

# Preserving History Through Archaeology



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## GWINNETT ARCHAEOLOGY BULLETIN

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### New Archaeological Endeavor

The Gwinnett Archaeological Research Society (GARS) has embarked on a new research project: recordation of the old Hill's Mill site in northeastern Gwinnett County. The site is located on the Apalachee River in Gwinnett and Barrow Counties. The project is under the direction of GARS President, Anne Dorland, who is a Georgia Archaeologist employed by New South Associates. The license agreement with Gwinnett County was arranged by former GARS Archaeological Advisor, Jim D'Angelo, in July 2018, but high water along the Apalachee River made it difficult to access the site.



The site was originally owned by Joshua Hill, an ancestor of members Wayne and Eli Stancel, who together led Ann and a small team to the site in June 2020, where partial clearing of greenbrier (nature's barbed-wire) allowed recordation of surface features as well as limited shovel testing and metal detection. A second visit is being planned. You will find Anne's preliminary

report covering this work on Page 4.

Joshua Hill's mill dates to at least 1818, though probably earlier. Eventually, in 1866 ownership of the mill passed to Dr. S. H. Freeman who operated the mill with help from Joshua Hill. We do not know when it was abandoned, but details about the mill's operation were included in the Manufacturing Schedule of the 1889 Non-population Census. Because another mill, operated by W. Scott Freeman on the Alcovy River, was known as Freeman's Mill. (The site that GARS is recording became known as "the old Freeman Mill.") See Eli Stancel's article

on Page 3 for more historical background.

Actually, it was "Freemans Mills" because, as the Manufacturing Schedule indicates, S. H. Freeman was operating two "tub mills" there. In another article on Page 5 Jim D'Angelo discusses the information in Manufacturing Schedule and about tub mills. ■ JJD

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# Thanks, Doc!

Article by Leslie Perry, FDF Vice President

On a sunny Saturday in late May on the grounds of Fort Daniel Dr. James D'Angelo was presented with an appreciation award plaque by the members of the Fort Daniel Foundation (FDF) Board and the FDF Events Planning Committee. Jim has recently “retired” as President and Founder of the Fort Daniel Foundation after a long, successful term of office. His planning, leadership, and focus has established Fort Daniel as an important historic presence in Gwinnett County.

Both FDF and Gwinnett Archaeological Research Society (GARS) wish to publicly thank Dr. Jim D'Angelo for his important contributions to local and state history. ■ LP



## Fort Daniel News

- **Volunteers Needed:** Planning for the upcoming Frontier Faire has begun! Volunteers are needed to help—especially a person to reenact General Daniel. Be thinking this summer about how you as a member of GARS and FDF will participate in the Faire—either setting up, living history, and digging. Please see the flyer below for more Faire details. Additionally, volunteers keep track of your hours spent working for and at Fort Daniel. We turn those over to FDF Treasurer, Betty Warbington, at the end of the year for county purposes.
- **Officer Opening:** When Dr. D'Angelo stepped down as President, he left a vacancy. The position of President for FDF is still open. If you know someone or think that you would like to take on the mantle, please email FDF Vice President, [Leslie Perry](#).

A flyer for the 12th Annual Frontier Faire. The background is a historical map of the Cherokee territory. The text is centered and reads: 'Frontier Border' in a red script font, followed by '12th Annual Frontier Faire' in a bold black serif font, 'Saturday, October 17, 2020\*' in a bold black serif font, 'Rain Date: Saturday, October 24, 2020' in a smaller black serif font, '10AM-4PM' in a bold black serif font, 'Fort Daniel Historic Site' in a bold black serif font, '(2505 Braselton Highway/GA 124, Buford)' in a smaller black serif font, 'FREE Admission' in a bold black serif font, and '★ Public Archaeology ★ Fort Daniel Museum ★ Demonstrations' in a bold black serif font. At the bottom, it says 'Due to COVID-19 social distancing and other CDC guidelines will be observed. For information visit www.thefortdanielfoundation.org.'

# Historical Background of Hill's Mill

Article by Eli Stancel, FDF Board of Directors Member

The Apalachee River has been a key component of the historical and cultural fabric of Georgia prior to the introduction of European settlers. Since it originates astride the Eastern Continental Divide, the ridge was a common pathway for the Muscogee Creek and Cherokee, and its headwaters and course served as the boundary for the United States in the 1790 Treaty of New York. During the War of 1812, a series of blockhouses were erected along its eastern bank, and when Gwinnett county was surveyed in 1818, it served as the dividing line between the new lottery survey and the older Patterson survey. The 1818 survey is one of the first references to a mill on the Apalachee near what is now a boundary marker between Gwinnett and Barrow Counties.

Actually, the Apalachee was the western boundary of Franklin County when it was formed in 1784. Basil Jones—whose 1786 7300-acre land grant and another parcel he claimed to have surveyed himself, and which was sold to James Paterson in the 1890s—was either ignorant of this treaty boundary or intentionally ignored it; thus including lands on the Native American side of the Apalachee River.

The location of the site was commonly known among many local family traditions but has only recently been solidly documented. Surveyor H. Luckie recorded land lot 335 of the 5<sup>th</sup> District on August 1819 along the banks of the Apalachee River. Although he was surveying the land west of the river, he noted two items on the eastern bank: Berry Branch and Hill's Mill. A review of the GIS database of Gwinnett County marks this lot as near CSX Railroad's Palmer yard between Dacula and Auburn. Additionally, the valuation maps of the Seaboard Railroad (a predecessor of CSX) identifies the district and land lot. The CSX maps also record the owner of the adjoining property to their lines, and, in the case of the mill site, they list S. H. Freeman. The Gwinnett Historical Society houses a collection of old deeds found in a basement of one of the Freeman's houses. From this collection it is possible to trace the ownership of the site which was known to have been in operation as late as the 1930s.

Dr. S. H. Freeman bought the surrounding land and mill pond in two separate transactions from Mr. Betts and Cupp, who had purchased the land from Joshua Hill Sr. Joshua Hill Sr. purchased the land from his brother, Edward Hill. How Edward obtained the land is not currently known. [Dr. Freeman's mill on the Apalachee is not to be confused with a nearby mill, Freeman's Mill on the Alcovy. That mill was built by the Loveless family and eventually obtained by distant relatives of Dr. Freeman. Its history is recorded in the documentation used to place it on the National Register of Historic Places.]

Dr. Freeman's Mill on the Apalachee was a tub-style mill with two tubs according to the 1880 manufacturing census. Each tub was probably connected to a set of mill stones: one for corn and course grains and one for wheat and fine grains. Dr. Freeman's father, William Freeman, states in his pension file for War of 1812 service that in 1871 he was working at his son's mill on the Apalachee grinding oats. In the *Gwinnett Herald* in 1890, Dr Freeman advertised the mill for sale stating that it had a "fine rock dam that was 24 years old."

The site is listed on the original charter description of Barrow County where its boundary is listed as "at Freeman's Mill, old site." The mill also is featured as a backdrop in several court cases in the 1870s and 1880s in Gwinnett County. One of those cases mentions a cemetery supposed to be in the area that has not been firmly documented or identified. Although we have the land survey with an 1819 documentation of the site, there is one other item that makes the site even older, William Crawford's pension file. Mr. Crawford served several tours of duty during the War of 1812, but it was his final one that is most revealing. He mentions that in the first part of the year of 1815 while serving in the local militia detachment he was involved in a fight with Native Americans "at Hill's Mill on the Apalachee."

Given the unique role the Apalachee plays in the early Federal Period, the robust structure of the dam, and the historical significance of a local skirmish, the site is one worthy of investigation. ■ ES

# Cultural Resource Management: Hill's Mill

Article by Anne Dorland, GARS President

On Saturday June 13 a group of GARS members and volunteers led by Anne Dorland—who included Eli Stancel, Wayne Stancel, William Stancel, Jude Stancel, Sam Titshaw, David Titshaw, Tyler Holman, Greg Beaver, and Travis Duncan—conducted an archaeological investigation of the Hill's Mill site. This site contains both a homestead and a stone mill dam. The mill dam was constructed in 1866. Artifacts recovered from the homestead indicate that the site was occupied through the mid-20th century. The Apalachee River runs roughly east to west in the southern site area. The mill dam extends across the river, but only the northern portion was documented during the June 13 investigation. The homestead is situated 50 meters north of the dam on a rise directly west of Berry's Branch and east of a powerline corridor.

Field efforts included clearing vegetation to expose above-ground features (*pictured left*), photography, mapping, metal detecting, and judgmental shovel testing. A sketch map of the site was drawn showing features associated with the homestead and the mill dam. Two judgmental shovel tests were excavated in the vicinity of the mill dam, but no artifacts were recovered. These tests revealed deep, sandy deposits. A window was excavated along the southeastern edge of the mill dam near its conjecture with the Apalachee River. A cross section showing the dam construction was revealed, photographed, and mapped. This cross section indicated that the mill dam consisted of granite and gneiss shaped slabs overlying concrete blocks. The construction is the work of a master and the feature retains excellent integrity.



Metal detecting and surface collection produced an assemblage of 14 artifacts. These artifacts include iron, brass, unidentified metal, ceramic, and glass items. The iron artifacts consist of a spike nail, a railroad spike, a mule bit, a hoe blade, a buckle, and a kettle. Brass items consist of a pocket watch plate, harmonica reed plate, and small box. Pearlware and whiteware make up the ceramics. Two concentrations of glass bottles (*pictured right*) were identified at the homestead: One clear bottle with “55 New England Distillers Inc. 5” embossed on the base and one cobalt bottle with “RDNO 35 M DESIGN PAT 97178 2” embossed on the base were collected.



We plan to return in Fall 2020 to conduct additional fieldwork at Hill's Mill. Proposed work involves shovel testing to define the site boundaries, detailed mapping of the mill dam, and test unit excavation (*like the one pictured left*) to gain more information about the site chronology, function, and inhabitants. The goal of the proposed work is to answer research questions on the relationship between Hill's Mill and contemporaneous sites of the area and the function of tub mills during Reconstruction-era Georgia. ■ AD

# What Is a Tub Mill?

Article by Dr. Jim D'Angelo, GAB Contributing Editor

The Manufacturing Schedule in the Non-population Census of 1880 lists three grist mills in Gwinnett's 316th Military District: S. H. Freeman—operating a “Tub” on the Oconee (i.e.; the Apalachee); Cosby Perry—operating an “Overshot” on the Apalachee; and William Parks—operating a “Turbine” on the Mulberry. The schedule indicates that Freeman, who had purchased the Hill's Mill site (see Eli Stancel's historical background of the Hill's Mill site on Page 3) was operating three “tubs” that were each 3.5 feet in diameter and that the “height of the fall”—the difference in height between the head race and tail race water surfaces—was 12 feet. This height (also known as “head”) along with flow rate gives the potential energy of the wheel in horsepower. However, it also tells the archaeologist that the floor of the tail race is about 12 feet below the height of the highwater level at the dam.

The water wheels most people associate with old grist mills are variations on the vertical wheel such as those illustrated on the right (adapted from [Wikipedia](https://en.wikipedia.org/wiki/Water_wheel)). These would be: A) the “stream wheel” or a primitive variation known as the flutter wheel that was common on portable platform saw mills in the 18th and 19th century; B) the “undershot wheel;” C) the “breast wheel;” and D) the “Overshot Wheel” or similar E) “backshot” or “pitchback” wheel .

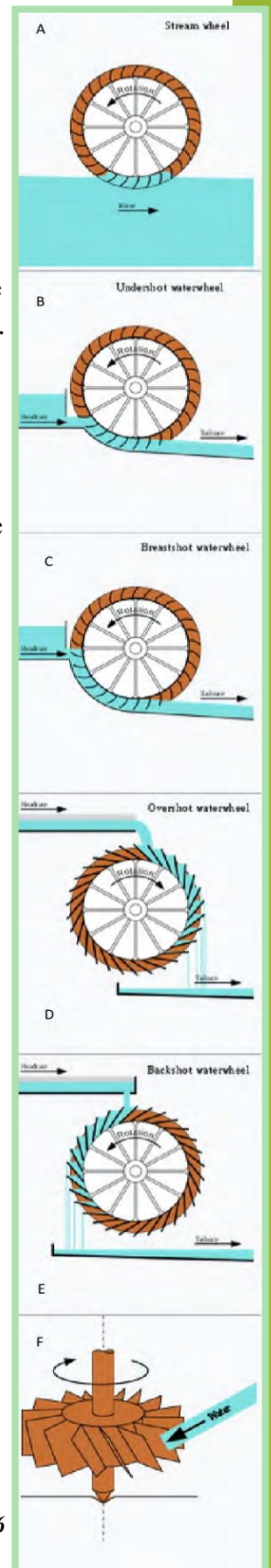
As with many traditions of the frontier in the South, the tub mill was one the Scots-Irish people brought from the English Isles. However, these probably derived from Norse tub wheels. Both the tub mill and the water turbine are classified as a “Vertical Axis” water mills (see “F” on right). According to Donald B. Ball, who has studied these in Southern Appalachia, “They were particularly well suited for use in low flow streams and geographically isolated areas.” [See: *Notes on the Use of Tubmills in Southern Appalachia* by Donald B. Ball, *Material Culture*, Vol. 40, No. 2 (Fall 2008), p. 3.]

Typical frontier tub mills like the Junglebrook Tub Mill, Gatlinburg, Tennessee, (pictured below) had smaller, horizontal wooden wheels. Water from a flume or raceway would be funneled into this wheel creating a vortex that spun the wheel. The millstones were on the other (upper) end of the shaft (pictured on Page 6). By the end of the 19th century these mills were more sophisticated, but the principles of the operation were the same.



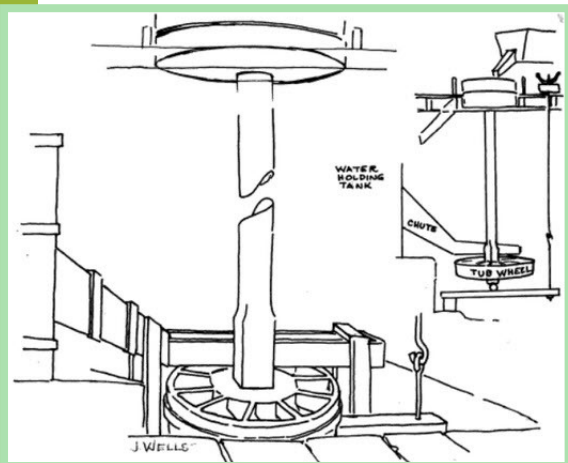
As illustrated in the sketch, this wheel was carved from a solid popular tree round!

continued on Page 6



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This illustration by J. Wells (original source unknown) shows how a simple tub mill operates: Water from the pond or stream is delivered to the blades of the tub *via* a *sluice*, which in turn spins a shaft, at the top of which are two stones, the base or *bedstone*, which is stationary, and upper, turning, *runner stone* which actually does the grinding. The inset illustrates both stones with the *hopper* and *slipper*, which feeds grain into a hole in the center of the runner stone. The milled grain—wheat or maize—is collected as it emerges from the rim of the stones.



According to the 1880 Manufacturing Schedules for Gwinnett County, there are two grist and flour mills operating with Tub mills: Freeman's at noted above and a flour mill (the name of

which is illegible) on the Yellow River in District 1118. Like Freeman's, this mill operated three tubs—each having a diameter of 3 feet. The “fall” in this case was only 7 feet. All other recorded grist and flour mills in Gwinnett used overshot wheels or turbines.

For an idea of what the archaeological remains of these 1880-era tub mills may look like see the photos below of the Ross Mill (9Pm239) excavations in Putnam County, which was excavated by the University of Georgia in 1978. The excavations were historic salvage archeology conducted as part of the Wallace Reservoir Project [University of Georgia Laboratory of Archaeology Series Report Number 84, “The Power of Water: Four Early Mill sites on Georgia's Oconee River,” prepared for Georgia Power Company Atlanta, by Kay Wood, 1992.]



*Pictured left:* View NW of excavation of Ross raceway before flume and tub wheel encounters [Fig 36 in UGA Lab Series 84]. Note depth below surface. *Pictured right:* View South of two large tub mill installations offset on the raceway, with bases of two additional tubs along the raceway [Fig 38 in UGA Lab Series 84].

While the present archaeological survey of the Hill/Freeman mill site will not include excavations beyond routine shovel testing, the study should be able to address the potential for significant intact, buried deposits similar those at the Ross site. Then it would be up to the County if they want to study the site further. ■ JJD

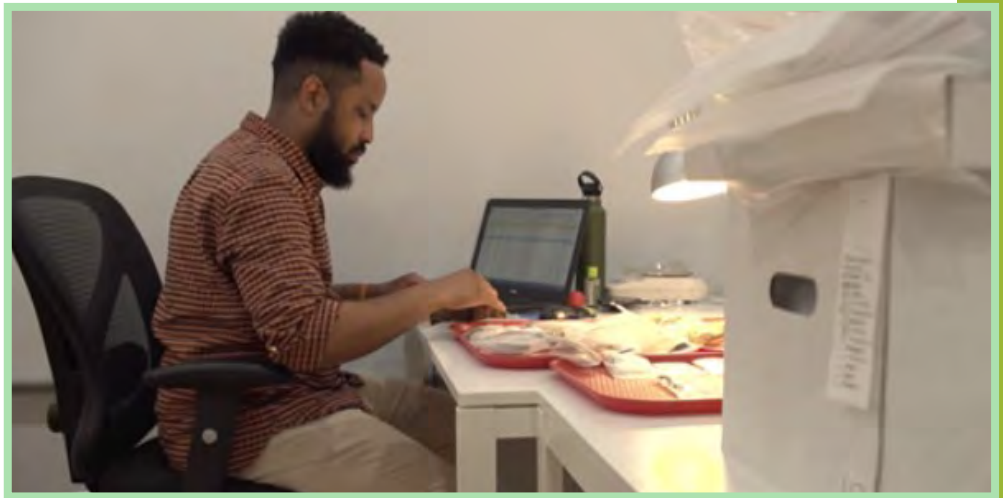
# Program Trains Military Veterans in Archaeology

Excerpt from an article written by Maya Rodriguez featured on [The Denver Channel Web site](#) on June 29, 2020

Within a quiet lab are scattered fragments of America's storied past. "I never thought I'd be doing anything like this," said Kenneth McNeill, an eight-year veteran of the US Air Force. He also spent three years in the reserves and now is a part of the [Veterans Curation Program](#), which provides training in archiving and archaeology.

In the lab, though, the past is never out of reach. The artifacts come from the US Army Corps of Engineers, who discovered the items at sites across the country during the excavation and construction of major projects, like dams and canals. "The Army Corps of Engineers had a need for people to do this curation work and the veterans have a need to find work and gain new skills and feel comfortable getting back into the workforce," said Sarah Janesko, administrator of the Veterans Curation Program.

The lab spaces are provided around the country by [New South Associates](#), a company which specializes in archaeology and partnered with the Army Corps to train the veterans. "They feel like they're part of this larger mission to preserve our history and the cultural materials that come with it," Janesko said. In just over 10 years the Army Corps said the program has trained nearly 700 veterans: with 72% of them landing permanent jobs—some with the Smithsonian and National Park Service—while another 19% have gone on to further their studies in college.



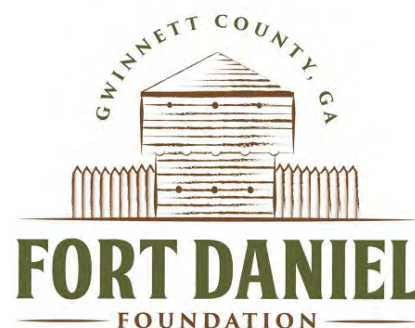
"It also gives us a sense of purpose, which is something I think veterans sometimes need when they separate from the military," McNeill said. "We live in an area that has a lot of history to it. So, it's good that we are helping restore some of these things." All of this is happening while they gain new skills along with a deeper appreciation of the past. ■ TDC

## MEMBERSHIP FEES ARE DUE:

If you would like to join or renew your GARS membership, please contact [Delana Gilmore](#); and for FDF membership please contact [Cindy Horsley](#).



# Preserving History Through Archaeology



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## Archaeological Work Underway near God's Acre Cemetery

Excerpt from an article written by Ben Benton featured on [The Chattanooga Times Free Press Web site](#) on July 11, 2020

Thanks to an upcoming state bridge replacement project in Murray County, Georgia, archaeologists are excavating near the historic sites known as God's Acre Cemetery and Springplace Moravian Mission. Archaeologists have been excavating along the roadside east of Chatsworth since early June—two weeks after ground-penetrating radar (GPR) and a magnetometer (which detects metal) were used to determine where signs of human activity were present underground. They have been working to recover artifacts before construction starts later this year.

Patty McMahon, field director for New South Associates, said that they have only a short time left to finish excavating the sites before findings are turned over to the Georgia Department of Transportation (GDOT). GDOT contracted New South for the work as part of the National Historic Preservation Act requirements to build on historic sites.



"We're [excavating] on the historic Moravian Mission to the Cherokee at Spring Place and that is listed on the National Register of Historic Places. We also did some work over at the Chief Vann House across the way,"

McMahon said with a wave north as she stood alongside fellow archaeologist, field technician Katherine Parker, who was practically upside down scraping away red clay from the side of a small pit, called the "wall," to prepare it to be photographed.

"They're both important listed sites and there's no way to avoid them during the road improvements, and portions of the site are going to be destroyed, so GDOT contracted us to excavate as much as we can beforehand so we can get all the information put into a report and do some interpretive stuff, as well," McMahon said. That "information" consists of artifacts of human culture. ■ TCT

### GARS OFFICERS

[www.thegars.org](http://www.thegars.org)

President: Anne Dorland  
Vice President: Jenna Tran  
Secretary/Treasurer: Delana Gilmore

To keep up with the latest digs and activities from GARS follow us on [Facebook](#) and [Instagram](#).

### FDF OFFICERS

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