. Sparks	1	Langenau Manufacturing Company	77 (No. 45)	1920s-1930s		Pye Collection	1	Elmbank Cemetery, Ontario, Canada	5	1877-1935	Lipovitch et al. 2003	
											2	Texas State Cemetery, TX (Latch Type 2)	17	1907-1932	Dockall, Boyd, Freeman et al. 1996b:145	
											3	Nancy Creek Cemetery, GA	1	1903-1920	Garrow et al. 1985:72	
											4	Elko Switch Cemetery, AL	1	1905±10	Shogren et al. 1989:181	
Handle Type 1		No exact patent matches were located			1 (similar lug)	Warfield and Rohr		1880		University of Delaware, Newark	1	Redfield Cemetery, GA	1	1875-1930	Braley and Moffat 1995:63	
					2 (similar lug)	Cincinnati Coffin Company (Price List)	6 (No. 196, 496)	1905	\$5.10, \$3.70/dozen	Davidson Collection	2 (similar)	Seven Rivers Cemetery, NM	1	1873-1899	Ferguson 1993:IV139	
					3 (similar lug)	Cincinnati Coffin Company	11 (No. 196, 496)	1906		Davidson Collection						
Handle Type 2		No exact patent matches were located					No catalog matches have been located						No definitive matches to archaeological collections can be made			
Handle Type 3		No exact patent matches were located			1 (similar)	Warfield and Rohr	9 (No. 34)	Circa 1890		Davidson Collection					No definitive matches to archaeological collections can be made	
					2 (similar)	Mound Coffin Company (Price List)	8 (No. 310)	1900	\$2.00/dozen pairs	Private collection						
					3 (similar)	Gate City Coffin Company	45 (No. 627)	1901		Personal collection, Karissa Basse, PBS&J, Houston, TX						
					4 (similar)	Cincinnati Coffin Company (Price List)	6 (No. 34)	1905	\$2.50/dozen	Davidson Collection						
					5 (similar)	Cincinnati Coffin Company	17 (No. 34)	1906		Davidson Collection						
					6 (similar)	Mound Coffin Company	347 (No. 310)	1908		Kibbe Hancock Heritage Museum, Carthage IL						
Handle Type 4		No exact patent matches were located			7 (similar)	Cincinnati Coffin Company	11 (No. 34)	1912		Davidson Collection						
					1	Chattanooga Coffin Company (Price List)	8 (No. 5017)	1905	\$2.65/dozen	Library of Congress, Washington, DC					No definitive matches to archaeological collections can be made	
					2	Chattanooga Coffin Company	97 (No. 5017)	1905		Library of Congress, Washington, DC						
Handle Type 5		No exact patent matches were located			1	Gate City Coffin Company	41 (No. 47760)	1901		Personal Collection, Karissa Basse, PBS&J, Houston, TX					No definitive matches to archaeological collections can be made	
Handle Type 6		No exact patent matches were located					No catalog matches have been located						No definitive matches to archaeological collections can be made			
Handle Type 7		No exact patent matches were located			1 (similar)	Harrisburg Burial Case Company	25 (No. 53B)	Circa 1885		Hagley Museum, Wilmington, DE					No definitive matches to archaeological collections can be made	
					2 (similar)	Paxson, Comfort, & Company	(No. 53B)	1886		Private Collection						
					3	Kregel Casket Company	(No. 330)	1895		Strong National Museum of Play, Rochester, NY						
					4	Gate City Coffin Company	77 (No. 497)	Circa 1904		Davidson Collection						
					5	Chattanooga Coffin Company	98 (No. 53)	1905		Library of Congress, Washington, DC						
					6	Chattanooga Coffin Company (Price List)	5 (No. 53)	1905	\$11.80/dozen	Library of Congress, Washington, DC						
Ornament Type 1		No exact patent matches were located			1	Crane, Breed & Company	178 (No. 111)	1877		Library of Congress, Washington, DC					No definitive matches to archaeological collections can be made	
					2	Stolts, Russell & Company	34 (No. 38)	1880		Strong National Museum of Play, Rochester, NY						
					3	F. H. Hill & Company (Price List)	1 (No. 177)	Circa 1880	\$1.65/dozen	Pye Collection						
					4	F. H. Hill & Company	52 (No. 177)	1881		Pye Collection						
					5 (similar)	Chicago Coffin Company	46 (No. 29)	1884		Smithsonian Institution (Museum of American History), Washington, DC						
					6	W. D. Wilmarth & Company	21 (No. 111)	1894		Library of Congress, Washington, DC						
					7 (similar)	Gate City Coffin Company	189 (No. 111 BC)	1904		Davidson Collection						

Table C.1. Continued.

Artifact Type	Patent Comparisons				Catalogue Comparisons					Cemetery Comparisons					
	Patent No.	Patent Issue Date	Patent File Date	Inventor(s)	Matches	Catalog	Page (Item No.)	Dating	Price/Unit	Source	Matches	Cemetery	No. of Burials	Dating	Reference
Ornament Type 1 (cont'd)					8 (similar)	Chattanooga Coffin Company	164 (No. 111)	1905		Library of Congress, Washington, DC					
					9 (similar)	Chattanooga Coffin Company (Price List)	15 (No. 111)	1905	\$2.05/gross	Library of Congress, Washington, DC					
					10 (similar)	Cincinnati Coffin Company (Price List)	29 (No. 206 BC)	1905	\$2.45/gross	Davidson Collection					
					11 (similar)	Cincinnati Coffin Company	276 (No. 206 BC)	1906		Davidson Collection					
					12 (similar)	Mound Coffin Company	454 (No. 151)	1908		Kibbe Hancock Heritage Museum, Carthage IL					
Ornament Type 2	D10,396	01/08/1878	12/11/1877	W. M. Smith	1	Meridan Britannia Company	45 (No. 5)	Circa 1880	\$3.00/dozen	Winterthur Museum, Winterthur, DE	1	Elmbank Cemetery, Ontario, Canada	4	1877-1935	Lipovitch et al. 2003
					2	Warfield and Rohr	112 (No. 5)	Circa 1880		University of Delaware, Newark					
					3	Warfield and Rohr (Price List)	4 (No. 5)	1886	\$3.50/dozen	University of Delaware, Newark					
					4	Chicago Coffin Company	109 (No. 145)	1896		Library of Congress, Washington, DC					
Caplifter Type 1	No exact patent matches were located				1	Mound Coffin Company (Price List)	12 (No. 17)	1900	\$0.85/dozen	Private collection	1	Freedman's Cemetery, TX (Caplifter Type 38)	2	1900-1907	Davidson 1999
					2	Mound Coffin Company	447 (No. 17)	1908		Kibbe Hancock Heritage Museum, Carthage, IL	2	Hunter Army Airfield, GA (Caplifter Type 3)	1	1870-1916	Matternes et al. 2010:v1:Appendix C:7
											3	A.L. Calhoun General Store Collection, SC (Caplifter L)	<sup>b</sup>	1894-1926	Hacker-Norton and Trinkley 1984:31
Caplifter Type 2	No systematic comparison conducted				No systematic comparison conducted					No systematic comparison conducted					
Coffin tack Type 1	No systematic comparison conducted				No systematic comparison conducted					No systematic comparison conducted					
					1 <sup>a</sup>	Russell and Erwin Mfg. Co.	331 (No. 12)	1865		Library of Congress, Washington, DC					
Coffin tack Type 2	No exact patent matches were located				1 <sup>a</sup>	Markham & Strong	6 (No. 24)	1865		Davidson Collection	1	Becky Wright Cemetery, AR (Orn. Tack Type 1.1)	2	1873-1900	Mainfort and Davidson 2006
					2 <sup>a</sup>	Sargent & Co.	281 (No. 30)	1871		Library of Congress, Washington, DC	2	Freedman's Cemetery, TX (Orn. Tack Type 55)	2	1869-1884	Davidson 1999
					3 <sup>a</sup>	Sargent & Co.	417 (No. 30)	1874		Library of Congress, Washington, DC	3	Freedman's Cemetery, TX (Orn. Tack Type 58)	2	1869-1884	Davidson 1999
					4 <sup>a</sup>	Warfield & Rohr	69 (No. 30)	Circa 1880		University of Delaware, Newark	4	Quaker Burying Ground, VA (Type C-1)	2	1784-1890s	Bromberg et al. 2000:468
					5 <sup>a</sup>	Warfield & Rohr	61 (No. 2)	Circa 1890		University of Delaware, Newark	5	Alameda Stone Cemetery, AZ (Orn. Tack Type 1.1)	2	1860-1882	Pye 2010a
Coffin screw Type 1	No exact patent matches were located				No definitive catalog matches located					No definitive matches to archaeological collections can be made					
Thumbscrew Type 1	No exact patent matches were located				No catalogue matches have been located					No definitive matches to archaeological collections can be made					
Thumbscrew Type 2	No exact patent matches were located				No catalogue matches have been located					No definitive matches to archaeological collections can be made					
Thumbscrew Type 3	No exact patent matches were located				1 (similar)	Cincinnati Coffin Company (Price List)	22 (No. 6)	1905	\$3.60/gross	Davidson Collection	1	Court Street Cemetery, AZ (Burial 15)	1	1875-1909	Hopkins et al. 2011:22
					2 (similar)	Cincinnati Coffin Company	257 (No. 6)	1906		Davidson Collection	2 (similar)	Elmbank Cemetery, Ontario, Canada	5	1877-1935	Lipovitch et al. 2003
					3 (similar)	Cincinnati Coffin Company	258 (No. 6)	1912		Davidson Collection	3	Third New City Cemetery, TX (Thumbscrew Type 42)	1	1875-1905	Foster and Nance 2002:F127
Thumbscrew Type 4	D15,044	06/03/1884	03/17/1884	W. M. Smith	1	Kregel Casket Company	312 (No. 31)	Circa 1895		Strong National Museum of Play, Rochester, NY	1	Freedman's Cemetery, TX (Thumbscrew Type 40)	9	1900-1907	Davidson 1999
					4	Chattanooga Coffin Company	158 (No. 500)	1905		Library of Congress, Washington, DC	2	Redfield Cemetery, GA	2	1875-1930	Braley and Moffat 1995:69
					5	Chattanooga Coffin Company (Price List)	14 (No. 500)	1905	\$3.10/gross	Library of Congress, Washington, DC	3	Bennett Cemetery, KY (Thumbscrew Type 17)	2	1871-1940	Bybee 2011a:192
											4	Hunter Army Airfield, GA (Thumbscrew Type 15)	1	1870-1916	Matternes et al. 2010:v1:Appendix C:39
											5	Elmbank Cemetery, Ontario, Canada	5	1877-1935	Lipovitch et al. 2003
											6 (similar)	Vandaworker's Corners Burial Ground, IL	1	1850-1880	Bird 2000:Appendix B:8
											7	Avondale Burial Place, GA (Thumbscrew Type 48)	1	1820-1960	Matternes et al. 2012:328
											8	Potter's Field/Greendwood Cemetery, TX	3	1884-1911	Tiné et al. 2002:65

Table C.1. Continued.

Artifact Type	Patent Comparisons				Catalogue Comparisons						Cemetery Comparisons				
	Patent No.	Patent Issue Date	Patent File Date	Inventor(s)	Matches	Catalog	Page (Item No.)	Dating	Price/Unit	Source	Matches	Cemetery	No. of Burials	Dating	Reference
Thumbscrew Type 4 (cont'd.)											9	Third New City Cemetery, TX (Thumbscrew Type 44)	1	Circa 1905	Foster and Nance 2002:F129
											10	Former Wesleyan Methodist Church Cemetery, Ontario, Canada	1	1821-1900	Kogon and Mayer 1995:146
											11	A.L. Calhoun General Store Collection, SC (Thumbscrew Type R)	<sup>b</sup>	1894-1926	Hacker-Norton and Trinkley 1984:31
											12	Quantico Corporate Center Tract Burials (Site 44ST0623), VA	1	1850-1900	Ezell and Huston 2006a:63
Thumbscrew Type 5	No systematic comparison conducted				No systematic comparison conducted						No systematic comparison conducted				
Thumbscrew Type 6	No systematic comparison conducted				No systematic comparison conducted						No systematic comparison conducted				
					1	Cincinnati Coffin Company (Price List)	22 (No. 68)	1905	\$1.35/gross	Davidson Collection					
					2	Cincinnati Coffin Company	258 (No. 68)	1906		Davidson Collection					
					3	Cincinnati Coffin Company	258 (No. 68)	1912		Davidson Collection					
Escutcheon Type 1	No exact patent matches were located				No catalogue matches have been located						No definitive matches to archaeological collections can be made				
Escutcheon Type 2	No exact patent matches were located				No definitive catalog matches located						No systematic comparison conducted				
					1 (similar)	Cincinnati Coffin Company (Price List)	22 (No. 6)	1905	\$2.85/gross	Davidson Collection	1	Elmbank Cemetery, Ontario, Canada	6	1877-1935	Lipovitch et al. 2003
					2 (similar)	Cincinnati Coffin Company	257 (No. 6)	1906		Davidson Collection					
					3 (similar)	Cincinnati Coffin Company	258 (No. 6)	1912		Davidson Collection					
Escutcheon Type 3	No exact patent matches were located				No catalogue matches have been located						No definitive matches to archaeological collections can be made				
Escutcheon Type 4	No systematic comparison conducted				No definitive catalog matches located						No systematic comparison conducted				
Ornamental Tack Type 1	No exact patent matches were located				No definitive catalog matches located						No definitive matches to archaeological collections can be made				
					1	C. Sidney Norris & Company	7 (No. 118)	Circa 1880		University of Delaware, Newark					
					2	C. Sidney Norris & Company (Price List)	(No. 118)	Circa 1880	\$1.35/gross	University of Delaware, Newark					
					3	F. H. Hill & Company (Price List)	1 (No. 224)	1880	\$1.35/gross	Pye Collection					
					4	F. H. Hill & Company	63 (No. 224)	1881		Pye Collection					
					5	Columbus Coffin Company	80 (No. 35)	1882		Winterthur Museum, Winterthur, DE					
					6	W. D. Wilmarth & Company	23 (No. 118)	1894		Library of Congress, Washington, DC					
					7	Gate City Coffin Company	196 (No. 118)	1904		Davidson Collection					
					8	Chattanooga Coffin Company	163 (No. 118)	1905		Library of Congress, Washington, DC					
					9	Chattanooga Coffin Company (Price List)	15 (No. 118)	1905	\$1.50/gross	Library of Congress, Washington, DC					
Ornamental Tack Type 2	No exact patent matches were located				No definitive catalog matches located						No definitive matches to archaeological collections can be made				
					1	Cincinnati Coffin Company	37 (No. 55)	1877		Newberry Library, Chicago, IL [Helen Sclair Collection]	1	Historic Los Angeles Cemetery, CA	1	1880-1922	Gust et al. 2006:96
					2 (similar)	Crane, Breed & Company	177 (No. 134)	1877		Library of Congress, Washington, DC	2	Dove Cemetery, CA	1	1860-1900	Sewell and Stanton 2008:142
					3	F. H. Hill & Company (Price List)	1 (No. 220)	1880	\$0.65/gross	Pye Collection	3	Seven Rivers Cemetery, NM	2	1873-1899	Ferguson et al. 1993:IV138-IV139
					4	F. H. Hill & Company	63 (No. 220)	1881		Pye Collection	4	Mount Pleasant Cemetery, SC (Stud Type II)	5	1850-1910	Trinkley and Hacker-Norton 1984:8
					5	Warfield and Rohr	60 (No. 46)	Circa 1890		Davidson Collection					
					6	W. D. Wilmarth & Company	18 (No. 100)	1894		Library of Congress, Washington, DC					
					7	Kregel Casket Company	315 (No. 111)	1895		Strong National Museum of Play, Rochester, NY					
					8	Chattanooga Coffin Company	162 (No. 100)	1905	\$0.75/gross	Library of Congress, Washington, DC					
					9	Chattanooga Coffin Company (Price List)	15 (No. 100)	1905	\$0.75/gross	Library of Congress, Washington, DC					
					10	Schmid Manufacturing Company	3 (No. 22)	Circa 1905	\$1.70/gross	Davidson Collection					
					11	Bliss-Holbrook Company, Inc.	3 (No. 22)	Circa 1905		Davidson Collection					
					12	Dominion Manufacturers, Limited	46 (No. 50)	> 1906		Private collection					

Table C.1. Continued.

Artifact Type	Patent Comparisons				Catalogue Comparisons						Cemetery Comparisons				
	Patent No.	Patent Issue Date	Patent File Date	Inventor(s)	Matches	Catalog	Page (Item No.)	Dating	Price/Unit	Source	Matches	Cemetery	No. of Burials	Dating	Reference
Ornamental Tack Type 3	No exact patent matches were located				1 (similar)	H. E. Taylor	127 (No. 39)	1875		Library of Congress, Washington, DC	1 (similar)	Son Cemetery, SC (Bell Stud)	1	1908	Trinkley et al. 2011:77
	2 (similar)	Crane, Breed & Company	170 (No. 28)	1877		Library of Congress, Washington, DC	2 (similar)	Texas State Cemetery, TX	5	1907-1908	Dockall, Boyd, Freeman et al. 1996:148				
	3 (similar)	Stolts, Russell & Company	34 (No. 2)	1880		Strong National Museum of Play, Rochester, NY	3 (similar)	Providence Baptist Church Cemetery, TN (Bell-shaped Stud)	1	1899-1933	Oster et al. 2005:214				
	4 (similar)	F. H. Hill	63 (No. 217)	1880		Pye Collection	4 (similar)	Ridley Graveyard, TN (Bell-shaped Caps)	2	1895-1915	Buchner et al. 1999:176				
	5 (similar)	F. H. Hill (Price List)	1 (No. 217)	1881	\$1.30/gross	Pye Collection									
	6 (similar)	Warfield and Rohr	60 (No. 13)	Circa 1890		Davidson Collection									
	7 (similar)	W. D. Wilmarth & Company	8 (No. 45)	1894		Library of Congress, Washington, DC									
	8	Kregel Casket Company	315 (No. 105)	1895		Strong National Museum of Play, Rochester, NY									
	9	John Murphy & Company	66 (No. 12)	Circa 1900		Davidson Collection									
	10	John Murphy & Company (Price List)	8 (No. 12)	Circa 1900	\$1.25/gross	Davidson Collection									
	11	Gate City Coffin Company	103 (No. 84)	1901		Basse Collection									
	12	Gate City Coffin Company	185 (No. 84)	1904		Davidson Collection									
	13	Cincinnati Coffin Company (Price List)	28 (No. 12)	1905	\$1.80/gross	Davidson Collection									
	14	Chattanooga Coffin Company	162 (No. 84)	1905		Library of Congress, Washington, DC									
	15	Chattanooga Coffin Company (Price List)	14 (No. 84)	1905	\$1.50/gross	Library of Congress, Washington, DC									
	16	Cincinnati Coffin Company	274 (No. 12)	1906		Davidson Collection									
	17	Cincinnati Coffin Company	261 (No. 12)	1912		Davidson Collection									
Ornamental Tack Type 4	No exact patent matches were located				1	Cincinnati Coffin Company	38 (No. 53)	1877		Newberry Library, Chicago, IL [Helen Sclair Collection]	1	Hunter Army Airfield, GA (Screw Cap Type 1)	1	1870-1916	Matternes et al. 2010:v1:Appendix C:77
	2	Cleveland Burial Case Company	61 (No. 53)	Circa 1879		Davidson Collection	2	A.L. Calhoun General Store Collection, SC (Decorative Stud Type F)	b	1894-1926	Hacker-Norton and Trinkley 1984:28				
	3	C. Sidney Norris & Company	6 (No. 47)	Circa 1880		University of Delaware, Newark									
	4	C. Sidney Norris & Company (Price List)	(No. 47)	Circa 1880	\$0.60/gross	University of Delaware, Newark									
	5	Stolts, Russell & Company	34 (No. 27)	1880		Strong National Museum of Play, Rochester, NY									
	6	Zanesville Coffin Company	24 (No. 28)	1880		Smithsonian Institution (Museum of American History), Washington, DC									
	7	Warfield and Rohr	(No. 53)	1880		University of Delaware, Newark									
	8	Columbus Coffin Company	31 (No. 28)	1882		Winterthur Museum, Winterthur, DE									
	9	Harrisburg Burial Case Company	50 (No. 79)	Circa 1885		Hagley Museum, Wilmington, DE									
	10	Warfield and Rohr (Price List)	6 (No. 53)	1886	\$0.55/gross	University of Delaware, Newark									
	11	Warfield and Rohr	60 (No. 53)	Circa 1890		Davidson Collection									
	12	Warfield and Rohr (Price List)	13 (No. 53)	1893	\$0.63/gross	University of Delaware, Newark									
13	W. D. Wilmarth & Company	8 (No. 47)	1894		Library of Congress, Washington, DC										
14	Mound Coffin Company (Price List)	13 (No. 125)	1900	\$0.83/gross	Private collection										
15	Gate City Coffin Company	103 (No. 47)	1901		Basse Collection										
16	St. Louis Coffin Company	269 (No. 14)	1901		Library of Congress, Washington, DC										
17	Gate City Coffin Company	185 (No. 47)	1904		Davidson Collection										
18	Schmid Manufacturing Company	3 (No. 3)	Circa 1905		Davidson Collection										
19	Bliss-Holbrook Company, Inc.	3 (No. 3)	Circa 1905		Davidson Collection										

Table C.1. Continued.

Artifact Type	Patent Comparisons				Catalogue Comparisons					Cemetery Comparisons					
	Patent No.	Patent Issue Date	Patent File Date	Inventor(s)	Matches	Catalog	Page (Item No.)	Dating	Price/Unit	Source	Matches	Cemetery	No. of Burials	Dating	Reference
Ornamental Tack Type 4 (cont'd)					20	Chattanooga Coffin Company	162 (No. 47)	1905		Library of Congress, Washington, DC					
					21	Chattanooga Coffin Company (Price List)	14 (No. 47)	1905	\$0.75/gross	Library of Congress, Washington, DC					
					22	Dominion Manufacturers, Limited	46 (No. 47)	> 1906		Private collection					
					23	Mound Coffin Company	452 (No. 125)	1908		Kibbe Hancock Heritage Museum, Carthage IL					
					24	Cincinnati Coffin Company	261 (No. 14)	1912		Davidson Collection					

<sup>a</sup>Due to the fact that subtle similarities exist among this artifact class, it is difficult to precisely match types from archaeological contexts with poor preservation. Matches presented are those which are most positively correlated.

<sup>b</sup>Projects with moderate to extremely questionable dates.



**HUMAN REMAINS  
DOCUMENTATION**

*James Watson and Emily Graff, University of Arizona*





**ARIZONA STATE MUSEUM  
HUMAN REMAINS DOCUMENTATION PACKET**

**PROVENIENCE**

Site Name: Court Street Cemetery Site No.: AZ BB:13:156(ASM)  
 Designation/ID: Feature 39, FN 2213

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Observer(s): E. Graff & J. Watson Date: 04/15/13

**BIOLOGICAL PROFILE**

MNI: 1  
 Age: 30-40  
 Sex: Female  
 Ancestry: -

**PRESERVATION**

Complete skeleton (>75%)  
 Partial skeleton (25-75% present)  
 Fragmentary skeleton (<25% present, includes at least one complete element)  
 Fragments of bone (small amount of fragmented bone; <<25% is present)  
 Skull (only cranial remains present and partially preserved)  
 Teeth (only loose teeth are present)  
 Cremated bone (burned remains of any quantity; excludes cases of incidental charring of otherwise unburned skeleton)  
 Soft tissues present

Describe:  
 brain and hair tissue preserved

**FORM LIST** (indicate forms used)

1 Skeletal Inventory  
 2a Age and Sex Assessment - Adult  
 2b Age Assessment - Juvenile  
 3a Permanent Dental Inventory/Pathology  
 3b Deciduous Dental Inventory/Pathology  
 4a Dental Morphology - Permanent  
 4b Dental Morphology - Deciduous  
 5a Measurements - Adult  
 5b Measurements - Juvenile  
 6 Non-Metric Traits  
 7 Pathology Checklist  
 8 Degenerative Joint Disease  
 9 Spinal Osteophytosis  
 10 Artificial Cranial Modification  
 11 Cremated Remains  
 12 Isolated Remains  
 Skeletal Visual Recording Forms  
 Additional Forms, Notes, Sketches, Photo Log, etc.

**CONDITION**

Yes	No	Unobservable	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cracking
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Breaks
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brittle
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Exfoliation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Warping
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cut marks
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Gnaw marks
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Root or insect damage
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Staining
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Soil adhering

Describe (include severity & elements affected):  
 damaged



**SKELETAL INVENTORY  
RECORDING FORM (1)**

**Codes:**  
f = 1-25% present  
p = 25-75% present  
c = 75-100% present

**Provenience:** AZ BB:13:156(ASM)

**Designation/ID:** F. 39, FN 2213

<b>CRANIAL</b>	left	right
Frontal	c	c
Parietal	c	c
Occipital	c	c
Temporal	c	c
TMJ	c	c
Mandible	c	c
Zygomatic	c	c
Maxilla	c	c
Nasal	c	c
Lacrimal	c	c
I. N. C.	-	-
Palatine	c	c
Sphenoid	c	c
Ethmoid	p	
Vomer	p	
Hyoid	p	
Thyroid/Crycoid	-	
Ossicles	-	
Unidentified Cranial (#):		

teeth	#	cond
Incisors	7	c
Canines	2	c
Premolars	5	c
Molars	5	c
Unidentified Teeth (#):		

<b>AXIAL</b>	#	cond
1 <sup>st</sup> Cervical		c
2 <sup>nd</sup> Cervical		c
3-6 Cervical	>5	p
7 <sup>th</sup> Cervical		-
1-9 Thoracic	>4	p
10 <sup>th</sup> Thoracic		-
11 <sup>th</sup> Thoracic		-
12 <sup>th</sup> Thoracic		-
1-4 Lumbar		-
5 <sup>th</sup> Lumbar		-
Sacrum	>1	f
Coccyx	1	c

Sternum		
manubrium		c
body		c
xiphoid		-
Left Ribs	12	c
Right Ribs	8	p
Unidentified Axial (#):		

<b>APPEND.</b>	left	right
Scapula	p	p
glenoid	p	p
Clavicle	p	c
med. epi.	-	c
Ilium	p	p
auricular	f	p
Pubis	f	f
symphysis	f	f
Ischium	f	p
acetabulum	f	p
Patella	c	c
Unidentified Append. (#):		

<b>APPENDICULAR</b>	left				right													
	epi-p	/	prox	/	mid	/	dist	/	epi-d	epi-p	/	prox	/	mid	/	dist	/	epi-d
Humerus	c	/	c	/	c	/	-	/	c	c	/	c	/	c	/	c	/	c
Radius	c	/	c	/	c	/	c	/	c	c	/	c	/	c	/	c	/	c
Ulna	c	/	c	/	c	/	c	/	c	c	/	c	/	c	/	c	/	c
Femur	p	/	-	/	p	/	p	/	f	c	/	c	/	c	/	c	/	c
Tibia	c	/	c	/	c	/	c	/	c	c	/	c	/	c	/	c	/	c
Fibula	c	/	c	/	c	/	c	/	c	c	/	c	/	c	/	c	/	c
Unidentified Long Bones (#):																		

<b>EXTREMITIES</b>	#	cond	#	cond
Scaphoid	2	c	2	c
Lunate	2	c	2	c
Trapezium	1	c	2	c
Trapezoid	2	c	2	c
Capitate	2	c	2	c
Hamate	2	c	2	c
Triquetral	2	c	2	c
Pisiform	1	c	2	c
Metacarpals	9	c	10	c
Prox. Phalanges	8	c	10	c
Mid. Phalanges	10	c	8	c
Dist. Phalanges	8	c	8	c
Sesamoids		-	4	c
Unidentified Extremities (#):				

**Notes:**

†This form includes information derived from Buikstra and Ubelaker (1994), *Standards for Data Collection from Human Skeletal Remains*, Arkansas Archeological Survey, and is used with permission of the publisher.

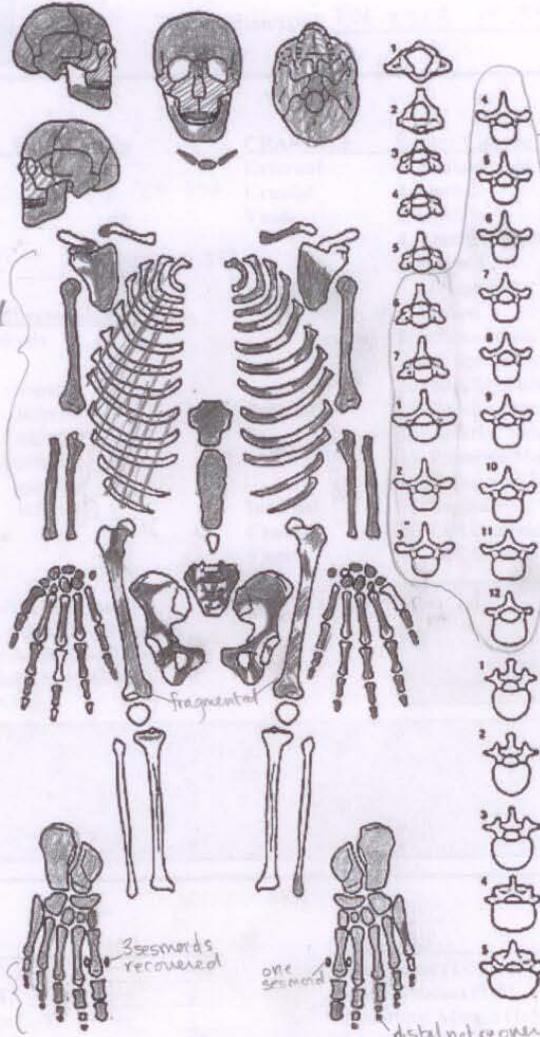
BB:13:156  
FN2213, F39



SKELETAL INVENTORY  
RECORDING FORM (1)

Fill in skeletal elements present and record notes along side. Label "U" if unisided, and "A" to denote approximated location.

Right Left



**Additional observations:**  
 R clavicle has tipping on the anterior of the sternal articulation  
 cervical vertebra are fragmented - at least one recovered, C-1-C-5 identified  
 thoracic vertebral body fragments exhibit small nodules as well as osteophytes but inconsistently  
 an to a minimal degree  
 BR necks/heads of ribs recovered w/ several rib body fragments + 2 sternal ends  
 Ulna mid shaft fragment, unknown if R or L  
 Sacrum destroyed, not able to be measured or fully identified

†This form includes information derived from Buikstra and Ubelaker (1994), *Standards for Data Collection from Human Skeletal Remains*, Arkansas Archeological Survey, and is used with permission of the publisher. 1-2



AGE & SEX ASSESSMENT  
ADULT - RECORDING FORM (2a)

Age: <u>30-40</u> Sex: <u>Female</u>	Provenience: <u>AZ BB:13:156(ASM)</u> Designation/ID: <u>F. 39, FN 2213</u>
---	--

AGE

**PELVIC:**

	left	right
<b>Pubic Symphysis</b>		
Todd (1-10)	<input type="text" value="4"/>	<input type="text" value="5"/>
Suchey-Brooks (1-6)	<input type="text"/>	<input type="text" value="4"/>
<b>Auricular Surface</b>		
Lovejoy et al. (1-8)	<input type="text"/>	<input type="text" value="6-7"/>

**CRANIAL: Suture Closure\***

External Cranial Vault	Suture Closure*
1. Midlambdoid	<input type="text" value="2"/>
2. Lambda	<input type="text" value="2"/>
3. Obelion	<input type="text"/>
4. Anterior Sagittal	<input type="text" value="2"/>
5. Bregma	<input type="text" value="2"/>
6. Midcoronal	<input type="text" value="2"/>
7. Pterion	<input type="text"/>
8. Sphenofrontal	<input type="text"/>
9. Inf. Sphenotemporal	<input type="text"/>
10. Sup. Sphenotemporal	<input type="text"/>
11. Incisive Suture	<input type="text"/>
12. Anterior Median	<input type="text"/>
13. Posterior Median	<input type="text"/>
14. Transverse Palatine	<input type="text"/>
15. Sagittal	<input type="text"/>
16. Left Lambdoid	<input type="text"/>
17. Left Coronal	<input type="text" value="2"/>

**POSTCRANIAL: Epiphyseal Union\***

<b>Clavicle</b>	Sternal epiphysis	<input type="text" value="3"/>
<b>Vertebral Annular Epiphyses</b>	Cervical superior	<input type="text" value="3"/>
	inferior	<input type="text" value="3"/>
	Thoracic superior	<input type="text" value="3"/>
	inferior	<input type="text" value="3"/>
	Lumbar superior	<input type="text"/>
	inferior	<input type="text"/>
<b>Sacrum</b>	S1/S2 fusion	<input type="text"/>
<b>Innominate</b>	Iliac crest	<input type="text" value="3"/>

Palatine

Internal Cranial Vault

**Estimated Age:** Subadult (12-20 years)   
 Young Adult (20-35 years)   
 Middle Adult (35-50 years)   
 Old Adult (50+ years)

**\*Suture and Epiphysis Codes:**  
 0 = open  
 1 = minimal  
 2 = significant  
 3 = complete

Observations:

SEX

**PELVIC:**

	left	right
Ventral Arc (1-3)	<input type="text"/>	<input type="text"/>
Subpubic Concavity (1-3)	<input type="text"/>	<input type="text" value="1"/>
Ischiopubic Ramus Ridge (1-3)	<input type="text"/>	<input type="text" value="1"/>
Greater Sciatic Notch (1-5)	<input type="text"/>	<input type="text" value="3"/>
Preauricular Sulcus (0-4)	<input type="text"/>	<input type="text" value="1.5"/>

**CRANIAL:**

Nuchal Crest (1-5)	<input type="text"/>
Mastoid Process (1-5)	<input type="text" value="3"/>
Supraorbital Margin (1-5)	<input type="text" value="1"/>
Glabella (1-5)	<input type="text" value="2"/>
Mental Eminence (1-5)	<input type="text" value="4"/>

**Estimated Sex, Pelvis (1-5):**  =

**Estimated Sex, Skull (1-5):**  =

Observations:

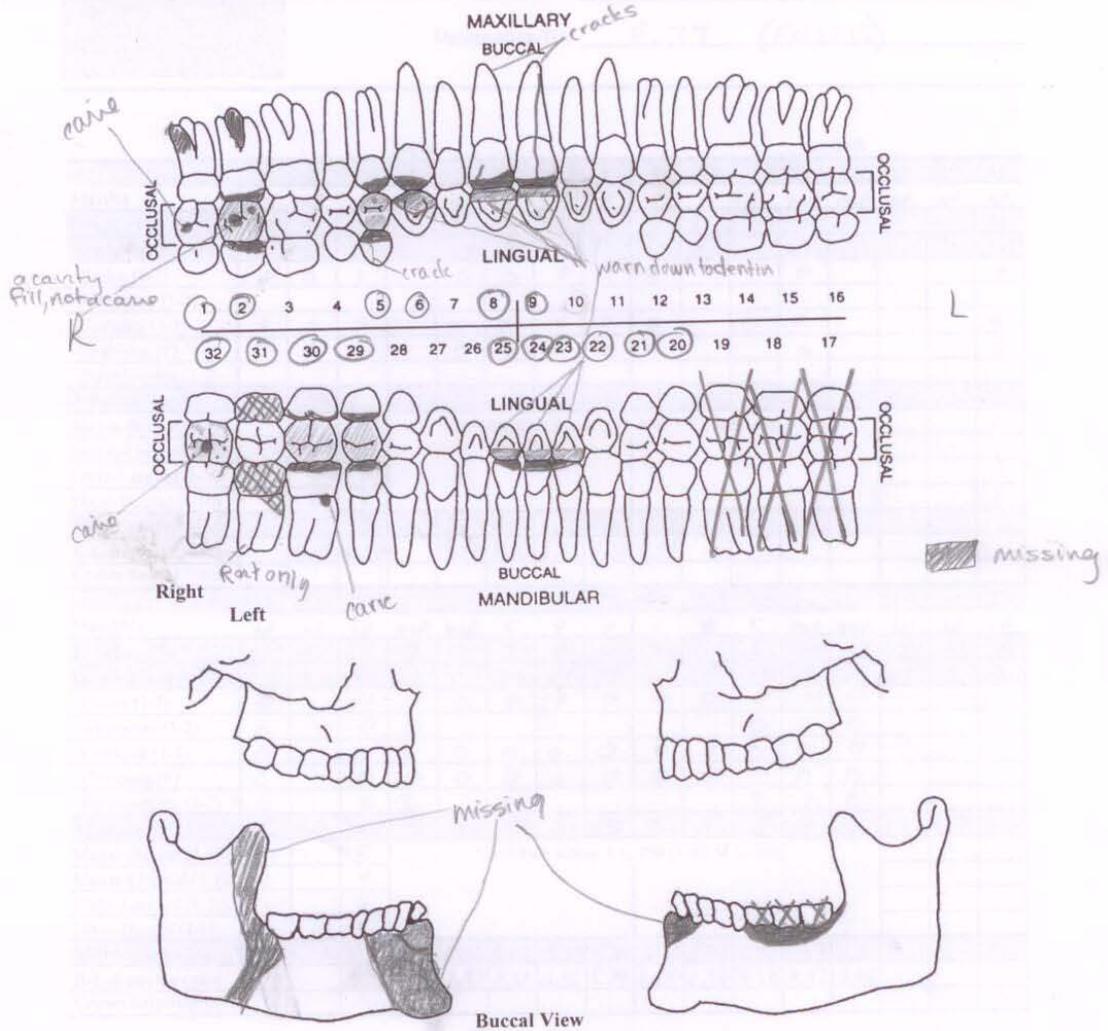
†This form includes information derived from Buikstra and Ubelaker (1994), *Standards for Data Collection from Human Skeletal Remains*, Arkansas Archeological Survey, and is used with permission of the publisher.



Arizona State Museum  
THE UNIVERSITY OF ARIZONA.

DENTAL INVENTORY & PATHOLOGY  
PERMANENT - RECORDING FORM (3a)

Note pathology locations and severity, wear, and any additional observations.



Additional observations:



**SKELETAL MEASUREMENT  
ADULT - RECORDING FORM (5a)**

*Record all measurements  
in millimeters.*

Provenience: AZ BB:13:156(ASM)

Designation/ID: F. 39, FN 2213

**CRANIAL**

1. GOL Maximum Cranial Length	2	18. DKB Interorbital Breadth	
2. XCB Maximum Cranial Breadth	2	19. FRC Frontal Chord	
3. ZYB Bizygomatic Breadth		20. PAC Parietal Chord	
4. BBH Basion-Bregma Height		21. OCC Occipital Chord	
5. BNL Basion-Nasion Length		22. FOL Foramen Magnum Length	
6. BPL Basion-Prosthion Length		23. FOB Foramen Magnum Breadth	
7. MAB Maxillo-Alveolar Breadth		24. MDH Mastoid Length	
8. MAL Maxillo-Alveolar Length		25. GNI Chin height	
9. AUB Biauricular Breadth		26. HML Mandibular Body Height	
10. NPH Upper Facial Height		27. TML Mandibular Body Breadth	
11. WFB Minimum Frontal Breadth		28. GOG Bigonial Width	
12. FMB Upper Facial Breadth		29. CDL Bicondylar Breadth	
13. NLH Nasal height		30. WRL Minimum Ramus Breadth	
14. NLB Nasal Breadth		31. MRL Maximum Ramus Breadth	
15. OBB Orbital Breadth		32. XRL Maximum Ramus Height	
16. OBH Orbital Height		33. MLT Mandibular Length	
17. EKB Biorbital Breadth		34. MLX Mandibular Angle	

**POSTCRANIAL**

	left	right		left	right
35. Clavicle: Max. Length		116	60. Femur: Max. Length		
36. A-P Diam. Midshaft		10	61. Bicondylar Length		
37. Sup.-Inf. Diam. Midshaft		9	62. Epicondylar Breadth		
38. Scapula: Height			63. Max. Diam. Head		42.1
39. Breadth			64. A-P Subtroch. Diam.		39
40. Humerus: Max. Length	307	315	65. M-L Subtroch. Diam.		27.9
41. Epicondylar Breadth	56.96	57.88	66. A-P Midshaft Diam.		31.9
42. Vertical Diam. Head	39.15	39.69	67. M-L Midshaft Diam.		23.9
43. Max. Diam. Midshaft	21.04	22.21	68. Midshaft Circumference		9
44. Min. Diam. Midshaft	15.5	17.39	69. Tibia: Max. Length	365	
45. Radius: Max. Length			70. Max. Prox. Epiph. Breadth	68.1	
46. Ant.-Post. Diam. Midshaft	10.9	10.3	71. Max. Distal Epiph. Breadth	43.9	46
47. Med.-Lat. Diam. Midshaft	12.6	14.3	72. Max. Diam. Nutrient For.	29.7	28.9
48. Ulna: Max. Length			73. M-L Diam. Nutrient For.	22.6	24.2
49. A-P Diameter	12.69	11.7	74. Circ. Nutrient Foramen	88	85
50. M-L Diameter	14.1	14.8	75. Fibula: Max. Length		
51. Physiological Length			76. Max. Diameter Midshaft	16.3	15.4
52. Min. Circumference			77. Calcaneus: Max. Length	76.7	75.4
53. Sacrum: Anterior Length			78. Middle Breadth	41.5	42
54. Anterior Superior Breadth					
55. Max. Trans. Diam. Base			79. Sternum: Length Mesostern.		
56. Pelvis: Height			80. Max. Breadth 1 <sup>st</sup>		
57. Iliac Breadth					
58. Pubis Length					
59. Ischium Length					



**ARIZONA STATE MUSEUM  
HUMAN REMAINS DOCUMENTATION PACKET**

**PROVENIENCE**  
 Site Name: Court Street Cemetery Site No.: AZ BB:13:156(ASM)  
 Designation/ID: Feature 42, FN 2262  
 Observer(s): E. Graff & J. Watson Date: 03/18/13

**BIOLOGICAL PROFILE**  
 MNI: 1  
 Age: 15-23  
 Sex: Female  
 Ancestry: -

**PRESERVATION**

**Complete skeleton (>75%)**  
 **Partial skeleton (25-75% present)**  
 **Fragmentary skeleton (<25% present, includes at least one complete element)**  
 **Fragments of bone** (small amount of fragmented bone; <<25% is present)  
 **Skull** (only cranial remains present and partially preserved)  
 **Teeth** (only loose teeth are present)  
 **Cremated bone** (burned remains of any quantity; excludes cases of incidental charring of otherwise unburned skeleton)  
 **Soft tissues present**

**Describe:**  
 majority of skeleton present, cranium fragmented

**FORM LIST** (indicate forms used)

1 Skeletal Inventory  
 2a Age and Sex Assessment - Adult  
 2b Age Assessment - Juvenile  
 3a Permanent Dental Inventory/Pathology  
 3b Deciduous Dental Inventory/Pathology  
 4a Dental Morphology - Permanent  
 4b Dental Morphology - Deciduous  
 5a Measurements - Adult  
 5b Measurements - Juvenile  
 6 Non-Metric Traits  
 7 Pathology Checklist  
 8 Degenerative Joint Disease  
 9 Spinal Osteophytosis  
 10 Artificial Cranial Modification  
 11 Cremated Remains  
 12 Isolated Remains  
 Skeletal Visual Recording Forms  
 Additional Forms, Notes, Sketches, Photo Log, etc.

**CONDITION**

Yes	No	Unobservable	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Cracking</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Breaks</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Brittle</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Exfoliation</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Warping</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Cut marks</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Gnaw marks</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Root or insect damage</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Staining</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Soil adhering</b>

**Describe (include severity & elements affected):**  
 both femur shafts show cracking and warping staining from coffin wood



**SKELETAL INVENTORY  
RECORDING FORM (1)**

<b>Codes:</b> f = 1-25% present p = 25-75% present c = 75-100% present	<b>Provenience:</b> <u>AZ BB:13:156(ASM)</u>
	<b>Designation/ID:</b> <u>F. 42, FN 2262</u>

<b>CRANIAL</b>	left	right	<b>teeth</b>	#	cond	Sternum		
Frontal	<u>p</u>	<u>p</u>	Incisors	<u>4</u>	<u>c</u>	manubrium		<u>f</u>
Parietal	<u>c</u>	<u>c</u>	Canines	<u>3</u>	<u>c</u>	body		<u>c</u>
Occipital	<u>c</u>	<u>c</u>	Premolars	<u>4</u>	<u>c</u>	xiphoid		<u>f</u>
Temporal	<u>c</u>	<u>-</u>	Molars	<u>6</u>	<u>c</u>	Left Ribs	<u>    </u>	<u>f</u>
TMJ	<u>c</u>	<u>-</u>	Unidentified Teeth (#):	<u>    </u>		Right Ribs	<u>    </u>	<u>f</u>
Mandible	<u>c</u>	<u>-</u>				Unidentified Axial (#):	<u>    </u>	
Zygomatic	<u>c</u>	<u>c</u>	<b>AXIAL</b>	#	cond	<b>APPEND.</b>	left	right
Maxilla	<u>p</u>	<u>p</u>	1 <sup>st</sup> Cervical		<u>f</u>	Scapula	<u>f</u>	<u>f</u>
Nasal	<u>-</u>	<u>-</u>	2 <sup>nd</sup> Cervical		<u>-</u>	glenoid	<u>c</u>	<u>-</u>
Lacrimal	<u>-</u>	<u>-</u>	3-6 Cervical	<u>    </u>	<u>f</u>	Clavicle	<u>c</u>	<u>p</u>
I. N. C.	<u>-</u>	<u>-</u>	7 <sup>th</sup> Cervical		<u>-</u>	med. epi.	<u>-</u>	<u>-</u>
Palatine	<u>-</u>	<u>-</u>	1-9 Thoracic	<u>&gt;4</u>	<u>f</u>	Ilium	<u>c</u>	<u>p</u>
Sphenoid	<u>f</u>	<u>f</u>	10 <sup>th</sup> Thoracic		<u>-</u>	auricular	<u>c</u>	<u>p</u>
Ethmoid		<u>f</u>	11 <sup>th</sup> Thoracic		<u>-</u>	Pubis	<u>c</u>	<u>c</u>
Vomer		<u>f</u>	12 <sup>th</sup> Thoracic		<u>-</u>	symphysis	<u>f</u>	<u>c</u>
Hyoid		<u>-</u>	1-4 Lumbar		<u>p</u>	Ischium	<u>p</u>	<u>p</u>
Thyroid/Crycoid		<u>-</u>	5 <sup>th</sup> Lumbar		<u>p</u>	acetabulum	<u>p</u>	<u>p</u>
Ossicles		<u>-</u>	Sacrum	<u>5</u>	<u>c</u>	Patella	<u>c</u>	<u>c</u>
Unidentified Cranial (#):	<u>    </u>		Coccyx	<u>    </u>	<u>-</u>	Unidentified Append. (#):	<u>    </u>	

<b>APPENDICULAR</b>	left					right								
	epi-p	/	prox/	mid	/	dist/	epi-d	epi-p	/	prox/	mid	/	dist/	epi-d
Humerus	<u>c</u>	/	<u>c</u>	/	<u>c</u>	/	<u>c</u>	<u>c</u>	/	<u>p</u>	/	<u>c</u>	/	<u>f</u>
Radius	<u>c</u>	/	<u>c</u>	/	<u>c</u>	/	<u>c</u>	<u>c</u>	/	<u>c</u>	/	<u>f</u>	/	<u>-</u>
Ulna	<u>c</u>	/	<u>c</u>	/	<u>p</u>	/	<u>f</u>	<u>p</u>	/	<u>p</u>	/	<u>p</u>	/	<u>-</u>
Femur	<u>p</u>	/	<u>c</u>	/	<u>p</u>	/	<u>p</u>	<u>c</u>	/	<u>c</u>	/	<u>c</u>	/	<u>c</u>
Tibia	<u>p</u>	/	<u>c</u>	/	<u>c</u>	/	<u>c</u>	<u>c</u>	/	<u>c</u>	/	<u>c</u>	/	<u>c</u>
Fibula	<u>c</u>	/	<u>c</u>	/	<u>c</u>	/	<u>c</u>	<u>c</u>	/	<u>c</u>	/	<u>c</u>	/	<u>c</u>
Unidentified Long Bones (#):	<u>    </u>													

<b>EXTREMITIES</b>	#	cond		#	cond
Scaphoid	<u>2</u>	<u>c</u>	Calcaneus	<u>2</u>	<u>c</u>
Lunate	<u>2</u>	<u>c</u>	Talus	<u>2</u>	<u>c</u>
Trapezium	<u>1</u>	<u>c</u>	Cuboid	<u>2</u>	<u>c</u>
Trapezoid	<u>2</u>	<u>c</u>	Navicular	<u>2</u>	<u>c</u>
Capitate	<u>2</u>	<u>c</u>	Med. Cuneiform	<u>2</u>	<u>c</u>
Hamate	<u>2</u>	<u>c</u>	Inter. Cuneiform	<u>2</u>	<u>c</u>
Triquetral	<u>1</u>	<u>c</u>	Lat. Cuneiform	<u>2</u>	<u>c</u>
Pisiform	<u>2</u>	<u>c</u>	Metatarsals	<u>10</u>	<u>c</u>
Metacarpals	<u>10</u>	<u>c</u>	Prox. Phalanges	<u>9</u>	<u>c</u>
Prox. Phalanges	<u>10</u>	<u>c</u>	Mid. Phalanges	<u>2</u>	<u>c</u>
Mid. Phalanges	<u>10</u>	<u>c</u>	Dist. Phalanges	<u>2</u>	<u>c</u>
Dist. Phalanges	<u>8</u>	<u>c</u>	Sesamoids	<u>    </u>	<u>-</u>
Sesamoids	<u>    </u>	<u>-</u>	Unidentified Extremities (#):	<u>    </u>	

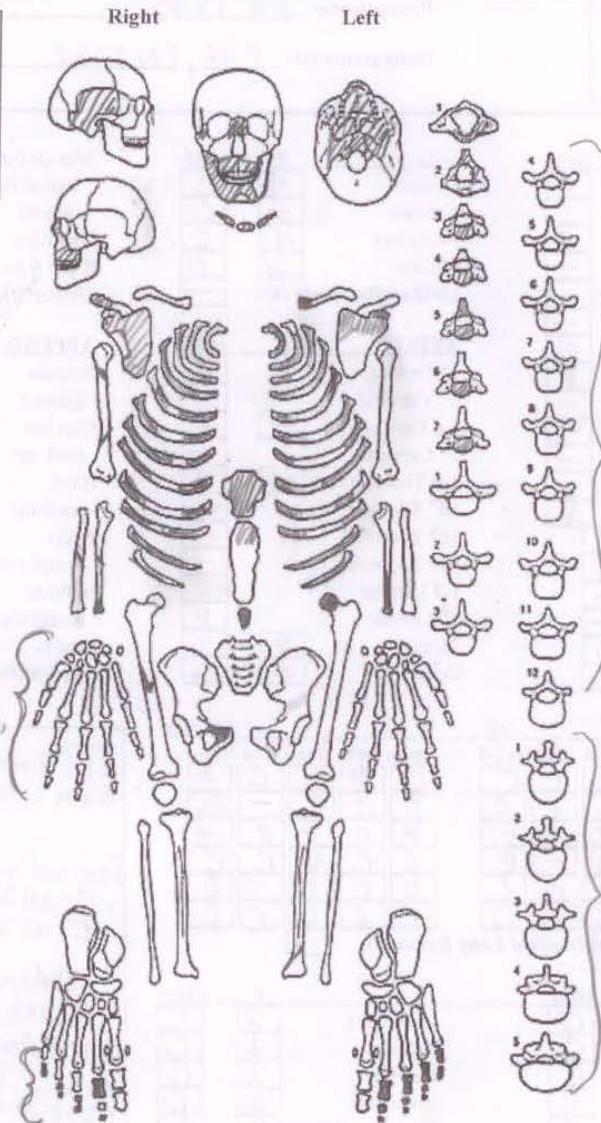
**Notes:**  
 S1-2 fragmented  
 S3-4 anteriorly fused  
 prox. pedal phalanges (r:all 5 present; l: all but ray 2 phal)  
 mid phalanges -only 1 from r  
 foot. dist phal,-2 from right

†This form includes information derived from Buikstra and Ubelaker (1994), *Standards for Data Collection from Human Skeletal Remains*, Arkansas Archeological Survey, and is used with permission of the publisher.

SKELETAL INVENTORY  
RECORDING FORM (I)

Fill in skeletal elements present and record notes along side. Label "U" if unsided, and "A" to denote approximated location.

= Missing



See reverse side for recovered manual bones, R hand 100% complete

\* See reverse side for recovered pedal bones

At least 4 thoracic vertebra recovered - All very fragmented, no pathology identified on inferior & superior surfaces of bodies

5 present, all very fragmented, fusion complete, no measurements able to be taken; no pathology identified on inferior & superior surfaces of bodies

Additional observations:  
 Frontal, parietals, & occipital - all fragmented but 75-100% present  
 Cervical vertebra: fragmented facets, 3 fused arches, 0 bodies, & nodens were recovered  
 Ribs - very fragmented, only ~20 fragments of rib bodies recovered, only 2 right  
 L Os Coxa - <sup>neck of head</sup> fragmented but complete  
 R & L Ulna/Radii very fragmented, no measurements taken

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Age: 15-23  
Sex: Female

Provenience: AZ BB:13:156(ASM)

Designation/ID: F. 42, FN 2262

AGE

PELVIC:	left	right
<b>Pubic Symphysis</b>		
Todd (1-10)	<input type="text" value="1"/>	<input type="text" value="1"/>
Suchey-Brooks (1-6)	<input type="text" value="1"/>	<input type="text" value="1"/>
<b>Auricular Surface</b>		
Lovejoy et al. (1-8)	<input type="text" value="1"/>	<input type="text" value="1"/>

**POSTCRANIAL: Epiphyseal Union\***

<b>Clavicle</b>	Sternal epiphysis	<input type="text"/>
<b>Vertebral Annular Epiphyses</b>	Cervical superior	<input type="text"/>
	inferior	<input type="text"/>
	Thoracic superior	<input type="text"/>
	inferior	<input type="text"/>
	Lumbar superior	<input type="text"/>
	inferior	<input type="text"/>
<b>Sacrum</b>	S1/S2 fusion	<input type="text" value="0"/>
<b>Innominate</b>	Iliac crest	<input type="text" value="0"/>

**Estimated Age:** Subadult (12-20 years)   
 Young Adult (20-35 years)   
 Middle Adult (35-50 years)   
 Old Adult (50+ years)

CRANIAL:	Suture Closure*
<b>External Cranial Vault</b>	1. Midlambdoid <input type="text"/>
	2. Lambda <input type="text"/>
	3. Obelion <input type="text"/>
	4. Anterior Sagittal <input type="text"/>
	5. Bregma <input type="text"/>
	6. Midcoronal <input type="text"/>
	7. Pterion <input type="text" value="0"/>
	8. Sphenofrontal <input type="text" value="0"/>
	9. Inf. Sphenotemporal <input type="text" value="0"/>
<b>Palatine</b>	10. Sup. Sphenotemporal <input type="text"/>
	11. Incisive Suture <input type="text"/>
	12. Anterior Median <input type="text"/>
	13. Posterior Median <input type="text"/>
	14. Transverse Palatine <input type="text"/>
<b>Internal Cranial Vault</b>	15. Sagittal <input type="text"/>
	16. Left Lambdoid <input type="text" value="0"/>
	17. Left Coronal <input type="text" value="0"/>

\*Suture and Epiphysis Codes:  
 0 = open  
 1 = minimal  
 2 = significant  
 3 = complete

Observations:

SEX

PELVIC:	left	right
Ventral Arc (1-3)	<input type="text"/>	<input type="text" value="1"/>
Subpubic Concavity (1-3)	<input type="text"/>	<input type="text" value="1"/>
Ischiopubic Ramus Ridge (1-3)	<input type="text" value="1"/>	<input type="text" value="1"/>
Greater Sciatic Notch (1-5)	<input type="text" value="2"/>	<input type="text"/>
Preauricular Sulcus (0-4)	<input type="text" value="0"/>	<input type="text" value="0"/>

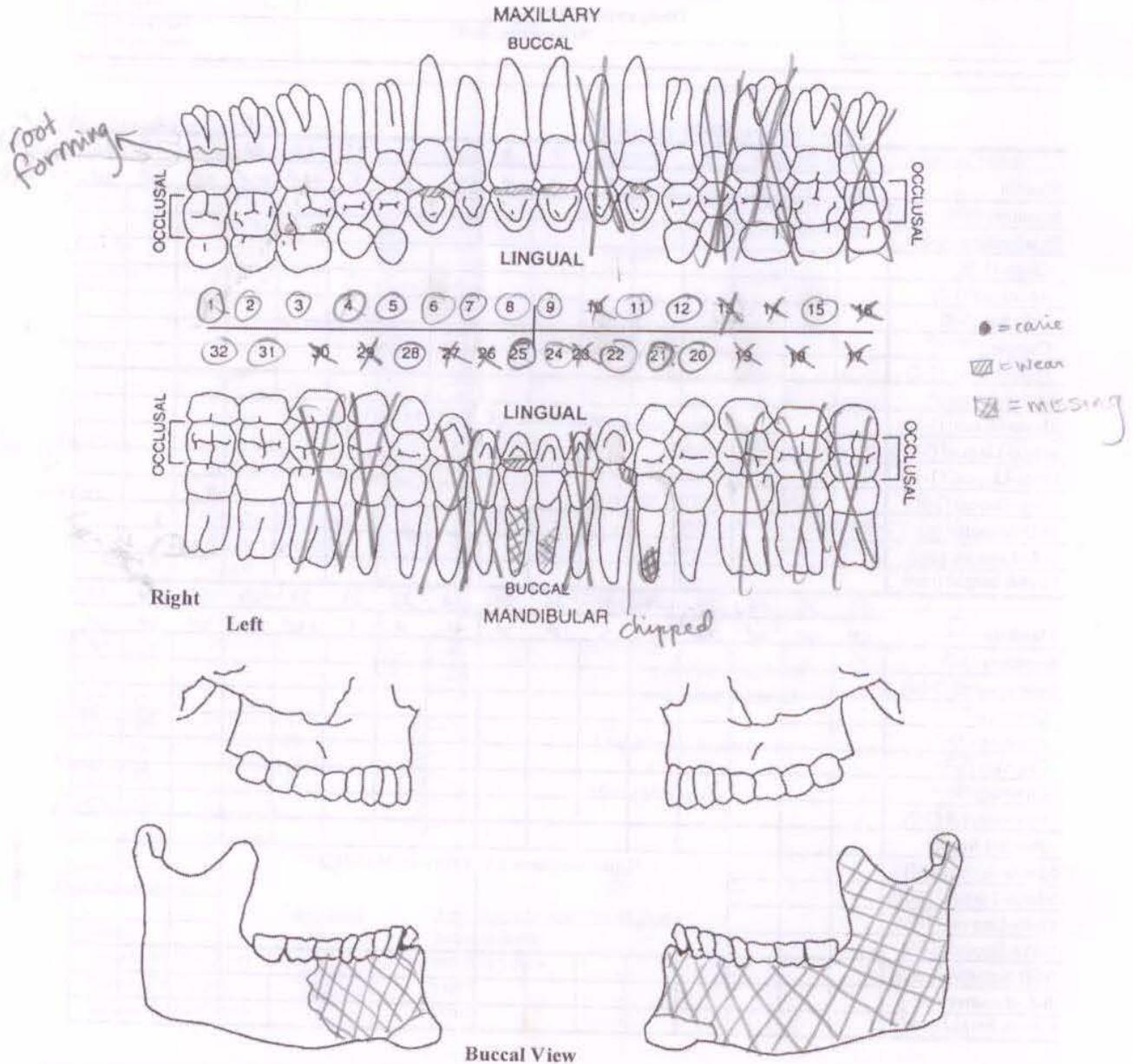
**Estimated Sex, Pelvis (1-5):**  =

CRANIAL:	
Nuchal Crest (1-5)	<input type="text"/>
Mastoid Process (1-5)	<input type="text" value="1"/>
Supraorbital Margin (1-5)	<input type="text" value="1"/>
Glabella (1-5)	<input type="text" value="1"/>
Mental Eminence (1-5)	<input type="text"/>

**Estimated Sex, Skull (1-5):**  =

Observations:

Note pathology locations and severity, wear, and any additional observations.



Additional observations:  
 R/LM<sup>1</sup> = shovelling  
 RM<sup>3</sup> present, root forming  
 Minimal wear on all occlusal surfaces of recovered dentition  
 Presence of RM<sup>3</sup> suggests individual is 15 years (± 36 mos)



**SKELETAL MEASUREMENT  
ADULT - RECORDING FORM (5a)**

*Record all measurements  
in millimeters.*

Provenience: AZ BB:13:156(ASM)

Designation/ID: F. 42, FN 2262

**CRANIAL**

1. GOL Maximum Cranial Length	2	18. DKB Interorbital Breadth	
2. XCB Maximum Cranial Breadth	2	19. FRC Frontal Chord	
3. ZYB Bizygomatic Breadth		20. PAC Parietal Chord	
4. BBH Basion-Bregma Height		21. OCC Occipital Chord	
5. BNL Basion-Nasion Length		22. FOL Foramen Magnum Length	
6. BPL Basion-Prosthion Length		23. FOB Foramen Magnum Breadth	
7. MAB Maxillo-Alveolar Breadth		24. MDH Mastoid Length	
8. MAL Maxillo-Alveolar Length		25. GNI Chin height	
9. AUB Biauricular Breadth		26. HML Mandibular Body Height	
10. NPH Upper Facial Height		27. TML Mandibular Body Breadth	
11. WFB Minimum Frontal Breadth		28. GOG Bigonial Width	
12. FMB Upper Facial Breadth		29. CDL Bicondylar Breadth	
13. NLH Nasal height		30. WRL Minimum Ramus Breadth	
14. NLB Nasal Breadth		31. MRL Maximum Ramus Breadth	
15. OBB Orbital Breadth		32. XRL Maximum Ramus Height	
16. OBH Orbital Height		33. MLT Mandibular Length	
17. EKB Biorbital Breadth		34. MLX Mandibular Angle	

**POSTCRANIAL**

	left	right		left	right
35. Clavicle: Max. Length	124.2		60. Femur: Max. Length		
36. A-P Diam. Midshaft	11.2		61. Bicondylar Length		
37. Sup.-Inf. Diam. Midshaft	9		62. Epicondylar Breadth		72
38. Scapula: Height			63. Max. Diam. Head		38.5
39. Breadth			64. A-P Subtroch. Diam.	21.1	22
40. Humerus: Max. Length	285		65. M-L Subtroch. Diam.	21.9	32
41. Epicondylar Breadth	53.6		66. A-P Midshaft Diam.	24.2	25.2
42. Vertical Diam. Head	44.4		67. M-L Midshaft Diam.	24.7	25.7
43. Max. Diam. Midshaft	19	20.8	68. Midshaft Circumference	82	82
44. Min. Diam. Midshaft	17	17.2	69. Tibia: Max. Length	373	372
45. Radius: Max. Length	223		70. Max. Prox. Epiph. Breadth	67.8	67.9
46. Ant.-Post. Diam. Midshaft			71. Max. Distal Epiph. Breadth	39.4	39.6
47. Med.-Lat. Diam. Midshaft			72. Max. Diam. Nutrient For.	26.9	29.8
48. Ulna: Max. Length			73. M-L Diam. Nutrient For.	22.6	24
49. A-P Diameter			74. Circ. Nutrient Foramen	81	87
50. M-L Diameter			75. Fibula: Max. Length	359	348
51. Physiological Length			76. Max. Diameter Midshaft	11.6	11.7
52. Min. Circumference			77. Calcaneus: Max. Length	76.1	74.7
53. Sacrum: Anterior Length			78. Middle Breadth	36.4	41.4
54. Anterior Superior Breadth					
55. Max. Trans. Diam. Base			79. Sternum: Length Mesostern.	54.8	
56. Pelvis: Height			80. Max. Breadth 1 <sup>st</sup>	8.9	
57. Iliac Breadth	145				
58. Pubis Length					
59. Ischium Length		72.8			



**ARIZONA STATE MUSEUM  
HUMAN REMAINS DOCUMENTATION PACKET**

**PROVENIENCE**  
 Site Name: Court Street Cemetery Site No.: AZ BB:13:156(ASM)  
 Designation/ID: Feature 47, FN 2314  
 Observer(s): E. Graff & J. Watson Date: 03/18/13

**BIOLOGICAL PROFILE**  
 MNI: 1  
 Age: 0.5-2.5  
 Sex: -  
 Ancestry: -

**PRESERVATION**

Complete skeleton (>75%)  
 Partial skeleton (25-75% present)  
 Fragmentary skeleton (<25% present, includes at least one complete element)  
 Fragments of bone (small amount of fragmented bone; <<25% is present)  
 Skull (only cranial remains present and partially preserved)  
 Teeth (only loose teeth are present)  
 Cremated bone (burned remains of any quantity; excludes cases of incidental charring of otherwise unburned skeleton)  
 Soft tissues present

Describe:

**FORM LIST (indicate forms used)**

1 Skeletal Inventory  
 2a Age and Sex Assessment - Adult  
 2b Age Assessment - Juvenile  
 3a Permanent Dental Inventory/Pathology  
 3b Deciduous Dental Inventory/Pathology  
 4a Dental Morphology - Permanent  
 4b Dental Morphology - Deciduous  
 5a Measurements - Adult  
 5b Measurements - Juvenile  
 6 Non-Metric Traits  
 7 Pathology Checklist  
 8 Degenerative Joint Disease  
 9 Spinal Osteophytosis  
 10 Artificial Cranial Modification  
 11 Cremated Remains  
 12 Isolated Remains  
 Skeletal Visual Recording Forms  
 Additional Forms, Notes, Sketches, Photo Log, etc.

**CONDITION**

Yes	No	Unobservable	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Cracking</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Breaks</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Brittle</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Exfoliation</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Warping</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Cut marks</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Gnaw marks</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Root or insect damage</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Staining</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Soil adhering</b>

Describe (include severity & elements affected):



**Codes:**  
f = 1-25% present  
p = 25-75% present  
c = 75-100% present

**Provenience:** AZ BB:13:156(ASM)

**Designation/ID:** F. 47, FN 2314

<b>CRANIAL</b>	left	right	teeth	#	cond	Sternum		
Frontal	-	-	Incisors	-	-	manubrium		-
Parietal	-	-	Canines	-	-	body		-
Occipital	-	-	Premolars	-	-	xiphoid		-
Temporal	-	-	Molars	-	-	Left Ribs	-	-
TMJ	-	-	Unidentified Teeth (#):			Right Ribs	-	-
Mandible	-	-				Unidentified Axial (#):	-	-
Zygomatic	-	-	<b>AXIAL</b>	#	cond			
Maxilla	-	-	1 <sup>st</sup> Cervical		-	<b>APPEND.</b>	left	right
Nasal	-	-	2 <sup>nd</sup> Cervical		-	Scapula	-	-
Lacrimal	-	-	3-6 Cervical		-	glenoid	-	-
I. N. C.	-	-	7 <sup>th</sup> Cervical		-	Clavicle	-	-
Palatine	-	-	1-9 Thoracic	>1	p	med. epi.	-	-
Sphenoid	-	-	10 <sup>th</sup> Thoracic		-	Ilium	-	-
Ethmoid	-	-	11 <sup>th</sup> Thoracic		-	auricular	-	-
Vomer	-	-	12 <sup>th</sup> Thoracic		-	Pubis	-	-
Hyoid	-	-	1-4 Lumbar		-	symphysis	-	-
Thyroid/Crycoid	-	-	5 <sup>th</sup> Lumbar		-	Ischium	-	-
Ossicles	-	-	Sacrum		-	acetabulum	-	-
Unidentified Cranial (#):			Coccyx		-	Patella	-	-
						Unidentified Append. (#):		

<b>APPENDICULAR</b>	left				right			
	epi-p	prox	mid	dist / epi-d	epi-p	prox	mid	dist / epi-d
Humerus	-	-	-	-	-	c	c	c
Radius	-	-	-	-	-	c	c	c
Ulna	-	-	-	-	-	-	-	-
Femur	-	-	-	-	-	-	-	-
Tibia	-	-	-	-	-	-	-	-
Fibula	-	-	-	-	-	-	-	-
Unidentified Long Bones (#):								

<b>EXTREMITIES</b>	#	cond		#	cond
Scaphoid	-	-	Calcaneus	-	-
Lunate	-	-	Talus	-	-
Trapezium	-	-	Cuboid	-	-
Trapezoid	-	-	Navicular	-	-
Capitate	-	-	Med. Cuneiform	-	-
Hamate	-	-	Inter. Cuneiform	-	-
Triquetral	-	-	Lat. Cuneiform	-	-
Pisiform	-	-	Metatarsals	-	-
Metacarpals	-	-	Prox. Phalanges	-	-
Prox. Phalanges	-	-	Mid. Phalanges	-	-
Mid. Phalanges	-	-	Dist. Phalanges	-	-
Dist. Phalanges	-	-	Sesamoids	-	-
Sesamoids					
Unidentified Extremities (#):					

**Notes:**  
only three bones recovered:  
1 right ulna shaft  
1 right radius shaft  
1 left neural arch of thoracic vert  
  
no teeth

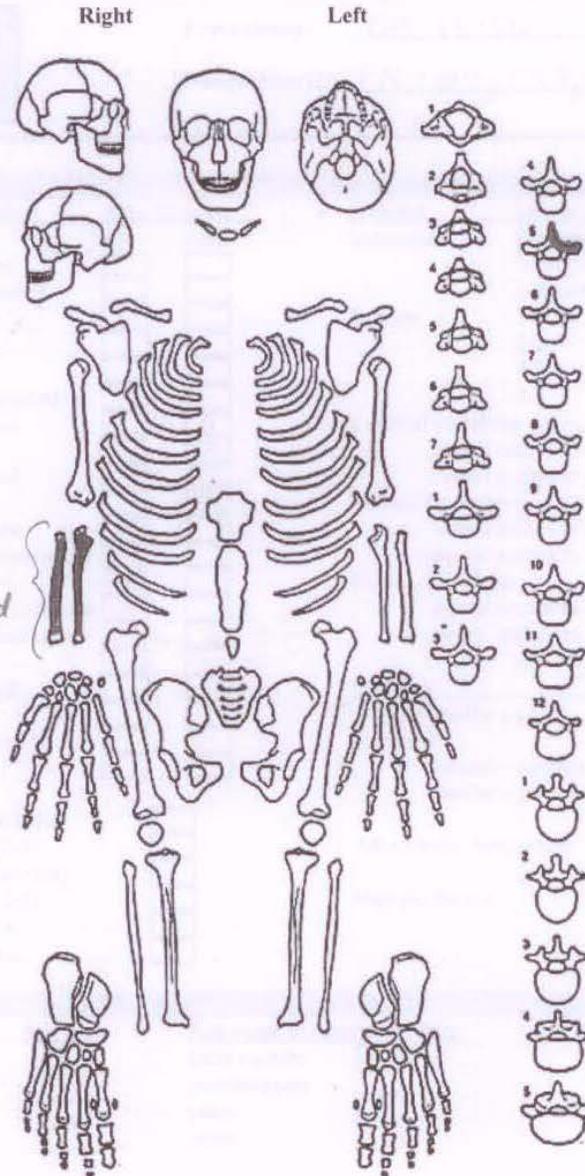
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BB:13:156  
FN 2314, F47,  
Unit 210, strats 50



SKELETAL INVENTORY  
RECORDING FORM (1)

Fill in skeletal elements present and record notes along side. Label "U" if unisided, and "A" to denote approximated location.



distal, medial, + proximal shaft portions present, no epiph. recovered

Additional observations:  
*Burial of a young child*

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**Stage of Union:**  
0 = open  
1 = minimal  
2 = complete

**Provenience:** AZ BB:13:156(ASM)

**Designation/ID:** F. 47, FN 2314

Epiphyseal Union				Primary Ossification Centers		
Element	epiphysis	stage of union		Element	area of union	stage of union
		left	right			
Scapula	coracoid	<input type="checkbox"/>	<input type="checkbox"/>	Innominate	ilium-pubis	<input type="checkbox"/>
	acromium	<input type="checkbox"/>	<input type="checkbox"/>		ischium-pubis	<input type="checkbox"/>
Clavicle	sternal	<input type="checkbox"/>	<input type="checkbox"/>		Sacrum	ischium-ilium
	Humerus	head	<input type="checkbox"/>	<input type="checkbox"/>		1-2
distal		<input type="checkbox"/>	<input type="checkbox"/>	2-3		<input type="checkbox"/>
Radius	med. epicondyle	<input type="checkbox"/>	<input type="checkbox"/>	3-4		<input type="checkbox"/>
	proximal	<input type="checkbox"/>	0	4-5	<input type="checkbox"/>	
	distal	<input type="checkbox"/>	0	Cervical vertebrae	neural arches to each other	<input type="checkbox"/>
Ulna	proximal	<input type="checkbox"/>	0		neural arches to centrum	<input type="checkbox"/>
	distal	<input type="checkbox"/>	0		Thoracic vertebrae	neural arches to each other
Os Coxa	iliac crest	<input type="checkbox"/>	<input type="checkbox"/>	neural arches to centrum		0
	ischial tuberosity	<input type="checkbox"/>	<input type="checkbox"/>	Lumbar vertebrae		neural arches to each other
Femur	head	<input type="checkbox"/>	<input type="checkbox"/>		neural arches to centrum	<input type="checkbox"/>
	greater trochanter	<input type="checkbox"/>	<input type="checkbox"/>		Cranium	basilar suture
	lesser trochanter	<input type="checkbox"/>	<input type="checkbox"/>	Occipital		lateral – squama
distal	<input type="checkbox"/>	<input type="checkbox"/>	basilar – lateral			<input type="checkbox"/>
Tibia	proximal	<input type="checkbox"/>	<input type="checkbox"/>		Mandibular Symphysis	
	distal	<input type="checkbox"/>	<input type="checkbox"/>	Metopic Suture		
Fibula	proximal	<input type="checkbox"/>	<input type="checkbox"/>			
	distal	<input type="checkbox"/>	<input type="checkbox"/>			
Metacarpals	proximal (1st)	<input type="checkbox"/>	<input type="checkbox"/>			
	distal (2-5)	<input type="checkbox"/>	<input type="checkbox"/>			
Metatarsals	proximal (1st)	<input type="checkbox"/>	<input type="checkbox"/>			
	distal (2-5)	<input type="checkbox"/>	<input type="checkbox"/>			
C. Phalanges	proximal	<input type="checkbox"/>	<input type="checkbox"/>			
T. Phalanges	proximal	<input type="checkbox"/>	<input type="checkbox"/>			

**Age Assessment**

	Age class	Age range in months or years
Fetus	<input type="checkbox"/>	lunar months <input type="checkbox"/>
Infant (birth – 2 yr)	<input checked="" type="checkbox"/>	months/years <u>0-2</u>
Child (2 – 12 yr)	<input type="checkbox"/>	years <input type="checkbox"/>
Subadult (12-20yr)	<input type="checkbox"/>	years <input type="checkbox"/>

**Comments (criteria used for age assessment):**  
 2-3 years old estimated by lack of neural arch being fused to either the centrum or other neural arch  
 Bass (1985) & Johnston (1962) - radius length (84.3mm) and ulna length (75mm): 0.5-2.5yrs old



**ARIZONA STATE MUSEUM  
HUMAN REMAINS DOCUMENTATION PACKET**

**PROVENIENCE**  
 Site Name: Court Street Cemetery Site No.: AZ BB:13:156(ASM)  
 Designation/ID: FN 2214, Unit 202 (from pit fill above F.39 coffin)  
 Observer(s): E. Graff & J. Watson Date: 04/15/13

**BIOLOGICAL PROFILE**  
 MNI: 1  
 Age: 18-30  
 Sex: Male  
 Ancestry: -

**PRESERVATION**

Complete skeleton (>75%)  
 Partial skeleton (25-75% present)  
 Fragmentary skeleton (<25% present, includes at least one complete element)  
 Fragments of bone (small amount of fragmented bone; <<25% is present)  
 Skull (only cranial remains present and partially preserved)  
 Teeth (only loose teeth are present)  
 Cremated bone (burned remains of any quantity; excludes cases of incidental charring of otherwise unburned skeleton)  
 Soft tissues present

Describe:

**FORM LIST** (indicate forms used)

1 Skeletal Inventory  
 2a Age and Sex Assessment - Adult  
 2b Age Assessment - Juvenile  
 3a Permanent Dental Inventory/Pathology  
 3b Deciduous Dental Inventory/Pathology  
 4a Dental Morphology - Permanent  
 4b Dental Morphology - Deciduous  
 5a Measurements - Adult  
 5b Measurements - Juvenile  
 6 Non-Metric Traits  
 7 Pathology Checklist  
 8 Degenerative Joint Disease  
 9 Spinal Osteophytosis  
 10 Artificial Cranial Modification  
 11 Cremated Remains  
 12 Isolated Remains  
 Skeletal Visual Recording Forms  
 Additional Forms, Notes, Sketches, Photo Log, etc.

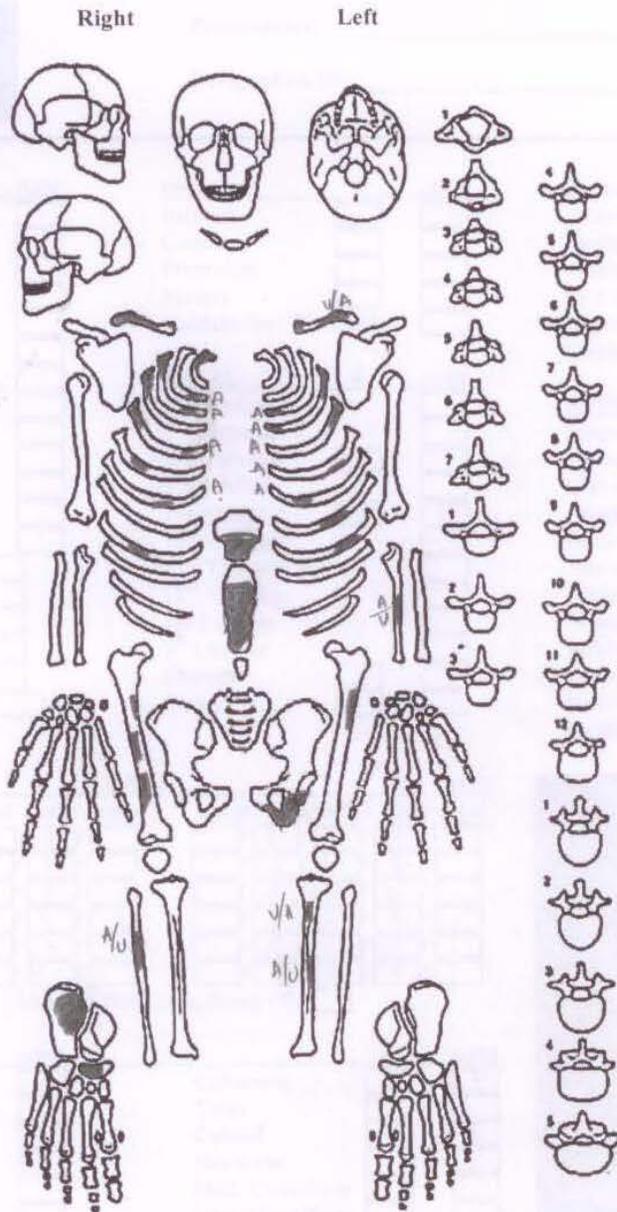
**CONDITION**

Yes	No	Unobservable	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cracking
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Breaks
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Brittle
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exfoliation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Warping
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cut marks
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Gnaw marks
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Root or insect damage
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Staining
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Soil adhering

Describe (include severity & elements affected):

Fill in skeletal elements present and record notes along side.  
Label "U" if unsided, and "A" to denote approximated location.

■ = present



- 6 ribheads - 4 R, 2 L  
- 1 R ribhead has pathology that is inferior to the costal groove; a "hole" that doesn't seem taphernic or post mortem damage
- 7 vertebral facet fragments  
- all appear to be thoracic
- Several long bone fragments
- \* • Sternum bodies fully fused
- \* • sub pubic area of R os coxae lacks concavity & is fused,
- no measurements able to be taken besides clavicles
- no teeth or cranial fragments recovered
- fragments of clavicles measured
- clavicles fully fused

Additional observations:



**SKELETAL INVENTORY  
RECORDING FORM (1)**

**Codes:**  
f = 1-25% present  
p = 25-75% present  
c = 75-100% present

**Provenience:** AZ BB:13:156(ASM)

**Designation/ID:** FN 2214

<b>CRANIAL</b>	left	right	teeth	#	cond	
Frontal	-	-	Incisors	<input type="text"/>	-	Sternum
Parietal	-	-	Canines	<input type="text"/>	-	manubrium
Occipital	-	-	Premolars	<input type="text"/>	-	body
Temporal	-	-	Molars	<input type="text"/>	-	xiphoid
TMJ	-	-	Unidentified Teeth (#):	<input type="text"/>	-	Left Ribs
Mandible	-	-				Right Ribs
Zygomatic	-	-				Unidentified Axial (#):
Maxilla	-	-	<b>AXIAL</b>	#	cond	
Nasal	-	-	1 <sup>st</sup> Cervical		-	<b>APPEND.</b>
Lacrimal	-	-	2 <sup>nd</sup> Cervical		-	left
I. N. C.	-	-	3-6 Cervical	<input type="text"/>	-	right
Palatine	-	-	7 <sup>th</sup> Cervical		-	Scapula
Sphenoid	-	-	1-9 Thoracic	<input type="text" value="1"/>	f	glenoid
Ethmoid		-	10 <sup>th</sup> Thoracic		-	Clavicle
Vomer		-	11 <sup>th</sup> Thoracic		-	med. epi.
Hyoid		-	12 <sup>th</sup> Thoracic		-	Ilium
Thyroid/Crycoid		-	1-4 Lumbar		-	auricular
Ossicles		-	5 <sup>th</sup> Lumbar		-	Pubis
Unidentified Cranial (#):	<input type="text"/>		Sacrum	<input type="text"/>	-	symphysis
			Coccyx	<input type="text"/>	-	Ischium
						acetabulum
						Patella
						Unidentified Append. (#):
						<input type="text"/>

<b>APPENDICULAR</b>	left	right
	epi-p / prox/ mid / dist / epi-d	epi-p / prox/ mid / dist / epi-d
Humerus	- / f / f / f / -	- / f / f / - / -
Radius	- / f / f / f / -	- / f / f / f / -
Ulna	- / f / f / f / -	- / f / f / f / -
Femur	- / f / f / f / -	- / f / f / f / -
Tibia	- / f / f / f / -	- / f / f / f / -
Fibula	- / f / f / f / -	- / f / f / f / -
Unidentified Long Bones (#):	<input type="text"/>	

<b>EXTREMITIES</b>	#	cond	#	cond
Scaphoid	<input type="text"/>	-	Calcaneus	<input type="text" value="1"/> f
Lunate	<input type="text" value="1"/>	c	Talus	<input type="text"/>
Trapezium	<input type="text"/>	-	Cuboid	<input type="text" value="1"/> f
Trapezoid	<input type="text"/>	-	Navicular	<input type="text"/>
Capitate	<input type="text"/>	-	Med. Cuneiform	<input type="text"/>
Hamate	<input type="text"/>	-	Inter. Cuneiform	<input type="text"/>
Triquetral	<input type="text"/>	-	Lat. Cuneiform	<input type="text"/>
Pisiform	<input type="text"/>	-	Metatarsals	<input type="text"/>
Metacarpals	<input type="text"/>	-	Prox. Phalanges	<input type="text"/>
Prox. Phalanges	<input type="text"/>	-	Mid. Phalanges	<input type="text"/>
Mid. Phalanges	<input type="text"/>	-	Dist. Phalanges	<input type="text"/>
Dist. Phalanges	<input type="text"/>	-	Sesamoids	<input type="text"/>
Sesamoids	<input type="text"/>	-	Unidentified Extremities (#):	<input type="text"/>

**Notes:**



**AGE & SEX ASSESSMENT  
ADULT - RECORDING FORM (2a)**

Age: 18-30  
Sex: Male

Provenience: AZ BB:13:156(ASM)  
Designation/ID: FN 2214

**AGE**

**PELVIC:** left right

**Pubic Symphysis**  
Todd (1-10)    
Suchey-Brooks (1-6)

**Auricular Surface**  
Lovejoy et al. (1-8)

**POSTCRANIAL: Epiphyseal Union\***

**Clavicle** Sternal epiphysis

**Vertebral Annular Epiphyses**

Cervical superior	<input type="checkbox"/>
inferior	<input type="checkbox"/>
Thoracic superior	<input type="checkbox"/>
inferior	<input type="checkbox"/>
Lumbar superior	<input type="checkbox"/>
inferior	<input type="checkbox"/>

**Sacrum** S1/S2 fusion

**Innominate** Iliac crest

**Estimated Age:** Subadult (12-20 years)   
 Young Adult (20-35 years)   
 Middle Adult (35-50 years)   
 Old Adult (50+ years)

**CRANIAL: Suture Closure\***

<b>External Cranial Vault</b>	1. Midlambdoid	<input type="checkbox"/>
	2. Lambda	<input type="checkbox"/>
	3. Obelion	<input type="checkbox"/>
	4. Anterior Sagittal	<input type="checkbox"/>
	5. Bregma	<input type="checkbox"/>
	6. Midcoronal	<input type="checkbox"/>
	7. Pterion	<input type="checkbox"/>
	8. Sphenofrontal	<input type="checkbox"/>
	9. Inf. Sphenotemporal	<input type="checkbox"/>
	10. Sup. Sphenotemporal	<input type="checkbox"/>
<b>Palatine</b>	11. Incisive Suture	<input type="checkbox"/>
	12. Anterior Median	<input type="checkbox"/>
	13. Posterior Median	<input type="checkbox"/>
	14. Transverse Palatine	<input type="checkbox"/>
<b>Internal Cranial Vault</b>	15. Sagittal	<input type="checkbox"/>
	16. Left Lambdoid	<input type="checkbox"/>
	17. Left Coronal	<input type="checkbox"/>

\*Suture and Epiphysis Codes:  
 0 = open  
 1 = minimal  
 2 = significant  
 3 = complete

**Observations:**  
 all observable epiphyses fused

**SEX**

**PELVIC:** left right

Ventral Arc (1-3)    
 Subpubic Concavity (1-3)   3  
 Ischiopubic Ramus Ridge (1-3)    
 Greater Sciatic Notch (1-5)    
 Preauricular Sulcus (0-4)

**Estimated Sex, Pelvis (1-5):**  =  3

**CRANIAL:**

Nuchal Crest (1-5)   
 Mastoid Process (1-5)   
 Supraorbital Margin (1-5)   
 Glabella (1-5)   
 Mental Eminence (1-5)

**Estimated Sex, Skull (1-5):**  =

**Observations:**  
 sub-pubic concavity absent

†This form includes information derived from Buikstra and Ubelaker (1994), *Standards for Data Collection from Human Skeletal Remains*, Arkansas Archeological Survey, and is used with permission of the publisher. 2a-1



**SKELETAL MEASUREMENT  
ADULT - RECORDING FORM (5a)**

Record all measurements millimeters.

Provenience: AZ BB:13:156(ASM)

Designation/ID: FN 2214

**CRANIAL**

1. <b>GOL</b> Maximum Cranial Length		18. <b>DKB</b> Interorbital Breadth	
2. <b>XCB</b> Maximum Cranial Breadth		19. <b>FRC</b> Frontal Chord	
3. <b>ZYB</b> Bizygomatic Breadth		20. <b>PAC</b> Parietal Chord	
4. <b>BBH</b> Basion-Bregma Height		21. <b>OCC</b> Occipital Chord	
5. <b>BNL</b> Basion-Nasion Length		22. <b>FOL</b> Foramen Magnum Length	
6. <b>BPL</b> Basion-Prosthion Length		23. <b>FOB</b> Foramen Magnum Breadth	
7. <b>MAB</b> Maxillo-Alveolar Breadth		24. <b>MDH</b> Mastoid Length	
8. <b>MAL</b> Maxillo-Alveolar Length		25. <b>GNI</b> Chin height	
9. <b>AUB</b> Biauricular Breadth		26. <b>HML</b> Mandibular Body Height	
10. <b>NPH</b> Upper Facial Height		27. <b>TML</b> Mandibular Body Breadth	
11. <b>WFB</b> Minimum Frontal Breadth		28. <b>GOG</b> Bigonial Width	
12. <b>FMB</b> Upper Facial Breadth		29. <b>CDL</b> Bicondylar Breadth	
13. <b>NLH</b> Nasal height		30. <b>WRL</b> Minimum Ramus Breadth	
14. <b>NLB</b> Nasal Breadth		31. <b>MRL</b> Maximum Ramus Breadth	
15. <b>OBB</b> Orbital Breadth		32. <b>XRL</b> Maximum Ramus Height	
16. <b>OBH</b> Orbital Height		33. <b>MLT</b> Mandibular Length	
17. <b>EKB</b> Biorbital Breadth		34. <b>MLX</b> Mandibular Angle	

**POSTCRANIAL**

	left	right		left	right
35. <b>Clavicle:</b> Max. Length			60. <b>Femur:</b> Max. Length		
36. A-P Diam. Midshaft	13.5	11.7	61. Bicondylar Length		3
37. Sup.-Inf. Diam. Midshaft	14.6	12.3	62. Epicondylar Breadth		
38. <b>Scapula:</b> Height			63. Max. Diam. Head		
39. Breadth			64. A-P Subtroch. Diam.		
40. <b>Humerus:</b> Max. Length			65. M-L Subtroch. Diam.		
41. Epicondylar Breadth			66. A-P Midshaft Diam.		
42. Vertical Diam. Head			67. M-L Midshaft Diam.		
43. Max. Diam. Midshaft			68. Midshaft Circumference		
44. Min. Diam. Midshaft			69. <b>Tibia:</b> Max. Length		
45. <b>Radius:</b> Max. Length			70. Max. Prox. Epiph. Breadth		
46. Ant.-Post. Diam. Midshaft			71. Max. Distal Epiph. Breadth		
47. Med.-Lat. Diam. Midshaft			72. Max. Diam. Nutrient For.		
48. <b>Ulna:</b> Max. Length			73. M-L Diam. Nutrient For.		
49. A-P Diameter			74. Circ. Nutrient Foramen		
50. M-L Diameter			75. <b>Fibula:</b> Max. Length		
51. Physiological Length			76. Max. Diameter Midshaft		
52. Min. Circumference			77. <b>Calcaneus:</b> Max. Length		
53. <b>Sacrum:</b> Anterior Length			78. Middle Breadth		
54. Anterior Superior Breadth					
55. Max. Trans. Diam. Base			79. <b>Sternum:</b> Length Mesostern.		
56. <b>Pelvis:</b> Height			80. Max. Breadth 1 <sup>st</sup>		
57. Iliac Breadth					
58. Pubis Length					
59. Ischium Length					



**ARIZONA STATE MUSEUM  
HUMAN REMAINS DOCUMENTATION PACKET**

**PROVENIENCE**  
 Site Name: Court Street Cemetery Site No.: AZ BB:13:156(ASM)  
 Designation/ID: FN 2239, Unit 200  
(mixed human bone from trench prob. F. 38, 40 (both adults) & 41 (child))  
 Observer(s): E. Graff & J. Watson Date: 04/15/13

**BIOLOGICAL PROFILE**  
 MNI: 3  
 Age: 19-30  
 Sex: ind.  
 Ancestry: -

**FORM LIST** (indicate forms used)

- 1 Skeletal Inventory
- 2a Age and Sex Assessment - Adult
- 2b Age Assessment - Juvenile
- 3a Permanent Dental Inventory/Pathology
- 3b Deciduous Dental Inventory/Pathology
- 4a Dental Morphology - Permanent
- 4b Dental Morphology - Deciduous
- 5a Measurements - Adult
- 5b Measurements - Juvenile
- 6 Non-Metric Traits
- 7 Pathology Checklist
- 8 Degenerative Joint Disease
- 9 Spinal Osteophytosis
- 10 Artificial Cranial Modification
- 11 Cremated Remains
- 12 Isolated Remains
- Skeletal Visual Recording Forms
- Additional Forms, Notes, Sketches, Photo Log, etc.

**PRESERVATION**

- Complete skeleton (>75%)
- Partial skeleton (25-75% present)
- Fragmentary skeleton (<25% present, includes at least one complete element)
- Fragments of bone (small amount of fragmented bone; <<25% is present)
- Skull (only cranial remains present and partially preserved)
- Teeth (only loose teeth are present)
- Cremated bone (burned remains of any quantity; excludes cases of incidental charring of otherwise unburned skeleton)
- Soft tissues present

Describe:  
 very fragmented and disturbed by excavation--context compromised

**CONDITION**

Yes	No	Unobservable	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cracking
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Breaks
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Brittle
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exfoliation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Warping
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cut marks
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Gnaw marks
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Root or insect damage
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Staining
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Soil adhering

Describe (include severity & elements affected):  
 poor condition--damaged

Fill in skeletal elements present and record notes along side. Label "U" if unsided, and "A" to denote approximated location.

■ = present

Ribs: → all "U" & "A"  
7 R rib necks w/ R-1  
5 L rib necks w/ R-2  
No complete ribs, 1 R sternal end

humeri:  
1 R - proximal shaft present  
1 L - all but proximal ep. shaft present

radii:  
1 L all present, 3 fragments, 100% recovered

Femora:  
R - proximal shaft fragment s, 60% recovered

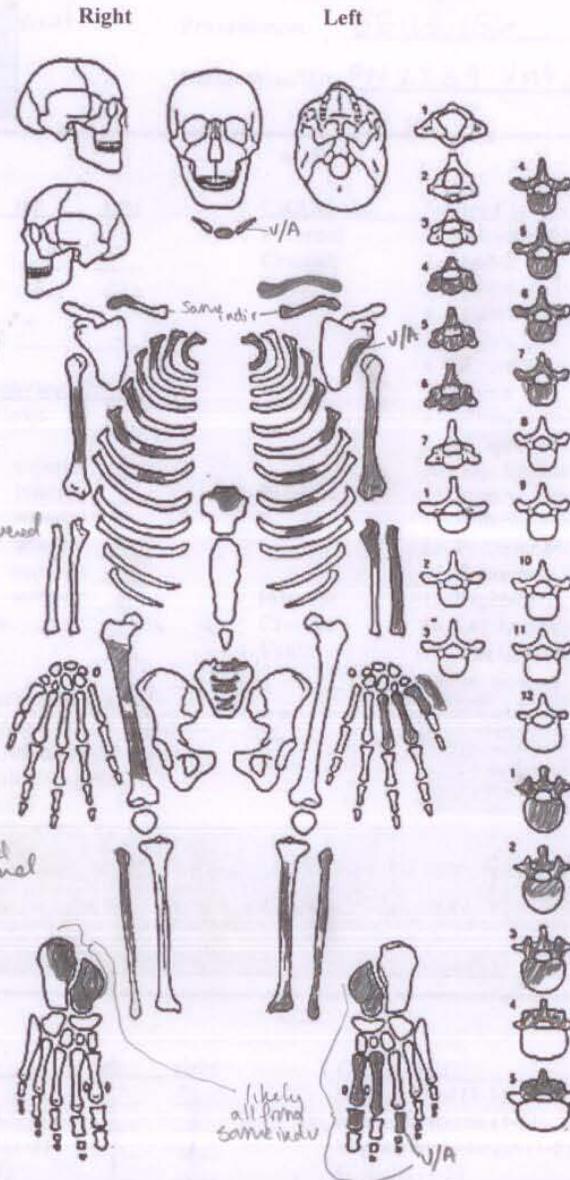
Fibulas:  
L - 2 fragments, both epiph + 90% of shaft recovered

Tibiae:  
L - 30% diaph + distal epiph recovered  
R - 30% diaph + proximal epiph recovered

Clavicles - measurements  
Clavicles determined the adult MNI = 2  
2 complete L clavicles from two diff sized individuals  
1 R distal portion

Ulnae  
L proximal epiph + 20% of shaft recov.

Hyoid  
body + 1 wing recovered



Sternum - small portion of superior manubrium

scapulae - small portion of lateral spine/axial border, side not determined

sacrum  
~15% of sacrum recovered, mostly anterior portion

vertebrae - 30% recovered  
portion of lumbar recovered, likely L-5

3 - cervical (likely C4-6)  
4 - thoraci vert.

5 - lumbar vert  
No signs of pathology, & fully matured/fused

metatarsals  
2 tali (R+L)  
portion of R calcaneus  
same individual, likely

metatarsals  
L M-1+M2  
L proximal

carpals/metacarpals/phalanges  
2 L MCI

3 proximal phalanges  
1 middle phalanx

L MCI + MC3  
1 L capitate  
1 L hamate

Dentition

6 teeth recovered  
5 = individual = Permanent  
1 = individual = L I<sup>+</sup> (primary)

Subadult Remains

• rib fragments  
• vertebral fragments  
thoracic - arches fused, body not fused  
cervical - arches + body not fused  
R & L scapulae, glenoids not fused + distal portion of acromion not fused

Additional observations:  
Clavicles determined the adult MNI of 2  
Carpals determined the adult MNI of 2 - 2 Left MCI  
Adults - 2 - 19-30 yrs old sep ind  
Subadult - 1 - 4-6 ± 12 mos old, sex ind.  
→ NO MEASUREMENTS TAKEN

• R tibia recovered, neither distal nor proximal epiph fused  
• 5 metacarpals recovered, non fused  
• 2 deciduous teeth recovered  
RI<sup>2</sup> not yet erupted, but RM1<sup>1</sup> very fused = 4-6 ± 12m



AGE & SEX ASSESSMENT  
ADULT - RECORDING FORM (2a)

Age: <u>19-30</u>	Provenience: <u>AZ BB:13:156(ASM)</u>
Sex: <u>ind.</u>	Designation/ID: <u>FN 2239, Unit 200</u>

AGE

**PELVIC:**

	left	right
<b>Pubic Symphysis</b>		
Todd (1-10)	<input type="checkbox"/>	<input type="checkbox"/>
Suchey-Brooks (1-6)	<input type="checkbox"/>	<input type="checkbox"/>
<b>Auricular Surface</b>		
Lovejoy et al. (1-8)	<input type="checkbox"/>	<input type="checkbox"/>

**POSTCRANIAL: Epiphyseal Union\***

<b>Clavicle</b>	Sternal epiphysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Vertebral Annular Epiphyses</b>	Cervical	superior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		inferior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Thoracic	superior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		inferior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lumbar	superior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	inferior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Sacrum</b>	S1/S2 fusion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Innominate</b>	Iliac crest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Estimated Age:**

Subadult (12-20 years)	<input type="checkbox"/>
Young Adult (20-35 years)	<input checked="" type="checkbox"/>
Middle Adult (35-50 years)	<input type="checkbox"/>
Old Adult (50+ years)	<input type="checkbox"/>

**CRANIAL: Suture Closure\***

<b>External Cranial Vault</b>	1. Midlambdoid	<input type="checkbox"/>	
	2. Lambda	<input type="checkbox"/>	
	3. Obelion	<input type="checkbox"/>	
	4. Anterior Sagittal	<input type="checkbox"/>	
	5. Bregma	<input type="checkbox"/>	
	6. Midcoronal	<input type="checkbox"/>	
	7. Pterion	<input type="checkbox"/>	
	8. Sphenofrontal	<input type="checkbox"/>	
	9. Inf. Sphenotemporal	<input type="checkbox"/>	
	10. Sup. Sphenotemporal	<input type="checkbox"/>	
	<b>Palatine</b>	11. Incisive Suture	<input type="checkbox"/>
		12. Anterior Median	<input type="checkbox"/>
		13. Posterior Median	<input type="checkbox"/>
		14. Transverse Palatine	<input type="checkbox"/>
<b>Internal Cranial Vault</b>	15. Sagittal	<input type="checkbox"/>	
	16. Left Lambdoid	<input type="checkbox"/>	
	17. Left Coronal	<input type="checkbox"/>	

\*Suture and Epiphysis Codes:  
 0 = open  
 1 = minimal  
 2 = significant  
 3 = complete

**Observations:**  
 both adult individuals show no signs of mid-fusion of recovered long bones, using the complete fused of the 2 left clavicles--both at least 19-30 yo

SEX

**PELVIC:**

	left	right
Ventral Arc (1-3)	<input type="checkbox"/>	<input type="checkbox"/>
Subpubic Concavity (1-3)	<input type="checkbox"/>	<input type="checkbox"/>
Ischiopubic Ramus Ridge (1-3)	<input type="checkbox"/>	<input type="checkbox"/>
Greater Sciatic Notch (1-5)	<input type="checkbox"/>	<input type="checkbox"/>
Preauricular Sulcus (0-4)	<input type="checkbox"/>	<input type="checkbox"/>

**Estimated Sex, Pelvis (1-5):**  =

**CRANIAL:**

Nuchal Crest (1-5)	<input type="checkbox"/>
Mastoid Process (1-5)	<input type="checkbox"/>
Supraorbital Margin (1-5)	<input type="checkbox"/>
Glabella (1-5)	<input type="checkbox"/>
Mental Eminence (1-5)	<input type="checkbox"/>

**Estimated Sex, Skull (1-5):**  =

**Observations:**  
 sex is questionable but the significant difference in clavicle size and robusticity is suggestive of one male and one female

†This form includes information derived from Buikstra and Ubelaker (1994), *Standards for Data Collection from Human Skeletal Remains*, Arkansas Archeological Survey, and is used with permission of the publisher.



**AGE ASSESSMENT**  
**JUVENILE - RECORDING FORM (2b)**

<b>Stage of Union:</b> 0 = open 1 = minimal 2 = complete	<b>Provenience:</b> <u>AZ BB:13:156(ASM)</u>
	<b>Designation/ID:</b> <u>FN 2239, Unit 200</u>

Epiphyseal Union				Primary Ossification Centers		
Element	epiphysis	stage of union		Element	area of union	stage of union
		left	right			
Scapula	coracoid	<input type="checkbox"/>	<input type="checkbox" value="0"/>	Innominate	ilium-pubis	<input type="checkbox"/>
	acromium	<input type="checkbox"/>	<input type="checkbox" value="0"/>		ischium-pubis	<input type="checkbox"/>
Clavicle	sternal	<input type="checkbox"/>	<input type="checkbox"/>		Sacrum	ischium-ilium
	Humerus	head	<input type="checkbox"/>	<input type="checkbox"/>		1-2
distal		<input type="checkbox"/>	<input type="checkbox"/>	2-3		<input type="checkbox"/>
Radius	med. epicondyle	<input type="checkbox"/>	<input type="checkbox"/>	3-4		<input type="checkbox"/>
	proximal	<input type="checkbox"/>	<input type="checkbox"/>	4-5	<input type="checkbox"/>	
	distal	<input type="checkbox"/>	<input type="checkbox"/>	Cervical vertebrae	neural arches to each other	<input type="checkbox" value="0"/>
Ulna	proximal	<input type="checkbox"/>	<input type="checkbox"/>		neural arches to centrum	<input type="checkbox" value="0"/>
	distal	<input type="checkbox"/>	<input type="checkbox"/>	Thoracic vertebrae	neural arches to each other	<input type="checkbox" value="2"/>
Os Coxa	iliac crest	<input type="checkbox"/>	<input type="checkbox"/>		neural arches to centrum	<input type="checkbox" value="0"/>
	Femur	ischial tuberosity	<input type="checkbox"/>	<input type="checkbox"/>	Lumbar vertebrae	neural arches to each other
head		<input type="checkbox"/>	<input type="checkbox"/>	neural arches to centrum		<input type="checkbox"/>
greater trochanter		<input type="checkbox"/>	<input type="checkbox"/>	Cranium		basilar suture
lesser trochanter		<input type="checkbox"/>	<input type="checkbox"/>		Occipital	lateral – squama
Tibia	distal	<input type="checkbox"/>	<input type="checkbox"/>	basilar – lateral		<input type="checkbox"/>
	proximal	<input type="checkbox"/>	<input type="checkbox" value="0"/>	Mandibular Symphysis		
Fibula	distal	<input type="checkbox"/>	<input type="checkbox" value="0"/>		Metopic Suture	
	proximal	<input type="checkbox"/>	<input type="checkbox"/>			
Metacarpals	proximal (1st)	<input type="checkbox" value="0"/>	<input type="checkbox"/>			
	distal (2-5)	<input type="checkbox" value="0"/>	<input type="checkbox"/>			
Metatarsals	proximal (1st)	<input type="checkbox"/>	<input type="checkbox"/>			
	distal (2-5)	<input type="checkbox"/>	<input type="checkbox"/>			
C. Phalanges	proximal	<input type="checkbox"/>	<input type="checkbox"/>			
T. Phalanges	proximal	<input type="checkbox"/>	<input type="checkbox"/>			

Age Assessment			
	Age class	Age range in months or years	
Fetus	<input type="checkbox"/>	lunar months	<input type="checkbox"/>
Infant (birth – 2 yr)	<input type="checkbox"/>	months/years	<input type="checkbox"/>
Child (2 – 12 yr)	<input checked="" type="checkbox"/>	years	<input type="checkbox" value="4-6"/>
Subadult (12-20yr)	<input type="checkbox"/>	years	<input type="checkbox"/>

**Comments (criteria used for age assessment):**  
 used teeth development and vertebral fusion (4-6+/-12 mos.)

†This form includes information derived from Buikstra and Ubelaker (1994), *Standards for Data Collection from Human Skeletal Remains*, Arkansas Archeological Survey, and is used with permission of the publisher. 2b-1



SKELETAL MEASUREMENT  
ADULT - RECORDING FORM (5a)

*Record all measurements  
in millimeters.*

Provenience: AZ BB:13:156(ASM)

Designation/ID: FN 2239, Unit 200

CRANIAL

1. GOL Maximum Cranial Length		18. DKB Interorbital Breadth	
2. XCB Maximum Cranial Breadth		19. FRC Frontal Chord	
3. ZYB Bizygomatic Breadth		20. PAC Parietal Chord	
4. BBH Basion-Bregma Height		21. OCC Occipital Chord	
5. BNL Basion-Nasion Length		22. FOL Foramen Magnum Length	
6. BPL Basion-Prosthion Length		23. FOB Foramen Magnum Breadth	
7. MAB Maxillo-Alveolar Breadth		24. MDH Mastoid Length	
8. MAL Maxillo-Alveolar Length		25. GNI Chin height	
9. AUB Biauricular Breadth		26. HML Mandibular Body Height	
10. NPH Upper Facial Height		27. TML Mandibular Body Breadth	
11. WFB Minimum Frontal Breadth		28. GOG Bigonial Width	
12. FMB Upper Facial Breadth		29. CDL Bicondylar Breadth	
13. NLH Nasal height		30. WRL Minimum Ramus Breadth	
14. NLB Nasal Breadth		31. MRL Maximum Ramus Breadth	
15. OBB Orbital Breadth		32. XRL Maximum Ramus Height	
16. OBH Orbital Height		33. MLT Mandibular Length	
17. EKB Biorbital Breadth		34. MLX Mandibular Angle	

POSTCRANIAL

	left	right		left	right
35. Clavicle: Max. Length	166	130	60. Femur: Max. Length		
36. A-P Diam. Midshaft	12.7	11.2	61. Bicondylar Length		
37. Sup.-Inf. Diam. Midshaft	13.4	8.0	62. Epicondylar Breadth		
38. Scapula: Height			63. Max. Diam. Head		
39. Breadth			64. A-P Subtroch. Diam.		
40. Humerus: Max. Length			65. M-L Subtroch. Diam.		
41. Epicondylar Breadth	51.6		66. A-P Midshaft Diam.		
42. Vertical Diam. Head			67. M-L Midshaft Diam.		
43. Max. Diam. Midshaft	17.4	14.7	68. Midshaft Circumference		
44. Min. Diam. Midshaft	17.0	20.0	69. Tibia: Max. Length		
45. Radius: Max. Length			70. Max. Prox. Epiph. Breadth		
46. Ant.-Post. Diam. Midshaft	10.0		71. Max. Distal Epiph. Breadth		
47. Med.-Lat. Diam. Midshaft	15.2		72. Max. Diam. Nutrient For.		
48. Ulna: Max. Length			73. M-L Diam. Nutrient For.		
49. A-P Diameter			74. Circ. Nutrient Foramen		
50. M-L Diameter			75. Fibula: Max. Length		
51. Physiological Length			76. Max. Diameter Midshaft		
52. Min. Circumference			77. Calcaneus: Max. Length		
53. Sacrum: Anterior Length			78. Middle Breadth		
54. Anterior Superior Breadth					
55. Max. Trans. Diam. Base			79. Sternum: Length Mesostern.		
56. Pelvis: Height			80. Max. Breadth 1 <sup>st</sup>		
57. Iliac Breadth					
58. Pubis Length					
59. Ischium Length					

## **FN BAG ANALYSIS**

### **FN 2229, F.40, UNIT 203**

- Distal foot phalanx (#5?), & fragment of foot phalanx articular surface.

### **FN 2238, F.41, UNIT 204**

- 2 rib fragments, 1 cranial vault fragment.

### **FN 2250, F.43, UNIT 206**

- Left cuboid, navicular, med./inter./lat. cuneiform.

### **FN 2275, F.?, UNIT 207**

- Right MT2 & MT5, and proximal #2 phalanx, right fibula 2/3 middle & distal complete (a-p: 12.56mm; m-l: 18.12mm).
- Very large and robust (likely male).

### **FN 2280, F.?, UNIT 208**

- 2 juvenile rib fragments...could be from F.41?

### **FN 2285, F.44, UNIT 210**

- Right distal 1/3 fibula, hand: proximal #1, #2, #4, #5, distal #2, #3, right triquetral, 1 thoracic transverse process, 3 vertebral articular facets, left and right rib #12, right hyoid horn, 2 ribs, 6 cranial vault fragments, 12 unidentified fragments.



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1889b City council. 8 October, p. 4. Tucson.  
1889c Memorial day programme. 29 May, p. 4. Tucson.
- 1890 Article about Masonic cemetery lot. 22 July, p. 4. Tucson.  
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1889c Note about Fireman's ball. 11 May, p. 3. Tucson.  
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- 1907a City dads disagree on cemetery proposition. 6 August, p. 5. Tucson.
- 1907b The city news in paragraphs. 7 March, p. 4. Tucson.
- 1907c Council decides cemetery matter. 11 July, p. 5. Tucson.
- 1907d Memorial Day is fittingly observed. 30 May, p. 5. Tucson.
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1907e Owen T. Rouse writes on cemetery matter. 29 July, p. 5. Tucson.
- 1907f Special council meeting considers cemetery plan. 10 July, p. 5. Tucson.
- 1907g Trees along cemetery fence. 27 February, p. 5. Tucson.
- 1908a Impressive services G.A.R. members decorated graves of departed comrades. 30 May, p. 5. Tucson.
- 1908b Services for J. S. Stockham. 2 June, p. 8. Tucson.
- 1908c Will unveil monument. 25 July, p. 5. Tucson.
- 1909 Found graves left open. 26 October, p. 8. Tucson.
- 1910 Veterans will strew flowers on graves. 28 May, p. 1. Tucson.
- 1912a Claims vandals are injuring graves. 28 August, p. 5. Tucson.
- 1912b Volunteer fireman will hold meeting. 3 September, p. 3. Tucson.
- 1913 Boy earning 20 cents a day filling graves. 11 January, p. 6. Tucson.
- 1914 Young soldiers do honor to soldiers of yesterday. 30 May, p. 1. Tucson.
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- 1915g Bernard to confer with lodge committee on cemetery tract. 10 February, p. 4. Tucson.
- 1915h Bernard urges moving of bodies. 5 May, p. 4. Tucson.
- 1915i City Manager's report is filed. 29 July, p. 3. Tucson.
- 1915j City of Tucson has nearly million dollars valuation of property, 17 February, p. 1. Tucson.
- 1915k City will sell old cemetery as it is. 29 September, p. 8. Tucson.
- 1915l Council will act on delinquent water accounts. 2 August, p. 4. Tucson.
- 1915m Declares city is marauded by University roughs. 2 March, p. 3. Tucson.
- 1915n Fraternal order will get deeds from council. 21 September, p. 5. Tucson.
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- 1916b Weather man will locate in Tucson. 18 July, p. 8. Tucson.
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