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The Big Spring of Huntsville

Sara Etheline Bounds

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The Big Spring of Huntsville was a focal point for almost every phase of development in early Madison County. It was a major factor in determining such aspects of Huntsville as the location of the city itself, the direction of its streets, and the installation of one of the first public waterworks in the United States.

In addition to the Big Spring, other large springs in Madison County include Braham, Bird, and Woolley Springs. The area surrounding Huntsville is, in fact, known for its numerous springs of pure limestone water. Such springs are scattered over Madison County, but most are located in the southwestern quarter of the country. These springs flow from hills or bluffs, and come out as deep well-like holes or springs which cover an area to form a pond. In whatever they occur, they run off as large creeks. The Big Spring of Huntsville is typical of these springs in its form, though it does have certain unusual features.

Two of these distinctions are the composition of the bluff and the temperature of the water. The bluff above the spring is about fifty feet high, and is composed mainly of cherty limestone, with the large portion of chert or quartz lying in irregular seams. The water, which flows from under the bluff, has a temperature in June of 60.8 degrees, while the air has a temperature of 80.6 degrees F.[1] According to a boastful Huntsville newspaper of 1884, tests proved the water to be several degrees colder than any other spring in the United States.[2]

Though the Huntsville Big Spring resembles the large springs in the Tennessee Valley, it does not furnish as much water as some. The big spring in Tuscumbia, probably the largest in North Alabama, runs off over one thousand cubic feet of water per minute.[3] The Big Spring of Huntsville flows at eight hundred cubic feet per minute, or about twenty four million gallons a day.[4] The Huntsville Big Spring was adequate, however, to completely supply the water required for Huntsville until 1957. It even furnished its own power for pumping, and

enough water for a canal to float cotton boats to the Tennessee River.

The Big Spring was known by this same name to the Cherokee and Chickasaw Indians of the region. The spring not only furnished life-sustaining water for the Indians, but also watered the teeming wild life area toward the Tennessee River. The two Indian tribes thus declared the tract a joint hunting ground for deer, bear, ducks, wild turkeys, and fish.

In searching for a big spring, John Hunt, one of the founders of Huntsville, came to North Alabama from Tennessee. In the fall of 1804, Hunt and a companion, David Bean, came to the Great Bend area of the Tennessee River to locate a large spring for a settlement nearby. While on their journey, they spent a night at the Joseph Criner cabin on the Flint River. Their host probably gave them directions to the Huntsville Big Spring. After finding the Big Spring and constructing a cabin near its banks for John Hunt, the two men returned to their homes. In the spring of 1805, John Hunt brought his family from East Tennessee to their new home. Those who soon followed Hunt also settled around the spring and formed the squatter community of Hunt's Spring and later Huntsville.

The Hunt family and others residing near the Big Spring quickly encountered a difficult problem with rattlesnakes. A large number of snakes lived in the crevices of the spring bluff. The dangerous situation was partly solved by hollowing out canes, filling them with gunpowder, thrusting them into the rocks, and then igniting the powder. The repeated blasts caused the retreat of the snakes to other cave-like crevices.

Before the United States government land sales for the North Alabama region in 1809, John Hunt made an application as squatter to purchase two hundred acres in the immediate area of Huntsville. He failed, however, to pay the necessary cash required to hold the land, which included the Big Spring. At the government land sales, Hunt signed papers for a section of land containing another spring. Due to poor financial management, he was again unable to make the payments, and the

land reverted to the United States Government.[5]

The first person to actually purchase the Big Spring was Martin Beaty of Lee County, Virginia. On July 11, 1808, Beaty paid one thousand dollars for a square of a thousand acres. He bought the land from Zachariah Cox, a grantor of the Tennessee Land Company of 1795, a private land company with doubtful jurisdiction to sell the land.[6] Years later and after much confusion over land titles, Beaty reached a compromise with the United States Government and relinquished his claim to the land and the Big Spring.

Several hundred people lived near the Big Spring by 1809. Many were concentrated on the land extending eastward from the spring to a knoll, later named Pope's Hill and then Echols Hill. Settlements were also made southward from the spring along a trail, now Whitesburg Drive, to Ditto's Landing on the Tennessee River. The Madison County population in 1809 included 2,223 persons and 322 slaves, with 353 heads of families.[7] Numerous people had evidently scattered into the Indian lands, despite orders to wait until the official land sales.

The Government Land Office in Nashville, Tennessee, was the scene of sharp competition for the southwest quarter of section thirty-six, township three, range one west, or the section containing the Big Spring.[8] On August 25, 1809, LeRoy Pope got the prize by paying $23.52 per acre.[9] The price was four times the amount paid for any other land in the county. The sections adjoining the Big Spring only brought from two to four dollars per acre. Pope bought four quarter sections in all, the other sections lying north, east, and west of the spring section.

LeRoy Pope purchased this particular land hoping to have the county seat established on a portion of it. The Territorial Legislature appointed a five-man commission in December of 1809 to choose the seat. Even though the geographical center of the county was nearer Meridianville, the commissioners selected a location near the Big Spring. The decision was certainly influenced by the commissioners living near the Big Spring, and by a pledge from LeRoy Pope to deed thirty acres for the town site.[10]

As promised, Pope and his wife deeded the acreage to the city commissioners for $750. He still controlled the Big Spring because he retained that portion of the land for himself. Pope did, however, promise the citizens of Huntsville free use of the water, in return Pope requiring access to the spring be maintained. He also stipulated no dams or machinery could be built at the spring that might harm the quality of the water and endanger the health of the population.[11]

While the town site was being surveyed, the streets were plotted to run in a rather peculiar direction. Instead of following a true north, south, east, and west direction, they were set thirty-four degrees north of west from the true meridian. This unusual arrangement was chosen so the spring and bluff would be left in a square without crowding the adjoining building lots. Jefferson Street was the first street to run parallel to the line of the bluff, with all the others conforming to it.[12]

Water transportation improvements for Huntsville centered around the Big Spring. From an early date, the abundance of water in the semicircle pond at the headwaters of the spring and the stream or branch from the spring encouraged dreams of a canal to the Tennessee River. The realization of the dream began when the Indian Creek Navigation Company was chartered in 1820, under the direction of LeRoy Pope, Thomas Fearn, Stephen S. Ewing, Henry Cook, and Samuel Hazard.[13]

The drive for canal construction, led by Doctor Thomas Fearn, president of the company, generally met with an enthusiastic response from the Huntsville citizens. Knowledge that the proposed canal could furnish an easy method for shipping cotton by keelboats prompted the immediate start of construction. Furthermore, completion of the canal would also provide an all-water route from Huntsville to New Orleans, leading cotton port of the South.

The Indian Creek Navigation Company built a series of locks and dams to regulate the water flowing from the Big Spring Creek into the Indian Creek and then into the Tennessee River at the river port of Triana. The lower part of the canal nearest the river was

operational by 1822.[14] In five years, cotton was shipped by water from Sivley's Mill, three miles below Huntsville to Triana. The first keelboats did not arrive at the Big Spring, however, until April 5, 1831. Naturally, the long-waited event sparked a great celebration to welcome the boats to Huntsville.[15]

The boom period for the city of Triana and the use of the canal was shortlived. Except in high-water seasons, the canal lacked sufficient water to float keelboats. The building of a turnpike and later a railroad from Huntsville to the Tennessee River introduced greater speed and the use of modern science to local transportation. Many of the canal stockholders were nearly reduced to bankruptcy before abandoning the canal enterprise.[16] The goal of a canal from the Big Spring, however, was achieved; and for a few years, the Indian Creek or Fearn Canal, the first in Alabama, was a success.

While the main interest of the Huntsville citizens was in the canal, a more significant and longer-lasting project was undertaken in 1823. In that year, the Trustees of Huntsville contracted with Hunter Peel for the construction of a city waterworks, the first public water system in Alabama. For the token price of one dollar, LeRoy and Judith Pope granted Peel the right to build a dam on their Big Spring property. The dam was to create a waterfall which would turn a hydraulic engine or wheel. The power from this engine was to raise the water above the spring bluff, and then to send it to various outlets in Huntsville and the surrounding area. Hunter Peel was also given the privilege of building a small house to cover and protect his machinery, and the title to control and to collect the proceeds from the waterworks. The contract with Peel, however, would be void if water was not pumped in sufficient quantity to supply the house and stables of LeRoy Pope, located on the west side of the Hill, now known as Echols Hill. Within one year from the signing date, Peel was to have the necessary water supply in the hydrant nearest the Pope house. This hydrant was in a most unfortunate location, about a hundred feet above the spring and

about a half mile away. The contract could also be canceled if the reservoir, named in the agreement, was not filled for a period of three months.

Soon after Hunter Peel received the contract in April of 1823, he formed a ten-year partnership with James Barclay, a practical machinist. Together, they designed the water system, including the reservoir and the pipes.[17] A plank reservoir, with a capacity of one thousand cubic feet, was built on the courthouse square for fires and other emergencies. Actually connected to the end of the courthouse, this structure was often described as an extremely unattractive building.[18] Hunter Peel supervised the making and the laying of the pipes. The pipes were hollowed-out cedar logs, shaped to a point on one end so that the point would be driven into the opening of the next log. According to specifications, the pipes were buried deep enough to keep them from freezing and to prevent any interference in the building and the opening of streets.[19]

The basic plan of the Huntsville waterworks was to pipe through the major streets, and then to allow every family the privilege of laying a waterpipe from the pipe to a hydrant in their yard. The system proved inefficient and the water supply inadequate.[20] General dissatisfaction with the operation grew quickly with the major grievances being the use of yard hydrants by neighbors and the habit of running the hydrants continuously. Since the hydrants were available to all and there were no meters, regulation seemed futile and waste apparently uncontrollable. Discontent increased in direct relation with the decrease in the amount of water. The local newspapers frequently printed complaints, along with appeals for water conservation.[21]

Popular interest and agitation led to an attack on the water system. The editor of the Southern Advocate wrote bitter editorials showing that not only had the waterworks not been finished, but the citizens of Huntsville had paid far too much for the completed work. By this time, Hunter Peel had already been removed from his contract because he had not fulfilled the provision concerning the supply of water to the home of LeRoy Pope.

For a brief time Joshua Cox administrated the operations and tried to complete the system. Finally in 1827, new management assumed control and made arrangements to rebuild and improve the waterworks.

Under the supervision of Sam D. Morgan, the installation of a new dam, a nine-inch pump, an engine house and machinery made the water system larger and more effective. The old reservoir connected to the courthouse was demolished and a new one built on the courthouse square. The expense of the reservoir construction was placed on the citizens of Huntsville, with some assistance from Morgan.[22] The pipes for the new system were again red cedar logs, about eight feet in length and fashioned in the same way as the first ones. Unlike the earlier system, the joints or connections were held in place by iron hoops or bands.[23]

Sam Morgan operated the system until 1836, when Dr. Thomas Fearn and George Fearn gained control of the water works and made it a private subscription operation. In their contract with the city, the brothers agreed to lay iron pipes and build a new reservoir.

Within a year, the main pipes to the corners of the courthouse square were replaced with five-inch iron pipes. Other pipes under the courthouse square and the major streets were replaced in five years. If they were in good condition, the remaining wooden pipes continued in use until repairs were needed. Except along sidewalks and sidetrenches,no more wooden pipes were to be laid.[24]

The Fearn contract specified that the reservoir should be elevated forty feet above the surface of the courthouse square. The site selected for the reservoir was Echols or Pope's Hill, near the junction of Echols and McClung Streets. Since the construction of the base of the reservoir required drilling through a bet of solid limestone rock, the cost of construction was immense and was shared by the citizens and the Fearn brothers. The structure was seventy feet in diameter and ten feet deep, with a capacity of 287,532 gallons of water.[25]

The Fearns paid for repairs on the reservoir and added an iron pump to the spring. Further improvements included

the erection of more fire hydrants and more wells on the courthouse square and along the streets for use in extinguishing hydrants, they were in limited number and were only around courthouse square. The later additions greatly increased the effectiveness of the Huntsville Fire Engine Company, which had been incorporated by the state legislature in 1822.[26]

City ordinances were enacted against wasting water, damaging the waterworks, and abusing the privilege of using the water. The fines from the violations were payable to the Fearn brothers. But of course, their principal source of money was from the sale of water.[27]

For over a decade the water supply for the city of Huntsville came from the Big Spring and its waterworks without the city holding title to either the Big Spring property or the waterworks. During this span of years the spring and the vacant land attached to it became the property of William W. Pope, a son of LeRoy Pope.[28] On October 14, 1843, he and his wife deeded the Big Spring and all the land immediately around the spring to the city of Huntsville for one dollar.

The generous offer of William Pope had certain conditions! The city was to make some proposed improvements, as constructing a wall around the large pool at the spring, beautifying the spring branch and therewise benefitting the health of the citizens. All orderly, peaceful people were to have free access to the area for walks and pleasure at all times. The land occupied by the dam, the machinery, and a forty-five foot square between the dam and the pumping house went to Dr. Thomas Fearn for one dollar, with the stipulation that the land only be used to supply the city with water.[29]

Although the city now owned the Big Spring, Dr. Fearn continued to operate the waterworks. In 1854, the City Council named a committee consisting of Irvin Windham, John Patton, and Oliver D. Sledge to inquire into the possibility of purchasing the waterworks from Dr. Fearn. At the next meeting of the council the committee asked for and received more time to investigate the purchase. But it was not until November 23, 1858, that the City Council passed a motion made by the committee to buy

the waterworks from Dr. Fearn. The city acquired the deed to the waterworks in 1858 for ten thousand dollars, with payments in ten equal annual installments. The order for the first payment of $1,080 was on December 6, 1859.[30]

The waterworks committee reported on the condition of the pipes, branch pipes, fire hydrants, and the building and the machinery at the spring on March 1, 1859. The estimated value of the entire system was $17,020.53. On gaining control of the water system, the city fixed new water rates. A tax for the use of water became effective July 1, 1859. Since no meters were installed, the assessment of homes and places of business was according to the value of the house or the type of business. A partial list of these yearly water rates is as follows:

Dwelling House of $1500	$5
Dwelling House of $1500-$4000	$10
Dwelling house of $4000-$8000	$12.50
Dwelling house of over $8000	$15
Private bath house or bath	$3
Shower bath	$2
Public bath house (per tub)	$5
Water closet in hotel or public building	$3
Water closet in private house	$2
Hotel or tavern	$50[31]

There were no major improvements on the waterworks during the Civil War and Reconstruction Period. The waterworks were in such poor condition in 1886 that the City Council asked the state legislature for authority to issue fifteen thousand dollars in bonds to finance repairs. Another bond issue of ten thousand dollars was begun in late 1894. Although used in various ways, the money from the bonds was applied chiefly to laying more iron pipes and to increasing the size of the main pipe lines.[32]

A new reservoir on Echols Hill was built between 1887 and 1890. It was sixty feet high, held 60,000 gallons of water, and cost seven thousand dollars. The land for the reservoir was given to the city by O.B. Pattins, in return for free water forever for himself and his heirs at his residence and stable.[33]

In the late 1880's and 1890's, the city experienced some difficulty collecting the water tax and controlling excessive wastefulness. To eliminate the first problem, the water tax was made payable quarterly and in advance. Termination of the water supply followed without delay for the nonpayment of the tax after notice. To solve the other problem, the police had the authority to inspect any hydrant or pipe and to issue a five dollar fine for any unnecessary waste. Later, the mayor appointed an inspector for the waterworks who had police power to handle any violation that might occur.[34]

Despite these problems, the system continued to improve and expand. According to the report of the water inspector, John G. Baker, on February 10, 1889, there were 591 hydrants, 162 water closets, 63 baths, 89 sprinklers, and seven soda fountains.[35]

Visitors and travelers to Huntsville in the 1800's generally thought the Big Spring was a great natural curiosity and the outstanding feature of the town. Those who wrote journals or letters appear to have heard much about the spring even before their arrival. They seem to have been even more impressed after seeing it. All had the highest praise for the Big Spring, believing that Huntsville had the best natural water possible. The editor of the Detroit Press in 1884 thought the spring was one of the finest in the entire country.[36]

Some travelers declared health conditions in the South, as compared with the East and the North, were rather lacking. When they reached Huntsville they definitely found an exception to their belief. The Big Spring water was a great health aid to the city, and several health resorts were established at nearby springs.[37]

One writer thought a prominent part of the Huntsville landscape was the county courthouse square, with its hundreds of saddled horses. Another believed a distinguished aspect of the city was its friendly, intelligent and sophisticated people. Yet all the writers considered the Big Spring to be the main feature of the city.[38]

[1]Henry McCalley, Geological Survey of Alabama: Report on the Valley Regions of Alabama (Paleozoic Strata), Vol. I: The Tennessee Valley Regions, (Montgomery: Jas.

P. Armstrong, 1896), 139-139.

[2]Huntsville Independent, April 3, 1884.

[3]McCalley, Survey, 153.

[4]Robert Somers, The Southern States Since the War, (London: Macmillan and Company, 1871), 112.

[5]Thomas Jones Taylor, "A Diary of the History of Madison County", 7-9 A typewritten copy is on file in the Huntsville Public Library, Huntsville, Alabama.

[6]Deed Book EE, 1-2. Office of the Probate Judge of Madison County, Madison County Courthouse, Huntsville, Alabama.

[7]William Darby, View of the United States, Historical, Geographical, and Statistical; Exhibiting, in a Convenient Form, the Natural and Artificial Features of the Several States, and Embracing those Leading Branches of History and Statistics Best Adopted to Develop the Present Condition of the North American Union, (Philadelphia: H. S. Tanner, 1828), 487.

[8]Plat Book of Madison County. Office of the Probate Judge of Madison County, Madison County Courthouse, Huntsville, Alabama.

[9]Government Tract Book of Madison County, 36, Office of the Probate Judge of Madison County, Madison County Courthouse, Huntsville, Alabama.

[10]Thomas Jones Taylor, "Early History of Madison County and Incidentally of North Alabama", Alabama Historical Quarterly, I, (Summer, 1930), 164.

[11]Deed Book F, 307.

[12]Taylor, "Early History", 165.

[13]Harry J. Toulmin, Digest of Laws of the State of Alabama: Containing the Statutes and Resolutions in Force at the End of the General Assembly in January, 1823, (New York: Ginn and Curtis, 1823), 710.

[14]Alabama Republican, (Huntsville), August 31, 1821.

[15]Edward Chambers Betts, Early History of Huntsville, Alabama, 1804-1870, (Montgomery, 1916), 66-68.

[16]Huntsville Independent, February 7, 1884.

[17]Taylor "Diary", 31; Contract Between LeRoy and Judith Pope and Hunter Peel on April 14, 1823. A copy is on file in the Huntsville Public Library, Huntsville, Alabama. The original is in the possession of Mr. Spragins, President of the First National Bank of Huntsville, Alabama.

[18]Southern Advocate, (Huntsville), May 18, 1827.

[19]Taylor, "Diary", 31.

[20]Williams, Huntsville Directory--City Guide and Business Mirror, (Huntsville, 1859), 12.

[21]Southern Advocate and Huntsville Advertiser, August 12, 1825 and December 9, 1825.

[22]Southern Advocate, (Huntsville), May 13, 1827.

[23]Betts, History, 74.

[24]Deed Book Q, 596-598.

[25]Williams, Directory, 19.

[26]Deed Book Q, 598; Betts, History, 74; Toulmin, Digest, 847-848.

[27]Deed Book Q, 598.

[28]Deed Book P, 1.

[29]Deed Book U, 155-156.

[30]Minutes of the City of Huntsville, Alabama Council Meetings, Minute Book C, 34-35, 260, and 318.

[31]City Council Minute Book C, 283 and 296.

[32]City Council Minute Book I, 270 and 288; City Council Minute Book II, 137.

[33]City Council Minute Book I, 238.

[34]City Council Minute Book I, 200, and 441; City Council Minute Book II, 112.

[35]City Council Minute Book I, 445.

[36]Huntsville Independent, April 3, 1884.

[37]A Citizen from Maryland, The Rambler or, A Tour Through Virginia, Tennessee, Alabama, Mississippi, and Louisiana; Describing the Climate, the Manners, Customs and Religion of the Inhabitants, (Annapolis: J. Green,

[38]Charles Lanman, Adventures in the Wilds of the United States and British American Provinces, (Philadelphia: W. Moore, 1856), 153; Anne Royall, Letters from Alabama on Various Subjects to Which is Added an Appendix, Containing Remarks on Sundry Members of the 20th and 21st Congress and Other High Characters, etc. at the Seat of Government, (Washington: 1830), 44.