INVESTIGATION OF THE PUTATIVE HUTTO CEMETERY AND THE RECOVERY OF A BURIAL, W.P. RAWL TRACT, LEXINGTON COUNTY, SOUTH CAROLINA

Chicora Research Contribution 564

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MANAGEMENT SUMMARY

In March 2014, W.P. Rawl and Sons was informed of a possible cemetery on a recently purchased parcel in the Pelion area of Lexington County. Local residents reported that at one time a marker existed for James Hutto, an 18-year old Confederate volunteer who died in Columbia shortly after his enlistment. There were, however, no visible signs of the cemetery and historic research was unable to identify a specific location for the burial ground. No evidence of the cemetery was identified during repeated visual inspections. As a result, plans were formulated to erect a memorial marker in a nearby church.

During subsequent clearing and plowing in August 2015, marble fragments were recovered and, when pieced together, matched the monument that had been reported. Work ceased and stripping was conducted by Chicora Foundation in an effort to identify the grave associated with this marker. A defined grave and coffin stain was found about 1.5 feet below grade. With this discovery the site was secured so that W.P. Rawl and Sons could begin the process of removing the grave.

By May 2015 the necessary permission had been obtained from the next of kin and Lexington County. The appropriate DHEC paperwork for disinterment-reinterment was obtained by the Barr-Price Funeral Home. The burial was again exposed and excavated. The remains were taken to the Chicora laboratory for analysis and then turned over to Barr-Price Funeral Home for eventual reburial.

This work revealed the presence of a male, between 23 and 45 years of age at death. While tall, between 5'9" and 6'1", the individual was of very small build, weighing between 140 and 150 pounds. He evidenced significant arthritic changes in the spine, probably the result of hard farm labor. He also experienced extensive tooth loss, likely related to poor hygiene and a carbohydrate rich diet. In addition, there is evidence that he suffered from a chronic lung disease, such as emphysema or bronchitis. There was no indication of cause of death.

The burial used a rectangular casket placed inside an outer box. Both were of pine. No hardware was present. Clothing items are limited to buttons, suggesting the individual was relatively impoverished. The remains fail to provide secure dating and we are only confident in dating Burial 1 to the last half of the nineteenth century.

Additional stripping reveals the presence of five additional graves that have not thus far been removed.

It is unlikely that the recovered individual is the 18 year old Confederate volunteer, although subsequent historic research suggests that the burials are all members of the Hutto family.

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The Project Location

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for W.P. Rawl and Sons, Inc. of Pelion, South Carolina. The work was conducted in several phases to explore and investigation a small family cemetery identified on a farm tract owned by Rawl Family Limited Partnership (TMS 009700-02-095).

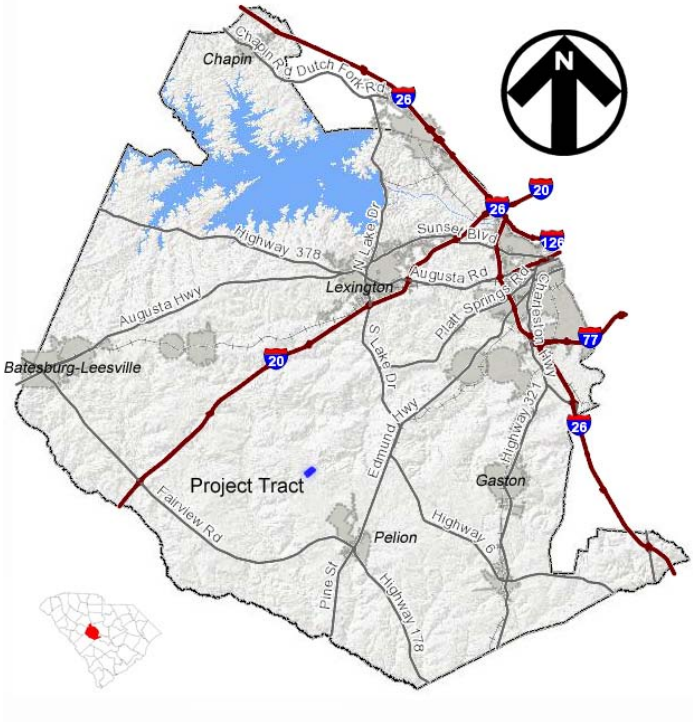

Figure 1. Location of the project tract in Lexington County, South Carolina.

The parcel is situated 11.8 miles south-southwest from Lexington and 4.8 miles northwest of Pelion. The field is situated on the northeast side of the Old Charleston Road, 0.56 mile northwest of its intersection with Florence Church Road.

This is an area of the Sandhills where the topography is gently rolling. Elevations range from about 488 feet above mean sea level (AMSL) at the southern edge of the tract on the Old Charleston Road to about 520 feet AMSL at the eastern edge bordering Windy Ridge Road.

The soils throughout the tract are Lakeland soils, undulating. These are found in the Sandhills and are formed in deep beds of marine sands. They have slow runoff, but are excessively drained and therefore often droughty. The A horizon, typically about 0. 2 foot in depth, is a very dark gray (10YR3/1) sand overlying a C1 horizon of yellowish-brown (10YR5/4) sand to a depth of 6 feet. Below this the C2 horizon is usually a yellowish-red (5YR5/8) sand. The soil pH ranges from 4.5 to 6, indicating that they are weakly acidic (Lawrence 1976).

Background

In the middle of March 2014 Chicora was notified by Charles Wingard of W.P. Rawl that local citizens had notified him of a cemetery thought to be located on a parcel his firm was converting to agricultural land. Meetings were held, revealing that Charles G. Taylor, Sr. recorded a single marble tabletstone in the early 1970s, although he also reported additional graves marked with fieldstones. In addition, Roy Gunter also reported visiting the cemetery in the early 1960s, providing a similar description.

Figure 2. Aerials of the project tract. The eventually discovered cemetery location is shown by the square. The upper image is from January 2012 and shows the field after the most recent logging. The lower image shows the field as it was being prepared for agricultural use in October 2014.

Most of the memories associated with the cemetery surrounded the marble stone which had been erected for James Hutto (1853-1861), a Confederate volunteer who died shortly after enlistment of malaria at a hospital in nearby Columbia. His body was apparently returned home for burial and the monument erected by his "late comrades" (Trinkley 2014a).

Aerial photographs and available maps were examined in an effort to find any additional clues concerning the location of the cemetery. A title search was also conducted in the hopes that there would be some mention of a cemetery. All of these actions were futile.

Thus, in spite of the memories and directions, it was not possible to identify the cemetery location since the property was extensively logged sometime between 2005 and 2010 (based in Google Earth images), and was likely logged earlier, likely sometime after visits in the 1960s and early 1970s. Both logging events occurred prior to acquisition of the property by W.P. Rawl in 2013.

Given the damage caused by logging, as well as the subsequent cleaning of the property by W.P. Rawl in anticipation of converting the logged woodlot into an agricultural field, there was little hope of identifying a small number of graves. The use of ground penetrating radar was discounted because of the extensive root systems and the damaged caused by grubbing and grading.

As a result, the outcome of the meeting was that a marker would be erected at the nearby location. This decision was agreeable to the individuals reporting the grave(s) and was concurred with by the Lexington County Sheriff's Department (Lieutenant Eric Russell, personal communication 2014).

In mid-August 2015 we received another call from W.P. Rawl, informing us that several marble fragments had been identified and collected during work in the field. A field visit was conducted and while the fragments were stacked in the field, we were told that they all came from an area about 10 feet in diameter. A small test unit excavated immediately north of the pile in order to examine the soil profile produced another marble fragment, about 0.6 foot below grade.

An area measuring 40 by 40 feet, centered on where these stone fragments were found was stripped to a depth of a foot, exposing yellow sand. While tree and root stains, as well as plow scars were found, there was no evidence of grave shafts. The work did, however, produce additional stone fragments so that a total of 14 tabletstone fragments and one footstone fragment were recovered (Figure 3). These allowed the inscription reported by Charles Taylor, Sr. to be confirmed, revealing that the fragments did represent the stone originally reported.

Figure 3. Fragments of the headstone recovered and pieced together. The footstone is in the foreground.

Most of breaks were found to be old and staining indicated that the monument had fallen and been covered for years, probably as a result of the one of the logging episodes.

Figure 4. Efforts to identify the grave associated with the marble monument. The upper photograph shows the use of a track hoe to open a 40 foot square block around the stone fragments. The lower photograph shows the identified grave stain and coffin outline.

An additional 0.5 foot was removed in the block, taking the excavations to a depth of 1.5 feet. Still no indication of a grave shaft was found. As a final effort a central trench was cut across the block to a depth of 2 feet.

It was only at this depth that the southern portion of a rectangular grave shaft with coffin wood was identified.

With the recovery of a stain that appeared to be in association with the marble monument several decisions were made and concurred with by all present, including the property owner and the Lexington County Sheriff's Department.

First, several options were discussed, including green spacing or fencing an area about 25 feet square, leaving the burial in place. We were told that this was not an option based on the location of the pivot (Trinkley 2014b:4).

As a result, a decision was made to pursue removal of the burial, with representatives of W.P. Rawl contacting Lexington County and a funeral home. Chicora would conduct the removal.

Second, the

potential for additional burials was discussed. The oral history reports indicated that there was the potential for additional unmarked graves. We did not, however, further explore the area for graves since opening a larger area would have required more efforts to protect whatever might be found and the time frame to authorize removals was uncertain.

Consequently, plastic and wood was used to secure the burial and W.P. Rawl began the process to allow removal of the one or more burials.

Burial Removal

In late April 2015 arrangements were made to open the site and remove the one known burial, as well as examine the area for any additional burials. Upon arrival it was discovered while permission for removal had been secured from Lexington County, no arrangements had been made to have a funeral home representative present (as required by state law), nor had the required DHEC disinterment-reinterment permits been completed. As a result, the proposed removal was delayed.

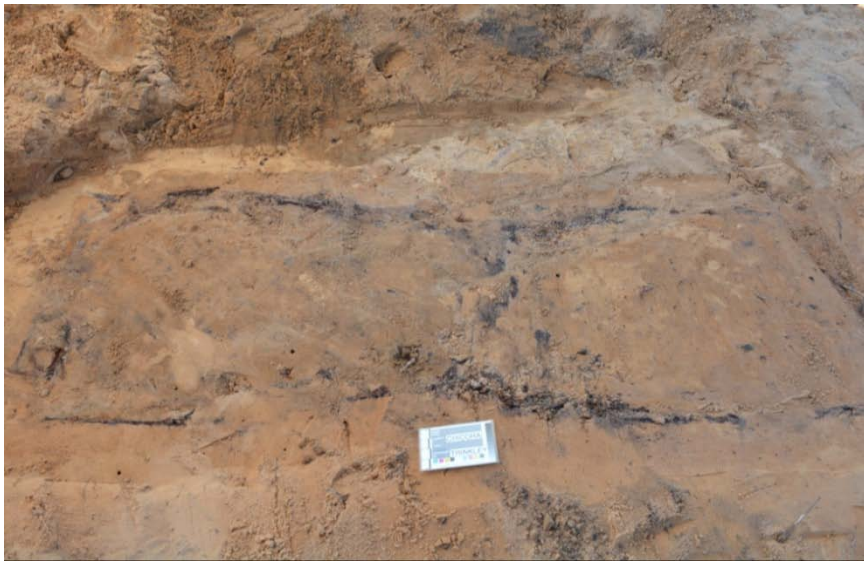

Figure 5. Exposure and removal of Burial 1 (top view is looking south).

By late May 2015 all of the necessary permits were acquired and we returned to the site on Monday, May 25 for the additional exploration and removal.

We no longer had access to a track hoe and only a tractor with a pan and a backhoe were available. The pan, while capable of keeping a very clean and level surface, was only able to remove perhaps an inch per pass. Unfortunately, the backhoe had a small bucket and proved ineffective at the control

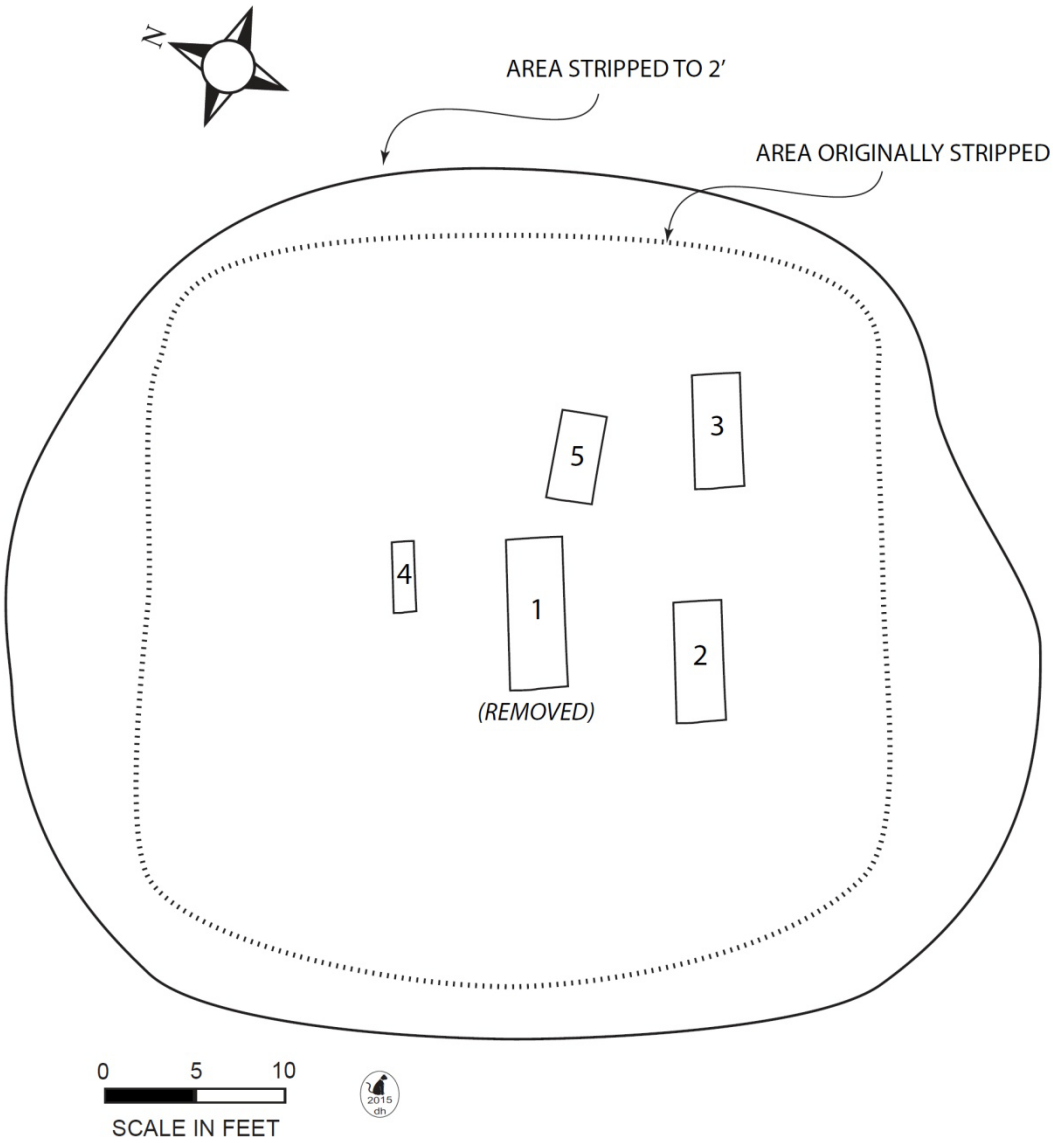

Figure 6. Burials identified at the putative Hutto family cemetery.

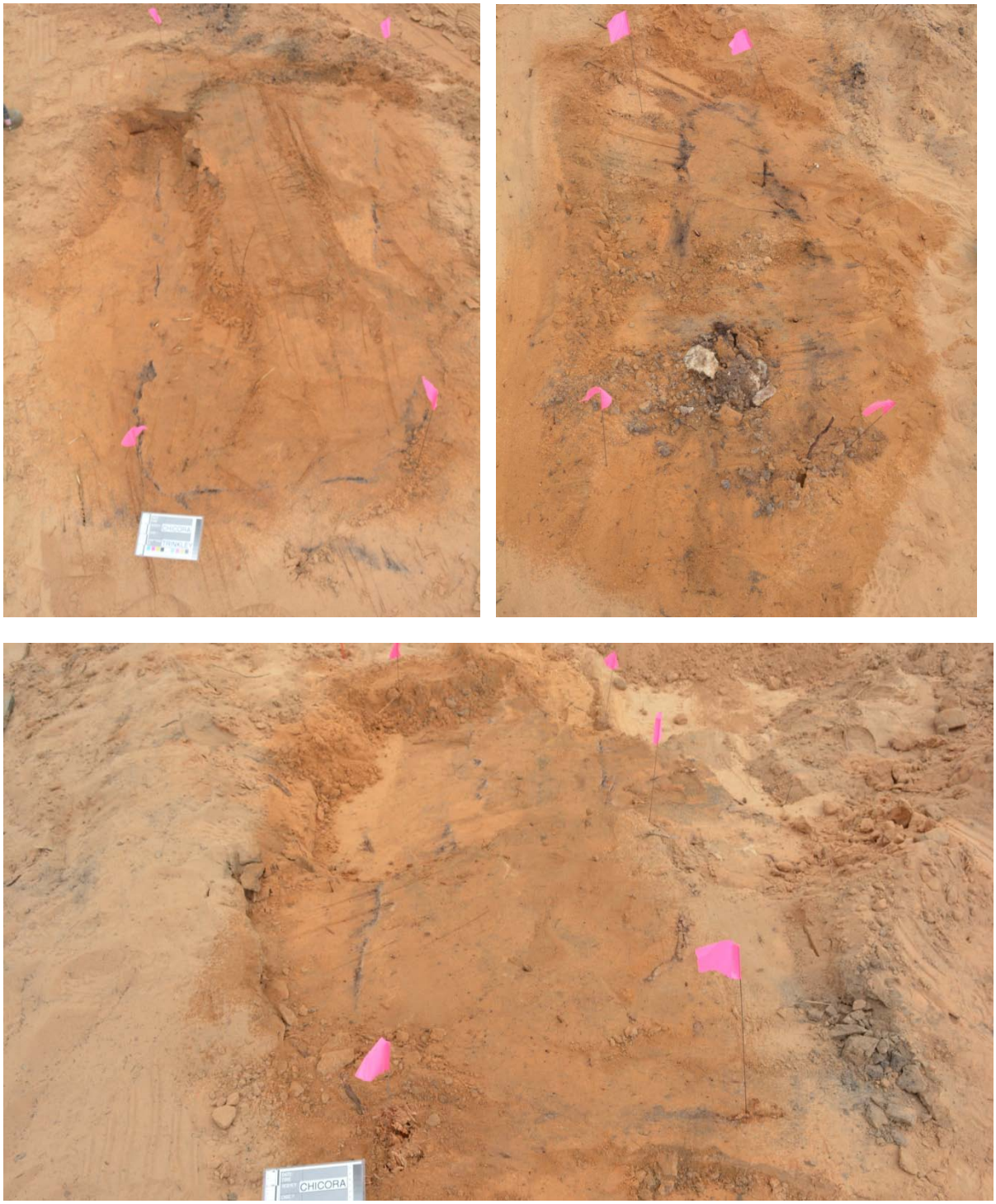

Figure 7. Additional burials encountered at the putative Hutto family cemetery. Upper left, Burial 2, upper right, Burial 4, Lower photo, Burial 3.

necessary for careful exposure of human remains. Consequently, a decision was made to remove the one known burial first, so that it would suffer no accidental damage.

The burial removal required several hours to fully expose the backfilled burial and prepare it for excavation. Excavation was conducted by Debi Hacker and Andrew Hyder under the supervision of Michael Trinkley. A total of 5 hours were required for the complete removal.

The decision was made not to strip any additional soil late on Monday since the discovery of additional burials would require the graves be protected overnight.

Returning Tuesday, May 26, an initial effort was again made to use the backhoe, but it did not allow the precision necessary and it became necessary to again resort to the pan. A series of cuts radiating outward from the known grave were made to the approximate depth of where excavation in Burial 1 began.

With this investigation, we identified three cuts that, while confusing, were eventually determined to be associated with the August 2014 stripping. However, during this work, we identified four additional burials, tightly clustered in an area measuring about 25 feet in diameter (Figure 6). One of these, a small child, was considerably shallower and the stripping resulted in slight damage to the skull. All of the burials, however, were recognized by distinct wood remnants.

Confronted with the presence of four additional burials to remove, the property owner chose to suspend removal. In addition, there was concern that the existing paperwork might not be appropriate for additional removals. The burials were covered with filter fabric and a small quantity of sand.

Historic Synopsis

Title Search

A title search was conducted by representatives of W.P. Rawl at our request. This work traced the property back to an 1877 sheriff's sale resulting from a court case demanding the partition of the lands of James Hutto, deceased.

Nevertheless, the 170 acre tract was sold to Elmore Hutto (Lexington County Register of Deeds, DB AA, pg 529). An Elmore C. Hutto is identified in the 1880 agricultural census as owning 187 acres of land in the Boiling Springs Township. Fifty of those acres were improved and the farm reported a value of $674 with an additional $70 in equipment and $220 in live stock (consisting of two horses, three milk cows, three additional cows, one calf, and 25 pigs). Production consisted primarily of corn and wheat. The five acres devoted to cotton produced a single bale.

We have not, however, been able to identify an Elmore Hutto in the federal census. In 1850 there was a 4 month old male listed to Daniel A. and Ann C. Hutto that another researcher suggests may have been Elmore, but the census lists the individual as not having a name at that time. It was not unusual to delay naming a child until it was certain they would survive. Providing collaboration, an Elmore Hutto is found in the 1860 census for the vicinity of Williamsons Mills in Lexington County. The parents are listed as D.A. and A.C. Hutto.

By 1918 the 170 acres was again being partitioned by the courts. Through uncertain derivation the property was owned by the Smith family. The court ordered sale resulted in James W. Roof acquiring the property (Lexington County Register of Deeds, DB 3M, pg. 173).

In 1945 the Cotton Oil Company, who held a mortgage on the property, sued James W. Roof for payment of debts. The 170 acres were again sold at public auction, this time to C.E. Jones (Lexington County Register of Deeds, DB 3M, page 258).

In 1951 the parcel, still identified as 170 acres) was sold by Jones to Jason W. Ballington, the first reference to this family owning the property (Lexington County Register of Deeds, DB 7F, page 407). By 1962 Ballington had died and the property was sold by his executors (John P. Ballington and J.W. Ballington, Jr.) to Amilee B. Waits (Lexington County Register of Deeds, DB 11F, pg. 120).

It was after this 1962 sale that the property was broken into two parcels and eventually acquired by W.P. Rawl.

The Marked Grave

Charles G. Taylor, Sr. reported a grave with a marble marker inscribed, "Sacred to the Memory of James Hutto / Born 3rd July, 1843 / Died in the service of his country October 9th, 1861 / This slight testimonial of esteem is reared to his / memory by his late comrades in armes [sic]. / The Jonhson [sic] Riflemen."

The first record of James Hutto appears to be the 1850 census for Lexington District when he is listed as 6 years old. The head of the household was Susanna Hutto, then 39 years old and listed as owning $700 in real estate. In addition to James, the household consisted of Martha A. Hutto (17), William Hutto (16 and listed as a farmer), Deborah Hutto (14), John Hutto (12), Jane Hutto (10), and Lucy Ann E. Hutto (2). This suggests that Susanna, by 1850, was a widow and was operating the family property on her own.

James is again listed in the 1860 census for the vicinity of Clark's Mills in Lexington County. At that time he is listed as 13 years old. This would place his birth around 1847, while the 1850 census age of 6 places his birth about 1844. The available census records do not resolve this issue, although the stone, listing a birth date of 1843 seems consistent with the 1850 census.

In any event, by 1860 the family consisted of Susan (previously Susanna) Hutto, now 50 years old, Deborah Hutto (now 23), Jane Hutto (now 19), and Lucy A. Hutto (now 11). Neither Martha nor William Hutto is listed; they may have established families on their own, although this had not been researched. Otherwise, all the ages are consistent with the earlier census except for James, suggesting a transcription error.

James Hutto enrolled September 10, 1861 at the Lexington County Court House as a private in Company K, 13th South Carolina Infantry. He died in a Columbia, South Carolina on October 9, 1861, apparently of "congestive chills," a term for malaria with diarrhea. Thus, his period of enlistment was just less than a month.

A letter from a Union soldier in New Orleans described the disease in a letter to his father:

> I have just recovered from a very severe sickness and had you seen me before it I hardly think that you would know me now, in four days I lost 40 pounds of good solid flesh, but am now getting quite stout again. I had what they call here "Congestive Chills" for two days the Surgeon gave me up, but by having an excellent constitution and first rate care, I came out first rate. I am very weak yet but hope in the course of a week to be up all straight (Letter from Frank Harding, August 4, 1863, Frank D. Harding Papers, University Archives and Area Research Center, University of Wisconsin-River Falls).

By 1870, the Hutto family consisted only of Susan Hutto, listed as 65 years old, Lucy A. Hutto (21), and Mary Jane Hutto (12). Thus, Susan is listed as older than suggested by the earlier census reports. In addition, the age of Mary Jane Hutto reveals that she is not the 19 year old Jane Hutto listed in the 1860 census. Although no relationship is specified in this census, it seems likely that she was a granddaughter of Susan.

The 1870 census reports that Susan was keeping house, suggesting that she was no longer farming. Lucy was listed as a domestic servant and Mary Jane was listed simply as "at home." Susan Hutto is reported to have had $50 in real estate and $50 in personal estate – suggesting very limited resources – and likely why Lucy was working outside the home.

In spite of this, the 1870 agricultural census lists Susannah Hutto as owning a farm with 60 improved acres and 340 acres of unimproved land, having a value of $1,000. The farm produced no cotton, but did yield corn, peas, and sweet potatoes.

Oral History

It appears that most of the oral history surrounding this parcel is incorrect.

For example, Charles G. Taylor, Sr., who initially reported the James Hutto burial location, noted that in addition to the one stone, there were an additional "seven unmarked graves" with at least "some" thought to be members of the Calvin Ballington family. The title research reveals that the Ballington family did not own the property until the second half of the twentieth century and then for just over a decade.

In contrast, Ballington (2007:142) reports that the family cemetery was on land of Killian and Oma Sox at 430 Sherwood Drive and the vicinity of SR 2768 and SR 1262. Today this property is owned by Judith S. and Robert L. Johnson (TMS 007400-03-045), who purchased it

from the Sox heirs in 1992 (Lexington County Register of Deeds, DB 2304, pg. 292).

Ballington (2007:143) also lists at least six graves in the cemetery, noting that two (Jeremiah Calvin Ballington, 1850-1933, and his wife Hulda Emaline Rish Ballington, 1853-1921) had been moved to Nazareth Lutheran Cemetery. In addition, he erected a chain link fence around the cemetery.

Consequently, it can be stated with some certainty that the burial ground at the W.P. Rawl property is not the Ballington Cemetery and that is almost certainly has no relationship to the nineteenth century Ballington family.

Summary

There is no indication that the property, or the cemetery, is in any way related to the Ballington family.

Instead, it seems likely that the identified burial ground is that of the Hutto family.

This is consistent with the title search that identifies the 170 acre tract being in the Hutto family during the early postbellum. It is also consistent with the one known burial from the property, that of James Hutto.

At this point, without additional research, for example focusing on probate records, much of the tract's early history is speculative.

There is a single Ancestry.com family tree that suggests Nicolas Hutto and Susanna Grubbs were married in Lexington about 1824, with Nicolas dying prior to the 1850 census. Susannah or Susan held the property through her death after 1870. It was apparently held for a few years by a James Hutto prior to his death, at which time it was sold at auction to Elmore Hutto. By the turn of the century it was in the hands of a Smith family.

With James Hutto being returned home for burial, it is possible that a family cemetery was already present on the Hutto lands. Thus it is not unexpected that burials in addition to that of James Hutto may be present.

Ruling out the Ballington family as being present at the cemetery, permission need only be obtained from Hutto descendants – as it has already for one burial – to allow all of the identified burials to be removed.

Burial 1

Burial 1 was thought to be that of James Hutto (1843-1861), based on the proximity of the grave to the recovered memorial fragments. Recovery of the remains therefore anticipated a young male, about 18 years at death. Analysis of the excavated remains, however, reveals a middle aged male exhibiting mild degenerative disease and heavy wear to his teeth. As a consequence, Burial 1 is most likely not that of James Hutto.

Field Procedures

As previously discussed, work began by stripping off the soil in order to fully expose the grave shaft outline and the coffin and/or box (see Figure 5).

A rectangular grave stain, measuring 7.5 by 3.0 feet, became visible at a depth of about 2.0 feet below grade. Evidence of wood staining was also clearly observed as a single stain about 0.1 to 0.2 foot within the grave outline. This container was found to measure about 7.0 feet in length and 2.4 feet in width. Remains of a horizontal batten to support the vertical boards of the coffin top was found at the east end and also in the middle. These were about 4-inches in width (likely representative of 1x4s). The middle of the coffin had collapsed inward, resulting in a "pinched" area, measuring only 1.8 foot in width. In addition, the southwest corner of the coffin had splayed outward during its decay (see Figure 8). Abundant nails were observed at this level.

No evidence of a grave arch (wood placed on ledges over the coffin in order to support the backfilled soil) was discovered. However, as excavation continued, it became apparent that the observed wood was that of a box, into which the coffin had been placed.

Soil surrounding the burial was a brownish yellow (10YR 6/8) sand. The soil within the burial was a yellowish brown (10YR 5/8) sandy loam.

Excavation revealed only 0.1 to 0.3 foot of fill between the top of the observed container and the presence of bone, revealing extensive collapse and compression of the soil. While this may be associated with the use of heavy equipment during logging, it is just as likely that the collapse is the result of the loose, friable sands.

The casket outline is oriented 63°. The base of the casket, consisting only of discolored sand (very dark grayish brown, 10YR 3/2) with no wood observed, was found about 0.05 foot below the bones.

The Outer Box and Coffin

The implication in Lang (1984:46-51) is that with the decline of more traditional hexagonal coffin shape there was a gradual introduction of rectangular caskets during the second half of the nineteenth century. This view is further supported by Davidson (1999:151-155) who believes the rectangular box, or casket, was grounded in aesthetics and was a component in the beautification of death movement (Davidson 1999:211).

Davidson notes that there are cemeteries where hexagonal coffins continued in use well after catalogs were dominated by rectangular casket forms. Thus, dating of a burial based on the container form is problematic. There can be several reasons for this, including cultural conservativism or parochialism (the desire to continue using old forms); undertakers passing on old, out of style stock to less savvy or less affluent customers; or a rectangular box was easier to make at home with limited skill and experience.

For example, in Davidson's study at the Freedman's Cemetery in Dallas, Texas, only hexagonal coffins were used through 1884. Rectangular caskets began to be more common, representing about two-thirds of the containers between 1885 and 1899.

Both the casket and the outer box of Burial 1 were rectangular. The casket appears to measure about 6.8 by 1.8 feet, while the outer box measured 7.3 by 2.4 feet. Wood fragments associated with both of these containers were identified as pine (*Pinus* sp.). Condition of the wood was heavily deteriorated so it was not possible to estimate the width of the timbers used except for the one cross brace previously discussed, which appears to be 1 by 4 inches.

Sources such as Habenstein and Lamers (1955:302) contend that "up to about 1875 the ordinary unfinished outside, or 'rough,' box [in which the casket was shipped] was buried simply to get rid of it." This may be the case, although the claim seems anecdotal at best.

Regardless, as late as 1903 the only simple pine boxes offered by a major company were intended only for outside use (National Casket Company 1903:46). In the 5-0 to 6-3 size range they cost $3.00 and an extra size cost $3.50. Boxes steadily increased, costing $6.00 in 1923 (Atlantic Coffin and Casket Company 1923:12) and $7.00 in 1932 (Milwaukee Casket Company 1932:9).

There was no coffin hardware associated with either the inner or outer boxes. The only artifacts recovered were machine cut nails. Identifiable sizes include four 8d (2½-inches) and 21 9d (2¾-inches). In addition there were 26 machine cut fragments and 58 unidentifiable fragments. Consequently, there were at least 51 nails associated with this casket.

Nails associated with burials from the Son Cemetery (Trinkley et al. 2011) range from 5d to 10d, so those from Burial 1 are within the anticipated range.

Machine cut nails can be distinguished from the earlier wrought nails by their taper on only two sides, rather than four (see Howard 1989:54; Nelson 1968). More detailed typological information (e.g., Wells 1998) cannot be determined given the condition of the specimens. These nails, with either hand-finished heads or machine-made heads were introduced around 1790 (Miller et al. 2000:14). While still available today, they were largely replaced by wire nails by about 1904 (Davidson 1999:155).

Clothing Remains

Clothing items consist of eight buttons, six of which were found in situ in the abdominal region. The remaining two buttons were recovered in screened fill.

Two of these buttons are white porcelain Prosser buttons, South's Type 23 (South 1964). Both have a diameter of 10mm (0.39 inch or 16 lines). This is slightly small for shirt buttons, but the location of one at the distal end of the left radius and ulna is suggestive of sleeve cuff buttons.

As Sprague observes, "the chronology of the development of the Prosser process has yet to offer any real help in dating any specific artifact other than to the century following 1840" (Sprague 2002:113).

Two buttons are two-hole black hard rubber forms measuring 19.2mm (0.75 inch or 30 lines). The front has a single circle design and the backstamp is "·N·R·Co·/Goodyear's P=T. 1851". This is a very common stamp for the Novelty Rubber Company, founded in 1853 and incorporated in 1855. It ceased production in 1886, but of course buttons would continue to circulate and be used. The Goodyear patent information is suggestive of a range between 1853 and 1872 when the patent lapsed (Luscomb 1967:91, 170-171).

These are slightly large for trouser buttons, but within the range for both jackets and overalls (Luscomb 1971). Nevertheless, their

location is consistent with trouser buttons.

Three buttons are a hard rubber with a two-hole "fish eye" design. They are similar to the Goodyear buttons, but the lack of a backstamp suggests either production after the lapse of the patent or the style was pirated. All three measure 15.3mm (0.6 inch or 24 lines). These are close to typical trouser buttons and this is consistent with their location.

The last button is a two-piece brass button with 4-holes. It is similar to South's Type 21 button (South 1964) except of course it is brass, not iron. South's Type 21 button is dated 1800-1865; whether brass specimens have a similar date range is unknown.

This button measured 17mm (0.67 inch or 27 lines). This size is appropriate for the trace or suspender attachment. There is, however, only one such button.

A small fragment of thread was found in this button. Preservation was very poor, but it appears to be cotton.

The last clothing item is a small textile fragment, preserved through contact with a nail. It is also cotton. Given the very fine thread count, it may also represent a casket lining.

These clothing items are consistent with a male. This mismatched buttons, the loss of brace buttons, and the lack of shirt buttons are all suggestive of considerable poverty. Only a post-1853 date is possible based on the clothing remains.

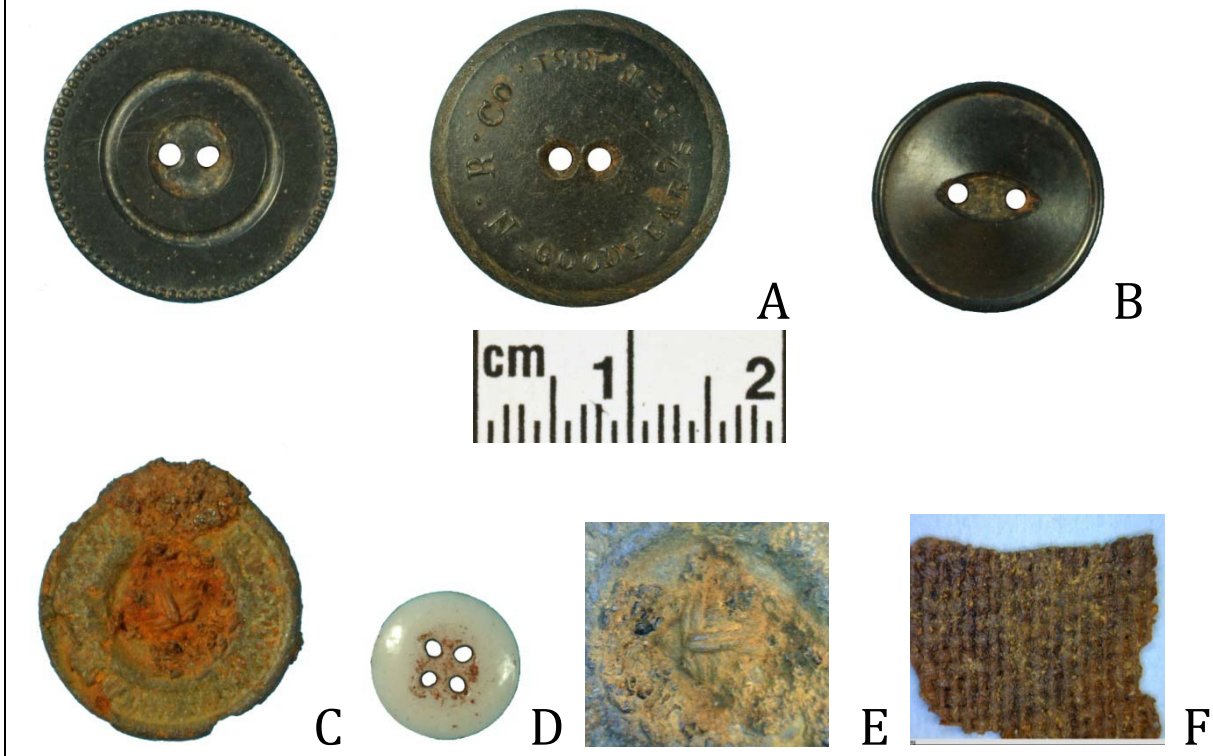

Figure 8. Buttons and fabric from Burial 1. A, front and reverse of the Goodyear's buttons; B, one of the black rubber fish eye buttons; C, probable suspender button; D, Prosser button; E, threads on the reverse of the probable suspender button; E, small fabric remnant from within the casket.

Human Remains

Burial 1 consisted of a partially intact skeleton and skull, in fair to poor condition. The skull was broken, warped and eroded, most long bones were fragmented and eroded, and many bones no longer were extant. All skeletal material was entwined with roots, diameters of 1.6 to 5.6 mm; some bones, especially the skull and one humerus, were covered with dense root matting.

Due to the fragmentation, warping, and loss of portions, few measurements of the skull were taken; therefore morphological indicators were also relied on for determination of ethnic background, sex and age.

Figure 9. Burial 1 exposed, looking west.

The left portion of the maxilla retained the distal area of the nasal aperture, which was narrow with a nasal sill, with a parabolic upper palate, indicating an individual of European descent. The maxilla and mandible were flat in profile, or orthognathous, also indicative of European descent (Bass 1995:88). The skull overall was gracile, with a small but square chin, small nuchal crest and mastoid process; the brow ridge and supraorbital ridges were prominent and the upper edges of the eye orbits were blunt, indicating this individual was probably male (Bass 1995: 88). The maximum diameters of the right and left femora were 48.2 and 47.4mm, respectively, indicating that this individual was likely male (Bass 1995:26).

Of the 34 possible cranial measurements, 13 were possible on this individual. These were entered into the Fordisc 3 program, which determined that this is likely a white male. The Fordisc 3 program also questioned the small size of his mandible, indicating his having a very small, narrow jaw in comparison to the size of the rest of his body. Of the 44 typical post cranial measurements, 12 were possible on this individual. Fordisc 3 determined an estimated stature of 5'9" to 6'1".

The cranial sutures are useful in estimating age at time of death. The sutures of the internal cranial vault of this individual were completely closed, the palate sutures minimally to significantly closed, while the external cranial vault sutures were open or minimally closed. These combinations indicate an age range of 23 to 45 years, with a mean age range of 31 to 36 years (Buikstra & Ubelaker 1994:38; Schwartz 2007:250).

The innominate, or pelvis, is the best indicator of sex, and is important in calculating age at death. Sadly, the innominate of this individual was fragmented and eroded, leaving no portions extant for aging purposes. However, the sciatic notch was extant on both left and right sides, and seemed wide and deep, indicating that this individual was female (Bass 1995:213; Ubelaker 1989: 54). However, given the extensive erosion, and the significance of other skeletal factors, both measured and non-metric, we will not put heavy emphasis on this factor.

It is important to examine all skeletal factors, both measured and non-metric, when determining the sex of an individual. While the accuracy of sexing based on a complete innominate can be 90%, observation of both innominate and cranium provides 95% accuracy (Walsh-Haney et.al. 1999: 20). The best determination of sex is achieved through DNA analysis.

By inserting the measurement of the femur head into formulae, the estimated weight of the individual is 139 to 151 pounds, quite a lean weight for a man of 5'9 to 6'1 height (Elliott et.al. 2015: np).

While the mandible and maxilla were in fragile, fragmented condition, the teeth were present, and all were permanent, or adult, dentition; all were straight and well formed, except for the upper left second incisor, which slightly overlapped the first incisor. The third molars, or wisdom teeth, were fully erupted, indicating an age of 21 to 35 years of age at death (Ubelaker 1978: 64). While this individual had normal dentition, many years prior to his death he lost two lower left molars ($18M_2$, $19M_3$), two lower right molars ($30M_1$, $31M_2$, $32M_3$) and an the upper right first premolar ($5P^1$), resulting in total bone resorption in the maxilla and mandible. He also lost the upper right second premolar ($4P^2$) closer to the time of death, as bone resorption had just begun. The remaining lower left third molar ($17M_3$), had tilted to the anterior, and wear planes on the posterior of the tooth indicate it was used for chewing against the upper left second molar.

There were remarkably few caries, or cavities, in the remaining teeth; caries were found on the occlusal surface of the upper right second and third molars ($1M^3$, $2M^2$), the interproximal surface of the upper left first incisor ($9I^1$; against the second incisor), the interproximal surfaces of the upper left second and third molars ($15M^2$, $16M^3$), and interproximal surfaces of the lower left premolars ($20P_2$, $21P_1$). While the upper right molar caries may have been painful, because the matching lower molars were gone, chewing could not have aggravated the pain. Conversely, the upper left molars, with very deep interproximal caries, would have caused considerable pain when chewing against the remaining lower left molar. It is interesting to note that all left side caries are interproximal, or touching other teeth, as opposed to occlusal or chewing surfaces, suggesting the development of caries due to food particles between the teeth.

Eleven of the fourteen upper teeth showed wear planes, with extensive wear on the first incisors, to the extent of exposed dentin. Nine of the eleven lower teeth also showed wear planes, matching the wear of the upper teeth, with extensive wear on all incisors, exposing dentin. These wear lines on the incisors suggest significant biting of food, perhaps necessary due to the loss of so many molars earlier in life.

Daily dental care appears not to have been part of his routine, as the upper teeth showed moderate amounts of dental calculus, or plaque, and the lower teeth showed a large amount of calculus, to the extent that the lingual portion of the incisors and right canine were totally covered in plaque. The right premolars were nearly totally covered on the lingual portion, while the left canine and premolars had only a small amount of calculus, again indicating that all chewing was done on the left side of the mouth, where the saliva and motion could more easily deter the growth of calculus.

A study of teeth of Civil War soldiers, Confederate and Union, aged 18 to 45 years, showed that 13% suffered molar loss, 15.8% suffered premolar caries, and none had dental

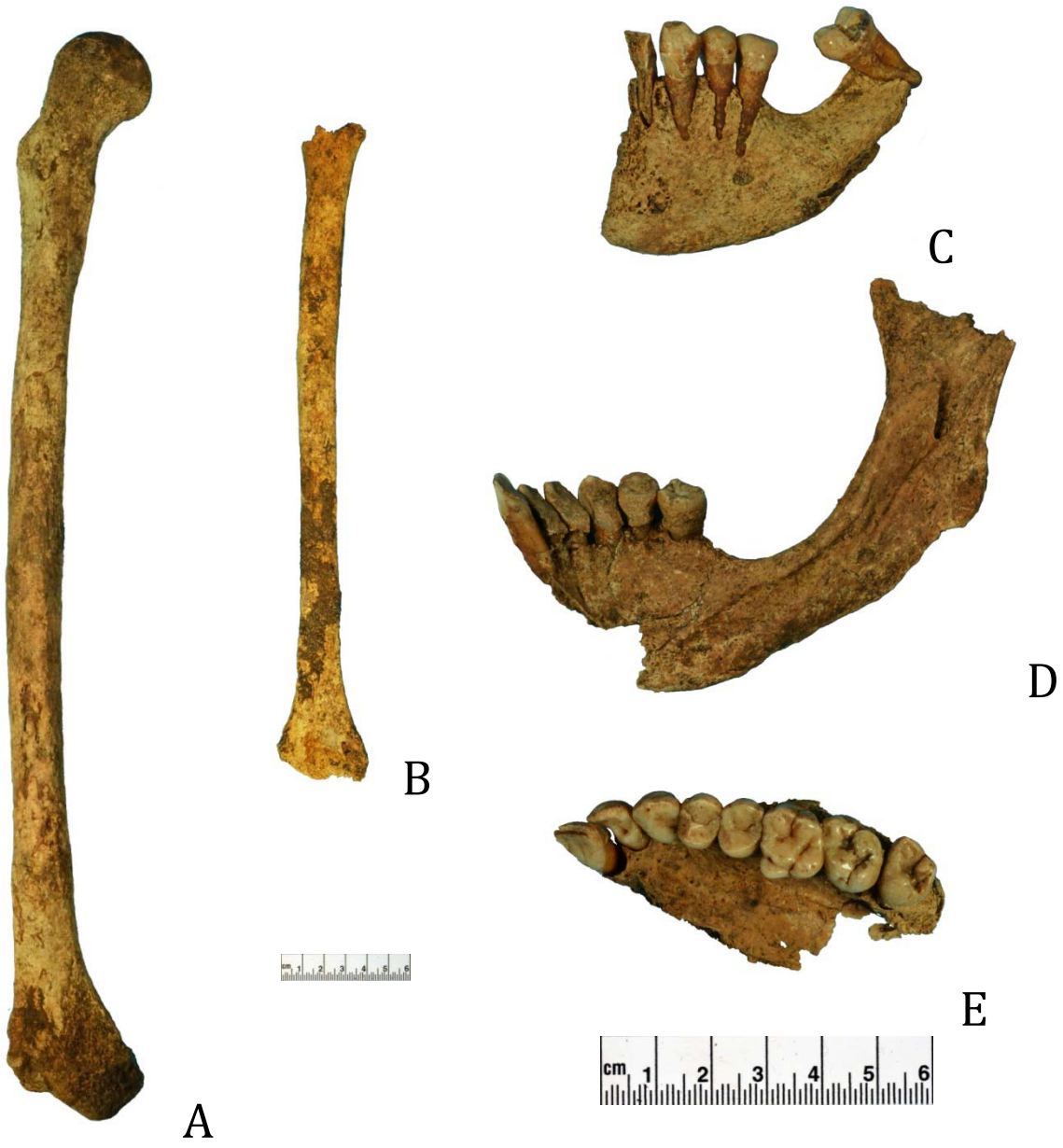

Figure 10. Burial 1. A, anterior view of right femur; B, anterior view of left humerus; C, exterior of left mandible; D, interior of right mandible; E, inferior view of left maxilla.

calculus on the incisors (Kelley & Larsen 1991: 218-220). The Burial 1 individual suffered from more dental disease, possibly due to nutrition based on processed grains and sugars, as well as poor hygiene. It is also important to note that in the Union Army, 5,230 of 225,188 recruits were rejected for service in 1865 due to tooth loss and poor dental hygiene (Kelley & Larson 1191: 221), possibly skewing these statistics.

All seven of the cervical vertebrae were extant, although crumbling and fragile. All except the atlas were pitted and osteophytic, indicating osteoarthritis (Aufderheide and Rodriguez-Martin 1998:97). Osteoarthritis is a slowly progressive condition, caused either by the aging process, or in this case, by "physiological wear and tear" (Ortner & Putschar 1985:419). Hard work would not be unusual for an adult male living and working in rural Lexington County in the nineteenth century. Only six fragments each of thoracic and lumbar vertebrae were recovered, and were too fragmented to provide information.

Of the six fragments of rib, two were identified as the first right and left rib and four were unidentified as to side or number. Two of these unidentified portions had a flowing, wavy osteophytic growth on the inferior body. These may be evidence of a chronic lung disease, such as emphysema, bronchitis or pleurisy, which caused pulmonary inflammation, eventually resulting in rib distortion (Aufderheide and Rodriguez-Martin 1998:264). It is also possible that these distortions were caused by tuberculosis (Anson et.al. 2012:62), although no other skeletal indicators of this disease were observed.

The remainder of skeletal material included the fragmented and eroded humeri, radii, ulnae, femora, patellae, tibiae, fibulae, calcanea, left scapula, and four metacarpals, as well as six grams of small unidentified bone fragments. While only 14 measurements were possible from these bones, all were examined for pathological conditions and indicators of increased musculature; none were observed.

This individual was likely a male of European descent, standing at a height of 5'9" to 6'1", weighing between 140 and 150 pounds, with a straight-toothed smile. Aged 23 to 45 years at death, he had serious tooth loss, decay and wear, very likely causing pain while eating; he also may have had a small jaw for a man his size. The spine showed significant arthritic changes for a man of this age, probably due to hard farm work. He may also have suffered from a chronic lung disease, such as emphysema or bronchitis. There was no indication of cause of death.

Conclusions

The Cemetery

Field investigations reveal the presence of five identifiable burials forming three rows. Four of these graves are approximately oriented about 60°; the fifth is oriented 85°. Each of the graves was only identifiable after removal of about 2 feet of soil. Extensive leaching in the sandy soils has largely removed evidence of the grave shaft and the graves were only identifiable once container wood was observed.

The burials are found in an area about 40 feet in diameter. Correlation with aerial photographs suggests this area was originally vegetated in hardwoods, but by the time of these investigations all vegetation had been removed.

Historic Documentation

The historic documentation is strongly suggestive that the identified burial ground is that of the Hutto family. This is based on a title search which documents the property in the hands of a James Hutto shortly after the Civil War and the recovery of a badly damage commercial marble headstone for James Hutto (1843-1861).

It is unfortunately impossible to take property ownership back further since all Lexington County court records (including both deeds and probate records) were destroyed by advancing Union troops in February 1865.

The property left the Hutto family at the beginning of the second decade of the twentieth century.

Census research identifies the Hutto family in this vicinity at least as early as 1850 when the family consisted of the head of the household, Susanna Hutto (b. 1811) and seven children. Susanna was apparently a widow and we have not been able to determine her husband or when he died (although it was after about 1847). Her children included Martha A. (b. 1833), William (b. 1834), Deborah (b. 1836), John (b. 1838), Jane (b. 1840), James (b. 1844 although the monument indicates a birth of 1843), and Lucy Ann (b. 1848).

By 1860, the family consisted of Susan/ Susanna, Deborah, Jane, James, and Lucy. There is no record of either Martha or William and they may have died or moved out to form their own families.

By 1870, the Hutto family consisted only of Susan, Lucy Ann, and a Mary Jane Hutto who is considerably younger than the Jane Hutto listed in 1860. Thus, she is likely a granddaughter of Susan. Although we know that James died in 1861, the whereabouts of Deborah and Jane is unknown.

Consequently, we have a very imperfect family tree for this family. In particular, we do not know if the James Hutto named on the stone is the same Hutto named in the court action to sell the property in 1877.

The Recovered Burial

Only one of the five identified burials has been removed. Because of its seeming association with the commercial marker, the burial was thought to be that of James Hutto who enlisted in the Confederate Army in September 1861 and died nearly a month later in a Columbia hospital of malaria. If this was correct, the individual would be no older than about 18 years.

The recovered burial represents an individual of European descent that was between 23 and 45 years of age at death. While tall,

between 5'9" and 6'1", he was of very small build, weighing between 140 and 150 pounds. He evidenced significant arthritic changes in the spine, probably the result of hard farm labor. He also experienced extensive tooth loss, likely related to poor hygiene and a carbohydrate rich diet. In addition, there is evidence that he suffered from a chronic lung disease, such as emphysema or bronchitis. There was no indication of cause of death.

Based on this information, the individual identified as Burial 1 is most likely not James Hutto.

The census data offer at least two additional possibilities. One is that these remains represent Susanna's husband, who may have around 39 at his death (although we don't know precisely when he died).

Alternatively, it may be that this individual is William Hutto, a brother of James who drops out of the census between 1850 and 1860. If William did die during this period he might have been around 26 years old – within the possible range for Burial 1.

Only aDNA studies might resolve this issue, since Susanna's husband would not possess the same maternal DNA as Susanna and her children.

Status and Date of the Burial

The burial is suggestive of a relatively impoverished individual. The container is a very simple pine box placed in an outer pine box. Only machine cut nails were used for both containers and there are no handles on either box or other burial hardware. There is also no evidence of any lining or other textiles associated with the casket.

Clothing remains are equally sparse. There is no evidence of shoes. Pants are suggested by buttons, although they are mismatched. Only one of the four suspender or brace buttons was on the pants. Evidence of a shirt is limited to two porcelain buttons. There is no evidence of a jacket. These remains are suggestive of an individual of very limited means.

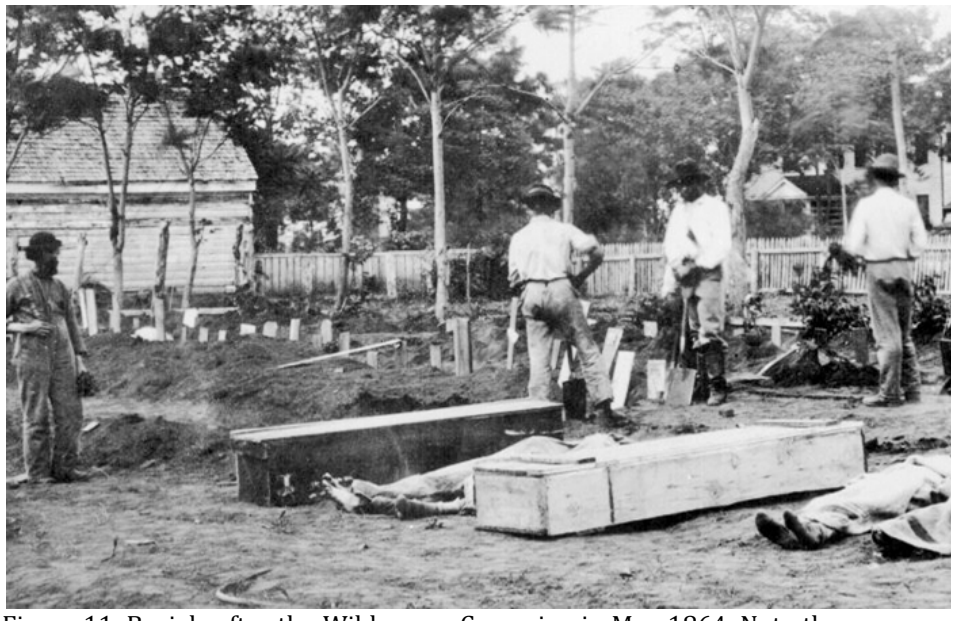

Figure 11. Burials after the Wilderness Campaign in May 1864. Note the presence of several rectangular boxes (National Archives, 111-B-4817).

Based on the presence of the Goodyear buttons, the burial had to occur after 1851 and the presence of Novelty Rubber Company buttons indicates a date after 1853. The use of a rectangular box might be suggestive of a later date, perhaps in the last several decades of the nineteenth century. There are, however, images of such containers being used during the Civil War (Figure 11). Faust (2008:89-91) also

provides several Civil War accounts of family members being forced to find local carpenters to build containers for bodies they wished to remove home. Thus, the shape of the burial container provides little assistance in dating a burial.

We are only confident in dating Burial 1 to the last half of the nineteenth century.

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Appendix 1. Skeletal Data

All of the following forms are adapted from Burkstra and Ubelaker (1994).

INVENTORY RECORDING FORM FOR COMPLETE SKELETONS

Site Name/Number Rawl Farm / _____ Observer D. Hacker

Feature/Burial Number Burial 1 / _____ Date May 27, 2015

Burial/Skeleton Number Individual A / _____

Present Location of Collection Re-interred

CRANIAL BONES AND JOINT SURFACES

	L(left)	R(right)		L	R
Frontal	1	2	Sphenoid	-	-
Parietal	3	1	Zygomatic	-	-
Occipital	2	2	Maxilla	2	2
Temporal	3	3	Palatine	3	3
TMJ	1	-	Mandible	2	2

POSTCRANIAL BONES AND JOINT SURFACES

	L	R		L	R
Clavicle	-	-	Os Coxae		
Scapula			Ilium	3	3
Body	3	-	Ischium	2	2
Glenoid f.	3	-	Pubis	-	-
Patella	1	1	Acetabulum	1	2
Sacrum	-	-	Auric. Surface	3	3

VERTEBRAE (individual)

	Centrum	Neural Arch
C1	1	1
C2	1	1
C7	1	-
T10	-	-
T11	-	-
T12	-	-
L1	1	-
L2	1	-
L3	1	-
L4	1	-
L5	1	-

VERTEBRAE (grouped)

#Present/# Complete

	Centra	Neural Arches
C3-6	4 / 0	- / -
T1-T9	4 / 0	- / -

Sternum: Manubrium - Body -

RIBS (individual)

	L	R
1st	2	3
2nd	-	-
11th	-	-
12th	-	-

RIBS (grouped)

#Present/# Complete

	L	R	Unsided
3-10	- / -	- / -	3 / 0

Series/Burial/Skeleton Individual A

Observer/Date Burial 1

LONG BONES

	Proximal Epiphysis	Diaphysis: Proximal Third	Diaphysis: Middle Third	Diaphysis: Distal Third	Distal Epiphysis
Left Humerus	-	-	-	-	3
Right Humerus	2	1	1	1	2
Left Radius	3	3	3	3	3
Right Radius	3	-	-	-	-
Left Ulna	2	1	-	-	-
Right Ulna	2	-	-	-	-
Left Femur	1	1	1	1	2
Right Femur	1	2	1	1	2
Left Tibia	3	1	1	1	2
Right Tibia	3	1	-	-	2
Left Fibula	-	-	-	-	3
Right Fibula	-	3	-	-	-
Left Talus					
Right Talus					
Left Calcaneus					
Right Calcaneus					

HAND (# Present/# Complete)

	L	R	Unsided
# Carpals	- / -	- / -	- / -
#Metacarpals	- / -	- / -	4 / 0
#Phalanges	- / -	- / -	- / -

FOOT (# Present/# Complete)

	L	R	Unsided
#Tarsals	1 / 0	1 / 0	- / -
#Metatarsals	- / -	- / -	- / -
#Phalanges	- / -	- / -	- / -

Comments:

CRANIAL AND POSTCRANIAL MEASUREMENT RECORDING FORM: ADULT REMAINS

Site Name/Number Rawl Farm / _____ Observer D. Hacker

Feature/Burial Number Burial 1 / _____ Date May 27, 2015

Burial/Skeleton Number Individual A / _____

Present Location of Collection Re-interred

Record all measurements to the nearest millimeter; in the case of bilateral measurements, take measurement on the left side. If right side is substituted, place an (R) next to the the measurement.
If bones are fragmented, measurements should not be taken, but dimensions should be estimated for minor erosion or reconstruction; identify these with an asterisk"*"

Cranial Measurements

1. Maximum Cranial Length: 181
2. Maximum Cranial Breadth: 140
3. Bizygomatic Diameter: 0
4. Basion-Bregma Height: 147
5. Cranial Base Length: 144
6. Basion-Prosthion Length: 0
7. Maxillo-Alveolar Breadth: 0
8. Maxillo-Alveolar Length: 53.6*
9. Biauricular Breadth: 0
10. Upper Facial Height: 69.0*
11. Minimum Frontal Breadth: 0
12. Upper Facial Breadth: 0
13. Nasal Height: 49.3*
14. Nasal Breadth: 29.2*
15. Orbital Breadth: 0
16. Orbital Height: 0
17. Biorbital Breadth: 0
18. Interorbital Breadth: 18.9
19. Frontal Chord: 112.5
20. Parietal Chord: 107.6
21. Occipital Chord: 0
22. Foramen Magnum Length: 0
23. Foramen Magnum Breadth: 27.6
24. Mastoid Length: 27.1*
25. Chin Height 31.1
26. Height of the Mandibular Body: 30.7
27. Breadth of the Mandibular Body: 8.2
28. Bigonial Width: 0
29. Bicondylar Breadth: 0
30. Minimum Ramus Breadth: 19.6
31. Maximum Ramus Breadth: 37.0
32. Maximum Ramus Height: 0
33. Mandibular Length: 81.7*
34. Mandibular Angle: 0

Series/Burial/Skeleton Burial 1

Observer/Date Hacker / May 27, 2015

Record all measurements to the nearest millimeter; in the case of bilateral measurements, take measurement on the left side. If right side is substituted, place an (R) next to the the measurement.
If bones are fragmented, measurements should not be taken, but dimensions should be estimated for minor erosion or reconstruction; identify these with an asterisk"*"

Postcranial Measurements

35. Clavicle: Maximum Length: -
36. Clavicle: Ant.-Post. Diameter at Midshaft: -
37. Clavicle: Sup.-Inf. Diameter at Midshaft: -
38. Scapula: Height: -
39. Scapula: Breadth: -
40. Humerus: Maximum Length: 335*
41. Humerus: Epicondylar Breadth: 42.2*
42. Humerus: Vertical Diameter of Head: -
43. Humerus: Maximum Diameter at Midshaft: 18.6
44. Humerus: Minimum Diameter at Midshaft: 15.2
45. Radius: Maximum Length: 234*
46. Radius: Anterior-Posterior Diameter at Midshaft : -
47. Radius: Medial-Lateral Diameter at Midshaft: 9.1
48. Ulna: Maximum Length: 235*
49. Ulna: Anterior-Posterior Diameter: -
50. Ulna: Medial-Lateral Diameter: -
51. Ulna: Physiological Length: -
52. Ulna: Minimum Circumference: -
53. Sacrum: Anterior Length: -
54. Sacrum: Anterior Superior Breadth: -
55. Sacrum: Max. Transverse Diameter of Base: -
56. Os Coxae: Height: -
57. Os Coxae: Iliac Breadth: -
58. Os Coxae: Pubis Length: -
59. Os Coxae: Ischium Length: -
60. Femur: Maximum Length: 498*
61. Femur: Bicondylar Length: -
62. Femur: Epicondylar Breadth: -
63. Femur: Maximum Diameter of the Femur Head: 46.3
64. Femur: Ant.-Post. Subtrochanteric Diameter: 23.8
65. Femur: Medial-Lateral Subtrochanteric Diameter: 24.4
66. Femur: Anterior-Posterior Midshaft Diameter: 25.2
67. Femur: Medial-Lateral Midshaft Diameter: 24.3
68. Femur: Midshaft Circumference: 78.0
69. Tibia: Length: 407*
70. Tibia: Maximum Proximal Epiphyseal Breadth: -
71. Tibia: Maximum Distal Epiphyseal Breadth: -
72. Tibia: Max. Diameter at the Nutrient Foramen: 30.3
73. Tibia: Med.-Lat. Diameter at Nutrient Foramen: 18.9
74. Tibia: Circumference at the Nutrient Foramen: 8.0
75. Fibula: Maximum Length: -
76. Fibula: Maximum Diameter at Midshaft: -
77. Calcaneus: Maximum Length: -
78. Calcaneus: Middle Breadth: -

DENTAL INVENTORY RECORDING FORM
DEVELOPMENT, WEAR, AND PATHOLOGY: PERMANENT TEETH

Site Name/Number Rawl Farm / _____ Observer D. Hacker

Feature/Burial Number Burial 1 / _____ Date May 27, 2015

Burial/Skeleton Number _____ / _____

Present Location of Collection Re-interred

Tooth presence and development: code 1-8. For teeth entered as "1" (present, but not in occlusion), record stage of crown/root formation under "Development." **Occlusal surface wear:** use left teeth, following Smith (1984) for anterior teeth (code 1-8) and Scott (1979) for molars (code 0-10). If marked asymmetry is present, record both sides. Record each molar quadrant separate in the spaces provided (+) and the total for all four quadrants under "Total." **Caries:** code each carious lesion separately (1-7); **Abscesses:** code location (1-2). **Calculus:** code 0-3, 9. Note surface affected (buccal/labial or lingual).

		Tooth Presence	Development	Wear /Total		Caries			Abscess	Calculus/Affected	
Maxillary Right	1 M^3	2	14	1/1/3/2	7	1	1			1	b/l
	2 M^2	2	14	1/1/2/3	7	1	1			2	b/l
	3 M^1	2	14	1/1/3/3	8					1	b/l
	4 P^2	4	14							1	l
	5 P^1	4	14							1	l
	6 C	2	14	1	1					1	l
	7 I^2	2	14	1	1					1	l
	8 I^1	2	14	3	3					1	l
Maxillary Left	9 I^1	2	14	3	3	2					
	10 I^2	2	14	1	1					1	l
	11 C	2	14	1	1					1	l
	12 P^1	2	14	3	3					1	l
	13 P^2	2	14	3	3					1	l
	14 M^1	2	14	3/3/4/4	14					1	b/l
	15 M^2	2	14	3/3/3/3/3	12	2				2	b/l
	16 M^3	14	14	1/1/1/1	4	2				2	l

Series/Burial/Skeleton Burial 1

Observer/Date Hacker / 5-27-2015

	Tooth	Presence	Development	Wear /Total		Caries			Abscess	Calculus/Affected	
Mandibular Left	17 M_3	2	14	4/3/2/2	11					1	1
	18 M_2	4	14								
	19 M_1	4	14			2	2				
	20 P_2	2	14	2	2	2					
	21 P_1	2	14	2	2						
	22 C	2	14	3	3					1	1
	23 I_2	2	14	4	4					2	1
	24 I_1	2	14	3	3					3	1
Mandibular Right	25 I_1	2	14	4	4					3	1
	26 I_2	2	14	4	4					3	1
	27 C	2	14	1	1					3	1
	28 P_1	2	14	1	1					3	1
	29 P_2	2	14	3	3					3	1
	30 M_1	4	14								
	31 M_2	4	14								
	32 M_3	4	14								

Estimated dental age (juveniles only)_____

Supernumerary Teeth:	Position between teeth	Location (1 - 4)	Position between teeth	Location (1 - 4)	Position between teeth	Location (1 - 4)
	____/____	_____	____/____	_____	____/____	_____
	____/____	_____	____/____	_____	____/____	_____

Comments:

Caribelli's Trait on Maxilla, Left & Right, stage 5

DENTAL MEASUREMENTS AND MORPHOLOGY RECORDING FORM

Site Name/Number Rawl Farm / _____ Observer D. Hacker

Feature/Burial Number _____ / _____ Date May 27, 2015

Burial/Skeleton Number Individual A / _____

Present Location of Collection Re-interred

Dental Measurements

Record left side of arcade only; substitute antimere when left not observable.

Maxilla

Tooth	I^1	I^2	C	PM^1	PM^2	M^1	M^2	M^3
Mesiodistal diameter	8.3	6.5	8.3	6.9	7.1	10.9	10.4	9.1
Buccolingual diameter	7.1	7.4	10.0	9.6	10.3	11.7	12.5	11.7
Crown height	10.3	10.6	10.8	9.3	8.3	7.4	7.3	7.4

Mandible

Tooth	M_3	M_2	M_1	PM_2	PM_1	C	I_2	I_1
Mesiodistal diameter	11.5	-	-	8.2	7.2	7.3	5.1	5.5
Buccolingual diameter	10.6	-	-	9.1	8.1	7.1	5.1	5.6
Crown height	6.7	-	-	6.9	6.4	9.3	7.1*	10.2

Appendix 2. Preliminary Data Concerning Burial 4

Skeletal remains of Burial 4 were exposed by machinery and were examined in situ. Five fragments of skull were identified, portions of the occipital, left frontal, left temporal, right maxilla, and left mandible. All bone fragments were in poor condition and extremely fragile.

The maxilla and mandible fragments yielded the most information, as six deciduous teeth were still in place, and could be identified. Three additional teeth had been displaced post-mortem, but were identified. All teeth were mottled tan and brown in color, but were complete. Because tooth enamel is the hardest material in the human body, the teeth remain in good condition in comparison to the bone (Baker et.al. 2005: 53).

The right maxillary teeth included the first incisor ($55i^1$), canine (53c), and first molar ($52m^1$). The second incisor ($54i^2$) and second molar ($51m^2$) were lost postmortem. There were two caries, or cavities, located on the proximal, or touching, surfaces of the canine and first molar; these may have been painful when chewing on that side. Two molars had been lost postmortem, but were near the skull and identified as the left first and second maxillary molars ($59m^1$, $60m^2$). No associated bone was seen.

There was no evidence of the right mandible, but the left mandible retained four teeth, the first incisor (651_1), canine (63c), and both molars ($62m_1$, $61m_2$).The second incisor ($64i_2$) was lost postmortem. Three caries were identified on the smooth buccal surfaces of the canine and first molar. There was a wear line exposing dentin on the occlusal surface of the first incisor.

While there was a significant wear line on the lower left first incisor, yet none on the right upper first incisor, the implication is that there was more biting use of the teeth on the left side. The right teeth had two interproximal cavities, usually caused by the deposition of food between the teeth; however, the left teeth had three cavities located on the smooth surfaces of the canine and first molar, indicative of food being held between the cheek and teeth. With children this is often associated with the holding of hard candy, or other high sugar or carbohydrate food, in the cheek (Roberts & Manchester 2005: 65).

The maxilla also showed the crown of the first right incisor ($8I^1$) still located in the crypt above the deciduous incisor, unerupted. The crown of one deciduous molar, otherwise unidentified, was found loose in the soil; it had no root development, indicating that it was also unerupted at death. Based on the developmental stages of these teeth, the estimated age of death of this juvenile is five years (±16 months), with an age range of 3½ to 6½ years (Buikstra & Ubelaker 1994: 51; El-Nofely & Iscan 1989: 249).

The individual located in Burial 4 was a child aged between 3½ to 6½ years at death. Future examination of post cranial skeletal material may narrow this age range, as well as indicating health and nutritional status. Tooth wear shows that this child may have used the left side of the mouth for biting and chewing, probably due to the pain on the right side caused by cavities. The child may also have been accustomed to holding candy, inside the left cheek. Whether the child was male or female cannot be determined by skeletal material, as prior to late puberty, all skeletal markers are the same (Baker

et.al 2005: 10; Buikstra & Ubelaker 1994: 16). Determination of racial origin is based on adult skull characteristics; these characteristics are not seen on juvenile skulls (Bass 1995: 86). At this point in time, only aDNA testing can determine sex and racial origin.

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