

VARDEMAN CEMETERY ANALYSIS

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Mortuary Hardware Typology:

The major categories and overall form of the Vardeman Cemetery hardware typology are based on the same simple schema utilized for the Freedman's Cemetery Project in Dallas, Texas (Davidson 1999; Davidson 2000). Basically intuitive, this mortuary hardware typology can actually be summed up in a few words: a new type designation was required when *any* unique design (*or unique combination of elements*) was encountered. For example, the first thumbscrew encountered during the analysis was given the type designation of Thumbscrew Type 1. If the very next burial excavated uncovered a thumbscrew with an even *slightly* different design motif, than it was assigned a new type number (e.g., Thumbscrew Type 2).

With coffin handles (forms of mortuary hardware that are actually composite artifacts), an additional rationale was required. If a newly encountered handle combined previously known elements in a unique combination, (e.g., a lug from a previously typed handle, with a bail from yet another previously typed form), then this *unique combination* of previously known components constituted a new type.

While the Freedman's ~~typo~~ typology and hardware assemblage included size variants, noted by the application of a numerical suffix identifier {e.g., Freedman's Handle type 18 (adult sized double lug swingbail); Handle type 18.1 (subadult sized double lug swingbail)}, the Vardeman hardware assemblage did not have any apparent size variants.

In all, there were 100 unique hardware types defined (i.e., 24 handle types, 3 outer box handle types, 19 thumbscrew types, 3 coffin screw types, 12 escutcheons types, 11 types of plaques, 7 types of caplifters, 4 caplifter bases, 1 type of decorative corner, 5 types of ornamental tacks, 6 types of compound latches, and finally, 5 types of miscellaneous hardware elements) (see Appendix 1).

All hardware identifications and the subsequent typology were created from an examination of color photographs and/or line drawings; the actual artifacts were not examined in person. While this was not an ideal circumstance, my extreme familiarity with the mortuary hardware of the late 19th and early 20th centuries, from my experience as the mortuary hardware analyst for the Freedman's Cemetery Project excavations in Dallas, Texas (Davidson 1999; 2000) allowed for accurate identifications.

Vardeman Cemetery: Chronology.

Sixty-nine interments were exhumed from the Vardeman Cemetery (Table 1). Marked graves or individuals identified through genealogy span 1831 through 1944. An unusually long time period for a cemetery to remain active, this burial ground received interments from the time of Andrew Jackson's administration to the height of World War Two.

Certainly vast changes occurred in American culture between the circa 130 year interval the cemetery remained open and received interments. Therefore, for any analysis or insight into the past to be achieved, determining a date of interment or at least a date range for any exhumed burial is of critical importance. Without a basic knowledge of the times during

which someone lived and later died, the task of evaluating the physical remains of that life (whether osteological or artifactual) is a difficult if not impossible one.

Since most isolated graves or historic cemeteries investigated archaeologically are unmarked, this dating is usually achieved by associated artifacts or other pertinent criteria (e.g., superposition, spatial locus, etc.). What is unusual in the case of the Vardeman Cemetery is that so many of the graves consisted of marked interments or otherwise known individuals. Even more unusual is that the vast majority of these identified graves date prior to 1900, and in fact some of the earliest graves recovered archaeologically number among them (see Figure 1).

Methodology:

Dating the interments exhumed from the Vardeman Cemetery was achieved through multiple lines of evidence. The first was the identification of the associated elements of mortuary hardware. As detailed above, a typology was created to distinguish between unique types of coffin hardware (see Appendix 1).

Once the typology was created, individual hardware elements were dated following three lines of evidence: patent dates, dates derived from period coffin hardware catalogues, and known or estimated dates of interment from graves exhumed from previous archaeological investigations. This was done to establish patent and introduction dates or *terminus post quem* (TPQ), as well as the general date by which specific hardware elements had fallen out of favor, manufacture, and use (i.e., *terminus ante quem*, or TAQ) (see Appendices 1, 2).

The archival materials used as comparatives, and discussed in detail below, were originally collected for my Masters work, which dealt with formulating the chronology of exhumed burials at the Freedman's Cemetery Project in Dallas, Texas (Davidson 1999).

United States Patent Records:

Utility Patents (1839-1907) (N=1,069).

All of the utility patents dealing with coffins, caskets, coffin hardware, and other elements of the mortuary arts or the funeral industry that were entered into the record of the United States Patent Office were examined (N=1,069) and a detailed database with all available information created. Of these patents, 292 (or 27%) of those pertinent to the material culture of historic graves and that contained elements likely to be encountered archaeologically were photocopied.

Design Patents (1843-1907) (N=369).

As with the utility patents, a database of all design patents pertinent to the mortuary arts of the 19th and early 20th centuries was formulated. In all, there were 369 patents in the design category recorded between 1843 (the first year design patents were issued), to 1907. Of these, 354 (or 96%) were photocopied.

Coffin and Coffin hardware catalogues (N=70).

In addition to the patent records, it was also necessary to collect mortuary hardware trade catalogues from the 19th and early 20th centuries, so as to establish when specific kinds of

hardware types were offered for sale and therefore utilized by the American public. Copies of catalogues were collected from such national repositories as the Library of Congress, in Washington, D.C., as well as Winterthur Museum, the University of Delaware Special Collections, and the Hagley Museum in Delaware. Additionally, examples of some catalogues were privately purchased. The total number of catalogues (and/or price lists) consulted for the Vardeman Cemetery Project was 70. They range from an English copy book of mortuary designs dated circa 1798, to the 1959 catalogue of the Victor Casket Hardware Company of Galesburg, Illinois. The specific catalogues, their printing dates, and locational information, all can be found in Table 2.

Previous archaeological investigations of historic cemeteries.

All elements of mortuary hardware recovered from the Vardeman Cemetery excavations were, whenever possible, also compared to the hardware assemblages recovered archaeologically from previous historic cemetery investigations (N=45). A list of the specific sites chosen for comparison is given in Table 3. Any matches are given in Appendix 1.

Associated Artifacts:

In addition to the mortuary hardware, elements of clothing, of personal adornment, and other artifacts recovered with individual burials did provide some means of temporal control. To aid in their identification and dating, a number of 19th and early 20th century clothing and general merchandise catalogues were utilized as source material. These catalogs range between 1856 and 1922, and are listed in Table 4.

----- Specific Clothing and Personal Effects

Porcelain buttons (and porcelain studs):

In 1840 in England, Richard Prosser invented a process by which utilitarian porcelain buttons could be easily mass produced. Manufacture of Prosser process porcelain buttons began in America 8 years later (or in 1848), but most of the world's supply of porcelain buttons were actually manufactured in France and England. In common use since the mid 1840s, the manufacture of porcelain buttons virtually ended by 1915/1920, when buttons made of modern plastics found ready acceptance in the marketplace (Albert and Adams 1970:4-5; Pool 1991; Rogers 1995). Porcelain buttons were useful in defining the date ranges of some pre 1900 interments, providing a *terminus post quem* of circa 1840-1850. Their presence was also somewhat helpful in providing supportive corroboration of the circa 1920 *terminus ante quem* for certain interments.

Bone Buttons:

Bone buttons were commonplace since at least the 18th century, but utilitarian bone button manufacture ended in the early 20th century. One particular form of bone button is temporally diagnostic; specimens with five holes (the center hole formed by early lathe machines) were only manufactured between circa 1830 and 1850 (Olsen 1963: 553; Luscomb 1992: 25-26).

Three interments were associated with bone buttons exhibiting 5 hole sew throughs or other evidence of lathe manufacture. Burial 39, containing the remains of Morgan Vardeman and dated to 1847, was associated with at least five bone buttons, all with the 5 hole sew throughs. Burial 31, associated with a five hole bone button in addition to Prosser Process porcelain buttons, was also an identified interment; Ephraim Pennington Holmes, who died in 1852.

Finally, Burial 38, dating to 1846 and containing the remains of William Vardeman, was associated with 2 bone buttons, one of which has an incomplete lathe drill point, indicative of the same manufacturing process and dating. While each of these interments had been dated through genealogy or associated tombstones to the years 1846, 1847, and 1852, the additional association of the five holed bone buttons, known to have been manufactured between 1830 and 1850, is indicative of the kind of chronological precision that such associated artifacts can provide.

Modern plastics (e.g., Bakelite):

Although hard rubber, patented in 1844 (Luscomb 1992:90-91), and celluloid, patented in 1869 (Friedel 1983), arguably can be considered the world's first plastics, modern synthetic plastic polymers actually date to the early 20th century. The first modern plastic, Bakelite, was invented by Dr. Leo Baekeland between 1907 and 1909, and mass production of buttons with the new material became commonplace after the first World War (or circa 1920) (Luscomb 1992: 19; Pool 1996).

Burial 8 clearly has several specimens of Bakelite buttons, and this interment, based on this association as well as other artifacts, has been dated to circa 1915-1950. Additional materials formed from modern plastics and recovered archaeologically include sets of dentures. Burials ¹³⁹12 and 60 were associated with full sets of dentures, and both have been dated to the 1915-1950 time period.

Combs?

Tortoise shell combs:

Prior to the invention of the first plastic materials (i.e., hard rubber and later celluloid), hair combs were manufactured of such organic elements as wood, bone, horn, ivory, and tortoise shell. In the early 19th century, southeastern France and certain towns in Massachusetts were the primary centers of comb manufacture that utilized tortoise shell as a raw material. As the introduction of hard rubber (in 1844) became commonplace and the means to manufacture horn combs were simplified and streamlined, the manufacture of combs of tortoise shell was extremely curtailed; by circa 1850 only 1 manufacturer in 24 in the United States still utilized tortoise shell in even a limited way, and the availability of tortoise shell combs declined remarkably quickly (Friedel 1983:72).

From an examination of a collection of 19th century catalogues (see Table 4), combs of this sort were indeed rapidly replaced by combs manufactured out of other materials. For example, in 1866, in one of the earliest catalogues available for study, the New York company of Weld, Andrews, & Leet offered 18 varieties of horn (or bone) combs, with the remaining 10 examples of hard rubber. no tortoise shell examples were sold by this firm. Additionally, no tortoise shell combs could be found listed for sale in an 1872 copy of Sheldon's Weekly

Dry Goods Price List, an authoritative 320 page listing of wholesale manufacturers published in New York City. In three pages of combs, only ivory, rubber, and horn varieties are for sale.

These examples are not given to suggest that tortoise shell comb production ceased after the 1860s; rare examples can be found in such late 19th century references as the 1896 Marshall Field & Co. catalogue (Schroeder 1970: 280). Rather, the rapid decline in tortoise shell comb production offers us a suggested range or general time period during which such combs would have been commonplace.

Four burials exhumed from the Vardeman Cemetery were associated with such tortoise shell combs. Three of these burials have been independently dated from either tombstones or through genealogy; their dates of interment are 1842 (Burial 51), 1844 (Burial 36), and 1846 (Burial 42). All of these interment dates are in correspondence with the known popularity and common production of tortoise shell combs. The fourth grave, Burial 50, has been assigned an estimated date of interment of circa 1830-1850, based on its spatial locus and artifact assemblage. This grave is immediately adjacent to burials 36 and 51. Their proximity and virtually identical comb association only bolsters this interment's dating assignment.

Snaps:

True snap fasteners were first invented in France in 1863, but their only application in these early years was as fastening devices for gloves. Improvements on this initial patent were made in 1880. Again, these improved fasteners were used only on gloves. It was not until 1900

that the modern snap fastener was created. Utilizing a ball and socket design, their introduction into the marketplace was almost instantaneous (Manchester 1938:30-32). In the catalogues examined for this study, snap fasteners were advertised for sale as early as 1902 within the pages of the Sears, Roebuck and Company catalogue. Snap fasteners were originally termed "invisible sew on fasteners," and marketed as viable replacements for hooks and eyes on dresses, skirts, etc. (Sears 1902:947).

Burial 12, with an interment date of 1944 (established through archival means), was found in association with a snap fastener.

Safety Pins:

During the archaeological investigation of Freedman's Cemetery in Dallas, one of the most useful temporal diagnostics recovered proved to be the common, everyday safety pin.

Previously considered insignificant and mundane in historical archaeology, the safety pin actually is an excellent temporal indicator, inasmuch as its origin is a known one (it was first patented in the United States in 1849), and its form was not static. Rather, seventeen varieties were recognized and defined in a typology by my colleague, Ms. Victoria Owens, and myself, and these forms were patented between 1849 and 1900. The typology given below is that formulated for the Freedman's Cemetery investigation (Davidson 1999: 171-175; Owens 2000:424-427).

Safety pins were recovered from five of the Vardeman interments (Burials 2, 15, 16, 60, 61).

Burial 2 was associated with a Type 1C pin (the end type is not known). This pin type was patented in 1888, by W. F. Hyatt (Utility Patent No. 375, 873). This burial was assigned a 1900-1920 date of interment range, largely based on the temporal signature of other associated artifacts.

Burial 15 had at least two safety pins, identified in the Freedman's typology as Type 1DI. The patents that contributed to this pin head form date to 1878 and 1881 (Utility Patent Nos. 199, 346 and 236, 149). Pins of this type were known through advertising as Clinton Safety Pins (Owens 2000:426). Burial 15 was dated to the 1900-1920 temporal range.

Burial 16 was associated with a safety pin known in the Freedman's typology as Type II. The Type II pin was patented on January 1, 1878, by John Lindsay, and is generally known as the Lindsay Pin (Utility Patent No. 198, 890). This interment was assigned to the 1900-1920 date of interment range.

Burial 60 had two safety pins recovered archaeologically, both of which appear to be Type 1DIV. This pin type was patented on January 14, 1896, by George Boden, who assigned the patent to the Oakville Company of Waterbury, Connecticut. The temporally diagnostic element on this pin is the design of the end coil (Utility Patent No. 553, 049). Burial 60 was assigned to the Group 3 dating, circa 1920-1950.

Burial 61 was also associated with a safety pin, though it is extremely fragmentary, with only the head remaining. Further, this recovered head is extremely corroded, making exact identification difficult from extant photo-documentation. Given this, it does appear to be a completely enclosed shield head form, and so can only be one of three possible varieties; Type 1D, Type 1F, or Type 1H. Patents for these forms range from 1878 to 1900 (for the 1H form). This interment was dated to circa 1920-1950.

While the safety pins recovered from the Vardeman Cemetery did not prove particularly critical as temporal diagnostics in these given instances, safety pins recovered from mortuary contexts do hold an enormous potential to better define chronologies and therefore, interpretations in regard to health and socioeconomic measures.

Other Dating Criteria/Temporal diagnostics:

Some elements of the physical grave that ordinarily would serve as basic temporal indicators are the morphology of the burial container itself (i.e., coffin or casket), as well as the presence or absence of grave arches or vaulting (e.g., Swauger 1957; Bell 1994; Davidson 1999). Such criteria could not be consistently applied with the Vardeman sample due to extremely poor wood preservation, often rendering the form of the burial container vague at best.

Dating the Interments: Caveats and Conventions

Assigning dates of interment to unmarked burials is an odd business. It's unlike assigning a date range to an occupational midden or a structure. It is also dissimilar to the

dating of most kinds of discrete features, such as privies. This is because the object of study, the grave and its contents, all are associated with a single moment in time, a depositional sequence that occurred in literally hours, and typically lay sealed until the archaeologist's exhumation.

The basic rules of dating employed here are similar to that used during the Freedman's Cemetery Project (Davidson 1999; 2000). For each grave it was necessary to establish, whenever possible, the most assured *terminus post quem* of every associated artifact. By assured, I mean a true "no earlier than" date, such as with a patent or other kind of demonstrably beginning production date or introduction date for the given object. With this accomplished, the most *recent* artifact identified then serves as the *terminus post quem* of the burial itself. Remember that a *terminus post quem* is just what it says it is, "the date after which..." (Noel Hume 1991:11). This rather straightforward concept is often misconstrued, however, especially in the dating of historic graves.

An example of a recent misunderstanding of the TPQ concept and a subsequent misapplication of mortuary hardware identification is the Pioneer Cemetery investigations in Dallas, Texas (Cooper et al., 2000). In this report, TPQ's or "no earlier than" dates were assigned to interments based on the presence of a hardware element in a single coffin hardware catalogue. Knowledge of these catalogue appearances are themselves derived from Davidson (2000), who states quite unequivocally in these instances that the given catalogue dates "... are merely the earliest twentieth century catalogues found that exhibit those hardware elements. These hardware elements may have been introduced earlier than the date of the catalogue found" (Davidson 2000: 331). This misapplication may stem from a mistaken

belief that these correlations (i.e., recovered coffin hardware to archival catalogues) were the *primary* dating schema in the Freedman's Cemetery chronology, which was not the case. Rather, it was the correlation of unique and highly complex mortuary hardware patterning with the local archival record that resulted in the relatively precise dating of the burials in Dallas (Davidson 1999).

Many of the TPQ's assigned by Cooper et al. (2000) are not true "no earlier than" dates, but rather are dates during which it has been established only that an associated artifact was available for purchase. *Terminus post quem*'s are introduction dates, not a single year picked from the maximum period during which an object was manufactured and offered for sale. Beyond the TPQ factor, looking at the dating criteria for a single element of coffin hardware can also be problematic. Therefore, the known dating criteria for *all* associated mortuary hardware was calculated for each interment, and all factored into the chronology (see Appendix 2).

Although defining a *terminus post quem* for an historic burial often is straightforward, establishing a date that can serve as a burial's *terminus ante quem* (or TAQ) can be far more difficult to pinpoint, and such dating usually lacks the precision of the former. Generally speaking, the TAQ's defined for the Vardeman Cemetery burials are based on the decline in use or end of manufacture of associated artifact types (e.g., cut nails, porcelain buttons manufactured by the Prosser Process, specific forms of mortuary hardware). These TAQ's are bolstered by the supposition that, for examples of associated coffin hardware, the family members interring the dead at the Vardeman Cemetery had sufficient funds to purchase

contemporary examples of mortuary trimmings. Certainly the dating of the clothing, personal effects, and associated coffin trimmings were always internally consistent within each interment, further suggesting that this supposition is valid.

With the post 1900 Group 3 interments, the assigned *terminus ante quem* of 1950 is in part based on cross comparisons between mortuary hardware associated with Burial 12 (dated to 1944) and other burials, and the belief that interments in the Vardeman Cemetery had ceased to occur by circa 1950.

The burials recovered from the Vardeman Cemetery have been assigned to one of 4 broad temporal periods or groupings (see Tables 5, 6).

The first broad temporal break that can be established at the Vardeman Cemetery is a pre-1900 or post-1900 dichotomy, in part based on nail forms. As initially established by Garrow (Garrow and Symes 1987; Garrow 1987), Shogren (1989), and others, one basic dating criteria applicable to graves from the 19th and early 20th centuries are the kind of nails used in the construction of coffins, caskets, or outer boxes. From my work on the Freedman's Cemetery Project in Dallas, Texas, with a sample of nearly 1200 interments I was able to establish that wire nails did begin to appear in mortuary contexts in Dallas just around the turn of the century, or *by convention*, circa 1899/1900 (Davidson 1999:161).

Figure 2 gives the location of burials with cut nails, cut and wire nails, or exclusively wire nails in the Vardeman Cemetery. Even with this single and basic criterion, the spatial distribution of graves within the graveyard is revealed to be highly structured and patterned,

with the core of the cemetery containing the earliest graves, and its periphery containing the more recent interments.

Note that the assignment of a single year (in this case circa 1900) to serve as the date by which wire nails were introduced into historic mortuary contexts, is merely a convention. The maximum date range for the first appearance of wire nails almost certainly extends sometime between 1890 and 1900, the exact year depending upon buying power or consumer choice, available coffin or casket styles, the presence or absence of outer boxes, geographic loci (of both the manufacturer and the consumer), the curation of burial containers at the factory (due to overproduction), and the manufacturer's preference in nail types (Davidson 1999).

Further, with the extreme and often sudden variability of wholesale costs for specific pennyweights of both cut and wire nails that occurred in the 1890s (especially for small finishing nails), it is highly possible that a commercial coffin manufacturer may have actually switched from cut nails, to wire nails, and back again, perhaps several times, before the wire nail industry finally achieved virtual dominance by the early years of the 20th century (Loveday 1983).

A detailed analysis of the actual implementation of wire nails into the commercial coffin industry (as opposed to the simple availability of wire nails generally in the building trades), suggests a delimitation of the common introduction of wire nails in commercial coffin manufacture from 1890 to circa 1895 (Davidson 2000: 247-252; 386-392). In the Freedman's Cemetery excavations, because of the ability to date burials relatively precisely, it

was determined that wire nails, in part due to the economic vagaries of both manufacturer and consumer, experienced a delayed introduction into the archaeological record until the very late 1890s, or by convention, 1899/1900 (Davidson 2000:247-252; 293-294).

What was established at Freedman's Cemetery in Dallas, however, may not necessarily hold true for other historic cemeteries. So the Freedman's dating of wire nail introduction and cut nail curtailment was considered first as the working hypothesis at the Vardeman Cemetery, and its veracity was then tested internally by comparing the dating of associated artifact types.

The basic dating assignments to be tested was that the presence of cut nails, wire nails, or combinations of both varieties on a single interment can serve as the basic criteria for the dating of interments prior to circa 1900 (in the case of cut nails), circa 1900 (in the case of cut and wire types) or after circa 1900 (in the case of wire nails). It seems apparent that this basic rule holds for the Vardeman sample as well.

For example, it was possible to correlate the types of nails associated with corrugated fasteners (known in the Vardeman hardware typology as Miscellaneous Hardware Type 3). Through detailed archival research of 19th and early 20th century wholesale hardware and building supply catalogues, it was established that the corrugated fastener, although patented in 1884 as a concept, was not actually manufactured or offered for sale until the terminal 19th century --- the earliest known wholesale catalogue that offers such fasteners for sale dates to 1900 (McIntosh-Huntington Company 1900). The advertisement and copy that appeared in this catalogue covers an entire page and describes in amazing detail how these objects

functioned (i.e., taking the place of mortise and tenon joints), suggesting that corrugated fasteners were indeed quite novel in 1900 (Davidson 1999).

To cite the 1884 patent date as the TPQ for corrugated fasteners (as done in Cooper et al. 2000), misses the point; certainly the idea of corrugated fasteners came into existence in 1884, but the physical object, through mass production, distribution, coffin manufacture, and finally interment, dates some 16 years later. Indeed, of those graves at Freedman's Cemetery in Dallas with estimated dates of interment refined to a single year, the corrugated fasteners all date from 1903 or later (Davidson 1999: 163-164).

In the Vardeman burial sample, 14 interments were associated with corrugated fasteners. Of the handful of Vardeman burials associated with both cut and wire nail types (N=6), only one (Burial 4) also had corrugated fasteners. The association of a single burial with both cut and wire nails as well as corrugated fasteners suggests that cut nails were becoming a rarity and wire nails were being commonly utilized by circa 1900, the established introduction date of corrugated fasteners into burial contexts as demonstrated during the Freedman's Cemetery excavations in Dallas and elsewhere (Davidson 1999).

Other well dated coffin hardware elements, such as various coffin Latch types (e.g., Vardeman Latch Types 1, 2, 3, and 6) and Miscellaneous Hardware Type 4 have utility patent dates spanning 1888 and 1891. All examples of these hardware elements recovered from the Vardeman Cemetery were associated exclusively with wire nails.

Certainly the *terminus post quem* of these objects vary between 1888 and 1891 (depending upon the element), and their association with wire nails suggests at the very least a dating of wire nails in the Vardeman Cemetery to circa 1890, although the actual introduction

of these latches into the market place likely occurred a few years after their initial patents were approved, pushing the documented usage of wire nails (and the end of cut nail usage) into the mid to late 1890s or later. Indeed, all of these hardware elements were also recovered from the Freedman's Cemetery excavations in Dallas, on a total of 121 burials. All were associated with wire nails, suggesting a turn of the century dating. The estimated dates of interment for these Freedman's burials were all 1902 or later (the cemetery closed in 1907), suggesting that a slight time lag (of circa 10 years) occurred between the various latches assignment at the United States Patent Office and their ready acceptance by manufacturers and ultimately, consumers (Davidson 1999).

Of course, as stated above, dating assignments based on nail associations must be viewed as basic thumb rules always subject to modification (in fact, there are exceptions in the Vardeman sample), and always dependent upon other dating criteria (e.g., associated artifacts with well defined TPQ's).

Pre-1900 Interments:

Of the 69 exhumed burials, 42 (or 59.4%) have been dated prior to circa 1900. Specific dating criteria for each interment can be found in Appendix 2, while their summary dating criteria and spatial distribution are given in Table 5 and Figure 3.

Nineteen burials, or approximately half of the total number of pre-1900 graves (46%) are identified individuals with known interment dates, based either on tombstones or

genealogical information. These graves have dates that range between 1831 and 1873 (see Table 5). The presence of dated graves, especially in the case of such early burials, is serendipitous, and allows the opportunity for other burials to be estimated with greater accuracy. Since the attributes of these identified graves have some bearing on the dating of other interments, a brief summary of their attributes is in order.

These 19 dated graves have mortuary assemblages entirely consistent with their dating. For example, of the 13 burials dating between 1831 and 1852, the only mortuary hardware (save for nails) in association with the graves are simple iron gimlet screws, presumably used in securing the lids of the coffins (see Figure 4). Note that the screws were not recovered *in situ*, but rather were collected with the nails. Their association with the coffin lid, made here, is based on common sense and knowledge of other 19th century burials. For example, of the hundreds of burials exhumed during the Freedman's Cemetery Project in Dallas, the earliest graves often were lacking in any formal coffin hardware, and yet utilitarian iron screws were directly observed *in situ*, serving the function of lid closure (Davidson 1999).

At Vardeman, these utilitarian iron screws were recovered from 12 of the 13 graves dating between 1831 and 1852; the sole dated burial of this grouping recovered without iron screws is Burial 43, ^{dated} containing the remains of an infant daughter of the Stephenson family. This burial may not have had screws at the time of interment, or it is possible that any screws once associated with the grave were missed during excavation.

The first of the identified graves to be associated with formal mortuary hardware is Burial 35, dating to 1861 and containing the remains of Hannah B. Stephenson. The mortuary hardware associated with this interment consists of formal, white metal coffin screws. Coffin screws would have been the normative hardware form during this period; the earliest known catalogue listing coffin screws for sale is the Peck and Walters Company Catalogue of 1853, and thumbscrews, the coffin hardware form that would ultimately replace coffin screws, were not introduced until 1869 (cylindrical form) and 1874 (flat bodied form) (Davidson 1999:147-151).

Temporally, the next dated interment is that of Eliza E. Stephenson, who died in 1862 (Burial 44). Eliza's coffin lacks coffin screws or other formal mortuary hardware, and instead employs simple utilitarian iron screws as lid closure, similar to the interments dating to 1852 or earlier. In part this lack may be explained by the disruption in all aspects of life (and death) brought about by the advent of the American Civil War.

After Eliza's burial in 1862, the next dated interment is that of David M. Stephenson (Burial 34), who died one year later, or 1863. David's coffin complex was outfitted with coffin screws as well as decorative, diamond stud tacks (which due to poor preservation, are of an unknown type). As with white metal coffin screws, cuprous diamond studs would have been some of the most up to date mortuary hardware forms available in the early 1860s (e.g. Russell and Erwin 1865: 331).

The last three of the pre-1900 dated burials (Burials 41, 32, 23), dating between 1870 and 1873, have full compliments of mortuary hardware including coffin handles and in the case of Burials 32 (Samuel Holmes) and 41 (Lindsey Stephenson), metallic coffins.

Although the simple distribution of burials by associated nail type (Figure 2) clearly establishes that the cemetery was utilized through time in a consistent manner, an examination of the location of the dated graves makes this pattern of burial placement even more compelling. For example, the oldest of the dated graves lies in the center of the cemetery {e.g., Burial 47 (1844?), Burial 37 (1844), Burial 51 (1842)}, and consistently time and time again, more recent interments are placed adjacent to them, radiating out to the north and south, eventually forming the three central rows.

Dating the unidentified pre-1900 interments:

To assign date of interment ranges to unmarked graves, often the founding date of the cemetery (when known) serves as the *terminus post quem*, while the ending date or closure of the cemetery serves as its *terminus ante quem*. For example, at the Freedman's Cemetery in Dallas, it was established through much archival research that the cemetery was created in 1869 and was closed as a health hazard in 1907 (Davidson 1999). This left a 39 year span by which dates of interment for individual graves could be further delimited using associated artifacts, etc. This simple strategy could not be fully implemented at the Vardeman Cemetery, however, since the time span during which the cemetery remained open is vast.

Therefore, to more precisely date those interments believed to date prior to circa 1900, two strategies were employed. First, a maximum date range for each burial was calculated using the *terminus post quem* of either the most recent associated artifact or in

some cases, its spatial locus in association with dated graves, while the *terminus ante quem* of cut nails (i.e., circa 1899), served as the potentially maximum end date for the temporal range. Note that the date of 1899 should not be taken as a literal absolute date by which wire nails were introduced in burial containers in the Vardeman Cemetery. As discussed above, it is a good mean date, given the available evidence present at the Vardeman Cemetery and in other historic cemetery investigations.

[Since it is clear from the dated sample that interment proceeded within the cemetery in an orderly and systematic fashion (with later graves usually placed to the immediate north or south of existing graves), each unmarked burial's location, relative to those identified interments adjacent to them, was considered.] This was especially crucial for those interments whose only dating criteria were cut nails (N=18). Therefore, the *terminus post quem* and/or the *terminus ante quem* of some interments was often estimated using, in part, the known dates of adjacent burials.

For example, Burial 46 lies within one of the two central rows, between two graves that have been tentatively dated to 1844 (Burial 47) and 1861 (Burial 35). The estimated date of interment range assigned to Burial 46 reflects this placement spatially: 1840-1860. <

The maximum date range of burials associated with cut nails but no other temporal diagnostics was also delimited by considering the temporal signature of mortuary hardware and other objects within the *identified* burial sample. That is, the date for the introduction of formal mortuary hardware locally, within the burial sample, was considered as the date by which formal hardware would have been considered normative and present on every

Stephens
+ Vardeman
dividing
line

subsequent interment. This thumb rule certainly holds true for every dated grave after 1861 (with the sole exception of Burial 44, the 1862 interment of Eliza E. Stephenson).

Since inclusion within the Vardeman Cemetery was based on familial lines, and presumably the families included did not radically lose socioeconomic status or buying power before or even after the Civil War (since virtually all of the later interments also contain large amounts of mortuary hardware), this argument seems a viable one. Additionally, it is assumed that the Vardeman family and related families were immersed within the national Beautification of Death movement, and experienced the desire and had the means to acquire contemporary mortuary trimmings throughout the 19th century. Certainly the dated graves suggests that this was the case; all have trimmings entirely consistent with their time of interment.

Therefore, the dating of 15 of the 18 interments associated with early traits (e.g., location within early rows, cut nails and simple gimlet screws), have a *terminus ante quem* or ending date of 1870 (taking the introduction date of coffin hardware occurring in 1861, and extending it to the end of the decade, when mass production of such hardware, ease of shipping, and the desire for mortuary display was being realized) (see Table 5).

The assignment of date ranges based, in part, upon spatial loci relative to dated graves of known individuals, is only bolstered by the association of temporally diagnostic artifacts. A detailed discussion of these specific artifact types (e.g., ceramic buttons, 5 holed bone buttons, tortoise shell combs) is contained above, and a summary of their distribution can be found in Table 5.

In assigning dates of interment to the pre-1900 burial sample, unfortunately one basic temporal indicator, namely the form of the burial container itself (e.g., hexagonal, rectangular, etc.), could not be consistently employed. Due to extremely poor wood preservation, specific forms were often indistinguishable in the field. Given this, it should be noted that of the 69 exhumed burials, the few identified hexagonal (N= 12) as well as the possibly tapered burial container forms (N= 3) are all associated with interments assigned to a pre-1900 temporal range. Conversely, when identification of the burial container was possible, every interment assigned a circa 1900 or later temporal range was found in association with a rectangular casket form. This general trend is well established nationally (Davidson 1999:151-155).

Caveats:

1878
Burials 18 and 45, both assigned a pre-1900 interment range (1890-1899), hold the least assured dating of all the pre-1900 interments.

First, the nails associated with Burial 18 were in very poor condition, and their identification as square cut was considered the best guess. Further, the thumbscrew type associated with Burial 18, Thumbscrew Type 1, is the most common white metal variety recovered during excavations, occurring on a total of 5 burials, and the other 4 occurrences are on interments placed in a circa 1900-1920 temporal range, due to their association with wire nails and other hardware elements (e.g., corrugated fasteners, etc.).

Burial 45 has somewhat similar circumstances. It was found in association with nails identified as both cut and wire, though cut nails were clearly in the majority (N=97; in contrast, the identified wire nail fragments numbered only 18). What suggested a pre-1900

date range were its other associated artifacts, such as the elaborate black glass buttons, the early form of dentures, and in particular Handle Type 24, an archaic tipped swingbail handle form (for description of a tipped bail type; see below and also Davidson 1999: 536-537).

This handle type has identical catalogue matches beginning in 1871 and extending up to 1884. Further, the basic form of the handle has a design patent dated to 1869 (Design Patent No. 3,592) (see Appendix 1). No later occurrences of this handle were observed in extant archival records or was recovered archaeologically at other historic cemeteries. Certainly the escutcheon type recovered with Burial 45 (Esc. 8) also could suggest an earlier, as opposed to later, date of interment, since it is a clearly early form; its first appearance in catalogues dates to 1877 (see Appendix 1).

Save for the association of a few possible wire nails, Burial 45's artifact assemblage points to a pre-1900 interment date, and the presence of these wire nails does not, in and of itself, negate the applied dating.

Does this mean wire nails present as early as 1879?

20th century interments (circa 1900 through 1950) (N=27):

Twenty-seven of the exhumed Vardeman interments have been dated to circa 1900 or later (39% of burial sample). Their specific dating criteria can be found in Appendix 2, while their summary dating and spatial distribution can be found in Table 6 and Figure 5.

Unlike the pre-1900 interments, which included several identified individuals with known interment dates, only two burials that date after 1900 have been identified and dated: Burial

22 (1922) and Burial 12 (1944). Both dated graves proved useful in establishing what hardware types and associated artifacts were in use at the time of their interment. Also unlike the pre-1900 graves, the dating for the 1900 and later graves is not so individualistic and idiosyncratic. Rather, three burial groupings have been devised; each based on particular artifacts types: Burial Groupings 1 through 3 (see Table 6).

Group 1 Interments (1900-1905) (N=6):

Group 1 contains 6 interments and dates between circa 1900 and 1905. Complete artifact assemblages for each interment may be seen in Table 1, and their dating criteria in Appendix 2. Summary dating criteria is given in Table 6. Finally, their spatial distribution is given in Figure 5.

Interments were assigned to Group 1 based on their individual artifact assemblages, the most pertinent of which was the association of both cut and wire nails (present on 4 of the 6 interments). The presence of wire nails suggests a late 1890s *terminus post quem*. The *terminus ante quem* for this burial grouping, of 1905, is based principally on the association of cut nails with 4 of the 6 interments, and the known virtual end of cut nail usage in the manufacture of burial containers nationally (Davidson 1999).

The two burials in Group 1 not associated with cut nails, Burials 17 and 40, were placed in this category, due to their spatial loci, relative to the other interments, cross dating of specific artifact types, as well as special circumstances. For example, Burial 40 was recovered with Handle Type 16, which is a tipped swingbail form relatively archaic for turn of the century contexts. Tipped swingbail forms, which are double lug swingbail

handles designed to mimic short bar handles, were introduced into the market place in the early 1870s, at the time that short bar handles were gaining in popularity. As reflected in wholesale trade catalogues, tipped swingbail forms are most common in the 1880s, and decline in the numbers and specific types available by the mid 1890s. By the turn of the century, such types were exceedingly uncommon and would have been considered in many middle class circles as decidedly out of fashion (Davidson 1999:536-537). Its association with wire nails, and the burial's location within the cemetery, however, does suggest a turn of the century dating, hence the assignment of a circa 1900 to 1905 date of interment range.

With Burial 17, the other interment with exclusively wire nails placed in Group 1, the rationale is similar. This burial's location, relative to other interments, was a factor, but especially pertinent was the presence of Miscellaneous Hardware Type 1. This hardware element was recovered from only one other grave at the Vardeman Cemetery, Burial 33, and this Group 1 burial is one associated with both cut and wire nails.

The hardware element in common, Miscellaneous Hardware Type 1, is an internal construction element used in corner joinery and therefore similar in function to the corrugated fasteners (Miscellaneous Hardware Type 3) most commonly associated with exclusively wire nails in the Vardeman graves. In fact, from extensive excavations conducted at the Freedman's Cemetery in Dallas, it was apparent that in the coffin manufacturing industry, corrugated fasteners rapidly replaced these miscellaneous hardware elements.

Miscellaneous Hardware Type 1 in the Vardeman Cemetery typology is identical to Iron Closure Type 1 in the Freedman's Cemetery typology (Davidson 1999: 542). Excluding nails, this hardware element was the most common object recovered during excavations at Freedman's Cemetery, occurring on a total of 207 burials. A handful of the Freedman's burials associated with this hardware type were dated to the 1890s (N=21, or 10%), though the majority were more finely dated to the early years of the 20th century, spanning 1900 through 1907. Of these, most occurrences dated to 1900 through 1904. As with one of the Vardeman examples, most occurrences of this hardware type were associated with cut or a mixture of cut and wire nails.

Other coffin hardware types associated with Group 1 burials are entirely consistent with the assigned 1900-1905 dating. Many of the trimmings first make their appearances in the mortuary hardware catalogues of the 1890s, with the majority of hardware matches actually occurring in the 1901 St. Louis Coffin Company and 1905 Chattanooga Coffin and Casket Company catalogues, two of the most authoritative publications still extant from this period (see Appendix 2).

There is a clear continuity of interment between the pre-1900 graves and the Group 1 burials in at least one case. Thumbscrew Type 1 is the most common white metal thumbscrew at the Vardeman site; four examples were present on Group 1 interments (Burials 1, 5, 15, 59), while the fifth was with Burial 18, dated to circa 1890-1899.

Group 2 Interments (1900-1920) (N=10):

A total of 10 burials have been assigned to the Group 2 date range, which spans from circa 1900 through 1920. Note that there is some overlap, temporally, between the Group 1 and Group 2 burials. Summary dating criteria for Group 2 burials are given in Table 6, while complete artifact assemblages and dating criteria may be seen in Table 1 and Appendix 2. Finally, Group 2 burials' spatial distribution is given in Figure 5.

All of the Group 2 interments were associated exclusively with wire nails; a major *terminus post quem* for this temporal period is this association. Additionally, half of the Group 2 burials (N=5) were associated with corrugated fasteners (i.e., Miscellaneous Hardware Type 3). As detailed above, the circa 1900 date for the introduction of this utilitarian construction element was established by archival research and well documented at the Freedman's Cemetery excavations (Davidson 1999).

Several artifact types are shared by the Group 2 burials. For example, Thumbscrew type 1 is the most common white metal thumbscrew recovered (N=5), and 4 of the five appear on Group 2 interments. Additional co-occurrences of coffin hardware within Group 2 include Thumbscrew Type 17 (Burials 14, 16, 59), Caplifter Type 4 (Burials 59, 63), Thumbscrew Type 3 (Burials 2, 14), and Thumbscrew Type 2 (Burials 1, 16).

Spatially, Group 2 graves are located in two discrete clusters; 6 graves are in the northeastern portion of the cemetery, while 4 interments are positioned in the southwest corner of the graveyard. Although segregated spatially, both clusters share several

hardware elements in common (e.g., Thumbscrews 1 and 17, Caplifter Base 1, Caplifter Type 1).

The *terminus ante quem* for the Group 2 burials, of circa 1920, is based on two lines of evidence. First, all of the mortuary hardware recovered with these burials was entirely contemporary to and consistent with a turn of the century date of manufacture and use. In fact, the mortuary hardware assemblage as a whole speaks to the likelihood that most burials occurred prior to circa 1910 or 1915.

The funeral industry and America's esthetic in the mortuary arts suffered a sea change in the first decades of the 20th century. Swing bail and even short bar handles, thumbscrews and escutcheons used as lid closure, even the mere presence of viewing windows, by the late teens and early 1920s had all but disappeared from both mainstream catalogues and the tastes of the American public. Although technically possible to obtain such archaic coffin hardware elements even into the 1950s, the number of specific styles available were severely reduced, often to just one or two examples, and these were of such poor quality (and often of lighter weight materials) that they were designed for the funerals of the very poor or even indigent. Clearly what constituted a "proper funeral" in 1900 was radically different from the very same level of mortuary display (and cost outlay) in 1920. This sea change of stylistic motifs and materials is reflected at the Vardeman Cemetery, and is a basic criterion in the delineation of interments into Burial Groups 2 and 3.

Other artifacts, in a few instances, also were indicative of interment prior to circa 1920. Burials 14 and 15 were associated with porcelain buttons and studs manufactured

using the Prosser process. Although utilitarian porcelain buttons were manufactured in huge numbers beginning in 1840, by World War I the introduction of Bakelite and other modern plastics had ended their production (Albert and Adams 1970:4-5; Pool 1991; Rogers 1995).

Group 3 Interments (1915-1950)(N=11):

Eleven burials are included in the Group 3 date range, which spans circa 1915 to 1950. There is likely some small overlap temporally with some Group 2 and Group 3 interments, and this is reflected in the date range assignments.

Complete artifact assemblages for each interment is given in Table 1, while specific dating criteria is contained within Appendix 2. Summary dating criteria is listed in Table 6. The spatial distribution of the Group 3 burials within the Vardeman Cemetery may be seen in Figure 5.

All of the Group 3 burials were recovered with wire nails, though one (Burial 11), may also have some associated cut nails. Additionally, 7 of the 11 burials (or 64%) were associated with corrugated fasteners (i.e., Miscellaneous Hardware Type 3), which were introduced into the marketplace (including the casket manufacturing industry) around circa 1900. These associations, however, only produce a *terminus post quem* of circa 1900. The primary dating criteria or *terminus post quem* of circa 1915 and later are actually specific elements of mortuary hardware.

The most diagnostic hardware elements indicative of the assigned TPQ are the associated nine handles forms (Handle Types 4, 5, 6, 7, 8, 19, 20, 21, 23). All of these handle types are of the extension bar form.

The first known occurrence of this handle form can be traced to the 1867 Crane, Breed and Company catalogue of coffins, caskets, and burial cases. In this first appearance on a single illustrated casket, the extension bars are termed "Rods" (Crane, Breed, & Co 1867:10). Later catalogues, including a very detailed one from this firm ten years later (Crane, Breed, & Co 1877), fail to offer other examples of these "rod" handles for sale.

In the catalogues examined for this project, the next known occurrence of extension handles can be found in the 1880 Cincinnati Coffin Company catalogue, where a single child's casket has a very simple form of extension handle (1880: 5). This presence, though decidedly minor, is echoed in the 1884 Paxson, Comfort & Company wholesale catalogue of caskets and coffins, where just two caskets are shown with some form of extension handles (1884:21, 30).

Extension handles appear intermittently in the coffin and coffin hardware catalogues of the 1880s and early 1890s (e.g., Warfield & Rohr 1893:7). By 1896, the Chicago Coffin Co offered just five styles illustrated on a single page (1896:103), as opposed to the dozens of other types of both swingbail and short bar handle forms. Five years later, the St. Louis Coffin Company also offered only 5 types of extension handles on a single page (St. Louis Coffin Co 1901:229), but by 1905 the Chattanooga Coffin and Casket Company offered around 25 styles of extension handles in 25 pages (1905: 6-30).

While the extension handle was certainly an option offered by the late 19th and turn of the century funeral industry, the *terminus post quem* of circa 1915 offered here for the Group

3 burials is not just the existence of the extension handle, but rather its common acceptance by the buying public, and very importantly, the methods of manufacture and the material types of the handles themselves.

The extension handles of the late 19th and early 20th century were manufactured of the same materials as the short bar handles; solid and heavy lead based (i.e., white metal) and bronze castings. By the teens and early 1920s, however, the extension handles are more commonly made of pressed steel.

All of the Group 3 burials (save for the two infant burials) were associated with extension handles (Types 4, 5, 6, 7, 8, 19, 20, 21, 23). These handles' specific design motifs are very simplistic in nature (the majority have no embossed decorative motif at all), and are not really comparable to the handle designs available in such turn of the century catalogues as the 1905 Chattanooga Coffin & Casket Co catalogue. Furthermore, the materials these handles are manufactured out of are most commonly steel (at least 7 of the 9 extension handles), and pressed steel extension handles do not appear in the known turn of the century catalogues (e.g., 1901 St. Louis Coffin Co; 1905 Chattanooga Coffin & Casket Co).

Beyond archival documentation, the dating for extension handles to circa 1915 and later is supported internally by cross dating, associated artifacts, and spatial distribution.

Cross dating:

The two dated interments in Group 3, Burials 22 (1922) and 12 (1944), both exhibit these extension handles, and further, Burial 10's handle (Type 6) shares identical elements with the handle recovered with Burial 22 (and dated to 1922). Associated artifact types also

show that these burials are closely linked together, temporally. For example, Outer Box Handle Type 2 appears on 5 burials in the Vardeman Cemetery, four of which are dated to the Group 3, 1915-1950 period; the remaining example assigned to Group 2 (Burial 14). This outer box handle was found with Burial 22, one of the identified interments dating to 1922, and provides a nice cross date with the remaining 3 interments.

An additional artifact that occurs on several Group 3 burials is Thumbscrew Type 6. The only catalogue match for this thumbscrew type is in the 1959 Victor Casket Hardware Co catalogue. This thumbscrew is a steel wire variety associated with the outer box, and found with 7 Vardeman burials, 6 of which are in Group 3, with one assigned to Group 2 (Burial 5). One of the Group 3 burials with Thumbscrew type 6 includes the one dated to 1922 (Burial 22), providing an additional cross date for these interments.

Beyond mortuary hardware, the presence of clothing elements manufactured out of Bakelite and other modern plastics (see Table 6) on 5 interments, or nearly half of the Group 3 burials, also provides a *terminus post quem* of circa 1915/1920.

Finally, the contemporary nature of the Group 3 burials can be observed in the spatial loci of the graves. Group 3 burials are located in two discrete clusters, both at the periphery of the cemetery (in the southwest and southeast corners), in a pattern befitting the last interments ever made at the Vardeman Cemetery.

Socioeconomics:

Initially, historic cemeteries were examined using the functionalist concepts and processual theoretical framework originally formulated by Saxe (1970), Binford (1971),

and others for prehistoric cemeteries of pre-state level societies. This processual approach in historic mortuary archaeology largely met with failure (Bell 1994:13).

Edward Bell, a major voice within the study of historic cemeteries, outlines two reasons why processual or "functionalist" models are not directly applicable to historic cemetery data: such studies never contextualize the data in the social milieu of its own time, and the types of material culture most often recovered with historic graves (e.g., coffin hardware), are "not analogous to 'grave goods' or 'status symbols' encountered in preindustrial societies" (Bell 1994: 14). Therefore at least in historic cemetery studies, the quantification of "status," especially by attempting to measure "wealth" expended upon mortuary display (and the implications of such wealth expenditures), has been much more tentative.

A survey of some 45 cemetery site reports (spanning 1978 through 2000; see Table 3) clearly reveals an extreme reluctance of researchers to pursue socioeconomic studies. This reluctance may in part be traced to a relative dearth of knowledge among most researchers regarding the material culture of the 19th century mortuary realm (e.g., coffin and casket industry, beautification of death movement, etc.).

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One of the first in depth appraisals of late 19th and early 20th century mortuary hardware is by Hacker-Norton and Trinkley (1984). This report examines a collection of mortuary hardware curated within a general store in rural South Carolina, and importantly, not from an excavated cemetery. Hacker-Norton and Trinkley attempt to address the topic of socioeconomics through a clearly *emic* perspective, assigning wholesale prices to

mortuary hardware from period price lists, or extrapolations from such lists (1984: 35-39; 50-52). However, since their data is derived from a hardware collection, and not from individual graves, no true application was possible.

In their discussion of economics, however, the topic of status is raised. Hacker-Norton and Trinkley make the distinction between "real" and "ascribed" status. They suggest that real status could be recognized by the presence of expensive mortuary hardware (knowledge of such expense apparently derived from period catalogues and price lists), and "ascribed" status, where many elements are present, but of a cheaper type (1984: 51).

In a contemporary and companion work, Trinkley and Hacker-Norton do directly apply their economic cost schema to data derived from an excavated cemetery in rural South Carolina (Trinkley and Hacker-Norton 1984). In so doing, they outline what they felt was evidence of status differentiation, though only on a very simplistic and impressionistic level. This recognition and delineation of status was based on the presence or absence of coffin hardware, and the averaged cost of such hardware as derived from two wholesale price lists.

Virtually no scholarly papers have utilized the data derived from historic cemetery investigations to study socioeconomics or search for status. One notable exception is the work by Little (et al. 1992) on the Weir Family Cemetery in Manassas, Virginia. The

authors contextualize their study with the recognition of two factors derived from the work of Cannon (1989) and Pearson (1982): "the cyclical quality of status display as a manifestation of social competition balancing elite innovation and non-elite emulation, and the ideologically charged symbolism of burial ritual" (Little et al. 1992:397).

The differential mortuary displays observed diachronically within the Weir Family burials were interpreted as principally based upon sentimentality and the social dictates of the "Beautification of Death" movement that gripped the country during much of the Victorian era. Additionally, the perceived decline in burial elaborateness in the last temporal period of the site (1886-1907) is in part interpreted (through the theoretical framework formulated by Cannon) as an example of "...a cycle of elite innovation, lower-class emulation, and elite abandonment of particular styles or practices" (Cannon 1989; as cited in Little, et. al. 1992:415).

What?

While the Weir Family Cemetery study is arguably the most nuanced and contextualized to date, there is an essential flaw inherent within the work, ultimately limiting the veracity of the conclusions; the wealth displays calculated for the individual burials were based only upon a simplistic counting of the number and variety of elements present on the burial container, and not their true cost in dollars. While admirably utilizing an *emic* perspective in regards to the social milieu (i.e., the Beautification of Death movement), the researchers' basic unit of measure with which the rise and fall of this movement was charted was a rather abstracted, *etic* viewpoint.

Clearly, the overarching problem with the calculation of relative or actual cost of recovered materials, and further, attributing significance to it in regard to "wealth" or "status," is that of *context* -- establishing some measure of an *emic* point of view.

Socioeconomic Study: Methodology

The socioeconomic study of the Vardeman Cemetery burials involves all of the interments, and unlike the Weir Family Cemetery study conducted by Little (et al. 1992), it utilizes an *emic* perspective in its basic calculations.

The material culture of the Vardeman burials included elements of the coffin or casket (i.e., handles, thumbscrews, etc.), as well as clothing, jewelry and personal effects included with the deceased. However, personal effects *were not* considered as variables in this study. Such effects were somewhat uncommon in the Vardeman Cemetery, and additionally, the economic measure of principal concern was the cost output, in real dollar values, of the mortuary display within the realm of the Beautification of Death movement itself. Therefore, this study will revolve only around the associated mortuary hardware.

headstone?

For the socioeconomic calculation, the Vardeman burials were divided into three groups. The pre-1900 burials comprise the first group (N=42) (see Tables 5, 8). The second group is composed of burials dated between circa 1900 and 1920 (post 1900 Groups 1 and 2; N= 16) (see Tables 6, 9). The final group of interments are those dated to between circa 1920 and 1950 (Group 3 of the post 1900 interments; N= 11) (see Tables 6, 10).

Certain conventions were followed. First, with burials clearly exhibiting missing hardware elements, a minimum number of elements was assigned, based on the principal of symmetry. This applied only to handles and thumbscrew/escutcheon sets. For example, if a disturbed burial had one associated handle recovered, a minimum number of 4 was estimated for the burial. Six (or even 8) handles may have originally been present, but such associations cannot be reconstructed.

The wholesale cost of each burial's mortuary hardware was calculated from period coffin and coffin hardware catalogues. The most appropriate catalogues were used to derive the costs, for each of the three burial groupings outlined above. Eight catalogues from seven firms were utilized for dating criteria: the 1865 Markam and Strong catalogue, the 1865 Crane, Breed & Company price list, the 1866 and 1874 Sargent & Company catalogues, the 1893 Warfield & Rohr catalogue, the 1895 W. B. Belknap & Company catalogue, the 1905 Chattanooga Coffin and Casket Company catalogue, and the 1959 Victor Casket Hardware Company.

The presence or absence of a viewing window was acknowledged; all windows were assigned an arbitrary \$2.00 value, reflecting an estimated wholesale cost. This sum must be considered a proxy, and is based on knowledge of the retail costs of a static viewing window averaging \$5.00 in turn of the century Dallas funeral home day books.

With two notable exceptions, no attempts were made to assign an estimated cost to the single most expensive element of the burial complex -- the coffin or casket itself. This was due largely to the extreme variability of burial containers and their subsequent

costs. After 100 or more years in the ground, the differences between an expensive 100 dollar casket and a simple 5 dollar pine coffin are often extremely subtle, at best. The two exceptions to the rule of not assigning costs to burial containers are Burials 32 and 41, associated with the cemetery's two metallic burial cases. In both occurrences, the wholesale cost of \$50.00 was assigned, this sum derived from a match of Burial 32's coffin within the Crane, Breed & Company's 1865 wholesale price list for metallic coffins. Finally, none of the coffin latches or other miscellaneous hardware entered into the cost calculations, since these elements were not added after the burial container reached the funeral home, but rather were integral in the manufacture of the container at the factory.

Table 7 lists the specific match and calculated wholesale cost for each hardware element. When exact matches could not be made between recovered mortuary hardware and available catalogues, the best possible match was made, based on my knowledge of the attributes of mortuary hardware generally, with each match reflecting similar tooling, metal type and content, shape and size, all of which should equate to cost.

The Pre-1900 burial cost calculations were made from the following catalogues and price lists: the 1865 Markam and Strong catalogue, the 1867 Crane, Breed & Company catalogue, the 1866 and 1874 Sargent & Company catalogues, the 1893 Warfield & Rohr catalogue, and the 1895 W. B. Belknap & Company catalogue.

For the circa 1900-1920 interments, a single catalogue price list, accompanying the 1905 Chattanooga Coffin and Casket Company's catalogue No. 4, proved ideal, with

many exact matches made between coffin hardware recovered archaeologically and that offered for sale by this Tennessee firm.

Even though the circa 1915-1950 interments are of such a recent nature, or perhaps because of it, it proved impossible to procure a price list for this period. The next best catalogue price list available for this burial grouping was the 1959 catalogue and accompanying price list for the Victor Casket Hardware Company, of Galesburg, Illinois.

Results:

As stated above, for the cost calculations the Vardeman burials were divided into three groups: the pre-1900 burials (see Tables 5, 8), the post 1900 Groups 1 and 2 (see Tables 6, 9), and the post 1900 Group 3 (see Tables 6, 10). To more easily reveal the prevailing trends in each time period, these results have been group by gender and age, and graphed in Figure 6.

The results are indeed, very revealing. The disparity of burial costs between men and women in the pre-1900 interments was the greatest of all the temporal groupings; the average wholesale cost for the women's coffin trimmings amounted to just 30 cents, while the average cost of the men's burial trimmings for the same period is \$16.68. This huge discrepancy is due, in large part, to the inclusion of the cost of the two metallic burial cases associated with Lindsey Stephenson and Samuel Holmes. In contrast to both the men and women's costs of burial, the average wholesale cost of the subadults' coffin trimmings for the pre-1900 interments was just ten cents (Figure 6).

In the next burial grouping, which dates to 1900-1920 and includes the post 1900 Groups 1 and 2, the disparity between men and women is reduced, but is still significant. The average wholesale cost of men's coffin hardware was calculated as \$4.46, while the women's were nearly half that, at \$2.94. Finally, the subadult's average cost during this period was almost exactly half that of the women's (i.e., \$1.64).

By the final temporal period (Group 3), dating between circa 1915 and 1950, the costs between men and women have become entirely equitable. In fact, the calculations for the mean wholesale cost of burial trimmings for both men and women was exactly \$9.74 each. Because the two subadults in Group 3 were recovered without any formal, decorative coffin hardware, the wholesale cost derived for them was expectedly, zero.

Although the enormous disparity in costs observed in the pre-1900 interments would have been obvious to any researcher, the disparity of nearly twice the cost between men's and women's mortuary displays in the turn of the century Groups 1 and 2 was not obvious at its face. In fact, calculations as performed by Little (et. al. 1992) would not have revealed any disparity at all, as a crude counting of hardware elements would have rendered a simple one to one equality that is belied by the actual costs of the associated trimmings.

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- Figure 6. Chart showing the cost of coffin trimmings, by gender and age, for three time periods

N588
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HOLMES-VARDEMAN-STEPHENSON CEMETERY

Figure 1

- Vardeinan
- Stephenson
- Holmes
- Christensen
- Daws



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Figure 4

Not Mapped -
But SA -



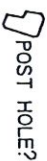
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Post 1900 Barials

Group 3 1915-1950

(all pre-1900
Burials in gray)



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