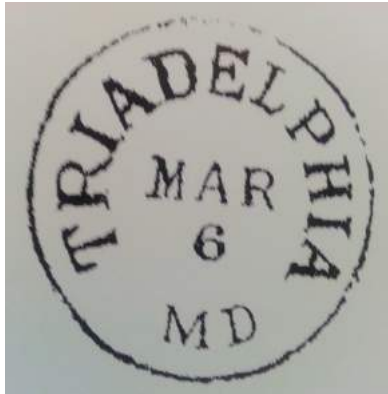


**Triadelphia (1809-1889) Exposed:**

**An Exploration of the Town Site of Triadelphia During  
the Period Triadelphia Reservoir Low Water Needed for  
Brighton Dam Repairs 2017-2020**

Dr. Steven Curtis  
Research Professor IACS CUA  
June 2018





This work is an assemblage of extensive site work combined with modern and rare vintage aerial photography as well as rare vintage site photography from c. 1900 - 1940 and period maps. The approach is to use these independent streams of information to build a self-consistent view of Triadelphia as it declined from its peak before 1860 with a population over 400 to only two occupied houses in 1940. Triadelphia existed as a town from 1809-1889. The original town consisted of 9 houses (some brick and stone), a general store, a saw mill, a grist mill and the mill race in the rocky gorge just below the juncture of the Patuxent River and Cattail Creek. Two major floods struck after the Civil War: the first in 1868 caused the mill pond failure and lay waste to plans to reopen the cotton factory with the anticipated cotton supply availability after the Civil War. The mill pond dam was later partially rebuild and powered a grist mill. After that flood, the town continued, although much reduced in size, it was still a locally significant economic engine. However, the 1889 flood destroyed the grist mill and was the death knell for Triadelphia as a town. Three generations of Lansdales lived there running the factory and mill : starting with Thomas Hyatt Lansdale who was succeeded by his son Thomas Franklin Lansdale, and in turn his son Richard who had vivid memories of escaping the 1889 flood.

## Thomas Hyatt Lansdale

- Birth** 19 May 1808  
Montgomery County, Maryland, USA
- Death** 24 Oct 1878 (aged 70)  
Maryland, USA
- Burial** Glenwood Baptist Church Cemetery  
Glenwood, Howard County, Maryland, USA





Thomas Hyatt Lansdale 1808-1878. Thomas Franklin Lansdale 1844-1891.

## Thomas Franklin Lansdale

- Birth** 8 Aug 1844  
Montgomery County, Maryland, USA
- Death** 26 Jan 1891 (aged 46)  
Davidsonville, Anne Arundel County, Maryland, USA
- Burial** All Hallows Chapel Cemetery  
Davidsonville, Anne Arundel County, Maryland, USA



Richard Lansdale, the last of his family at Triadelphia.

## Richard Hyatt Lansdale

**Birth** 27 Oct 1883

**Death** 18 Mar 1958 (aged 74)

**Burial** Saint Johns Episcopal Cemetery  
Olney, Montgomery County, Maryland, USA

The Lansdale family in 1940 Census. Wife died in 1920's. Son Richard working in flour mill – a family tradition, but later after WW II, became CIA Associate General Counsel:





Mr. Lansdale worked first for the Covington & Burling law firm in the District until 1946, when he was recruited to join the American prosecutorial team in Nuremberg to address the Nazi atrocities during World War II. He was a junior prosecutor on the U.S. zone war crimes trials, researching and helping to present cases against German industrialist Friedrich Flick, who was sentenced to death, and Alfred Krupp, who had died.

He returned to the United States in 1948 and joined the CIA.

During the 1970s, Mr. Lansdale was commissioner of Montgomery Soccer Inc. and was a volunteer in the Palisades neighborhood association in the District [Washington DC].

Survivors include his wife of 43 years, Phoebe Taylor Lansdale of Silver Spring [Maryland]; three children, Elizabeth Hyatt Lansdale of New York City [New York], Katherine Taylor Lansdale of Fairfield, Connecticut, and Steven Ballard Lansdale of Dallas [Texas]; and two granddaughters.



USGS Map of Triadelphia in 1915.

Riverbed location against Howard County side cliffs at Triadelphia location in agreement with field work and 19<sup>th</sup> Century town sketch maps.

Straight line of Triadelphia Road thru town as inferred from 19<sup>th</sup> Century sketch maps.

Five structures are marked on 1915 map in Triadelphia. The two at upper left are houses but should be both on the north side of the main street with the company store. The two at lower right below road are from left to right the factory and the mill. The one above the road is the town general store. These three lower right buildings were at best partially used at this time since their mechanicals were destroyed in the 1889 flood. These three buildings were subsequently salvaged to build the Ligon house in Brighton in 1926. The two houses in upper left were extant and occupied until the reservoir was constructed in the early 1940's.



The two houses remaining in the 1915 map shown in 1940 photo viewed near the Factory site. At the time of this photo the other three structures in the 1915 map had been razed to build the Ligon house in Brighton in 1926. This form of salvage seems to have started much earlier following the 1889 flood wherein most of the damaged housing stock was salvaged leaving only 5 buildings in town by 1906 ( USGS map). Many area walls and foundations probably owe their origins to Triadelphia structures. The bend in the main street occurs on its way toward climbing the hill where the original Mt. Carmel church, at this time a barn resides.





Same two houses c. 1900 Gilpin family (left) , Lansdale family (right). View along main street.



Backs of Lansdale house in foreground, Gilpin house background. Note trace of the removal of rear wing on Lansdale house. Trace indicates a frame structure with plastering that was done to

original house stone exterior walls which became wing interior walls remaining and horizontal planks over an interior door opening. Likely destroyed in 1889 flood. At this time, only the intact home at the right of the double house inhabited by an elderly African American male.

Triadelphia Factory circa 1900. Factory bell still in place, was moved to a Quaker Friends school, now Sherwood HS in 1902. In a December 7, 1941 Star article, the factory is described as a four story structure about 50 X 150 ft, and as being one of the first mills in the county to have been steam heated. The trace of the wheel pit is seen in lower left corner of photo at south west end of the smaller wing which apparently served as the housing for the water wheel drive mechanism power transfer. The mill head race was upslope on the hill behind the factory which provided the 18' head height as inferred from the 1880 manufacturing survey for the slightly downstream mill. The factory water wheel was either a single 100 hp 18 ft diameter by 8 ft width as the mill or a double wheel which would have produced 200 hp. In any case the it would have been wood and the same diameter as the mill given the technology era in which the factory and mill operated since steel wheels arrived too late for the factory and the mill, and steel turbines were too late for the factory and probably not needed given the high water from available from the Patuxent for the mill.







Triadelphia general store and corner of the Lansdale House c. 1900





Small accessory structure c. 1900 next to ruins of a mill that had already been salvaged. Picture also gives orientation of factory with bell tower at north end. Mill was destroyed in 1889 flood. Saplings growing in foundation are about 10 yrs old consistent with bell in bell tower which was removed in 1902. Taken together, the near 1900 date for photo is consistent.



The Triadelphia Spring wall, an example of period stone work and wall thickness. Side and end.

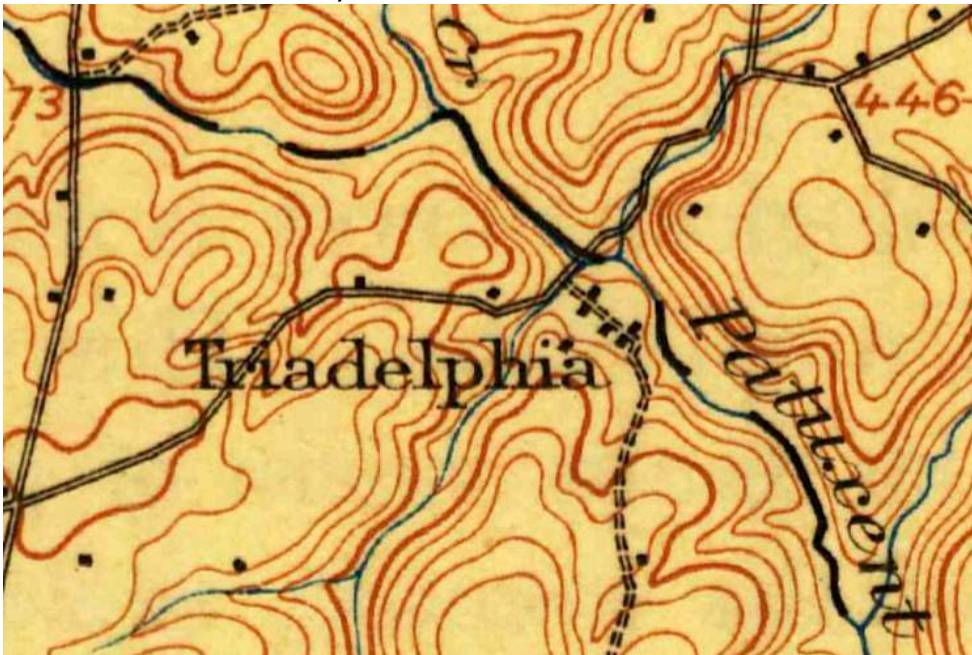


Examples of house ruins near Triadelphia: on back road past church site; overlooking Triadelphia from Howard County using flat stones like those used in dam face; on Triadelphia Lake Rd (old Triadelphia Rd) just above modern boat landing area. The first is cement but other two are dry, although period clay mortar may have been used.





View from Howard County house ruins site.



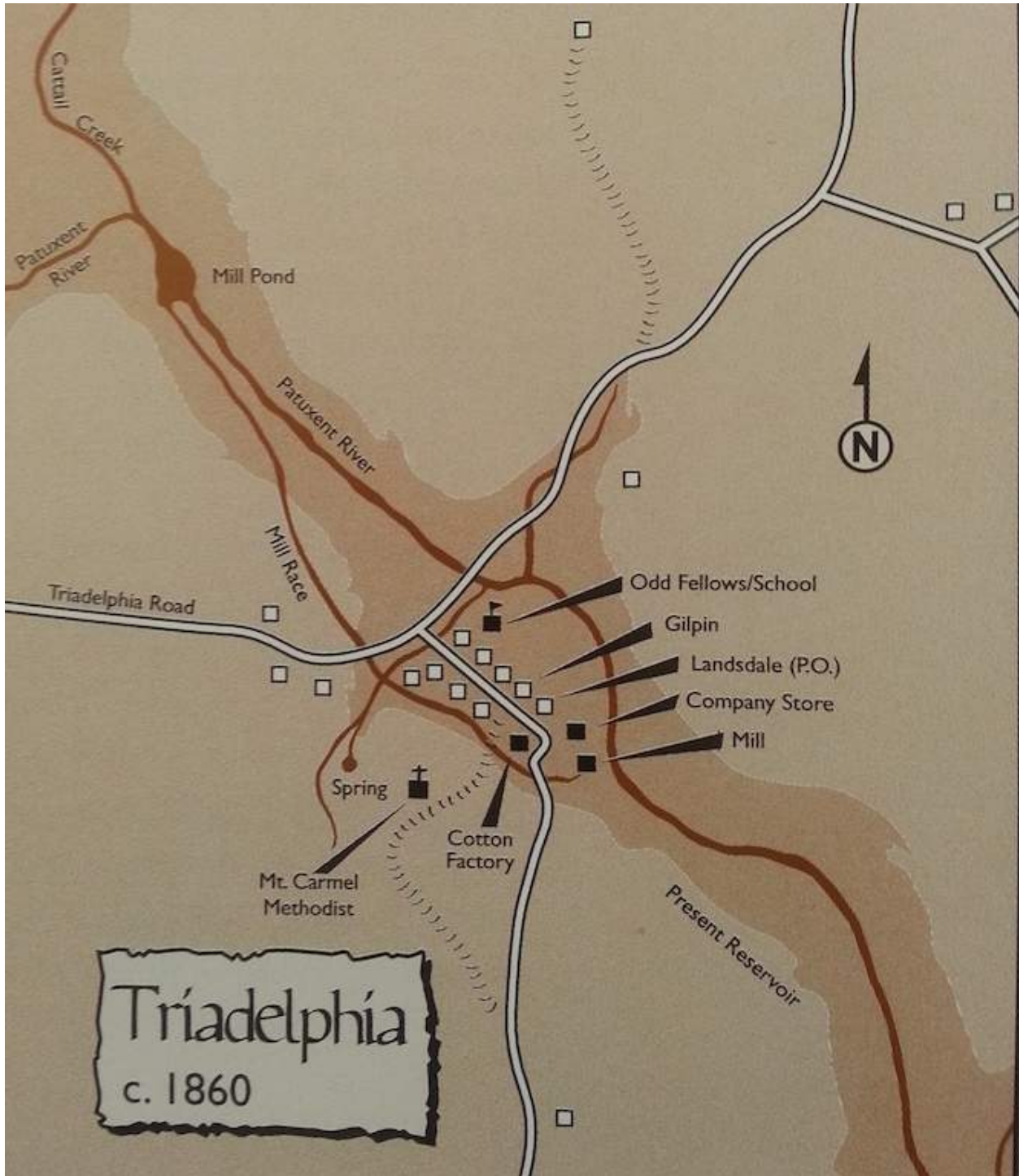
Triadelphia 1923 USGS showing broad Triadelphia flood plain with elevation above river which bows toward the NE. This geometry is consistent field work and 2017 aerials taken at low water levels of the reservoir.



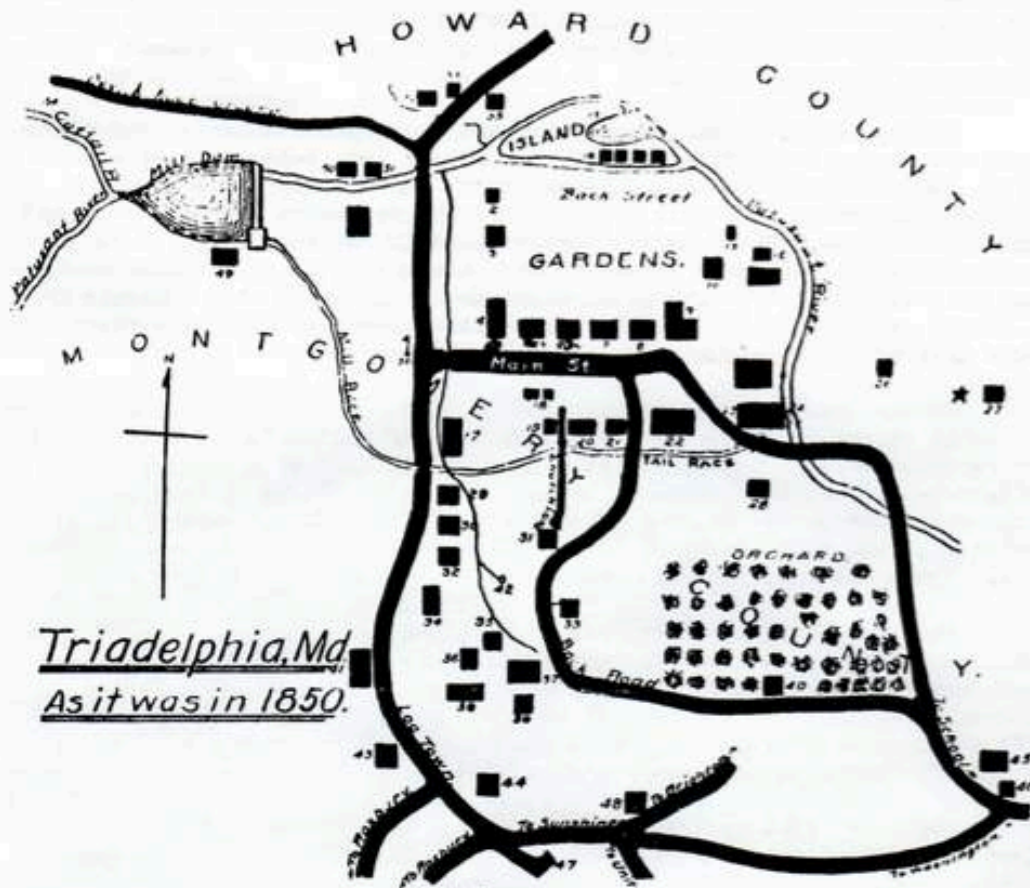
From 1923 USGS comparison on NV-72-65 opaque white line at border with NV-72-64







Modern interpretative map of Triadelphia. Notable error in mill race coming above present reservoir level..more than 25' above river. The mill race was contour following however in order to maintain sufficient head height to power an overshot 18 ft diameter wheel at the mill.



Triadelphia, Md.  
As it was in 1850.

References.

- |                                       |                                            |                                         |
|---------------------------------------|--------------------------------------------|-----------------------------------------|
| 1 Geotinsley's Blacksmith Shop.       | 21 Double House of Helm & Ream.            | 41 Double House of Kinsey & McKinex     |
| 2 Robt. Brown's Log House.            | 22 Factory.                                | 42 Spring.                              |
| 3 Ossire's Frame House.               | 23 Flour Mill.                             | 43 School House (Burned Down)           |
| 4 Double House of Brane & Holland.    | 24 Bone & Plaster Mills                    | 44 Uriah Brown's Farm House             |
| 5 do. do. of Harvey & Bowman.         | 25 Saw Mill.                               | 45 Company Farm House. (Brane)          |
| 6 do. do. of Larman & Wicks.          | 26 Hazel Hobbs' Cooper Shop.               | 46 Lime Kiln.                           |
| 7 do. do. of Becker & Wahlen.         | 27 Rezin Duval's House.                    | 47 Mt. Garmel Methodist Church          |
| 8 do. do. of Ganby & Anker.           | 28 Wm Wilson's House.                      | 48 Sunshine                             |
| 9 do. do. of Miller & Warfield.       | 29 Turner's Child Drowned                  | 49 Ice House                            |
| 10 Big Gotton House.                  | 29 Wilson Brown's House 1851-59.           | 50 Elizabeth Bright (Unired)            |
| 11 Double House of Dwyer & Musgrave.  | 30 do. do. Cabinet Shop.                   | 51 Oliver Derry Goldreamster for Brane) |
| 12 Stables.                           | 31 Church                                  | 52 Cauliflower Cabinet Maker.           |
| 13 Gotten Waste House                 | 32 Widow Barnes' House.                    | 53 Old Whiteside House.                 |
| 14 Hog Pens.                          | 33 Meat House.                             | 54 Down's House.                        |
| 15 Frog Pond                          | 34 Frail House.                            | 55 Private School House                 |
| 16 Company Store                      | 35 Gorn House.                             | 56 Bell & Everett Pole.                 |
| 17 Odd Fellows Hall (School Below)    | 36 Carriage House.                         | 57 Sycamore Trees                       |
| 18 Spring and Dairies                 | 37 Stables Where Big Mule Teams Were Kept. | 58 White Oak Tree.                      |
| 19 Mrs. Lewis' House                  | 38 Burn Where Wheat was Flaired            | 59 White Oak Tree.                      |
| 20 Formerly occupied by Whelan Brown. | 39 Hay Barrack                             | ★ Indicates Place of Explosion          |
| 20 Perego's Double House.             | 40 Old Tobacco House                       |                                         |

Present reconstruction of Triadelphia based on 1943 aerials for foundations and low water field work:



The mill pond location just below the confluence of the Patuxent River and Cattail Creek is based on the confluence having the same observed location in 1943 and 2002/6 drought aerial photos and the field identified location of the sluice gate on the Montgomery County bank and the mill dam debris deposits on the Howard County side reservoir banks. Large original river stones and bedrock (recent field work) indicate both creek and river were in present locations at time of Brighton dam construction and very likely during Triadelphia's 1809-1889 existence. The mill pond size, but not location varied over Triadelphia's life: in 1850 the upper boundary was at the confluence; in 1860 it was below it. Although earlier Triadelphia had a population of 400-500, the 1860 census shows only about 200 likely indicating a shrinking industrial base and a corresponding smaller mill pond.

The dam at bottom of mill pond is indicated by rectangle. The sluice gate is located below it to the left and the mill raceway extends from it to the town factory and mills. On the opposite side the spillway enters into what was the river channel that at the time of Triadelphia was near the present Triadelphia reservoir coastline. This is consistent with period maps and the location of the foundation ruins as seen in the 1943 aerials as well as the steep cliffs south of the town on the Howard County side. Triadelphia was apparently built on the Montgomery County side of a large flood plain that at the time was almost entirely in Montgomery County.

The 1943 foundation ruins define the core of Triadelphia and are shown by the rectangles. The mill race passes them on the left and from period maps would have split into two branches just past the mill which was just downstream of the factory.

Triadelphia Road still exists on either side of the present reservoir. Two road reconstructions across the reservoir are shown: a curved one and a straight one. Based on historical maps and the foundation locations, the straight one is most likely.



There are three main extant features above the Triadelphia town site. First, there is the sluice gate fashioned from a natural boulder outcrop on the Montgomery county side. Second, there is a large boulder with a flat face toward the past location of the millrace, slightly south of the sluice gate with many initials carved on it also on the Montgomery County side. Third, there is former quarry face on the Howard County side with many initials caved upon it.  
Mill Pond sluice gate: Spring 2017 and 2018



Sluice gate ID carved into gate:reverse "S" with bar...



flat stones used for mill pond facing bulldozed up Howard County bank..debris field extends down to sluice gate location...manmade no local source for accumulation which can be seen to end just north of Cattail Creek junction with Patuxent River in foreground.



As of mid spring 2018 flood water have cut a new mill race channel below sluice gate. Red box shows area with drill marks used in process to widen natural formation to uniform width for use as sluice gate.



Details of drill marks on sluice gate tail from widening natural formation to uniform width.





Sluice gate on left. Boulders in midriver bed were likely foundations of mill dam. Natural formations were exploited both for gate and dam.



View from boulder top toward Patuxent River. Boulder top initials.

Initials on large rock south of sluice gate (Montgomery County):



On Howard side, below sluice gate but above town , there is an abandoned quarry face with many initials..only one is dated .."1866" slightly upstream of flat quarry face.





“1866” initials. “HLA” and “RMA” initials on large quarry face.



Confluence of Patuxent River and Cattail Creek (right) view from Howard County. Only full name carved at Triadelphia next to quarry face. The name of Charles B. Coomes is written in a unique X pattern that recalls the battle flag, “bars and stars” of the Confederacy. In Howard County 419 served in the Union forces, 374, in the Confederacy, almost an even split and is suggestive of the distribution in the neighboring area of Triadelphia in Montgomery County. While researching mill and factory history from the 1850 manufacturing schedule a Triadelphia vicinity tanner, Joseph R. Coomes was found:

**SCHEDULE 5.—Products of Industry in 1<sup>st</sup> or Cracklin' District in the County of Montgomery State of Maryland during the Year ending June 1, 1850, as enumerated by me, Wm B. Farguhar Ass't Marshal.**

1	2	3	4 Raw Material used, including Fuel.			7 Kind of motive power, machinery, structure, or resource.	8 Average number of hands employed.		9 Wages.			10 Annual Product.		
			4 Quantities.	5 Kinds.	6 Values.		8 Male.	8 Female.	9 Average monthly cost of male labour.	9 Average monthly cost of female labour.	10 Quantities.	10 Kinds.	10 Values.	
10	Joseph & Coomes	Tanner	200	36 cows	50 Bark	2.25	9 stone	2	30	20000	500	Lumber	270	
90			250	Hides	625	11 wats				500		Leather	1125	
			36	calf skins	18					36		calf-skins	42	

In the 1850 Census, his family is given as:

*602*  
**SCHEDULE I. — Free Inhabitants in 1st or Conaklin District in the County of Montgomery, State of Maryland enumerated by me, on the 18th day of September 1850. Wm. H. Seagraver Ass't Marshal.**

Dwelling-house, or other place of abode, in the order of valuation.	The Name of every Person whose usual place of abode on the first day of June, 1850, was in this family.	DESCRIPTION.			Profession, Occupation, or Trade of each Male Person over 15 years of age.	Value of Real Estate owned.	Place of Birth, Naming the State, Territory, or Country.	Males within the Armed Forces within the year, and the number of them who were discharged.	Whether deaf and dumb, blind, insane, idiotic, pauper, or convict.			
		Age.	Sex.	Color, or race.								
1	2	3	4	5	6	7	8	9	10	11	12	13
	Suzetta A. Davis	8	F					Md				
	Silas W. Davis	6	M					Md				
	Mary J. Davis	2	F					Md				
	Charles Davis	76	M					Md				
	Ann King	75	F					Md				
	George King	21	M	M				Md				
244	247	Joseph C. Coomes	49	M		Tanner	200	Md				
	Margaret A. Coomes	48	F					Md				
	Richard Coomes	21	M	M		Shoemaker		Md				
	E. Virginia Coomes	19	F					Md				
	William H. Coomes	17	M			Tanner		Md				
	Joseph Coomes	14	M					Md	1			
	Charles B. Coomes	11	M					Md	1			
	George E. Coomes	9	M					Md	1			
	James D. Coomes	6	M					Md				
	Benjamin F. Coomes	3	M					Md				
245	248	Sarah Holland	50	F			7000	Md				
	Ann Holland	40	F					Md				
	Mercy A. Holland	38	F					Md				
	John J. Green	14	M					Md				
	Joseph Todd	27	M	M				Md				
	Henson Hamilton	24	M	B				Md				
246	249	James Townsend	35	M		Manufacturer	2000	Md				
	Jeanette Townsend	28	F					Md				
	Charles F. Townsend	10	M					Md	1			
	Kepp C. Townsend	1	M					Md				
	James Connell	59	F					Scotland				
	Hazeliah Sommers	20	M			Manufacturer		D. Co.				
247	250	Leonard Weer	33	M		Millwright	4000	Md				
	Margaret Weer	23	F					Md				
	Agnes E. Weer	2	F					Md				
	Randolph Weer	3/12	M					Md				
	Eliza J. Somersville	24	F					Md				
	Thomas Somersville	4	M					Md				
	George Zeigler	19	M			Millwright		Md				
	John Martin	19	M			Millwright		D. Co.				
248	251	Caroline Johnson	20	F	M			Md	1			
249	252	Thomas Mitchell	40	M	M	Laborer		Md				
	Cassie Mitchell	32	F	B				Md				
	Hazeliah Mitchell	11	M	B				Md				
	Thomas J. Mitchell	7	M	B				Md				
	Albin Mitchell	5	M	B				Md				

*v 20m 134* *Wm Colard L. F. Colard*

This shows a son, Charles B Croomes, on line 13, age 11. In the 1860 Census Charles Coomes appears, again as a member of the Joseph Coomes household at age 19 a shoemaker like his father:



SCHEDULE 1 - Free Inhabitants in First District in the County of Montgomery State 217  
of Maryland enumerated by me, on the 27<sup>th</sup> day of July, 1860, Wm Thompson Ass't Marshal  
Post Office Unity

1	2	3	Description			7	Value of Estate Owned		10	11	12	13	14
			Age	Sex	Color		Value of Real Estate	Value of Personal Estate					
		Arch McQueen	7	M					Maryland				
		Lucy	5	F					"				
251	253	Joseph R. Coan	40	M	Shoe Maker	1000	300		"				
		Margaret	39	F					"				
		Abner	19	M	Shoe Maker				"				
		James	13	M					"				
		Benjamin	11	M					"				
		Mrs. Anne	18	F					"				
239	256	Walter Gray	50	M	Wagon Maker				Virginia				Missouri
		Mary	18	F					Maryland				
253	257	John Elmer	68	M	Wagon Maker	400	100		"				
		Rebecca	35	F					"				
		Mrs. Ann	33	F					"				
254	258	Sam Williams	27	M	Farm Hand				"				
		Sabbah	22	F					"				
		Isabella	5	F					"				
		William	3	M					"				
		Elizabeth	1	F					"				
255	259	Flanilla Price	32	F	Fairer	6000	9500		"				
		Corrillo	25	F					"				
256	260	William Cooney	52	M	Fairer		7000		"				
		Leannah	21	F					"				
257	261	Richard Bartlett	53	M	Fairer	5000	4700		"				
		Julia	52	F					"				
		Richard Linn	44	M					"				
		Pi Corob Harp	22	F				2300	"				
258	262	Ed Whiteside	24	M	Wagon Maker	1000	400		"				
		Ann E	26	F					"				
		Mary E	5	F					"				
		James L	3	M					"				
		Rebecca Linn	24	F					"				
		Mrs. Ann	15	F	Shoe Maker				"				
		George W. Hill	27	M	" " "				"				
259	263	Ed. Linn	42	M	" " "		50		"				
		Malley	38	F					"				
		William J.	12	M					"				
		Louisa	9	F					"				
		Barrel	6	M					"				
		James	2	M					"				
		Abner	72	M					"				

No. white males, 17 No. colored males, 3 No. foreign born, No. blind, 13400  
No. white females, 18 No. colored females, 2 No. deaf and dumb, No. insane, 23350  
No. Mide, No. paupers, No. convicts.

However, after the 1860 Census, Charles Coomes vanishes from the Maryland record, but his family remains, as shown in the 1870 and 1900 Censuses for his brother Richard Coomes (line 12 and line 4) together with his wife Emily:

Inquiries numbered 7, 16, and 17 are not to be asked in respect to infants. Inquiries numbered 11, 12, 15, 16, 17, 18, and 20 are to be answered (if at all) merely by an affirmative mark, as follows.

SCHEDULE 1.—Inhabitants in St. Louis City & Election District in the County of St. Louis, State of Maryland, enumerated by me on the 13 day of July, 1870.  
 Post Office: St. Louis City James E. Walden, Ass't Marshal.

1	2	3	4			7	8		10	11		13	14	15			18	19	
			Age	Sex	Color		Value of Real Estate	Value of Personal Estate		Place of Birth, naming State or Territory of U. S., or the Country, if of foreign birth.	Whether deaf and dumb, blind, insane, or idiotic.			Whether insane, blind, or idiotic.	Whether deaf and dumb, blind, insane, or idiotic.				
1	170 168	Worler George	23	M	W	Baker		500	Germany	/	/							/	/
2		Wm	21	F	W	Keef House			"	/	/								
3		Mary	1	F	W	at Home			Maryland	/	/								
4		Kadey Caught	24	M	W	Baker			Germany	/	/							/	/
5	371 369	Garr	54	M	W	Cabinet-maker	3000	1000	Ireland	/	/								
6		Elmer	49	F	W	Keef House			Maryland	/	/								
7		Walter	15	F	W	at Home			"	/	/								
8		James	10	M	W	"			"	/	/								
9	374 370	Helen Reed	52	M	W	Shoe-maker	4000	2000	"									/	/
10		Elizabeth	56	F	W	Keef House			"										
11		Anna	18	F	W	at Home			"										
12	375 371	Conner Richard	41	M	W	Shoe-maker		1000	"									/	/
13		Emily	41	F	W	Keef House			"										
14		Benjamin	17	M	W	at Home			"										
15		E. H.	14	M	W	"			"										
16		W. C.	11	F	W	"			"										
17		W. H.	7	M	W	"			"										
18		W. J.	4	M	W	"			"										
19	376 372	Norme S. A.	29	M	W	Gen. D.		3500	"									/	/
20		Emma	26	F	W	Keef House			"										
21		M. C.	3	F	W	at Home			"										
22		P. G.	1	M	W	"			"										
23		S. J.	2	M	W	"			"										
24		Tabman Francis	16	M	W	Drug Clerk			"										
25		William Ann	26	F	W	Keef House			"										
26		Mary	13	F	W	Nurse			"										
27		Harkins Francis	30	M	W	Prof of Language			Massachusetts	/	/							/	/
28		Eliza	26	F	W	Keef House			Ireland	/	/								
29	377 373	Benjamin T. S.	35	M	W	Provision Store			"	/	/							/	/
30		Julia	24	F	W	Keef House			"	/	/								
31		M. C.	50	F	W	at Home			Maryland	/	/								
32	378 374	Gallagher E.	57	M	W	Butcher		1000	"	/	/							/	/
33		Gene	50	F	W	Keef House			"	/	/								
34		S. A.	18	F	W	at Home			"	/	/								
35		Mary	16	F	W	"			"	/	/								
36		Julia	16	F	W	"			"	/	/								
37		Joseph	14	M	W	"			"	/	/								
38		John	10	M	W	"			"	/	/								
39		Eliza	8	F	W	"			"	/	/								
40										/	/								

No. of dwellings, 4  
 " families, 8  
 " white males, 19  
 " white females, 20  
 " colored males, 4  
 " colored females, 7  
 " blind, 0  
 No. of males, foreign born, 4  
 No. of males, 20  
 No. of females, 23  
 No. of insane, 0  
 No. of deaf and dumb, 0  
 No. of blind, 0  
 No. of idiotic, 0





Inquiries numbered 7, 16, and 17 are not to be asked in respect to infants. Inquiries numbered 11, 12, 15, 16, 17, 18, and 20 are to be answered (if at all) merely by an affirmative mark, as follows.

SCHEDULE I.—Inhabitants in The First District, in the County of Montgomery, State of Maryland, enumerated by me on the 14<sup>th</sup> day of June, 1870. Shaffer, Ass't Marshal.

1	2	3	DESCRIPTION.			7	VALUE OF REAL ESTATE OWNED.		10	PARENTAGE.		14	15	16	17	18	CONSTRUCTIONAL RELATIONS.		
			4	5	6		8	9		11	12						13	19	20
1	40	32	Colman Asenuth	79	F	W	Keeping House	500		Maryland									
2			— Catherine	46	F	W	at Home			"									
3	41	33	Boomer Joseph R	70	M	W	Tanner Retired	800	500	"	1							1	
4			— Margaret	66	F	W	Keeping House			"	1	1							
5			— Benjamin	22	M	W	Shoemaker		200	"									1
6			— Susan Ann	21	F	W	at Home			"									
7	42	34	Hinsy John G	27	M	W	Farmer	3300	1000	"									1
8			— Mary E	40	F	W	Keeping House			"									
9			— Mary J	6	F	W	at Home			"									
10			— Mary James	40	M	W	Season Labour			"									1
11			— Jonathan Colyatt	20	F	B	Domestic Servant			"									
12			— Benjamin	2 1/2	M	B				"									
13	43	35	Holland Sally	38	F	W	Keeping House			"									
14			— Nathan	40	M	W	Carpenter			"									1
15			— Elias	34	M	W	Whulwright			"									1
16	44	36	Super John W	36	M	W	Shoemaker		200	"									1
17			— Alcinda	32	F	W	Keeping House			"									
18			— Caroline	13	F	W	at Home			"									
19			— Selilah	11	F	W	"			"									
20			— Willie	10	F	W	"			"									
21			— Allie	4	F	W	"			"									
22			— Frank	2	M	W	"			"									
23	45	37	Grimes Charly	57	M	W	Shoemaker			"									1
24			— Sarah	30	F	W	Keeping House			"									
25			— William T	21	M	W	Season Labour			"									1
26			— Rachel Louisa	17	F	W	Domestic Servant			"									
27			— Basil	14	M	W	Season Labour			"									
28			— James	11	M	W	at Home			"									
29			— Elizabeth	6	F	W	"			"									
30	46	38	Super William G	26	M	W	Carpenter			"									1
31			— Martha	22	F	W	Keeping House			"	1	1							
32			— Charles	7 1/2	M	W	"			"									
33	47	39	Hipsey William H	27	M	W	Whulwright		250	"									1
34			— Amanda	25	F	W	Keeping House			"									
35	48	40	Davis Nunsod	60	M	W	Blacksmith	1800	600	"									1
36			— Susan	47	F	W	Keeping House			"									
37			— Collymore Lloyd	25	M	W	Merchant		1000	"									1
38			— Lucetta	28	F	W	at Home			"									
39			— Davis Silas W	25	M	W	"		1000	"									1
40			— Zuder George	30	M	W	Tailor			"									1
No. of dwellings, 91								No. of white females, 19		No. of males, foreign born, 7400		No. of insane, 432		511					
" families, 9								" colored males, 1		" females, "									
" white males, 19								" " females, 1		" blind, "									

After the Civil War Charles Coomes (misspelled as Coombs (sic)) appears in the 1870 census as a shoemaker in Lynchburg, Virginia (line 9).



SCHEDULE I.—Inhabitants in Lynchburg, City of Lynchburg, in the County of Lynchburg, State of Virginia, enumerated by me on the 11<sup>th</sup> day of June, 1870.

Post Office: Lynchburg Va

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1	2	3			7	8		10	11-14				15-17			18	19-20	
		Name of every person whose place of abode on the first day of June, 1870, was in this family.	Sex	Age		Profession, Occupation, or Trade of each person, male or female.	Value of Real Estate		Value of Personal Estate	Place of Birth, naming State or Territory of U.S. or the Country of Foreign Birth.	Whether deaf and dumb, blind, idiotic, insane, or idiotic.	Whether deaf and dumb, blind, idiotic, insane, or idiotic.	Whether deaf and dumb, blind, idiotic, insane, or idiotic.	Whether deaf and dumb, blind, idiotic, insane, or idiotic.	Whether deaf and dumb, blind, idiotic, insane, or idiotic.		Whether deaf and dumb, blind, idiotic, insane, or idiotic.	Whether deaf and dumb, blind, idiotic, insane, or idiotic.
1		Mrs. J. J. J.	F	70			Virginia											
2		J. J. J.	M	32	Keeping House		"											
3		Holland Esther	F	38	"		"							Blind				
4	23	Watts Edward	M	29	Wagon Driver		"											
5		— Susan	F	25	Keeping House		"											
6		— Alice	F	7	at Home		"											
7		— Sigisela	F	6	"		"											
8		— Elizabeth	F	7 1/2	"		"				Aug							
9	24	Combs C. B.	M	29	Shoemaker	100	Maryland											
10		— Annie M.	F	22	Keeping House		Virginia											
11	25	Thompson Walker	M	65	Stone Mason		"											
12		— Mary	F	44	Keeping House		"											
13	26	Watkins William	M	50	Laborer		"											
14		— Ellen	F	22	Keeping House		"											
15		— Sarah	F	13	"		"											
16		— Elizabeth	F	57	cook		"											
17		Winnis John	M	9	at home		"											
18		— James	M	5	"		"											
19	27	Sally W. H.	F	32	Wife in Bank	300	"											
20		— Louisa H.	F	28	Keeping House		"											
21		— W. Hancock	M	5	at Home		"											
22		— J. Courtney	M	2	at "		"											
23		Mrs. J. J. J.	F	40	No Occupation	500	"											
24	28	Beavers Cornelia	F	21	Keeping House		"											
25		— Hunter Robert	M	21	Wiring & Decant		"											
26		— Wesley James	M	23	cook		"											
27		— Alex. Massey	M	3	at Home		"											
28		— Whithead Thomas	M	1	"		"											
29	29	Smith Polly	F	45	Keeping House		"											
30		— Richard	M	41	Wiring & Decant		"											
31		— Jackson Ella	F	16	"		"											
32		— Ireland Annie	F	7 1/2	at Home		"											
33		— Annes Pleasant	F	25	at Home in Deb. party		"											
34		— Jackson W. H.	M	15	Farm hand		"											
35	30	Campbell Pleasant	M	55	Wiring & Decant		"											
36		— Sallie	F	30	House Keeper		"											
37		— Fanny	F	12	at Home		"											
38		— Williams E. J.	M	22	Wiring & Decant		"											
39	31	Jones Paul	M	45	Shoemaker		"											
40		— James	M	19	"		"											

9 No. of dwellings 9 No. of white males 3 No. of white females 1  
 No. of colored males 13 No. of colored females 1  
 Total 22

Charles Coomes reappears in the 1880 Census in Knoxville Tennessee (line 31) as a shoemaker like his father but with a Virginia born wife whose parents were also Virginians and with three children:

[1-296.]

Recd July 19, 1880.

Page No. 16      Note A.—The Census Year begins June 1, 1879, and ends May 31, 1880.  
 Supervisor's Dist. No. 1      Note B.—All persons will be included in the Enumeration, who were living on the 1st day of June, 1880. No others will. Children BORN SINCE  
 Enumeration Dist. No. 144      Note C.—Questions Nos. 10, 14, 22 and 23 are not to be asked in respect to persons under 10 years of age.

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SCHEDULE I.—Inhabitants in second Ward Knoxville, in the County of Knox, State of Tennessee  
 enumerated by me on the 12th day of June, 1880.

J. M. Bell      Enumerator.

Line	Name	Sex	Age	Color	Profession, Occupation, or Trade	Place of Birth	Place of Birth of Father	Place of Birth of Mother	Marriage		Males	Females
									Married	Single		
1	Willie	M	7	Y	Son							
2	Allen	M	9	Y	Son							
3	William	M	21	Y	Son							
4	David	M	43	Y	Shoemaker							
5	Elizabeth	F	36	Y	Wife							
6	Allegria	F	19	Y	Daughter							
7	William	M	7	Y	Son							
8	Henry	M	19	Y	Son							
9	Lula	F	10	Y	Daughter							
10	Willie	M	8	Y	Son							
11	Edward	M	6	Y	Son							
12	Frank	M	4	Y	Son							
13	Oliver	M	1	Y	Son							
14	Woodward	M	21	Y	Shoemaker							
15	William	M	21	Y	Son							
16	Frank	M	17	Y	Son							
17	White	M	37	Y	Shoemaker							
18	Julia	F	25	Y	Wife							
19	William	M	25	Y	Shoemaker							
20	William	M	10	Y	Son							
21	Martha	F	12	Y	Daughter							
22	Henry	M	10	Y	Son							
23	Allegria	F	39	Y	Wife							
24	John	M	12	Y	Son							
25	Henry	M	21	Y	Son							
26	Katherine	F	7	Y	Daughter							
27	Albert	M	7	Y	Son							
28	Bonnie	F	25	Y	Wife							
29	Johnston	M	25	Y	Shoemaker							
30	Brewster	M	40	Y	Shoemaker							
31	John	M	43	Y	Shoemaker							
32	John	M	10	Y	Son							
33	Thomas	M	3	Y	Son							
34	Thomas	M	10	Y	Son							
35	Henry	M	21	Y	Son							
36	Allegria	F	18	Y	Wife							
37	Henry	M	21	Y	Son							
38	Allegria	F	5	Y	Daughter							
39	Allegria	F	12	Y	Daughter							
40	Wilson	M	31	Y	Shoemaker							
41	Ernie	M	21	Y	Son							
42	Henry	M	9	Y	Son							
43	Robert	M	1	Y	Son							
44	Bob	M	9	Y	Son							
45	Thomas	M	20	Y	Son							
46	William	M	24	Y	Son							
47	Julius	M	23	Y	Son							
48	James	M	21	Y	Son							
49	Charles	M	30	Y	Shoemaker							
50	Anderson	M	13	Y	Son							

Note 1.—In the heading relative to columns 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

In 1900 Census as C.B. Coomes, still as a shoemaker In Tennessee (line 55):

TWELFTH CENSUS OF THE UNITED STATES.

B

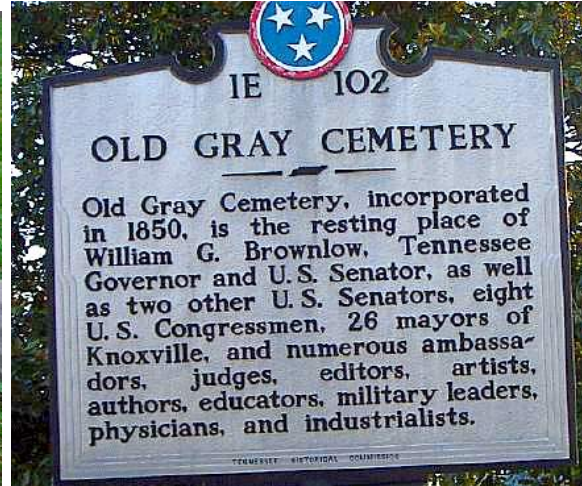
SCHEDULE No. 1.—POPULATION.

State Tennessee, County Knox, Supervisor's District No. 2, Sheet No. 6, Enumeration District No. 58, Name of Institution, Name of incorporated city, town, or village, within the above-named division, day of June, 1900, Enumerator.

Table with columns: LOCATION, NAME, RELATION, PERSONAL DESCRIPTION, NATIVITY, CITIZENSHIP, OCCUPATION, TRADE OR PROFESSION, EDUCATION, SPECIAL REL. Includes handwritten entries for various individuals like Deligier, Burt, and others.

His wife, born in Lynchburg VA, his first out of Maryland address died in 1904 Ann Maria Coomes





- Birth** 22 Nov 1847  
Lynchburg, Lynchburg City, Virginia, USA
- Death** 14 May 1904 (aged 56)  
Knoxville, Knox County, Tennessee, USA
- Burial** Old Gray Cemetery  
Knoxville, Knox County, Tennessee, USA
- Plot** Lot 698

Old Gray Cemetery is the second-oldest cemetery in Knoxville, Tennessee, United States. Established in 1850, the 13.47-acre (5.45 ha) cemetery contains the graves of some of Knoxville's most influential citizens, ranging from politicians and soldiers, to artists and activists. The cemetery is also noted for the Victorian era marble sculpture and elaborate carvings adorning many of the grave markers and headstones. In 1996, the cemetery was added to the National Register of Historic Places.

Named for English poet Thomas Gray (1716–1771), Old Gray Cemetery is an example of a so-called garden cemetery, a mid-19th-century style that sought the transition of graveyards from urban churchyards to quiet suburban plots. Unlike its crowded predecessor, the First Presbyterian Church Cemetery, Old Gray features spacious graves, grand monuments, and extensive vegetation, and its layout bears more resemblance to a public park. Playwright Tennessee Williams mentions Old Gray in his short story, "The Man in the Overstuffed Chair," and Pulitzer Prize-winning novelist Peter Taylor alludes to the cemetery in his book, *In the Tennessee Country*. The cemetery was simply known as "Gray Cemetery" until 1892, when "New" Gray Cemetery was established about a mile away.

Using this information on Ann Maria Coomes, her husband was found in the same plot lot number at the cemetery:

Pvt Boogher C Coomes

**Birth** 7 May 1844

**Death** 16 Jun 1906 (aged 62)

**Burial** Old Gray Cemetery  
Knoxville, Knox County, Tennessee, USA

**Plot** Lot 698

So Charles B Coomes , buried with his Confederate rank, Maryland, Private, Company G, 1st Regiment, Maryland Infantry, Confederate States Army, and enlisted name (middle name first) but with slightly different birth date ( 1839-1840 in 1850 Census, 1842-1843 in 1860 Census, hopefully got the date in stone right)



So at the least , Charles B. Coomes outlived Triadelphia which died in 1889. His arc from a 19 year old shoemaker in Maryland pre Civil War (1860 Census) , to Virginia and married after the Civil War shoemaker (1870 Census), to a shoemaker in Tennessee (1880 and 1900 Census) are suggestive of the arc of Confederate Veteran, which he was, who elected to stay in the former Confederacy rather than return to Maryland where the rest of his family remained. This sequence of events would place the “Bars and Stars” style name carving at Triadelphia in the early 1860’s prior to enlistment.





Boulder carved initials "EBS" with date "1859?". Quarry carved initials.



Quarry face on Howard County side with initials carved. Note reservoir high water level with bottom of white-green lichen growth. Normally all initials are underwater.

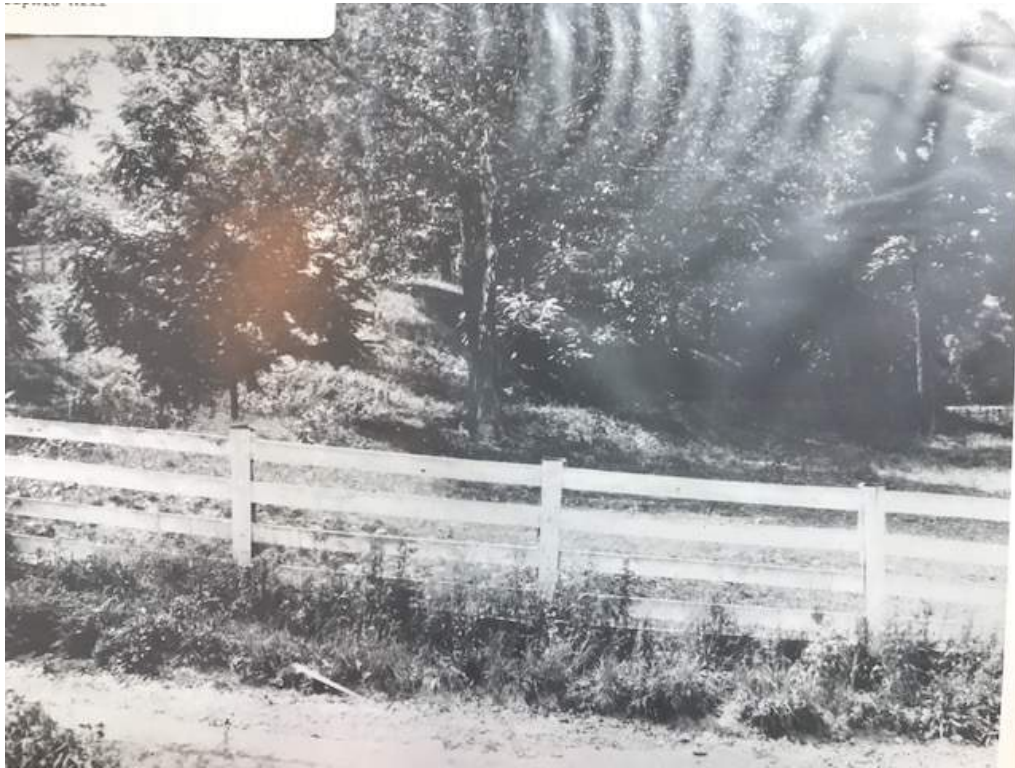




Waste stone at quarry face base with typical drill mark as with sluice gate. One of a number of carvings on the exterior walls of the Brookeville Academy from the 1830's. Similar style to those at Triadelphia suggest a similar date.

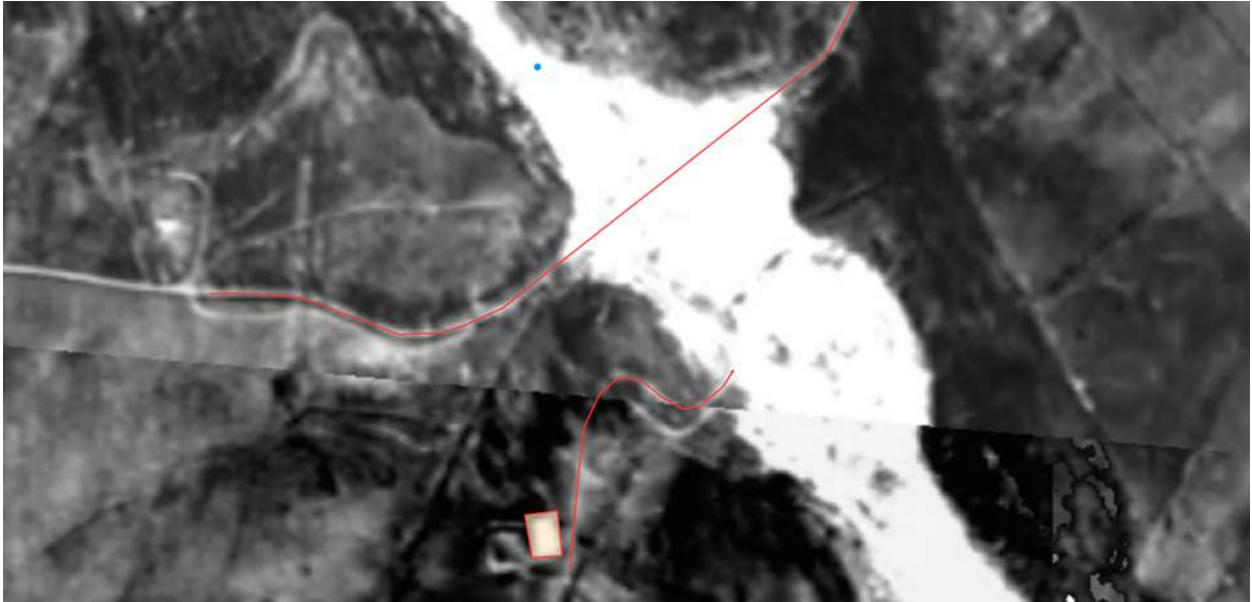


View of Gilpin house in foreground, Lansdale house in background. Main Street. Note flat flood plain terrain.



The road to the church and spring leaving the flat flood plain and climbing up the hill on left which overlooked Triadelphia. Note the more distance fence line on right running in horizontal with flood plain which bordered Triadelphia Road. Unfortunately, summer foliage blocks view of church which at that time was a barn. Church relocated to Mt. Carmel Cemetery across RT 97 on an extension of Triadelphia Rd in 1858, and moved again later to its present location at RT 97 and RT 650 on the SW corner. Trace of mill race on right.





Triadelphia Road at top and church road at bottom with later Ligon barn in rectangle . 1943 aerial. The preceding photo was taken looking from just beyond the reservoir terminus of the church road which would have had the geometry discussed in that photo.



Results mapped 2016 aerial, the church road maps almost exactly to the road cut trace still extant at the site documented by field analysis. The descent to the flood plain of Triadelphia is also marked by a deep road cut that has in 2017 been repurposed as an access point and paved with crushed stone.

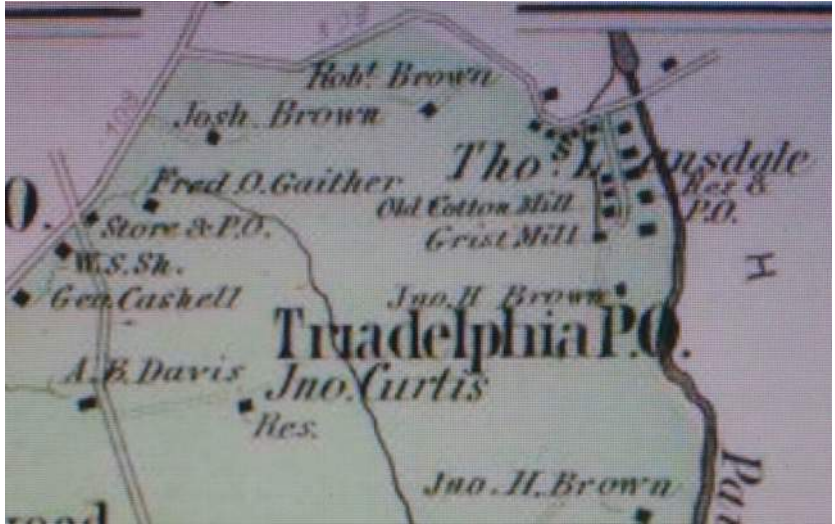




Reconstruction of Triadelphia Road based on aerials, field work and archival photos. C. 1940 (with extension to 1906) showing the repositioning of Triadelphia Rd from Howard County to south of the spring creek with a creek crossing in front of the Gilpin and Lansdale houses. This is the most likely road structure in Triadelphia post 1889.



1860 Triadelphia survey map



1879 Triadelphia survey map

Comparing 1860 and 1879 maps, overall town structure is nearly the same but with Grist mill still operating but with factory labeled “Old Cotton Mill” and presumably abandoned owing to 1860’s flood damage, the lack of railroad access, and post civil war cotton supply . The two houses on right hand side of the main street as it comes off of Triadelphia Road are what were later the Gilpin and Lansdale houses. Mill pond still intact in 1879. The proximity of the pond to the town, the geometry of the mill race path, and the position of the river bed with respect to Triadelphia houses are not consistent with field work and the 1906-1923 USGS maps and suggest that although survey data was used it was not always accurate for land features.





2017 Aerial showing river channel at time of Triadelphia (pre-1943) as red line. The old river bed shows the wide extent of the flood plain upon which Triadelphia was built consistent with the USGS maps of 1906-1923 which used hard survey data. Red circle encloses sluice gate/ Red rectangle shows top church road where it descended to the town flood plain as recently paved by WSSC.



Debris field of mill dam on Howard County side of reservoir. Vertical arrows show north (left) and south (right) extent of field. The junction of Cattail Creek and the Patuxent River can be seen just to the right and below the left vertical arrow. Horizontal arrow shows sluice gate of mill race which was originally at Montgomery County side of mill dam. 2017 aerial. Debris field is characterized by medium sized flat rocks of local origin as determined by up river field work. but which are far more abundant than which could be produced by an adjacent geological source. The present location indicates the dam was most likely bull dozed in the reservoir creation process to clear the reservoir bottom. The debris field extends from reservoir bottom to the normal water line. The dam, like many of the 19<sup>th</sup> century was probably faced with the flat rocks stacked horizontally with earthen fill behind.





December 1937 aerial showing Triadelphia ( U shaped road lower left) and Triadelphia Road ( Upper left to bottom center). Upper right of center shows confluence of Patuxent River and Cattail Creek. Traces of Mill Dam ruins and sluice gate visible on Montgomery County (left) bank of Patuxent River about half way between confluence and Triadelphia Road. Mill pond at times extended from confluence to dam.

Since available aerial photography was either nonexistent or at low resolution from local historical societies or state archives, the National Archives were searched and after spending a week there a roll of negative film was found that had Triadelphia clearly shown in December 1937. The principal overflight was after a snow storm, so the road network was partially obscured, fortunately the map overflights taken two weeks apart overlapped, and a clear image of Triadelphia was found after much searching, as shown below.



December 1937 aerial view of Triadelphia Rd (diagonal upper left to lower right) , Triadelphia Mill Rd (upper left going right, passing in front of Brown farm house), Patuxent River ( center bottom to upper right diagonal), Triadelphia ( U shaped road on lower right). Between the Brown farm and Triadelphia, slightly left of center, is the Triadelphia overlook house ruin site identified earlier.





December 1937 aerial view of Triadelphia, MD. Trace of contour following mill race is clear from upper left to cotton factory foundation ruins on center right. Mill, which operated until destroyed by the great 1889 flood, was south (right ) of factory and had an 18 foot diameter overshot waterwheel with an 8 foot width with 100 hp rating perating at 20 rpm from 1880 Manufacturers Census. By 1880 after a fire in 1860, the cutoff of cotton during the Civil War, and a major flood in 1867, the cotton factory had been abandoned for about 20 years. An 1822 sale ad is quoted as saying the factory was 25' X 29', however this is much smaller than the 1937 aerial factory foundation views and is hence as the taken as the dimensions of another mill and not the factory.



1937 view of Triadelphia at a somewhat greater distance. Can see Triadelphia crossing Patuxent River on upper just left of center..as a widening of road.

This image was combined with two archival maps showing Triadelphia in 1850 well before the civil war and c 1860 just before the Civil War shut down the Cotton Mill permanently. The infrastructure was then mapped to modern aerals of the Triadelphia Reservoir taken in 2002 ( major drought) and in 2017 (dam repair).



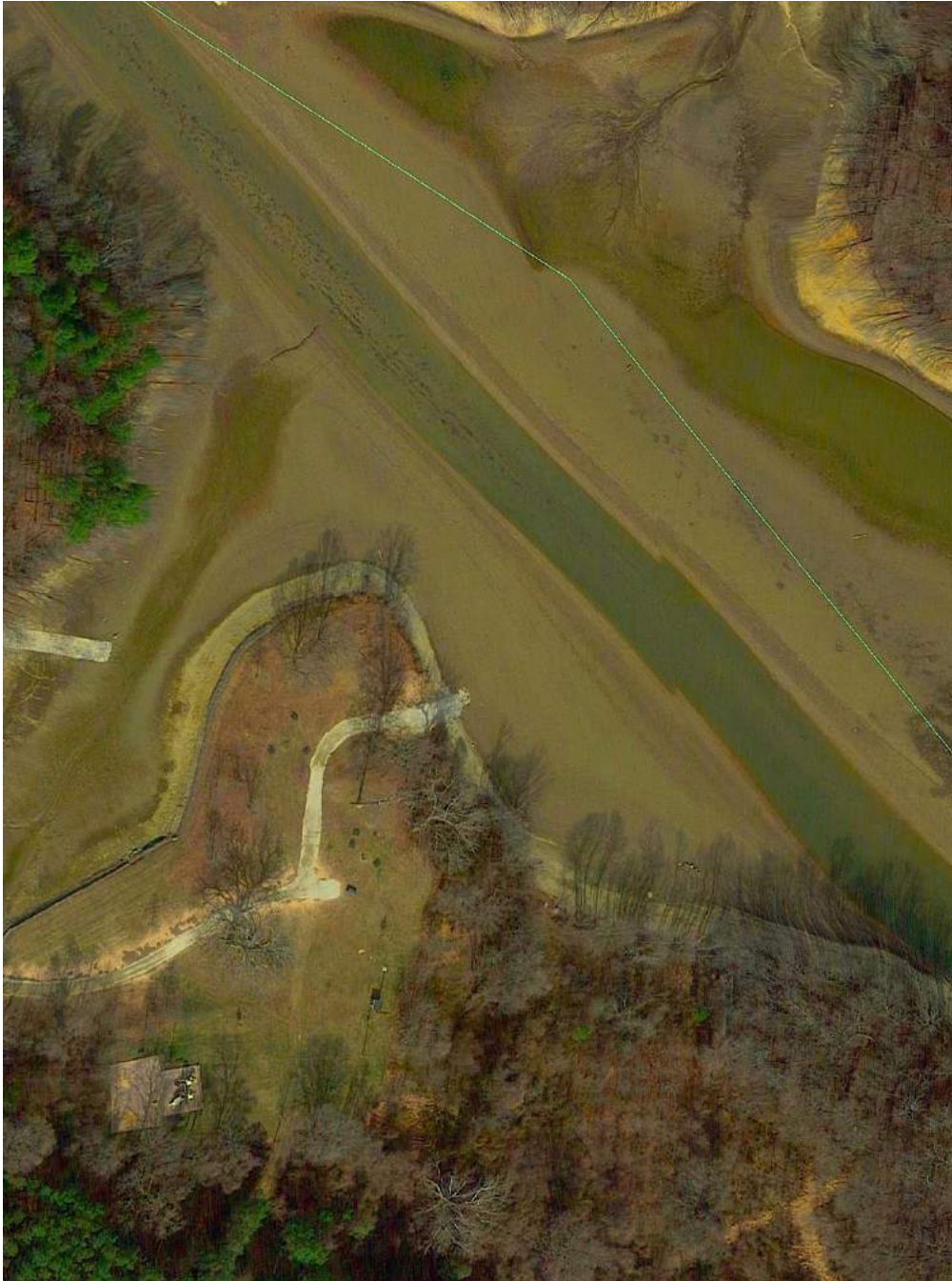
2002





Concrete sectional pipes used to bridge the small creek shown in 2002 aerial right hand side at lower part of Triadelphia Rd approaching Triadelphia from Howard County. Likely late 19<sup>th</sup>-early 20<sup>th</sup> century. May have been used in Triadelphia Rd rebuild after 1889 massive flood.





2017

The superposed infrastructure from the 1937 image onto these modern aerals are shown below.



2017



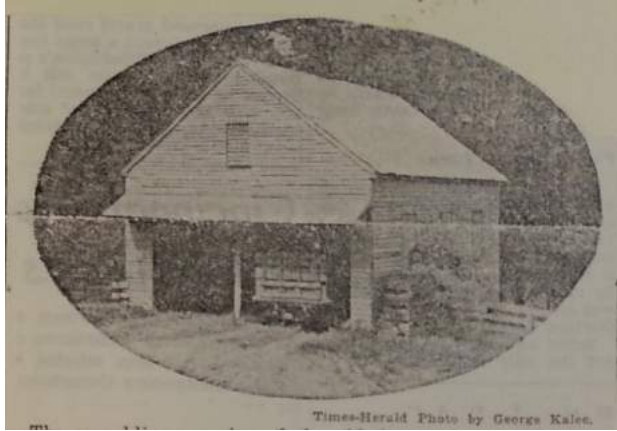


2002

Note that the large structure below the Gilpin and Lansdale Houses is the foundation ruins from the Cotton Factory. The reduced size at south end provides orientation for many period photographs. Also the north end has no sharp terminus as it appears to have been salvaged



before the 1937 aerials, consistent with extensive salvage work by the Ligon's from the 1920's. However, the use of period photos allow full reconstruction using proportion of small south end to rest of extant structure in photos. At the time of the aerial photos, Mt Carmel church had moved and the building was being used as a barn as shown below in 1941 photo.



Repurposed original Mt. Carmel church and a standing model for it: c.1865 school in Brookeville  
The church located on a little knoll above the town became a refuge whenever the waters of a flood threatened.



Front exposed church foundation stones. Left: view to back road. Right : reservoir overlook.



Panoramic view of Patuxent valley from church high above river: Triadelphia Rd, north Triadelphia, south Triadelphia. The church was probably not only a source of inspiration but also a place of refuge during the severe floods.





Exposed front (left) and rear (right) foundation stones. Church was 32' deep and 20' wide as determined from these stones and 1937 aerial photography.



View of ruined foundation of Mill with south end of Cotton Factory seen to north. Mill appears to have been a frame structure on rubble foundation typical of many farm buildings of period. Proved not durable in the massive flooding of 1889 in which the massive stone buildings on

grouted foundations were much more durable. c. 1900. Note offset of factory bell tower from roof ridge line gives relative angle of factory and mill.



Example of a wooden mill, likely similar to the grist mill at Triadelphia. Note the unmortared foundation. The wheel is a topshot as opposed to breastshot owing to its location in the steep topography in Shenandoah, Virginia. Easy to see how a flood like that of 1889 could obliterate such a structure while leaving the heavy stone factory and stone house intact,



General Store c.1900 viewed from back of Lansdale House. Ridge line of Patuxent valley wall in Montgomery County can be seen behind through trees.

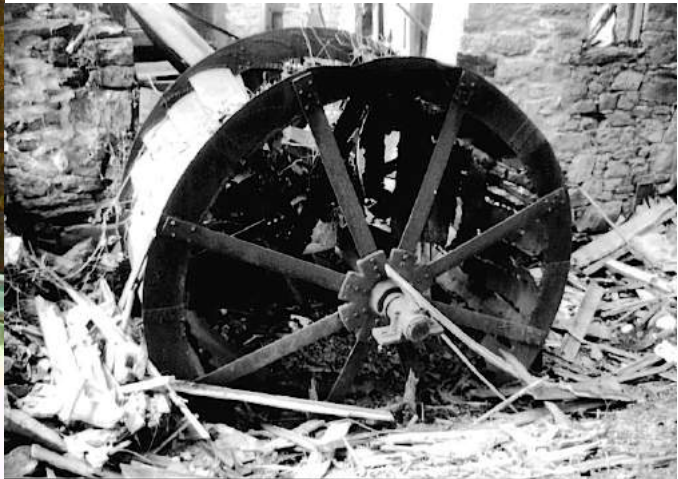




Cotton Factory c. 1900 showing ruins of other houses on same side of street north of the factory. Note large tree on opposite side of street just south of Lansdale House. Unfortunately, no pictures of the business side of the Factory which would have shown at least the wheel pit and the water wheel axel entrance to the Factory have been found. Either that side was too damaged to make a good photograph, or the photographer did not wish to ford what could have been a wet mill race c. 1900. The possibility of determining whether the water wheel was topshot or breastshot can be determined from the total head, i.e. the vertical elevation difference from the top of the sluice gate to the top of the Gilpin house foundation. This determination should be possible with WSSC GPS equipment. As shown below the trace of the millrace (red dots) follows an elevated contour to maximize delivered head to the Factory. Waterwheels were replaced by turbines in 1870's-1880's owing to the much greater horsepower ratings. Simpsonville was upgraded to a turbine due to its support of a woolen factory. Triadelphia Factory shut down at the start of the Civil War in the 1860's due to lack of Southern cotton. Hence Triadelphia Factory employed most likely a wooden water wheel updated to allow production improvements in the mid-19<sup>th</sup> century. There is a possibility that Triadelphia was upgraded to steel wheel from Great Britain c. 1850, but it is unlikely since the Factory always operated far below its capacity. In contrast, Roxbury Mill was upgraded to an early 20<sup>th</sup> century steel wheel in 1917. The Triadelphia Mill which operated until the 1889 flood, was a low volume local mill and probably also employed a wooden waterwheel like the pre-1917 Roxbury Mill.

As a Pennsylvania example, sometime around 1906, mill owner Allen Simmers replaced the old wooden water wheel with a steel water wheel manufactured by the Fitz Water Wheel Company of Hanover, Pa., which pioneered the mass production of steel wheels. These were more efficient than wooden wheels due to their curvilinear buckets, which held the water longer during the rotation of the wheel and thus increased its gravitational power. More than 16 feet in diameter, the wheel at the Mill at Anselma produces 6,400 foot pounds of torque-equivalent to 13 Lamborghini sports cars. At full power it moves 2,000-3,000 gallons of water per minute.

Early Fitz overshoots water wheels, built of wood, had an efficiency of 75% at best. It was to this relative inefficiency and then present day technology that caused Fitz to hit upon the idea of constructing steel wheels. Such wheels, he reasoned, would have none of the draw backs of their clumsy cousins: Wooden Buckets could not be shaped with the optimum curve needed for receiving and discharging water; they were frequently out of balance and jerky in rotation; swelling and drying caused loose parts and leaky buckets made for a loss of power and efficiency. Why, even in a small flood, a little back water would reduce efficiency as the wheel had to drag through the tail race; sometimes the wheel stopped turning completely under a load. In the winter, ice would prevent the wheel from turning (causing northern millers to consider placing their wheels inside the mill); and, finally, ice or water soaked wheels made their static weight increase so dramatically that efficiency was again compromised. The average life of a wooden wheel ranged from 10 to 30 years depending on how well the wheel was maintained. Repairs were always frequent, and down time because of wheel repairs and/ or inefficiencies were a common phenomenon with wooden wheels. Furthermore, their jerky motion made them impossible to govern, An all iron wheel would end all of these troubles.



Anselma Mill overshot steel waterwheel (1906) similar to Roxbury Mill wheel (1917) at right.

The Fitz waterwheel Company started in the summer of 1902. Its history leading up to this date started back in 1840 when Samuel Fitz operated the Hanover Foundry. This machine shop provided a number of services ranging from casting of segment and spur gears to metal parts needed in outfitting horse wagons in addition to building wooden waterwheels. The Fitz Company built water wheels from 4 to 45 feet in diameter, and from one to 16 feet in width. In 1896, the Tuscarora Iron Works and the Hanover Foundry and Machine Shop were merged into the, "I-X-L Water Wheel Company," and on July 15, 1902, the name finally was changed to The Fitz Water Wheel Company under John S. Fitz (1847-1914), company President and son of Samuel Fitz.

Around 1850, while running the Hanover factory, Samuel Fitz took over the Tuscarora Iron Works from Daniel Kennedy who had died at a young age. By this time wooden waterwheels were being made with metal hubs and axles. Some all metal waterwheels were also being made in England and finding their way to the United States. The advantage of having an "All Metal Waterwheel" was better machinery efficiency performance and simpler maintenance. Metal waterwheels also allowed the milling of products longer into the winter because the wheels would not freeze up. The performance increase was due to a curvilinear bucket (rounded shape). This type bucket reduced the turbulence of the water entering the bucket cavity, it also held the water longer in the buckets increasing the time duration of wheel cycle and had less water



spillage. John Fitz (the son of Samuel) made his mark by being able to set up his machine shop to fabricate these metal water wheels using mass production processes. He had developed a standard metal bucket for a full range of wheel sizes, defined side panels to fixed sizes and an onsite assembly procedure that allowed most owners to assemble their new wheels with little assistance from a technician traveling in for site assembly. In looking at his machine shop work orders, even the total count and sizes of the rivets needed were detailed for each waterwheel order.

The Hanover factory and the Tuscarora Iron Works merged to form the I-X-L Water Wheel Company. Fitz had bought the name IXL from a turbine company he acquired in 1870-1880.

Although principally known for its overshoot water wheels, Fitz did make a very fine line of turbines. He came into the turbine production business with the acquisition of the Norrish Burnham Company of York, Pennsylvania, and began to build the improved Fitz-Burnham Turbine. Burnham began his turbine company in 1856 in Laurel, Maryland, then moved the plant to Pennsylvania in 1858. The growing Fitz Company soon added another turbine design for their customers which they called the Fitz-Hanover. Rounding out his product line

If you look at it you see the phrase "I excel". By the late 1800's the company was in full production of a full line of sizes of the world famous I-X-L Steel Overshot Water Wheel. In addition, the company continued to manufacture and restore all types of waterwheels. Fitz even manufactured wooden wheels for those clients who were committed to this type of wheel. The company continued to grow and on July 15, 1902 the company changed its name to the Fitz Water Wheel Company of Hanover, PA.

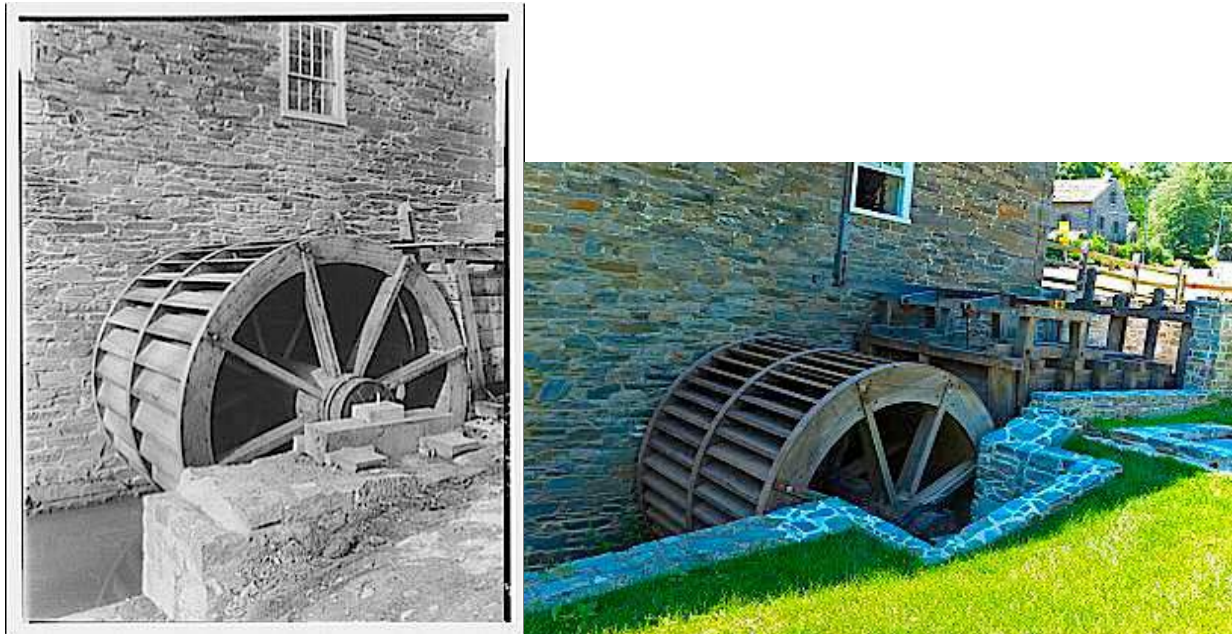
One of the main reasons for the success of the Fitz Water Wheel Company was not in its advertising but in the product itself. The first Fitz wooden wheels had a power efficiency of around 70%. Not bad for the time. With the introduction of the I-X-L Overshot Waterwheel, Fitz claimed over 90% efficiency. Fitz made sure he told the world about his great efficiency rating after a 136 page report was conducted in 1898 by the University of Wisconsin, Engineering School, and was posted to the public in 1913. By the late 1920's the Fitz Water Wheel Company was the largest vertical waterwheel manufacturer in the world. Unlike turbines that lost their effectiveness with a small shift of water pressure, vertical waterwheels would continue to run in a low water volume situation. This made them ideal for factories and farms where water tables would vary widely during the year and product production was needed all year.

In addition, the company continued to manufacture and restore all types of waterwheels. Fitz even manufactured wooden wheels for those clients who were committed to this type of wheel. The company continued to grow and on July 15, 1902 the company changed its name to the Fitz Water Wheel Company of Hanover, PA. They built their wheels in sections which were later knocked down for easy shipping. Buckets/rim sections were built in either 8 or 20 sections according to the diameter of the wheel. The best year was in 1932 while the country was in the midst of the Great Depression.

HorsePower at the shaft of a waterwheel can be determined by knowing the (D)iameter of the wheel, (Q)uantity of water in cfs [Cubic Feet/Second] by a constant of .1135 times the efficiency of the waterwheel. So  $HP = .1135 * Q * D * Eff$ . Note that 1 cubic foot = 7.5 gallons.

Constant = (Water Weight lbs.) / (foot-lbs/sec) , Constant = (62.42 / 550.221), Constant = 0.113491

1 Horsepower = 746 Watts. to get electricity out of a waterwheel you will have to gear the RPMs of the waterwheel (generally from 5-10 rpm's up to 500 - 1700 rpm's) and then run it through a generator or a DC motor to charge a battery bank. This will generally cut your power at the axle HP by almost 1/3 to 1/2. A waterwheel is really designed to do mechanical work.



Wooden Breast Shot Water Wheel at Isaac Peirce Mill, c. 1936 and 2017 images, Rock Creek Park, Washington, D.C. (1829-1897). A model for the Triadelphia Factory and Mill.

Isaac Peirce amassed property along Rock Creek, starting with the purchase in 1794 of 160 acres that included a house, barn, mill, slave quarters and hundreds of fruit trees. Small boats would carry plaster up the creek to be ground at his mill. Isaac added a saw mill around 1800. Using stone quarried along Broad or Piney Branch, he then constructed a spring house, carriage house, distillery and — by 1829 — a new mill based on recent revolutionary designs.



Isaac Peirce Mill Side and front view

Isaac Peirce, a Quaker, built Peirce Mill on Rock Creek in 1829. Using the moving water as a power source, the mill ground corn, wheat, and rye. Succeeding generations further developed the mill, sawmill, orchard, and tree nursery. Before the Civil War, slaves provided much of the labor on the 960 acre property. In 1890, an act of Congress incorporated the mill and 350 acres of the property into Rock Creek Park over the owners' protests. The mill operated until the turbine's shaft broke in 1897.



Interior diagram of Isaac Peirce Mill showing early industrial mechanization.

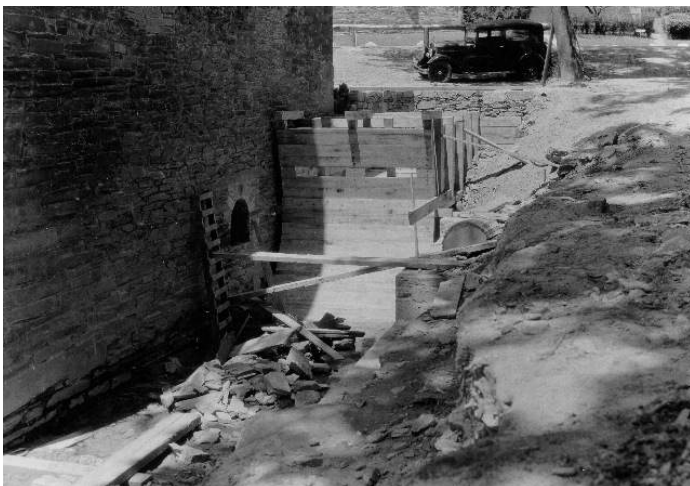




Mill stone layout and mill dam and head race of Isaac Peirce Mill in Rock Creek Park , Washington, D.C.



Pierce Mill head race detail showing uncommon stone facing, most were simply ditches and unrestored water wheel.



Peirce Mill reconstruction showing wheel pit with arched entry for water wheel axle as in Simpsonville. Later turbine used until 1897.



Example of period turbine more intact and with bevel gearing for small axel power transfer into mill





Interior power take off gearing at Peirce Mill showing open arched passage for wheel shaft lower center with light coming through

At the turn of the century, park managers went to work improving the site. First, managers improved the roads and bridges. Then they added a new dam that provided a nice aesthetic for picnickers. In the 1920s, the mill was converted into a tea room complete with electric lights. In 1933, New Deal legislation transferred Rock Creek Park to the National Park Service. The National Park Service restored the mill and grounds to their historic layout by 1936.

One day Mr. Fitz came to Wisensale and said, "There is a 40' x 50' mill over in Washington, D. C. the Isaac Pierce Mill, and I want you to go and fill it up with machinery. You can use machinery from mill that would never again be restarted." (This is the present day Isaac Pierce Mill operated by the National Park Service, in Rock Creek Park). Mr. Wisensale did all the

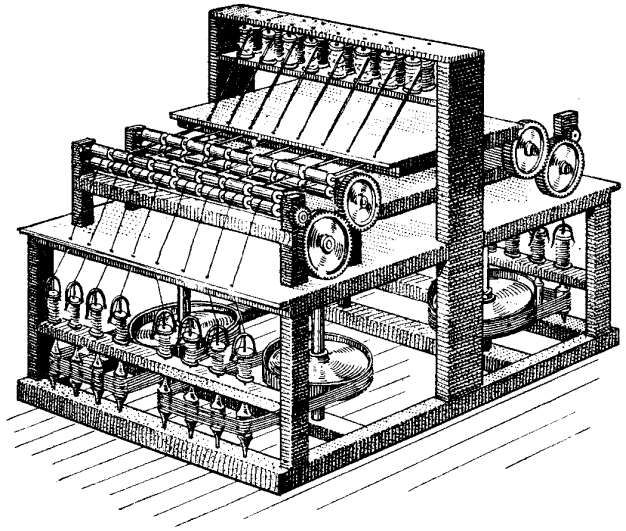


drawings for the 1930's Fitz restoration. Thus, Wisensale and his assistant, Richard Walker, started work using materials and equipment that Fitz had previously collected including: gears dating from 1818, millstones, lighter staffs, bottle weights, and meal boxes dating from 1804 which came from the J. A. Baldwin Mill in Burnt Cabins, Pennsylvania. From the Baughman's Mill near Linesboro, Maryland, came an 1802 hopper-boy, cleaners, sifters and elevators. The other half of the works (the millstones and gearing) was used later in the Lee's Mill restoration. At the Isaac Pierce Mill in Washington, Fitz's men built a wooden breast water wheel because there was plenty of water available, and they could make the wheel about 8 feet wide to hold plenty of water. An overshot wheel would have had to have been substantially smaller in diameter and would have developed much less power. The wheel had French Creek granite bearings lubricated with water. The granite came from Valley Forge, Pennsylvania. The Isaac Pierce Mill is taken as the model for the Triadelphia factory.

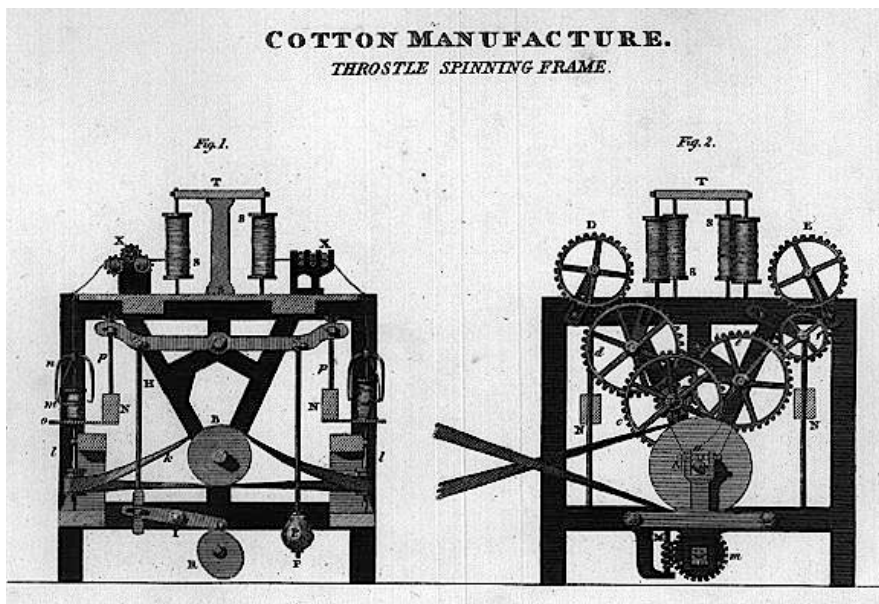
In 1769 Richard Arkwright in Great Britain patented a cotton spinning frame and with a series of other inventions provided an end to end process composed of number of machines, best described by calling them a cotton-yarn factory. The uncleaned cotton was put into the first of these, and it came out of the last, the water frame, as snow-white, well-twisted thread. In 1785 40 million yards were produced in England. By 1850, England produced 2 billion yards.

The capital costs were high, but allowed use of low skill labor, such as the farm families surrounding Triadelphia. This was the basis for the Triadelphia factory. The Arkwright technology came to the US in 1789 when an Englishman, Samuel Slater, immigrated to the US. Little did his former employers at the Strutt Cotton Mill in Derbyshire know that Slater memorized the spinning machines and water frames which he duplicated in Pawtucket, Rhode Island in 1790. Slater's Mill was the first successful water-powered spinning mill in the US. Slater became known as the "Father of the American Factory System" and America went ahead of Britain in cotton production by the mid-1800s. Industrial espionage has always existed, resulting in a flow from the technically advanced to the less so. This plays out even today in the case of the US and China.

In the American South, where cotton production skyrocketed from 1790 to 1810 in response to demand from the textile mills of England. This demand was aided in 1793 by Eli Whitney's ( a distant uncle of Alison and Mary Curtis) cotton gin which separated the sticky seeds from the picked cotton plants. The gin cleaned more cotton than done by hand. American cotton production skyrocketed from 1.5 million pounds in 1790 to 85 million pounds in 1810. Slavery also became imbedded in American agricultural life.

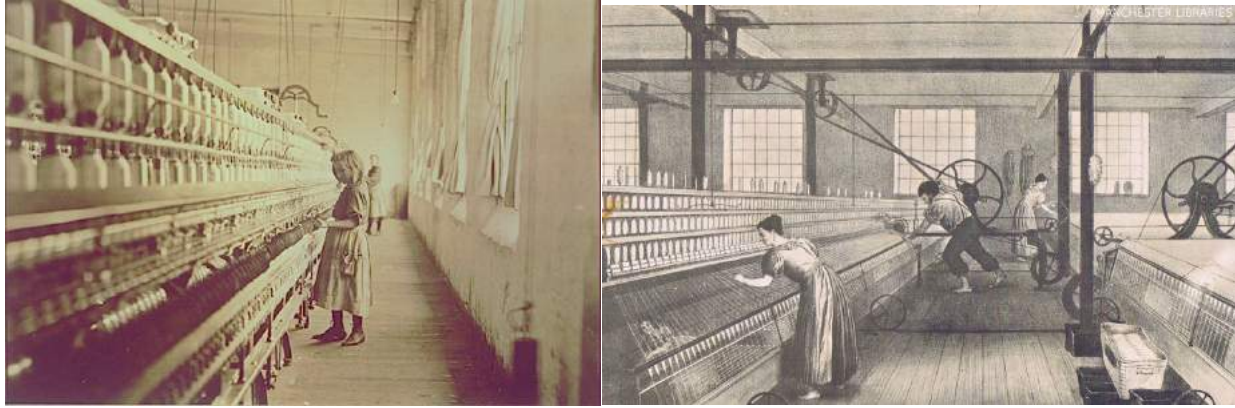


Arkwright water frame or roll drawing spinning machine and in operation 19<sup>th</sup> century

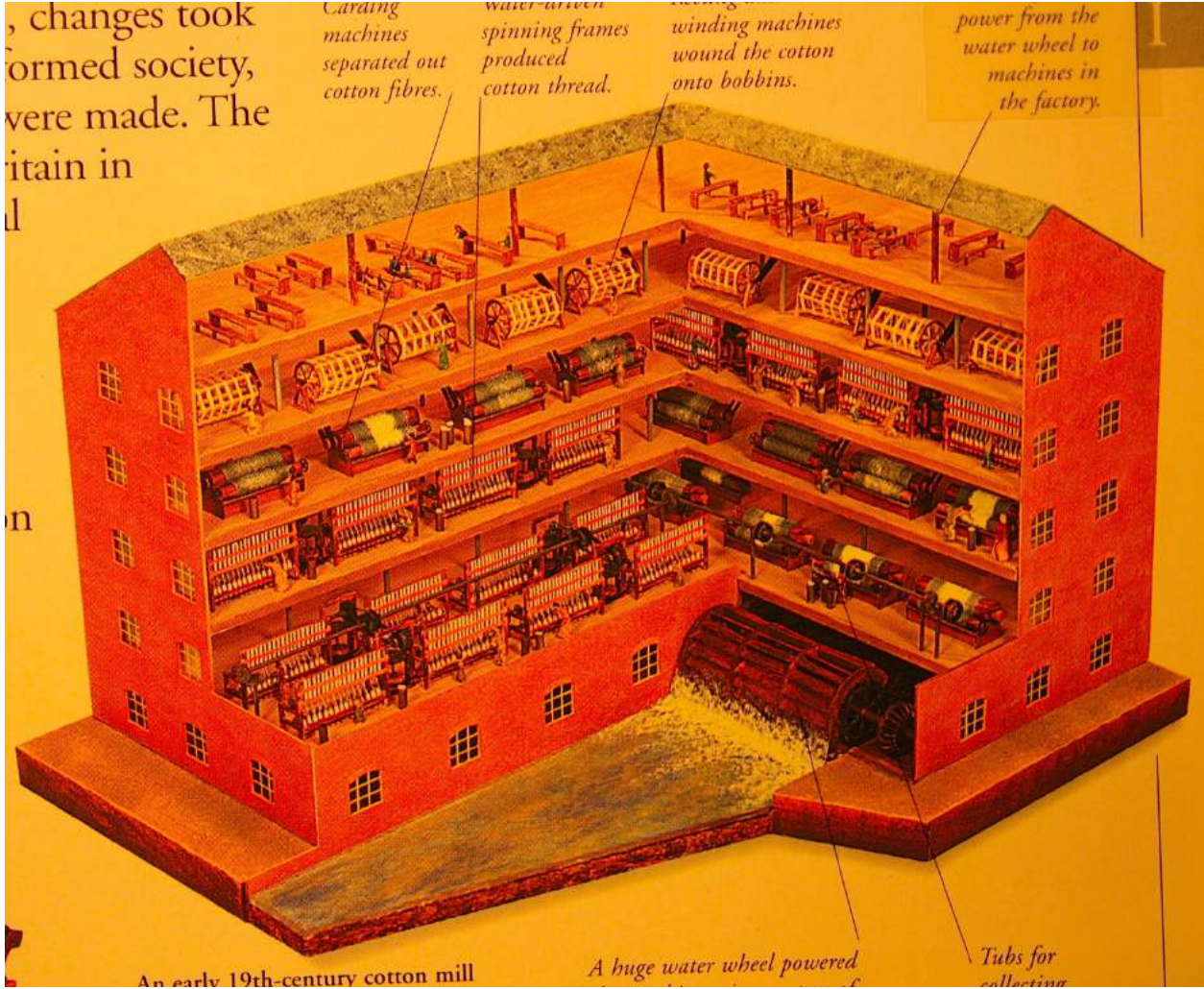


Another form of spindle believed to have been used at Triadelphia.





1908 US cotton factory with spinning machines and typical young girl labor. Early 19<sup>th</sup> English cotton factory.



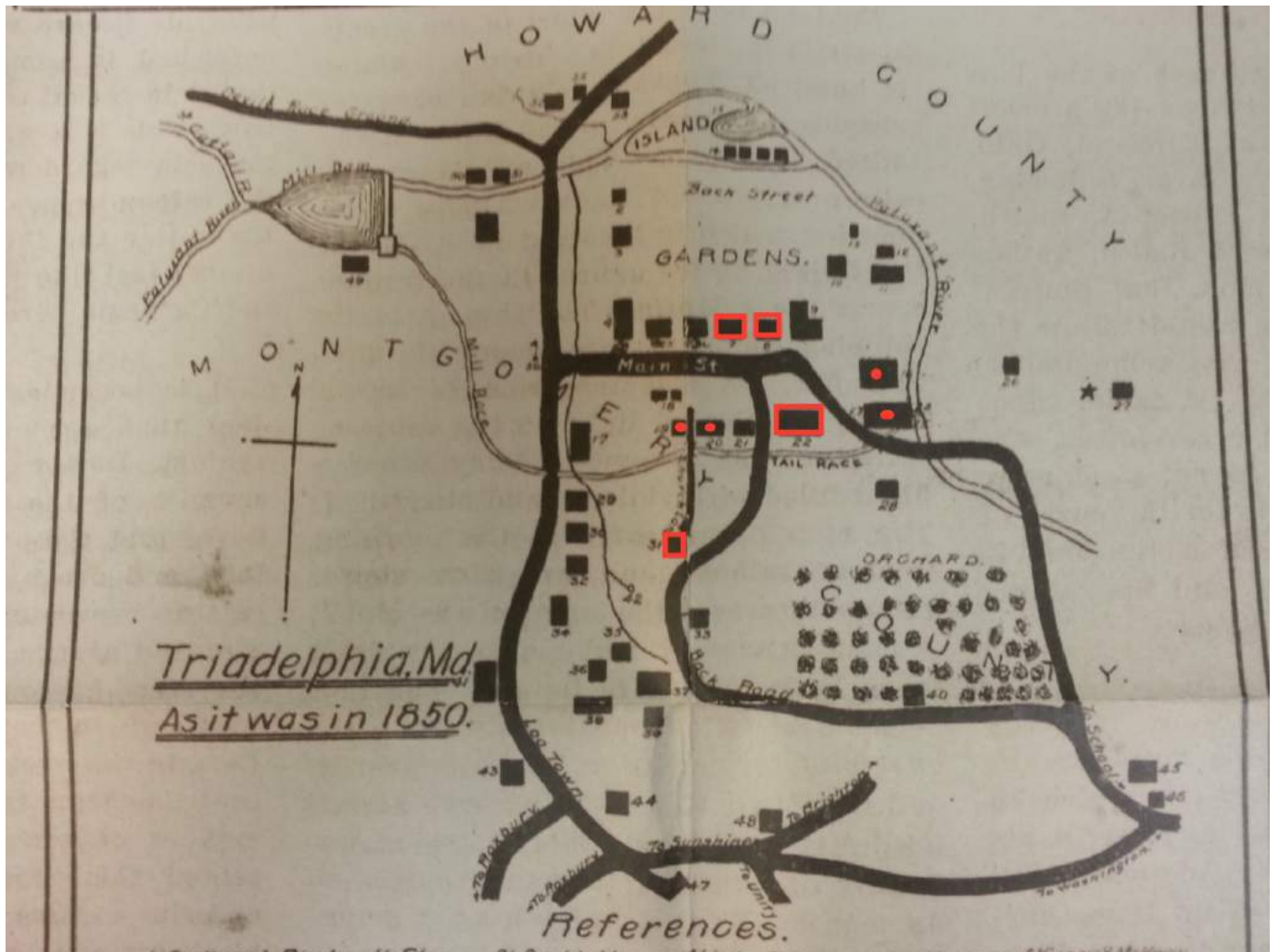
Mill of same period but larger than Triadelphia Factory which had three stories, not five, and was a linear structure without a wing and with probably a single rather than a triple water wheel.







Millrace trace (red dots). Total millrace length from sluice gate to factory: ¼ mile



1850 Triadelphia map with structures from 1937 aerial photo in red boxes, structures from c. 1900 photos with red dots. Top row: Gilpin and Lansdale houses; Second row: Company store; Third row: two ruined houses, Cotton Factory, Mill rubble foundation; Bottom row: Mt. Carmel church.





Lansdale House opposite Cotton Factory with large tree at south end which is shown across the street from the Cotton Factory.



Triadelphia reconstruction using archival photos c. 1900 to place structures in pink.

Only one structure has had its foundation, a foundation wall of the Gilpin house, exposed by the Patuxent River running in the reservoir bottom thus far.





Triadelphia house foundation interior foundation wall dividing duplex house. Chimney foundation breaking water. Note finished stones on near bank. Foundation, assumed perpendicular to main street gives correct road orientation.





Triadelphia house stone floor slabs just upstream of foundation. Top half of image.



Triadelphia foundation location looking toward ramp. Combining this with the aerial mapping superposition, the exposed foundation is that of the Gilpin duplex house interior foundation wall.

From this foundation location identification , and the identified building locations from the aerials it appears likely that Lansdale and Cotton Factory and Mill will all be exposed by erosion over the coming year while low water levels persist.





Layers at mill site. Taking middle debris layer to be last extended low water in 1980, then bottom quartzite layer is original flood plain deposition from 1942 and maps out the river course through the floodplain , and at top new debris layer of dead plants forming (2018). Then there are two nearly equal layers of continuous sedimentation: one 1942-1980 and one 1980-2018. This implies uniform sedimentation rates since dam construction in 1942.



Sediment layers visible from later deeper river channel cut.



Rare extant on site building blocks of Triadelphia:



Left: stone lintel on river bank. Right: stone lintel on church hill with mortar still on.



View of foundation debris field at south end of Triadelphia. Foreground is west bank . Many of the stones have been faced.





Fully exposed dressed lintel stone in west bank debris field



Exposed water worn very large boulder just south of town showing present elevation near pre reservoir water levels. This may have been in the river channel at the time of Triadelphia. In the least, it places a constraint on the location of the mill: it had to be north (upstream) of it. Seen at south end of previous picture.





West and east bank foundation debris fields details



A period house in Laurel (Factory) for an example of stone masonry.





Laurel Factory dam at west end and gap at Patuxent with ruins continuing on east bank. Massive stone architecture.



Deposit of large faced stones south of dam location at Triadelphia on Howard county (east) bank of Patuxent. Not as large as the massive ones of Laurel.

The question arises as to how the output of Triadelphia in 1850, near its peak compared to other mills and factories. The 1850 Manufacturing Schedule conducted in conjunction with the 1850 US Census provides insight into this question what follows are results from the 1850 report with sample heading:

**SCHEDULE 5.—Products of Industry in 1<sup>st</sup> or Cracker District in the County of Montgomery State of Maryland during the Year ending June 1, 1850, as enumerated by me, Wm. H. Ferguson Ass't Marshal.**

Name of Corporation, Company, or Individual, producing Articles to the Annual Value of \$500.	Name of Business, Manufacture, or Product.	Capital invested in Real and Personal Estate in the Business.	Raw Material used, including Fuel.			Kind of motive power, machinery, structure, or resource.	Average number of hands employed.		Wages.		Annual Product.		
			Quantities.	Kinds.	Value.		Male.	Female.	Average monthly cost of male labor.	Average monthly cost of female labor.	Quantities.	Kinds.	Value.
1	2	3	4	5	6	7	8	9	10	11	12	13	14

Triadelphia and nearby goldmine:

Osborn & Co.	Gold mining	500	lbs 10	Pure Mercury	12		7	175		84	Gold.	1596
Montgomery Company	Cotton Factory	20,000	240,000 480 480 180 100	Cotton Oil Lard Heddles Wood	2000 600 120 100 250	Water 44 looms 1300 spindles	18	52 224	426	560 000	Yds 4 9/16 shirting	39200
Montgomery Company	Flour & Grist mill Saw & Plaster mill	6000	5500 5000 7 50	Wheat Corn Stew Plaster	5000 2500 275	Water 4 mill 4 stone	3	60		1100 5500 50000 1500	Flour Meal Lumber Ground Plaster	5500 2750 750 390
Montgomery Company	Blacksmith Shop	200	4 12 1000	Iron Steel Coal	360 60 60	2 bellows	2	50			Nails Hoe iron Factory & Country work	250 250 500

Triadelphia operating under the Montgomery Company has a cotton factory with 44 looms and 1300 spindles; a flour and grist and saw and ground plaster (fertilizer) mill with 4 grinding stones; and a black smith shop with 2 bellows.

Newlin Mill (line 8)

Atenas Acolia	Grist, saw & flour mill	1000	1000	grain	500	Water	1	18		1100 15000 200	Meal Lumber corn seed	550 225 1000
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Ellicott Mills (lines 1-5) and Savage Mills (lines 15-18) :



SCHEDULE 5.—Products of Industry in *Howard District* in the County of *Anne Arundel* State of *Maryland* during the Year ending June 1, 1880, as enumerated by me, *Geo. L. Tickell* Secy. Marsh.

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			Quants.	Kind.	Value.		Kind of motive power, machinery, steam, or water.	Male	Female	Children	Wages	Quants.	Kind.	Value.	
1	Ellicott & Brothers	Print. Press	40,000	Iron	10,000	Water	120	100	June 2,400	Cast Iron					
	& Foundry		40,000	Iron	10,000	Water	120	100	June 2,400	Cast Iron					
			40,000	Iron	10,000	Water	120	100	June 2,400	Cast Iron					
2	Washington & Miller	Merchant	30,000	Wheat	10,000	Water	7	200	June 2,200	Flour	110,000				
	Miller		30,000	Wheat	10,000	Water	7	200	June 2,200	Flour	110,000				
			30,000	Wheat	10,000	Water	7	200	June 2,200	Flour	110,000				
3	Clement Wharves	Produce	150	Wheat	125	Hand	3	60	June 400	Flour	800				
	Miller		150	Wheat	125	Hand	3	60	June 400	Flour	800				
			150	Wheat	125	Hand	3	60	June 400	Flour	800				
4	William Sherwood	Cropper	1,500	Wheat	600	Hand	3	60	June 500	Flour	1,500				
			1,500	Wheat	600	Hand	3	60	June 500	Flour	1,500				
			1,500	Wheat	600	Hand	3	60	June 500	Flour	1,500				
5	E. E. Bell	Iron Ore	800	Iron Ore	150	Hand	15	250	June 2,500	Iron Ore	6,000				
	Bank		800	Iron Ore	150	Hand	15	250	June 2,500	Iron Ore	6,000				
			800	Iron Ore	150	Hand	15	250	June 2,500	Iron Ore	6,000				
6	William Mills	Iron Ore	800	Iron Ore	150	Hand	15	200	June 2,000	Iron Ore	5,000				
	Bank		800	Iron Ore	150	Hand	15	200	June 2,000	Iron Ore	5,000				
			800	Iron Ore	150	Hand	15	200	June 2,000	Iron Ore	5,000				
7	Thomas Stone & Sons	Powering	5,000	Wheat	3,000	Water	2	70	June 2,000	Powering	20,000				
			5,000	Wheat	3,000	Water	2	70	June 2,000	Powering	20,000				
			5,000	Wheat	3,000	Water	2	70	June 2,000	Powering	20,000				
8	Thomas Weston	Produce	200	Wheat	150	Hand	3	60	June 400	Flour	500				
	Shop		200	Wheat	150	Hand	3	60	June 400	Flour	500				
			200	Wheat	150	Hand	3	60	June 400	Flour	500				
9	Peter Gray	Iron Ore	150	Iron Ore	50	Hand	5	50	June 500	Iron Ore	1,500				
	Bank		150	Iron Ore	50	Hand	5	50	June 500	Iron Ore	1,500				
			150	Iron Ore	50	Hand	5	50	June 500	Iron Ore	1,500				
10	Richard Gray	Iron Ore	200	Iron Ore	50	Hand	20	200	June 4,000	Iron Ore	10,000				
	Bank		200	Iron Ore	50	Hand	20	200	June 4,000	Iron Ore	10,000				
			200	Iron Ore	50	Hand	20	200	June 4,000	Iron Ore	10,000				
11	Thomas Ayre	Iron Ore	200	Iron Ore	50	Hand	1	70	June 600	Iron Ore	1,000				
	Bank		200	Iron Ore	50	Hand	1	70	June 600	Iron Ore	1,000				
			200	Iron Ore	50	Hand	1	70	June 600	Iron Ore	1,000				
12	William Lamberson	Paper Mill	2,200	Wheat	10	Water	2	40	June 4,500	Paper	20,000				
			2,200	Wheat	10	Water	2	40	June 4,500	Paper	20,000				
			2,200	Wheat	10	Water	2	40	June 4,500	Paper	20,000				
13	George Manafectin	Wheat Mill	100,000	Wheat	100,000	Water	50	200	June 2,000	Flour	170,000				
			100,000	Wheat	100,000	Water	50	200	June 2,000	Flour	170,000				
			100,000	Wheat	100,000	Water	50	200	June 2,000	Flour	170,000				
14				Wheat	2,000	Water	2	60	June 2,650	Flour	13,500				
				Wheat	2,000	Water	2	60	June 2,650	Flour	13,500				
				Wheat	2,000	Water	2	60	June 2,650	Flour	13,500				
15	Leary Co	Grist Mill	800	Wheat	750	Water	2	60	June 750	Flour	800				
			800	Wheat	750	Water	2	60	June 750	Flour	800				
			800	Wheat	750	Water	2	60	June 750	Flour	800				
16				Wheat	800	Water	1	60	June 500	Flour	800				
				Wheat	800	Water	1	60	June 500	Flour	800				
				Wheat	800	Water	1	60	June 500	Flour	800				

Laurel Factory (lines 1-3):

**SCHEDULE 5.—Products of Industry in Vauxville District in the County of Prince Georges State of Maryland during the Year ending June 1, 1880, as enumerated by me, Robert Wright Ass't Marshal.**

1	2	3	4 Raw Material used, including Fuel.			7 Kind of motive power, machinery, structure, or resource.	8 Average number of hands employed.				9 Wages.			10 Annual Product.				
			Quantities.	Kinds.	Value.		Males.	Females.	Average number of hands employed.	Average number of hands employed.	Average number of hands employed.	Quantities.	Kinds.	Value.				
1	<i>Scoundals Manufacturing Co</i>	<i>Cotton</i>	<i>2000 bales</i>	<i>Cotton</i>	<i>\$10,000</i>	<i>Water</i>												
2	<i>Lanard Machine Co</i>	<i>Patent</i>	<i>250 Cords</i>	<i>Wood</i>	<i>\$ 275</i>	<i>Steam</i>	<i>15</i>	<i>10</i>	<i>20</i>	<i>10</i>	<i>300,000</i>	<i>300,000</i>	<i>Cotton</i>	<i>Patent</i>	<i>\$25,000</i>			
3	<i>Patent</i>	<i>Cotton</i>	<i>200,000 lbs</i>	<i>Cotton</i>	<i>\$20,000</i>	<i>Water</i>												
4	<i>William Harrison</i>	<i>Blacksmith</i>	<i>3 Tons</i>	<i>Iron &amp; Steel</i>	<i>1000</i>	<i>Hand</i>	<i>11</i>											

Simpsonville Mills (Lines 2-4):

**SCHEDULE 5.—Products of Industry in Howard District in the County of Anne Arundel State of Maryland during the Year ending June 1, 1880, as enumerated by me, Geo L. Hockett Ass't Marshal.**

1	2	3	4 Raw Material used, including Fuel.			7 Kind of motive power, machinery, structure, or resource.	8 Average number of hands employed.				9 Wages.			10 Annual Product.				
			Quantities.	Kinds.	Value.		Males.	Females.	Average number of hands employed.	Average number of hands employed.	Average number of hands employed.	Quantities.	Kinds.	Value.				
1	<i>William Whips</i>	<i>Ship</i>	<i>200</i>	<i>Iron</i>	<i>160</i>	<i>Hand</i>	<i>2</i>											
2	<i>Charles B. Simpson</i>	<i>Factory</i>	<i>300</i>	<i>Coal</i>	<i>1600</i>	<i>Water</i>	<i>6</i>											
3	<i>Charles B. Simpson</i>	<i>Grist</i>	<i>150</i>	<i>Coal</i>	<i>750</i>	<i>Water</i>	<i>1</i>											

Roxbury Mill (line 14):

14	<i>Joshua Davis</i>	<i>Mill</i>	<i>100</i>	<i>Coal</i>	<i>2000</i>	<i>Water</i>	<i>2</i>											
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Adelphi Mill (line 6):



**SCHEDULE 5.—Products of Industry in Bladensburg District, in the County of Prince Georges, State of Maryland during the Year ending June 1, 1850, as enumerated by me, Robert Wright Asst. Marshal.**

1	2	3	4			7	8		9		10		
			Quantities	Kinds	Values		Males	Females	Average number of hands employed	Wages	Quantities	Kinds	Values
John Scott	Distiller	\$3,500	200 Gals. of Whisky	Whisky Distill.	\$1,500	Hand	2	1	30	12	100 Gals.	Whisky	\$400
Henry Scott	Tailor	\$2,500		Woolen Cloth	1,500	Hand	2	1	35	15	100 Yards	Woolen Cloth	\$2,500
J. C. Prouse	Baker	\$300	100 Breads	Family Bread	\$675	Hand	3		30		11,000 Breads	Breads	\$1,100
William B. Galt	Wheelwright	\$150		Wheels	\$150	Hand	2		30		10 Wheels	Wheels	\$600
William Smith	Shoemaker	\$300	100 Pairs	Shoes	\$300	Hand	1	1	30	15	400 Pairs	Shoes	\$850
John Taylor	Miller	\$25,000	200 Bushels	Wheat	\$10,000	Water	5	1	35	12	200 Bushels	Wheat	\$27,100

Overall from the above 1850 data, the mills and factories have an almost logarithmic output value (last column) distribution from small mills such as Roxbury Mills at \$2,500 and Simpsonville at \$3,500 to midsize mills such as Adelphi (\$27,100) and Triadelphia (\$39,200), to the large mills and factories of Ellicott City (\$140,000), Savage (\$170,000), and Laurel (\$230,000). Arguably, Triadelphia could have grown into a large mill and factory, and there were indeed plans in the early 19<sup>th</sup> century for such an expansion, but its comparative isolation worked against this. Later, in the 1880's there were plans to expand using a proposed railway line, but all that ended with the catastrophic flood of 1889. However, into the 1850's, Triadelphia remained a viable operation employing more than 400, a population number that still remains quite large in the early 21<sup>st</sup> century for the area.

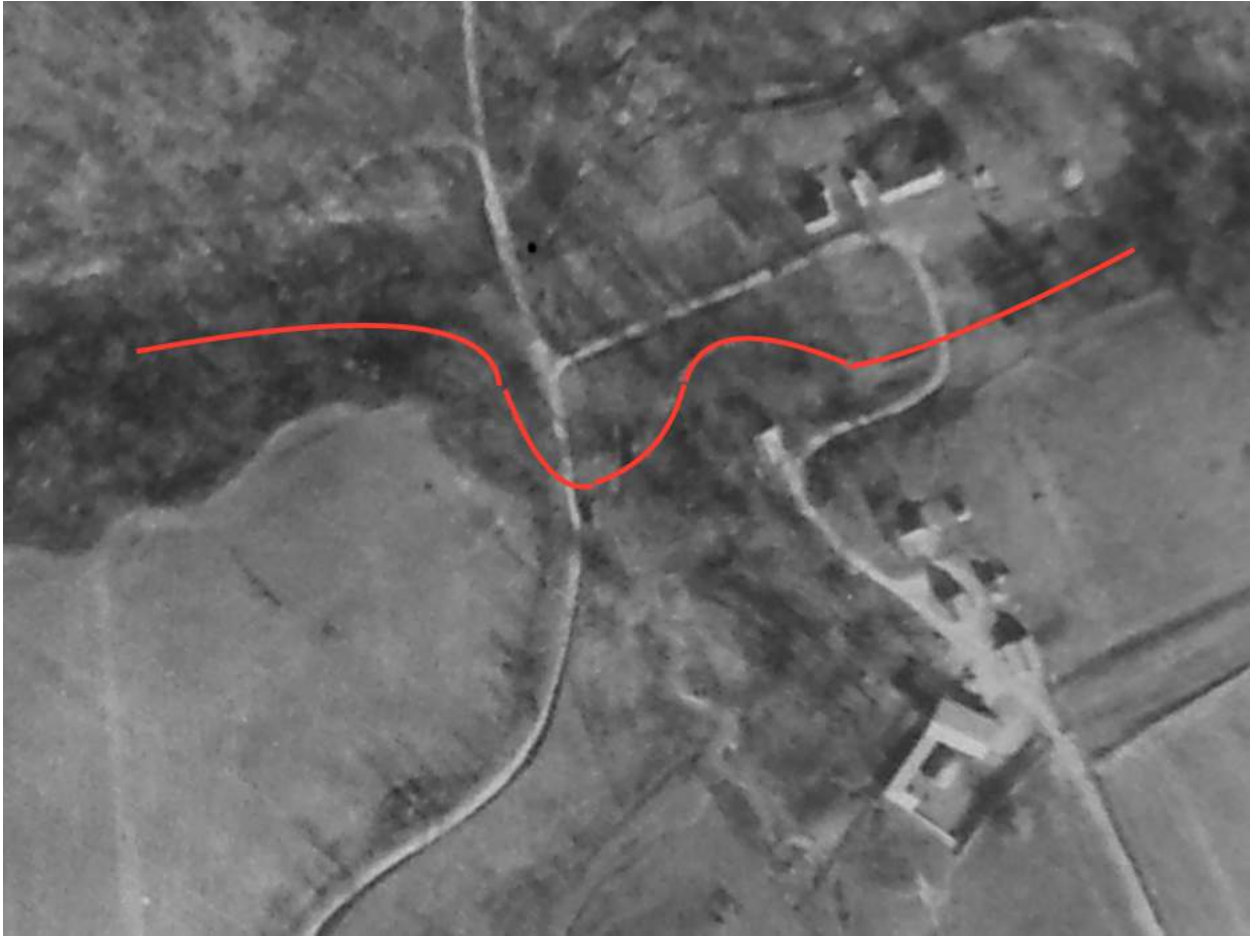
Triadelphia (Montgomery Company) production on the eve of the Civil War 1860 (lines 1 -2):

**SCHEDULE 5.**—Products of Industry in the 1<sup>st</sup> District in the County of Montgomery State of Maryland during the Year ending June 1, 1890, as enumerated by me, Wm. Humphreys Asst. Marshal. Post Office Triadelphia.

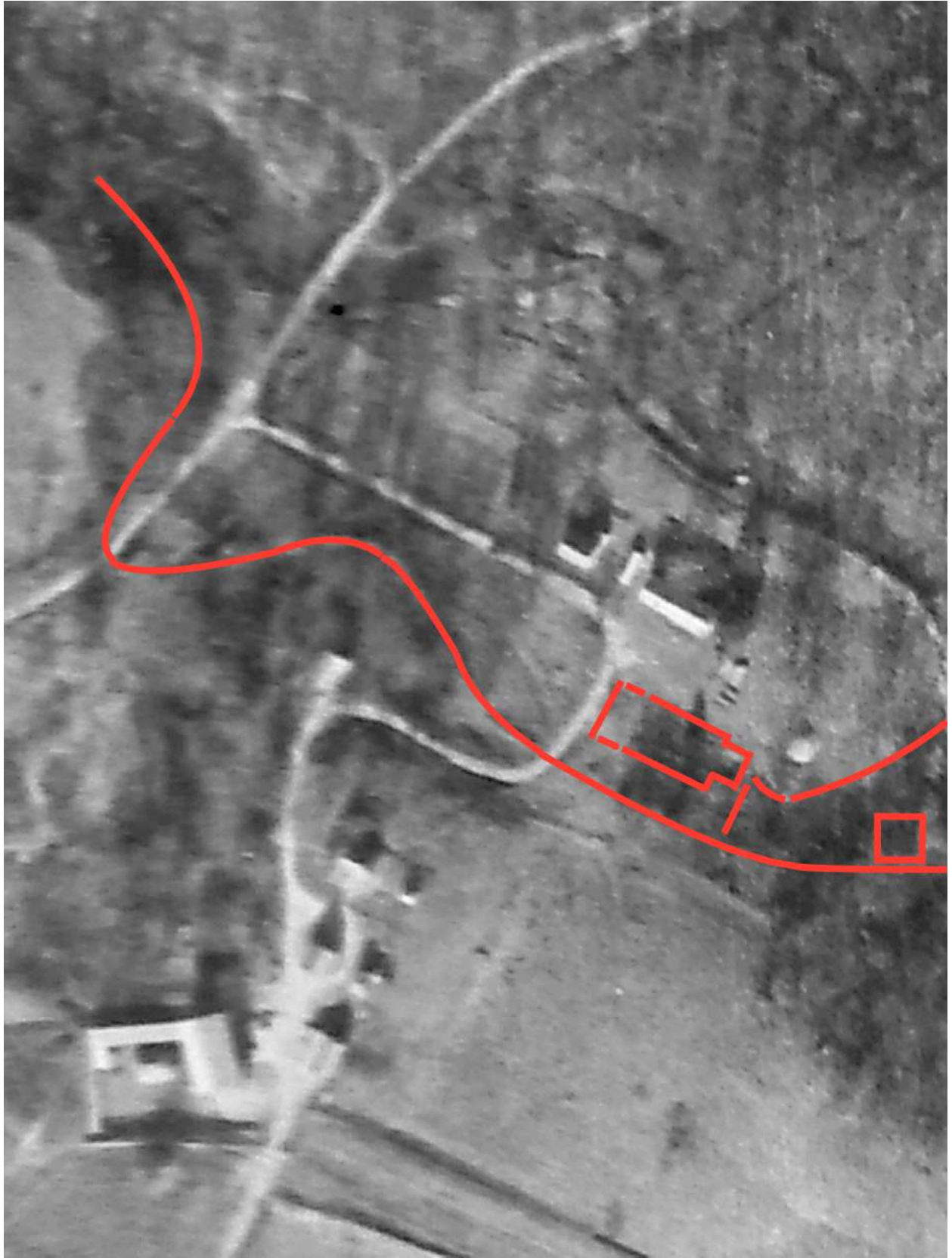
1	2	3	RAW MATERIAL USED, INCLUDING FUEL.			7	AVERAGE NUMBER OF HANDS EMPLOYED.				ANNUAL PRODUCT.		
			4	5	6		8	9	10	11	12	13	14
Name of Corporation, Company, or Individual, producing articles to the amount of \$500.	Name of Business, Manufacturer, or Product.	Capital Invested, in real and personal estate, in the Business.	Quantity.	Kind.	Value.	Kind of Motive Power, Machinery, Structure, or Resource.	Male.	Female.	Children under 16.	Total.	Quantity.	Kind.	Value.
1	Montgomery Co. Cotton Plant	\$5,000	24000	Cotton	24000	Water	16	46	145	210	450000	Shirting	45000
2	do	Flow Saw Mill	14000	Wheat	14000	do	2	25				Flour	1000
3	Leonard Miller	do	5500	Wheat	5500	do	1	25				Flour	6000
4	do	do	5000	Wheat	5000	do	1	25				Flour	6000
5	Thomas Lea	do	4500	do	4500	do	1	25				Flour	6000
6	Alfred B. Davis	do	2500	Corn	4400	do	1	25				Meal	5500
7	Arthur S. Dulaney	do	2000	Corn	2100	do	1	25				Meal	5000
8	Augusta S. S. S.	do	140000	Coal	140000	Steam	2	40			140000	Coal	2,100
9	do	do	1000	Coal	1000	do	2	40			1000	Coal	1000
10	do	do	2000	Wheat	2000	do	3	20				Flour	2000
11	<u>Conclusion</u>												
12													
13													
14													

Inferred Triadelphia Infrastructure





Mill Race





Mill Race with factory ruins outlined including extension to accommodate 50 X 150 ft stated (1940 news article) dimensions( consistent with earthen mound to left of existing foundation) , some of the salvage was more complete than other parts. Mill is shown from 1937 aerial photo trace of foundations that are consistent with c. 1900 photos. Note that whereas the factory required a head race branch to reach water wheel, with a tail race from the wheel pit to the Patuxent river which arched down from the top to the right side just off the mill location, the mill had a direct feed from the head race which after passing the wheel pit became the tail race emptying into the adjacent Patuxent River. Both mill and factory were powered by overshot 18 ft diameter wheels. If the 100 hp rating of the mill's documented 18 ft diameter by 8 ft width was not enough for the factory a double wheel of these specifications may have been used.