

# FRANKFORT'S FORGOTTEN CEMETERY



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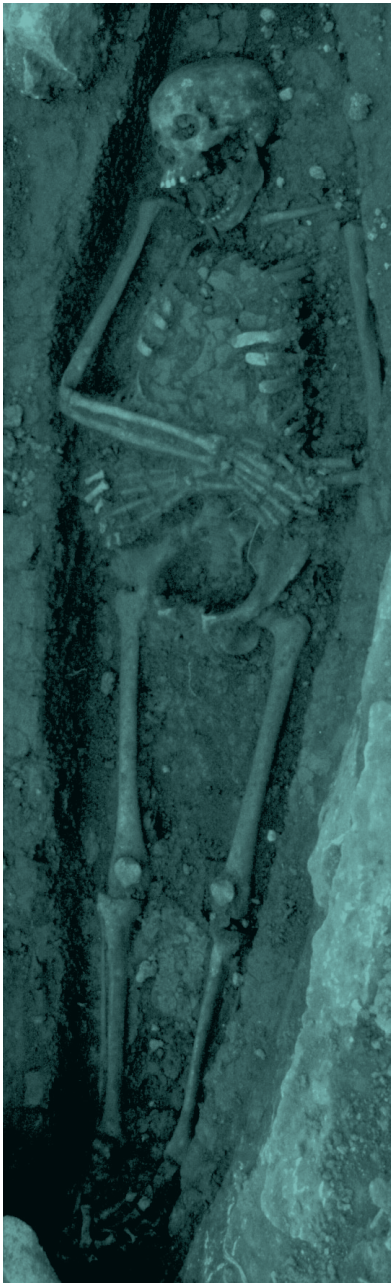
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## BONES!



People will tell you construction workers discovered the Old Frankfort Cemetery in March 2002.

But that's not really true. The Cemetery had sat at the base of Fort Hill, a few blocks north of the Old State Capitol, since the early 1800s.

It was invisible, however. It did not appear on any maps. No grave stones or monuments remained. No one remembered it as a loved one's final resting place. So perhaps "rediscovery" would be a more appropriate term.

Its rediscovery began with a phone call...about bones.

In the Spring of 2002, construction activities were well under way for the Kentucky Transportation Cabinet's new, six-story, 420,000-square-foot office building that would sit at the base of Fort Hill.

Three years before, archaeologists had researched the history of the project area. Their work revealed that a section of the construction site was once part of the "Craw" Neighborhood, settled by Frankfort's poor in the early nineteenth century. Next, Swiss immigrant Sigmund Luscher built the Capital City Brewery complex and his fine home on this spot in the 1870s, and later, in the 1880s, the City of Frankfort built a poor house there.

In the years that followed, additional buildings were constructed and torn down. Eventually, the old brewery building became a Frankfort restaurant and a popular night club known as "The Cave." In the 1960s, construction activities demolished much of the Craw to make way for the Capital Plaza Tower. By the late 1990s, roads and parking lots covered most of the construction site.

When it came time to excavate, the archaeologists focused on the yard in back of Luscher's Italianate home, which still stood, and a large parking lot that covered the former location of more modest nineteenth-century houses and duplexes. They did not consider the brewery area for investigation. Too much historic disturbance had taken place there.

Nothing investigators had learned through documentary or archaeological research caused them to suspect that a cemetery was located within the office building's footprint.

### REDISCOVERY

For weeks in early 2002, bulldozers and backhoes had been sculpting the construction site in preparation for laying the building's foundation. On Monday, March 11th, the day of the rediscovery, the site was a flurry of activity as people and machines removed the old to make way for the new.

Early in the morning, workers noticed bones in some soil waiting to be taken to the landfill. Human bones.

Human bones?

Work stopped immediately. A phone call was placed to Kentucky's State Forensic Anthropologist. Another call went out to a Kentucky Heritage Council staff archaeologist.

They hurried to the construction site and quickly confirmed the unlikely truth. Construction activities had disturbed an historic cemetery.

Workers, engineers, and project contractors alike were surprised. After all, professional archaeologists had examined the project area and cleared it for construction.

The archaeologists were just as astonished. Their research hadn't found any clear reference to a cemetery.

What to do?

State officials considered relocating the office building to preserve the Cemetery. But construction was well underway.

Relocation was not an option. The Cemetery would have to be moved.

Officials decided to treat the Cemetery as an archaeological site. Archaeologists would investigate the sections undisturbed by construction. They would conduct more historical research on the area, study the graves, and analyze the human remains. Then, they would reinter the bones.

At that point, no one knew how many people were buried in the Cemetery, how large it was, or when it had been used. No one envisioned then that over the following three months, a team of archaeologists, biological anthropologists, and volunteers would document and remove for study the remains of more than 240 people who had died over 150 years before.



**Above** With the discovery of human remains, construction work stopped on the new Kentucky Transportation Cabinet Office Building. This view is from the Lower Cemetery area, looking toward the mid-1930s Transportation Cabinet Office Building.



**Left** A ca. 1950s photograph of Frankfort, showing the general location of the Old Frankfort Cemetery. Note the structures covering the entire area (courtesy Kentucky Historical Society).



**Above** Constructed in the 1870s as a part of the Capital City Brewery complex, the ice house, shown here, became a popular Frankfort night spot in the 1970s.

**Below** Shortly after discovery of human remains halted construction, archaeologists confirmed that graves had been disturbed. When working on this active construction site, safety regulations required everyone wear hardhats.

## IMAGES OF THE PAST

In the years since the fieldwork, a host of researchers have pieced together a picture of the Old Frankfort Cemetery. Archaeologists, biological anthropologists, forensic artists, and geneticists have studied when the Cemetery was used, along with who was buried there, their diet, and health.

Documents are a critical element of historical archaeological research. But in the case of the Old Frankfort Cemetery, they were extremely scarce. Those that did mention a cemetery at the base of Fort Hill provided little specific information. And certain essential documents, like death records or maps of the Cemetery, simply did not exist.

Historical archaeologists also often seek out information from living people. But no one offered oral accounts that made reference to the Cemetery. No one came forward to claim any of the human remains from the Old Frankfort Cemetery.

So, to learn about the people buried in this graveyard, investigators had to rely on the information they had recovered: each person's skeletal remains, the personal items placed with or worn by them, the characteristics of their coffins, and the location of their graves.

Research has revealed that the Old Frankfort Cemetery was used for almost 60 years, until commercial and residential development removed it from view. The Cemetery began in the early 1800s as a small burial ground on the edge of Frankfort, but by the 1830s, it had become a neighborhood graveyard for



people of African, European, and mixed ethnic heritage. These were Frankfort's working class, the poor, and the enslaved.

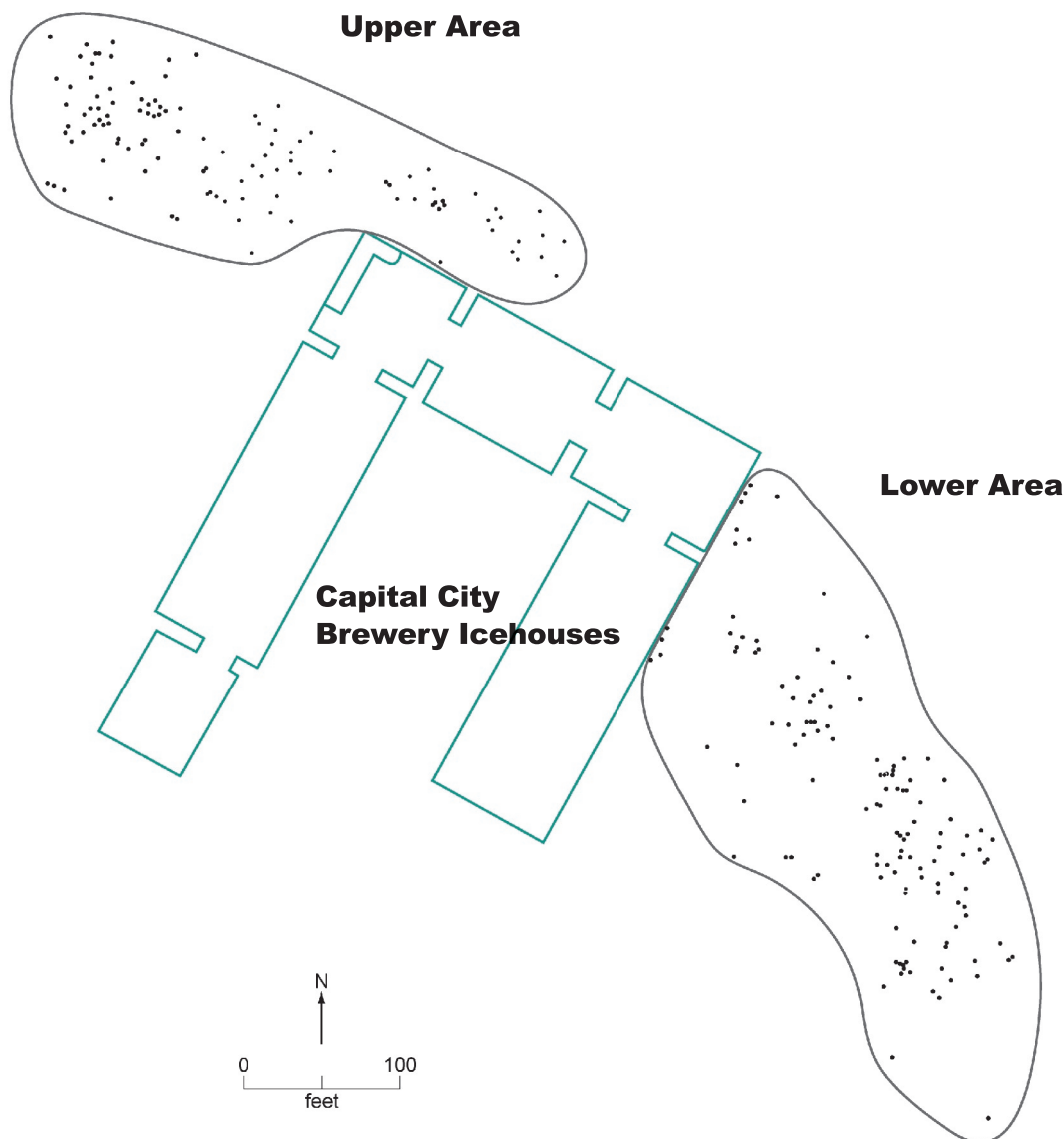
These peoples' names do not appear in local histories. Their portraits do not hang on history museum walls. Theirs is a story rarely told, of voices rarely heard.

Until now. Although we will never know their names, archaeological research has provided us with a glimpse into their lives and a look at their faces.

This publication weaves together what the research team learned from their study of the Old Frankfort Cemetery's meager documentary record, limited artifact collection, and rich biological data. It describes the people who were buried in this long-forgotten graveyard, and when and how they lived. In so doing, it presents an incomplete, though fascinating, picture of Frankfort's less fortunate residents during the early to mid-nineteenth century.

**Below** Map showing the distribution of 242 burials "rediscovered" during the 2002 investigations at the Old Frankfort Cemetery.

Each dot represents a single grave shaft, although in a few cases, more than one person was buried in a grave. Note the footprint of the Capital City Brewery's icehouses. During its construction in the late 1870s, workers destroyed many graves. Archaeologists documented several partial graves disturbed by building foundations.



## So the Archaeologists Set to Work



With the unexpected rediscovery of a cemetery in the center of the construction site, and the decision to treat it as an archaeological site, investigators had their work cut out for them: at the site, in the laboratory, and with the documents.

### AT THE SITE

The initial task in March 2002 was to locate, document, and remove the remains of the people buried at the Old Frankfort Cemetery (see *Why Study Human Bones?*, page 7). The first step was to find all the graves and map their locations.

For marked graves, this process ordinarily involves documenting the location of each headstone and footstone, and recording inscriptions. Unmarked graves must be found first. To do so, archaeologists often use noninvasive techniques, such as *ground-penetrating radar (GPR)*. This technique works because, when radio waves are directed into the ground, grave shafts reflect the waves differently from the surrounding soil. Finding graves using GPR involves systematically dragging a radio-wave-emitting machine across an entire cemetery and somewhat beyond its known limits. A computer linked to the machine stores the collected information. Back at the laboratory, investigators use the computer data to make a map showing the location of the possible graves. Then they return to the cemetery to remove the topsoil and expose the graves.

But in the case of the Old Frankfort Cemetery, nothing was ordinary. There were no headstones to map. Over the course of 150 years of neglect and subsequent development, any headstones or grave makers that might once have been present had been removed. In addition, preparation of the construction site had disturbed much of the area. Noninvasive techniques in this case would not be helpful.

So the archaeologists started fieldwork with absolutely no idea how large an area the Cemetery covered. They did not know how many graves were present within its boundaries or where they were located. Investigators had nothing to go on, and no place to start from except the spot where the construction workers had first found the bones. They had to proceed with caution, but they had to move quickly since the Cemetery was within the footprint of the new office building.

The investigators used a backhoe to carefully remove soil, rock, bricks, and other construction debris. They watched for signs of a grave: a change in soil color meant a shaft, while a cluster of large limestone rocks meant a stone-lined vault.

Once the backhoe revealed a possible grave, the location was flagged and assigned a unique burial number. The backhoe then moved to another part

of the site to start a new search.

Grave excavation began with investigators carefully removing most of the fill or rocks covering the burial. Most commonly, the remains were buried four to six feet below the surface.

But once the archaeologists found human remains - or suspected they were getting close - they put down their shovels and turned to smaller tools. They used trowels, bamboo sticks, dental picks, and brushes to expose as carefully as possible any coffin remnants, coffin hardware, personal objects, and the human remains. It was a long, slow, painstaking process.

After field investigators exposed the entire burial, the site photographer recorded it. Then they drew a detailed map and took notes. They recorded the size of the grave shaft, whether stones or bricks had been used to line it, and how the body had been positioned within the coffin. They also noted the distribution of coffin remnants, if present, and coffin hardware, primarily nails and screws but also tacks and handles. They recorded the distribution of buttons and noted if the person was buried with any personal items, such as rings, beads, or eyeglasses.

Once fully documented, investigators carefully removed the bones from the surrounding soil, wrapped them in gauze or aluminum foil to protect them, and then slipped them into paper bags. They bagged-up any coffin hardware and personal objects, too. Then, before any bags, records, photographs, or drawings left the site for the laboratory, each was labeled with a unique burial number.

## IN THE LABORATORY

After the documents and bags arrived at the University of Kentucky Archaeology Laboratory, lab assistants carefully filled binders with the paperwork and photographs from the excavation. Then they turned their attention to processing the human remains and associated artifacts.

First the bones had to be cleaned. Sometimes a dry brush was the most effective tool, especially if the item was particularly fragile. Lab assistants placed the more durable bones in a screen and used a small amount of water to wash away any dirt. It was important to clean-out the various holes in the bones left by blood vessels and nerves. These features are often good ethnic heritage markers. Lab assistants placed all the cleaned bones from each grave on screens to dry completely.

The next step was to refit any bones that had broken due to plant root penetration or during excavation and transport. Getting a good reconstruction is critical to the analysis of human remains. Arm and leg bone length and skull shape are particularly important for estimating a person's age, height, and ethnic heritage.

## Why Study Human Bones?

People study human bones for many different reasons. Healthcare professionals, such as doctors, dentists, chiropractors, and physical therapists, study human bones to help us cope with illnesses.

Anthropologists study human bones for other reasons. *Forensic anthropologists* help solve crimes by identifying specific people from the bone measurements and descriptions they take. *Biological anthropologists*, or *bio-anthropologists*, study human bones to understand biological similarities and differences among different populations and to assess how human behavior and cultural practices affect the human body.

Many bio-anthropologists focus their research on understanding groups of people who lived long ago. They study how people adapted to different environments and how they moved across the landscape. They also study how diet affected people's health, how they coped with injuries and diseases, and who they left behind as descendants.

The history contained within these people's bones is our history. By examining bones, bio-anthropologists can study the interaction between nutrition and disease in a population. The physical challenges faced by a population - like hard work or malnutrition - allow us to understand how human bone reacts to stresses and the effects of diseases. This helps modern humans do everything from train to be athletes, to recover from injuries, to be healthier as we age.

**Below from left to right** Steps in the process of finding, exposing, and mapping a burial.

Weather conditions varied over the course of the nearly 3-month-long field season. From March to mid-May, archaeologists, the project's bio-anthropologist, students, and volunteers worked in the bitter cold, during light snow flurries, in ankle-deep mud, and on dry, hot, sunny days.

At times, as many as 30 to 40 people worked at the site. Among them were archaeologists from the Kentucky Archaeological Survey; the University of Kentucky's William S. Webb Museum of Anthropology and Program for Archaeological Research; Northern Kentucky University; Kentucky Transportation Cabinet, Division of Environmental Analysis; AMEC Earth and Environmental, Inc.; Gray and Pape, Inc.; and HMB. Graduate students from the University of Kentucky and undergraduate students from the University of Kentucky, Northern Kentucky University, and the University of Louisville also helped, as did many volunteers.

**Below** A team of archaeologists and volunteers hard at work at the Cemetery site. While the scene looks chaotic, investigators are carefully excavating and documenting each grave. They used large plastic tubs, like the blue one shown at the bottom of this photo, to transport the bones back to the lab. At the top of the photo, investigators are working close to the backhoe, which is removing soil and debris to expose grave shafts. Everyone was issued ear plugs to use in case their work brought them too close to the machine.



**Below** When heavy, large limestone rocks covered a stone-lined grave shaft, it took several archaeologists working together to remove them. This was a delicate operation, not because of the rocks' weight, but because human remains could be directly beneath the rocks.



**Below** As a grave shaft was found, investigators put a flag by its west end. Archaeologists then began the process of removing the remaining soil. They used their hand trowels to expose the coffin and human remains.





Lab assistants treated the coffin hardware and personal objects in much the same way as the bones. They washed, dried, and labeled them. Some of the metal objects and cloth required conservation and stabilization.

Once all the human remains and associated artifacts were washed, labeled, and conserved, they were ready for analysis by a team of specialists. Samples of some bones were sent to other laboratories equipped to carry out specialized studies, such as identifying DNA.

### WITH THE DOCUMENTS

While the field and laboratory work was underway, another group of investigators went back to the documents. Their task was to search deeds, maps, and other sources for any mention of a cemetery in the construction site, however brief or cursory. The next section presents the results of their work.



**Above** Using bamboo sticks, brushes, spoons, and dustpans, archaeologists carefully removed the dirt covering the coffin remnants, buttons, and human remains.



**Above** Archaeologists took careful notes, detailing every step of the excavation process. For each burial, they filled out a form describing the grave pit, the coffin remains, pins, buttons, jewelry, and any other objects they found. They also completed a form describing the human remains and their condition.



**Above** Before removing the bones, archaeologists carefully mapped the location of any human remains, coffin hardware, pins, clothing, and jewelry they found. In this picture, folding rules are laid out at 90-degree angles to each other to help guide mapping.

## How to Lose a Cemetery



Upon its rediscovery, investigators returned to Frankfort's documentary record with questions about the Old Frankfort Cemetery.

They wanted to find out when citizens began to bury their dead at the base of Fort Hill, and when they stopped, how they laid out the Cemetery, and who they buried there. Investigators especially wanted to know how such a large graveyard, located so close to the city center, could have disappeared so completely from the collective memory of Frankfort's residents in such a short time.

Researchers combed through numerous and various sources - deeds, maps, paintings, and even an act of the Kentucky General Assembly. In the end, they were able to piece together only a fragmentary history of the Old Frankfort Cemetery, but their research does show how it came to be "lost."

### LAND OWNERSHIP HISTORY

Historical archaeological research often begins with an examination of a property's land ownership history. With respect to the Old Frankfort Cemetery property, researchers discovered that Frankfort's legal records and land titles were confusing. Not all the transactions were recorded and often, important documents were missing.

Deeds relevant to the Cemetery property show that the land changed hands many times. The first legally recorded owner was lawyer and politician Humphrey Marshall. In 1786, six years after moving to Kentucky, Marshall secured Virginia Governor Patrick Henry's signature for his claim to 260 acres on the north side of the Kentucky River (see map, opposite). Soon after, Marshall sold the property for \$433.00 to General James Wilkinson. Marshall's personal papers and the deed records of his Frankfort properties do not mention a cemetery.

In the early nineteenth century, a portion of Wilkinson's 260 acres became city lots. The Old Frankfort Cemetery extended across part of one of them. Ownership of the Cemetery area at this time is largely a mystery. This is unfortunate, since archaeological research shows that the graveyard was during this period.

During the 1840s, it is clear that Harrison Blanton, a very active Frankfort real estate owner, acquired land in the vicinity of the Cemetery. What is not clear, however, is whether he actually owned the Cemetery property. He could have. Fort Hill, which overlooks the Cemetery, was referred to as Blanton's Hill in deeds prior to the construction of a Civil War fort there (see *1854 map*, page 12). Blanton also developed a new street in the 1840s, called Blanton Street. It sits below and just south of the hill, between Ann and St. Clair streets.

As Blanton purchased property, he sold it off or rented it out. In deeds associated with Blanton, the Cemetery is mentioned once, in an 1848 deed from Blanton to William Whitehead. This is the only time the Cemetery is ever mentioned in any deed:

*Beginning with a new street lately laid out by said Blanton on his square off the back of the state house at a stake fifty feet from Josiah Harris' lot[,] thence at right angles with said street to the town hill, thence with the line of the town hill sixty feet towards the grave yard*

[emphasis added], thence at right angles to the said new street[.] thence with said new street sixty feet to the beginning.

This deed suggests that the Cemetery was either in use or still visible in 1848. Unfortunately, it does not name the property owner.

It is possible that Blanton owned all of the land in this section of Frankfort at this time, except for the Cemetery. However, we cannot be certain, because property ownership history during this period in this area is confusing. Because of the graveyard's presence, that property could have been transferred to the City, but there is no record of this. It seems likely, however, that the City of Frankfort took possession of the Cemetery and some of the land surrounding it for a short time in the late 1840s or early 1850s.

Census data point to a sharp increase in Frankfort's population during the 1840s, and in the early 1850s, the city began to expand northward. Several homes were built along Blanton Street between Ann and St. Clair streets. The northernmost lot on Ann Street, which included a portion of the Cemetery, however, remained undeveloped (see *1854 map*, page 12).

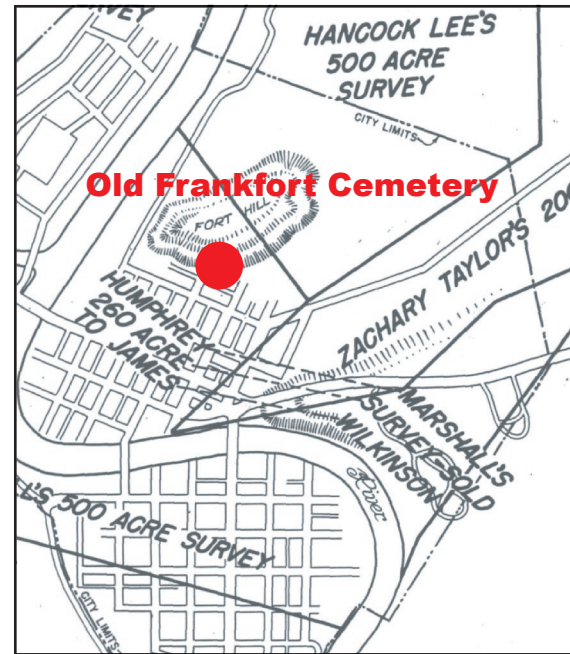
Documents show that, after the Civil War, both residential and commercial development in this part of Frankfort increased significantly. Commercial development of the northernmost Ann Street lot began in the early 1870s. A Swiss immigrant, Sigmund Luscher, bought it from the City of Frankfort and began construction of a brewhouse, a warehouse, and icehouses for his new business: Capital City Brewery (see *1882 map*, page 17).

This construction took place in the center of the Old Frankfort Cemetery. Workers destroyed graves as they dug the foundation trenches for the north and east walls of the icehouses (later known as "The Cave"). The 2002 discovery of partial graves along the foundation walls confirms this statement. Workers could not have failed to notice they were destroying graves, but no public complaints appear in any documents, and there is no record that any graves were moved in the 1870s.

Capital City Brewery officially opened by 1879, and Luscher quickly became a successful and prominent citizen. By the 1880s, he had expanded his landholdings along Ann Street and built a two-story brick Italianate-style mansion there. (In the late 1990s, prior to construction of the new Kentucky Transportation Cabinet Office Building, his house was moved to Clinton Street. It now serves as office space.)

At about the same time Luscher was developing his business, the City of Frankfort was developing the land it owned next to the brewery. By 1875, a large stone structure housing the City's workhouse and jail stood on a bench near the base of Fort Hill (see *1882 map*, page 17). Investigations in 2002 revealed that construction of this building may have covered some of the graves in the Cemetery.

Residential and commercial development of this area was just the beginning. Over the course of the next 100 years, other development would cover the re-



Section of an early plat of Frankfort, with Humphrey Marshall's 1786 land grant overlaid.

William R. Jillson, Kentucky's first State Geologist, prepared this in the mid-1900s. Note the relationship of Marshall's 260-acre tract to Fort Hill and the Old Frankfort Cemetery.

maining sections of the Cemetery. It took the form of sheds and buildings associated with a nearby quarry, and paved parking areas and roads. Construction activities for the Kentucky Transportation Office Building in the Spring of 2002 were just the latest in a series of landscape alterations in this part of Frankfort.

### OTHER SOURCES

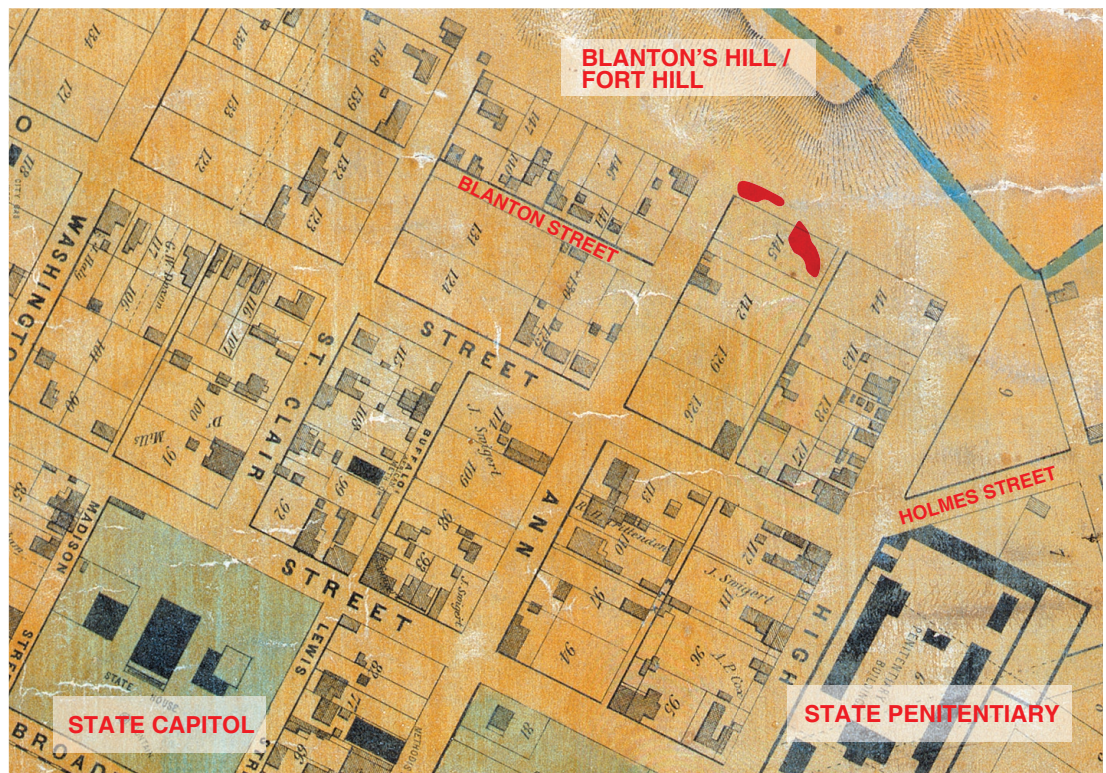
During their documents research, archaeologists found only a few references to Frankfort cemeteries used prior to 1844, when the City established the Frankfort Cemetery on the bluffs overlooking the Kentucky River. This cemetery holds some of Frankfort's, and Kentucky's, most distinguished citizens, including Kentucky governors and Daniel Boone.

Most sources did not describe enough natural and physical landmarks to positively link any of the early cemeteries to the Old Frankfort Cemetery, or at least, not to its location.

Except one. It is archived in the personal papers of Frankfort historian and Kentucky State Geologist Willard R. Jillson.

Jillson drew a schematic map of small, family burial plots scattered throughout Frankfort. Of interest here is Burial Plot #13, identified as "Jennings (Basket Maker) B. P." [burial plot] and as "Potter's Field" (see map, opposite).

Several characteristics of Burial Plot #13 strongly suggest it is the Old Frankfort Cemetery. The plot is located northwest of Holmes Street, at the foot of Fort Hill. Positioning Jillson's map so that Holmes Street and Fort Hill are correctly oriented puts Plot #13 close to the Cemetery's location. Jillson's map also depicts two side streets. While they are not in exactly the correct position, they could be the side streets near the Cemetery.



Jillson's reference to "Jennings" may refer to Amanda Jennings, who acquired property in the area from Leander Sharp sometime between 1848 and 1850. She died suddenly, after having been treated for a wound, and her property was sold to pay her outstanding debts. Jennings apparently was running a "bawdy house" prior to her death. Among her debts were bills from many of Frankfort's finest shops and grocers. She regularly purchased hampers of champagne from proprietors Gray & George; whiskey, silks, velvets, fruitcakes, kid gloves, and almonds from many other shops; and frequently hired a horse and buggy. As part of the settlement of her estate, Adam Kahn, a "basket maker" acquired her property.

Unlike other maps that simply show Fort Hill, Jillson's schematic map specifically refers to the "Fort Hill Bluff." The only Fort Hill location associated with a bluff is adjacent to the Old Frankfort Cemetery site. From the 1890s to the 1950s, limestone removal as part of quarrying operations in this area created a highwall that looks like a bluff.

Another image also provides clues about the Cemetery (see page 14). A watercolor by a British prisoner-of-war, held in the Kentucky Penitentiary during the War of 1812, may show the area of the Old Frankfort Cemetery during its early years. The scene depicts what appears to be three small burial plots at the base of Fort Hill. Each plot is enclosed by a wooden picket fence built differently from the plank fences enclosing the large pasture fields.

The only description of the Cemetery by an eyewitness appears in an 1860 newspaper article published in Frankfort's *Tri-Weekly Kentucky Yeoman*. In it, Samuel Haycraft of Elizabethtown, Kentucky, describes a visit to Frankfort and clearly documents the Cemetery's progression from a local place of burial to a relic of a past era. Moreover, Haycraft's description of its run-down appearance shows how neglected it was at this time.

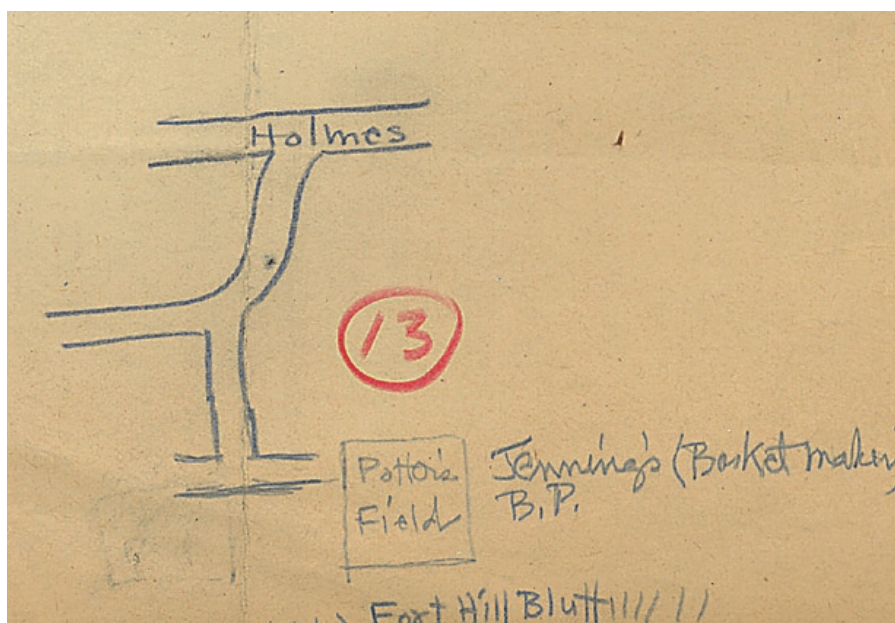
In the article, Haycraft describes a stroll he took up the city's north hill. He is referring to Fort Hill, called Blanton's Hill in the early 1800s. This is the sec-

**Below** Section of a schematic map of Frankfort's family burial plots by Willard R. Jillson, drawn in the mid-1900s.

This map shows Burial Plot #13. "Potter's Field" may refer to the Old Frankfort Cemetery. Note "Fort Hill Bluff" at the bottom of the map (courtesy Kentucky Historical Society).

**Opposite** Section of the 1854 Map of Frankfort, showing the location of the Old Frankfort Cemetery's two excavation areas.

Note the relationship of the cemetery site to Fort Hill, Ann Street, and Holmes Street (courtesy Kentucky Historical Society).



ond time he had wandered into this area. The first was 44 years earlier, in 1816. Remembering that visit, Haycraft says he “walked though the graveyard and climbed the hill.” Archaeological research confirms that the Cemetery would have been active at that time.

Of his 1860 visit, he writes:

*By scrambling over some stone fences I found my way into the old deserted burying ground. It had underwent much change since my first visit. A new Cemetery had been opened [the Frankfort Cemetery, in 1844], and this [one] had been neglected and overgrown with briars. The remains of crude stones pointed out many nameless graves.*

Later in the passage, Haycraft describes his view of Frankfort, looking south from on top of Fort Hill. He writes:

*Taking the above standpoint, you see all of Frankfort spread out as a map; you see all the streets, alleys, and thoroughfares, at one view. You are so high above the penitentiary on the left, that you can see the convicts at play. The railroad bridge crosses the river on the right; the State Arsenal and Cemetery hill...on the east.*

For this description, Haycraft only could have been standing above the Old Frankfort Cemetery. This lends further strong support for concluding that the graveyard Haycraft visited in 1860 was the Cemetery.

The Cemetery’s sad state of preservation in the mid-1800s can be confirmed from an unlikely source: an 1848 act of the Kentucky General Assembly. This act called for the reinterment of a former Lieutenant Governor of Kentucky, General John Caldwell, in the new Frankfort Cemetery.

Caldwell, who died in 1804, was initially

*buried at the base of the hill near the Penitentiary; and that the monument erected to his memory by the Commonwealth of Kentucky, in pursuance of an act of the General Assembly, approved January 19th, 1831, has been much broken and mutilated by wanton and mischievous persons, and by the sliding down of earth and stone from the hill upon his grave...is hereby requested to have the remains of Gen. John Caldwell removed and interred in the State’s portion of the Frankfort Cemetery...*



Other people's remains also may have been moved from the Old Frankfort Cemetery to the new cemetery in the late 1840s, although there is no record of this in any documents.

The final source of information about the Old Frankfort Cemetery found during the documents research was a notebook belonging to Bayless Hardin. Hardin was the director of the Kentucky Historical Society from 1945 to 1956 and a renowned historian who wrote many histories and descriptions of early Frankfort.

Hardin diligently described the streets and business he passed on walks through Frankfort in the early twentieth century. He compiled them into a series of notebooks. For our purposes, the most important notebook holds his writings about the history of Ann Street, oriented north-south between Mero and Holmes streets, and perpendicular to Fort Hill. In it, Hardin makes two statements about a cemetery:

*The property...was a swamp owned by the Swigerts. On a broad shelf of land at the foot of Fort Hill, above the high water mark, was the first cemetery of the city, the remains being later removed to the Cemetery on the hill, after its establishment.*

And separately:

*At the north end of Ann Street, and on the east, upon a bench of land at the foot of Fort Hill, where years ago was the penitentiary burying ground, the city has established a work house...Just below is where the late Sigmund Luscher established his brewery...*

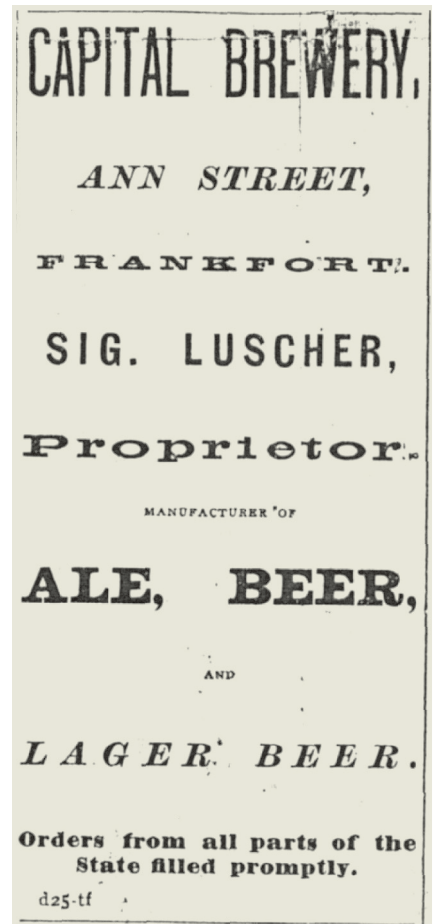
From Hardin's reference to Luscher's brewery complex and the State Penitentiary, it is clear that he is writing about the Old Frankfort Cemetery.

However, researchers could not find any primary documents that verified Hardin's statements. The General Assembly's request to move Lieutenant Governor Caldwell's grave is the only one that mentions the removal of a grave from the Cemetery. Similarly, they could find no deed to prove the Swigerts' ownership of the Cemetery property. Admittedly, there are significant gaps in the chain of title for the property, and so it is possible that the Swigerts owned it at one time.

Hardin is the first to link the city workhouse to the site of an earlier graveyard. As mentioned previously, the 2002 archaeological investigations confirmed that the City of Frankfort may have built the workhouse on top of a section of the Old Frankfort Cemetery in the 1870s.

Most importantly, however, Hardin characterizes the Cemetery as the prison graveyard. Later documents have perpetuated this characterization. The earliest came out soon after Hardin had written his notebooks. In 1927, the *State Journal* published an article by George Lewis entitled "Prison Cemetery Once Head of Ann Street." Despite the title, only the article's opening paragraph discusses the Cemetery. The rest of it follows Hardin's Ann Street history almost word-for-word. In 1975, Hardin's description was repeated again on the Frankfort City Workhouse National Register of Historic Places nomination form.

The archaeological research carried out in 2002 does not support Hardin's statement that the Old Frankfort Cemetery was the prison graveyard. Certainly



**Above** An advertisement for Capital City Brewery's ale and beer, placed in Frankfort's *Tri-Weekly Kentucky Yeoman* on February 13, 1879.

**Opposite** A View of the state penitentiary of Kentucky-Place of confinement of Officers-prisoners.

A British prisoner-of-war painted this 11 x 17 inch watercolor in 1813 while held in the Kentucky Penitentiary at Frankfort. During the war, the federal government transferred many British prisoners to this facility in Frankfort, which was built in 1798.

It shows a place of confinement (building enclosed by a high wall) and two pairs of figures are in the foreground. The Old Frankfort Cemetery locale is on the edge of town at this time (courtesy Kentucky Historical Society). **Inset** Three small fenced-in areas at the base of Fort Hill may be the Cemetery's first burial plots.

relatives of some prisoners may have buried their loved ones within its boundaries. But the 2002 investigations documented too many children, juveniles, and women at the Cemetery for it to be a penitentiary burying ground as Hardin described. Men's graves would likely dominate a prison cemetery.

Other differences between the Old Frankfort Cemetery and an institutional cemetery also can be cited. A certain degree of standardization in clothing and burial treatment would be expected for a prison population. But at the Old Frankfort Cemetery, there was variation in the clothing people wore, in coffin hardware, and in grave vault construction. Finally, the archaeological research shows that the Old Frankfort Cemetery started out as several small burial areas. Over the years, these areas expanded to become one large burying ground. A prison cemetery would have expanded horizontally in an orderly fashion, row by row as it filled up.

### **WHAT WE HAVE LEARNED**

Despite very limited references to the Old Frankfort Cemetery in a variety of historic documents, we can piece together a fragmentary history that spans nearly sixty years.

The Cemetery appears to have been one of Frankfort's earliest community graveyards. Documents show that at least by 1804, the citizens of Frankfort were interring civic leaders, and likely people from all backgrounds and social classes, within a cemetery at the base of Fort Hill. It apparently always was a community burial ground, since it never sat next to a church.

The Old Frankfort Cemetery may have started out like Frankfort's many other small antebellum cemeteries. In the 1810s, it still was not particularly large, consisting of clusters of graves surrounded by pasture. There was no way to know then that in sixty years, intense residential and commercial development would transform this rural setting and disturb the dead.

The Old Frankfort Cemetery apparently outgrew others in the 1820s and 1830s. Documents show that, at least for some people at this time, the Commonwealth was replacing earlier grave markers in this burial ground with more substantial ones. The Cemetery's shift to a working class neighborhood graveyard may have begun in the late 1820s.

In 1844, the City of Frankfort opened a cemetery on the bluffs overlooking the Kentucky River. Removal of some graves may have started then, marking the beginning of the end for the Old Frankfort Cemetery.

Four years later, upkeep at the Cemetery had begun to falter. An 1848 request for reinterment described graveyard monuments "much broken and mutilated" by vandalism, with "earth and stone from the hill" sliding down and covering graves. Residential development on lots near the Cemetery began around this time, as Frankfort's population grew.

Right before the start of the Civil War, an eyewitness described the Old Frankfort Cemetery as "neglected and overgrown with briars..." though the "remains of crude stones" were still visible. From this description, we can infer that while no one was actively using or maintaining the Cemetery, no systematic attempt at removal of markers or monuments had taken place either.



The Old Frankfort Cemetery may not have disappeared from memory entirely, though, had it not been for the residential, institutional, and commercial development that occurred in its midst after the Civil War. Construction in the 1870s - of homes, the Capital City Brewery, Frankfort's city jail and workhouse, and associated outbuildings - began a process of cemetery destruction and obliteration that extended into the following decades.

What happened to the old cemetery in those years between Haycraft's 1860 visit and the groundbreaking for Lucsher's brewery in the early 1870s? Did anyone visit it? Did someone collect and remove the remaining crude tombstones? Had the bodies of those of means been removed earlier, when the cemetery on the bluff was opened in 1844, leaving only those of the poor and forgotten behind? We cannot say.

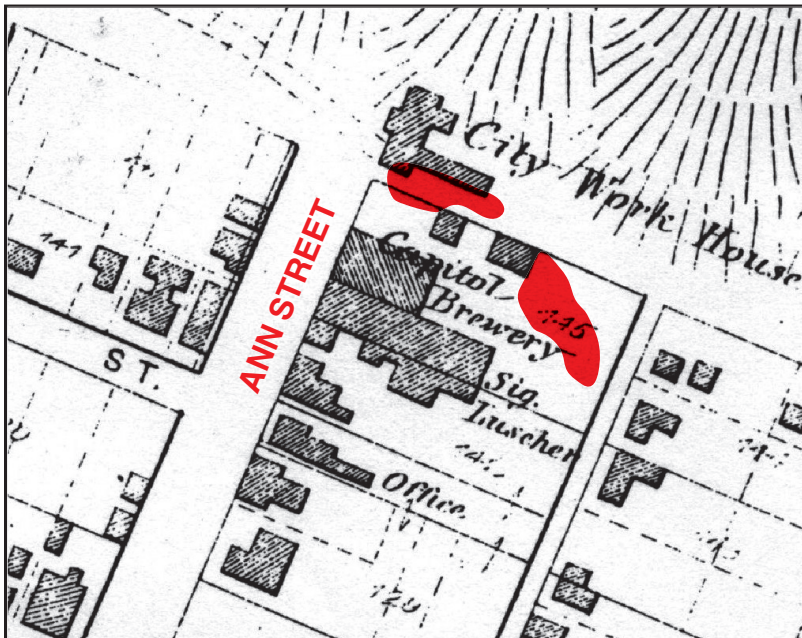
And why, during construction in the 1870s and later, when workmen encountered graves, was work not stopped, and bodies moved then? Again, we cannot say. Perhaps the prevailing attitudes of that age did not treat cemeteries with the same respect as we do today.

With the removal of markers, the identities of those interred in the Cemetery were lost to history. Over time, construction activities covered the now-defunct cemetery with asphalt parking lots and driveways, completely obliterating any visible remnants. Despite decades of subsequent development, however, many graves in the Old Frankfort Cemetery lay undisturbed until construction activities in 2002 revealed their presence.

The few documents that mentioned a cemetery at the base of Fort Hill did not give any details about its size or organization. With but one exception, none mentioned who was buried there. Information recovered during the 2002 archaeological investigations breaks that silence.

**Below** Section of a page from the 1882 *Atlas of Frankfort and Franklin County*, prepared by D. J. Lake and Company.

This map shows the Old Frankfort Cemetery excavation areas, relative to the City Work House and Luscher's Capital City Brewery complex. It documents the beginning of the Cemetery's disappearance.



## What was Frankfort Like?



The working-class families and enslaved people who buried their loved ones in the Old Frankfort Cemetery were members of an early to mid-nineteenth century community. Their Frankfort was not the Frankfort of today or even the Frankfort of the 1900s.

What was Frankfort like back then? What roles did these people play in the community?

### FRANKFORT: 1800 TO 1860

In 1800, eight years after it was named the capital city of the new Commonwealth of Kentucky, Frankfort had a population of 628. It was the second largest city in the state, after Lexington. By 1810, its population had grown to 1,099, and it included at least 407 slaves (see opposite). The city had three printing offices, a bookstore, a library, a bank, 18 shops, and 140 houses.

Frankfort's Kentucky River location helped it develop into an important business and transportation center. Another advantage was its position between the much larger city of Lexington and, at the time, smaller town of Louisville. Thus, around the time of the War of 1812, commerce as well as politics attracted people to Kentucky's capital city.

By the War's outbreak, people already had been burying their loved ones at the Old Frankfort Cemetery for several years. Before the decade was out, a British prisoner-of-war would paint a watercolor view of the cemetery locale, and Samuel Haycraft would visit it (see **How To Lose A Cemetery**, page 10).

The population of Frankfort grew to 1,679 by 1820; two decades later, it stood at 1,913 (see opposite). During this period, people of African descent accounted for about 40 percent of Frankfort's population. A sharp increase in freed people of African descent took place by 1840.

Slave holding was fairly widespread in early Frankfort, but as the nineteenth century progressed, the local slave population became concentrated in the hands of fewer and fewer people. Differences in slave labor responsibilities might explain the changes in the number of enslaved people living in Frankfort between 1820 and 1840.

Politics may have kept some of Frankfort's citizens busy, but antebellum Frankfort also was a hub of manufacturing. The surrounding county was overwhelmingly engaged in agriculture. Frankfort's skilled craftsmen and its professional, financial, commercial, and manufacturing businesses depended heavily upon the county's agrarian base. Farmers retained Frankfort attorneys to handle legal matters. Local manufacturers processed the farmers' crops, and sent their finished goods to market through area warehouses.

On small farms and on large estates, farmers raised livestock; grew crops like wheat, rye, oats, and barley; cultivated different kinds of fruit trees; and tended vineyards. The three top crops were hemp, tobacco, and corn. By 1840, Franklin County and eight neighboring counties produced two-thirds of Kentucky's hemp crop. Demand for hemp was especially strong in the South, where the cotton

YEAR	POPULATION			TOTAL
	WHITE	FREE BLACK	ENSLAVED	
1800	N/A	N/A	N/A	628
1810	599	93	407	1,099
1820	976	60	643	1,679
1830	1,125	79	764	1,968
1840	1,138	132	647	1,913
1850	2,079	213	1,016	3,308
1860	2,420	258	1,024	3,702

City of Frankfort's population during the years the Old Frankfort Cemetery was in use.

Note the large population increase between 1840 and 1850. Information about 1800 was reconstructed from tax records, since fire destroyed the original records during the War of 1812. The other information was taken from U.S. Census records.

industry needed hemp baling cord and bagging material. Tobacco was a major supporter of Frankfort's growing warehousing business. Corn fed people and livestock, but also was a major ingredient in whiskey. In the early nineteenth century, Franklin County was a major bourbon producer.

Enslaved people of African descent labored mainly at agricultural tasks in the 1820s and early 1830s. Hemp cultivation, especially, was reserved almost exclusively for enslaved men. But as the town grew, Frankfort's slave owners increasingly assigned their slaves domestic and industrial tasks. Owners sent other slaves to farms throughout the county.

Like all towns in the early nineteenth century, Frankfort experienced its share of health problems. In late June 1833, for example, 150 people died in Franklin County as a result of the cholera epidemic that swept through Kentucky. Seventeen cholera deaths occurred in Frankfort: ten were people of European descent and seven were of African ancestry.

German and Irish immigrants arrived in the late 1830s and 1840s, fueling Frankfort's growth. Initially, they worked as laborers, building streets and railroads. In time, some used the skills they brought from their homelands to start their own businesses, such as breweries or bakeries. Others worked in manufacturing jobs.

With the arrival of the railroad in 1832, a commercial district with businesses, warehouses, stores, taverns, and markets began to develop in Frankfort. Among the businesses were drugstores, clothing stores, bookstores, jewelry stores, bakeries, and grocery stores.

Hemp processing, hemp rope and bag manufacturing, whisky distilling, and milling wheat and corn into flour and cornmeal remained important to Frankfort's economy. Factories produced a variety of other items, including metal chains and cut nails, cast iron stoves, cabinets, barrels and kegs, wagons, and farm implements. Frankfort became a stopping point between the Ohio River and places farther south. Its warehousing industry stored and shipped manufactured products as well as agricultural goods and produce overland and by water. Steamboats on the Kentucky River provided the means to transport these goods to markets.

By the middle of the nineteenth century, Frankfort was growing - it achieved legal status as a city in 1849 - though it was still much smaller than Lexington and

**Below** Liberty Hall slave cabin (courtesy Capital City Museum).

**Opposite** Antebellum Frankfort slave owners hired-out their slaves to work in factories and trades, like these Lynchburg, Virginia slaves, shown processing tobacco. Note the clothing they are wearing, the proportion of the sexes illustrated, and the young children working.

Louisville. The community also began to develop a variety of social and cultural amenities, and a few urban services including a pioneering water system. By 1850, its population had jumped to 3,308, an increase of 1,395. By the beginning of the Civil War, in 1861, almost twice as many people were living in Frankfort than had lived there twenty years earlier. As the number of people of European heritage grew, so too did the number of enslaved and free people of African descent.

From the late 1820s to the early 1840s, the Old Frankfort Cemetery saw its most intensive use. However, the late 1840s mark the beginning of the Cemetery's slide into obscurity. In 1846, citizens could begin to purchase lots in the new Frankfort Cemetery. Frankfort's sharp population growth in the 1840s and 1850s also threatened the Cemetery with residential development. Thus, when Haycraft visited the graveyard right before the Civil War, it showed signs of neglect.

Throughout the United States during the early to mid-1800s, important changes took place in American life. The country witnessed rapid industrialization, urbanization, and economic growth. These changes were characterized by increased commercialization, improvements in transportation infrastructure, the growth of cities, significant immigration, and increased mobility within the country.

There was a downside to all this, however. Among other things, it took the form of a deteriorating living environment within the expanding cities. This was reflected in polluted water supplies, inadequate sewage and refuse disposal, and crowded living conditions. The hardest hit were the enslaved and the poor.

Although on a much smaller scale, Frankfort's growth and development during this period mirrored what was taking place elsewhere in America and Kentucky. Frankfort's citizens experienced the same prosperity and (continued on pg. 24)



## How Do We Assign Ethnic Heritage?

Even without written records, bio-anthropologists can often identify a person's ethnic heritage. The information comes from directly studying a person's bones, and in some cases, also by analyzing the DNA within their teeth.

Direct study of bones involves taking measurements, like length and width at various places on a bone or tooth. It also involves noting the shape of a bone or tooth, and the size and shape of the skull. It can even involve determining the placement of the little holes in the skull that allow a blood vessel or nerve to pass through.

For example, the molars of people with African heritage often have more *crenulations* (wrinkles). Those of European heritage have extra cusps. The skulls of people of African descent are often longer, while the faces of Europeans are taller. One nerve in the face passes through a groove on the inside of the jaw. In some populations, usually Europeans, the groove is covered with bone. In other groups, like Africans, it is open or uncovered.

Armed with this information, investigators then compare data from the group they are studying to data collected on known ethnic groups. In this manner, bio-anthropologists identify the group(s) an individual is most similar to.

In the case of the Old Frankfort Cemetery, researchers

were able to identify ethnic heritage for the adults and for some of the adolescents. If the traits of one ethnic heritage predominated, the person was considered to be of that ancestry. A person was considered of mixed heritage if they shared roughly half of the characteristics between ethnic groups. Researchers could not determine ethnic heritage for most of the children. That's because, like sex, ethnic heritage is tied to physical characteristics that develop in the teen years.

Another way to determine a person's ethnic heritage is to study their DNA. Our bodies hold two types. *Mitochondrial DNA (Mt DNA)* is inherited from our mother. *Nuclear DNA (N DNA)* is inherited from both parents. Mt DNA can be classified into different *haplotypes*. These represent the different continents of origin. They allow researchers to identify where in the world a person or their ancestors lived before they migrated to or were transported to the Americas.

Researchers studied the Mt DNA of seven children and 24 adults. They removed it from the inside of a tooth to make sure it was not contaminated with the DNA from another person. For the adults, DNA analysis confirmed the assignments made based on skeletal measurements and observations. DNA analysis alone determined the children's ethnic affiliation.





## MEET THE PEOPLE

### BURIAL 146 A Short Life

Based on long-bone measurements, it seems likely that this infant was a girl of African descent. She measured 30 inches long and weighed 18.7 pounds when she died.

She experienced nutritional stress shortly after birth, and again when she was about four months old, based on the growth-arrest lines visible in her baby teeth. She died before she had reached her second birthday.

At death, her grieving parents had placed her arms along her sides, and then wrapped her in a shroud held in place with machine-made pins. This child was among the few buried at the Old Frankfort Cemetery whose rectangular wooden coffin was lined with velveteen, held in place with brass tacks. The style of pins and the use of late-cut machine-made nails in the construction of her coffin show she died after 1835.

Despite her short life, a great deal of effort and expense went into preparing her grave. The bottom and sides had been lined with bricks and rocks, which created a stone vault (see page 63). After her coffin was placed inside, the vault was sealed with large limestone rocks and fragments of a headstone, discarded, perhaps, because a quarryman had broken it before he was finished making it. This stone vault provided the excellent protection her family had intended for the tiny coffin. When her grave was discovered over 160 years later, it had not filled-up with soil.

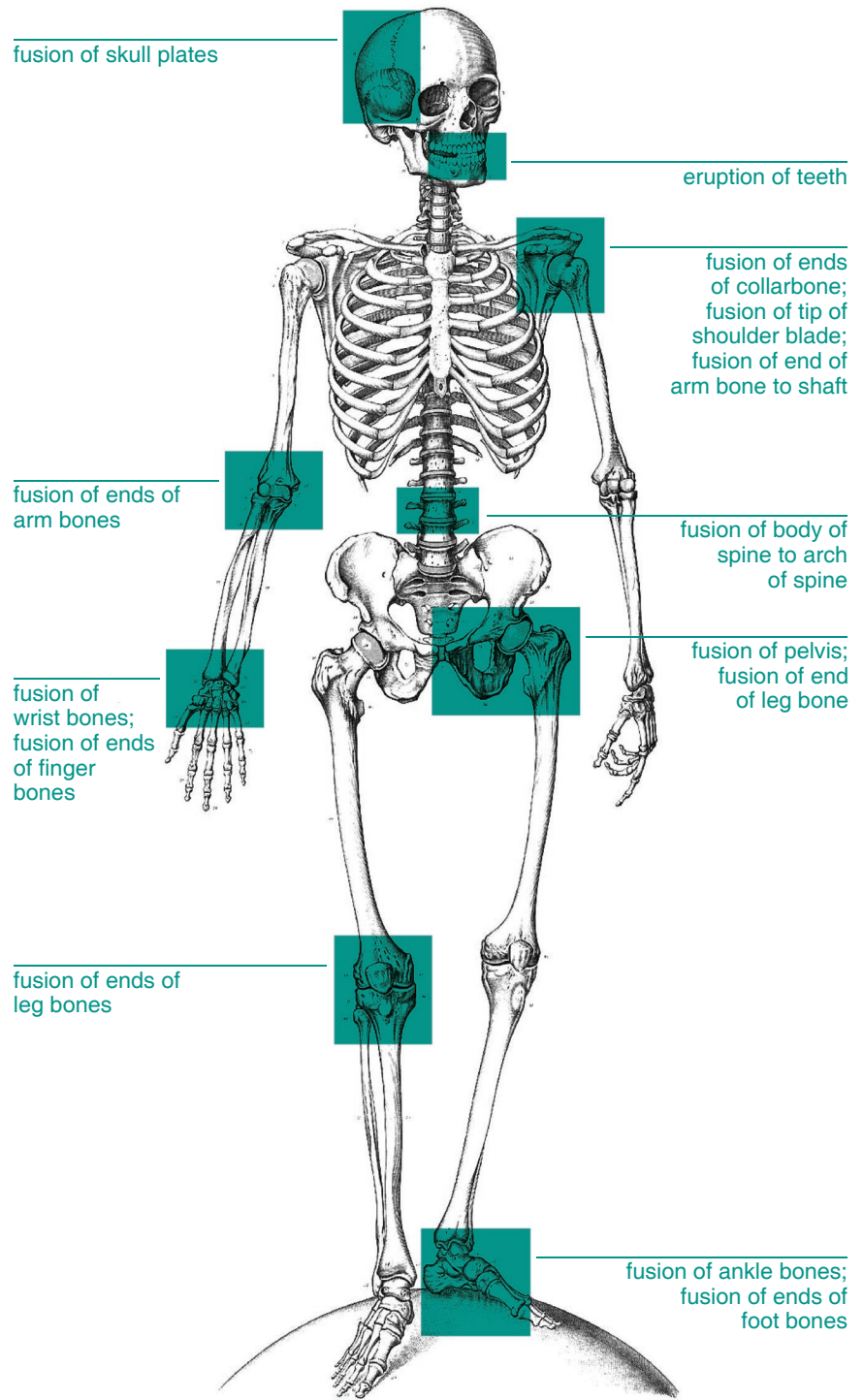
She was buried in the western quarter of the Upper Area, in a cluster of other graves. The range in age and sex of the people buried in this grave cluster suggests it could have been a family plot.

## How Do We Estimate Their Age?

Figuring out someone's age at death from their bones is based on important developmental signatures that leave their mark on a person's skeleton. The most important are: the extent to which bones have fused, the presence or absence of baby teeth, the length of arm and leg bones, the degree of hip joint deterioration, and the extent to which skull *sutures* (the places where skull bones connect) have fused.

As children grow into adulthood, their bones grow together (*fuse*). By anyone's 20th birthday, all of their bones have fused completely. Baby teeth begin to be replaced by about 6 years of age, and by 12, all have been replaced. Bone length also can be used: the longer the bones, the older the child. From this information, researchers can estimate a child's age at death and assign it to one of four age groups: Fetal (less than birth), Infant (birth to 3 years), Child (age 4-12), and Adolescent (age 13-20).

Different signatures apply to adults. As one gets older, the joints at the front and rear of the hip deteriorate in a regular way. Skull sutures start fusing in one's late teens and early twenties. Using these criteria, investigators assign age at death to people over 20 to the following groups: Young Adult (20-35 years of age), Mature Adult (35-50 years of age), and Old Adult (greater than 50 years).



**Above** At birth, the human skeleton has about 350 bones, but by the time a person reaches adulthood, some bones have fused, bringing the total to 206. Because this process takes place over many years and in an orderly way, bio-anthropologists use the steps in bone fusion to help them estimate a person's age at death. Highlighted are some of the main places on the human skeleton bio-anthropologists consult when determining how old a person was when he or she died.



**Above** Burial 192c, a woman of West African heritage buried in the northern half of the Lower Area. For her complete description, see *Meet The People - A Working Woman*, page 60.

**Opposite** *The Hemp Brake*, attributed to Samuel I. Major, ca. 1850 (courtesy Kentucky Historical Society).

This painting depicts the people (investors, managers, and enslaved workers) and the many processes involved in Kentucky hemp production in the mid-nineteenth century. Major was mayor of Frankfort and, with other businessmen, helped organize a variety of businesses and civic ventures in the community.

many of the same problems that came with nineteenth-century city life. These trends had adverse consequences for those who buried their dead in the Old Frankfort Cemetery: poor working-class people of European and African descent and the enslaved (see *About The Portraits*, page 26).

### ANTEBELLUM FRANKFORT'S POOR AND ENSLAVED

In the early and mid-nineteenth century, Frankfort's poor lived in a neighborhood at the base of Fort Hill, west and south of the Old Frankfort Cemetery. This naturally swampy area eventually became known as the "Craw" in reference to the tiny lobster-like crayfish stranded there by periodic flooding.

Today, we would call the Craw neighborhood a slum. Working-class families lived in rented rooms or houses. Some slaves lived in a shack or cabin behind their master's house, but others "lived out" in rented rooms or houses along alleyways away from their owners. This practice was more common among commercial or industrial slave owners or those who employed "hire-out" slaves from the surrounding county.

If a family was fortunate enough to rent or own a small house, they would not have had much space. These homes had one or perhaps two rooms at most and little or no yard space. Neighboring families shared a privy. Residents got water from the Kentucky River or a public well.

There may have been a few shops and taverns interspersed with the small houses in the Craw. Residents purchased food from local vendors, though owners fed the enslaved. In all Frankfort neighborhoods of the period, including the Craw, loose pigs ran in the streets, eating what they could find.

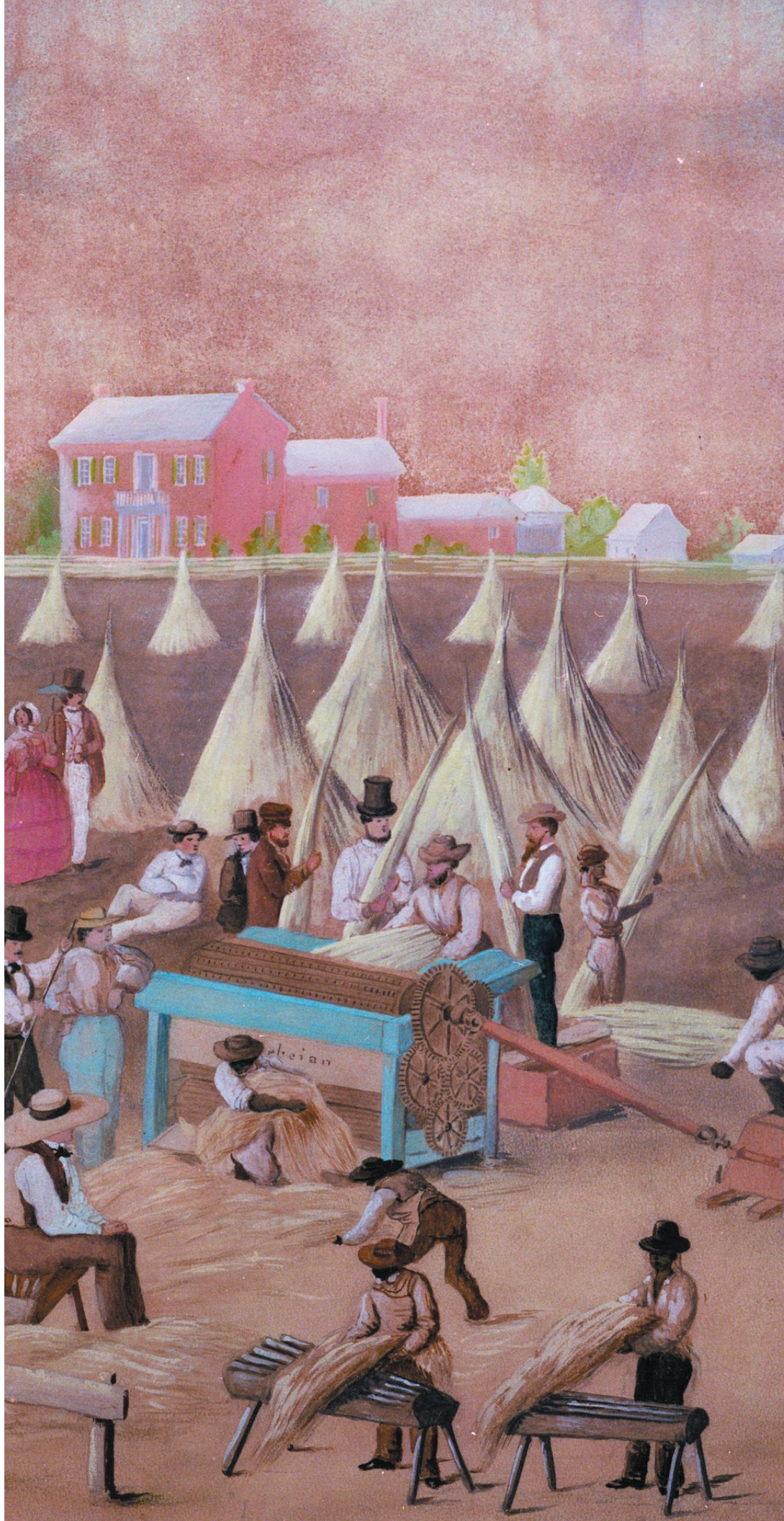
Close living quarters, unsanitary living conditions, and generally poor nutrition contributed to the spread of disease. Not surprisingly, the health of poor working-class people and the enslaved suffered.

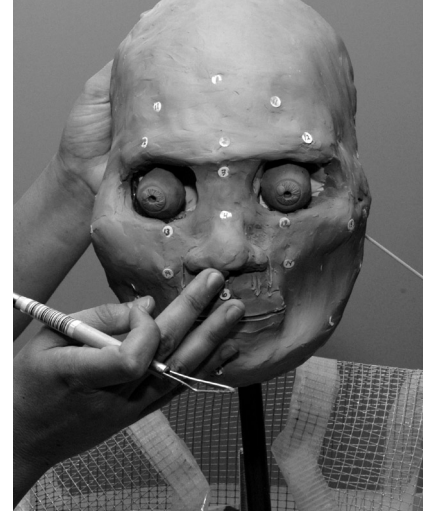
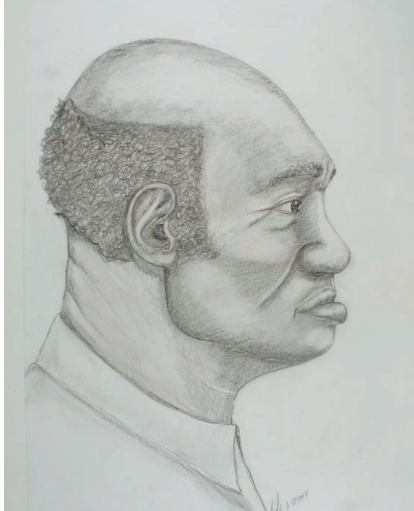
Frankfort's wealthier residents during this period had several distinct advantages over the people who lived in the Craw. Their houses were often quite large, with many rooms. Some of the wealthiest families had homes with large yards overlooking the Kentucky River. They had their own wells and privies. These people also had access to a greater variety of foods, and in larger amounts. And when epidemics did occur, like the one in 1833, they could leave Frankfort for healthier surroundings in the county or elsewhere.

Frankfort's working-class men, be they of European or African descent, served as carpenters, plasterers, masons, blacksmiths, coopers, painters, and shoemakers (see *How Do We Assign Ethnic Heritage?*, page 21). The docks along the Kentucky River provided opportunities for men to work as stevedores, draymen, roustabouts, and general dockworkers. Men of European descent would not submit to making hemp rope and bags at factories in and around Frankfort. The enslaved did this back-breaking work almost exclusively. Other occupations, like those of hack drivers, barbers, waiters, cooks, hotel domestics, and well-diggers, were primarily the realm of free or hired-out enslaved men of African descent.

Prior to the 1830s, working-class women of European descent were domestic servants and laundresses. But with Frankfort's commercial and industrial growth in the 1830s, these women sought work in various businesses, most prominently,







### About The Portraits

Producing the likenesses of these people from nineteenth-century Frankfort took hours of painstaking attention to scientific detail, combined with artistic vision. The science is about calculating the details of a person's every feature. The art kicks-in when drawing such things as the expressions on the people's faces and their hairstyles.

For the two-dimensional portraits, the forensic artist drew a *profile* (side view) and *frontal view* (full face front) for each person directly from their skulls.

Muscle, ligaments, tendons, blood vessels, veins, and fat lie beneath the skin on our faces. But before the artist could correctly draw a particular person's face, she had to know exactly how thick the tissue would have been.

That information came from two different sources. One was charts and documents that report the average tissue depths for both sexes and for people of different ethnic heritage, such as African, European, and Native American. Researchers collected this information from hundreds of cadavers in the 1980s. The other source was the human bone analysis of the Old Frankfort Cemetery population, which identified the age, sex, and ethnic heritage of the person.

To represent the thickness of this missing tissue, the artist cut long white pencil erasers into different lengths, then glued them to the skull at 21 depth points: 10 for the profile and 11 for the frontal view. Measuring the lengths to within .00098 of

an inch, she attached the longest ones where the underlying tissue would have been thickest, and the shortest ones where it would have been thinnest. The tissue in the middle of our foreheads is very thin, so the depth point glued there was the shortest.

Once the depth points were glued to the skull, photographs were taken in profile and frontal view. They included a scale and were taken at the proper angle, which permitted accurate enlargement of the photographs to life-size. These photos helped the artist make the necessary calculations to draw the nose and mouth. Finally, she mounted the photos, side by side, on a large drawing board, and laid transparent paper over them. After carefully removing the depth points and glue from the skulls, drawing could begin.

Tissue depth varies slightly from person to person, and changes with a person's weight. From other information provided by the project's bio-archaeologist about these people, the artist knew whether to draw the person strong and muscular or underweight. If the forehead of the skull was sloped, she drew sloping muscles. If the eye sockets were wide and far apart, she drew the eyes far apart, too.

The steps in modeling the three-dimensional busts are similar to those used in drawing the portraits. The main difference is that plastic casts of the skull were made using lasers, and then clay was applied to the cast.

in cloth and clothing factories. These jobs consisted of weaving cotton and linen, and sewing clothing. Free or enslaved women of African descent filled many of the domestic jobs they left. Enslaved women, under the supervision of the mistress of the house, served as housemaids, seamstresses, nurses, cooks, and handmaids. Free women of African descent had similar jobs. They also peddled handicrafts and garden produce at the market.

Sometime before their tenth birthday, children of the working poor entered the workplace. Enslaved children were put to work at even earlier ages. They did household chores, or labored in the fields or house garden and in factories. Though this challenges our modern idea of childhood, it reflects life's realities for the enslaved and the poor (see *Meet The People: Burial 146 - A Short Life*, page 22). Once the enslaved of any age entered the workplace, they became valuable commodities. Children of working-class families were able to help their parents put food on the table.

As a group, free individuals of African descent were the most urbanized, in comparison to people of European heritage or enslaved individuals of African descent. They tended to work in occupations considered fit only for those of African ethnic heritage. This meant that they carved out a narrow, but significant, niche in the skilled labor market of many cities, including Frankfort. Work available to free men of African descent included barbering, catering, carting, stable services, and hemp processing. They often worked alongside enslaved individuals in factories, or on city work crews. Their willingness to work for less than those of European heritage usually guaranteed them some employment.

Some Kentucky slave owners could not keep all their slaves employed. So, they hired or rented-out their slaves' services to small farmers, manufacturers, and businesses that needed temporary services. Some enslaved people were permitted to hire themselves out to several different employers, making extra money for themselves and their families in the process. Hiring-out may have provided some enslaved people an opportunity to fraternize with free individuals of African descent, to increase their education, to earn extra money to buy their freedom, and to escape. But hiring-out also had its drawbacks. It separated families for long periods of time, and sometimes meant poor treatment at the hands of employers who had invested nothing in them. And many times, this type of employment offered no more freedom.

## WHAT WE HAVE LEARNED

During the decades when Frankfort's citizens buried their dead in the Old Frankfort Cemetery, the town was an important warehousing and shipping hub, and a major hemp processing and manufacturing center. Although it served as the nominal center of Kentucky's political life, Frankfort faced the same challenges and opportunities as its contemporaries.

Life for Frankfort's working-class families and enslaved people was difficult. They worked very hard, often at menial jobs, for little or no pay. Many lived in the *Craw*, a marginal section of town with few amenities. Unsanitary living conditions and inadequate nutrition contributed to poor health. But living in Frankfort provided better opportunities for work and the chance to create communities.

**Opposite left and middle** Two-dimensional profile and frontal views of Burial 192b's face.

This very robust man of African heritage led one of the hardest lives of anyone buried in the Cemetery. For his complete description, see *Meet The People - A Very Hardworking Man*, page 68.

**Opposite right** A forensic artist applies clay to a plastic cast of Burial 192b's skull, guided by both the art and the science of the human face.

This publication could have featured many people: a woman and child buried in the same coffin, an autopsied man, or a woman whose loved ones placed 1838 and 1840 dimes on her eyes. The forensic artist drew the compelling black and white pencil portraits, and created the clay busts of only seven people because their heads were in the best shape. Most of the other skulls were too fragmentary to reconstruct.

## Portrait of a Population



As we have seen, early and mid-nineteenth-century documents are silent concerning the identity of those buried in the Old Frankfort Cemetery. If any records ever listed their names, they are long lost to history.

In 2002, archaeologists discovered records of a more direct and personal nature: the bones of the people themselves (see *Our Bones Are Us*, page 30). To the trained eye, bones can reveal much about a person.

### WHO WAS BURIED THERE?

In 2002, archaeologists recovered the remains of 242 people from the Old Frankfort Cemetery. This is only a minimum number. No one can say how many graves were destroyed by the construction of the Capital City Brewery, Frankfort's workhouse, and associated outbuildings in the late nineteenth and twentieth centuries. We also do not know how many people's remains, like those of Lt. Governor John Caldwell, were removed in the mid-1800s and reburied elsewhere.

But we have learned a lot.

From the range in ages of the dead, it is clear that the Old Frankfort Cemetery was a neighborhood graveyard and not a prison cemetery. Men and women of all ages and children were buried there (see *How Do We Estimate Their Age?*, page 23).

A large number of graves were those of newborns, infants, and very young children. One in four never lived to see their third birthday. If a person reached the age of 12, though, their odds of living into their late thirties, forties, or even their fifties, greatly improved. A similar mortality pattern for Franklin County's population-at-large is reflected in 1850s documents (see opposite).

The large number of very young deaths seems unusual to us today, but high infant mortality was a fact of life in the United States during the early to mid-nineteenth century. Urban growth often led to crowding and unsanitary living conditions. Many people living in these places were under-nourished. This combination of factors contributed to the spread of disease and the outbreak of epidemics, like the one Frankfort experienced in 1833.

Infant mortality in the United States would not drop sharply until the twentieth century, when cities improved their water and waste systems. Medical advances in the care of newborns and infants helped, too. But all of this came too late to be of any help to the grieving families who buried their children in the Old Frankfort Cemetery.

The children of poor, working-class families and the enslaved were at greater risk for premature death than the children of wealthier families. Nutritional stresses and poor living conditions certainly contributed, but parents often could not afford a doctor's care. Ironically, slave owners paid for the medical care of the people they owned in order to keep their labor force working.

Somewhat more males (55 percent) than females (45 percent) were buried in the Cemetery (see *How Do We Know Their Sex?*, page 32).

The Old Frankfort Cemetery was an integrated burial ground. Archaeologists recovered the remains of people with African, European, and mixed (African, European, and Native American) heritage (see *How Do We Assign Ethnic Heritage?*, page 21).

The majority (61 percent) were of African descent. Only half as many (32 percent) were of European descent and 7 percent were of mixed heritage.

On average, adults stood 5 feet 5 inches tall. Men averaged 5 feet 7 inches, and women averaged 5 feet 4 inches (see *How Do We Estimate Their Height and Weight?*, page 33). Men of African and European descent were about the same height. Women of African heritage, on average, were two inches shorter than those of European descent.

Height is a good marker of a population’s health. In general, people who have had many bouts of disease, malnutrition, or other forms of physical stress tend to be shorter than those who have not. Information from the Cemetery suggests that the health of women of African ancestry was not as good as that of women of European heritage.

Why was this so? It is undoubtedly due to a combination of several factors: poor nutrition, injury, disease, and heavy labor. But it also could reflect the value society placed on what these women did. Here’s how.

Enslaved men’s labor had the potential to directly increase their owner’s wealth. That’s because the work they did in the fields and factories produced items for sale. Thus, for this economic reason, they were given enough food to eat, and so they grew as tall as men of European descent.

The domestic work of enslaved women also contributed to the household economy. But their labor may not have been perceived as contributing to the household economy as directly or as tangibly as the men’s. Perhaps people did not consider the women’s work “physically demanding” (yet, their bones certainly show that the housework they did, such as chopping wood, churning butter, and washing floors, was every bit as hard as the work the men did). If owners thought of women’s labor in this way, they may not have given enslaved women enough food to eat. This lack of adequate nutrition might account for their stunted growth.

Stature patterns for the children are more difficult to interpret. Children do not grow at a regular pace: they tend to stay at one height for a while, then have a slight

Mortality profile for the Old Frankfort Cemetery population.

Note the similarities in the percentages for age at death between the Cemetery population and the Franklin County population for 1852-1861 (the 1850s were selected for this comparison because no information is available for earlier decades).

Old Frankfort Cemetery			Franklin County 1852 - 1861		
CATEGORY	FREQUENCY	PERCENT	CATEGORY	FREQUENCY	PERCENT
0 - 3	57	<b>26.1</b>	0 - 5	535	<b>37.2</b>
04 - 12	26	<b>11.9</b>	6 - 15	176	<b>12.2</b>
13 - 20	15	<b>7.3</b>	16 - 20	105	<b>7.3</b>
21 - 35	34	<b>15.6</b>	21 - 35	221	<b>15.3</b>
36 - 50	36	<b>16.5</b>	36 - 50	150	<b>10.4</b>
51 - older	49	<b>22.5</b>	51 - older	253	<b>17.6</b>
total	218*	100.0	total	1440	100.0

\*For the remainder, age could not be determined because of poor preservation or other circumstances.

growth spurt. Bio-anthropologists and researchers in the health fields have created growth curves for children that chart these spurts.

Modern children are often measured multiple times over the course of their lives. These measurements show nice growth curves, which then can be compared to population averages.

For the children buried at the Old Frankfort Cemetery, however, investigators did not have this option. They could only measure how tall a child was at the time of his or her death, and then see whether he or she had reached the expected height for that age. They also could group the population of children by age at death, and then, by graphing the children's height by age, compare their stature to both modern and historic populations. Using these techniques, investigators discovered that, within most of the age categories, the Cemetery children were shorter than the norm.

As for adults, stature can be used as an indirect measure of children's health. Children who were healthy for most of their lives, but who died of acute disease, would be expected to be of normal height for their age. Children who suffered repeated diseases or malnutrition, on the other hand, would be expected to be short for their age.

The shorter stature of the Old Frankfort Cemetery children is probably related to inadequate nutrition and poor health. Those under 4 years of age seem to have been most affected. They were too young to work, and so were fed less than their bodies needed. This left them more susceptible to disease, and so they died at a young age.

Children who could survive until they could work, however, had a greater chance of living into adulthood. From the stress markers on their bones, children buried at the Old Frankfort Cemetery apparently were working by about 6 to 8 years of age (see *How Do We Know About Their Hard Work?*, page 33). While this seems incredible to us, work allowed these children, especially those who were enslaved, to get more food, and thus, survive.

Children who made it through this age bottleneck had the ability, if they got enough food to eat, to do what is called "catch-up growth:" experience a prolonged growth spurt. For the Old Frankfort Cemetery children, this catch-up growth would have occurred when they entered the work force officially, in their early teens. So by adulthood, they would have been as tall as their peers.

The average adult weighed 153 pounds. The range in weight, however, was significant: some people weighed only 86 pounds, while others weighed as much as 226 pounds (see *How Do We Estimate Their Height and Weight?*, page 33). Not surprisingly, given their bigger frames and higher average heights, men weighed, on average, about 20 pounds more than women.

Weight also provides insights into a population's health. The extremes in weight within the Cemetery population are not normal. They show that these people experienced some sort of physical stress, likely improper nutrition. Even overweight people can lack the essential nutrients for good health, and thus obesity can be as much a problem as thinness. Neither are signs of good health.

### WHAT THEY DID (OR DIDN'T) EAT

Everyone interred in the Old Frankfort Cemetery appears to have eaten comparable amounts of meat. Differences were noted, however, in the consumption of corn

## Our Bones Are Us

Bone is a *living*, active tissue. If it wasn't, it couldn't tell us so much about our lives. To read the record of our life in our bones, bio-anthropologists look at their overall form, their microscopic structure, and the chemicals present.

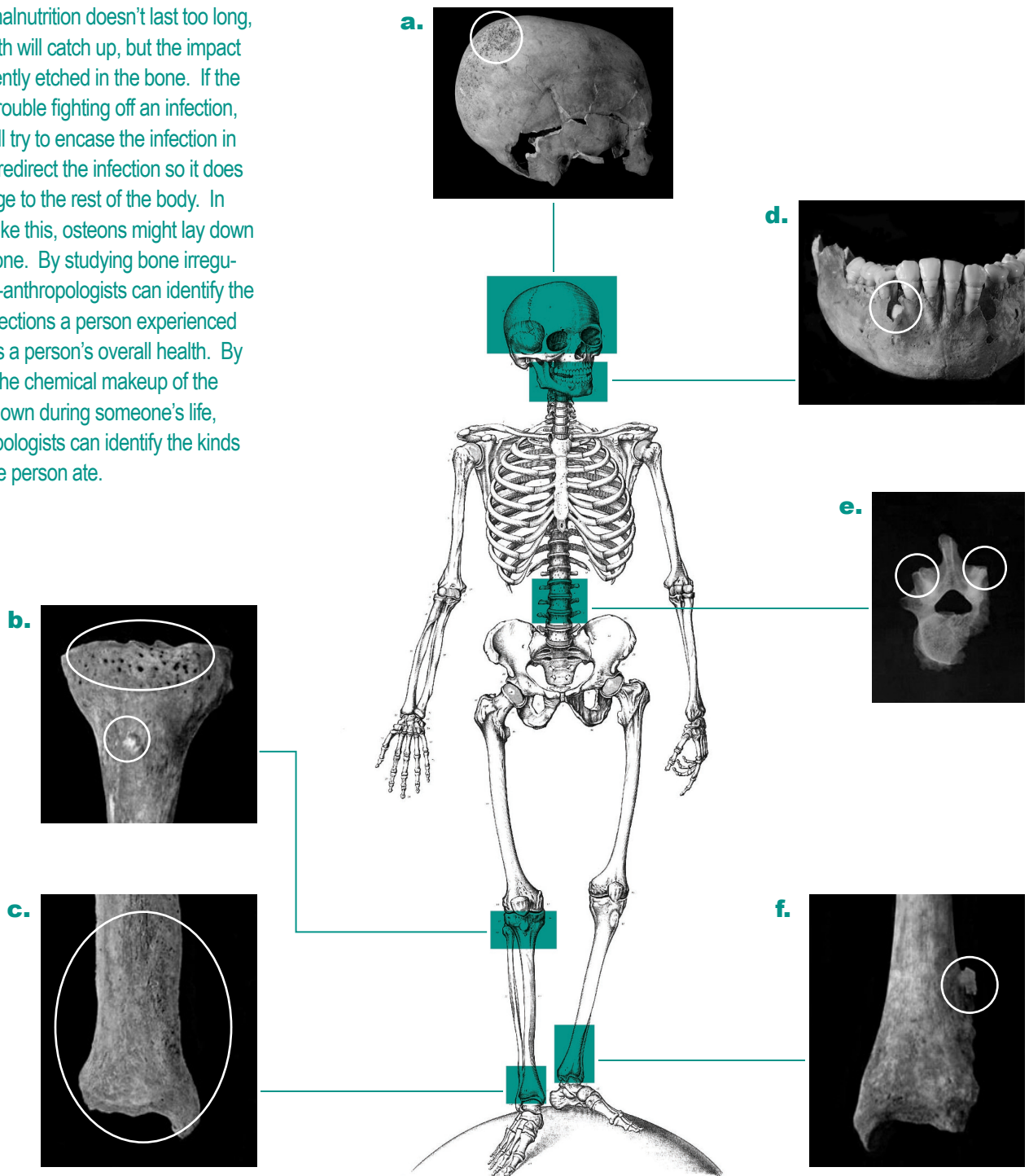
We most commonly think of our bones as the solid framework that supports and protects our bodies. Bone shape and organization reflect the biomechanical needs of the nearby muscles and organs. Flat bones surround the brain and make up the pelvis. They protect the brain and internal organs. Long bones in our arms and legs are shaped to aid in movement and walking. Irregularly shaped bones serve special purposes, like the tiny bones that tap on our ear drums and help us hear.

Cut through a long bone, and a hollow center filled with marrow appears. The red bone marrow produces red and white blood cells. The yellow bone marrow stores the fat our bodies need to stay healthy.

Looking closer reveals the living bone: protein cells called *osteons*. These cells make the minerals that provide the inert solid framework for our bodies. The protein gives bone its flexibility. Without it, our bones would be very brittle. Osteons can reabsorb bone, enabling bone to reshape itself to meet the demands of a growing body or the strains of work and illness. These cells also provide to other cells in the body the nutrients stored in bone. Over the course of one's lifetime, osteons replace themselves, and reflect their current working environment.

Bone's remodeling and maintenance abilities record a person's health and nutrition. Without proper nutrition, bones won't grow to normal shape, size, or microscopic structure. So, a person will not reach their full height. If a disease or a

period of malnutrition doesn't last too long, bone growth will catch up, but the impact is permanently etched in the bone. If the body has trouble fighting off an infection, osteons will try to encase the infection in mineral or redirect the infection so it does less damage to the rest of the body. In situations like this, osteons might lay down irregular bone. By studying bone irregularities, bio-anthropologists can identify the kinds of infections a person experienced and assess a person's overall health. By looking at the chemical makeup of the bone laid down during someone's life, bio-anthropologists can identify the kinds of foods the person ate.



**Above** Over the course of people's lives, they experience diseases and accidents that can greatly affect their health and leave physical evidence on their bones. Some diseases, if left untreated, can lead to death (**a**, tumor on back of skull; **b** and **c**, staph infection - note moth-eaten appearance of upper part of *tibia* [the larger bone in the lower leg] and swollen lower end of tibia). Other diseases can be quite painful, but are not life threatening (**d**, abscessed tooth; **e**, arthritis as shown by collapsed and broken vertebra). Accidents also will leave their mark on bones (**c**, torn knee ligament attachment - note white spot on bone in small circle; **f**, torn tendon attachment - note knot on left side of tibia).



Profile of Burial 192c. For her complete description, see *Meet The People - A Working Woman*, page 60.

## How Do We Know Their Sex?

A combination of many factors helps bio-anthropologists decide whether someone is male or female, but their identifications are only reliable for adults. Sex cannot be determined for children, because sex traits show up clearly in bones only during the teen years.

Pelvis (hip) shape is one of the best indicators. A woman's hips tend to be much wider than a man's, since only women give birth to children. In general, women are smaller, more slender, and less muscular, relative to men. Other features also distinguish the sexes. They include head shape, differences in the shape and size of weight-bearing joints (shoulder, elbow, hip, knee, and ankle), and other body characteristics like jaw shape and long bone size.

and corn-based products (see *How Do We Know What They Ate?*, page 34). Throughout their lives, as much as 50 percent of most people's food may have come from corn: directly (cornmeal); indirectly (bourbon); or indirectly through corn-fed animals and their products (milk, eggs, and meat). Sugar cane also may have contributed to their diet, as either refined sugar or molasses.

These people did not eat corn and corn-based products in the same amounts, however. For many people of African descent, and for some of European descent, these foods could have made up as much as 75 percent of their diet. With such a limited variety of food, their diets were high in starch and sugars, and deficient in many basic nutrients, such as Vitamin D, Vitamin C, and protein. Their health would have suffered accordingly.

In contrast, for many individuals of European descent, corn and corn-based products accounted for less than 50 percent of their diet. These people apparently ate a more balanced and varied diet that included larger amounts of wheat, barley, and other foods.

A few individuals ate almost no corn over the course of their lives, suggesting that they were not born in Kentucky. Those of European descent may have immigrated to Frankfort from western Europe. Those of African descent may have been brought to Frankfort from the eastern U.S., where people ate less corn.

A person's diet also can be used to indirectly measure their economic standing. People of low economic means often eat less diverse kinds of foods and lower nutrient-value foods than those of higher economic standing. In the case of the Cemetery population, if someone's diet consisted mainly of corn or corn-based products, it is likely they were poorer.

In general, people of African descent buried in the Old Frankfort Cemetery fit this profile. They would have primarily eaten cornbread or gruel with an occasional piece of pork or bacon, and some greens. For those who could afford to eat more wheat and barley, corn and corn-based products were not as important a food source. People of European descent buried within the Old Frankfort Cemetery are generally the ones who had access to a greater variety of plant foods.

## YOUTHFUL NUTRITIONAL DEFICIENCIES

Other sources of information also show that a substantial number of these people were malnourished or undernourished. The high incidence of tooth enamel defects shows that almost everyone experienced some kind of nutritional stress that interrupted their physical growth during their early years. Likewise, the high incidence of "Harris lines" in arm and leg bones shows that these nutritional stresses and growth interruptions continued into adulthood (see *How Do We Know About Their Interrupted Growth?*, page 38). Contributing factors included poor nutrition, hard work, or fighting off illnesses and infections.

Adults' teeth show that defects developed when they were between 2 and 4.5 years old. Most people's teeth showed a peak in defects between 3 to 3.5 years old. This is consistent with other nineteenth-century populations studied by bio-anthropologists. Dental defects at this age are usually associated with the stresses of weaning, as a child's diet gradually shifts from breast milk to solid foods.

Researchers have noted in other nineteenth-century populations a gradual increase



in dental defects while the child is still in the womb. This pattern reflects the nutritional stresses the mother experienced. If she was not getting enough to eat or was not eating the right kinds of foods, her body could not meet her baby's nutritional needs. Typically, there is a peak in defects just before or after birth, then a rapid decline. Researchers think stresses associated with birth may account for this peak.

Tooth enamel defects in the baby teeth of the children buried at the Old Frankfort Cemetery do not follow this pattern. Rather than peaking at birth, a peak occurs four months after birth. This suggests that many of these children did not receive proper nutrition from breastfeeding in the months following their birth. Infants are weaker than adults and thus are more susceptible to diseases, especially when they are not receiving proper nourishment from breast milk. It is possible that poor nutrition contributed to their death.

The amount of nitrogen-15 in an infant's or child's bones also can shed light on how well they were fed (see *How Do We Know What They Ate?*, page 34). When born, an infant's bone nitrogen-15 level resembles that of its mother. As the infant breastfeeds, the amount increases. Since a very young infant may be fed only breast milk before it is weaned, its bones will show high nitrogen values.

As the mother begins to wean the child off her milk, the child's consumption of nitrogen-15 is reduced. The child's nitrogen values decline as plant foods replace breast milk. If, when weaned, a child is primarily fed cereals, it may soon have lower nitrogen levels than its mother. So by about age 5, the nitrogen values of most children are similar to those of older children.

But within the Old Frankfort Cemetery population, year-old infants with nitrogen values similar to those of children 5 years old and older were common. These infants appear to have been weaned very rapidly. In fact, many showed very little evidence of breastfeeding at all: they had been completely weaned before they were one.

Several factors could account for this early weaning: death of the mother, closely spaced pregnancies, a need for mothers to return quickly to work after a child's birth, or cultural ideas about infant nutrition. Given the low nitrogen values and high incidence of dental defects four months after birth, it is clear that early weaning was an additional health challenge for the youngest and most vulnerable who were laid to rest in the Old Frankfort Cemetery.

## DISEASES

The people buried in the Old Frankfort Cemetery suffered from a number of diseases and illnesses. Their bones show that, as a group, they were not particularly healthy.

Although most of these ailments did not kill them, these people would have lived with much physical pain and discomfort nonetheless. Lacking antibiotics and aspirin, they would have sought pain relief in other ways, from taking drugs like laudanum or opiates, to drinking alcohol.

By far, the most common ailment was arthritis, particularly that of the spine. The backbones of almost all of the adults showed evidence of this condition, and surprisingly, many of the children's did, too. Several individuals with arthritis also suffered from *Padgett's disease*, which causes bones to grow larger and weaker than normal.

## How Do We Estimate Their Height and Weight?

Over the years, researchers have collected information from thousands of living people. They have used it to develop formulas that help estimate height and weight from a person's bones. These formulas take into account the differences in height and weight between men and women and among different ethnic groups.

The length of a person's *long bones* (the bones in their arms and legs), particularly their legs, is a good indicator of how tall they stood. Estimating a person's weight is based on figuring out the amount of stress the sensitive hip joint could support. This is reflected in the size of the head of the leg bone. Bio-anthropologists measure the lengths of long bones to estimate height and measure the surface of joints to estimate weight.

## How Do We Know About Their Hard Work?

When we use our muscles, our bones react to the stresses we put on them. These stresses can change the shape and thickness of our bones if they occur over a long period of time or are intensive. For example, repeated physical labor causes muscle attachments to expand, and bone remodeling in hip and knee joints. The muscles that attach to the arms, legs, and hips can become enlarged, and bony protrusions may appear on bones. Lower leg and arm bones can become thicker than normal.

## How Do We Know What They Ate?

Human bone absorbs, among other things, tiny traces of carbon and nitrogen from the foods we eat. These traces remain in our bones, relatively unchanged, upon reaching adulthood. By measuring the kinds of carbon and nitrogen in an adult's bones, scientists can indirectly identify the kinds of plant foods (carbon) or animal foods (nitrogen) a person ate as a child and teenager.

Carbon and nitrogen come in several different forms, based on the number of neutrons in each atom. For example, carbon-12 ( $^{12}\text{C}$ ) has 6 protons and 6 neutrons; Carbon-13 has 6 protons and 7 neutrons; and so on. The lower forms ( $^{12}\text{C}$  and  $^{14}\text{N}$ ) are the most abundant and the higher forms ( $^{13}\text{C}$  and  $^{15}\text{N}$ ) are much rarer.

As plants grow, they absorb carbon from the earth's atmosphere, water, and soil. Then they store it in their leaves, fruits, nuts, and roots. As they store the carbon, plants change the ratio between the two different forms. This new ratio of  $^{13}\text{C}$  to  $^{12}\text{C}$  atoms is hardwired into a plant's cells.

Depending on where in the world the plants grew originally, the change the plants make is different. Some plants, especially grasses that originally lived in desert or tropical environments, are called C4 plants. Residents of early to mid-nineteenth century Frankfort could have eaten foods made from two tropical grasses, or C4 plants, on a regular basis: corn and sugar cane. Other plants that originally lived in forests or wetlands are called C3 plants. Examples of C3 plants include Old World plants, such as wheat and barley. Residents of Frankfort ate foods from these plants, too.

C4 plants have relatively fewer  $^{12}\text{C}$  atoms in their cells (compared to  $^{13}\text{C}$ ) than C3 plants. When animals and humans eat a plant's roots, leaves, or fruit, the ratio of  $^{13}\text{C}$  to  $^{12}\text{C}$  atoms remains virtually unchanged. So, by measuring the ratio of  $^{13}\text{C}$  to  $^{12}\text{C}$  atoms in human bones, researchers can estimate whether a person ate more C4 plants (from arid or tropical places) or more C3 plants (from forests or wetlands) as they grew up. They measure this ratio by calculating a *stable carbon isotope value*. C3 plants have very low stable carbon isotope values. C4 plants have much higher stable carbon isotope values.

Now let's turn to nitrogen. The primary source of nitrogen in food is protein. During the early to mid-nineteenth century, as today, animals and fish were the most reliable sources of protein. By calculating *stable nitrogen isotope values*, which measure the ratio of  $^{15}\text{N}$  to  $^{14}\text{N}$  in bone collagen, researchers can estimate the amount of animal and fish protein a person ate when they were young. They also can figure out how well a person was fed when they were very young.

Abnormal bone formation afflicted about one-third of the people. In most cases, the cause was malnutrition/poor nutrition or infections that were the result of the former. Many suffered from *porotic hyperstosis*, or adult rickets, a disease associated with Vitamin D deficiency and sickle cell anemia. In adults, it leads to a softening of the bones. In Kentucky during the early to mid-1800s, milk, eggs, and cheese would have been the best sources of Vitamin D. These people's bones show they did not get adequate amounts of these foods during their lives.

Most peoples' teeth showed normal tooth wear. Understandably, teeth of older people showed the greatest wear. There was no evidence that anyone had seen a dentist: there were no fillings and no false teeth. Most people had unfilled cavities in one or more of their teeth. It is likely that sticky, starchy, sugary foods like corn, were the culprits.

Slightly more than one out of every 10 people experienced abnormal bone loss. The most common form was abscessed teeth. If left untreated, these abscesses would have been quite painful. Some of the oldest people had lost most or all of their teeth. They had lived long enough so that all evidence had disappeared of where their teeth had been rooted in their jaw.

Others suffered from serious infections, like staph. These infections appear as drainage holes in long bones, or as areas of bone with a moth-eaten appearance. Infections on this scale would have made it difficult for a person to use their arms or legs. Because antibiotics were not available in the nineteenth century, infections like these could have led to death. Some suffered from benign tumors associated with persistent infections.

Some of the diseases they experienced could have killed them if left untreated. These included tuberculosis (a lung and joint disease); brucellosis (often contracted from pigs during slaughter, but also from non-pasteurized milk or cheese); and adult rickets. One person suffered from cerebral palsy (see *Meet The People: Burial 144 - Disabled, But Cared For*, page 37).

### LIVES OF HARD LABOR

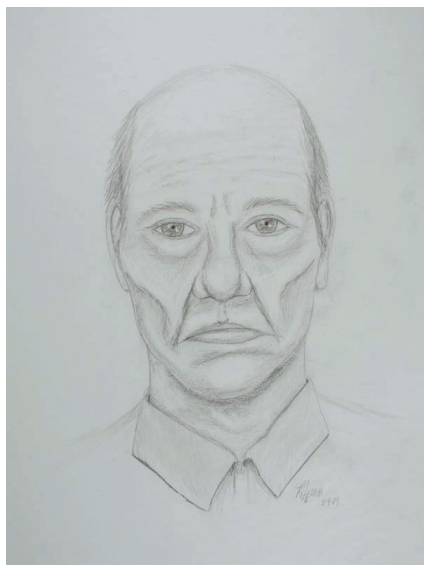
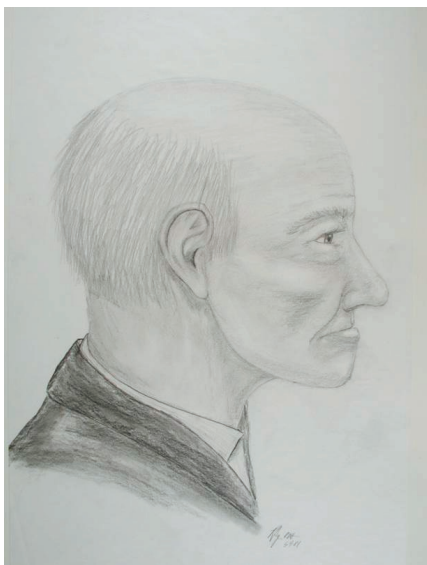
Even by nineteenth-century standards, the lives of the people who were laid to rest in the Old Frankfort Cemetery were not easy. Their bones show that everyone engaged in hard, physical labor (see *How Do We Know About Their Hard Work?*, page 33). These people clearly were members of Frankfort's working poor. Their bones, unfortunately, cannot tell us who was born free and who was not. Of this, we can only speculate.

Leg and hip muscle enlargements and protrusions on their bones indicate repeated heavy lifting by men. As dockworkers, they would have lifted bales of hemp and other materials as they transferred them to waiting riverboats. Heavy lifting also would have been part of their work in local factories, or in masonry or blacksmithing jobs.

Arm bones of both men and women show they suffered from what today we call tennis- or golfer's-elbow. It results from long-term and repetitive wrist and forearm movements. Processing hemp, making clothing, and cleaning houses would have caused muscle tears in the tissues that attach forearm muscles to the elbow area. (continued on pg. 39)



After Burial 199 died, an autopsy was performed to determine the cause of her death. How do we know? The top of her skull was sharply cut away and was not buried with her. Note the two metal discs in the eye sockets of this 40 to 44-year-old woman of European descent. Four other people were buried with discs or coins over their eyes.



## MEET THE PEOPLE

### BURIAL 174 An Accident

In life, this man of European descent stood 5 feet 7 inches tall and weighed 166 pounds. He was over 50 years old when he died.

Unlike most of the people buried in the Cemetery, he enjoyed a more diverse diet that included greater quantities of foods made from wheat and barley, like bread and soup. This suggests he may have been somewhat better off than others buried in the Old Frankfort Cemetery. He had lost most of his teeth, and those few that remained were quite worn, reflecting his advanced age. Given his poor dental health, it is likely that eating solid foods would have been difficult for him.

Clear, sharp muscle markers on his bones show that, like others buried within the Cemetery, he had worked at hard physical labor throughout his life. This hard work contributed to extensive arthritis in his neck and back, and to the collapse of some of the vertebrae in his lower back.

Sometime during his life, Burial 174 was in some sort of an accident, perhaps because of the nature of the work he did. This fall took place long before his death, since the fractures had healed. Perhaps he stumbled at work; maybe he was in a fight. But wherever it happened and for whatever reason, he checked his fall with his left hand, landing on and fracturing his left wrist and several ribs. An injury like this would have required about six weeks to heal.

After placing him in his coffin, his relatives laid his arms alongside his body, with his hands resting on his pelvis. Four brass coin buttons and five one-hole bone buttons found near his waist indicate he was buried wearing pants and an undergarment. The fact that no shirt, vest, or coat buttons were found in his chest area suggests he may have been buried wearing a buttonless pullover shirt. As with the rest of the people buried in this graveyard, there was no evidence that he was buried wearing shoes. The absence of straight pins suggests that his family did not wrap his body in a shroud, or did not need pins to hold it in place.

His coffin was a simple hexagonal one, made of eastern red cedar. The shape of his coffin, coupled with the presence of brass coin buttons and one-hole bone buttons, suggests he died before 1835. In order to protect his coffin, his family lined the sides of his grave shaft with limestone slabs. After they lowered the coffin into the grave, they placed several limestone slabs over it.

He was buried in the southwestern corner of the Lower Area. His grave was disturbed during excavation of the grave for Burial 175, a 35-45 year old woman of mixed heritage.



## MEET THE PEOPLE

### BURIAL 144 Disabled, But Cared For

This man of European heritage died in his late thirties. He stood 5 feet 2 inches tall and weighed 142 pounds.

He was remarkable in an important way: after reaching adulthood, he suffered a brain trauma of some sort and developed cerebral palsy. He lived the rest of his life as a disabled person.

Cerebral palsy is a brain disorder that affects a person's muscle coordination and muscle control. People born with it today normally do not live much past 25 years of age. Back in the mid-1800s, life expectancy probably would have been even shorter. But cerebral palsy also can develop from head injuries sustained in an accident. Unusually large and deep vein tracks extend along the midline of Burial 144's skull, starting at his forehead. This physical evidence supports the suggestion that a head injury may have been the cause of his condition.

Investigators decided Burial 144 had suffered from cerebral palsy because they found a quarter- to half-inch-long canal at the place where his jaw attached to the base of his skull. It showed that his jaw had contracted strongly to the right, caus-

ing him to pull-up his right shoulder to his jaw. Although he holds his mouth closed in his portrait, it is doubtful he would have had the strength to do so for long.

His front teeth showed little or no wear, but the teeth on his right side were more worn and had cavities. Given how he held his head, food would have gotten trapped between his teeth and gums on a regular basis.

Strong neck muscle markings were present on his right collar bone, but not on his left. This suggested the kind of neck muscle pulling shown in his jaw.

His legs look normal, but the involuntary *spasms* (contractions in the muscles) of cerebral palsy leave no traces on bones. Based on what is known about people who suffer from this disease today, muscle spasms could have made it very difficult for him to walk.

He ate more corn-based foods than most people of European descent interred in the Old Frankfort Cemetery, a sign that his family was poor. Perhaps, given his condition, his family fed him mush.

Growth lines in his teeth show that he experienced several periods of prolonged poor nutrition or severe illness. This happened from shortly after his first birthday to when he was 5 years old.

Before his injury, Burial 144 may have worked at a job that required heavy lifting. This is reflected by the arthritis in his lower back.

At his death, Burial 144's family placed his arms along his sides and folded his hands at his waist. Then they likely wrapped him in a shroud and placed his body in a rectangular wooden coffin. There is no evidence that he was buried wearing clothes. However, clothes lacking fasteners, like pull-over shirts or nightshirts, do not leave any evidence behind.

Burial 144's coffin was placed in a simple pit dug in the Lower Area. Based on the rectangular shape of his coffin, he died sometime after 1835. His death could have been brought on by complications due to his cerebral palsy. Muscle spasms can cause seizures and make it difficult to breathe, which can lead to death. Despite his condition, we can infer that his family cared for him and took care of him as best they could.

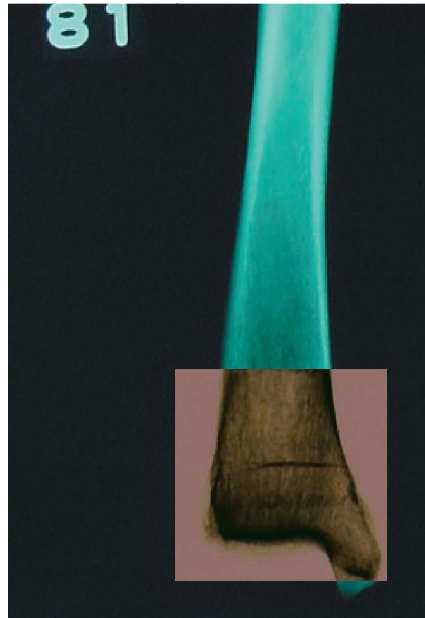
## How Do We Know About Their Interrupted Growth?

Tooth enamel defects (*linear enamel hypoplasia*) and *Harris lines* in a person's bones form during periods of extreme stress in which the body is depleted of nutrients. These include times of prolonged malnutrition or as a result of a severe infectious disease. In children and teenagers, these situations often disrupt normal tooth and bone growth, as the body struggles to recover from a lack of food or the infection. In other words, their bodies simply stop growing. Thus, tooth enamel defects and Harris lines are good indicators of poor health.

Defects show up as horizontal growth lines on the surface of the teeth. They represent times when a person's teeth stopped growing: from birth to about seven years of age, when permanent teeth are fully developed. If a child survives, normal tooth growth resumes, but the stress leaves a permanent mark on the teeth.

Harris lines, too, as the name implies, appear as lines. In this case, they occur primarily in arm and leg bones. Harris lines are better indicators of stress that occurs during the teenage years. That's because this is when arm and leg bones become fully developed.

Harris lines can be as large as 2.50 inches or as small as 0.01 inches, but they are not cracks in the bone. Rather, they represent a buildup of minerals that occurs when a child's bones stop growing for a period of time. By noting the location of a Harris line relative to one end of an arm or leg bone, researchers can determine how old a person was when the line formed. Since Harris lines can be very small and are often hidden from view as a person's bones grow, investigators use X-rays to identify them.



Examples of woven bone deposition and large callous formations present just below some women's knees suggest they kneeled for extended periods of time. Kneeling while scrubbing kitchen and house floors can produce these types of callouses.

Heavy work carried out over a long time greatly increases arm and lower leg bone thickness. In particular, the bones of men of African heritage stand out in this regard. From this we can infer that, over the course of their lives, they worked much harder and longer at physical labor than did men of European descent.

Hard physical labor also carries with it the increased risk of broken bones due to falls or other accidents. Within the Old Frankfort Cemetery population, only 16 people, most of whom were over 30 years old when they died, had broken a bone sometime in their life. This is lower than what one would expect in a group of 242 people. The fractures had healed, showing that the broken bones were not the direct cause of death. There is no sign that someone set the bones, as the fractures healed poorly for the most part. But we can infer that family members or friends cared for these people while their injuries healed.

Ribs were the most common bones broken. One man had broken his arm and his ribs (see *Meet The People: Burial 174 - An Accident*, page 36). Other examples included broken bones in a foot, broken bones in a hand, and a broken leg. Of interest was a man of African descent whose skull had a healed fracture on the back side. Did he sustain this injury due to a fall or an act of violence?

Recuperation for a period of weeks or months might have been seen by some people as a welcome break from work. But their absence would have put additional pressure on other members of the family to make up the difference in lost wages. As working people, they could not afford to let injuries or illness sideline them from work for too long.

## WHAT HAVE WE LEARNED

Analysis of the human skeletal remains from the Old Frankfort Cemetery clearly shows that it was a cemetery for Frankfort's working class. It was an integrated burial ground. The people buried there were a mix of ethnic origins, of enslaved and free, and of immigrants new to the community and others who had lived there for several generations. While the majority buried there were of African descent, people of European and mixed heritage also were well represented.

Most were born into hardship; many were born into slavery. Adults - and children as young as 6 to 8 years of age - coped with the demands of hard work, and the challenges of poor nutrition and poor health. Children were weaned early to permit their mothers to return to work.

Living, as they did, before the advent of antibiotics and modern medical practices, many of the children died young. Other's lives were shortened by chronic disease, serious infections, abscessed teeth, and malnutrition. But if someone survived to adulthood, they had a good chance of living a full life. Their bones tell stories of hardship - but also ones of resilience and compassion.

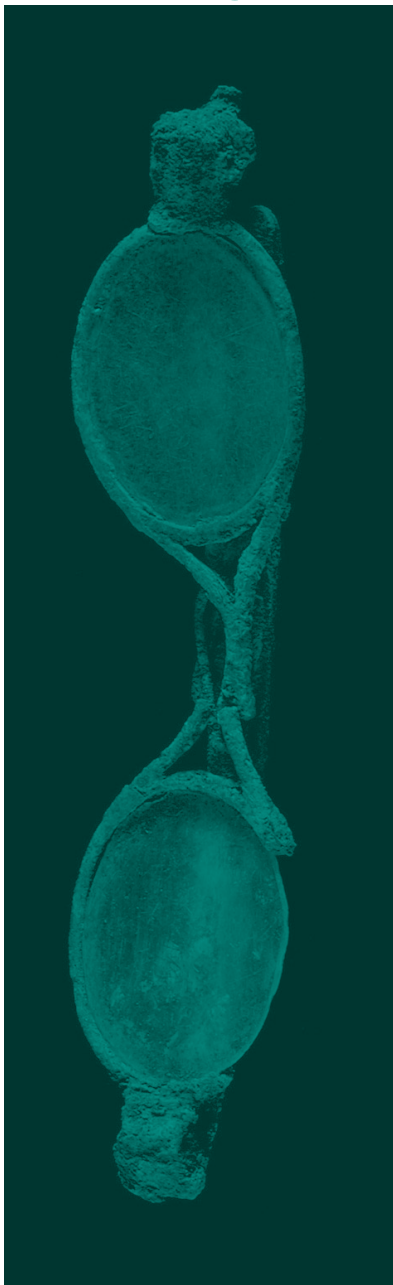


**Above** Burial 232, a teenager who was sick for much of her life. For her complete description, see *Meet The People - A Sickly Teenager*, page 59.

**Opposite left** Tooth enamel defects, highlighted inside the red box, form in childhood during long or severe periods of malnutrition or illness.

**Opposite right** Harris lines, visible in the highlighted area of the X-ray of this tibia, are good indicators of interrupted growth periods during the teenage years.

## Their Final Days



Archaeological investigations at the Old Frankfort Cemetery in 2002 recovered tangible evidence of the people's final days. Adding this information to what we learned from their bones provides insights into how their families attended to their funeral arrangements.

### BODY PREPARATION

The American undertaking industry developed after the Civil War. Thus, many aspects of early twenty-first-century American mortuary customs were not part of the early to mid-nineteenth century. There were no undertakers, and no funeral homes. Embalming was not commonly practiced until the 1860s. Thus, during the time the Old Frankfort Cemetery was in use, all funeral arrangements fell to family and friends.

Female relatives prepared the bodies of the deceased. Initial body preparation consisted of washing the body. Then clothes were selected and the women dressed the body.

Depending on the season of the year, the time between death and interment may have been short, especially in the warmer months. Given their limited resources, the families who used the Cemetery likely could not have afforded to keep the body on ice for long.

Everyone was laid out on their back. Women's lower arms and hands were usually placed across their chest. In comparison, the lower arms and hands of men were primarily placed across or on their pelvis. After arranging the body for the coffin, the women often wrapped it in a *shroud*. A shroud is a piece of fabric - cotton, linen, or wool - usually made for the deceased by friends or relatives.

Evidence from the Cemetery shows that at least 155 of the 242 people were dressed in clothing or were wrapped in a shroud before their relatives placed them in their coffins. Archaeological evidence shows at least 76 of these people were wearing clothing. This evidence takes the form of 473 buttons, a collar stud, two buckles, and a few fragments of cloth. The recovery of straight pins from 112 graves provides evidence for the use of shrouds. Of the 76 people buried in clothes, 33 also had been wrapped in a shroud (see *The Cost of Death*, page 47).

Archaeologists found no evidence of clothing or use of a shroud in the graves of the remaining people. This does not mean, however, their families buried them without clothes or a shroud. It simply means that investigators did not see or find any evidence to support such an inference.

### The Kind of Clothing They Wore

Fragments of cloth, and the distribution and kinds of fasteners found within the grave, helped archaeologists infer what kind of clothing the deceased wore (see *About Clothing Fasteners*, page 42). No evidence of footwear



(leather, fabric, eyelets, nails, buckles, or hooks) was preserved in the archaeological record. It was not uncommon at this time, though, to be buried in bare or stocking feet, since shoes could be passed on to others.

From the cloth, archaeologists determined that a child and woman of mixed European and African heritage were buried wearing a cotton shirt or a plain blouse. Other cloth fragments indicated an adolescent, a man of European descent, a man of African descent, and a woman of mixed European and African heritage were buried wearing a *sack coat*: a shapeless, heavy, cheap, durable, utilitarian coat. Sack coats were affordable for most people in the 1800s. For the working poor, sack coats often functioned as a suit jacket.

### **What Men Wore**

Several kinds of buttons and a particular type of metal cinch buckle were found in the graves of men. They show that these individuals were buried wearing a variety of different kinds of pants, two different kinds of shirts, vests, and coats. Men appear to have been buried in similar kinds of clothes, irrespective of ethnic heritage.

Investigators found buttons with slightly more than 60 percent of the men. Most buttons were on or near the pelvis. Based on the concentration and distribution of button types (metal and bone) and sizes, we can infer that men were buried wearing pants. Some metal buttons showed the pants were clearly *drop-front*: a type of trousers that closes in the front with a horizontally hinged flap held closed by buttons on the waistline or two sets of vertical buttons extending from the waist to the thigh. Both types of drop-front pants lack a buttoned fly (see *Meet The People: Burial 194 - Eyeglasses in His Pocket*, page 48). When metal or bone buttons formed a straight line across the hips, researchers inferred that the pants had pockets or had been worn with suspenders.

Field investigators found a line of three metal buttons near both knees of a few men. This suggests the men were buried wearing breeches or short pants.

In addition to drop-front pants, one man of European descent was buried wearing a pull-over shirt with a pocket (see *Meet The People: Burial 194 - Eyeglasses in His Pocket*, page 48). A single button of bone or porcelain found near the neck of two men of African descent suggests they also were buried wearing a pull-over shirt.

Three men of African descent and one of European descent were clearly buried wearing a button-up shirt. A line of bone or shell buttons extended the length of their spine. Shirt buttons tended to be smaller than pants buttons.

One man of African descent and one of European descent were buried wearing a vest, based on the presence of cinch buckles. Another three men of African descent and one of European descent may have worn a vest or a coat. This is inferred because clusters of metal or bone buttons were found just above the waist. In addition to a vest, one of the men of African heritage also wore drop-front pants.



**Top** Straight pins were used to fasten shrouds around a person's body. Illustrated are examples of two-piece swirled-head pins.

**Bottom** This silver collar stud was found with a 35 to 45-year-old woman of mixed heritage.

## About Clothing Fasteners

Archaeologists recovered bone, brass, iron, shell, and porcelain buttons from the graves investigated at the Old Frankfort Cemetery. Slightly more than half of them were made from animal bone. Most had been shaped by hand and had one or five holes. Only a few had four holes.

Metal buttons with plain faces, known as utility or coin buttons, were the next most common button type. Most were flat, cast-brass disks with a shank on the back, but a few examples of four-hole and a few five-hole flat brass buttons also were recovered. A few utility buttons were made from iron, and two examples of four-hole, flat iron buttons were recovered.

During the mid-nineteenth century, shell buttons began to replace the bone buttons used on shirts and underwear. Four-hole shell buttons at the Cemetery were not as common as metal buttons. Two of the shell buttons had designs etched on their exterior surfaces: either an oval or radiating lines.

All of the porcelain buttons from the Old Frankfort Cemetery were machine-made four-hole “Prosser” buttons. Until the 1840s, “china” or porcelain buttons were expensive because they were molded by hand. However, after 1840,

Richard Prosser patented a new way to make porcelain buttons by pressing dry china clay into shapes that were then glazed and fired. This resulted in cheap sturdy buttons at a fraction of the cost.

Most of the Prosser buttons from the Cemetery were white, but five were *calicos*: porcelain buttons decorated with tiny repeating floral or geometric patterns. The calico buttons recovered from the Cemetery had brown designs.

From 1848-1856, Charles Cartledge and Co. of Greenpoint, New York produced white and calico china buttons in 100 different patterns. Jean Felix Bapterosse developed calicos using a different process from Prosser. His company produced over 300 varieties and dominated the market from the 1850s to the twentieth century.

The designs on calicos are *transfer-printed* onto the buttons. In this process, paint is applied to copper plates, and a design is printed on tissue paper. While the paint is still wet, the paper is placed on the buttons. Once the buttons are fired, the design adheres to or is “transferred” to the button.

Miscellaneous clothing fasteners included a silver shirt collar stud and two types of cinch buckles. The buckles were similar to those patented by Sheldon Hartshorn in the 1850s.



**What Women Wore**

Several kinds of buttons and a silver collar stud were found in the graves of women. These objects show that women were buried wearing dresses, blouses, skirts, a hat, and in rare cases, pants similar to those worn by men. Women of African heritage and European heritage appear to have been buried in similar kinds of clothes. Buttons were found with less than 25 percent of the women.

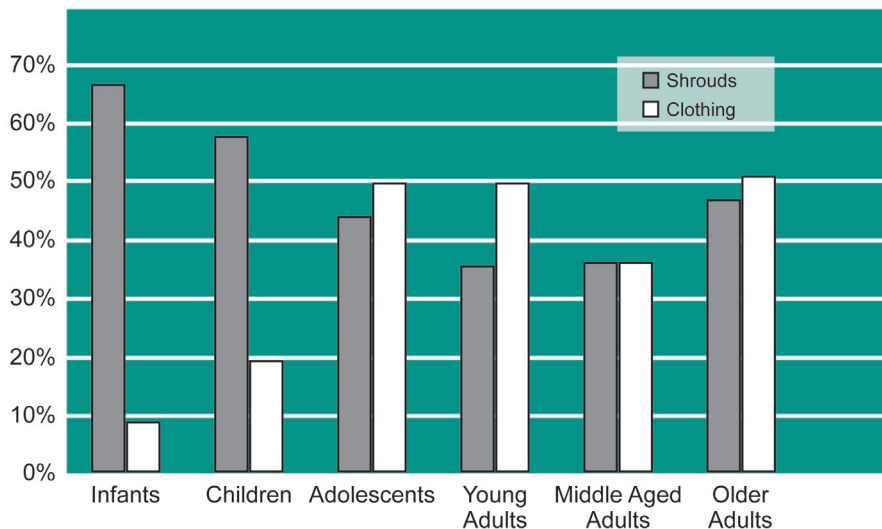
Women were buried primarily wearing dresses. This is suggested by the recovery of a single metal or shell button, or silver collar stud at the neck; or shell and bone buttons extending down the spine. Concentrations of bone or porcelain buttons near the wrists of two woman of African descent suggest the sleeves of their blouse or dress may have had buttoned cuffs. A single metal button found near the waist of a woman of African descent suggests she may have worn a skirt.

Buttons with a unique distribution pattern were found near the head of a woman of African descent. Investigators found an iron button on top of her head, and a bone button next to it. This suggests she may have worn a hat. Two bone buttons found along her spine suggest she also may have been wearing a dress.

Two women of African descent apparently were buried wearing pants. One was wearing pants with a drop-front. This is based on the distribution of a concentration of metal buttons near her waist similar to that observed for men. A line of bone buttons between her waist and neck suggests she also was wearing a shirt. A cluster of metal buttons found near the knees of the other woman suggests she was buried wearing breeches or short pants.

**What Infants and Children Wore**

Evidence of clothing, in the form of different kinds and sizes of buttons, was found with less than 10 percent of the infants and less than 20 percent of the children (ages 4 to 12). The distribution of shell, bone, and porcelain buttons within these graves indicates they were buried wearing pull-over shirts or dresses and pants.



**Top** Gold ring with an intricate floral design incised on the outside of the band.

The 35 to 45-year-old woman of mixed heritage who wore this ring also wore the silver collar stud shown in the photograph on page 41.

**Above** Red glass beads.

**Below** Percent of people by age group wearing clothing or wrapped in a shroud.

Note the high percentage of infants and children wrapped in shrouds.

**Opposite** Buttons (from left to right): Two brass coin; one plain and two calico porcelain Prosser; single examples of one-, four-, and five-hole bone; and two four-hole shell.

**Below top** A 0.44-caliber rimfire cartridge found near the right arm of a 50 to 59-year-old woman of African descent.

**Below bottom** Lead octagonal disks (top) and coins (bottom) were placed over the eyes of some people. The octagonal disks were found with a 35 to 50-year-old woman of European descent. The coins, Liberty dimes dated 1838 and 1840, were found with a 51 to 65-year-old woman of European descent.



## Were The Deceased Buried in A Shroud?

Straight pins were found primarily near the head, upper body, and pelvis. Some were found near the feet. This distribution suggests family members used pins to hold a shroud closed around the body, rather than to pin together or fasten clothing.

The pin association pattern at the Cemetery suggests that shrouds used to wrap infants and children were the ones most commonly pinned-up.

## A Few Wore Jewelry

Only 17 people at the Old Frankfort Cemetery were buried wearing jewelry. Three wore bead necklaces, one person wore two necklaces and a ring, and 13 wore rings.

Two infants and an old woman wore necklaces. In the chest area of an infant aged 3-6 months, archaeologists found a tiny black seed bead, and in the grave of an 18-20 month-old infant, they found a ceramic bead. The old woman wore a necklace of “faux jet” faceted black glass beads (see *Meet The People: Burial 206 - A Very Long Life*, page 45).

The adolescent wore a necklace of red glass beads, one of blue glass beads, and a brass ring with a diamond-shaped cut-out (see photos, pages 43 and 58, and *Meet The People: Burial 232 - A Sickly Teenager*, page 59).

Most people buried wearing rings were adults older than 30 years of age. Six of the 14 individuals were over 50 years old. Only two infants were buried with rings. Rings were primarily worn by individuals of African descent, but two people of European descent and two of mixed heritage also wore rings.

At the Old Frankfort Cemetery, women tended to wear a ring on their right hand; men, on their left. Most rings were simple brass bands, though two had diamond-shaped cutouts. Three rings were gold bands, and two of these featured intricate floral incising on the outside of the band. Sadly, no initials or phrases were inscribed on the inside of any rings.

## Unique Items

Six people were buried with particularly interesting items.

### Bullet

Investigators recovered a single 0.44-caliber rimfire cartridge near the right arm of a 50-59 year-old woman of African descent (see photo, top left). Its tip was intact, so it was clear that it had never been fired. Bullets of this type were mass-produced beginning in the mid-1850s, which suggests the woman died around this time. However, we cannot say much more than this.

Because her family buried this bullet with her, we can guess that it held some kind of symbolic significance for her or a family member or friend. But we will never know the story behind its presence in her coffin.



## MEET THE PEOPLE

### BURIAL 206 A Very Long Life

This woman of mixed African and European heritage stood 5 feet 6 inches tall and weighed 146 pounds. She was over 60 years old when she died, making her one of the oldest people buried at the Old Frankfort Cemetery.

Her bones tell the story of a long but physically challenging life. More so than many others buried in the Cemetery, corn-based products made up much of her diet. Gum inflammation or infection had weakened her tooth attachments, leading to the loss of 20 of her 32 teeth. Her remaining teeth had many cavities and abscesses.

In addition to her severe dental problems, she endured a great deal of back pain caused by osteoarthritis and compressed discs. Osteoarthritis is a chronic disorder that damages bone cartilage and surrounding tissues. It affects many women, beginning in their forties. Her back problems reflect heavy labor or lifting throughout her life; or age-related degeneration of her spine.

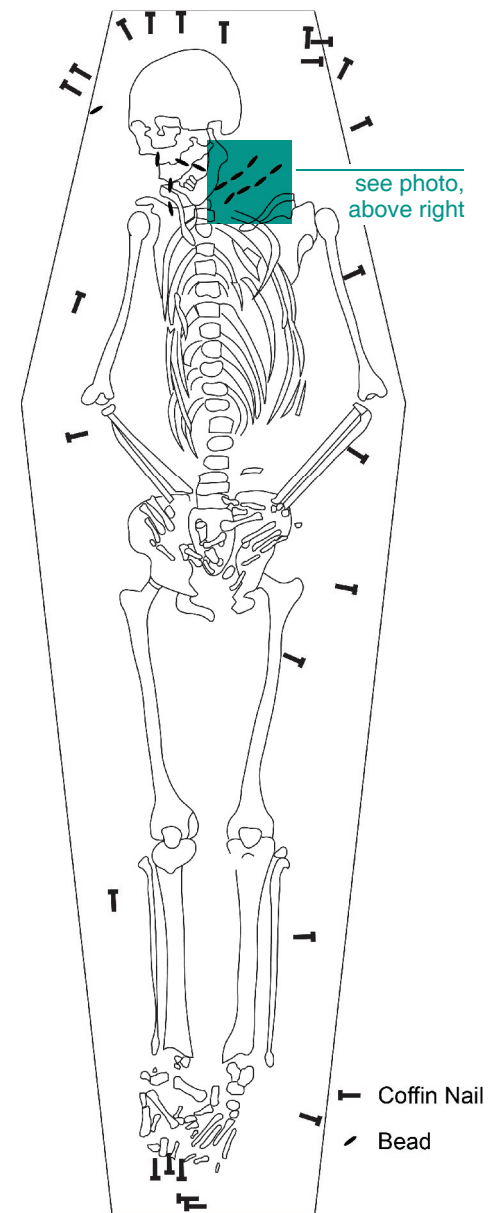
Her hexagonal coffin was made of cherry wood and late machine-cut nails. Her grave shaft had not been lined with stones.

She was one of the few buried wearing jewelry. She wore a necklace of 13 "faux jet" lozenge-shaped, faceted, black glass beads (see above, center). Beginning in the mid-1800s, "faux jet" jewelry of this sort was very fashionable. In style, shape, and size, her beads resemble jet "mourner's" beads. Necklaces made from jet, a gem-like mineral mined in England that resembles black amber, were referred to as "mourner's" beads after Queen Victoria's husband died in 1861.

Upon her death, her hands were placed on her pelvis. Swirled-head pins found near her skull and feet indicate that a family member had wrapped her body in a shroud and pinned it closed. The recovery of these types of pins and the black glass bead necklace indicates she died around 1835.

A diet based heavily on corn-based products and a grave shaft that was not stone-lined suggest Burial 206 was relatively poor during much of her life. The fact that she was buried wearing a "faux jet" necklace suggests that, for a time, she may have been better off financially.

Her grave was near the center of the Lower Area. Given the period of time in which she lived, it is likely she was a mother, but her bones are silent regarding how many children she bore. She was buried next to a three- to six-month-old infant. Was this her grandchild?



**Below** Slaves before the Civil War, like this Waynesville, North Carolina carpenter and this slave chambermaid in an Abingdon, Virginia hotel, sometimes earned cash through self-hire in towns or with neighbors. Men and women buried in the Old Frankfort Cemetery wore clothing similar to theirs.



### **Coins On the Eyes**

The tradition of placing coins over the eyes of the dead has roots in religious beliefs as well as in practical matters. Coins were left as payment for passage to the afterlife or were placed on the eyes to keep them closed during the wake or funeral. The tradition is not confined to nineteenth-century America, for it has been practiced by many cultures and throughout history.

At the Old Frankfort Cemetery, archaeologists documented five examples of coins or round or octagonal-shaped metal disks placed over the eyes of individuals (see page 44). Two of the coins were preserved well enough to identify. They were silver 1838 and 1840 Liberty dimes.

Coins or disks were placed primarily over the eyes of adult women buried within the Old Frankfort Cemetery: a 21-35-year old of mixed descent; and two 35-50-year olds and a 51-65-year old of European heritage. However, coins also had been placed over the eyes of an infant of African descent. This infant is of interest because, based on his/her stable carbon isotope ratio, he/she ate relatively small amounts of corn-based products (see *How Do We Know What They Ate?*, page 34). This suggests he/she may have moved to Frankfort shortly before death.

### **PLACEMENT IN THE COFFIN**

Everyone buried within the Old Frankfort Cemetery was laid to rest in a coffin. All but one of the coffins were plain, hexagonal or rectangular wooden boxes. Hexagonal examples were the most common.

Most were made from eastern red cedar or cherry, though a few were made from pine or yellow poplar. All these woods were locally available to Frankfort cabinet and woodworkers at this time.

Nails and screws held the coffins together. A lack of standardization in nail size led investigators to infer that the coffins were not mass produced. They would have been made by family and friends or by local furniture and cabinet-makers. This was general practice across America at this time.

Each rectangular coffin would have had four to six handles - two to three on each side. Only four coffins from the Old Frankfort Cemetery had handles. Three coffins had brass handles and one had iron handles. The brass handles, with their inlaid decorative motifs, are the most "ornate" objects recovered from the Cemetery. But in comparison to the ornate coffin handles of the late 1800s, these handles were very plain. They lacked the fancy scrollwork and filigree designs that would appear later.

Tiny brass tacks found with 18 of the coffins indicated that their bottoms had been fabric-lined. Fragments of fabric found with 12 of these coffins showed that four were lined with cotton cloth. Eight were lined with more expensive velveteen. Like velvet, velveteen is woven to produce a very soft cloth. However, velveteen is usually made of cotton, while velvet is traditionally made from silk.

Only one person, a 25-30 year-old woman of mixed African and European heritage, was buried in a metal-covered wooden coffin. It was made of eastern red cedar, over which had been laid an iron veneer. (continued on pg. 49)



## The Cost of Death

Although early to mid-nineteenth century death arrangements were much cheaper than those of today, there still were costs involved. In addition to the emotional cost, the death of a loved one could have burdened poor working-class families with crushing debt and its related anxieties. We can estimate these burial costs from period documents.

Before the Civil War, the City of Frankfort was responsible for the burial costs of its indigent residents. This included the dead of poor families, widows without means, original settlers, and those who died during the cholera epidemics. Nettie Henry Glenn's *Early Frankfort, Kentucky 1786-1861* lists the following allowances the City paid in 1853 and 1854 to those who handled the burial of Frankfort's poor or "pauper dead." These costs undoubtedly were similar to those in earlier decades:

To James W. Haley - \$6.00 for making a coffin and hiring a hearse for Mrs. Reed.

To Carmichael - \$2.00 for digging a grave for a pauper in South Frankfort.

To Hord - \$5.00 for making a coffin for a pauper in South Frankfort.

To Carmichael - \$2.00 for digging a grave for a black.

To John D. Rake - \$5.00 for building a coffin for Mrs. Bowen.

To Herndon - \$3.10 for a burial shroud.

To Steele - \$4.00 for a hearse and stage.

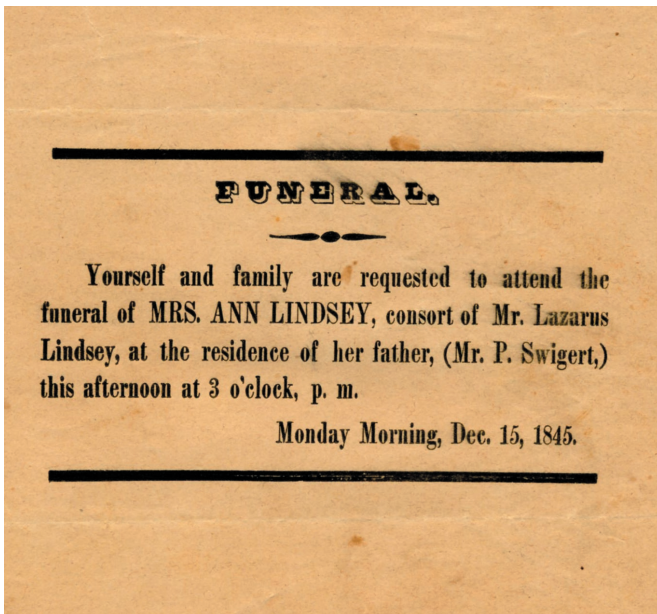
From these figures, burying a loved one in the mid-1800s could have cost as much as \$14.10. For many families living near the Old Frankfort Cemetery, this was a major expense, since most would have made between \$1.00 and \$3.00 a week.

## Before Funeral Homes

Frankfort newspaper advertisements in the 1840s reveal that at least three different hardware businesses and two cabinet/hearse makers were involved in the "business of death." At a time before funeral homes, they fulfilled some of the functions of today's undertakers.

On December 26, 1843, *The Frankfort Commonwealth* listed Edward S. Handy & Co., Lockwood & Lindsey, and George Q. Gwin & Co. as providers of nails and other assorted iron hardware. It also listed John P. Cammack as a cabinetmaker on Main Street in Frankfort.

Another Frankfort newspaper, *The Yeoman*, featured an advertisement on June 22, 1848, for a "Hearse/John D. Rake." The ad goes on to state that Mr. Rake will be "ready at all times to attend funerals - he will also make coffins and furnish all articles necessary at internments."



**Above** An 1841 newspaper advertisement in *The Commonwealth* for a cabinet maker who made coffins and drove a hearse.

**Left** 1845 Frankfort, Kentucky funeral notice.

Because it took too long for newspapers of the time to publish funeral announcements, the family of the deceased passed out notices to family members and to people on the street. Although it is unlikely that any of the people buried in the Old Frankfort Cemetery could have afforded notices of this sort, they still may have gone to this expense for a loved one's sake. Note that the ceremony was held in the home (courtesy Capital City Museum).



## MEET THE PEOPLE

### BURIAL 194 Eyeglasses in His Pocket

This man of European descent, who stood 5 feet 9 inches tall, died in his sixties.

Like many of the other men of European heritage buried in the Old Frankfort Cemetery, he ate more Old World grains, such as wheat and barley, than others buried there and somewhat fewer corn-based products. His diet may reflect greater purchasing power and suggests he may have been economically somewhat better off than others interred in this cemetery.

Burial 194 had button tumors on his forehead, as indicated by the bony nodules on his skull. These kinds of tumors may have been unsightly, but they were rarely painful.

His other ailments, however, do show that he experienced a lot of arm, back, and tooth pain. He suffered from tuberculosis in his legs. He dislocated his right shoulder earlier in life and it became arthritic. Compressed discs in his back reflect a life of heavy labor or lifting, or age-related degeneration of his spine. He lost many of his teeth to gum disease long before he died. This is illustrated by new bone growth that had filled-in the holes left by lost teeth. Many of his remaining teeth were abscessed, caused by cavities and severe wear.

A cluster of five bone buttons along the right side of his rib cage and six brass coin buttons near his pelvis suggest that his family buried him in a shirt and drop-front trousers (see opposite). Next they placed his hands across his pelvis and tucked a pair of eyeglasses into his shirt pocket. Finally, they wrapped him in a shroud and fastened it with machine-made straight pins.

The copper eyeglass frames had extendable and hinged *temples* (the part worn over the ears). They held oval lenses, handmade of flat flint glass that had a very low-power correction (0.75 percent diopter). The edges of the lenses were not

polished, as lenses are today. They appear to have been chipped into a shape to fit the frames. These eyeglasses are similar to styles with extendable temples made in Germany and England around 1800. These types of glasses are not known to have been made in the United States.

Historically, eyeglasses were more than just reading aids. During the nineteenth century, they were a common status symbol. Due to the cost of eyeglasses, however, the middle class and poor could often only afford one pair for an entire family. A single pair of eyeglasses would be handed down from parent to child.

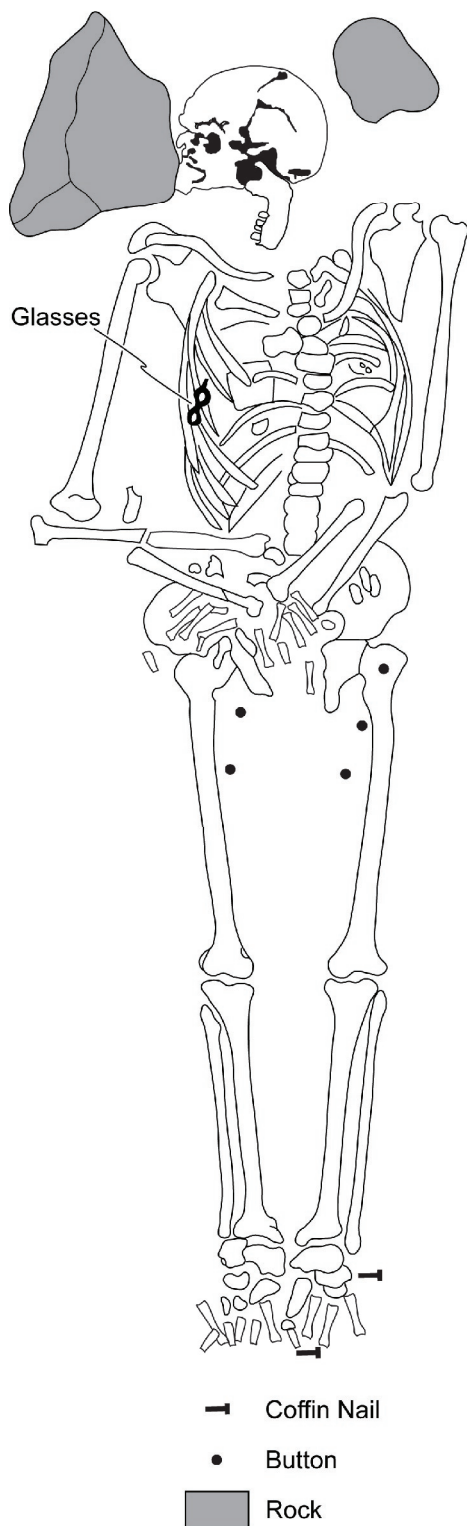
He had been buried in a coffin made of cherry. The recovery of late machine-cut nails and machine-made pins from his grave suggests he died sometime after 1835. Since his eyeglasses were made around 1800 in Europe, perhaps a grandfather gave him this pair as a gift before he immigrated with his family to America.



**Above** Eyeglasses.

The white box highlights one of the five bone buttons found next to the eyeglasses. The buttons may have been attached to a pocket or eyeglass case.





Though archaeologists recovered only fragments of the coffin, it probably was hexagonal.

There are several possible explanations for why the coffins of a few people buried at the Old Frankfort Cemetery had extra amenities, such as cloth lining, handles, and metal veneer. Some families may have been better off financially than others. Others may have spared no expense on their deceased relatives' death arrangements. This issue is explored in a later section (see **People of Limited Means**, page 62).

### WAKE OR SERVICE

Aside from the placement of coins on the eyes of a few of the deceased, research at the Old Frankfort Cemetery did not recover much information that could provide direct insights into details concerning Frankfort's early to mid-nineteenth-century death rituals and customs.

Research shows that American burial customs of the period were not as elaborate as those of today. The family displayed the corpse at home for a few days. A "wake" was held there, attended by close relatives, friends, and neighbors of the deceased, who socialized, shared food and drink, and perhaps read passages of Scripture.

Depending on a family's resources, the body might be taken to a church for a religious service, but it was usually held separate from the wake.

### GRAVE SITE PREPARATION

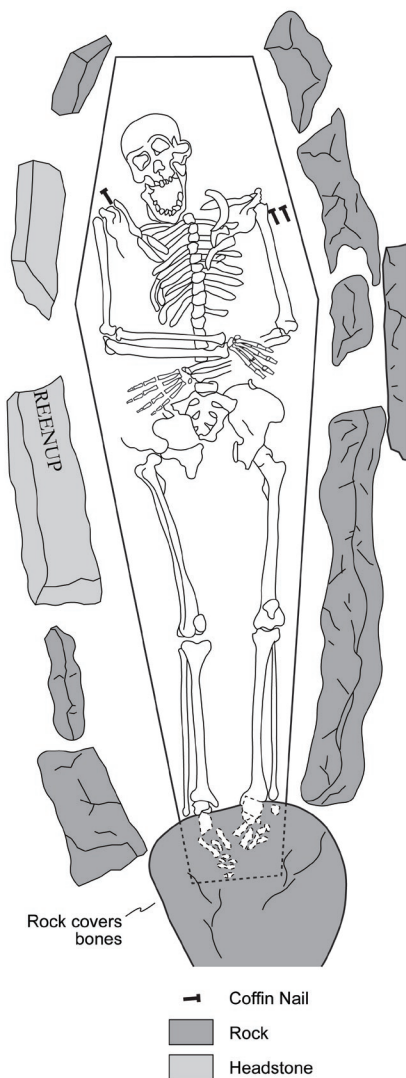
No cemetery records are available for the Old Frankfort Cemetery, so we do not know how poor and enslaved Frankfort families went about selecting a grave site for the deceased. Some families may have been able to afford to purchase a plot; for others, the City of Frankfort may have laid out the funds (see *The Cost of Death*, page 47).

Once the family had determined where they would bury their loved one, relatives and/or friends dug the grave shaft. Those who could afford to may have hired someone to dig the grave (see *The Cost of Death*, page 47).

Most of the graves were simple rectangular pits. Due to the disturbance the Cemetery had witnessed over the years, archaeologists working there in 2002 could not tell how far below the original ground surface each grave shaft had been dug. They did note, however, a great deal of variation in shaft depth, with some graves placed much deeper than others.

In 67 cases, large limestone slabs, and occasionally bricks, covered and lined the sides and bottom of the grave shaft. This created a box or below-ground rectangular vault.

The practice of building below-ground stone vaults at the Old Frankfort Cemetery distinguishes it from other archaeologically investigated contemporary cemeteries. Examples of above-ground stone or brick vaults have been documented at other cemeteries, as has the practice of covering coffins with wooden planks. But few examples of below-ground use of stone, like at the Old Frankfort Cemetery, have been identified.



Construction of these vaults required digging the grave shaft much wider than the coffin. The amount of stone and brick used in vault construction varied from one grave to another. In most cases, however, it was sufficient to create an enclosed space that protected both the coffin and the body of the loved one inside it.

Most of the stone was not cut or shaped. Rather, it was natural rock undoubtedly collected from nearby rock outcrops. Lining the bottom of the grave shaft with stone and brick also created a level surface on which to place the coffin. Many of the slab cover-stones were quite large. Some were so large, in fact, that during the 2002 excavations, it took more than one person to remove them.

Placing stones over the coffin helped prevent it from being crushed by the weight of the soil used to refill the grave shaft. The cover-stones also may have functioned as deterrents to animals and grave robbers. In many instances, the use of a cover-stone was so effective that a void was created as the coffin wood deteriorated and the flesh decomposed. Some graves were so well sealed that when the stones were removed in 2002, more than 150 years later, the bones were not covered with soil.

In several cases, families salvaged unfinished, broken, or flawed headstones as grave shaft lining (see opposite). One of the most interesting examples was the vault built for a 51 to 65-year-old woman of African descent. The vault was made using several large limestone slabs and two fragments of a headstone. When joined, the headstone fragments spelled out the name “GREENUP” (see left). It is likely that this headstone, carved for a member of the Greenup family, was not used for its intended purpose because it contained a flaw in the stone or a mistake in the engraving.

### FINAL STEPS

With the service completed and the grave site prepared, all that remained was to bury the body of the deceased.

In the early to mid-1800s, arranging transport for the coffin to the graveyard was the responsibility of the family. If they could afford it, and they did not live nearby, they might hire a horse and wagon. But otherwise, pallbearers walked to the gravesite carrying the coffin on their shoulders. Relatives and friends of the deceased assumed this task.

Once at the gravesite, the coffin was lowered into the grave. The coffin was aligned to ensure that the person’s head pointed to the west. This meant the deceased faced east toward the rising sun.

After a few words were spoken, family members shoveled the soil back into the grave. The family may have erected a marker, either of wood or fieldstone, to mark the grave. Few buried in the Old Frankfort Cemetery would have had carved stone headstones or monuments.

For the dead, they had arrived at their final resting place. What remained for the living was to deal with the loss and grief as they returned to their daily lives. They left the Cemetery assuming that burial in the graveyard at the base of Fort Hill meant eternal rest and peace for their loved one.

## AND THEN

But eternal rest for the people buried in the Old Frankfort Cemetery was not to be. After the Frankfort Cemetery was chartered in 1844, the old graveyard at the base of Fort Hill was not maintained. It fell into disrepair. Some people were exhumed and reinterred elsewhere. Residential and commercial development, the removal of any remaining grave markers, and the destruction of some graves followed.

Then came the Cemetery's "rediscovery" in 2002.

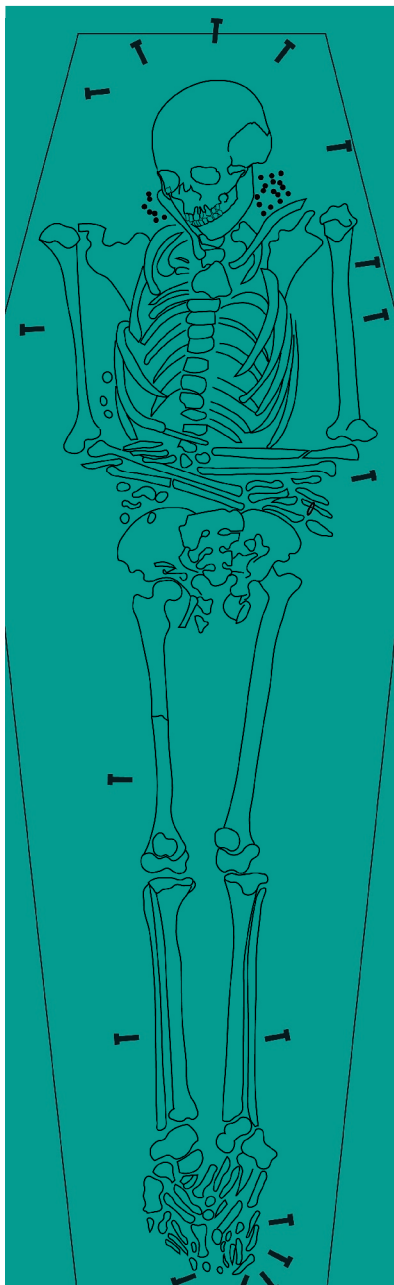
Since 2006, the people buried so long ago at the base of a hill are now resting on a bluff overlooking Frankfort. A single carved granite monument marks this spot (see page 71), and the people are at rest again.

**Opposite** Burial 123 is a good example of a stone-lined grave vault. Note the hexagonal shape of the coffin and the fragments of a headstone with the word "REENUP." A 51 to 65-year-old woman of African descent was buried in this vault.

**Below** Large limestone slabs covered the stone-lined vault for Burial 52, a 13 to 20-year-old adolescent of African descent. Note the broken recycled headstone next to the north arrow.



## How the Cemetery Grew Over Time



Historical documents provided only a general outline of the Old Frankfort Cemetery's nearly 60-year history. They said nothing about how it grew and developed.

Lacking cemetery records, headstones with death dates, and maps of the Cemetery layout, researchers turned to the artifacts. By determining when each person was buried, and then mapping out where they were placed in the Cemetery, investigators filled-in several important details.

### WHAT THE ARTIFACTS TELL US ABOUT TIME

Over time, objects people use in their daily lives often change. Depending on the object, modifications can occur to its shape, its size, what it is made of, and how it was made. By keying-in on when these changes occur, archaeologists can figure out how old an object is. From this information, they can determine when a site was used.

Some objects are better temporal markers than others, however. A coin has a date stamped on it. Others have known dates of introduction, such as porcelain Prosser buttons. Some objects were made only for a short time, like removable pull tabs from aluminum soda and beer cans. Objects that changed over a long time also can be helpful. These include things like nails and certain kinds of ceramic or glass containers. And finally, some objects may not stand alone as useful dating tools, but they can be useful if found at a site in regular association with items that are.

### Temporally Sensitive Objects

The artifact assemblage from the Old Frankfort Cemetery was not particularly large. Some of the artifacts, however, are good temporal markers. They included: the kinds of nails and screws used to make the coffins in which a person was buried; the kinds of pins used to close a person's shroud; the types of buttons on the clothes the person was wearing when they were buried; and the kinds of personal objects loved ones placed with the person.

These objects helped investigators determine when a person was buried at the Cemetery. Let's examine each type in turn.

### Coffins

Local Frankfort cabinetmakers would have made the coffins used at the Old Frankfort Cemetery. Coffin styles, the types of nails and screws used in coffin construction, and the presence and types of handles helped archaeologists determine when the coffins were made.

Coffin shape changes over time. The earliest wooden coffins are hexagonal. In the 1840s, simple rectangular coffins increase in popularity. At the Old Frankfort Cemetery, two-thirds of the coffins were hexagonal and one-third were rectangular.

In the 1840s, metal coffins were introduced, and in the 1850s, coffins became more ornate. Glass viewing plates became commonplace by the 1860s. Only

one person's coffin was made of wood with iron veneer. It post-dates 1840. Unfortunately, researchers could not identify its shape.

Four wooden rectangular coffins had handles. Three had simple brass examples, and one had iron handles. The use of coffin handles post-dates 1840.

Nail shape and manufacturing techniques also change over time. The earliest ones, made before 1830, were hand-forged from wrought iron. They were followed by nails cut from sheets of iron by machines. Early machine-cut nails (1800-1830) are distinguished from later machine-cut examples (1830-1880) by the shape of their head. Early machine-cut nails have hand-forged heads. They are more irregular than the machine-forged heads of late machine-cut nails. Wire nails replaced late machine-cut nails in 1880.

Almost all of the Cemetery's wooden coffins were constructed with late machine-cut nails. This suggests they were made after 1830. Only 10 coffins were made with hand-wrought or early machine-cut nails.

Pointed screws began to be used in coffin manufacture after 1830. The earliest examples are plain, but by the mid-1850s, screws became very decorative. Furniture makers used only plain pointed screws in the construction of the Cemetery's wooden coffins. This suggests these coffins were made between the 1830s and 1850s.

Brass tacks found with 18 coffins suggest the bottoms of these coffins were lined with cloth. The use of tacks in this way occurred as early as 1830.

Taken altogether, the coffin data suggest that the Cemetery saw fairly limited use until the late 1820s, and that it was most intensively used during the 1830s and 1840s. More ornate coffins and ones with viewing plates would be expected in a cemetery that dated after 1850, but none were found at the Old Frankfort Cemetery.

### **Pins**

The simple brass straight pin, used to fasten shrouds around the dead, was among the more temporally sensitive objects recovered from the Old Frankfort Cemetery.

For several hundred years, brass straight pins were made in two pieces, with a swirled head attached to the shaft. In 1833, Daniel Foote Taylor successfully mass-produced one-piece pins with machines.

Based on this fact, and allowing for some lag time in the widespread use of machine-made pins, investigators concluded that early swirled-head pins, found with 21 burials at the Old Frankfort Cemetery, likely were used up until 1835 (see *Meet The People: Burial 192c - A Working Woman*, page 60). Later one-piece pins were found with 91 burials.

### **Buttons**

A variety of clothes in the 1800s, like pants, breeches, shirts, and dresses, used button fasteners. Among the buttons, plain and calico Prosser varieties are the best temporal markers. Mass production of these porcelain four-hole buttons began in the 1840s.



**Top** Almost all of the Cemetery's wooden coffins were constructed with late machine-cut nails.

**Bottom** Straight pins.

In 1833, two-piece swirled-head pins (top) are replaced by one-piece machine-made pins (bottom).





Other buttons also appear to be good temporal markers at the Cemetery. One-hole bone buttons and brass coin buttons were primarily found in the same graves as swirled-head pins. Archaeologists concluded that these buttons were primarily used before 1835. The association of four- and five-hole bone buttons and four-hole shell buttons mostly with one-piece pins led archaeologists to conclude that their period of greatest use was after 1835.

### **Other Items**

Investigators also used other temporally sensitive objects to date burials. These consisted of a “faux jet” bead necklace (post-1835); 1838 and 1840 Liberty dimes placed on eyes; two vest buckles (post-1854), and a 0.44-caliber rimfire cartridge (post-1855).

### **Results**

Based on their research into the age of the Cemetery’s artifact assemblage, investigators determined that about 25 percent of its population, or 57 people, were buried there sometime from the late 1820s to early 1830s, or before 1835. For these earliest graves, the artifact signatures included wrought nails, early machine-cut nails, swirled-head pins, one-hole bone buttons, and brass coin buttons.

A variety of artifacts show that 103 people were laid to rest after 1835 and sometime before 1860. In addition to the late machine-cut nails and screws used in the coffins, one-piece machine-made pins were used to pin-up shrouds, and clothes used four- and five-hole, bone, shell, and porcelain buttons.

The only temporally sensitive artifacts found with 73 other people were late machine-cut nails and screws. Their graves lacked earlier temporal makers, but their grave distribution was similar to the distribution of the 1835 graves. Archaeologists concluded that these 73 people also were buried after 1835. Combining the two groups brings to 176 the total number of people buried in the Old Frankfort Cemetery after 1835. Nine very disturbed graves contained no objects that could help determine in any way when the person was buried.

### **HOW IT GREW OVER TIME**

Once investigators had established when the people were buried at the Old Frankfort Cemetery, they were ready to explore how the graveyard grew over time. They did this by mapping the distribution of the pre-1835 and post-1835 graves (see pages 56-57). By considering the ethnic heritage of a person buried in a particular grave, they also could examine whether people were segregated at death.

During the 2002 excavations, archaeologists discovered two concentrations of graves on the slope at the base of Fort Hill. They referred to them as the “Upper Area” and the “Lower Area.” Along the edges of both, they discovered that the foundation walls for the Capital City Brewery had cut through several burials (see page 5). Investigators concluded that construction of the brewery and other buildings in the 1870s had completely destroyed an unknown number of graves. The grave concentrations documented in 2002,

therefore, are a reflection of the decades of disturbance the Cemetery endured. Any map of the burials in the Old Frankfort Cemetery is thus somewhat incomplete.

The “Upper Area” is situated on a well-drained, narrow bench just above the base of Fort Hill. From there, grieving families could have looked out and seen all of Frankfort spread out in front of them: the Capitol in the foreground, the houses of the wealthy and the City’s business district next; and beyond those, the warehouses and docks along the Kentucky River. The “Lower Area” extends down the slope from the Upper Area to the base of Fort Hill. Its view of the City is more restricted and the soil in some areas is poorly drained.

The 2002 investigations at the Old Frankfort Cemetery documented about the same number of graves in each area: 113 in the Upper Area and 129 in the Lower Area. During the Cemetery’s early years, twice as many people were buried in the Upper Area than the Lower Area. As the Cemetery grew, beginning in the late 1830s, and throughout the 1840s, more people were buried in the Lower Area than the Upper Area.

### Upper Area

Within the Upper Area, early graves occur in several clusters. Slightly more than 60 percent of the people buried here at this time are of African ancestry. The remainder are of European or mixed heritage.

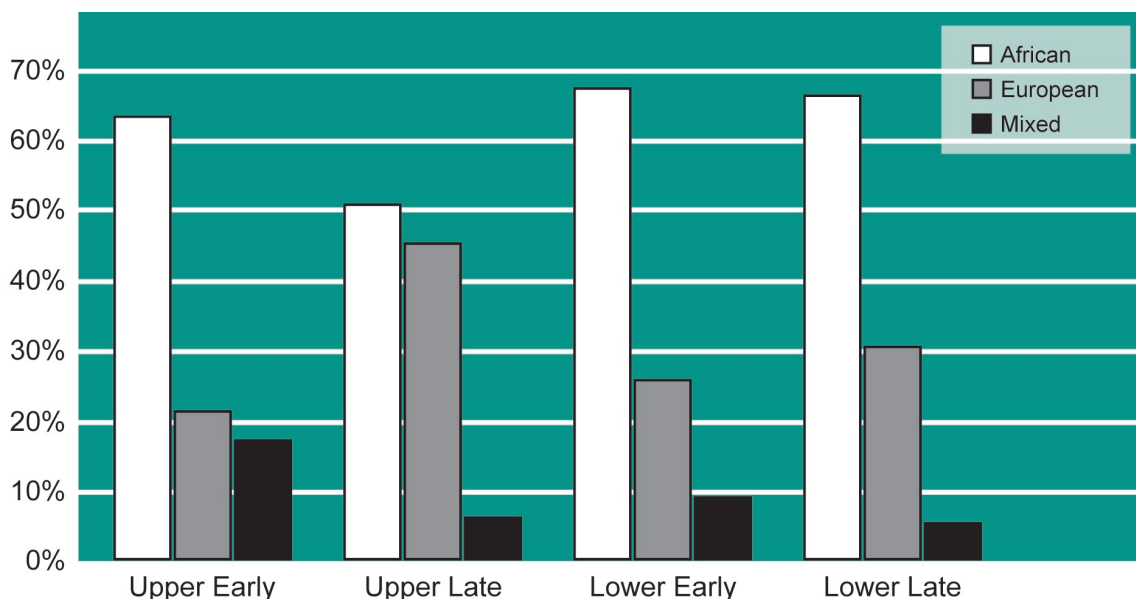
After 1835, there is dramatic increase in the number of people of European ancestry buried in this area. Indeed, people of European heritage account for almost half of the burials in the Upper Area after 1835.

The distribution of new graves, however, is similar to that of the early graves. As more people were buried, the clusters grew in size. Some of the open spaces between and within clusters filled-in. In the Upper Area, clusters of graves of European or African descent suggest the presence of family groups, but there is little evidence of segregation based on ethnic heritage. (continued on pg. 61)

**Opposite** Calico Prosser buttons were machine-made after 1840. Note the brown transfer-printed design.

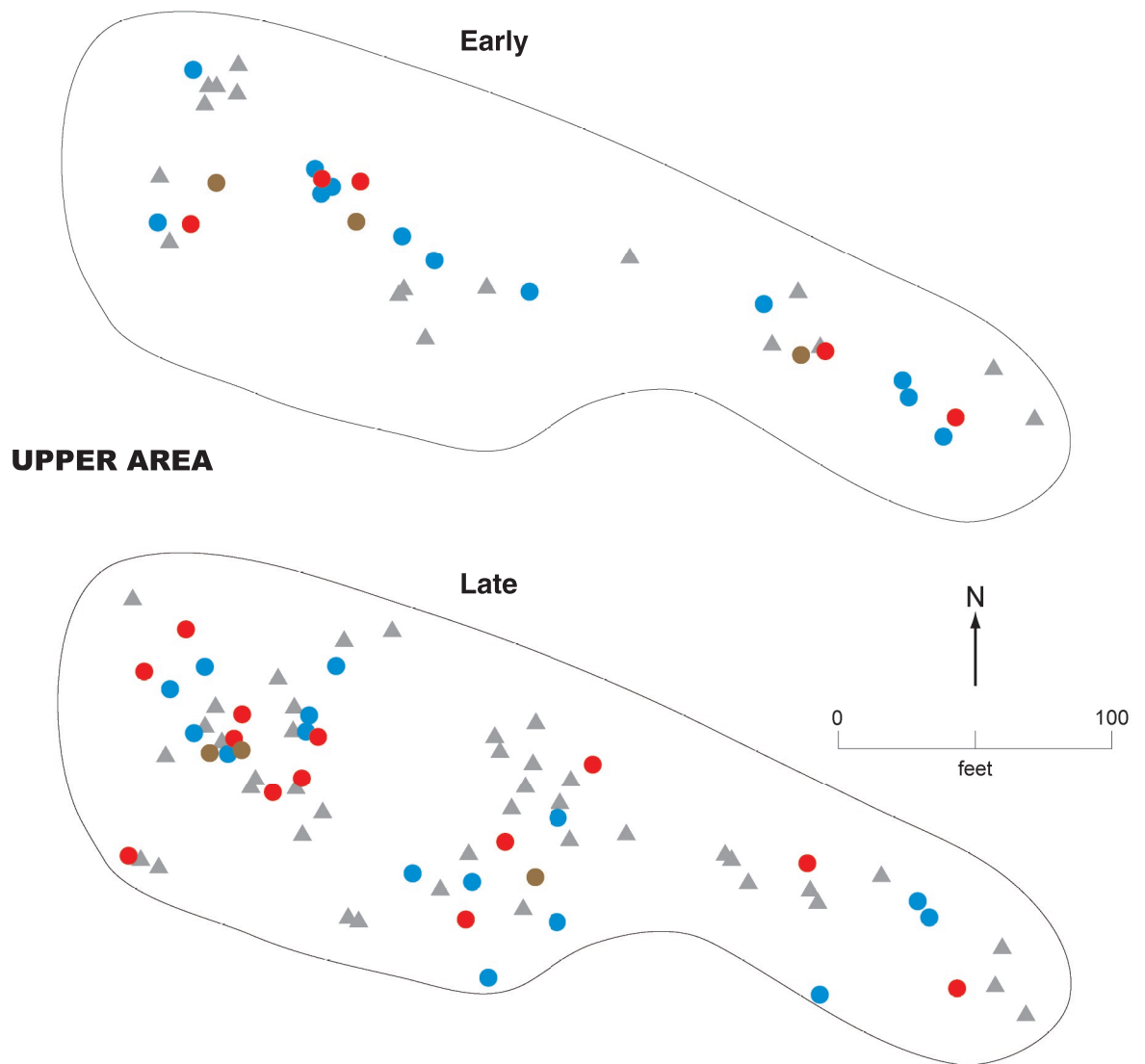
**Below** Ethnic makeup of the Cemetery population through time by areas (“early” refers to people who died before 1835, and “late” refers to those who died after 1835).

People of African descent account for most of the burials in the Cemetery. Before 1835, the Upper Area is dominated by people of African descent. But after 1835, almost the same number of people of African descent as European descent were buried in this area. Throughout the history of the Cemetery, primarily individuals of African descent were interred within the Lower Area.



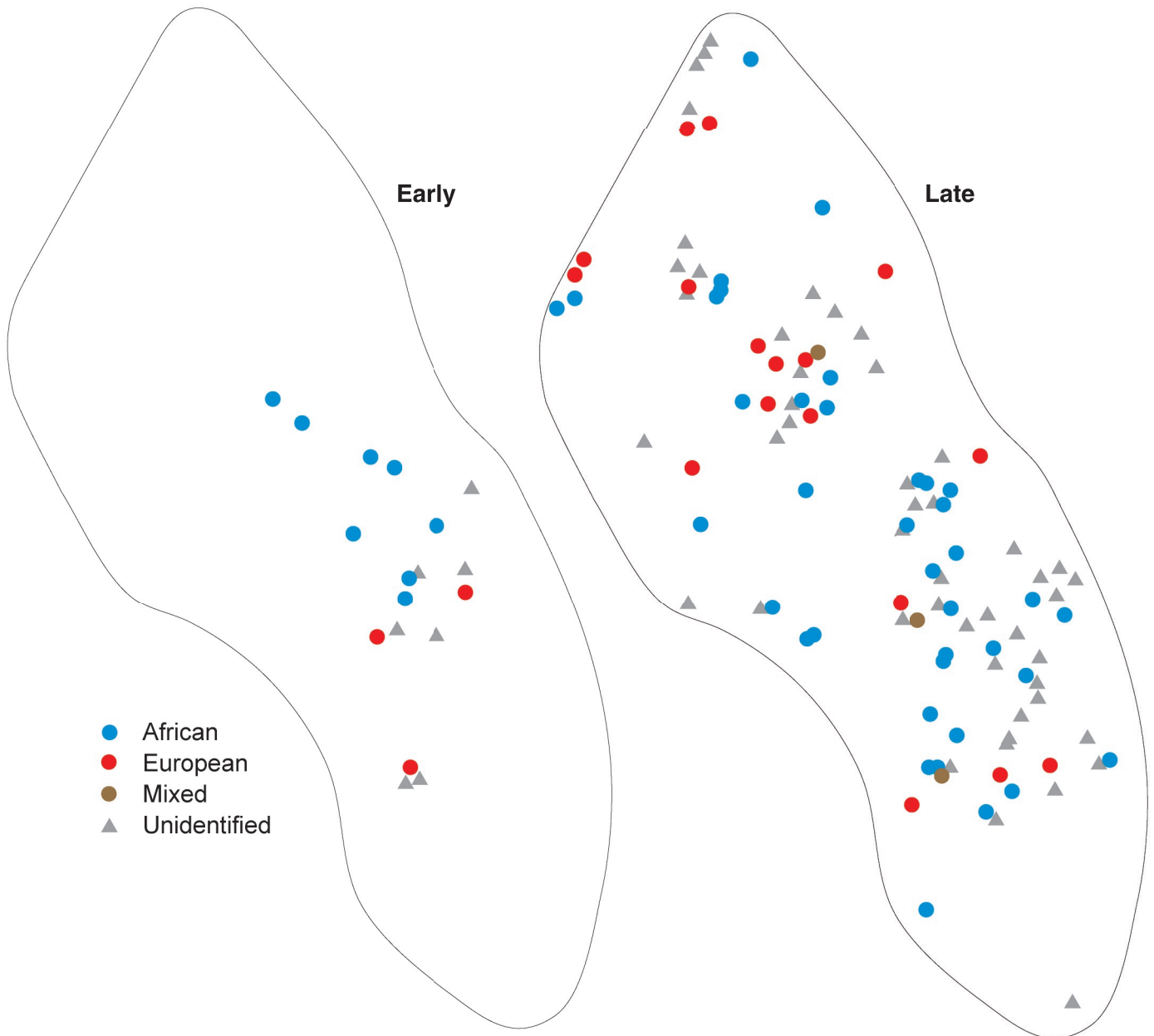
Distribution of graves by ethnic heritage ("early" refers to people who died before 1835, and "late" refers to those who died after 1835).

Before 1835, the Cemetery consisted of several small clusters of graves. As more people were buried in the Upper Area, the clusters grew in size. Some became quite dense. As more people were buried in the Lower Area, the space used to bury people expanded. From the distribution of graves in both areas, it is evident that throughout its history, the Cemetery was used by families of African, European, and mixed heritage.

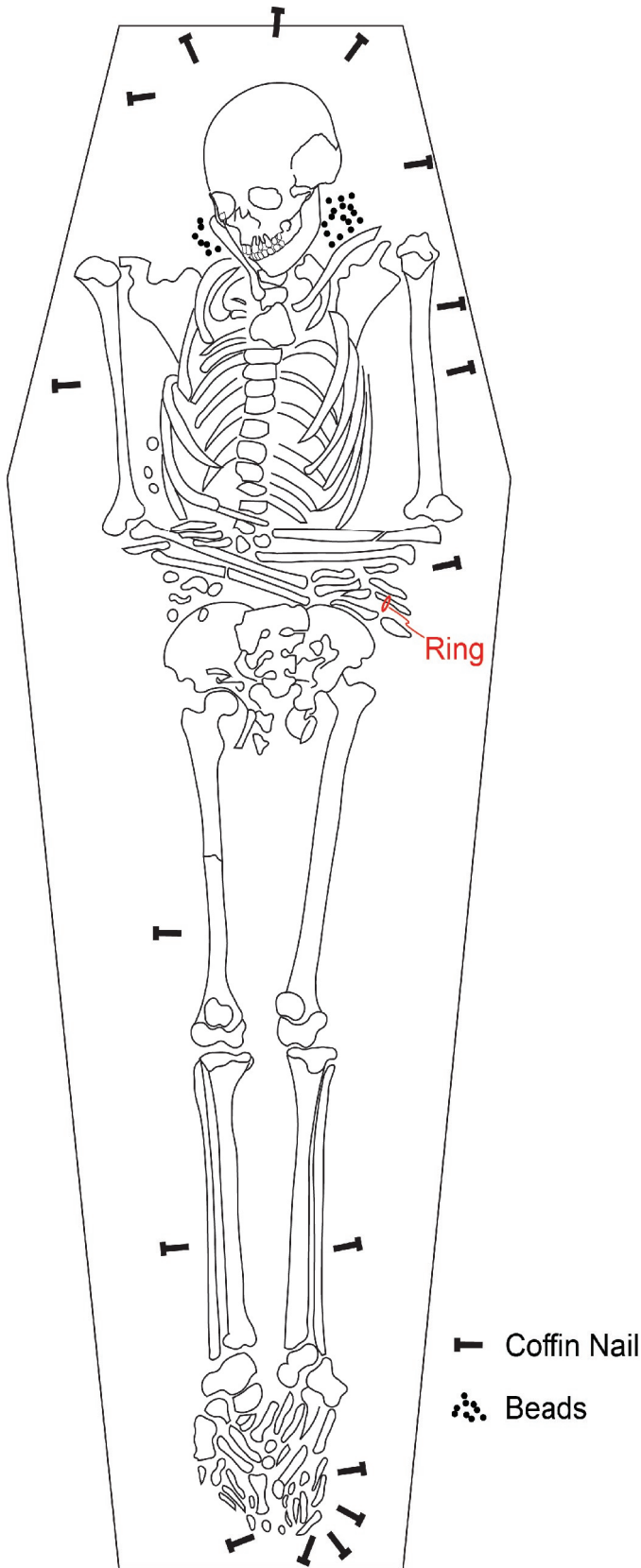




## LOWER AREA







## MEET THE PEOPLE

### BURIAL 232 A Sickly Teenager

This girl of African descent died in her early teens. She stood 5 feet 2 inches tall and weighed 132 lbs.

Relative to other people of African descent, she ate an average amount of corn-based foods. Despite this sugary and starchy diet, however, her teeth had few cavities. Her age at death explains why her teeth were not too worn.

She was sick for most of her life and may have died of malnutrition. Her bones suggest she likely was a sickly baby. Between the ages of 1 and 5, she experienced a great deal of nutritional stress, as reflected in tooth enamel defects. This could have been caused by chronic malnutrition/under-nutrition or disease. This stress continued throughout her life, indicated by the numerous Harris lines on her upper and lower leg bones. She was horribly bowlegged, which is a sign of childhood rickets likely caused by a Vitamin D deficiency. She also suffered from anemia and multiple infections.

She was one of the few people buried in the Old Frankfort Cemetery wearing jewelry. She wore two necklaces: one of 29 rounded red glass beads and the other of 34 *gadroned*, or fluted, blue glass beads (see photo, opposite). On her right finger, she wore a brass ring with a diamond-shaped cut-out on the front of the band (see photo, opposite). Surprisingly, given the fact that she was wearing jewelry, investigators found no buttons or pins in her grave. This suggests she may have been buried wearing a dress that lacked buttons. Alternatively, she could have been wrapped in a blanket that needed no pins to hold it in place.

At her death, her family arranged her arms across her chest. Her wooden coffin was buried near the northwest corner of the Lower Area. The nails used in her coffin suggest she died after 1835. Long afterwards, the Capital City Brewery foundation was dug nearby.



## MEET THE PEOPLE

### BURIAL 192c A Working Woman

This woman died in her early thirties. In life, she stood 5 feet 3 inches tall and weighed 125 pounds. Mitochondrial DNA extracted from the pulp of her teeth shows that she was of West African heritage. She is depicted here with braided hair, since in her day, this hairstyle was common for women of African descent.

During her life, she consumed a fair amount of corn-based products, but somewhat less than others of African descent buried in the Cemetery. Her teeth were in fairly good shape, and she had few cavities. From the many stress lines on her teeth, we know she experienced some kind of nutritional stress at ages 2, 3, and 4. Extensive arthritis in her back reflects the heavy labor she undertook throughout her life.

Prior to wrapping her in a shroud, her loved ones laid her arms alongside her body and placed her hands across her waist. She may have been buried wearing a dress, but evidence of buttons or hooks is lacking. Her relatives pinned her shroud together with swirled-head pins, indicating she died before 1835.

Her simple hexagonal wooden coffin was placed in a stone-lined grave shaft, and then covered with large limestone slabs. She was buried in the northern half of the Lower Area, directly below Burial 192b, a large robust man of African descent (see page 68). Was this man her father? Her husband?

## **Lower Area**

Prior to 1835, the Lower Area primarily consisted of one centrally located cluster. After 1835, use of the area expanded to the northwest and southeast. During both periods, most of the burials were people of African heritage. People of European descent and mixed heritage account for slightly more than 30 percent of the dead during both periods.

Although the percentages of ethnic heritage represented in the Lower Area at-large remained relatively stable after 1835, some degree of segregation by heritage appears to have occurred here after that date. Throughout the history of the Lower Area, individuals of African descent were buried primarily in the central and southeastern portion of the Lower Area. After 1835, however, people of European heritage had a greater likelihood of being interred in the northwestern portion of the Lower Area.

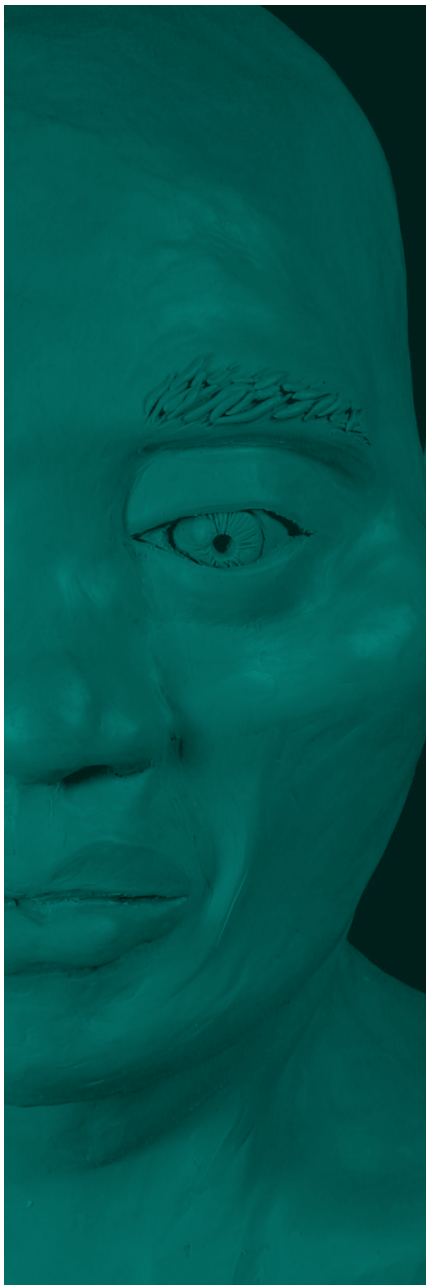
## **WHAT WE HAVE LEARNED**

A sharper picture of how the Old Frankfort Cemetery grew and developed emerges from this consideration of the age of the artifacts and the distribution of the graves. This picture complements the one provided by the meager documentary record. It shows that the growth of the Old Frankfort Cemetery mirrors the growth of Frankfort itself.

The Cemetery started out small and grew slowly during its first decade. Interments increased in the late 1820s and 1830s, so that by 1835, almost 60 people had been buried there. The size of the Old Frankfort Cemetery exploded between 1835 and 1850. Almost three times as many people were buried there during this period than in the preceding decades. This trend mirrors the increase in Frankfort's population in the 1840s. After the cemetery opened on the bluffs overlooking Frankfort, use of the Old Frankfort Cemetery declined. The last people were buried in the late 1850s.

Early in its history, a majority of the dead were buried in the Upper Area. As the Cemetery grew over time, the Lower Area saw more use. Grave clusters in both areas suggest the establishment of family plots that saw long-term use. Throughout its history, the Old Frankfort Cemetery was a place of rest for Frankfort citizens of African, European, and mixed heritage.

## People of Limited Means



During excavation at the Old Frankfort Cemetery, archaeologists recognized that the graves of some people were decidedly more substantial than others. They also noted “fancier” coffin remains and jewelry in a few graves.

This led them to wonder what these differences meant and if they in any way reflected a person’s or a family’s economic standing within the community.

### ESTIMATING ECONOMIC STANDING

Estimating people’s economic standing from their graves is not easy to do. This is true even when information is available from diverse sources, like cemetery records, above-ground monuments, coffin styles, and personal items placed with the dead.

Many factors influence where and how someone is buried, not just financial resources. Families may spend beyond their means to provide a proper burial and resting place for a beloved family member. Religious beliefs also influence burial expressions, as do cultural and ethnic traditions.

Archaeologists also must consider other issues. For example, even if someone was buried in fancy and expensive clothing, over time, these items can deteriorate. To an archaeologist, these people look no different than someone buried in cheap clothing.

Despite these difficulties, researchers knew that another way to learn more about the people buried in the Old Frankfort Cemetery was to explore whether economic differences were present within the population. Because records were lacking, they had to measure economic differences indirectly.

They hypothesized that families with greater purchasing power spent more money on the funerals of their loved ones, ate more diverse foods, and had a healthier diet. Expensive items worn by the dead also could reflect their economic standing in life. Investigators also considered grave placement, thinking it likely that burial in preferred areas could have been more costly. At the Old Frankfort Cemetery, they hypothesized that the Upper Area, with its commanding view of Frankfort, would have been the preferred, and therefore, more expensive place to bury one’s relatives.

So, they considered the amount of effort put into the construction of the grave, the cost of the coffin, whether personal items, such as jewelry, were present, and the amount of corn-based products each person consumed. They also mapped out where graves with these characteristics were located within the Cemetery, taking into consideration when the person died and their ethnic heritage.

### Graves

Because preparing graves with below-ground stone-lined vaults took more effort than simply digging a hole, investigators figured that the former were more costly. Slightly more than one-quarter (67) of the graves in the Old Frankfort Cemetery were lined. While the type of lining (stone or sometimes

brick) and the amount of lining varied, the effect was the same: to create below-ground vaults.

While most of the stone-lined graves held adults, 22 graves of infants and children less than 13 years old also were lined. Almost two-thirds, or 40 stone-lined graves, and most (14) of the stone-lined graves of infants and children, were in the Upper Area. In general, vaults in this area were better constructed, and more stone was used in their construction, than those in the Lower Area.

In general, throughout the life of the Cemetery, a person of European descent buried in the Upper Area (50 percent) had a greater chance of being interred in a stone-lined vault than a person of European descent buried in the Lower Area (30 percent) or a person of African heritage buried in either area (30 percent).

When the archaeologists looked at grave construction practices at the Cemetery through time, however, they found some interesting patterns. In the Upper Area, there was a dramatic increase in the construction of stone-lined graves among people of African descent and a slight decrease among people of European descent. Prior to 1835, only 13 percent of the graves of people of African heritage in this area were stone-lined. But after 1835, 42 percent of people of African heritage buried in this area were interred in a stone-lined vault. In comparison, the use of stone-lined vaults among people of European descent decreased from 80 to 44 percent.

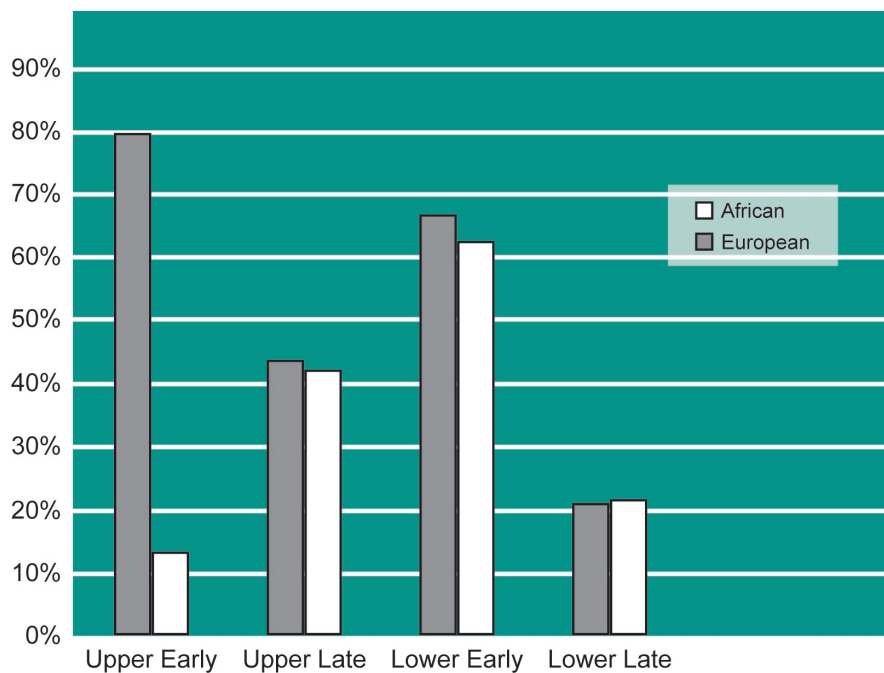
The Lower Area exhibited a very different pattern. Prior to 1835, more than 60 percent of those of African and European descent were buried in



**Above** Burial 146's stone- and brick-lined burial vault. This infant of African descent was buried in a very well-made vault. For a complete description, see *Meet The People - A Short Life*, page 22.

**Right** Percentage of stone-lined vaults for each area through time by ethnic heritage.

In the Upper Area before 1835 (early), primarily people of European descent were buried in stone-lined vaults. In contrast, a high percentage of people of either European or African descent were buried in stone-lined vaults in the Lower Area at this time. After 1835 (late) in the Upper Area, people of either European or African descent had a high probability of burial in a stone-lined vault. Just the opposite was the case for both groups in the Lower Area.

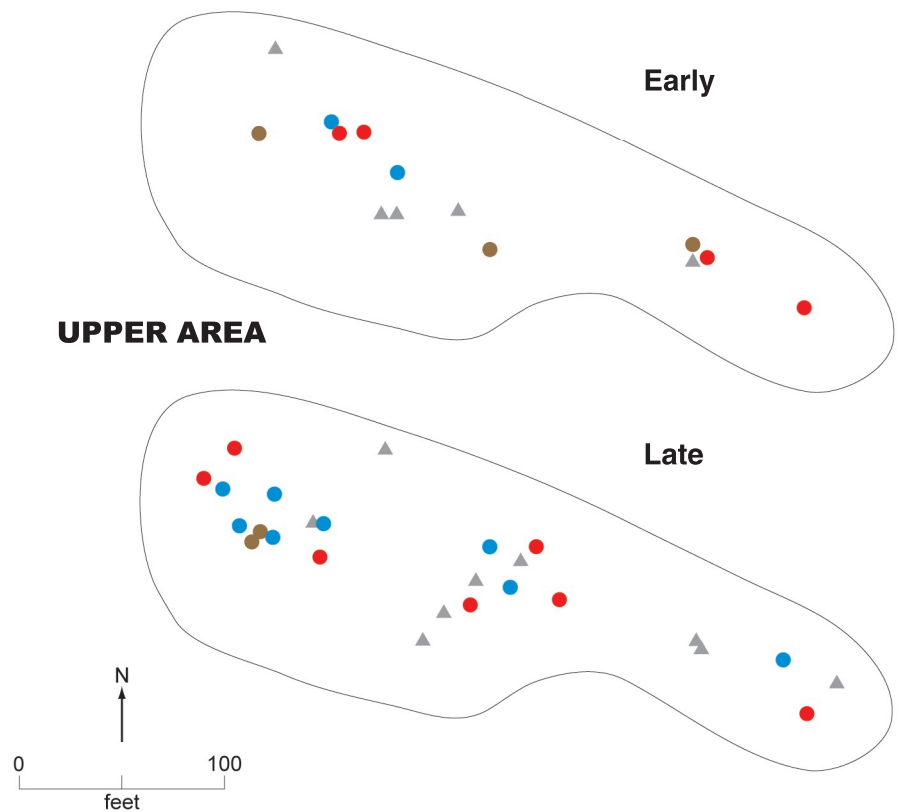


**Right** Distribution of stone-lined vaults (“early” refers to people who died before 1835, and “late” refers to those who died after 1835).

People of African, European, and mixed heritage were buried in stone-lined vaults. Vaults in the Upper Area tended to be made with more stone and to be more substantial than those in the Lower Area.

**Below** Brass Hepplewhite-style swing-bail coffin handle. The use of metal coffin handles post-dates 1840. Coffin handles were only found in the Upper Area (see page 66).

**Bottom** Brass tacks were used to hold fabric lining in place in coffins after 1830. These fancier coffins were primarily found in the Upper Area (see pages 66 and 67). The copper in these tacks preserved some of the coffin wood. Eastern red cedar and cherry were the most common.



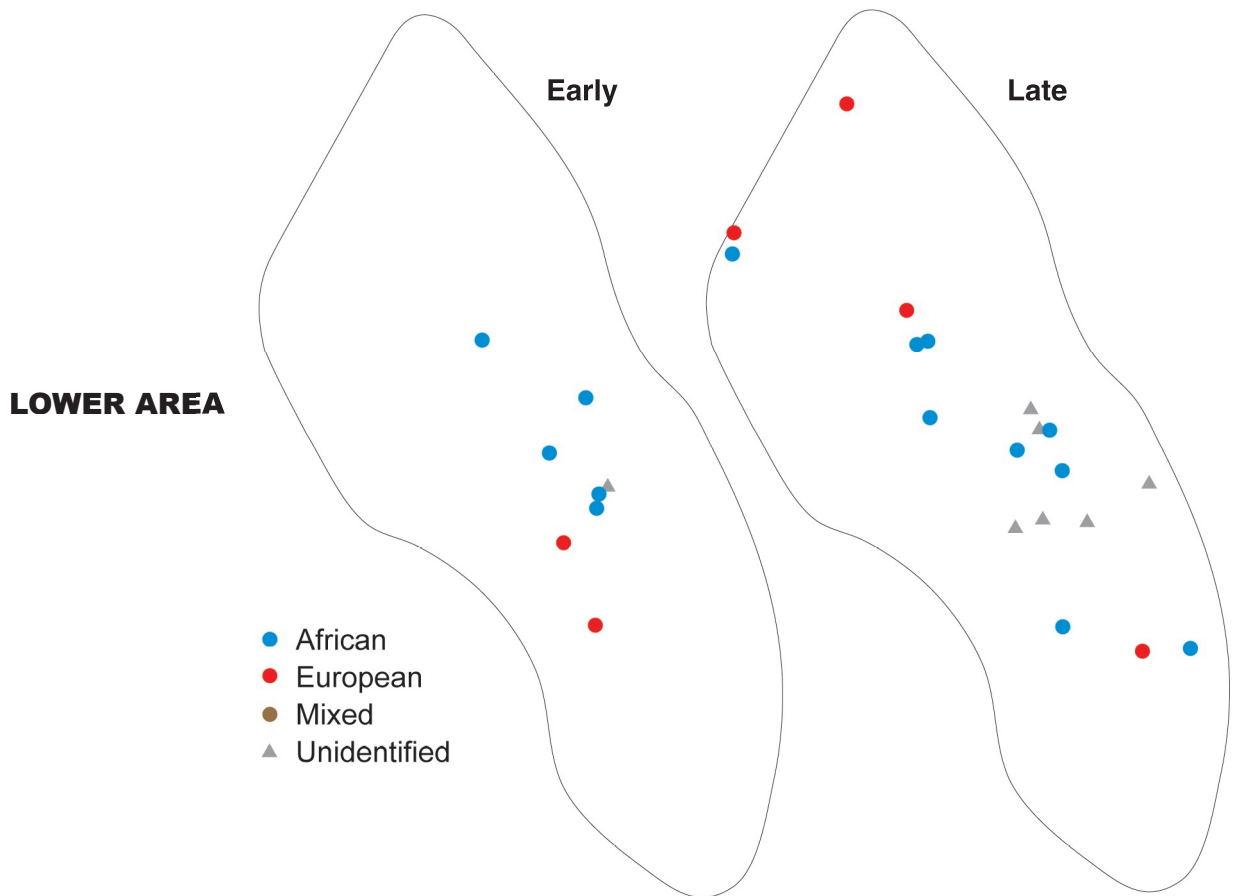
stone-lined vaults. After 1835, there was a sharp decrease in the use of stone-lined vaults for both groups; only 21 percent of the graves were stone-lined (see table, previous page).

From these findings, we can infer that the decision to bury a loved one in a stone-lined vault generally reflected a family’s ethnic heritage and their economic standing. People of European descent who buried their dead in the Upper Area were most likely to invest in this form of burial. Through time, however, there was a dramatic increase in those of African descent who also invested in stone-lined vaults in the Upper Area. Families of either European or African descent also chose to invest their time and hard-earned money in this way for the graves of their infants and young children in the Upper Area. Finally, the fact that most of the vaults found in the Upper Area were better constructed than those found in the Lower Area further reflects the higher economic standing of people interred in the Upper Area.

### Coffins

Almost everyone in the Old Frankfort Cemetery was buried in a plain wooden box. But 16 adults and five infants or children less than 13 years old (about 10 percent of the population) were buried in slightly “fancier” coffins. Eighteen were lined with plain cotton cloth or velveteen held in place with





brass tacks. Four had metal handles, and one example was covered with iron. Two of the coffins with handles also were cloth-lined. Almost twice as many people of African descent than European descent were buried in these kinds of coffins.

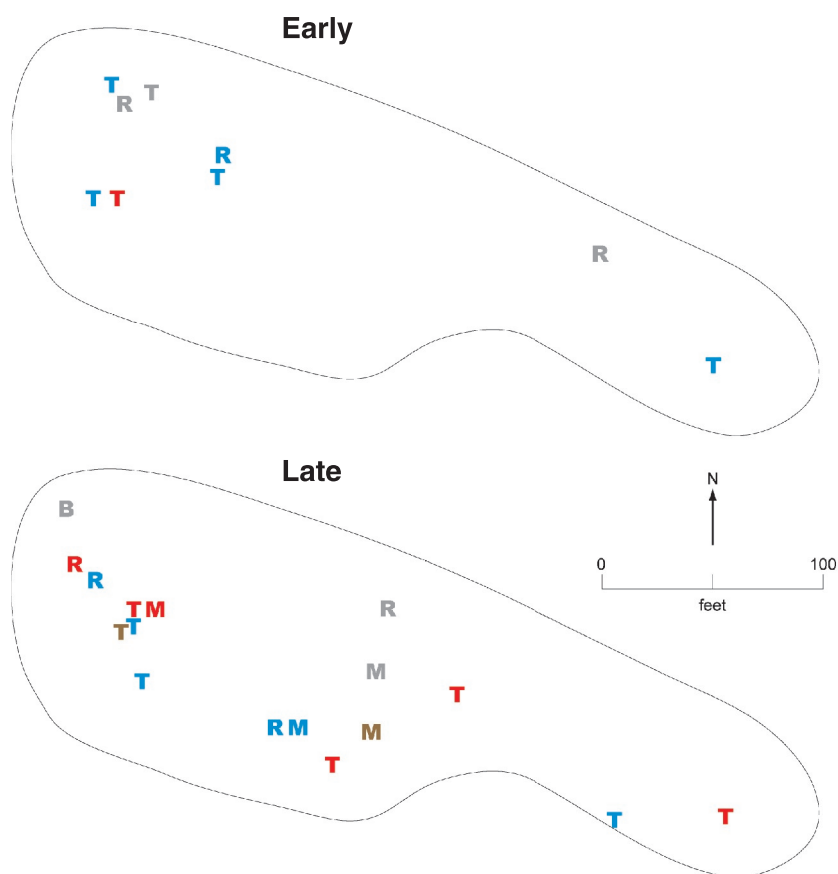
Archaeologists found most of these more expensive coffins in the Upper Area, primarily in the northwestern portion. All three types of fancier coffins were present (see page 66).

There are some temporal trends in the use of cloth-lined coffins in the Upper Area. Early in the Cemetery's history, mostly individuals of African descent were buried in these types of coffins. However, after 1835, those of European descent slightly outnumber those of African descent, regardless of the type of fancier coffin used (see page 66).

Only four people in the Lower Area were buried in more expensive coffins, and all these coffins were cloth-lined. Within the Lower Area, only people of African descent were buried in this type of coffin (see page 67).

The pattern observed for coffin choice, like the decision to line the grave with stones or bricks, reflects ethnic heritage and economic standing. Early in the use of the Cemetery, people of African descent were more likely than those of European descent to be buried in a more expensive coffin. After 1835, families of either ethnic group who had the resources, purchased a more expensive

## UPPER AREA



**Above** Distribution of coffin hardware and jewelry (“early” refers to people who died before 1835, and “late” refers to those who died after 1835).

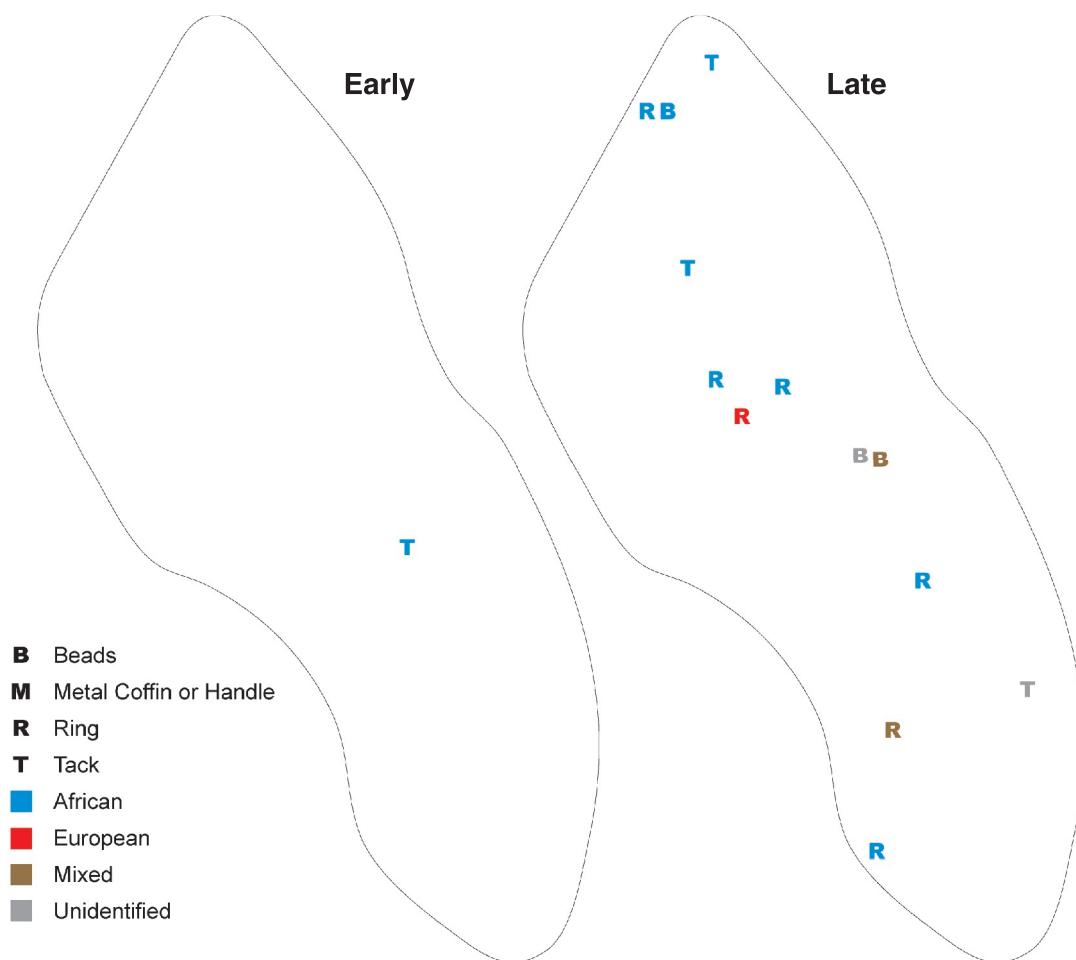
Coffin hardware and jewelry primarily were found with people who died after 1835. Most of the coffin hardware was found with people buried in the Upper Area. Rings and beads exhibited a somewhat different distribution. Rings were equally divided between the two areas, while beads were primarily found in the Lower Area.

coffin. Throughout the history of the Cemetery, families who did purchase these types of coffins primarily interred their loved ones in the Upper Area.

The graves of four individuals buried in a fancier coffin within a below-ground stone-lined vault were located in the Upper Area. Represented were a 35 to 50-year-old man of European descent, a 21 to 35-year-old woman of mixed heritage, a child of European descent, and an infant of African descent (see *Meet The People: Burial 146 - A Short Life*, see page 22).

The fact that people of any ethnic background buried in more expensive coffins at the Old Frankfort Cemetery were interred primarily in the Upper Area lends additional support to the suggestion that this area was preferred by those of greater economic means. The burial of infants and children in more expensive coffins, like their burial in below-ground vaults, shows parents’ willingness to spend money on a child’s burial.

## LOWER AREA



### Jewelry

Only 17 people (7 percent of the population) in the Cemetery were buried wearing jewelry. The most common item was finger rings, made from either gold or brass. Fourteen adults, mainly of African descent, wore them. The three gold rings, especially two with engraved designs, would have been somewhat costlier than the 11 brass rings. Similarly, the two brass rings with cut-outs likely were somewhat more expensive than the nine plain brass rings.

One infant and three adults were buried wearing necklaces. It is difficult to determine the relative cost of the beads in these necklaces, and therefore, the cost of the necklaces themselves. Ethnic heritage could be determined for only two of these people: a girl in her teens of African descent (see *Meet The People: Burial 232 - A Sickly Teenager*, page 59), and an old woman of mixed heritage (see *Meet The People: Burial 206 - A Very Long Life*, page 45).



## MEET THE PEOPLE

### BURIAL 192b A Very Hardworking Man

This very robust man of African heritage stood 6 feet tall, weighed 159 pounds, and lived to be over 50 years old. During his life, he ate somewhat more corn-based products than other people buried in the Cemetery.

The man's bones show he led one of the hardest lives of anyone buried in the Cemetery. Over the course of his long life, he lost a fair number of teeth, and the remaining ones showed much wear. He suffered from malnutrition throughout his life. As a child, he experienced a number of childhood illnesses or times when food was scarce, witnessed by the stress lines in his teeth. And as an adult, he suffered from adult rickets, which is linked to Vitamin D deficiency. In children, the condition results in curved long-bones. In adults, bones become puffy, sponge-like, and soft. Adult rickets results in widespread bone pain and muscle weakness.

His life was one of very physical, very heavy labor. His shoulders show evidence of arthritis, and his elbow joints are enlarged. He also has strong muscle markings on his upper arms and forearms. All of these features point to repeated lifting of heavy objects. Years of heavy physical labor also are reflected in his lower back. There, he suffered from arthritis and collapsed disks, as indicated by painful protrusions on his spine. These conditions suggest his work involved rotation

while lifting, the kind of movement someone would do, for example, while loading heavy bales of hemp onto a riverboat.

His expanded knee and hip joints would have made it painful for him to walk. His right ankle had a boney scar, indicating he had twisted it very badly sometime in his life. It would have taken several months to heal, and even then, he may have walked with a limp. Certainly he would have had some trouble walking after it healed. Lesions on his skull, pelvis, and lower right leg suggest he had experienced some kind of unidentifiable infection sometime in his life. On his head were button tumors. Though unsightly, they are rarely painful.

At his death, this hard-working man's family dressed him in a shirt with two small, four-hole shell buttons, and pants with 10 large five-hole bone buttons. They placed his arms along his sides, with his hands on his pelvis. Then they wrapped his worn-out body in a shroud, pinning it in place with machine-made straight pins. This style of pin indicates he died after 1835.

He was buried in the northern half of the Lower Area. His hexagonal wooden coffin was placed in a simple grave shaft that was covered with limestone slabs. His grave was located directly above Burial 192c. Perhaps she was his daughter, who had died several years before.

Throughout the history of the Old Frankfort Cemetery, slightly more people in the Lower Area were buried wearing jewelry than in the Upper Area. Graves of people buried wearing any kind of ring, costly or otherwise, were equally divided between the two areas. People wearing necklaces tended to be buried in the Lower Area.

The location within the Cemetery of people buried wearing jewelry differs from that of the stone-lined vaults and coffins. Differences in ethnic heritage appear to explain this pattern best. People of African descent were more likely than those of European descent to bury a family member with these kinds of personal items.

### **Food**

While everyone buried in the Old Frankfort Cemetery appears to have eaten the same amount of meat and fish, archaeologists identified a great deal of variation in the quantities of corn-based products these people consumed over the course of their lives. In general, these data suggest that throughout the history of the Cemetery, those of European descent ate less corn and more Old World grains, such as wheat and barley, than did those of African descent.

However, regardless of one's ethnic heritage, people of any ethnic background buried in the Upper Area consumed fewer corn-based products and more Old World grains than those buried in the Lower Area.

This pattern complements those identified for grave and coffin type. People buried in the Upper Area, regardless of ethnic heritage, may have had somewhat higher economic standing than those buried in the Lower Area.

### **WHAT WE HAVE LEARNED**

Throughout much of its history, the Old Frankfort Cemetery was a burial ground for Frankfort's poor and enslaved people. But even within this population, archaeologists were able to identify differences. These differences had as much to do with people's economic standing as their ethnic heritage.

Based on this study, it appears that families of higher economic standing, regardless of ethnic heritage, preferred to bury their dead in the Cemetery's Upper Area. And while it is true that those of European descent had a greater chance of being interred in the Upper Area, people of African descent with the means to do so were buried there, too. Thus, within the Old Frankfort Cemetery, there was a measure of separation based on economic standing and ethnic heritage.

Other factors besides economics and ethnicity are likely represented within the Old Frankfort Cemetery's burial patterns, but they left behind signatures that are too faint for us to identify conclusively now. Sadly, we can never know all the stories these graves hold.

## A Place Remembered



One may legitimately ask: “How does a burial ground as large as the Old Frankfort Cemetery, for all practical purposes, become lost to history for almost 150 years?” “What led to the construction of buildings within and on top of the Cemetery shortly after it ceased to be an active burial ground?”

It is tempting to attribute these developments to the ethnic affinities and economic standing of those buried there. After all, most of the people were of African descent, and many undoubtedly had been enslaved. And regardless of their ethnic affiliation, all were relatively poor.

But this may be a rather simplistic answer.

In general, early to mid-nineteenth century cemetery records for Frankfort, as well as for other Kentucky communities, are rare to nonexistent. Communities did not keep death records until the early 1900s. So, for most nineteenth-century cemeteries, absent a headstone, there is no way to know who was buried in a particular grave. And after headstones have been removed, there is often little evidence on the landscape to indicate that a cemetery was once present. As land-use patterns change, a cemetery easily can become lost.

Reuse of cemetery locales for other purposes also may reflect different attitudes about these places. Today, people view cemeteries as the final resting places of their parents, grandparents, and friends. Even if they do not think of them as sacred places, people at least consider them deserving of a certain amount of civic respect. Maintenance of cemeteries as park-like spaces, where status is reflected in monumental markers, is more typical of the late nineteenth and twentieth centuries than the early to mid-nineteenth century. In the 1850s and 1860s, the long-term preservation and protection of cemeteries may not have been as important a social consideration as it is for us today.

Before the Civil War, cemeteries may have been viewed as burial grounds; places where the dead were interred. Nothing more. Nothing less. As such, upkeep and protection of a cemetery may not have been an important social consideration for the living. Graveyards may have been maintained for some unspecified amount of time, but as family members and relatives moved away, those who remained lost interest, and buried their dead elsewhere. In Frankfort, after 1844, most citizens buried their dead in the cemetery on the bluff overlooking the City.

That more than 60 percent of those buried in the Old Frankfort Cemetery were of African descent also may have contributed to its neglect. Not because the children and relatives who lived nearby could not afford to or had no desire to ensure its upkeep, but because many of them would have been sold to people living elsewhere. This would have taken them away from Frankfort, effectively removing them from the final resting place of their loved ones. Likewise, in the decades following the Civil War, Jim Crow laws may have forced many families of African descent to leave Frankfort, breaking their ties to the Cemetery.

Many of the people buried in the Old Frankfort Cemetery were born and raised in an urban environment. They would have experienced many of the problems that accompany the growth and industrialization of cities during the 1800s. The urban environment produced overcrowding. Lack of adequate sanitation, little access to clean water, and poor nutrition, taken together, made the urban environment of Frankfort unhealthy for the poor and enslaved. Those who used the Cemetery occupied the lowest rungs of society. As such, they did not share the same standard of living or social status as Frankfort's more affluent residents.

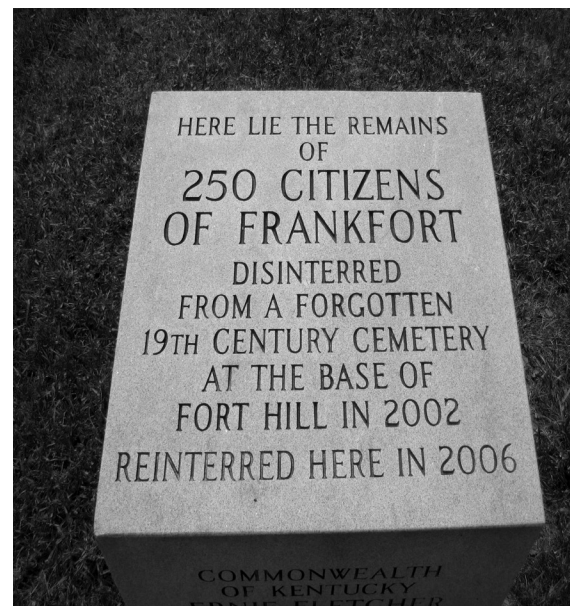
It is obvious from their skeletal remains that those buried within the Old Frankfort Cemetery had extremely poor health as children. As they grew to adulthood, their health probably did not improve greatly. As adults, they lived very hard and difficult lives, and worked for little or no pay. But while they may have been poor and enslaved, they took the time to care for those who passed away. Everyone at least was buried in a wooden coffin. Families carefully dressed their loved ones in perhaps their best clothes, and wrapped them in a shroud. They took care in arranging their arms and hands. As Burial 144 demonstrates, even with the difficulties associated with his cerebral palsy, his family cared for him.

This was an integrated cemetery. People of African, European, and mixed heritage were buried near each other. Starting out as a series of small burial plots, in time, the Old Frankfort Cemetery grew into a large neighborhood burial ground.

Differences within the Cemetery are reflected as much by economic standing as by ethnic heritage. For regardless of a person's ethnicity, people buried in the Upper Area were relatively better situated, financially, than those buried in the Lower Area. This is reflected by the greater variety of foods they ate, and by the amount of effort and resources families spent to line grave shafts and to use somewhat fancier coffins.

Through their investigation of the Old Frankfort Cemetery, archaeologists have begun to tell the stories of 242 men, women, and children who lived in Frankfort in the mid-nineteenth century. These people had been lost to history, but with this publication they will not be forgotten again.

In 2006, after a brief ceremony, their remains were reburied in Leslie Morris Park on top of Fort Hill. A small monument marks their graves (see above). Hopefully, they will continue to overlook Frankfort for the next 150 years, and longer.



**Above** This simple monument marks the final resting place for the people whose remains were discovered in 2002.

## If You Would Like To **READ MORE**

If you enjoyed reading this booklet, you might like to read more about the several topics it has covered. The Old Frankfort Cemetery research team suggests the following books to read about Kentucky history, historical archaeology, bio-anthropology, and American mortuary practices:

### **History**

*Capital on the Kentucky* by Carl Kramer (1986). Historic Frankfort, Inc., Frankfort.

*Community Memories: A Glimpse of African American Life in Frankfort, Kentucky* edited by Winona L. Fletcher, Shelia Mason Burton, James E. Wallace, and Douglas T. Boyd (2004). Kentucky Historical Society, Frankfort.

*Early Frankfort and Franklin County, 1750-1941* by Willard Rouse Jillson (1936). The Standard Printing Company, Frankfort.

*Frankfort Cemetery, the Westminster Abbey of Kentucky* by Russell Hatter, Nicky Hughes, and Gene Burch (2007). Frankfort Heritage Press, Inc., Frankfort.

*History of Blacks in Kentucky: From Slavery to Segregation 1760-1891* by Marion B. Lucas (2003). Kentucky Historical Society, Frankfort.

### **Historical Archaeology**

*In Small Things Forgotten: An Archaeology of Early American Life* by James Deetz (1996). Doubleday, New York.

*Kentucky Archaeology* edited by R. Barry Lewis (1994). University Press of Kentucky, Lexington.

*Unlocking the Past: Celebrating Historical Archaeology in North America* edited by LuAnn De Cunzo and John H. Jameson (2005). University Press of Florida, Gainesville.

### **Bio-Anthropology**

*The Bone Lady: Life as Forensic Anthropologist* by Mary Manheim (1999). Penguin Books, New York.

*Bone Voyage: A Journey in Forensic Anthropology* by Stanley Rhine (1998). University of New Mexico Press, Albuquerque.

*Dead Men Do Tell Tales* by W. Maples and Michael Browning (1994). Broadway Books, A Division of Random House, New York.

*Witnesses from the Grave: The Stories Bones Tell* by Christopher Joyce and Eric Stover (1992). Ballantine Books, New York.

### **American Mortuary Practices**

*Burial Terminology: A Guide for Researchers* by Roderick Sprague (2005). AltaMira Press, Lanham, Maryland.

*Death and Dying in Central Appalachia: Changing Attitudes and Practices* by James K. Crissman (1994). University of Illinois Press, Urbana.

*Cemeteries and Grave Markers: Voices of American Culture* edited by Richard E. Meyer (1989). Utah State University Press, Logan.

*History of American Funeral Home Directing* by Robert W. Habenstein and William M. Lamers (1955). National Funeral Directors Association, Milwaukee, Wisconsin.

*Mortuary Monuments and Burial Grounds of the Historic Period* by Harold Mytum (2004). Kluwer Academic/Plenum Publishers, New York.