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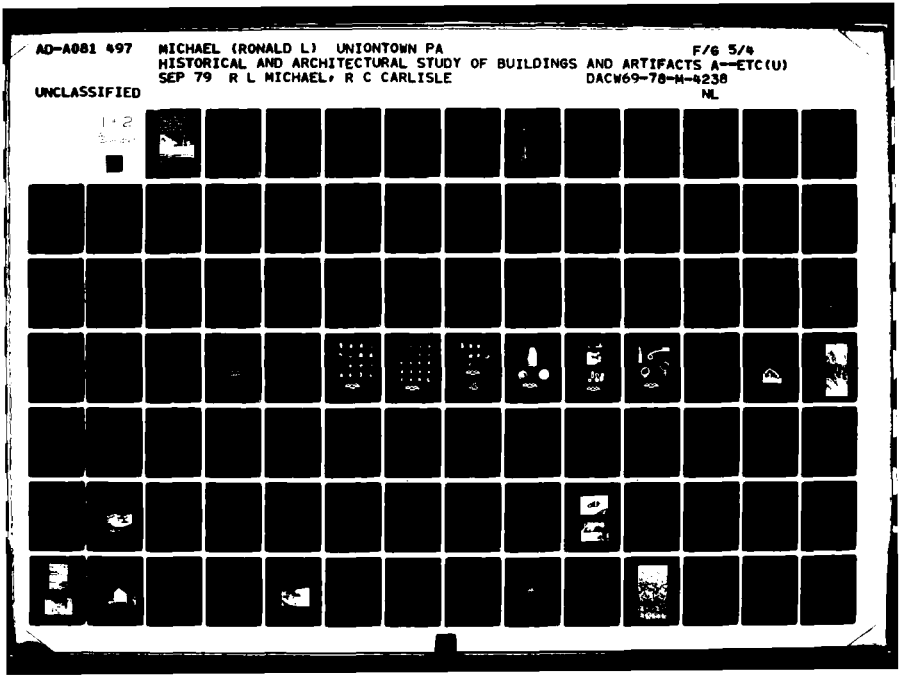

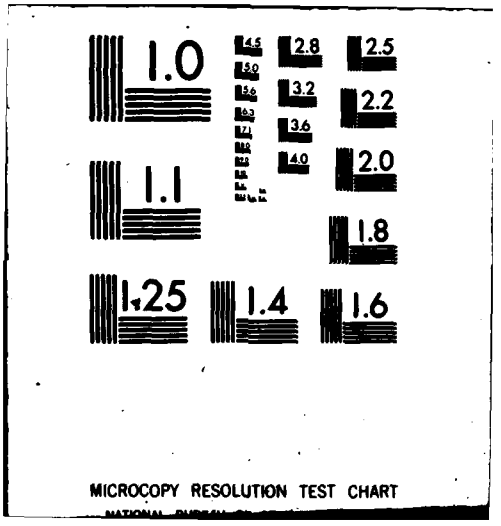
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LEVEL II

Historical And Architectural Study Of Buildings And Artifacts Associated With The Bulltown Historic Area, Burnsville Lake Project, Braxton County, West Virginia

September 1979

U. S. Army Corps Of Engineers
Huntington District

(6) HISTORICAL AND ARCHITECTURAL STUDY OF BUILDINGS AND ARTIFACTS ASSOCIATED WITH THE BULLTOWN HISTORIC AREA, BURNSVILLE LAKE PROJECT, BRAXTON COUNTY, WEST VIRGINIA

(12) 145

by

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Abstract

This report contains historical and architectural data relative to the United States Army, Corps of Engineers, Burnsville Lake Project, Braxton County, West Virginia. The information was compiled for use by the Corps in their development of an Historic Area at the project site.

Contained within the report is material on the Historic Indian Village of Bulltown, a mid-nineteenth century tannery at Historic Bulltown, and a selection of artifacts from the Civil War Battle of Bulltown. Historical and architectural analyses of a Roman Catholic church, a two story log dwelling, a double crib log dwelling, a log granary, and all the buildings on what may be a typical central West Virginia farm including a nineteenth century log dwelling are also included. Finally, a comparison of the log architecture analyzed in the project area is made to the log architecture of surrounding areas.

Preface

This study was prepared under contract for the United States Army, Corps of Engineers, Huntington District as part of their Burnsville Lake (West Virginia) project. Burnsville Lake is located on the Little Kanawha River in Braxton County, West Virginia (Figure 1), and was created by the construction of an earth and rockfilled dam across the river about 2.7 miles above Burnsville. The purpose of this report is to furnish the Corps with historical, architectural, and technical data to permit the accurate development of the Bulltown Historic Area for visitation.

During site preparation of the project area, seven log structures, basically representing different late nineteenth century regional architectural styles, were matchmarked and dismantled for future use in developing the Bulltown Historic Area. These structures, which were removed from various locations (Figure 2), are to be reassembled within the Historic Area in an area adjacent to the Cunningham farm.

The Cunningham farm is being used as the focal point for the Historic Area development. The buildings on the farm seem to typify a working Central West Virginia Appalachian farm that has evolved from the first settlement of the land in the late eighteenth and early nineteenth centuries until today. Structures on the farm represent early to mid nineteenth to mid twentieth century construction and include various functional types of buildings necessary to an operating traditional Appalachian farm.

The farm dwelling and outbuildings border a West Virginia secondary route which, during part of the nineteenth century, was known as the Weston Gauley Bridge Turnpike, an important transportation link to non-local markets. Eastward, shortly beyond the old turnpike and across Millstone Run which nearly parallels the road as it passes the Cunningham farm, is the area where three of the disassembled structures (Johnson and Fleming dwellings and the Fleming granary) are being rebuilt. The site is also the possible location of the mid-nineteenth century Bulltown tannery.

The other disassembled structures from the project area are actually being reassembled on the Cunningham farm. The McCauley barn has already been rebuilt between the Cunningham dwelling and barn. St. Michael's Roman Catholic Church is to be relocated southwest of the Cunningham home, and between the dwelling and the Civil War period Federal entrenchments which are also on the Cunningham farm (See Figure 3). These trenches, as well as the Confederate Overlook which is yet further southwest, are also to be included within the Historic Area.

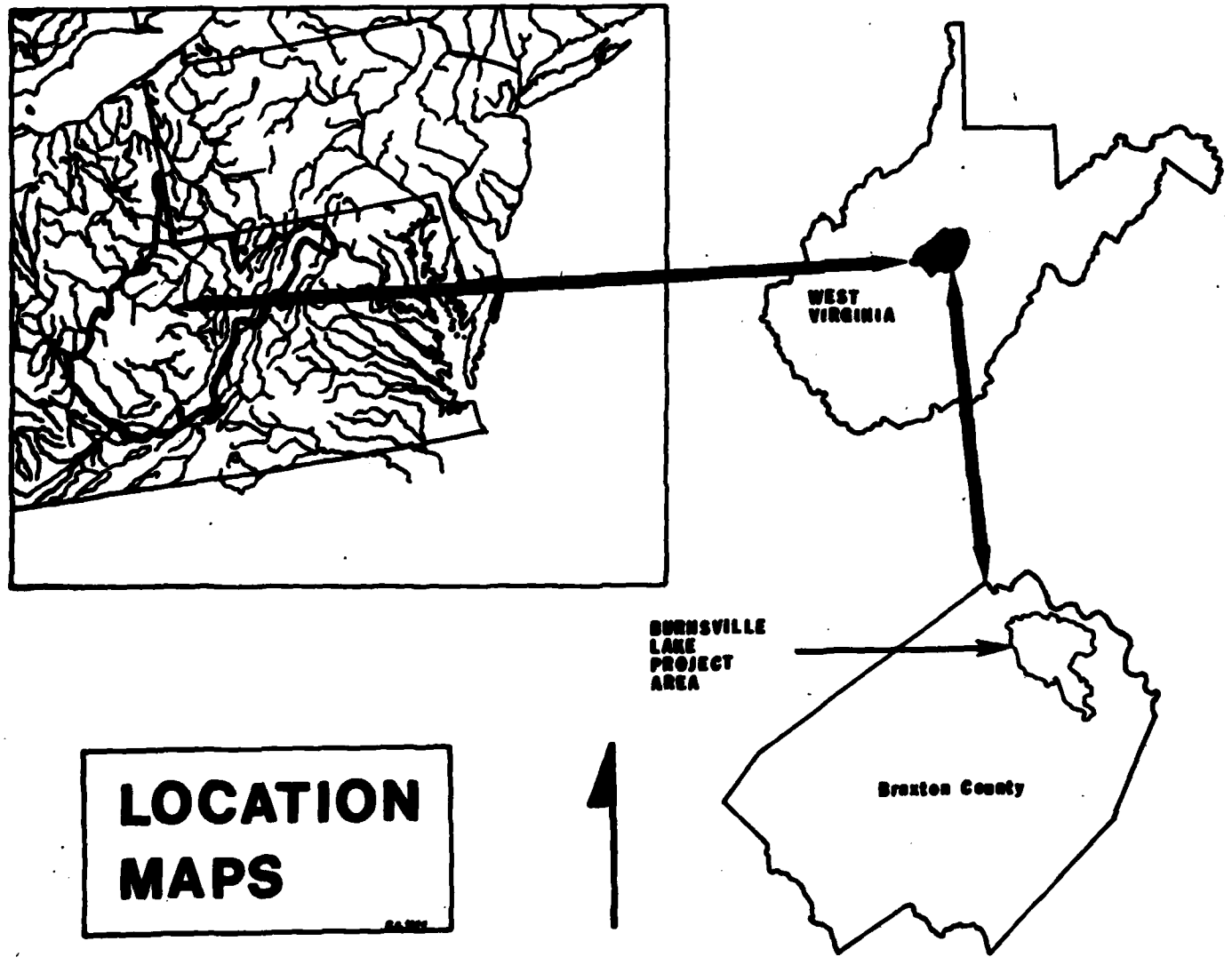


Figure 1. Location of Burnsville project area.

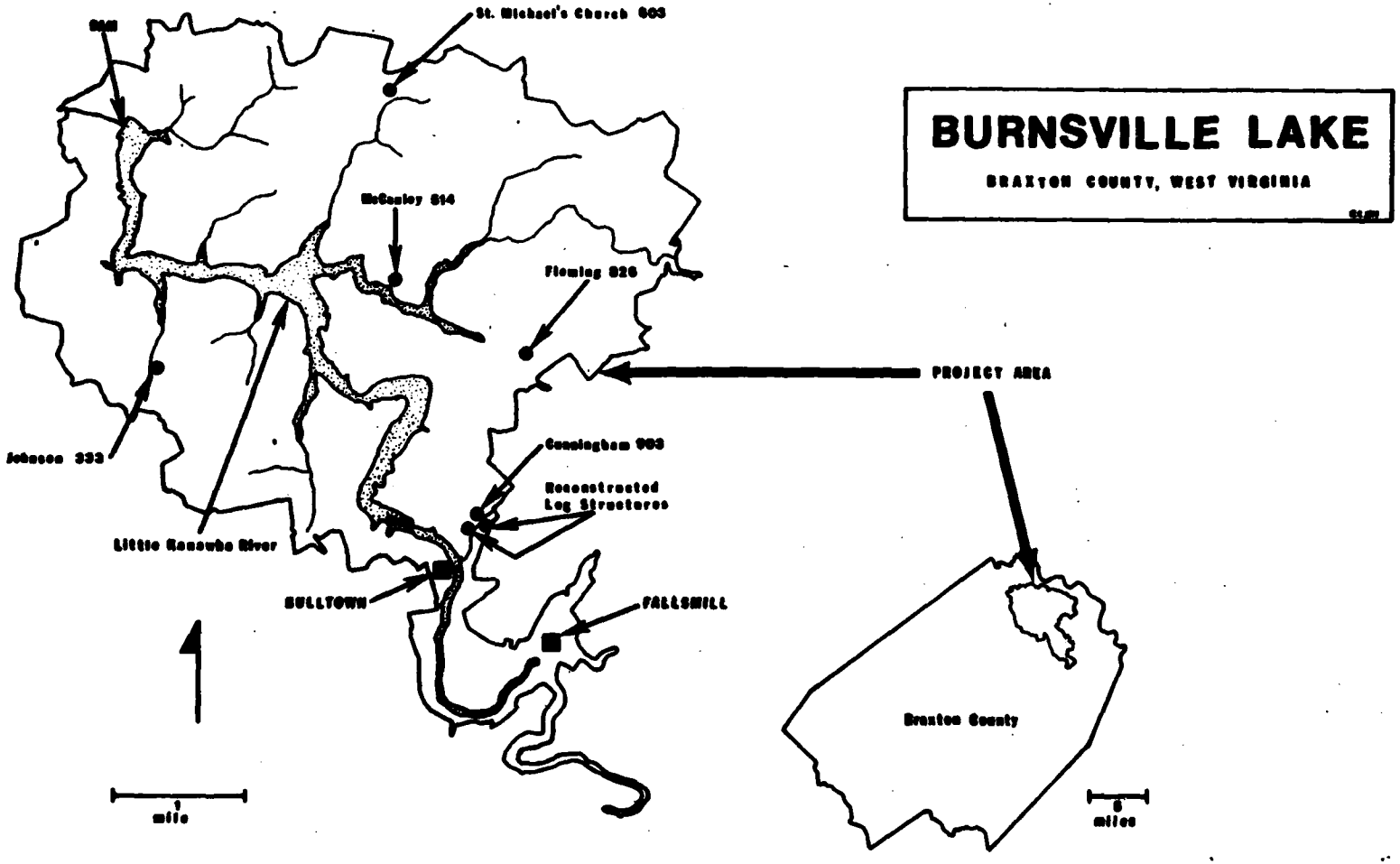


Figure 2. Location of specific sites and other features within the Burnsville Lake project area.

In summary, the Cunningham dwelling and outbuildings are being utilized as the hub of an Historic Area that will include the Cunningham farm; a portion of the Weston Gauley Bridge Turnpike; the site of a Bulltown tannery; the site of the Bulltown salt works; the rebuilt Johnson and Fleming dwellings, the Fleming granary, the McCauley barn, and St. Michael's Roman Catholic Church, and the Battle of Bulltown battlefield. These components constitute a focused, centralized historic district around which the culture history of the Burnsville Lake area can be interpreted.

More specifically, the purpose of this study is to:

1. Determine, on the basis of historical documentation, the location of the Historic Indian Village of Bulltown. This village had been the temporary late eighteenth century home of a displaced Delaware chief, Captain Bull.

2. Prepare an historical report on the mid-nineteenth century tannery which was located in Bulltown. This tannery, which operated at least from 1846 until perhaps the late 1860s, was possibly situated adjacent to the Weston Gauley Bridge Turnpike and Millstone Run and on the site where the Corps is reassembling several of the dismantled historic structures.

3. Prepare an historical report on the early nineteenth century salt industry in Bulltown. Salt was perhaps the first and only significant industry in historic Bulltown. The Bulltown salt works apparently supplied the residents of Braxton and adjacent counties with salt from about 1808 until near the mid-nineteenth century. Salt extraction became a well established industry along the Kanawha River, but the Bulltown operation, along the Little Kanawha River, was removed from that region and evidently developed its own markets.

4. Photograph and analyze the Civil War artifacts in the Cunningham collection. The Battle of Bulltown took place on the Cunningham farm in 1863, and since that time family members have, while cultivating part of the battlefield area, collected numerous unfired and spent bullets as well as a few other artifacts lost or left behind when the troops abandoned the site.

5. Prepare architectural descriptions and historical background data for the dismantled St. Michael's Roman Catholic Church, McCauley barn, Fleming house, Fleming granary, and the Cunningham farm buildings (Table 1).

6. Comparatively examine the Burnsville Lake log architecture with that of the surrounding areas.

Table 1

Summary of Architectural Data

Tract No.	Former Property Owner	Type of Structure	Approximate Construction Date
603 and 603c	St. Michael's Roman Catholic Church	log church	1878-1879
514	D.W. McCauley	log barn	late 19th century
826	Hubert and Harley Fleming	1½ story log double crib dwelling	late 19th century
		Granary	late 19th century
333	Jesse Johnson, Jr.	2 story log dwelling	ca. 1883
903	Ruth Cunningham Skinner et al.	2 story log dwelling	ca. early-mid 19th century
		Former Meat House & vehicle shed	early 20th century
		Toilet/Privy	20th century
		Chicken House	20th century
		Chick House	20th century
		Barn	20th century
		Cellar House	early 20th century
		Meat House	ca. 1970
		Wood & Coal House	20th century
		Beef Fattening Shed	20th century
		Hay & Equipment Shed	mid 20th century
		Wash House	20th century
		Spring House	late 19th or early 20th century
		Granary	late 19th and early 20th century

It should be noted that this study was performed after all the structures detailed above (except for the Cunningham buildings) had been removed from the impact region of the project area. Much of the area had been partially re-landscaped, and the dam had been constructed as well. The report is, therefore, based on historical research, informant interviews, examination of photographs and Corps real estate reports, field examination of the stored logs from the dismantled structures, and field examination of the Cunningham dwelling and outbuildings.

The authors would like to particularly acknowledge the help of Ruth Cunningham Skinner and her son Paul for their cooperation in allowing us to measure, draw, and photograph their dwelling and farm buildings as well as their Civil War artifact collection; Dr. Robert Maslowski, Planning Branch, Huntington District, Corps of Engineers for his help and patience in securing various materials for us and providing us with guidance as to details of the contract; and Joseph McPherson, Reservoir Manager, Burnsville Lake for help in providing us access to materials within the project area.

We would also like to recognize the efforts of John Scott, President, Western Pennsylvania Gun Collector's Association, Pittsburgh, Pennsylvania; Robert Fryman and John Kudlik, Department of Anthropology, University of Pittsburgh, Pittsburgh, Pennsylvania, for their aid in helping to identify the Civil War artifacts from the Cunningham collection; Father Robert C. Nash, Chancellor, Catholic Archdiocese of Wheeling, West Virginia, Father Edward MacDonald, Ronceverte, West Virginia, Father Donal O'Donovan, Weston, West Virginia, and Myrtle Moran, Burnsville, West Virginia, for supplying information on St. Michael's Roman Catholic Church; and various persons who furnished information or offered advice concerning the research including: Howson W. Cole, Librarian, Virginia Historical Society; George M. Jones, Librarian, Darlington Library, University of Pittsburgh, Pittsburgh, Pennsylvania; Jerry N. Ness, Industrial and Social Branch, Civil Archives Division, National Archives and Records Service, Washington, D.C.; Richard Matovich, Librarian, California State College, California, Pennsylvania; Jesse Johnson, Jr., Sutton, West Virginia; Mr. and Mrs. Harley Fleming, Gem, West Virginia; Ed. Given, Sutton, West Virginia; Members, Braxton County West Virginia Historical Society; William Hunter, Mechanicsburg, Pennsylvania; Van Beck Hall, Department of History, University of Pittsburgh, Pittsburgh, Pennsylvania; and the Staff, United States Department of Agriculture, Forest Products Laboratory, Madison, Wisconsin.

Figures 1-6, 45, 46, 48, 50, 52, 54, 57, 59, 61, 62, 64, 66, 68, and 73 were prepared by Ronald C. Carlisle. Original drawings and/or photographs for figures 13, 14, 15, 29, and 33-38 came from Corps of Engineers real estate files. The remainder of the photographs were taken by Dr. Ronald L. Michael.

Captain Bull and the Delaware Indian Settlement at Bulltown

The small village of Bulltown, West Virginia, derived its name from a settlement of Delaware Indians that may have been established on the Little Kanawha River as early as the summer or fall of 1765 (see The Papers of Sir William Johnson XI:768-69 hereafter noted as Johnson Papers). The leader of this Indian group is known only as Captain Bull, and he may have been one of the sons of the Delaware "King" Teedyuscung, a most important and influential figure in the 18th century history of Pennsylvania and New York (Wallace 1949; Weslager 1972).

It is not easy to explain how Captain Bull and his followers came to live on the banks of the Little Kanawha. Fortunately, however, Captain Bull himself was of sufficient historical importance for his actions to have been recorded in some, though by no means complete, historical detail.

Reuben Gold Thwaites, in his edited version of Withers' Chronicles of Border Warfare first published in 1831, says (Withers 1908:136) that Captain Bull was originally from the village of Oghkwaga on the Unadilla River, an eastern branch of the Susquehanna, in what eventually became Boone County, New York. From their original homeland in Eastern Pennsylvania, New Jersey, and Delaware, the Lenape of Delaware Indians were successively pushed westward, across Pennsylvania by a growing tide of Euro-American colonists. Thus, in the 25 years before the onset of the French and Indian War, most of the Delaware came to live either on the Upper Susquehanna beyond the boundary established by the 1737 "Walking Purchase" or farther west in the Allegheny and Upper Ohio drainage (Hunter 1978:27). Unfortunately, it is presently unclear whether the son of Teedyuscung known to the whites as Captain Bull is the same person to establish Bulltown although this seems not unlikely and is assumed here.

The control exercised over the Delaware and Shawnee by the Iroquois council at Onondaga was combined with increasingly complex geo-political and economic interactions that frequently exacerbated the nature of Indian-Indian and Indian-European relationships in the middle of the 18th century. The constantly changing network of alliances often involved claims and counter-claims concerning land as well as exclusivity in trade agreements. Of principal concern to the Delaware on the Upper Susquehanna River was the disposition of the Wyoming Valley, in the vicinity of Wilkes-Barré, Pennsylvania. Given to the Delaware by the Iroquois in 1742 (Hunter 1974:75; 1978:27), this fertile land was coveted by

many including members of the Susquehanna Land Company and white settlers from Connecticut, which at the time maintained a claim to the area.

The onset of the French and Indian War resulted in great confusion among the Delaware, who were caught between competing forces of the French and British. The attack on the Moravian mission at Gnadenhütten, situated along the Lehigh River at present Weissport in Carbon County, Pennsylvania, resulted in the nearly complete evacuation of the Susquehanna by the Delaware in April 1756.

Teedyuscung, baptized by the Moravians in 1750, moved with some of his people to Wyoming at the urging of the Iroquois in 1754. For a brief time after the outbreak of the French and Indian War he and his people, including Captain Bull /also known as Keomilas (William A. Hunter 1979, pers. comm.) or Kaomayghelas (Hazand 1853:90)/ born about 1740, lived at Canisteo, New York. In July 1756 they found sanctuary at the Moravian town of Bethlehem, Pennsylvania (Hunter 1974:76). Captain Bull remained with his father into this year although he was apparently at Dogstown (present Ambridge, Pennsylvania) on the Ohio River below Pittsburgh in September (Colonial Records of the State of Pennsylvania 7:342-43).

The state of war between the Delaware Indians and Pennsylvania was ended in two treaties (July, August 1757) signed at Easton, Pennsylvania. The terms of the treaty of October 1758, also signed at Easton, were extended to the Delaware more hostile to the Pennsylvanians and British, and who at the time were living on the yet French dominated Allegheny and Upper Ohio rivers in Western Pennsylvania. The British and the Iroquois council at Onondaga made definite attempts to appease the western tribes and to woo them from the floundering French cause. In July 1758, amid General John Forbes' preparations for the assault on Fort Duquesne (present Pittsburgh), the Moravian missionary, Christian Frederick Post (ca. 1710-85) was charged by Pennsylvania Governor Denny with visiting these western Indians to discuss peace (Buck and Buck 1939:87). After an initial meeting in late summer, Post was joined on his second trip west by (among others) Thomas Hickman, Isaac Still, (both of whom were Delaware) and a Captain Bull. The group bore the news of the October treaty at Easton to the Indians of the frontier. Post noted in his journal that on November 13, 1758, Captain Bull shot a squirrel and broke his gun (Harpster 1938:71). Meeting with Delaware George at the principal Delaware town of Kuskusbi (New Castle) on the Beaver River, Post remarked on November 17th that the latter agreed to go with "Mr. Bull" to meet with Forbes (Harpster 1938:72). It must be strongly noted, however, that this Captain Bull was not an Indian as Wallace, too (1949:207) has claimed. Both Thwaites (1904:234) and Hunter (William A. Hunter 1979, pers. comm.) have pointed out that it was Captain John Bull, a militia officer who commanded at Fort Allen in 1758. This is an excellent example of the confusion that surrounds the Delaware, Captain Bull.

By 1758 Teedyuscung had returned to the Delaware settlement at Wyoming (Wilkes-Barré) but was persuaded by Governor Denny to make a tour of the Ohio country to squelch plans among certain of the Indians around Fort Pitt (renamed from Fort Duquesne) to aid in the expected French counterattack. At this time Captain Bull was serving in the employ of Colonel Hugh Mercer, the commandant at Fort Pitt (Wallace 1949:210) and was engaged in syping on the French posts still held in northwestern Pennsylvania (Colonial Records of the State of Pennsylvania 8:311-13; Warner, Beers and Company 1885:161; for the French posts, see Schoenfeld 1979). It is in Mercer's account of Bull's intelligence on the French forts that he refers to the Delaware as Thomas Bull, the only known allusion to Captain Bull's given name. Bull indicated to the French that he was on his way to Wyoming to visit his father (Colonial Records of the State of Pennsylvania 8:312) thus leaving little doubt that this was Teedyuscung's son.

In the spring of 1760, Bull accompanied General Stanwix and George Croghan from Pittsburgh to Bedford traveling on to Philadelphia with Captain Curry (Curry to Bouquet April 18, 1760, in Waddell et al. 1978:520) who noted that Captain Bull could speak English. Returning east with Teedyuscung he traded at the Shamokin trading post in 1760-1761 (William A. Hunter, 1979, pers. comm.). By May 1760, Captain Bull, having returned to Philadelphia, departed with the Moravian Christian Frederick Post for Wyoming and a meeting with Teedyuscung. The meeting did not go well. Post was ill, and Captain Bull was not encouraging about the prospects of the "Ohio Indians" surrendering the white prisoners that had been taken during the war (Wallace 1949:214). The mission quickly lost momentum. At Seacaughcung (Canisteo or Kanisteo, New York), the invitation extended to the Delawares living there to come to Philadelphia for a meeting was rejected; Post and his traveling companion, John Hays, were threatened with roasting. Captain Bull became very drunk on rum and supposedly rolled up a half-cask of the liquor at his father's feet. Despite a pronounced taste for liquor, Teedyuscung ordered the rum removed (Wallace 1949:217). The mission of Teedyuscung and Post accomplished nothing of merit, resulting only in an inconclusive Treaty at Lancaster two years later (Hunter 1974:84).

The growing resentment of the Indians against the British authority and white squatters who moved into the Ohio country (contrary to law) after the fall of Fort Duquesne culminated in the devastating conspiracy of Pontiac in 1763 and 1764. As early as 1762, war belts circulated among many of the western tribes (Buck and Buck 1939:103); however, Captain Bull was with Teedyuscung in Easton, Pennsylvania, in June of that year (Johnson Papers III:777) and was in Lancaster in August (Pennsylvania Archives (1st Series) 4:90).

The attacks against the British posts along the frontier in May 1763 were matched by assaults on Venango, LeiBoeuf, and Presque Isle in June. Fort Pitt itself was attacked on June 22. Captain Bull's part in the general uprising seems to have resulted principally from local conditions. At the outbreak of hostilities on the western frontier,

Captain Bull and about 20 other Indians at Wyoming seem to have been undecided about what course of action to take. Some favored moving south to Moravian Nain, while others argued for resettling at Papoonan's Town near Wyalusing. In May 1763 Captain Bull was visiting in Philadelphia (Johnson Papers X:671-72) and was present at the treaty signed at Fort Augusta in June (Pennsylvania Archives (2nd Series) 7:435) while he and his followers were on their way to the Big Island near modern Lock Haven on the West Branch of the Susquehanna River (William A. Hunter 1979, pers. comm.). They resettled at Big Island and were invited, together with Tapiscawen and Nutimus, to a meeting at Fort Augusta in June 1763 where they feigned ignorance of Pontiac's uprising (Wallace 1949:263). In September of the year, Colonel John Armstrong led an expedition against the Delaware at Big Island. Although the Indians escaped, their houses were burned and supplies of corn were destroyed.

At Fort Allen, on the site of the former Moravian mission at Gnadenhütten and where Teedyuscung himself had been baptized in 1750 (Hunter 1978:28), soldiers under Captain Jacob Wetterhold were responsible for firing upon several peaceful mission Indians. On August 4, 1763, Lieutenant Jonathan Dodge attacked a group of Indians enroute from Shamokin (Sunbury) to Bethlehem. On September 9, Dodge and Jacob Warner killed one of a party of three peaceful Indians about two miles from Fort Allen. The Indian was scalped, and Warner was subsequently dispatched with the scalp to Philadelphia where it was sold for eight dollars (See Sipe 1931:456).

In the interim Teedyuscung had died the previous April when his log home, built for him by the Provincial government of Pennsylvania, burned. Wallace (1949:260) has suggested that the structure was fired by agents (Indian or otherwise) of the Susquehanna Land Company. Hunter (1979 pers. comm.) does not agree and has argued that there is no evidence to support the idea that the home was intentionally put to the torch.

The atrocities noted above combined with the incursion of Connecticut settlers into the Wyoming Valley in 1762 gave Captain Bull sufficient cause to strike back. The first raids occurred on October 8, 1763, when Bull and his followers attacked Captain Wetterhold and a squad of men who were spending the night at the home of John Stenton in present Allen Township (Northampton County, Pennsylvania). The Indian reprisals were not limited to the troops of Wetterhold's command; however, and a total of between 23 and 54 people were killed (See Sipe 1931:456-59; Wallace 1949:264; Brewster 1954:120-21) in this and related incidents.

Trouble in the Wyoming Valley resulted from the illegal sale of the land by some Mohawks to an agent of the Connecticut Land Company at the Albany Treaty of 1754. Despite promises by Pennsylvania set forth in the Easton Treaty of October 1758 to countervene the sale and to grant the land to Teedyuscung and his Delawares, the Iroquois failed to properly deed the lands to Pennsylvania (Sipe 1931:460). The arrival of Connecticut settlers in the valley in 1762 and their return in 1763 served as a further irritant to Captain Bull, who informed Governor

Hamilton of their coming. Hamilton, in turn, wrote to Sir William Johnson (Johnson Papers X:671).

Following the attack on Wetterhold and settlers in Northampton and Lehigh counties, Bull and his force of approximately 135 warriors (Elkin 1935:272) fell upon the Connecticut settlers in the Wyoming Valley on October 15 (Wallace 1949:264; Weslager 1972:246; Brewster 1954:121-22), killing about 20 (Sipe 1931:460). Most of the survivors fled to Connecticut or to Orange County, New York. One female prisoner was roasted over a fire and heated hinges were inserted into the palms of her hand. Nine men were also immediately tortured to death, their eyes poked out with awls. They were found with spears, arrows, pitchforks, and other pointed projectiles protruding from their bodies (Peckham 1947:218-19; Wallace 1949:264; Sipe 1931:461-62; Brewster 1954:122). Troops sent from Fort Augusta under Major Asher Clayton and Lieutenant Samuel Hunter arrived on the scene on October 16th or 17th and noted that the Indian tracks led in the direction of Wyalusing (Sipe 1931:462); thus there seems little doubt that Captain Bull was involved in the attack. According to Brewster (1954:122) the New London Gazette of September 14, 1764,definitely attributed these acts to Bull and his warriors. The Pennsylvania Gazette of May 24, 1764,carried an account of one of the prisoners that Bull took, Sally Wilkins; an account of fellow prisoner, Benjamin Sheppard, is reprinted in Harvey (I:439). Isaac Hollister, also taken prisoner by Captain Bull at this time, survived to record his experiences in a small narrative written a few years afterward (See Egle 1890:39-47).

Between the time of the Wyoming Valley atrocity and his capture on February 27, 1764, little is known of Captain Bull's whereabouts. The turning point of the larger war that raged about the western frontier had, of course, already passed. The Battle of Bushy Run on August 5-6, 1763, spelled the beginning of the end for the Indian cause (Buck and Buck 1939:106).

In early 1764, Sir William Johnson sent out a force of some 200 Tuscaroras, Oneidas, and some rangers against the Delaware of the Upper Susquehanna River. This force was under Andrew Montour, himself of partial Indian blood (See Buck and Buck 1939:62, 65, 71). Montour's force apparently encountered Captail Bull and his followers while the former were on their way to the Delaware village at Canisteo (i.e., Kanisteo or Seacaughcung, see above) in present Steuben County, New York (Sipe 1931:476; Parkman 1905:122-23). Montour reported (Johnson Papers IV:344) to Johnson on February 28, 1764,that: "Last Night we Seised Seven of there Chief Warrours here in our Castle and the Famous Captain Bull of their party after some Little Resistance bound them hand and feet."

Montour had fallen upon Bull's party on the morning of February 27th on Sing Sing Creek, a tributary of the Cheming River (Brewster 1954:122). A total of 41 prisoners were taken, and they were marched by way of Fort Stanwix (Rome, New York) to Johnson Hall (Sipe 1931:476)

Johnson Papers IV:350). Montour also wrote to Johnson in a letter (now destroyed) received on March 2nd that Captain Bull and his warriors were "commended to severe punishment" (Johnson Papers IV:352; XI:88). The somewhat more considerate treatment that Teedyuscung and Bull had received in Philadelphia was a source of irritation to Lieutenant Governor of New York, Cadwallader Colden. He wrote to the Earl of Halifax on March 10, 1764:

> Teduiscung and his son Capt. Bull. . . have been much caressed, and often kindly treated at Philadelphia. It is evident from this that kind usage is not sufficient to preserve the friendship of Indians while they are not affrayed of punishment (Johnson Papers IV:361-62).

Fourteen male Indian prisoners arrived at Johnson Hall on March 15, 1764, and were shortly thereafter sent under Captain John DeGarmo and a body of 50 provincials to Albany. Johnson apparently authorized the Mohawks to adopt five of the captured Delaware women and children. Other tribes received similar numbers, while the 14 men were forwarded to Colonel Robert Elliott of the 55th Regiment. Johnson noted in a letter to General Thomas Gage (Johnson Papers IV:369) that Captain Bull ". . . is a fellow of great address, but feigns an ignorance, and is full of prevarication, he is very likely and remarkably active as are sevl others with him, which makes me dread their escaping . . . ."

The Indian prisoners arrived in New York on March 25, 1764, and were placed in the city jail (Johnson Papers IV:377). Johnson (Johnson Papers IV:391) expressed his opinion to General Gage on the following April 6th that Captain Bull and "many of that Gang" had "amused the Quakers" but that "their hearts were purely French, and they assisted that Nation during the most part of the late war." Such statements reflect not only the Commissioner's general distrust of the Delaware but also the long history of dispute between royal and provincial authority (See also Johnson Papers XI:119-20).

Colonel Elliott wrote of the disposition of the Delaware prisoners on March 19, 1764 (Johnson Papers XI:105). He informed Sir William Johnson that upon his arrival, Captain Bull was honored ". . . with the Heavyest Irons that cou'd begot and all the rest are likewise in Irons and Confined in one of the Cellars under the Hospital, where with the Sentry's that are over them I think will make all attempts they may make to Escape impossible."

Others were not quite so harsh in their judgment of Bull. Lieutenant Colonel John Campbell of the 17th regiment wrote to Johnson (Johnson Papers XI:118) that

> I had the Satisfaction of seeing Capt Bull when the Prisoners passed here, whom I think the best looking Indian I ever saw. He is quite a fine Gentlemen.

Captain Bull and the other prisoners were still in jail in New York in May of 1765. They were thereafter released from prison in an exchange for white prisoners taken during the fighting of 1763 and 1764. The Delaware on the Ohio were anxious for the release of Captain Bull who together with six of the other prisoners were returned to Johnson Hall on May 27th (Johnson Papers XI:714, 748, 768). Here, Bull was reunited with some of his own people including Killbuck, a Delaware chief well known in the Pittsburgh area who lived at Newcomer's Town on the Tuscarawas River (William A. Hunter, 1979, pers. comm.). Both Bull and Killbuck were still present on May 30th. Captain Bull's anger seems to have receded during his imprisonment, or perhaps there was a certain sense of futility in further resistance to British rule. In any event, Sir William presented them with a gun and talked to them of trade and hunting (Johnson Papers XI:768-69). Presumably shortly after their conference with Johnson at Johnson Hall, Killbuck returned with Captain Bull to the Ohio Valley.

There is absolutely no documentary evidence recovered thus far that suggests what chain of events may have led Captain Bull and his followers to the banks of the Little Kanawha River. The exact date of their arrival there is also unknown, although a summer or fall 1765 date is not unlikely. McWharton (1915:86) puts the settlement at ca. 1768. Several Indian trails led in the general direction of their new residence. These included the Catfish Path (Wallace 1971:32) and the Catawba Path (Wallace 1971:27-30). A branch of the Scioto-Monongahela Trail also ran along the Little Kanawha from present Parkersburg to the vicinity of historic Bulltown. It thereafter crossed a divide between the Elk and Gauley rivers and proceeded to near Webster Springs (Rice 1970:10). A path from the Little Kanawha to the north fork of the Potomac River (The Shawnee Trail) passed close to Bulltown (Maxwell 1898:180).

One can only guess at the reason that Bull and his followers stopped in the vicinity of the later historic period settlement that bears his name. The most likely reason is that the area afforded good water, hunting, and arable land. It was also at this time remote and therefore removed from the immediate dangers inherent in contact with white settlers. Moreover, in 1765 it must be remembered the area of the Little Kanawha had not been purchased from the Indians and was therefore legally closed to Euro-American settlement. Purchase of the land was not concluded until the Treaty of Fort Stanwix in 1768 (See Map 3 in Hunter 1978:27). An additional incentive to the establishment of a village on the Little Kanawha may have been the presence of numerous salt licks. Certainly this fact motivated John Haymond to establish his saltworks in the early 19th century (see the section of this report dealing with the Bulltown salt industry). It is difficult to determine how important the extraction of salt and its subsequent trading might have been to Bull and the five families (Withers 1908:136; Maxwell 1898: 181) that are believed to have accompanied him to the Little Kanawha. Rice (1970:11) suggests that obtaining salt from the area was a regular occurrence. Broyles et al. (1975 (Section 3):22) concluded that by 1770, white immigrants to the area were trading with Bull and his followers

for salt. Withers (1908:136) notes that ca. 1772, the Indians of the settlement " . . . were in habits of social and friendly intercourse with the whites on Buchannon (creek) and on Hacker's Creek; frequently visiting and hunting with them."

Reuben Gold Thwaites, in his notes to Wither's Chronicles of Border Warfare (1908:136) placed the site of Indian Bulltown at a salt spring " . . . about a mile and a quarter below the present Bulltown P.O., Braxton county, Va." This is a confusing description. Thwaites may have meant that the Indian location was 1¼ miles below (i.e., downstream) of historic Bulltown near a ford in the Little Kanawha. This would place the Indian Village in the vicinity of archaeological sites 46BX15 and 46BX48 which are located on relatively large terraces along the Little Kanawha River. These sites are multicomponent but no historic material has ever been recovered from them. The largest site, 46BX48, is also located along a small stream which is not named on current topographic maps but which is referred to as Bulltown Run in the early real estate records.

Alternatively, he may literally have meant that the site was 1¼ miles below the physical location of the post office itself (as the quote suggests) which at the time that Thwaites prepared the notes (i.e., 1894-95) may have been in the log and frame dwelling on the Cunningham farm along Millstone Run (Ruth Cunningham Skinner, 1978, pers. comm); see the section of this report that describes the Cunningham farm).

United States Post Office records are themselves unspecific about the location of the Bulltown Post Office at this time. The postal station at Bulltown was opened May 31, 1820, and closed on March 14, 1931, (Jerry N. Hess, 1979, pers. comm.). Several pertinent geographic site location reports for the office are found in Record Group 28 of the National Archives and Records Service. In 1868 the postmaster was Moses Cunningham (see the discussion of the Cunningham house and the Battle of Bulltown elsewhere in this report). Cunningham's comments suggest that in that year the Cunningham home served as the site of the Bulltown Post Office. From January 29, 1901, until March 14, 1908, Mr. E.L.Lockhard was the Bulltown postmaster. His verbal and map description is also unspecific about the post office's exact location, but taken together with Ruth Cunningham Skinner's testimony, it may have been in the Cunningham dwelling.

Broyles et al. (1975 (Section 1):24) concluded (though on what basis is uncertain) that the location of Indian Bulltown was on the " . . . southern edge of the flat terrace where the Civil War trenches presently are situated." This argues that the village was not on the flood plain of the Little Kanawha but rather on the steep terrace on the north side of the river just west of Millstone Run. Early cartographic evidence for the area is either too indistinct or too late to pinpoint the Indian village. The Fry/Jefferson map of 1751 left the western half of Virginia very sketchy despite the fact that this formed the basis for Lewis Evans' celebrated 1755 map (Sanchez-Saavedra 1975:29-30).

Pownall's Map of the Middle British Colonies in North America (Pownall 1949), which was essentially taken from Evans' map, does show the Little Kanawha, also known as the Naumissipia or Fishing Creek (Pownall 1949: 123n), as a tributary of the Ohio. Subsequent and more detailed maps of Virginia or Ohio including Lewis' of 1794, Putnam's of 1804, Madison's of 1807 and 1816, Young's of 1835, Wood's of 1819-1822, and Crozet's of 1838 are all too late to have recorded the position of Indian Bulltown which was destroyed or abandoned after 1772. At present, and in the absence of further intensive archaeological testing of the area, it seems unwise to conclude that one can specifically locate the site of Indian Bulltown beyond saying that it probably stood somewhere along the southeast or northwest trending stretch of the Little Kanawha between Benchmarks 782 and 791 (Orlando West Virginia 7.5' topographic map).

The fate of the Delaware Indians who lived at Bulltown is somewhat better known than the location of their settlement, although it is not without its controversial elements, particularly in regard to the fate of Captain Bull himself. The inhabitants of the small village are reported to have been murdered by five whites in the summer of 1772. Ostensibly the murders were committed as a punitive measure in retaliation for the murder of the family of Adam Stroud (Withers 1831:106 gives the name as Stromd) in June of that year. Stroud, his wife and seven children are said to have lived on the Elk River (Withers 1908:136) or on Stroud's Creek (Broyles et al. 1975 (Section 3):23) in Webster County near its juncture with the Gauley River. Stroud's wife and children were killed while Adam was away from home, and the opinion of some area residents was that the murders were committed by the Indians of Bulltown who lived in the general direction toward which the trail from the Stroud cabin is reputed to have led (Withers 1908:137). Although others have concluded that the Stroud murders were carried out by a wandering band of Shawnee (see Withers 1908:137), at least five men in the immediate area resolved to avenge the Strouds on the Bulltown Indians. These included John Cutright (or Cartwright), Jesse Hughes, William White, William Hacker, and a man known only as Kettle (West Virginia Writer's Program 1941:394-95; Withers 1908:136-67; Broyles et al. 1975 (Section 3):23). White previously had been held for trial in Winchester on charges of killing an Indian (Withers 1908:136). Jesse Hughes settled ca. 1771 on the site of an abandoned Shawnee village at the confluence of Hacker's Creek and Jesse Run. After the start of the American Revolution, he served in the Colonial forces on the frontier and later moved to Indiana. He returned to Western Virginia and died in 1829. Hughes is buried at Ravenswood, West Virginia, along the banks of the Ohio (West Virginia Writer's Program 1941:395).

The details of what has come to be known as the Bulltown Massacre are unclear. Supposedly, the five men set off for Bulltown against the wishes of other settlers in the area. Upon their return, they first denied having seen any Indians. However, as Withers notes (1908:137)

> . . . it was the <u>prevailing opinion</u>, that they had destroyed all the men, women and children at Bulltown, and threw their bodies

> in the river. Indeed, one of the party is said to have, inadvertently, used expressions, confirmatory of this opinion; and to have then justified the deed, by saying that the clothes and other things known to have belonged to Stroud's family, were found in the possession of the Indians. The village was soon after visited, and found to be entirely desolated, and nothing being ever heard of its inhabitants, there can remain no doubt that the murder of Stroud's family was requited on them (emphases added).

This quote is important for several reasons. Hacker, Hughes, and the other men involved originally claimed to have seen no Indians; it was only the "prevailing opinion" that the Indians had been killed. The village, when visited later, was reported to be "desolate" not "burned" or "destroyed." Confirmation of the atrocity at Bulltown was supposedly acknowledged by Cutright shortly before he died in 1850 (McWhorter 1915: 101) or in 1852 (Withers 1908:137).

While Withers is the earliest historian of note to have investigated the Bulltown massacre, the interpretation given in Thwaites' edition of Chronicles of Border Warfare (Withers 1908) is questioned by McWhorter (1915). McWhorter's information suggests (McWhorter 1915:86) that none of the Stroud cattle nor any of the family clothing were ever brought back as evidence of the implication of the Bulltown Indians in the murders. Christopher T. ('Uncle Stuffles') Cutright, son of John Cutright, served as McWhorter's informant, and he is said to have claimed that all of the Delaware except Captain Bull himself were killed and their bodies disposed of in the Little Kanawha. The reason for Bull's absence from the area at the time of the massacre lay with the prior death of one of his children. He was supposedly distressed by the lack of sympathy deomnstrated by the whites at the time of the child's death and had moved with his immediate family and the exhumed child to the area of the remainder of his tribe 'in the country north of the Ohio' (McWhorter 1915:87-8).

Although most authorities agree that the Indian settlement at Bulltown was attacked in 1772, they disagree on the ultimate fate of Captain Bull himself. It is difficult to tell what confidence can be placed in Cutright's deathbed confession concerning the massacre and his part in it. There is no known physical evidence at this point that confirms his story; neither is there any particular reason to reject the general outline of it. There are differences in the details of the story, however, and these must be kept in mind. One may include here the very names of the white participants in the massacre. Henry W. Westfall, in a letter addressed to Lyman C. Draper on February 24, 1849, (see McWhorter 1915:357-58), implicated John Cutright, David and William White, William Hacker, Samuel and John Pringle. McWhorter (1915:435) also suggests that a man named Reeder from the Wappatomaka may have been involved. It was apparently Westfall who interviewed John Cutright obtaining the "confession" that subsequently appeared in Thwaites' edition of Withers (1908). While both Withers (1908) and McWhorter (1915)

regard the Cutright confession as legitimate historical fact - one often repeated by Cutright before he was in frail physical condition (see McWhorter 1915:435) - Westfall did comment in his letter to Draper on Cutright's old age and "doted condition" (McWhorter 1915:357). It is impossible to know, therefore, what level of confidence can be placed on his recollection of the Bulltown massacre. It does seem reasonable to think, however, that shortly after the alledged incident at Bulltown, the same party of whites participated in an attack upon a group of 13 Delawares stopped at Indian Camp, a rockshelter on Indian Camp Run situated approximately 14 miles above the fort at Buckhannon, (West) Virginia (McWhorter 1915:89-90).

Withers' (1909) account of the Bulltown massacre implies that Captain Bull perished together with the other residents of the village. McWhorter (1915:133-35) suggests another scenario compatible with his belief that Captain Bull had returned to Ohio with his immediate family prior to the attack. According to this evidence, Captain Bull was not killed until 1781 during an attack by Colonel Lowther's company accompanied (ironically) by Jesse Hughes. This small force was in pursuit of a band of Indians who had captured Mrs. Alexander Roney, her son, and David Daugherty, all of whom had been taken on Leading Creek in Tygert's Valley (see Withers 1908:310-13). The men came upon the Indians and their prisoners on the West Fork near the mouth of Isaac's Creek. According to Christopher Cutright, McWhorter's informant:

> When the whites rushed upon the camp, one of the Indians struggling in the agonies of death was recognized as Captain Bull the founder of Bull Town on the Little Kanawha. Jesse Hughes seized the dying chieftain and dragged him through the camp fire so recently replenished by Mrs. Roney, 'while he was yet kicking.' Not satisfied with this, he than flayed from the thigh of the dead chieftain pieces of skin, with which he repaired his own moccasins which had become badly worn during the pursuit. 'Upon the return of the company to the settlement,' said Mr. Cutright, 'Hughes, as a joke, threw the moccasins with their ghastly patches into my mother's lap.' (McWhorter 1915:135).

Aside from either of the two ignominious ends that Captain Bull may have suffered at the hands of Jesse Hughes - either at Bulltown in 1772 or near Isaac's Creek nine years later - there are at least two other references to an individual (or individuals) known as "Captain Bull" which post-date these events. The first of these is an allusion to the death of a Captain Bull in 1791 in present Mercer County, Pennsylvania (Warner Beers and Company 1885:185-86; Pennsylvania Indian Forts Commission 1896 II:626) in conjunction with the capture and death of Darius Mead, the father of John and David Mead, the founders of Meadville, Pennsylvania. Unfortunately, little more is known of the specific identity of this Indian, and it is impossible to say whether or not he is one and the same with the founder of Bulltown.

Allusions to yet another Captain Bull appear in "Notes of Travel of William Henry, John Heckewelder, John Rothrock, and Christian Clewell to Gnadenhuetten on the Muskingham, in the Early Summer of 1797" (Jordan 1886). In this journal, reference is made to a "Musey Indian, Captain Bull, a companion of Joseph White Eyes, son of the Delaware chief, White Eyes" (Jordan 1886:136). While it seems unlikely that someone with Heckewelder's knowledge of the Delaware would have referred to a chief of that nation as a Munsey (William A. Hunter, 1979, pers. comm.), the distinction was not always made; Sir William Johnson, in fact, always called the Munsey Delawares (Hunter 1978:20). If one accepts a 1740 birthdate for Teedyuscung's son, Captain Bull, and considering his father's former relationship with the Church of the United Brethern (see above), the 1797 report of his presence on a journey to the reestablished Moravian mission at Gnadenhütten, Ohio, is neither anachronistic nor unreasonable. Whether it is true, however, is another matter and one for which there are no further data at hand.

The present investigations of Captain Bull and the Delaware Indians at Bulltown on the Little Kanawha suggest four possible conclusions on the ultimate fate of Captain Bull. Most authorities agree that Bulltown was established by a Delaware migration stemming ultimately from the Unadilla River region of New York. There is no absolute evidence to demonstrate that the Captain Bull associated with Bulltown was in fact Teetyuscung's son, although this is a parsimonious and not unreasonable connection that has been assumed to be true in the preceding discussion. While at least some of the Delaware residents at Bulltown were probably murdered in 1772, Captain Bull may or may not have been among them. Assuming that he was not, the weight of evidence seems to suggest that he was killed near the mouth of Isaac's Creek, also in present West Virginia in 1781.

The Captain Bull associated with the death of Darius Mead 10 years later of the Shenango River in Mercer County, Pennsylvania, is poorly known; the nature of this individual's relationship (if any) to the Bulltown settlement is impossible to clarify at present.

The final possibility is that Captain Bull survived the 1772 massacre or traveled to Ohio prior to it, and that he indeed accompanied John Heckewelder on his 1797 journey to Gnadenhütten. While tempting to accept, and leaving aside the possibility that this Captain Bull was perhaps the son of the man who established Bulltown (William A. Hunter 1979, pers. comm.), the data for this last possibility must be considered to be the most tenuous of all.

Tannery

The tanning industry in any community is difficult to describe in detail. It was often a folk industry and generally accepted by people as ordinary or common and, as such, was seldomly singled out for special recognition or adequately described in any historical treatise of an area.

The tanning industry in the Bulltown area is no exception. The only published reference to a tanyard was by John D. Sutton who noted that Gus Hickle was Bulltown's first tanner and that he was followed by John Lorentz and Nail Hurley (Sutton 1919:294).

Verification of Hickle, Lorentz, or Hurley as tanners and the location of their tanyards rested solely on Braxton County deeds and tax records.

The property deeds showed that on March 29, 1845, John B. Byrne sold to Sanford A. Hickle, for $25.00, a one acre parcel of land on which there was a bark house for storage of tanning bark plus a tanyard (Braxton County, West Virginia, Deed Book 2:317). The plot was along Millstone Run and was described as beginning two poles (32 feet) east of the bark house and extending S 57° E 23° to a poplar tree, then S 33° W 70° to a stake, then N 57° W 23° to a stake on the bank of Millstone Run, and then up the run N 33° E 70° to the beginning. It could not be determined from the property deeds whether Bryne or anybody else had previously operated a tannery at the site. Byrne owned large parcels of land in the area, but no structures or businesses were recorded on any of them. Tax records provided no clarification; in fact, the first entry for a taxed tanyard was in 1846 (Table 2).

Presumably Hickle may have operated the tannery prior to purchasing the land on which it was located, and he may even have managed it after he sold the tanyard property to W.H. Byrne and James R. Dyer. This transaction took place on November 20, 1847, for the price of $235.00 (Braxton County, West Virginia, Deed Book 3:156). Three years later (June 29, 1850) Byrne sold his share of the business to Dyer for $100.00 (Braxton County, West Virginia, Deed Book 4:111).

The names of those who actually operated or owned the tanyard could not be determined from the property tax deeds or the tax records. These records indicate only ownership of the land; the taxes were not assessed on the occupations of persons but on the land they owned. Therefore, while Table 2 shows that a tanyard was operated along Millstone Run at least from 1846 until 1867, there is no certainty that it was operated

or owned by the person who owned the land or paid taxes on it. Further, it cannot be construed that the apparent differences in dates of tanyard ownership reflected in the deeds and the tax records are an indication that the tax records reflect the actual managers while the deeds indicate the property owners. The deed and tax records dates correspond quite closely and should be accepted as compatible. The tanyard continued operating until at least 1877 (United States 1877), but the date it ceased operation is unknown.

Table 2

Bulltown Tanyard: Tax Data*

Year	Name	Acerage	Assessment
1846	Sanford A. Hickle	1	$50.00
1847	Sanford A. Hickle	1	50.00
1849	James R. Dyer and William H. Byrne	1	200.00
1850	James R. Dyer and William H. Byrne	1	200.00
1851	James R. Dyer	1	200.00
1852	James R. Dyer	1	200.00
1853	James R. Dyer	1	200.00
1854	James R. Dyer	1	200.00
1856	James R. Dyer	1	100.00
1857	James R. Dyer	1	100.00
1861	James R. Dyer	1	100.00
1866	James R. Dyer	1	100.00
1867	James R. Dyer	1	75.00

*Tax records for the period 1859-1860 and 1862-1865 are missing from the Braxton County Records.

The exact location of the tanyard along Millstone Run is not presently known. The only clue discerned in the historical records notes that the tanyard was the same distance from the county court house as the more famous Bulltown salt works, 17 miles. Also, in 1856 James R. Dyer, the tanyard owner, was taxed for owning part of the salt works tract. This suggests that the tanyard and the salt works may have been adjacent to each other.

What is certain is that the presence of the tanyard along Millstone Run was propitious. The tanning of leather prior to the introduction of accelerated tanning techniques in the latter nineteenth century was a long and involved process which, among other items, required a fair quantity of water. First, the hides were soaked in a vat or pit of water, a pond, or a stream for up to three days to remove grime, blood, and loose flesh from the hides. The next basic step in tanning was the soaking of the hides in vats or pits of lime for up to one year prin-

cipally in order to loosen the hair. The third basic step was the soaking of the hides in vats or pits of pulverized bark; any bark containing natural tannin could be used, e.g., oak or hemlock (Diderot 1959: Plates 387-400).

The proximity of the tannery to the salt works could have had some relevance inasmuch as salt was often worked into dry hides to make them more pliable as in the tawing process where skins were soaked for long periods in a solution of alum and salt (Tunis 1965:34).

The precise location of the tannery in reference to physiographic features is unclear from the documents, but the property description (Braxton County, West Virginia, Deed Book 2:317) indicates that it was on the east side of Millstone Run. The first open and relatively flat area on the east side of the run up from the mouth of the creek would place the tanyard in the vicinity of where the Fleming dwelling and granary and the Johnson dwelling discussed below are being reassembled.

Bulltown Salt Works

The manufacture of salt was one of the earliest industries in West Virginia. It seems that the state abounded in saline springs or licks, and early settlers following animal paths located many of these spots during the early years of settlement. Since salt was generally scarce and expensive, settlements often grew around the licks. In fact, the saline springs were so abundant in several sections of the state that commercial extraction of salt was begun. The first such operation was possibly that of Elisha Brooks, in 1797, near the mouth of Campbell Creek a short distance above present Charleston in Kanawha County (Stutler 1929:795).

The Brooks salt furnace consisted of 2 parallel rows of 12 small kettles which sat upon a flue with a chimney at one end of the flue and a fire box at the other end. To obtain an adequate supply of salt brine for evaporation, Brooks had sunk 2 or 3 hollow gum logs 8-10 feet into the soft sands of the salt lick. The brine was then dipped from the "gums" as it oozed and seeped into the sands at the base of the logs. From the operation Brooks could extract approximately 150 pounds of salt per day (Stutler 1929:795-96).

As the population of West Virginia grew, the demand for salt increased until about the time of the Civil War when it had become the most important industry in the state. The principal locations of salt extraction were along the Kanawha River near Charleston, from West Columbia to Hartford City along the Ohio River, along the New River in Mercer County, along the West Fork of the Monongahela River near Clarksburg, at the confluence of Otter Creek and the Elk River near Sutton, and along the Little Kanawha River at Bulltown.

The Bulltown salt works was recognized as one of the most important such operations in central West Virginia. It had started in the late 1760's after Captain Bull, the Delaware Chief, settled five families on the Little Kanawha near the historic Bulltown. It has been said that the Indians evaporated about 800 gallons of saline brine to obtain one bushel of salt (Sutton 1942:35). Presumably, Indian involvement in salt extraction here ended ca. 1772 when the Delaware at Bulltown were either murdered or had left the area.

Virgil Lewis says, however, that by 1795 there was a small amount of salt being made at Bulltown. The first wells may have been bored by Benjamin Wilson, Jr., John Haymond (brother-in-law of Wilson), and Thomas Haymond (brother of John Haymond) in 1805 (Lewis 1889:674; Carpenter 1974:63). Other accounts suggest that the Bulltown salt works

were established in 1808 or 1809 when Colonel John Haymond established a furnace there (Stutler 1929:798; Sutton 1942:35; West Virginia Writer's Project 1940:12). The Stutler, as well as the W.P.A. Writer's Project, account (which may be taken from Stutler) say that Haymond purchased his evaporating pans in Pittsburgh, Pennsylvania, then shipped them down the Ohio River on flatboats as far as the mouth of the Little Kanawha River. At the Little Kanawha they were supposedly transferred to smaller boats and canoes for the trip to Bulltown (Stutler 1929:798).

Additional details on the Bulltown salt industry were obtained from interviews conducted by West Virginia Geological Survey personnel in ca. 1937 with Bulltown residents Dr. George Grant Lovett, E.L. Lockhard, and W.L. Currence (Price et al. 1937:27-28). According to the town residents, William Haymond dug a shallow well on the upper side of the Bulltown bridge across the Little Kanawha River (this bridge was below the existing bridge). The well was purportedly lined with lead tubing which Price indicates was unique since most early wells had gums (tree trunk sections) for piping or, later, copper tubing. Haymond's two furnaces used evaporating kettles and were located near the well on the river floodplain. He obtained fuel for the furnaces by cutting approximately 500 acres of virgin timber.

Salt produced at the early Bulltown salt works supposedly sold for $2.50 per bushel on the Clarksburg, West Virginia, market (Lewis 1889: 674) and was sold throughout Braxton, Lewis, Nicholas, Upshur, Harrison, Doddridge, Clay, Gilmer, Webster, Barbour, and Preston counties (Price et al. 1937:28).

Production of Bulltown salt was, following the Haymond operation, pursued under lease for a period of time according to Price's informants. The only mentioned leasee was the father of West Virginia Senator Johnson N. Camden. The final date for production at the salt works was not learned by Price, but it is reported that in 1882 area residents pulled the upper 30 feet of the lead pipe and molded it into bullets (Price et al. 1937:28).

The accuracy of the reports of the early Bulltown salt works cannot seemingly be verified from primary records. The earliest records available, the Braxton County tax rolls which date from 1836 when the county was created, contain no listing for a salt works before 1840. In that year John Haymond was taxed at $20.00 per acre on 462½ acres of a salt works and John B. Byrne was taxed at $20.00 per acre for 137½ acres of the same salt works,cf., Table 3. The tax records list Byrne as having, in 1840, bought land for his share of the works from Levi Maxwell, J.G. Peebly, A.P. Berd(?), and B.H. Haymond. That same year Byrne sold at least part of the salt works to John C. and William P. Haymond (Braxton County, West Virginia, Deed Book 1:391).

Byrne and Haymond continued to be taxed for the salt works through 1844. From 1845 through 1854 Haymond alone was taxed for the company. Then, in 1856, the records show that Addison McLaughlin had purchased

the salt works tract. Whether he actually ran the works is unclear since throughout the tenure of his ownership the entry in the tax records listed him as owning the salt works tract, not the salt works. The taxed tract continued to decrease in size until 1868 when it was listed as being 91 acres and was owned by M.C. Hall.

Table 3

Bulltown Salt Works: Tax Data

Year	Name	Acerage	Assessment
1840	William P. Haymond &	462½	$9250.00
	John B. Byrne	137½	2750.00
1840*	William P. Haymond &	162½	3250.00
	John B. Byrne	400	8000.00
1842	William P. Haymond &	162½	3250.00
	John B. Byrne	400	8000.00
1843	William P. Haymond &	162½	3250.00
	John B. Byrne	400	8000.00
1844	William P. Haymond &	162½	910.00
	John B. Byrne	400	8000.00
1845	William P. Haymond	162½	910.00
1846	William P. Haymond	162½	910.00
1847	William P. Haymond	162½	910.00
1849**	William P. Haymond	600	12,000.00
1850	William P. Haymond	600	12,000.00
1850*	William P. Haymond	600	6000.00
1851	William P. Haymond	600	6000.00
1852	William P. Haymond	600	6000.00
1853	William P. Haymond	600	6000.00
1854	William P. Haymond	600	6000.00
1856***	Addison McLaughlin	326	4987.80
1857	Addison McLaughlin	326	4987.80
1861**	Addison McLaughlin	326	4987.80
1866**	Addison McLaughlin	324	4957.20
1867	Addison McLaughlin	324	3917.16
1868	M.C. Hall	91	2984.80

* There were two listings this year.
** There were no tax records for 1848, 1858-1860, 1862-1865.
*** McLaughlin was listed as owning part of the salt works tract but neither he nor anybody after 1854 was listed as owning the salt works.

Two authors state that while the Bulltown salt works produced large quantities during the War of 1812, the operation was discontinued in 1823 (Sutton 1942:35; West Virginia Writer's Project 1941:13). The veracity of this statement appears questionable. It is possible that salt manufacture was halted temporarily, but by at least 1840 production had been revived.

The demise of the salt industry does seem to have occurred a decade or more after the Civil War. Sutton (1942:35) stated that the wells were abandoned in 1868, and the data in the tax records supports that date for the end of the Bulltown salt industry; however, there is a reference to a salt work in Bulltown as late as 1877 (United States 1877).

What had happened evidently was that the Bulltown salt works fell victim of increased competition, poor transportation for marketing, and discovery of stronger salt brines elsewhere (Stutler 1929:797-98). Not only did the Bulltown industry face competition from (particularly) the Charleston area salt producers and a modest but much closer effort at Clarksburg, but sometime after the Civil War J.M. Boggs built a salt furnace on Little Otter Creek near Gassaway, Braxton County. The plight of Boggs probably summarizes the handicaps faced by the Bulltown area salt producers. Sutton (1942:35) states that while Boggs was able to sell salt for $2.00 a barrel or 50¢ a bushel when the Kanawha salt (Charleston) manufacturers were selling their product for $5.00 per barrel, he was forced to close because of a lack of transportation. Simply, he could produce in six weeks all the salt he could market in two years.

The only other known Braxton County or area salt producer that perhaps was in direct competition with the Bulltown salt works was a small operation established by Asa Squires sometime before the Civil War. He supposedly had sunk a gum log near Salt Lick bridge, five miles from Bulltown. His was a six iron kettle operation (Sutton 1942:35). How long Squires remained in business is unknown.

Battle of Bulltown and Civil War Period Artifacts from the Cunningham/Skinner Collection

Sometime prior to mid 1863, when the central West Virginia area was overrun by Confederate Virginia rangers and independent companies of soliders, a Union outpost consisting of a blockhouse was established near Bulltown; it was on the crest of a hill on the north side of the Little Kanawha River on the Moses Cunningham farm (Figure 3). Although the post was only occasionally occupied, it was strengthened by a belt of rifle pits approximately 11 feet wide and at least 4 feet 6 inches deep which were dug lower on the hillside at about the 950 foot contour. The defensives provided a commanding view of the Little Kanawha River as well as of the Weston and Gauley Bridge Turnpike which ran roughly northeast to southwest just at the base of the hill. The position was nearly impregnable to direct assault from the river side as the hill south of the defensive works dropped abruptly to the river.*

Following the Jones-Imboden raid through West Virginia during the spring of 1863, the "Bulltown Fort" was garrisoned by parts of the 6th and 11th West Virginia infantry. The troops (117 men and 7 officers) were commanded by Captain William H. Mattingly. They were armed with rifled muskets and sidearms but no artillery. The troops spent the late summer digging additional rifle pits and building semi-permanent winter quarters.

Conditions remained calm until Confederate Brigadier General William L. Jackson of the 19th Virginia Cavalry, who was in the Greenbrier Valley, decided to capture Bulltown, break the Federal line of defense, and move into the undefended Ohio Valley. The force he organized was comprised of the 19th Virginia Cavalry commanded by Colonel W.P. Thompson, part of the 20th Virginia Cavalry commanded by Colonal W.W. Arnett, six infantry companies, and Captain Warren S. Lurty's two gun Virginia battery (700 men).

As Colonel Jackson approached Bulltown, the Union garrison there was aware that his forces were in the area, but they apparently did not feel threatened. Upon reaching Falls Mill about 1-2 miles, depending upon the route, from Bulltown, Jackson divided his forces into two columns which were to converge upon the Union forces at 4:30 A.M. on the morning of 13 October 1863.

* Much of the information for the Battle of Bulltown is paraphrased from Boyd B. Stutler, 1963, West Virginia in the Civil War.

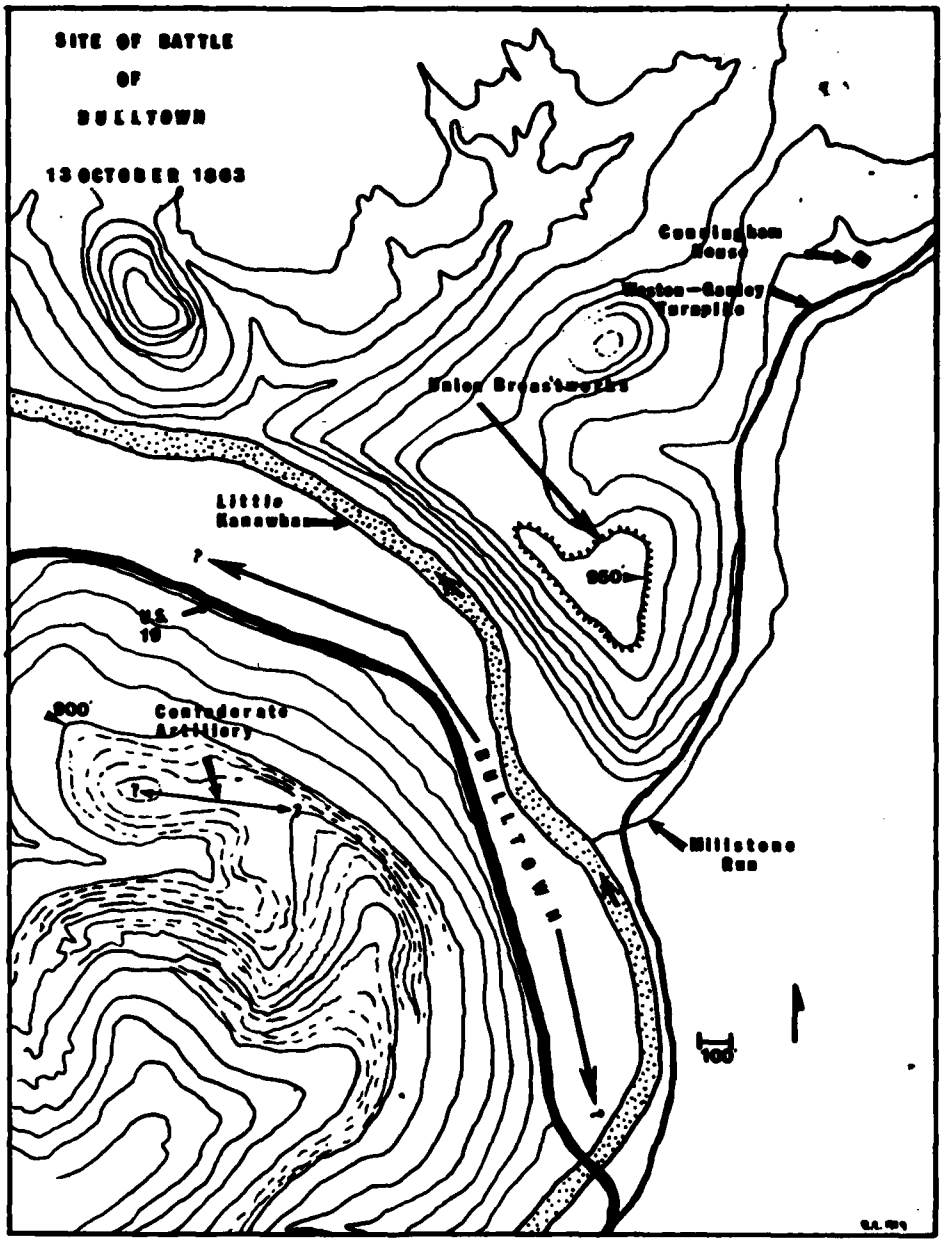


Figure 3. Contour map showing site of the Battle of Bulltown, 13 October 1863. Outline of Union breastworks is schematic. The breastworks have not been mapped but may follow the 950 foot elevation contour. Exact position of Lurty's Confederate artillery southwest of the Union breastworks is also conjectural. Note the Cunningham house, Weston-Gauley Bridge Turnpike, and Millstone Run. Bulltown existed along the floodplain on the southern side of the Little Kanawha River, but no subsurface archaeological tests have been performed to determine its aereal extent or the possible relationship of the Indian settlement to the historic town. The map is adapted from a U.S. Army Corps of Engineers topographic map of the Bulltown Lake Project area. Contour on the east side of Millstone Run is omitted for clarity. Contour interval = 25 feet. (Also see Figure 38).

The plan was for one column, commanded by Major J.M. Kessler, to attack from the northeast while the other column, commanded by Lieutenant Colonel Thompson, was to approach from the southwest and take a position across the Little Kanawha River from the Union outpost. Both columns were to charge when the first gun of Lurty's battery was fired, but the plans went awry. Thompson was slow in getting to his "overlook" position and Kessler, without awaiting the gun signal, advanced at 4:30 A.M. He easily captured unsuspecting Union Pickets, and his assault would probably have been successful had not one of his overzealous officers, after ascending the hill halfway, fired his pistol and yelled "charge." Immediately, the alerted Union soldiers moved into their entrenchments and rifle pits and opened a small arms fire which repelled the attackers.

Thompson, accompanying Colonel Jackson, reached his position nearly simultaneously with Kessler's retreat. Jackson immediately sent a message to Captain Mattingly of the Union forces suggesting that he surrender. Mattingly's reply was "come and take us."

Jackson then attempted to reduce the Union "fort" by artillery fire supported by musketry from two sides. He tried using his "jackass battery," but they had little effect as long as the Union soldiers stayed in their rifle pits; the guns could not reach them.

The fighting continued at a stalemate through the morning and well into the afternoon. About 3:00 P.M. Jackson again sent a soldier with a flag of truce to suggest that the Federal troops surrender. Captain James L. Simpson, speaking instead of Captain Mattingly who had been wounded, replied that he would fight "until hell froze over."

Evidently convinced that the Union officers were not about to surrender and that he could not take the Union position by assault, Jackson, at 4:30 P.M., retreated southward. He fought a brief skirmish with a detachment of the 4th West Virginia Cavalry that pursued him then camped for the night at Salt Lick Bridge, five miles from Bulltown.

The Battle of Bulltown was over the same day it had begun. Casualties were light (Confederate: 8 killed, 5 wounded; Union: 1 killed, 2 wounded; civilian: 1 wounded - Moses Cunningham).

Today, the Confederate overlook of Lieutenant Colonel Thompson and the Union trenches and rifle pits remain much as they were abandoned after the war. In fact, the entire battlefield remains relatively unspoiled. As noted above, part of the battlefield is on the Cunningham farm. Over the years the Cunningham/Skinner family collected many artifacts relating to that battle as they cultivated their farm. Photographs of the majority of the identifiable elements in the Cunningham/Skinner (as it is presently constituted) are presented in Figures 7-12.

The Cunningham/Skinner collection of artifactual materials is limited in both quantity and scope. It is a surface collection assembled by various persons in the Cunningham and Skinner families over an in-

definite period of time. As such, the materials contained in it probably do not adequately reflect the full range of weapons and ammunition used during the battle. For reasons to be detailed below, it is impossible in all but one case to ascribe any of the materials to one or the other of the engaged parties. The collection includes a disproportionately large number of lead bullets that are positively associated with the period of the battle. There are several possible reasons for this. Lead, unlike copper, iron, or tin is not easily oxidized; thus, while much of the material dropped during the battle may have rusted or oxidized away or have been picked up, the bullets remain. Their portability, their easily stored nature, and their intrinsic fascination have all undoubtedly contributed to their "collectability." All of the bullets in the collection appear to have been fired. Most of them also display a greater or lesser degree of distortion resulting from intended or accidental impact with another object. In the majority of cases, the distorted appearance of the soft lead bullets successfully obliterates most diagnostic keys to identifying the weapon from which they were fired. Moreover, no specimens of complete cartridges are included in the collection. In order to properly identify any given bullet, it is useful to have the cartridge case from which it came. In most Civil War bullets, of course, no cartridge remains could be expected since the war was fought largely with weapons that employed projectiles that were separate from the charge that propelled them. That is, most bullets were not seated in metallic shell casings but were wrapped together with their charge, in paper, linen, cardboard, rubber, or skin cases, all of which were either destroyed at the time the bullet was fired or have long since decayed.

In order to evaluate the Cunningham/Skinner collection of Civil War period artifacts in terms of what its components reflect about the men and equipment of the Battle of Bulltown, it is useful to review some basic history of the development of weaponry just prior to and during the course of the war.

The American Civil War is often aptly referred to as the last of the old wars and the first of the world's modern wars. From an American viewpoint, this is probably a justified statement. Leaving aside the larger problems of war as a method of conflict resolution and whether it is meaningful in any sense to divide it in to "passe" and "modern" segments, it is certainly true that the war was a catastrophic mismatch of tactical thinking and the technological capacity to kill. The relative peace in which the United States lived during the first half of the 19th century (the war with Mexico had been brief, geographically remote, and had not resulted in the loss of large numbers of American civilians) had two consequences important for understanding the conduct of the fraternal struggle of 1861-1865: 1) the technology of the industrial revolution had produced more and better ways to kill people, 2) tactical and strategic thinking atophied from lack of use; man had not even begun to consider ways in which troops could be effectively, even humanely employed in light of such developments. The result was an appalling loss of human and animal life that deeply stunned the senses of the American people, both North and South.

The principal weapon with which the war was fought was the rifled musket. Rifling is the process wherein grooves are cut into the barrel of a weapon which in turn impart a spin to the projectile. The spin and tighter fit of the bullet within the barrel improve the distance and accuracy of the weapon over a corresponding smoothbore weapon. Rifling appeared during the 1500s (Foster Gleason 1960-61:14) and rifled weapons had been employed by the English and French in the Crimean War and by the French and Austrians in Italy prior to the time of the American Civil War (Coggins 1962:26). Despite its use in hunting rifles (e.g., the "Kentucky" or "Pennsylvania" rifle developed from the German Jaeger rifle), no less than nine models of flintlock smoothbores were produced in American arsenals after 1800 (Coggins 1962:31). At the time of the Mexican War, all regular American troops were equipped with smoothbore muskets although some volunteers carried Model 1842 percussion ignition shoulder arms, the first regulation U.S. arm with a rifled bore (Foster Gleason 1960-61:14).

The large numbers of these muskets produced by American arsenals could not be scrapped simply because of the development of a percussion system of ignition and the gradual military acceptance of rifling. It was discovered that the muskets themselves could be rifled and could have percussion locks installed to replace the outdated flintlock mechanism. The percussion ignition system was first employed on the U.S. Model 1841, a .69 caliber musket which later underwent the rifling process (Coggins 1962:31). The famous "Mississippi" rifle (U.S. Model 1841, .54 caliber), so called because of its association with Jefferson Davis' troops during the Mexican War, fired spherical lead bullets rather than the increasingly popular conically shaped "minnie ball" (Minié bullet) of the Civil War (Coggins 1962:31).

The Cunningham/Skinner collection contains several examples of the stages in the development of United States military arms discussed above. Figure 4A is an example of a .69 caliber conical bullet issued for use in some of the converted muskets produced before 1861. Figure 6I, J are quite possibly .54 caliber bullets fired from "Mississippi" rifles, although they may have come from a variety of other arms of the same period since at the outbreak of the war, a large number of smoothbore muskets were still possessed by both North and South (Downey 1960-61a:1).

Many of the other bullets in the Cunningham/Skinner collection (see Figures 7, 9) are standard issue .58 or .577 caliber designated for use in the rifled muskets of the time. There are the reknowned "minnie" bullets with their conical shape and two or three grooves at the base which were used to hold grease. These bullets are more properly known as Minié bullets named after Captain Henri Minié of the French artillery who designed them (Foster Gleason 1960-61:14-15). Minié was not the first to develop a specially shaped bullet for use in rifled muskets (Figure 4). Prior inventions were the work of both Delvigne and Thouvenin (Coggins 1962:26). All of these inventions were designed to overcome the one military drawback to the use of rifled shoulder weapons. In order for the bullet of a rifle to spin, a way

had to be found to force the soft load into the grooves of the rifled barrel. With spherical lead bullets, this was accomplished by using a grease patch and a bullet which tightly fit the bore of the rifle. While effective, the tight fit of the bullet severely reduced the rate of fire; consequently, the military continued to employ for years less accurate, but more easily loaded smoothbore muskets.

Minié's invention effectively provided a way of introducing the lead bullet to the rifled barrel, and then, upon discharge, of expanding the hollow base of the bullet against the walls of the rifle to "take" the rifling. The original Minié bullets employed a small iron plug inserted into the base of the bullet to achieve the expansion. Subsequent experiments by the British and American indicated that the iron plug tended to tear through the softer lead portico of the bullet. The British adopted the use of wooden or clay plugs, and both they and the Americans (who adopted the cartridge in 1852) subsequently discovered that no plug was necessary; expanding gases from the discharge were themselves sufficient to force the soft lead against the wall of the barrel (Coggins 1962:26). Usually, the apex of the hollowed portion of the bullet's base was designed for use with a plug. Bullets using a plug generally have a flattened apex, while those where no plugs were used have a cone-like recession in the base. All of the positively identified bullets of this type from the Cunningham/Skinner collection have the latter type of base.

The weapons from which these bullets were fired included a wide variety of domestically produced and foreign made arms. Beginning with the U.S. Model 1855 rifled musket, all succeeding shoulder arms adopted for U.S. military use were rifled (Coggins 1962:31). Subsequent improvements in these "Springfield" rifles (actually, many were produced at armories other than that at Springfield, Massachusetts) resulted in Models 1861 and 1863 (Coggins 1962:32). Collectively, these constituted the single largest number of shoulder arms with which U.S. troops were armed during the Civil War (Downey 1960-61a:2). Federal armories produced or purchased nearly 1,500,000 of them by 1865 (Lewis 1959:26; Foster Gleason 1960-61:15).

Wide numbers of Confederate troops were armed with the same weapon. These were largely confiscated by the Confederates at the beginning of the war from U.S. arsenals in the South (ca. 235,000 weapons) or were later captured or retrieved from battlefields. "Stonewall" Jackson captured 13,000 arms from the arsenal at Harper's Ferry alone (Downey 1960-61a:1). The South's critical problem of supplying its troops was hampered by a general lack of weapon-producing facilities and by the Union blockade. Confederate sympathizers had actively purchased guns, caps, and powder from northern mills from at least 1859 until the embargo of 19 April 1861 (Downey 1960-61a:4), but the South had to rely to a great extent upon captured arms and those purchased abroad.

At the outbreak of the war, both sides, but particularly the South, depended upon large numbers of English, Austrian, Belgian, and other

foreign rifles, muskets, and revolvers. The quality of these arms varied markedly from the excellent British Enfield (equivalent to if not slightly better than the "Springfield") to cast-off, poorly made weapons from nearly every army in Europe. Over 170,000 Austrian weapons alone were purchased by the U.S. government (Downey 1960-61a:1).

The great need for virtually anything that would shoot in the early days of the war resulted in great variation in the types of arms and ammunition with which troops on either side were furnished. The U.S. Army developed a four step classification system to rank order the diverse weapons (Lewis 1959:6, 10-11). Lewis (1959:10, 30) lists the names of 19 makers of carbines, 17 makers of muskets and rifles, and 18 makers of revolvers and pistols in addition to unnamed foreign producers. In 1861, certain Union troops from Iowa were equipped with Austrian muskets, Spencer carbines, Sharps carbines, Colt revolvers, and revolving rifles as well as British Whitworth rifles plus others (Downey 1960-61a:2). Official U.S. records for 1863, in fact, list over 100 models of musketoons, rifles, muskets, and carbines then in use (Coggins 1962:31; Foster Gleason 1960-61:15).

In addition to officially purchased arms, individual soldiers frequently bought their own weapons (Downey 1960-61a:2-3), and this considerably complicated the problems of the quartermaster corps.

If the situation was bad in the North, it was considerably worse in the South, and it progressively worsened throughout the course of the war. The exact numbers and types of weapons purchased from foreign producers by Confederate agents will never be known. A brief list of some of the shoulder weapons includes: 1) British Enfield rifled musket (long and short barrel versions); 2) .75 caliber Tower musket, Model 1842; 3) .70 caliber Brunswick rifle, Model 1835/51; 4) .45 caliber Whitworth rifle; 5) .44 caliber Kerr rifle; 6) Calisher and Terry carbine; and a host of others (Lewis 1959:10). In general, the muzzle loading weapons of the South were on a par in terms of quality with those in the North. Whereas by 1863 the latter was able to completely replace all of the smoothbore weapons issued to it troops with rifled muskets, or increasingly, with breechloading single and multiple shot weapons, the South was never able to do so (Foster Gleason 1960-61:15).

The most popular of the foreign made shoulder weapons used by the North and the South was the British Enfield. The Confederacy purchased 428,292 of these weapons, the North nearly as many (Foster Gleason 1960-61:15; Downey 1960-61a:2). There is some indication that the Enfield was more accurate (just slightly so) at 100 and 400 yards than the "Springfield" models and somewhat moreso at the extreme 1000 yard range (Foster Gleason 1960-61:16). Both were high trajectory weapons, the bullet rising some four feet vertically at 300 yards (Coggins 1952:32).

The Enfield had a caliber of .577, only slightly different and actually interchangeable with the .58 caliber ammunition issued for use in the "Springfield." In fact, it was often the case that troops equipped

with the .58 caliber "Springfield" would often be issued both .58 and .577 caliber ammunition. The slightly smaller caliber round could be used after several shots when powder accumulations in the bore had effectively reduced the diameter.

Powder residue in the barrel of a weapon was a serious problem in battle and could render the piece unable to be fired. One solution was to use a Williams cleaner bullet, a 465 grain lead bullet attached to a lead disc at its base by a small pedestal An example of one of two types of this bullet is printed in Figure 7-O. This specimen is incomplete since the original bullet would have had a cup shaped zinc "sleeve" encircling the pedestal. Slightly wider than the bullet itself, the sleeve served to scrape powder residue from the barrel when the round was discharged (Figure 5). To distinguish the cleaner bullet from regular rounds, it was sometimes wrapped together with its powder charge in red or blue paper (Lewis 1959:6, 11).

The great number and variety of shoulder weapons used by Confederate and Union troops during the Civil War was matched by an equally great diversity in hand guns. Sidearms were standard issue for officers and cavalry members but were not officially distributed to the common infantryman. Undoubtedly, many soldiers nevertheless carried one or more of the easily concealed weapons that were handy in hand to hand fighting or when a rifle was unloaded, fouled, or broken. Increasingly throughout the war revolvers also became part of the equipment of artillerymen (Downey 1960-61a:4). Revolvers, usually a Colt or Remington six shot "cap and ball," were the favored arm of both North and South. Standard issue for the armies was a .44 caliber weapon (e.g., Colt Model 1860) weighing approximately 2½ pounds and possessing an 8 inch barrel (Foster Gleason 1960-61:16). Bullets for these weapons were either conical or spherical and were propelled by ca. 30 grains of black powder. Colt produced a variety of serviceable,basically similar revolvers. Calibers .31, .36, and .44 were the most popular. Though frequently in short supply and often avidly sought by the survivors of a battle, Colt contributed between 146,000 and 386,000 hand guns to the war effort while Remington produced 125,000-130,000 (Foster Gleason 1960-61:16; Coggins 1962:41). In addition to the Colt and Remington arms, a wide variety of domestic and foreign hand guns, both single shot and repeaters, were used. Among the more famous of these makes are the following: 1) Deane and Adams, a double action percussion English revolver; 2) Le Faucheaux and Le Mat revolvers; 3) Savage Navy revolver in .36 caliber; 4) Wesson and Leavitt side hammer revolvers; and 5) Butterfield percussion revolver.

In most cases, the bullets for these weapons as well as their southern made counterparts are quite similar. On the evidence of the bullets alone, it is impossible to suggest what particular makes might have been used at Bulltown.

A great variety of "personal" handguns including small caliber multiple shot "derringers," "pepperboxes," etc. were also used. The

single occurrence of a .22 caliber bullet in the Cunningham/Skinner collection (Figure 8H) may or may not be an artifact of the battle. Although often thought to be a "modern" caliber, the .22 caliber round was developed by Daniel Wesson for use in the Smith and Wesson First Model revolver which appeared late in 1857 (Logan 1959:63), well in time for it to have been used in the Civil War. Other probable handgun bullets from the Cunningham/Skinner collection are presented in Figure 9.

Although an accurate and deadly infantry weapon, the rifled musket had two pronounced drawbacks: 1) it was slow to load, and 2) there was a tendency to double or triple charge the weapon during the excitement and confusion of battle. The customarily accepted rate of fire for a proficient soldier armed with a rifled musket was three to four shots per minute. It is difficult to say whether such a rate was realistic under battle conditions. The distracting necessity of loading after discharging each round also rendered the soldier particularly vulnerable to enemy troops. Multiple charging of a weapon was a common and dangerous occurrence. After the battle of Gettysburg, some 37,000 arms were picked up; of these, 24,000 were loaded and 18,000 of those had been loaded with more than one charge of ammunition (Coggins 1962:29).

Clearly, the rifled musket, though reliable, was slow and potentially as hazardous to the user as to the enemy. A further drawback was its length which was a distinct disadvantage to cavalry units.

The American Civil War saw the development of a great number of breech loading single and multiple shot weapons that overcame this problem. By January 1865, the United States had tested 52 different varieties of breech loading arms, and at least 36 of these actually saw service during the war (Coggins 1962:31). Despite the objections of those as General James W. Ripley, Chief of U.S. Ordnance (Downey 1960-61a:2), the U.S. Government produced ca. 80,512 Sharps single shot rifles and carbines and between 94,196 and 103,141 Spencer multiple shot weapons at a cost of over $4,500,000 (Lewis 1959:30).

The Sharps rifle and carbine were developed by Christian Sharps in 1859. Despite its disposition to leak gas at the breechblock, the weapon's breechloading design, self-contained linen wrapped bullet and charge, and its 10 round per minute rate of fire made it extremely popular (Foster Gleason 1960-61:15).

The Spencer rifle and carbine were developed in 1860 by young Christopher Spencer. This weapon was reliable and could fire up to 14 shots per minute using its long, butt-fed tubular magazine, each of which held seven rim-fire, copper-cased cartridges. The lead bullets each weighed ca. 385 grains and were propelled by 48 grains of black powder (Coggins 1962:35).

Spencers were first used by the Union Army of the West on 24 June 1863, and they made an important contribution to the first day's fighting at Gettysburg one week later (Downey 1960-61a:2).

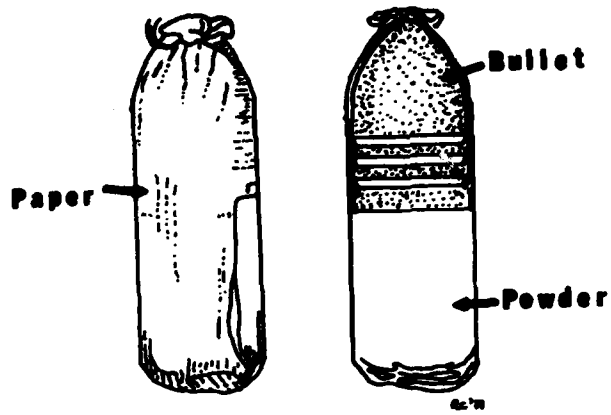


Figure 4. Schematic sketch of .69 caliber Minié bullet showing black powder charge and paper wrapping. Each Union soldier would have been equipped with approximately 40 such prepared cartridges though more likely in .58 caliber. Such cartridges were in common use by troops of the North and South during the Civil War (After Logan 1959:17).

Figure 5. Schematic sketch of William's Cleaner bullet. Upon firing from a rifled musket, the zinc cup was designed to scour the interior of the barrel of black powder residue. Compare to Figure 7-O from the Cunningham/Skinner collection (After Lewis 1959:6, Figure 1, No. 9).

In addition to the Sharps and the Spencer, many other breechloading single and multiple shot weapons were used by the North and the South (see Coggins 1962:58-59). Southern cavalry were particularly fond of carrying shotguns in lieu of the capacity of southern armories to successfully manufacture cartridges for the Spencer; they also employed the Sharps and even produced a limited number of imitations of this weapon.

There are no specimens in the Cunningham/Skinner collection which are absolutely attributable to one or another of these breechloading arms. Here again, remains of the shell casing (for those rounds that had them) would be much more diagnostic than the spent lead bullet. Figure 7L, though badly distorted, may be from a Sharps though this is far from certain. Considering the date of the battle at Bulltown and the presence of several Confederate cavalry units, it is not unlikely that one or more types of breechloading and/or multiple shot weapons may have been employed in the fighting.

The potentially most diagnostic specimen in the Cunningham/Skinner collection is the single artillery shell pictured in Figure 10. There is no doubt that this particular shell was fired from a Confederate gun aimed at Union troops. This is certain for two reasons: 1) no Union artillery is reported to have taken part in the battle; 2) the shell itself accurately fits the description of a particular type of projectile manufactured in the South during the Civil War.

Although it is agreed that Lurty's Confederate battery was represented at the battle, there is some confusion over how many pieces were actually employed. Sutton (1919:173) reported that there was one howitzer which fired a three pound shell. Captain Mattingly's own description (War of the Rebellion 29 (1):481) states that the Confederates had two pieces of artillery without specifying the particular type employed. It is safe to assume that Captain Mattingly is probably correct in saying that there were two pieces of artillery. By. U.S. Army methods of classification, those two pieces would have formed a section of a six piece battery (Coggins 1962:63). Lurty, as a Captain, would have been in command of the battery; a lieutenant may have commanded the section. It is unclear at this time whether Lurty's two guns were part of a larger battery or were simply "all that were left."

As noted above, Sutton mentions the use of a howitzer. He derived the details of the battle from the civilian E.H. Cunningham on whose father's farm the battle was waged. It is uncertain whether or not the elder Cunningham actually saw the Confederate guns closely enough to determine that they were howitzers sensu strictu. He may simply have been using the word in a broad sense as a covering term for "artillery field piece." In the same way, many laymen frequently refer to any artillery piece as a "cannon."

Sutton's (1919:173) description also specifically notes that the Confederate "howitzer" was carried on the back of a mule and was there-

fore called the "jackass battery." This description provides some interpretational problems. Indeed, certain mountain howitzer artillery units did serve in the war. These units were frequently equipped with a 12 pound (shot weight), short barreled (32.9 inches) relatively light (220 pound-tube weight) smoothbore howitzer. The gun tube, carriage, ammunition, wheels, etc. were carried on the backs of three horses or mules. The weapon had a range of approximately 900 yards with a 5° elevation to the barrel (Coggins 1962:75; Downey 19606la:8). Capable of throwing solid spherical shot, explosive shells, spherical case shot (i.e., shrapnel) canister, and grape shot, this weapon proved an effective rugged-terrain counterpart to the heavier, bronze Model 1857 gun howitzer, named the Napoleon (after Emperor Napoleon III) that saw increasing use throughout the war on both sides.

In general, smoothbore howitzers, despite their shorter range than the rifled guns (e.g., Parrotts and Ordnance guns) with which they frequently shared the battlefield, became more and more popular throughout the war because of their great versatility (Mauncy 1962:19; Downey 1960-61b:7-8).

It is entirely possible that Lurty's battery was equipped with such howitzers, although the exact type is not now known. However, the possibility also exists that the battery may have contained at least one or more rifled guns, i.e., field artillery pieces that had received the same rifling treatment described previously for shoulder weapons. The most popular of this group of artillery pieces were 10 pound Parrott and three inch Ordnance (or Rodman) guns which fired interchangeable ammunition (Coggins 1962:64). The Parrott gun, which came in a variety of sizes, employed a cast iron barrel with a prominent wrought iron sleeve around its breech. The Ordnance gun, on the other hand, was made by wrapping sheets of boiler plate around a central mandrel. The resulting cylinder was then rolled, bored, rifled and produced a generally superior weapon to the Parrott (Mauncy 1962:14,16; Foster Gleason 1960-61:17). The three inch Ordnance gun was favored by Confederate horse artillery (Downey 1960-61b:8; Coggins 1962:64). It had a 69 inch tube which weighed 820 pounds and could throw a 9½ pound projectile 1,830 yards at 5° elevation (Coggins 1962:77). The Confederate officer, J.D. Imboden, no stranger to warfare in West Virginia (see above), noted one drawback to rifled artillery in contrast to smoothbore howitzers. He complained that rifled weapons tended to bury their explosive shells deep in the ground and that when they exploded, they did little real harm (Coggins 1962:64). Whether Imboden's opinion had any effect on the type of artillery with which Lurty was equipped at Bulltown is unknown. Diversity in field artillery was certainly as much a characteristic of both sides engaged in the Civil War as was diversity in individual weapons. Rosecrans' Union army in February 1863 possessed no less than nine different types or sizes of artillery pieces (Downey 1960-61b:8). On these grounds alone, then, it is difficult to specify the type of artillery that Lurty may have used during the Bulltown battle.

Fortunately, the single unexploded artillery shell* from the Cunningham/Skinner collection is just over four inches in length and just under three inches in width. The body of the hollow, cast iron shell contains a metal plug at its tip for the installation of the detonating fuse (Figure 10B). Two types of fuses were common during the American Civil War, time fuses and percussion fuses. The Reed-type shell from Bulltown may well have used a Parrott or Dyer type time fuse. In this type, a timed, treated paper fuse was fitted into the metal inset in the nose of the shell. The fuses were of different colors: black fuses burned two seconds to the inch, red three seconds, green four seconds, yellow five seconds (Coggins 1962:82). Although reliable about 75% of the time, the fuse obviously failed to detonate the main charge in the shell. While it is possible that Lurty's men may not have had fuses or that they were wet, it seems more likely that the fuse simply failed. Percussion fuses were of metal; therefore, had they been used in the shells at Bulltown, it is reasonable to expect that they would have been preserved along with the rest of the shell.

At the base of the Bulltown shell is a wrought iron perforated plate bolted to the shell base with a single square nut (Figure 10C). This is an example of a Confederate Reed system class 2 projectile developed for use in rifled guns such as the 10 pound Parrott and the three inch Ordnance gun discussed above (Figure 6). Reed, who had worked with Parrott before the war (Lewis 1969:20), developed one of approximately 10 different systems used to impart spin to a gun's projectile, thereby increasing its effective range and accuracy (see discussion of rifling above). Reed's system was perhaps the most commonly employed in the rather complex universe of Confederate artillery shells. The wrought iron plate is designed to flatten against the walls of the gun upon firing. The plate, firmly held by the three projectiles and the nut, therefore "takes" the rifling of the gun's barrel and spins the remainder of the projectile. (The problems and approaches to its solution are not in principle unlike those of the rifled musket and the Minié bullet - see above). The plate was frequently made of copper, lead, or wrought iron, but not of brass (Lewis 1959:20). In the 1863 Bulltown specimen, one may be seeing the substitution of iron for increasingly scarce copper. The Bulltown shell is unusual as well in the fact that the three iron projectiles are part of the shell base and extend through the plate. In most known cases of Reed-type shells, the projections, or dowels, are part of the plate and insert into the base of the shell (Lewis 1959: 20).

The Bulltown specimen is actually defective. Not only did it not explode, but the plate did not separate from the body of the shell after leaving the muzzle of the gun. This feature of the shell type made it hazardous to fire over the heads of friendly troops.

*Two additional specimens were not available for inspection at the time of this report.

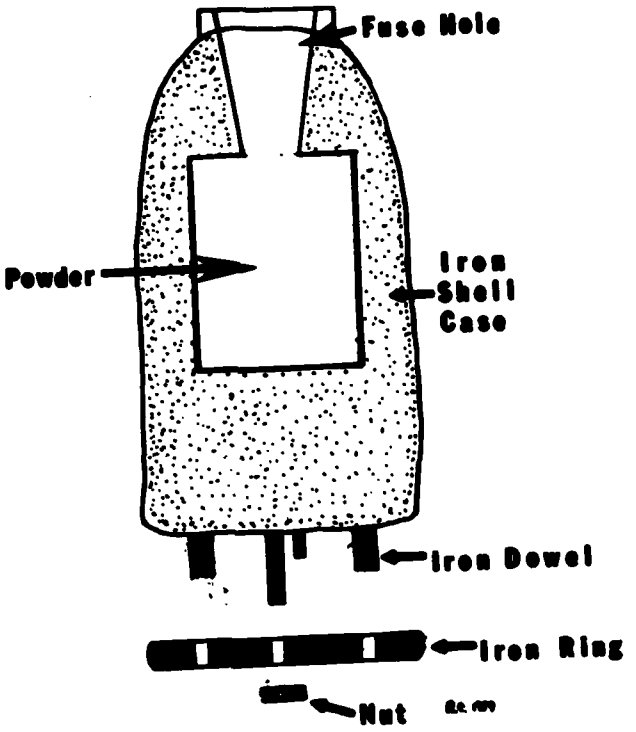


Figure 6. Schematic sketch of a Confederate Reed System class 2 artillery shell for a three inch rifled gun. The iron ring at the bottom was designed to grab the rifling of the gun and to spin the shell. Shape of fuse hole and powder chamber are conjectural. Compare to Figure 10 in the Cunningham/Skinner collection. Note: In some shells of this type, iron dowels which prevent the wrought iron ring from turning are a part of the ring and not of the cast iron shell base.

Nothing would have prevented the Reed-type shell from having been fired from a smoothbore howitzer. The range separating the Union breast works at Bulltown from the opposing Confederate artillery emplacements on the south side of the Little Kanawha is ca. 1,000 yards, within the capacity (if a bit extreme) of such a field piece. The iron plate at the bottom of the Cunningham/Skinner specimen does show some small indentations that may have resulted from the basal plate expanding into the rifling grooves of an Ordnance or Parrott type of gun. On this basis, it seems wise to suggest that Lurty's artillery unit was equipped with at least one rifled gun. Recovery of other unexploded shells or projectiles from the battlefield area, preferably in controlled archaeological contexts, may well help to resolve this problem. Strict data recovery techniques are essential. For instance, if the angle and orientation of such shells is recorded, it may demonstrate the relative position from which the shots were fired; these techniques may in turn reveal the approximate location of Lurty's "battery" during the battle.

In addition to the bullets and single artillery shell discussed above, the Cunningham/Skinner collection contains a few other artifacts of the Civil War time period. Figure 11 A-B are fragments of a ball clay pipe stem and bowl. Figure 11C shows a collection of poorly cast lead (?) or pewter (?) buttons (?) possibly from a Union issue three button pull over shirt. Figure 11D shows three single rifle sling hooks of a type common in the period 1840-1860 and a possible ground cloth or tent grommet. Figure 12A is the metal tip (scape) of a combination leather and metal bayonet scabbard. Figure 12B, C, D are unidentified, but 12C may be part of an artillery fuse.

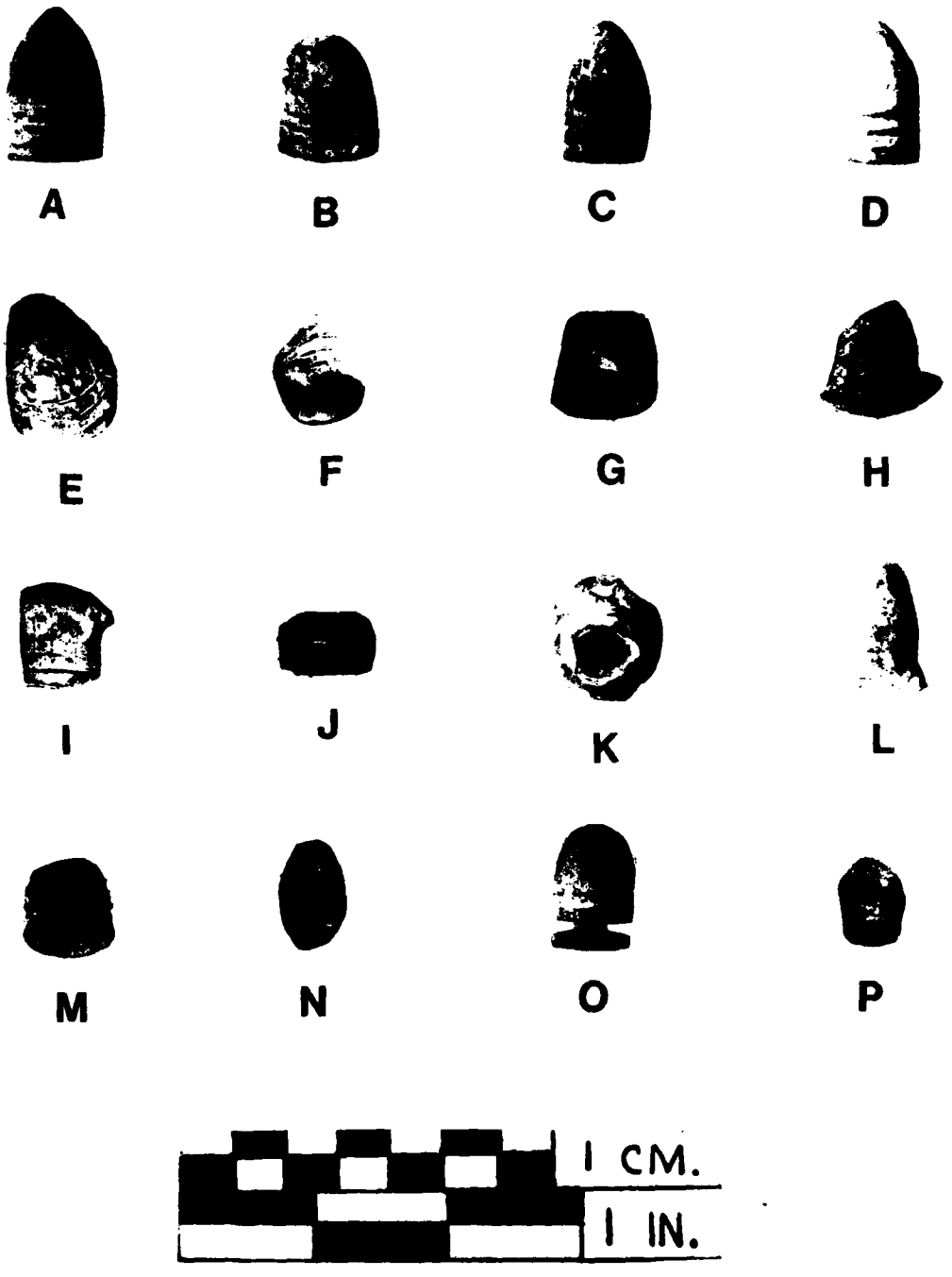


Figure 7. Civil War period lead bullets from the Cunningham/Skinner collection. A, .69 caliber Minié type bullet for rifled musket; B-D, .58 caliber Minié type bullets - note lubrication rings at base of bullets; E-K, unidentified; L. lead bullet for a Sharps (?) carbine or rifle; M-N, unidentified; O, Williams Cleaner bullet; P, unidentified.

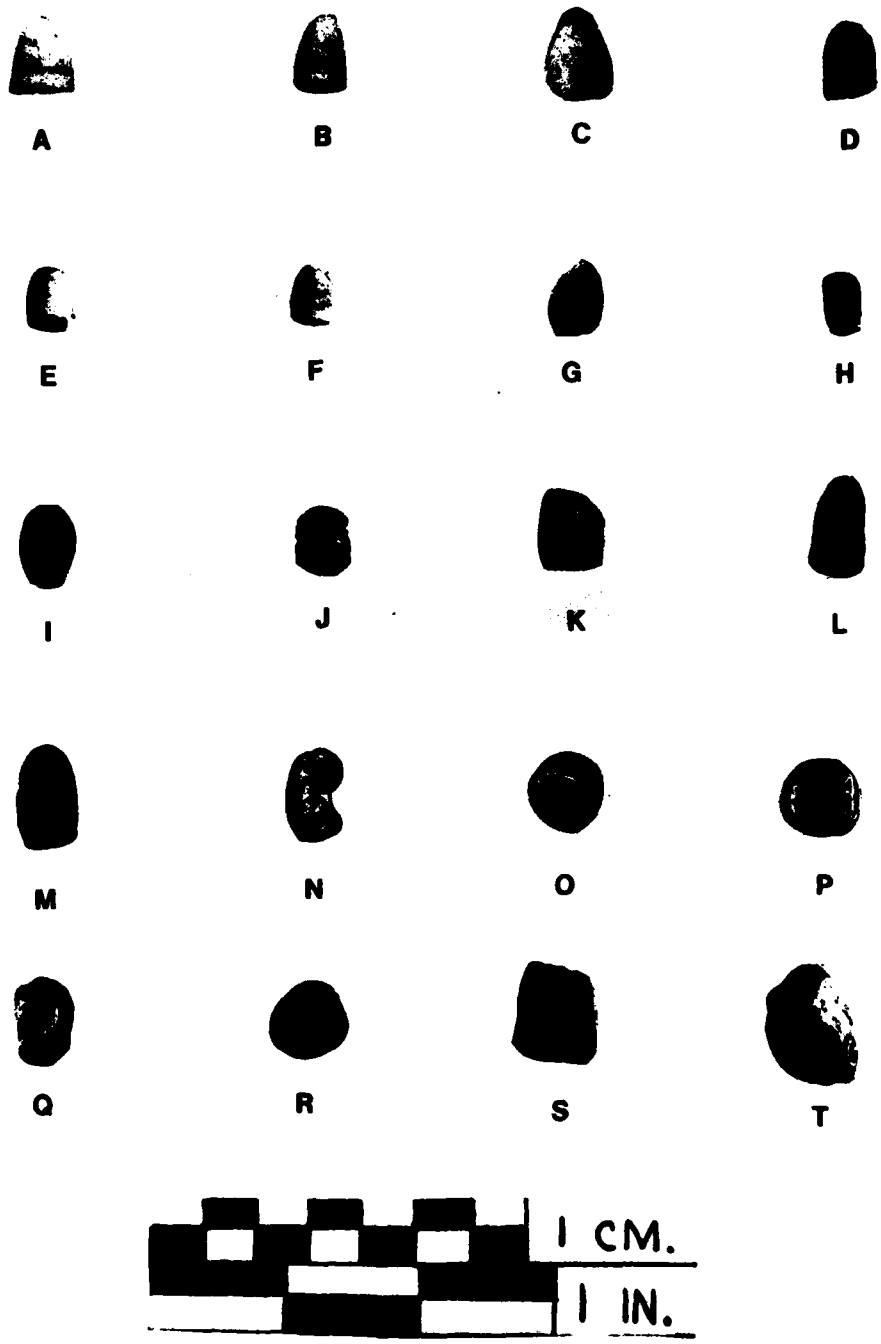
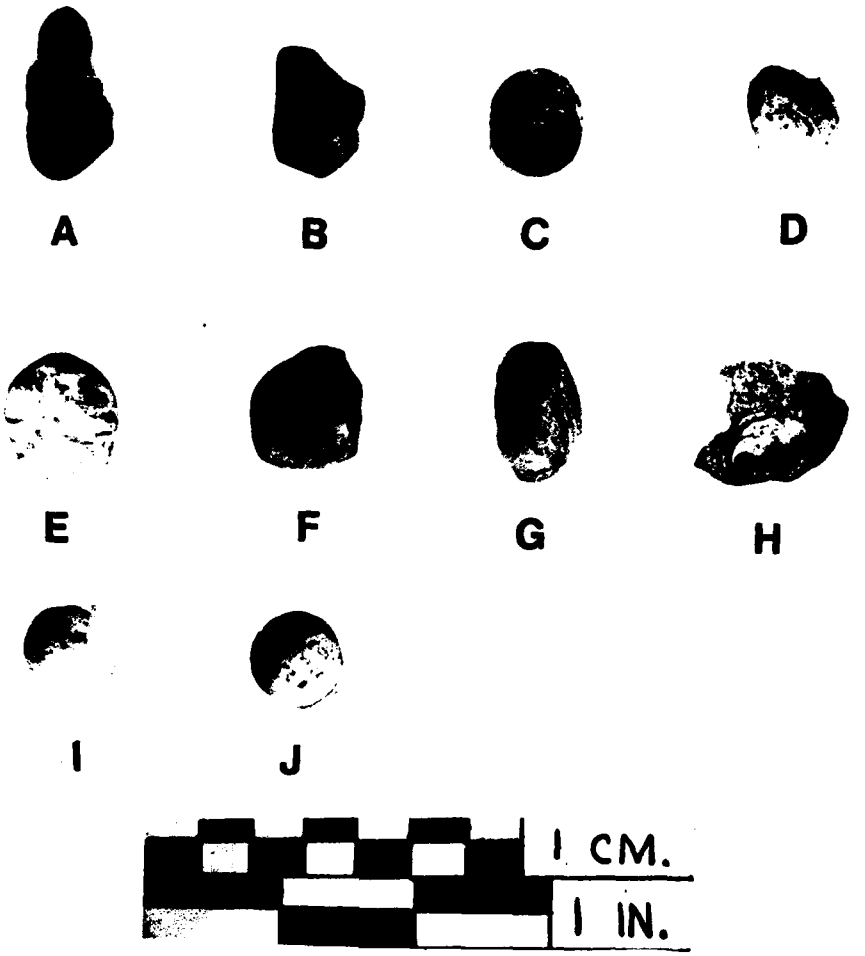


Figure 8. Civil War period lead bullets from the Cunningham/Skinner collection. A,C, J-K, .44 caliber conicals; D-E, G, .36 caliber conicals; F, .31 or .36 caliber conicals; H, .22 caliber pistol conical; L-T, unidentified.



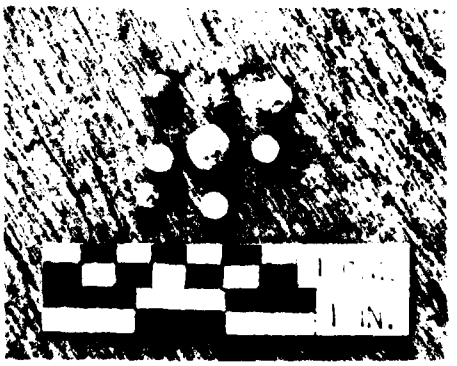


Figure 9. Civil War period lead bullets from the Cunningham/Skinner collection. A-B, D-G, unidentified; C, .54 (?) caliber Minié; H, .54 or .58 caliber Minié; I-J, .53 caliber balls for smoothbore muskets or for "Mississippi" rifles; K, pistol balls (?).

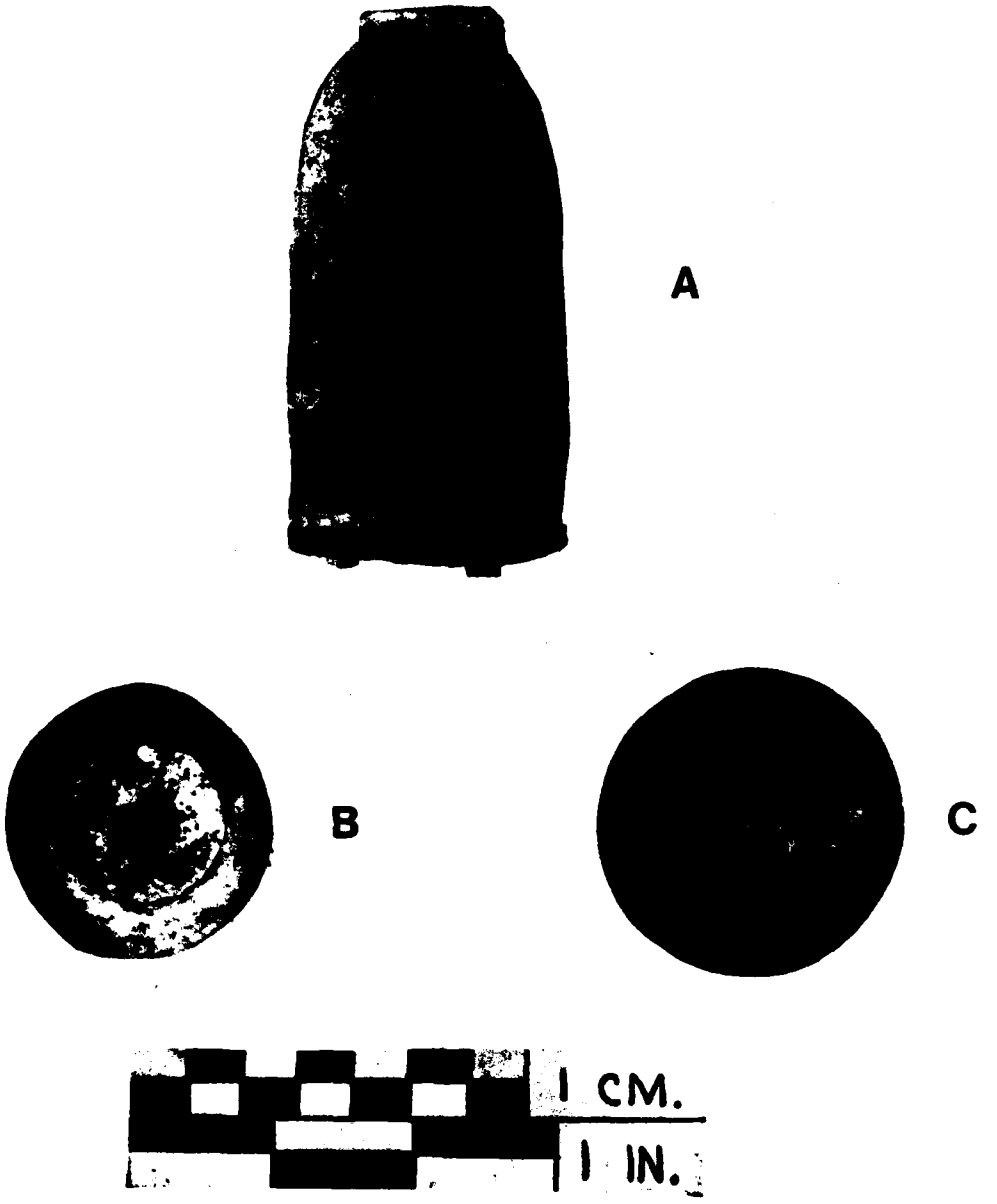


Figure 10. An unexploded three inch artillery shell from the Cunningham/ Skinner collection. A, side view; B, nose of shell - note hole for insertion of paper fuse; C, base of wrought iron plate attached to shell which served to spin the projectile during flight (cf. Figure 6).

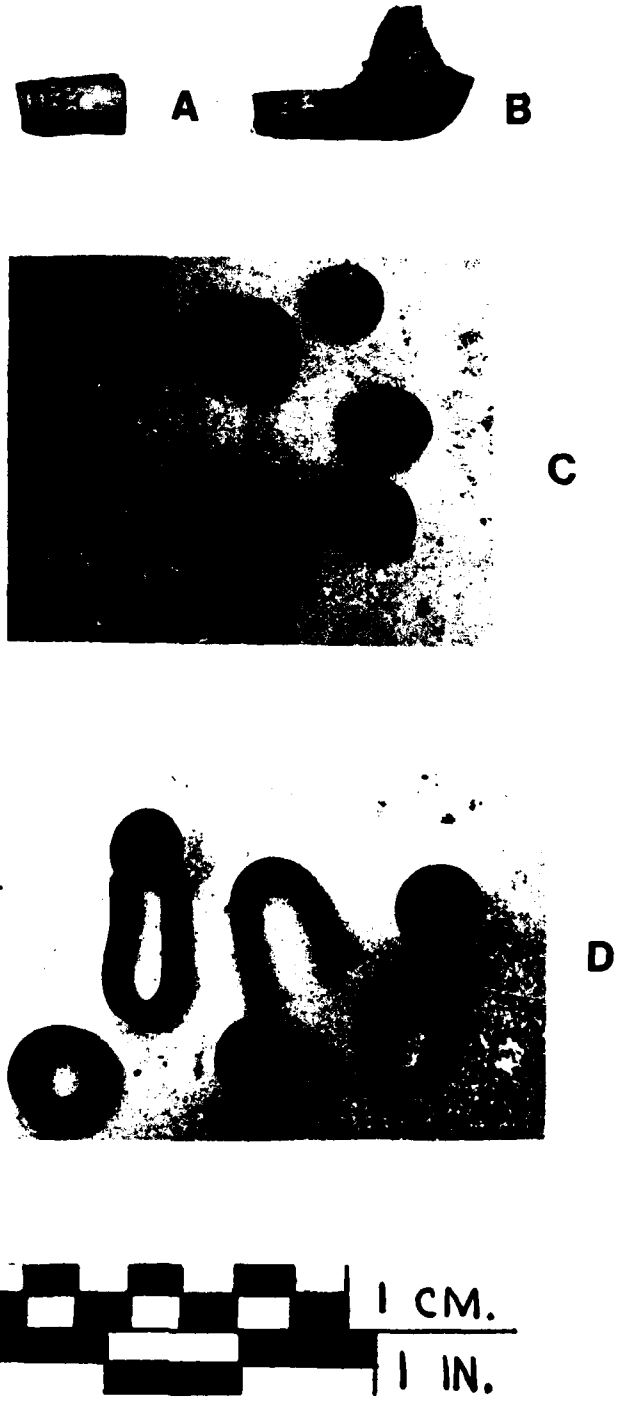


Figure 11. Miscellaneous Civil War period artifacts from the Cunningham/Skinner collection. A-B, ball clay pipe stem and bowl fragments; C, pewter buttons; D, three single rifle sling hooks and one ground cloth or tent grommet.

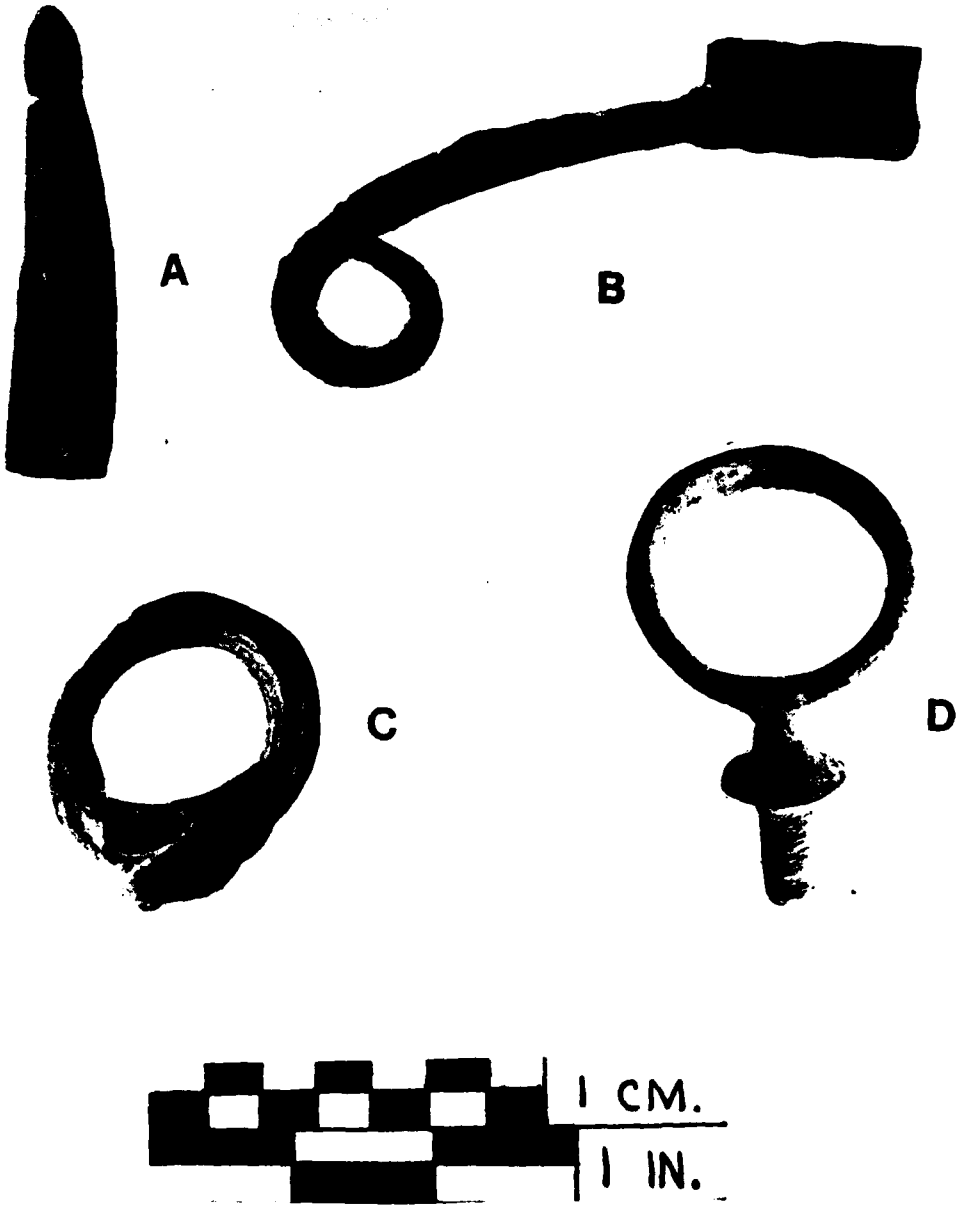


Figure 12. Miscellaneous Civil War period artifacts from the Cunningham/Skinner collection. A, metal tip of a metal (scape) and leather bayonet scabbard; B-D, unidentified. C may be a portion of an artillery shell fuse.

Historical and Architectural Descriptions of Dismantled Structures

Tract Number 603 and 603C.

Location: Burnsville Lake, Salt Lick District, Braxton County, West Virginia.

Structure: St. Michael's Roman Catholic Church (Tract 603) and Cemetery (Tract 603C) (Figures 13-18).

Property Description and General History:

At the time of the acquisition of Tracts 603 and 603C by the United States Government, St. Michael's Catholic Church (Figure 13) and adjoining cemetery stood along the northwest side of Flesher Run, a small tributary stream of Knawl Creek, itself a tributary of the Little Kanawha River, in the Salt Lick District, Braxton County, West Virginia (Figure 14). Located approximately on the 1000 foot contour line, the church and cemetery occupied a ca. 0.18 acre plot which could be approached from both West Virginia Secondary Route 4/1 and West Virginia State Road 46. Both the church building itself and the cemetery were surrounded by a split rail fence that contained oak (Quercus sp.) of the white oak group, and chestnut (Castanea dentata) (U.S. Department of Agriculture, Forest Products Laboratory 1978, pers. comm.). To judge from photographs in the U.S. Army Corps of Engineer's real estate file as well as topographical maps (U.S. Geological Survey 7.5' Topographic Map, Orlando, West Virginia), the cemetery plot was positioned just in front of (i.e., South) of the main entrance of the church. At the time of the government's purchase, the cemetery contained approximately 58 graves (U.S. Army Corps of Engineers Real Estate Files).

The brief synopsis of the history of St. Michael's presented here has received tremendous aid both from a number of informants whose families have long been connected with the church as well as from the diocesan records of the Catholic Diocese of Wheeling-Charleston. The latter provided, with a few exceptions, a yearly account of the affairs of St. Michael's including some useful inventories, notices of modifications in the structure itself, parish composition, and so forth. Most of the diocesan records appear in the form of annual reports contributed by the parish priest to the bishop of the Wheeling-Charleston Diocese. The reports take the form of responses noted by the priest to a series of largely bureaucratic questions. The form of the annual reports changed substantially from 1865, the first year for which reports survive, to the present, but the following list summarizes the kind of information presented. It should be noted that the quality of the responses

Figure 13. St. Michael's Roman Catholic Church, ca. 1975.

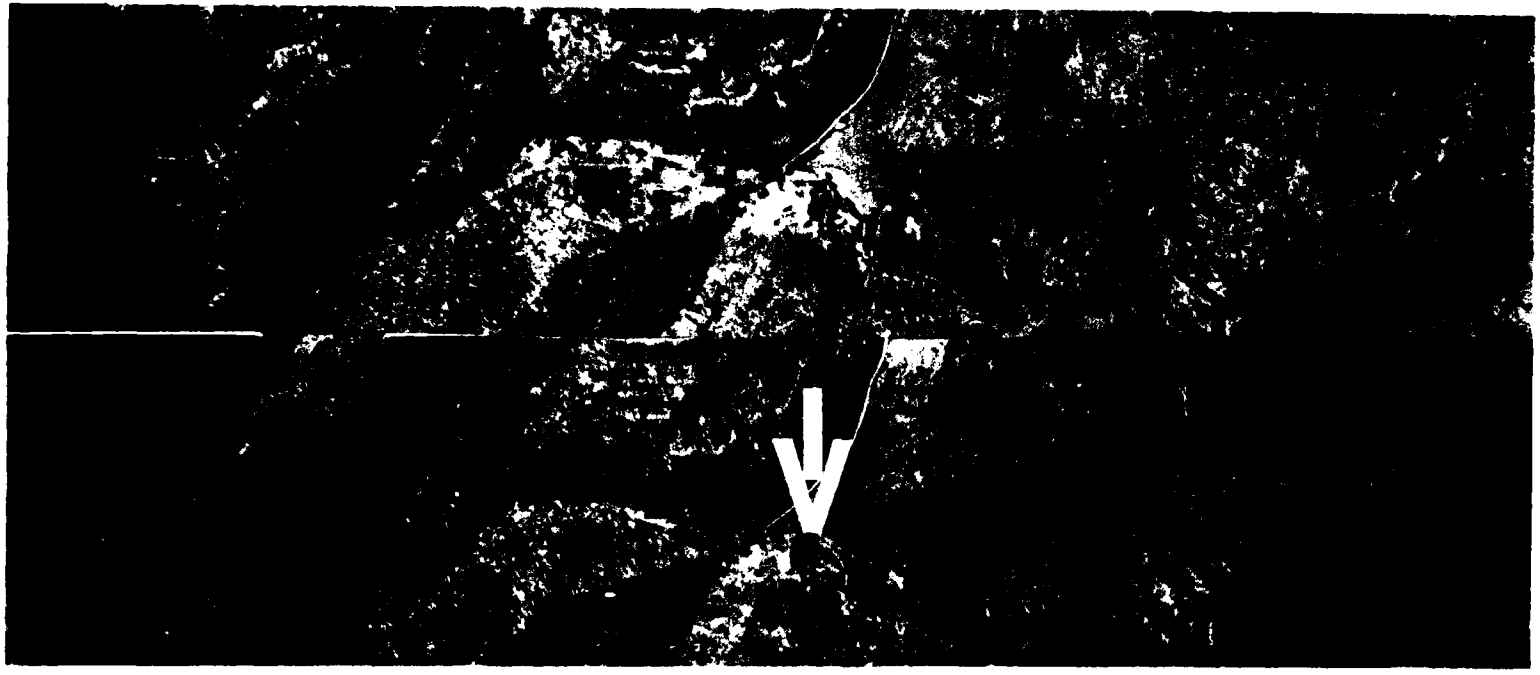


Figure 14. Stereo pair of aerial photos showing St. Michael's Roman Catholic Church. April 10, 1965, Burnsville Lake, Photo 188 and 189, U.S. Army Corps of Engineers, Huntington District.

to these questions varies markedly from priest to priest and even within a single priest's tenure.

Topics addressed in the annual reports include the following:
1) When masses were held,
2) Where mass was conducted (in the event that a private home was used),
3) Monthly amount contributed by each family,
4) Number of families in the parish,
5) Number of churches under construction in the parish,
6) Church expenses for the year,
7) Number of baptisms, deaths, and marriages during the year,
8) Amount of money contributed to the church from baptisms, etc.,
9) Average amount of collection per week,
10) Number of Catholic schools in the parish,
11) Number of Sunday schools and their attendance,
12) Number of high and low masses conducted in each church in addition to other sections of the mass (e.g., vespers) conducted,
13) Number attending confirmation class,
14) Number attending Easter Sunday service,
15) Number of graveyards,
16) Inventory of church property,
17) Items purchased by the priest for the church during the year,
18) Debts outstanding,
19) Liens on the church, and
20) Names and number of members of fraternal groups or sodalites in the parish.

In addition to the Wheeling-Charleston Diocese records, baptismal, death, and marriage records for St. Bernard's, St. Bridget's, and St. Michael's (the three small churches that collectively formed the "Weston Missions" administered out of St. Patrick's Church in Weston) are in the keeping of Father Donal O'Donovan, the current priest at St. Patrick's.

Father O'Donovan, a native of Ireland who has been connected with the Weston Missions since 1950, indicated that the Irish Catholic influx into the area was a direct result of the construction of the railroad from Baltimore to Parkersburg in the mid-19th century. Indeed, the original location of St. Michael's was just south of the Baltimore and Ohio tracks. Many of the original St. Michael's parishioners can be assumed to have worked for the railroads. In fact, most of them, including the Greens, Mahoneys, Morans, Sweeneys, Carneys, Griffins, and McDonalds, were native to the same area in Ireland. Baptismal records indicate that County Ros Common, County Mayo, and County Galway supplied many of St. Michael's parishioners. The earliest dated tombstone that could be found in the relocated St. Michael's cemetery is that of John Daley, born in Westmuth County, Ireland, and who died at ca. 70 years of ago on 4 February 1883. Another burial in 1883 was that of Michael Kiley who died at 67 in September of that year. It is likely, then, that many of the family members may have known one another in Ireland; many may have crossed the Atlantic Ocean together.

A Catholic diocese for the area was established with the arrival of Bishop Wehland from Richmond. By 1876-1877, St. Patrick's church of Weston was under construction at an estimated cost of $6500-7000. The first extant Weston Missions annual report dates to 1872. St. Michael's church is not mentioned at this date although both St. Bridget's and St. Bernard's are noted in Father Burke's report for that year. The annual report from 1877 and for a part of 1876 contains the first reference to St. Michael's. Father John A. Tracy, the pastor of St. Patrick's, noted that he said mass on the first and third Sundays of each month at Weston (St. Patrick's), on the fourth Sunday at Murray's settlement (St. Bridget's), and on the second Sunday at Hayden's (St. Bernard's). Furthermore, mass was said in Sutton three to four times per year, and at Griffin's on the fourth Monday of each month. Later in the same report, Father Tracy noted that the "Church at Griffin's to be St. Michael's." Interestingly, the first recorded baptism for St. Michael's is that of Agnes Carney of 27 August 1876. Possibly, mass was said by Father Tracy in the home of the Griffins, and the conduction of church services may have actually preceded the physical construction of the church itself.

In the report for 1878, Father Tracy noted that " . . . a church is in construction 20 miles from here (Weston) which will be called St. Michael's at Griffins." The cemetery at St. Michael's may also have been established by this date since the report also mentioned that each of the Weston Mission churches had a graveyard "properly enclosed." Sunday school was held in the summer months but was discontinued in the snowy winter days.

By 1879, Father Tracy reported that St. Michael's had been dedicated and that all debts related to its construction were paid. No deed was obtained, however, and Father Tracy noted that it would be secured on his first visit to Sutton. An insurance policy on St. Patrick's church in Weston was taken out in this year, but the coverage did not extend to the Weston Mission churches. The details of the techniques of construction of these smaller, country churches are not known. It is more than likely that St. Michael's was raised by parish community effort (Father Donal O'Donovan 1978, pers. comm.) rather than by contract. Some credence is given to this idea by the fact that while $1100 was still owed on St. Patrick's in 1879, no debts were owed on any of the mission churches. It is unlikely that any contractural work for the erection of St. Michael's could have been paid in so short a time, and it is more probable that volunteer parish labor was used to construct the church.

In 1880, mass was said at St. Michael's on every fifth Sunday as well as on Holy Days "where convenient." Apparently, services continued through the winter months since a stove was purchased by the church at a cost of $13.00. The graveyard at St. Michael's, though definitely present and enclosed by this time, was not blessed. In fact, the annual reports give no clear indication when the blessing of the cemetery ever took place. Both the enclosure of Catholic grave-

yards by a fence and their consecration are of important historical consideration. Enclosure is specified by Canonical law and stems from the belief in the sanctity of human remains which is in turn linked to the concept of bodily resurrection. The measure may also have been instituted in order to exclude cremation burials since only inhumations are permitted in the Catholic belief (Father Robert Nash 1978, pers. comm.).

Catholic cemeteries are subject to three types of consecration (Father Robert Nash 1978, pers. comm.). A Pontifical consecration is administered by the bishop of the diocese. A Roman consecration, on the other hand, can be performed by any ordained priest while a third type can be performed by the laity in the absence of a priest. The problem with consecrating the cemetery at St. Michael's undoubtedly resulted from the fact that it was adminstered as a mission from Weston and had no resident priest. The annual report forms do not specify the type of consecration performed at St. Bernard's or St. Bridget's, but it is likely that in due time all three of the mission churches' graveyards received at least a Roman consecration.

In the annual report for 1882, Father Tracy submitted an inventory for St. Michael's which showed that the church had one chalice and a paten (the plate used to hold the Eucharistic bread), one alb (the priest's long, white robe worn when saying mass), and one set of vestments. The parish at St. Michael's could not have been large at this time since the annual contribution per month amounted to a scant $20. In the same year, by comparison, the parishioners of St. Bernard's and St. Bridget's contributed $227.50 and $165.40 per month respectively.

There are two reports for St. Michael's filed for 1884. One was given by Father Tracy, who reported that he was only at St. Patrick's in Weston for mass during that year. Father Thomas Aquinas Quirk appears to have taken over for Father Tracy at the three country churches. In this year, Father Quirk reported a combined total of 640 people in the missions. Although he did not have all of the church books at the time of his report, the monthly contribution of the St. Michael's parishioners varied between $10. and $22.50.

Pastor's dues of $102.00 for St. Michael's were reported by Father Quirk in 1886, and at least some of the money was apparently raised by holding church picnics.

Although suspended by the bishop on 8 September 1887 for refusing to turn over $165.00 for church improvements, Father Quirk's report for that year specified that "St. Michael's was ceiled (sealed) and otherwise improved." Although unspecified, this statement may refer to the process of covering the log construction church with clapboards. At the time of the authors' inspection of the St. Michael's logs and sheathing, it was noted that the sheathing had been applied with cut rather than common wire nails. Although manufactured after ca. 1851, wire nails were apparently either not available or were not favored in

the Braxton County area at the time St. Michael's was enclosed. Interestingly, Father Quirk reported that St. Bernard's, also of log construction, was in the process of being "ceiled" (or sealed) in 1887. The construction of St. Bernard's had begun in 1861, and the log church, later covered with sheathing, was replaced by a new church of the same name in 1911 (Father Donal O'Donovan 1978, pers. comm.).

The most complete church inventory for St. Michael's presented in the diocesan records is that of 1888. In that year, Father Quirk reported that the church contained 1 set of altar knives, 1 altar stone, 1 set of altar cards, 6 bunches of flowers and vases, 4 candle sticks, 1 missal, 2 sets of vestments, 1 set of cruets, 1 crucifix, 1 gong, 1 stove and poker, 1 purificator, 1 armice (the priest's white neckband), 1 alb, and 1 cincture or tie rope.

The fence surrounding St. Michael's graveyard was noted as being in poor condition in 1888, but by 1895 all three of the mission church cemeteries were listed as blessed and enclosed "by a fair plank fence."

Unfortunately, no annual reports have been found for the period from 1900 through 1910. It seems unlikely, however, that much changed at St. Michael's during this time. Father Quirk's monthly round took him to each of the Weston Mission churches in succession. In 1911, he reported being at St. Michael's on the third Sunday of each month. It was also during this year that the church was repainted. Although it had the smallest parish of the three mission churches, St. Michael's was insured for $2500.00 with the Aetna and Germania Company. St. Bernard's, valued at $5000.00 and St. Bridget's at $2000.00, were also insured, as was St. Patrick's in Weston.

The following year, 1912, the diocese dropped the insurance on St. Michael's noting that "The old St. Michael's is not insured because but rarely used." Insurance coverage on St. Michael's was later resumed.

After this time, the number of annual reports containing information on St. Michael's becomes more sporadic. In 1913, the report for St. Michael's was included in the report for Camden, West Virginia. No reports exist for the period of 1914 through 1920, and subsequent reports, where they exist at all, are frequently unspecific respecting St. Michael's.

In 1950, Father Donal O'Donovan was appointed the assistant pastor in Weston, and his inventory for St. Michael's in 1953 indicated that the church had an organ at that time. Two years later, the windows in the church were repaired at a cost of $364.78.

Throughout the 1950s and early 1960s, St. Michael's, though it continued to be used, was faced with a diminishing number of families in the parish. Gas or oil was found on the property of many of these families, and they subsequently moved either to Weston or out of the state. Oklahoma was a favorite new home (Father Donal O'Donovan 1978, pers. comm). The annual report for 1962 records that some minor roof repairs

were undertaken, but the church was closed in May of the following year, and all of the church furnishings except for the altar and stations were transferred to Glenville, St. Boniface's, and St. Bridget's. Included among this material were pews, investing case, statues, rugs, heater, and the communion rail.

The legal history of the St. Michael's property is not well known. As noted above, the deed to the church building, constructed during 1878, probably on the Griffin's property, was to be handed over to Father John Tracy at Sutton sometime during 1880. Government acquisition files in the Real Estate Division of the U.S. Army Corps of Engineers indicate that the deed in 1931 was in the names of Edward E. Weber and William C. Hall, trustees of the church. In this year, the deed passed to the Right Reverend John J. Swint, Bishop of Wheeling (Braxton County Deed Book 149: 241). Bishop Swint died in 1962 and was succeeded by Bishop Joseph H. Hodges.

In the course of land acquisition by the U.S. Army Corps of Engineers for the Burnsville Lake Project, opposition to the dismantling and removal of St. Michael's was made by Bishop Swint who noted that despite the fact that the church was officially closed, services continued to be held there once a year. Historical interest in the building and the presence of the graveyard were also cited as important factors in the bishop's objections. Nevertheless, Jack C. Burdett, Chief, Real Estate Division, U.S. Army Corps of Engineers, maintained that the isolation of the church within the Burnsville Project and its proximity to recreational areas of the project would possibly subject the church and graveyard to eventual vandalism. Consequently, the church and cemetery were acquired by the United States Government on 13 March 1974 by and in consideration of the sum of $5200.00. The deed was recorded on 20 March 1974 and can be found in Braxton County Deed Book 335:833-35.

Informants:
Father Edward McDonald, St. Catherine's Roman Catholic Church, 407 Walnut Street, Ronceverte, West Virginia 24970.

Mrs. John V. (Myrtle) Moran, Box 223, Burnsville, West Virginia 26335.

Father Robert C. Nash, Chancellor, Diocese of Wheeling-Charleston, 1300 Byron Street, Wheeling, West Virginia 26003.

Father Donal O'Donovan, St. Patrick's Roman Catholic Church, Weston, West Virginia 26452.

Exterior Architectural Comments:

St. Michael's Church was originally a simple, rectangularly shaped log building. The logs of the church were of yellow poplar (Liriodendron tulipifera) (U.S. Department of Agriculture, Forest Products Laboratory

1978, pers. comm.) and ranged in height from 13"-25" and in thickness from 6½"-7". The interior and exterior faces of the logs were worked with a broadaxe while the superior and inferior faces retained a natural convex shape. Half-dovetailed notching was used throughout. From the time of its construction in 1878-1879, the logs were probably exposed to the elements. It is believed, however, that the 5¼"-6½" clapboard siding (painted white) applied with cut nails that was part of the church at the time of its dismantling was added sometime during 1887.

Dimensions given in the U.S. Army Corps of Engineers' files indicate that the main portion of the building measured 20' x 30' with a 10' x 8'3" addition to the rear or northeast side. Drawings prepared by the Corps, however, indicate that the actual exterior length of the main portion of the building was approximately 33'10" x 16'9". The width of the building measured at the roof overhang is 20'9", and this probably accounts for the 20' measurement reported above.

The Corps of Engineers' property appraisal report also indicates that the log sills were supported on masonry piers. From the sole picture in these records, the piers on the downslope or southeast side of the church were situated at the corners of the building and possibly midway between each corner. Almost certainly, these piers were fashioned from sandstone.

The front or southwestern wall of the church was composed of seven hewn logs rising a ground to plate distance of 11 feet 7 inches. Above the plate, the gable roof rose a vertical height of 6 feet 7 inches to its apex of the roof. The return cornices on either side of the building measured ca. 2 feet in length, and the facade was covered with ca. 44 horizontally applied clapboards. The church was entered through narrow double doors approached by three steps of unknown construction. Each of the doors measured 2'9" in width by 7'3" in height.

Two sets of opposing six over six light double hung sash windows were displayed along the northwest and southeast walls of the main portion of the structure. The window openings measured 3' in width and 6' in height.

Attached to the rear or northeast wall of the structure was a log construction, frame covered room used as a confessional. Measuring 8'3" in length and 10' wide, the room was approximately 8'9" in height, and its gable roof was covered with sheet metal. A small window measuring 3' in width by 2'3" in height was cut into its southeastern wall. It should be noted that in the northeast wall of the main structure, the area from the plate to the roof apex was covered with vertically applied boards with the interstices covered by battens.

The roof of the church was slate at the time of its purchase by the U.S. Government, and there were galvanized iron gutters and downspouts. There were 12 rafters on 2'9" centers which were formed from 2" x 6" boards. It is likely that over the years since its construction the

entire roof of the church was replaced, perhaps more than once. Records indicate (see above) that the last roof repair was undertaken in 1962. Quite possibly, the original roof was either wooden shingles or tin covered.

Sanitation facilities at the church consisted of a separate, rude, wooden plank privy with a wooden floor and metal shed roof.

Interior Architectural Comments:

The interior walls, ceiling, and floor of the church were covered with tongue and groove planking, and the interior of the church contained 682 square feet of floor space. The ceiling and walls were painted white while the floorboards, attached to 18 log joists on 2' centers, were painted brown. The altar was an area about 7' in width which ran the length of the rear or northeast wall of the structure; it was partitioned from the remainder of the church by a banister. The altar area was raised approximately 1'3" above the church floor, and the raised altar floor extended into and ran the length of the confessional which was entered from the altar area through a 3' by 6'9" high doorway.

Seating was accomplished by pews, the arrangement and total number of which are not known. Preserved pews from the church can be found in the former Methodist Church in Burnsville, West Virginia, now used by the Burnsville Lions Club. It is directly adjacent to the home of Mrs. John Moran, a long time member of the St. Michael's parish. The pews examined in the course of this study were painted white and were composed of 1" thick boards attached with cut nails. Each pew measured 6'9" in length and was 33½" high. The seat was 13" deep while that back of each pew was composed of a single 17" wide board. The location of other of the original St. Michael's pews can be obtained from Father Donal O'Donovan, St. Patrick's Church, Weston.

Heat was provided by a coal stove, the location of which is not known.

Recommendations:

In contrast to many of the other structures reported upon here, a relatively large amount of historical data exists for St. Michael's Church. The log portion of the building appears to have been built between ca. 1878 and 1879 with its encasement in frame clapboarding occurring ca. 1887. An excellent inventory of the church also exists for 1888. The best approach to reconstruction of the church is therefore to the period 1887-88. This would require reinstallation of the frame clapboarding, although a certain interior section of logs might be left exposed to demonstrate the original log construction technique.

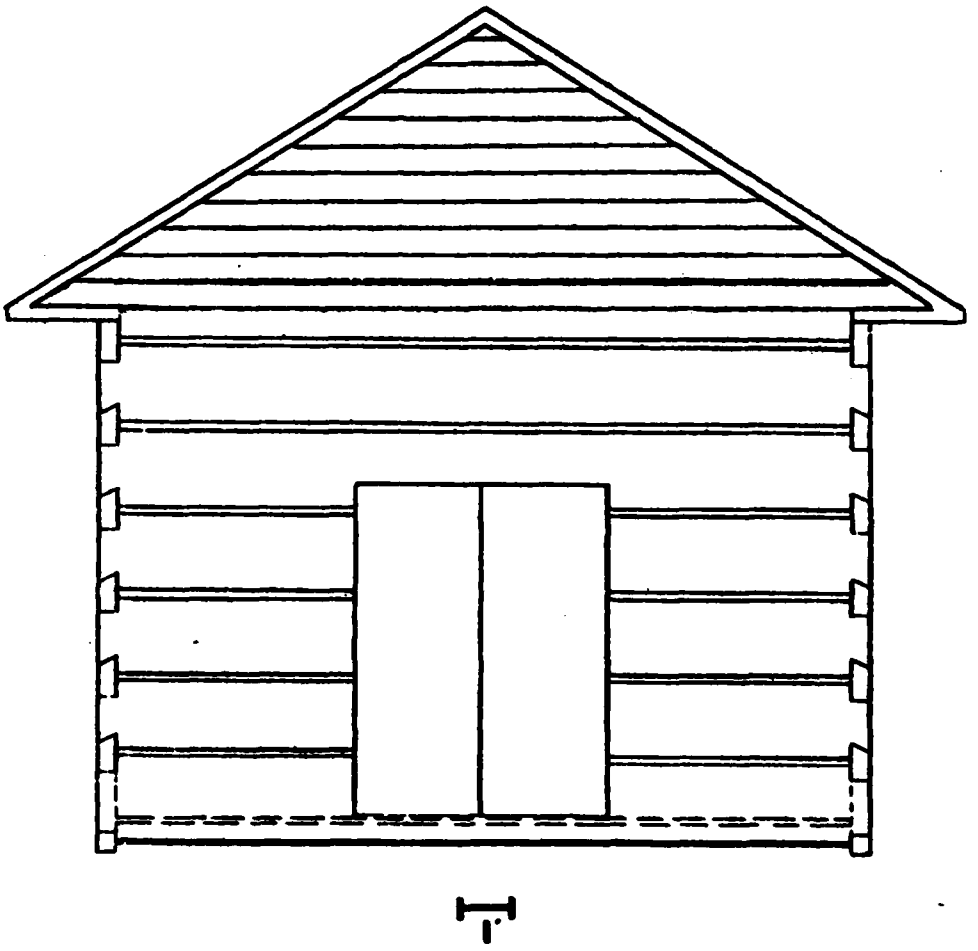


Figure 15. St. Michael's Roman Catholic Church. Line drawing of facade.

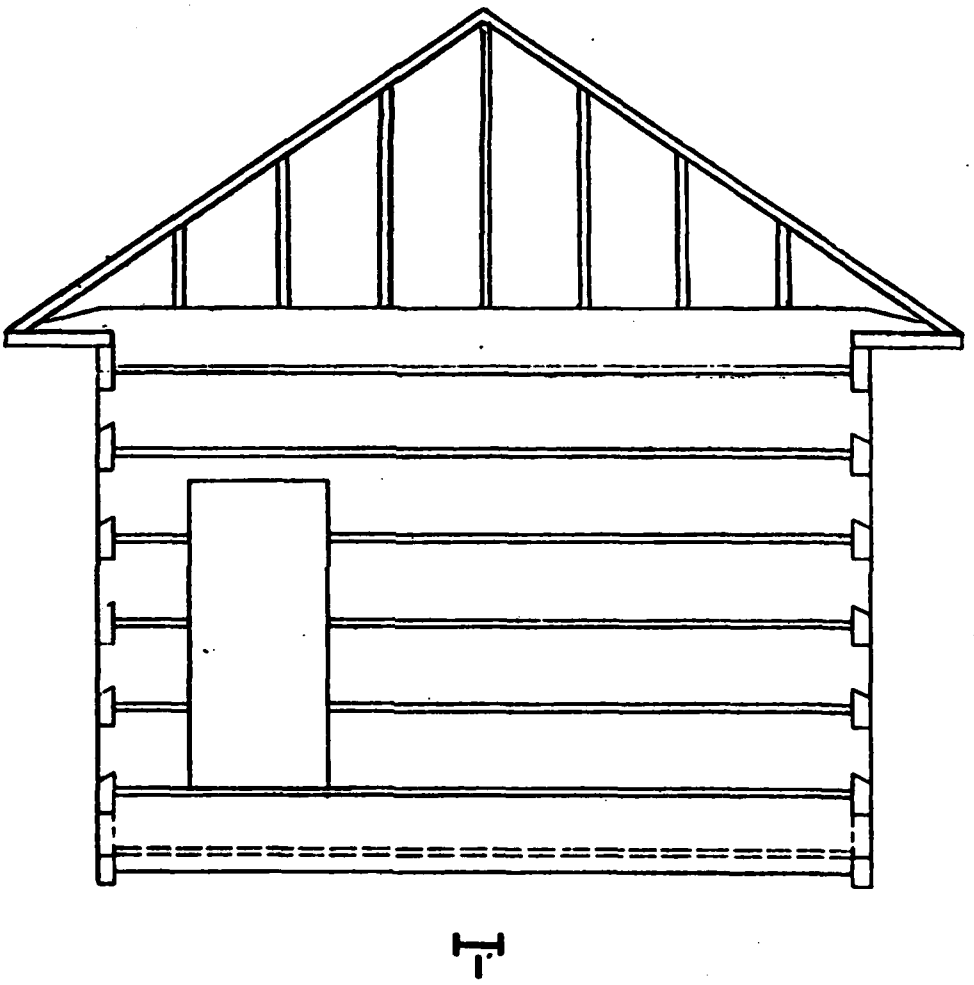


Figure 16. St. Michael's Roman Catholic Church. Line drawing of back side of church.

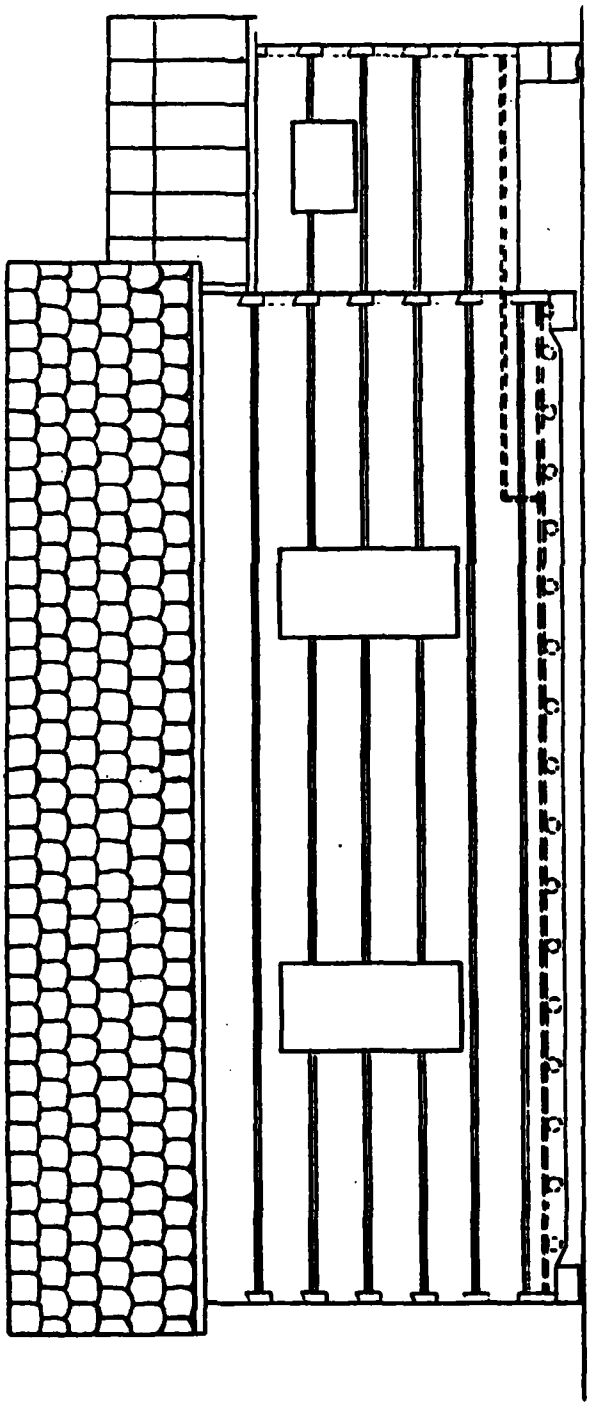


Figure 17. St. Michael's Roman Catholic Church. Line drawing of right side of church.

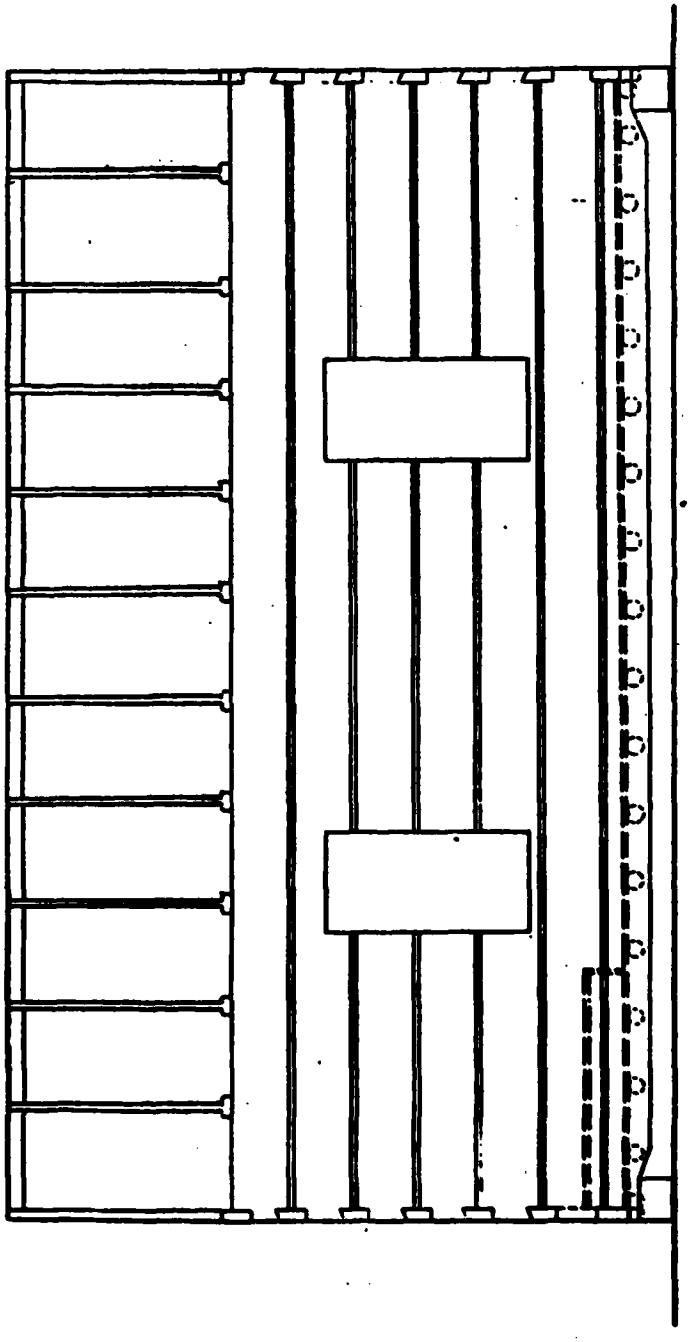


Figure 18. St. Michael's Roman Catholic Church. Line drawing of left side of church.

Any reconstruction of the church should also give attention to the placement of the cemetery directly adjacent to and just in front (southwest) of the main entrance. The Corps of Engineers should take under consideration the establishment of a cenotaphic duplication of grave markers appropriate to the 1887-1888 time period. Special attention should be given to the enclosure of this area by a fence, the importance of which is discussed above.

There are several possible sources of paraphernalia related to the performance of the mass in a typical Roman Catholic church of the 1887-1888 time period. Care should be exercised not to display anachronistic chalices, vestments, etc., in the reconstruction. Father Robert C. Nash, current Chancellor of the Diocese of Wheeling-Charleston has offered to make a loan of appropriate materials (where this is possible) from the diocese collections in Wheeling. As archivist for the diocese, Father Nash's expertise in creating an appropriate and accurate reconstruction of the religious furnishings for St. Michael's should be incorporated into the Corps of Engineers' larger plans for the reconstruction of the church at the Burnsville Lake Historic Area.

Much important information on the early history of St. Michael's remains to be discovered. The parish records in the possession of Father Donal O'Donovan, paster of St. Patrick's Church, Weston, West Virginia, are valuable sources of social history that concern not only the early history of the church but the history of the Irish ethnic influence in this portion of West Virginia. With no little expenditure of time in examining these documents, a vital compilation of genealogical, historical, and social data could be achieved. The Corps of Engineers is consequently advised to undertake a most systematic historical study of these documents, in particular, the Corps should also take under consideration a more extensive oral history study emphasizing contact with family members of long-standing affiliation with St. Michael's. Although this may not add substantially to the corpus of written data from the church (O'Toole 1978:251-52n.1), it may serve as an outstanding source of social/immigrant data pertaining to the parish members themselves. This is particularly intriguing in light of the possibility that many of the early parish members may have long-standing familial ties that predate their immigration to the United States.

The Corps is further advised to suggest to the bishop of the Wheeling-Charleston Diocese that the church undertake a systematic program of diocesan records preservation and evaluation. It is believed that many of Father Thomas Quirk's letters to his bishop, together with the bishop's responses, may exist in the Wheeling Diocesan archives (Father Thomas Nash 1978, pers. comm.), but in the presently unassessed and uncatalogued status of much of this material, little more can be said about its potential historic worth. Despite a general hesitancy on the part of the Church to freely divulge this information in the past, diocesan archives are now, largely as a result of Vatican II, becoming an important though as yet largely untrapped, source in the study of social history (see O'Toole 1978:253n.4).

Tract Number 514

Location: Burnsville Lake, Salt Lick District, Braxton County, West Virginia.

Structure: D.W. McCauley Barn (Figure 19-23).

Property Description and General History:

The D.W. McCauley barn was originally located on the 87 acre D.W. McCauley farm along Knawl Creek, Salt Lick District, Braxton County, West Virginia. The property was purchased by McCauley on 25 October 1928 from the estate of A.G. Murphy (Braxton County Deed Book 142:91). A.G. Murphy was willed the land by Nancy Murphy on 28 March 1899 (Braxton County Will Book 4:291). Nancy Murphy had bought the land on 7 November 1878 from George I. Davidson and his wife (Braxton County Deed Book 14: 301).

D.W. "Joe" McCauley, who is 89 years old, stated that while he did not know when or who had built the barn, he did know that his wife's mother, whose maiden name was Ellen Groff or Graf, had been reared on the farm and that she remembered the barn "as always being there."

Informant:
Delbert Walton "Joe" McCauley, R.D.2, Box 25, Arland, West Virginia.

Architectural Comments:

McCauley stated that when he moved to his newly purchased farm in 1928, the barn was rectangular in shape with a loft and a gable roof. In about 1933, he added frame sheds to 3 sides of the structure.

The original gable roofed structure measured approximately 18' x 15' and was of a saddle notched type of construction with hickory (Carya sp.) (U.S. Department of Agriculture, Forest Products Laboratory 1978, pers. comm.) logs (undressed but with the bark removed) ranging from 7½" to 11" in diameter. It rested on stone piers placed at each corner and half way between the sides of the barn along the exterior walls.

The interior of the barn was undivided by partitions. It had a 1" thick wood planked floor attached at right angles to log sleepers which extended across the width of the building. Below the floor and covering the interstices between the floor boards were thin, 3" wide strips of wood. These were, according to McCauley, to keep "hay seeds" from falling beneath the floor since hay was stored in the building.

The main door was offset to the right at the front of the barn (Figures 19, 20). The batten door was closed by a wooden turn knob and was hung on forged strap hinges and pintles. A short piece of forged chain was attached to the door exterior and was utilized as a door pull.

Immediately inside the door to the left and attached to the left wall of the structure was a board ladder providing ingress and egress to the loft area. The loft floor was supported by 9 pole-type ceiling joists on approximately 1'7" centers.

McCauley's first alteration to the barn consisted of cutting three logs out of the lower section of the left log wall (Figure 22); the removed logs extended nearly the length of the wall beyond which McCauley attached a lean-to, shed-roofed addition.

This was his three stall horse shed; it had no floor. He built a manger across the opening created by the removal of the three logs. To the fourth log above the floor, he affixed three spaced O-rings to which he tied his horses while they were in the shed. The rings and staples which attached the rings still exist (on a log not used in the reconstruction). They were made by Hayes Riffle (D.W. McCauley 1978, pers. comm.).

McCauley next built a shed-roofed cow milking shed on the right front side of the log barn (Figure 19). This shed again had no floor, and instead of an exterior door, the rear of the shed was left open so that there was easy access for the cows. When the cows were stabled, McCauley placed a bar horizontally across the opening. Each end of the bar rested in the base of an upturned horseshoe nailed at each end of the shed opening. This shed, like the horse shed, was built on stone piers and was sided with vertically applied boards.

The addition of the two sheds gave the barn the appearance of a long rectangle with the original log barn as the center section. Shortly after completion of the cow shed McCauley added a hay shed. This addition was 10' deep and extended across the rear of the entire barn covering not only the original barn but the horse and cow sheds as well. This shed had a gable roof which incorporated the roof lines of the two earlier sheds. It rested on stone sills and had a wooden plank floor which was attached to joists. The floor boards extended across the narrow part of the shed, and the shed was sided with horizontally applied planking.

To provide access from the hay shed to the log barn, McCauley removed sections of the lower three or four logs of the log wall between the shed and the original barn. There were also three doors in this shed. Two of them were on the exterior; one was a few feet from the rear of the cow shed. Another was nearly opposite that door near the rear of the horse shed. The third door led from the hay shed into the horse shed and was placed adjacent to the exterior wall. The shed was divided into three stalls by partitions which were board extensions of the log barn walls.

During the same period of time that McCauley added the sheds to the barn, he raised the gable roof of the log barn. The frame area between the log plate and the new roof line was sided with vertically applied planking. Pole rafters were used in the new as well as the original roof. There was a loft door in the front exterior barn wall (Figure 19). The roof of the main barn was sheet metal covered while the shed roofs were covered with felt paper.

It can be noted that figures 20-23 do not accurately reflect the above description of the barn before it was dismantled. These drawings were prepared by the Corps of Engineers for use in reconstructing the barn in a modified manner and not as exact drawings of the described barn.

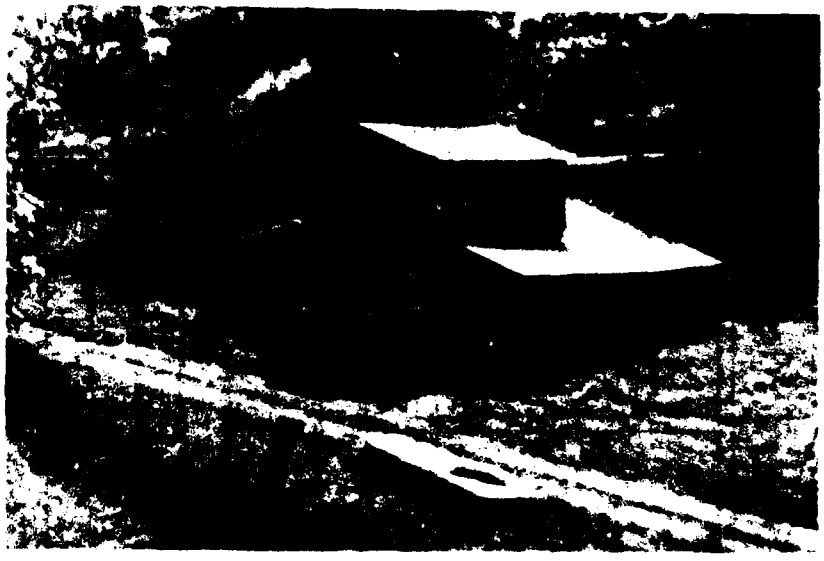


Figure 19. D.W. McCauley barn, ca. 1975. Note the shed-roof additions to the sides and rear of the barn and the addition over the log structure.

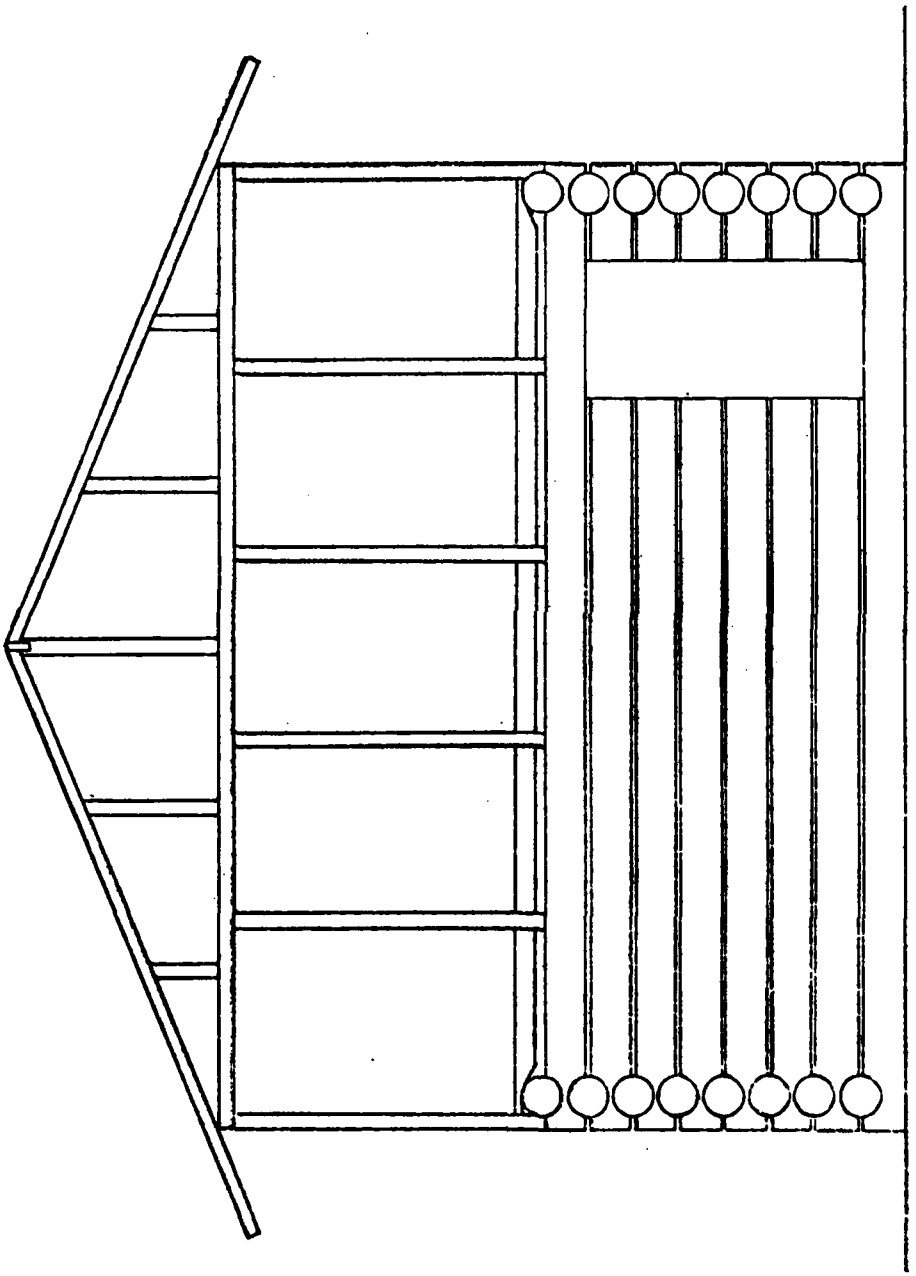


Figure 20. D.W. McCauley barn. Line drawing of barn facade. Note main barn entrance at right and saddle notched logs.

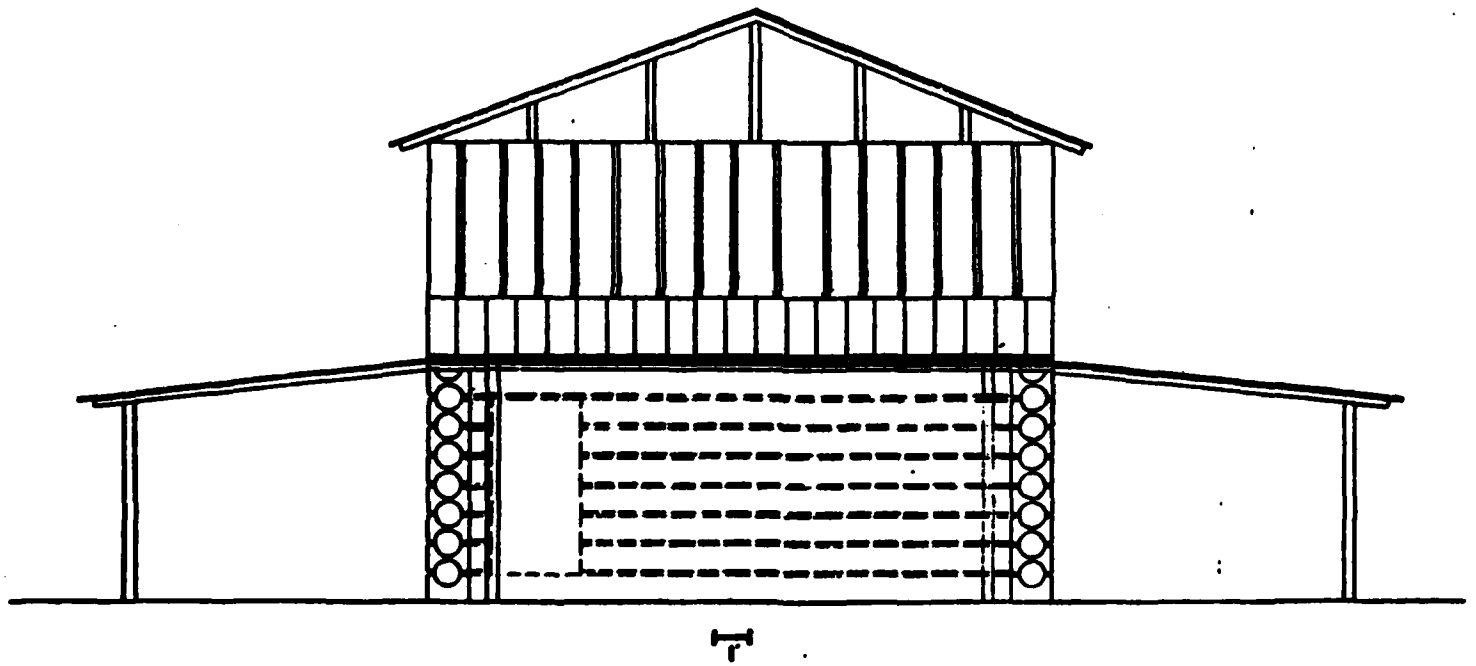


Figure 21. D.W. McCauley barn. Line drawing of back side of barn. Dashed lines indicate log section removed by D.W. McCauley to join the hay floors of the original barn and the hay shed addition (not indicated here).

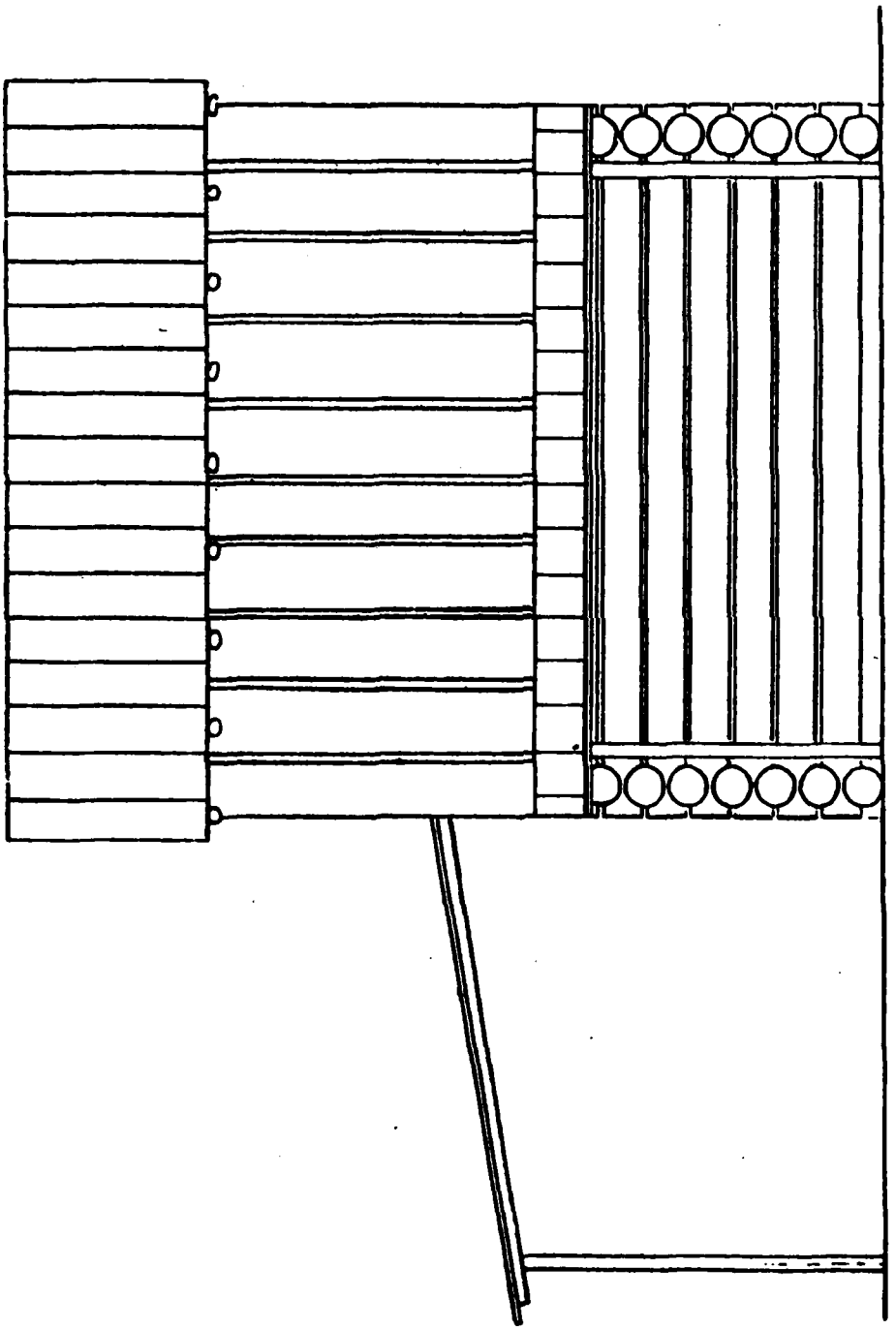


Figure 22. D.W. McCauley barn. Line drawing of left side of barn. Central portions of logs were eventually removed following construction of horse stable addition. Hay shed addition at rear of barn is schematically shown.

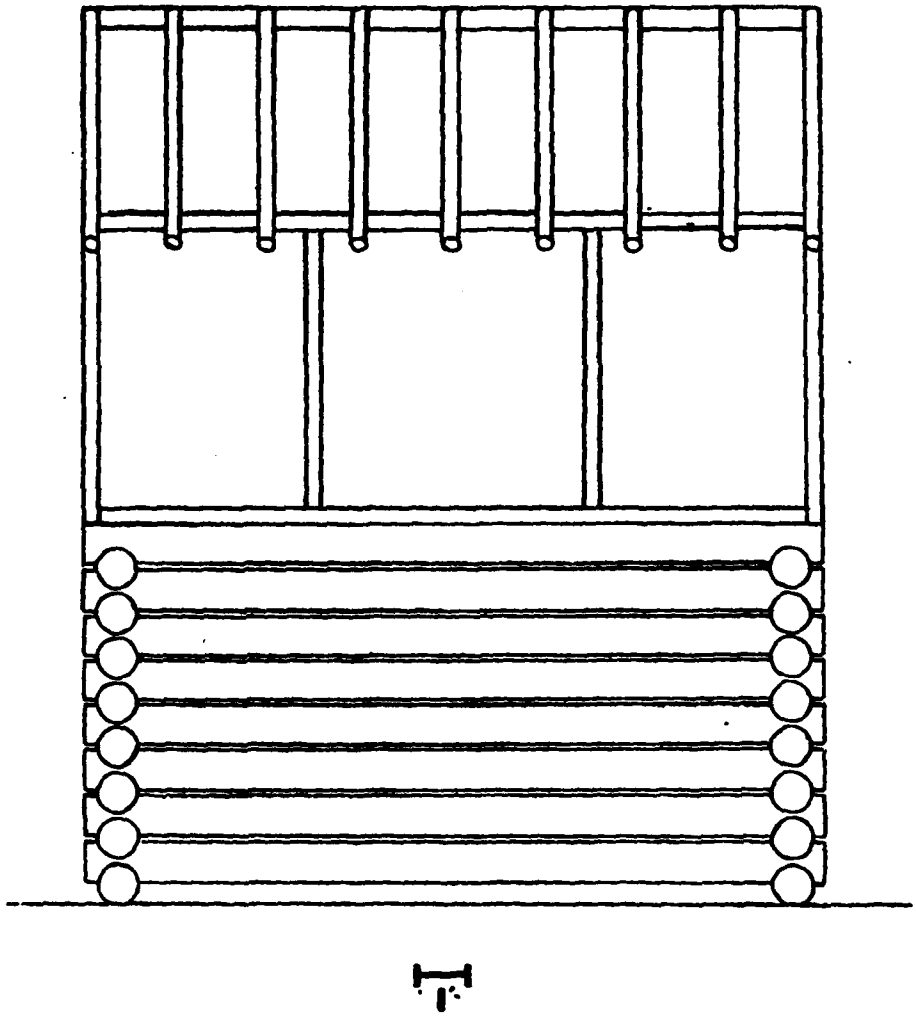


Figure 23. D.W. McCauley barn. Line drawing of right side of barn. Hay shed addition at rear (right in the drawing) of barn is not shown. Note use of pole rafters.

Tract Number 826.

Location: Burnsville Lake, Salt Lick District, Braxton County, West Virginia.

Structures: Fleming Dwelling and Granary (Figures 24-32).

Property Description and General History:

This tract along Little Knawl Creek was jointly owned by Hubert and Harley Fleming (Braxton County Deed Book 227:102). The location of the Hubert "Tom" Fleming dwelling and granary was along the south side of West Virginia Secondary State Route 19/12 which is commonly known as the old Weston Gauley Bridge Turnpike, and on the north side of Little Knawl Creek (Harley Fleming 1978, pers. comm.; USGS 7.5 minute topographic map; U.S. Army Corps of Engineers real estate files).

The property on which the structures stood was previously owned (1926-1952) and occupied by Perry I. Fleming and wife, parents of Hubert and Harley Fleming (Braxton County Deed Book 135:443; Harley Fleming 1978, pers. comm.). Prior to that the structures were owned (1909-1926) and occupied by Samuel Fleming and wife, C.O. Fleming; Samuel and Perry I. Fleming were brothers (Braxton County Deed Book 78:6; Harley Fleming 1978, pers. comm.).

The precise dates of construction for neither the dwelling nor granary could be established. Harley Fleming stated that they had been there as long as he could remember and to the best of his memory had been there all the time that the land was owned by Perry and Samuel Fleming and their parents. None of the property deeds for the land on which the structures were located contained any data on buildings erected on the property (Braxton County Deed Books 227:102; 135:443; 78:6). The structures probably pre-date 1900 and could have been built at virtually anytime in the 19th century following the settlement of that section of Braxton County.

Informant:
Harley Fleming, R.D. 35, Box 14, Gem, West Virginia.

Architectural Comments: Dwelling (Figures 24-31).

The 1½ story double pen or crib saddlebag style log dwelling with a medium gable roof originally measured approximately 39'6" by 16'9 5/8". At the time it was dismantled by the Corps of Engineers, it had a shed roofed porch supported by,unevenly spaced,4" x 4" columns across the entire front and a frame, shed roofed addition across the entire rear which had been built by Hubert Fleming. Excluding the porch, the log and frame dwelling measured 39'6" x 29'4". The porch measured 39'6" x 6'9". The house's was sided with vertical boards on the front and with

narrow poplar clapboards nailed to firring strips on the other three sides; the siding was painted white. The main house, frame addition, and porch were roofed with sheet metal roofing.

The oak (Quercus) of the white oak group and the yellow poplar (Liriodendron tulipifera) logs of both halves of the saddlebag dwelling were hewn on the interior and exterior faces and laid together by half dovetail notching. The height of the logs ranged from 11" to 17" while they varied between 6" and 7" in thickness. All the walls were built of eight logs. There were 18 floor joists on 2' centers. The 19 ceiling joists were on approximately 2' centers. The ceiling joists in the right pen measured about 6 5/8" x 2 3/8", and in the left pen they measured ca. 6" x 3¼". The sill logs rested on sandstone piers. There were 18 pairs of roof rafters. An interesting feature of the dwelling was how the two log pens were positioned with respect to one another. Half dovetail notching was used for the left (presumably older) crib while mortise and tenon construction was used for the right crib (Figure 26). Presumably, the mortise and tenon techniques permitted somewhat closer positioning of the two cribs and eliminated the need for a left interior log wall of the right crib.

A centrally placed sandstone chimney with 2 flues extended at the roof peak. The fireplace base measured 4'6" wide by 6' deep. The chimney at the roof line was approximately 3'9" wide by 4'3" deep.

Downstairs there were two rooms in the log section, i.e., one room in each log crib comprising a living room and a kitchen/dining room. The rooms in the main house had oak floors while those in the addition had pine floors. All the downstairs floors were covered with linoleum and the walls with sheetrock or a similar material (U.S. Army Corps of Engineers real estate files). A fireplace opened into each room in the log portion of the structure.

The upstairs was divided into two rooms, one in each of the log cribs. Each upper room had a fireplace opening into it. The surface of the logs was exposed.

Doors and Windows

Only the measurements for the doors and windows on the main floor in the original log house could be obtained; elevation drawings for the addition and the upper ½ story were not prepared before the structure was dismantled. The main floor windows were double hung 6/6 light sashes. The upper story window on the left end had a single sash. On the right end, the window had double hung 6/6 light sashes. There was a single double hung sash window with 1/1 lights on each end of the frame addition. Obtainable dimensions for window and door openings are presented below. Window and door placements are shown in Figures 26 and 27.

Door	Width	Height
1	3'3"	6'10 13/16"
2	3'6"	6'10 13/16"
3	3'6"	6'10 13/16"
4	3'3"	6'10 13/16"

Window	Width	Height
A	3'2"	4'5"
B	3'2"	4'6"
C	3'2"	4'6"
D	3'2"	4'5"
E	3'2 3/8"	4'7 13/16"
F	3'2 3/8"	4'7 13/16"

Architectural Comments: Granary (Figure 32)

The Fleming granary was a 16' x 15'6" hewn oak (Quercus sp.) of the white oak group (U.S. Department of Agriculture, Forest Products Laboratory 1978, pers. comm.) log structure with a medium gable roof and a several foot overhang at the front. It had at one time been used as a residence (Harley Fleming 1978, pers. comm.); the logs varied from 9½" to 20" in height and 6½" to 7½" in thickness. The building rested on stone piers (three on each side). Doors were centered in three sides of the granary: left, right, and front sides.

The areas between the plate and the roof peak on the front and rear of the granary were covered with horizontally applied clapboards. Pole rafters covered with sheathing and felt paper constituted the roof.

Interior details included a board floor and board covered walls. Along the right side of the building and extending from about 3' from the front to the rear was a corncrib. The addition of the crib was perhaps a recent alteration to the structure as the door on the right side of the building which led into the corncrib was boarded shut. The door on the left was also boarded during recent times (Harley Fleming 1978, pers. comm.).

At the front of the granary and to the right of the front door was a ladder which led to a floored loft.

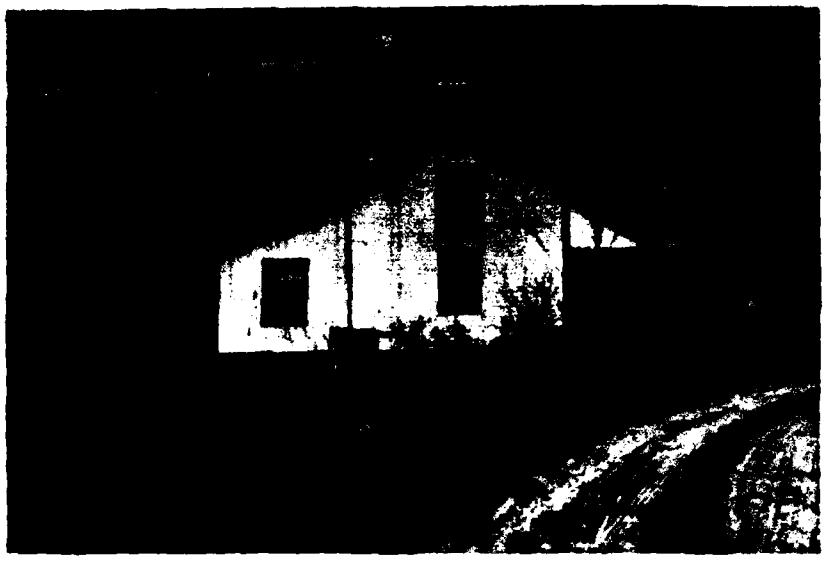


Figure 24. Hubert and Harley Fleming dwelling, facade and left end, ca. 1975. Note porch and frame addition to the structure and the addition of weatherboards.

Figure 25. Hubert and Harley Fleming dwelling, facade and right end, ca. 1975. Note double hung sash window and porch roof details.

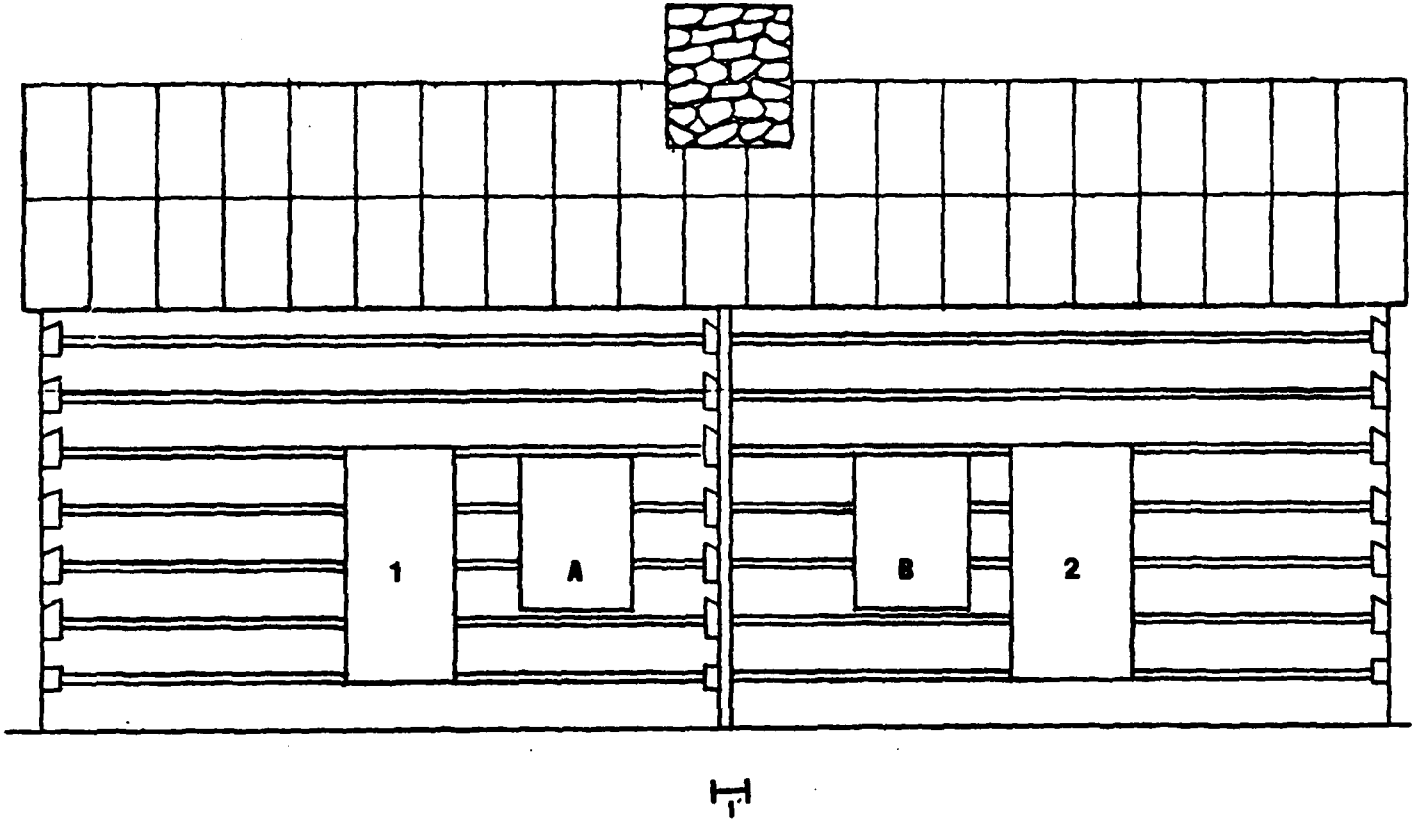


Figure 26. Hubert and Harley Fleming dwelling. Line drawing of facade. Note use of half dovetail construction in the crib at left while that at right uses both mortise and tenon and half dovetail construction.

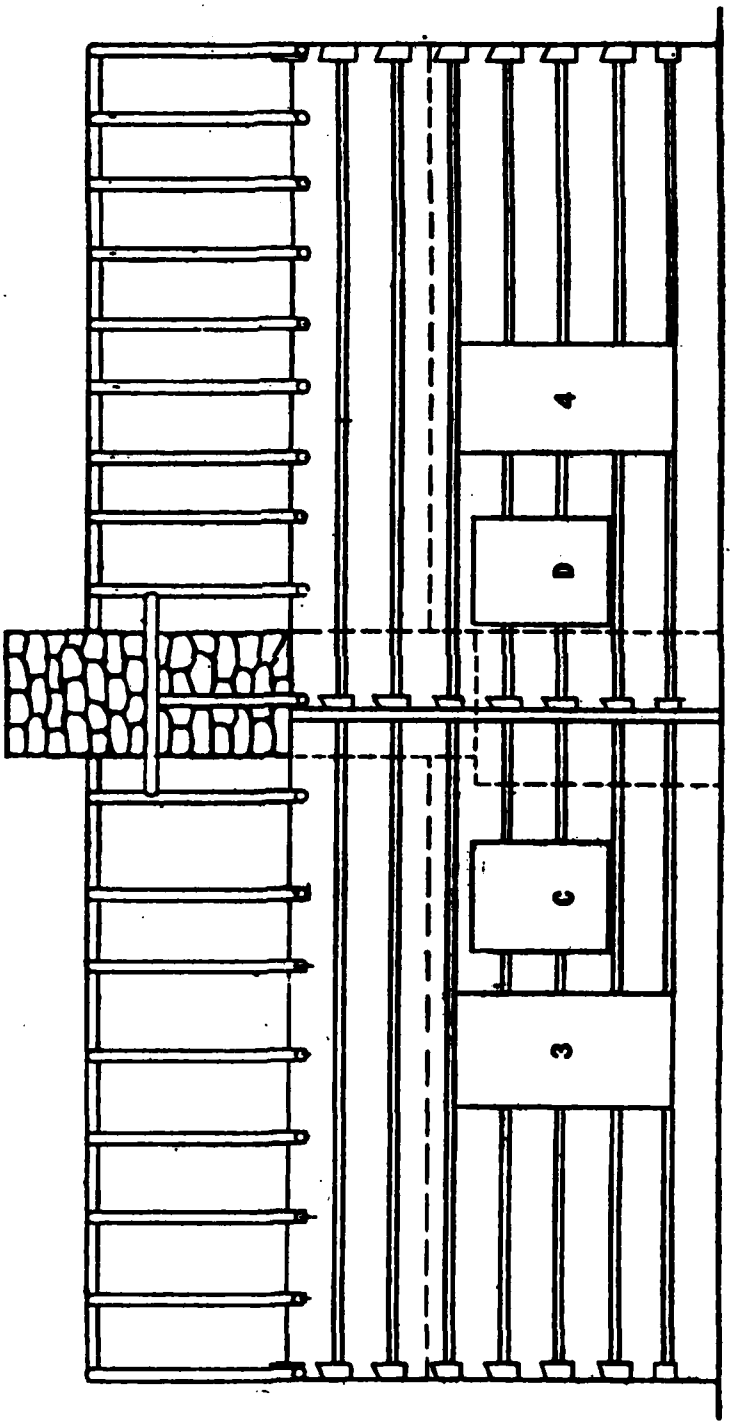


Figure 27. Hubert and Harley Fleming dwelling. Line drawing of rear of dwelling.

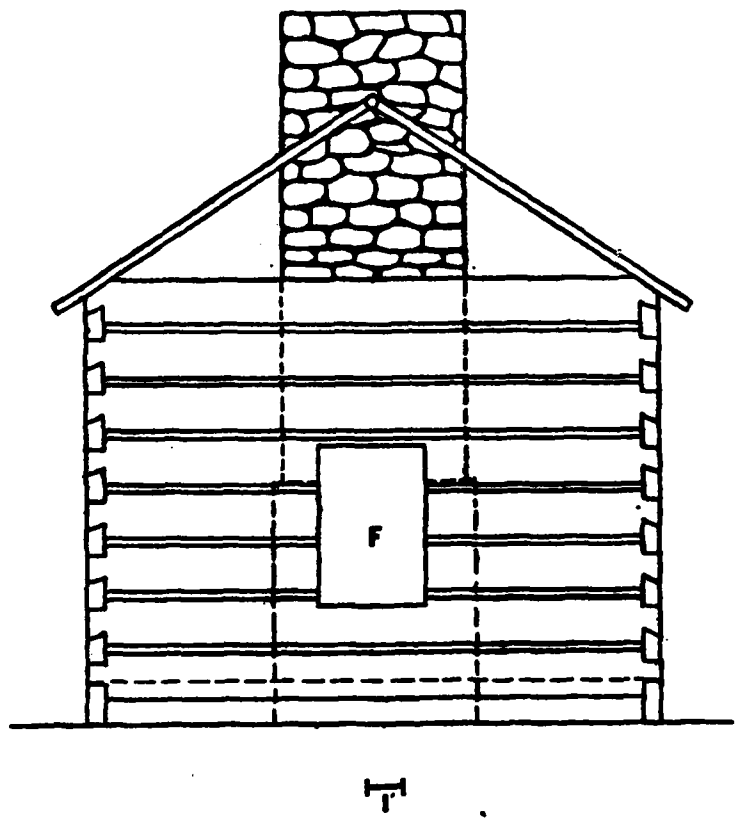


Figure 28. Hubert and Harley Fleming dwelling. Line drawing of left end of dwelling. Chimney is centrally positioned. Window is missing from Corps real estate drawing.

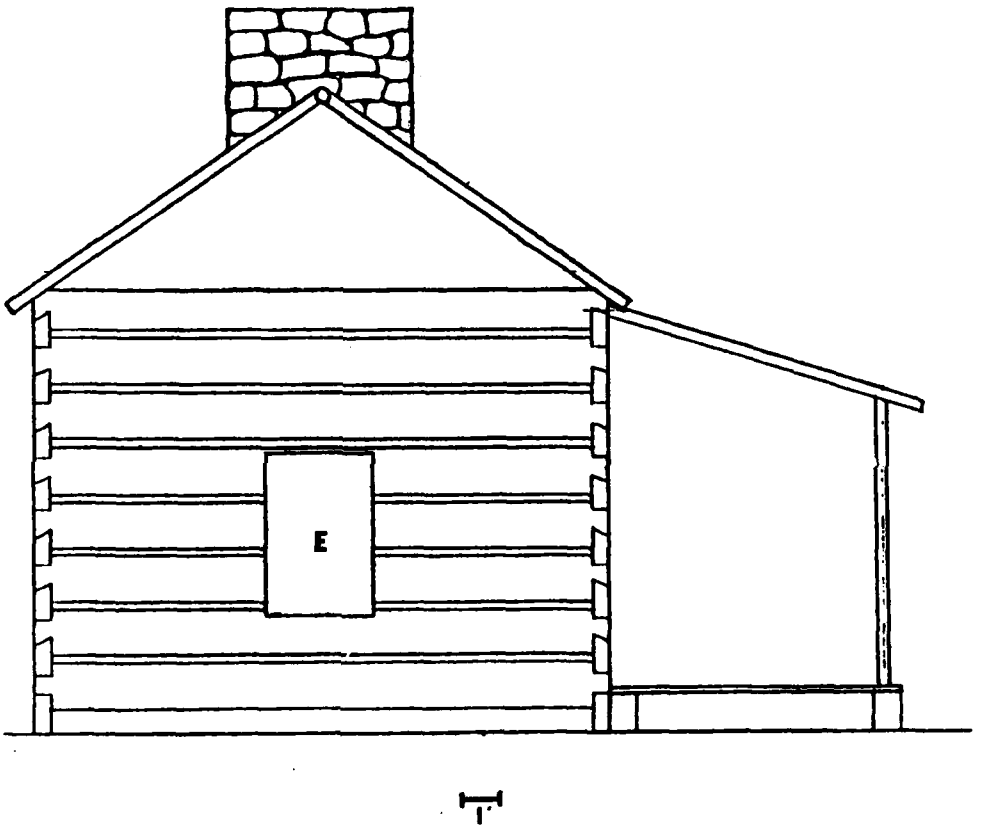


Figure 29. Hubert and Harley Fleming dwelling. Line drawing of right end of dwelling. Contrast porch roof construction as presented here with that in Figures 24 and 25.

Figure 30. Hubert and Harley Fleming dwelling. Detail of rear of structure showing mortise and tenon and half dovetail construction technique. Photo taken in fall 1978 following structure's reconstruction by Corps of Engineers. Note match marking tags.

Figure 31. Hubert and Harley Fleming dwelling. Shows reconstructed dwelling in Historic Area, 1978.

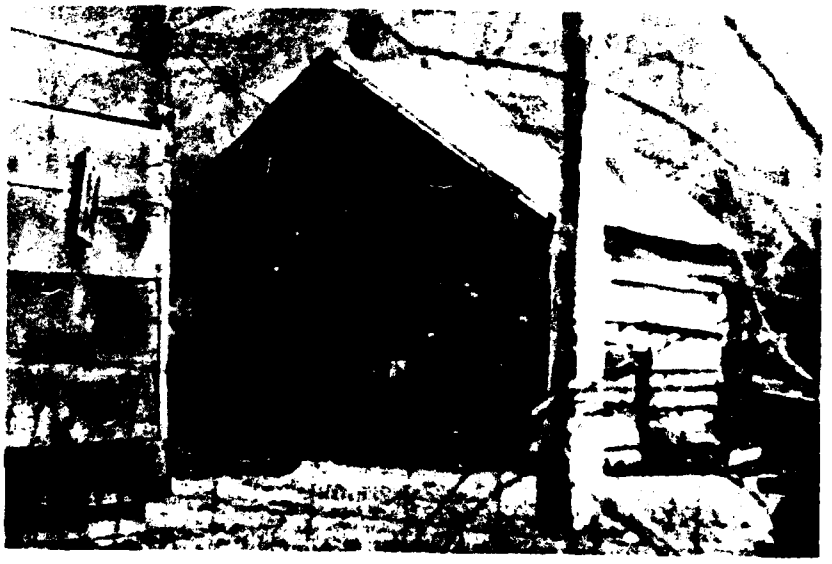


Figure 32. Hubert and Harley Fleming granary, ca. 1975.

Tract Number 333.

Location: Burnsville Lake, Salt Lick District, Braxton County, West Virginia.

Structure: Johnson Dwelling (Figures 33-37).

Property Description and General History:

The Johnson house was situated upon a 32.1 acre tract on which the house and garden site occupied 1 acre. The homestead consisted of the dwelling, a 23 foot deep well, 6 apple trees, peach trees, raspberry bushes, grapevines, shubbery, flowers, yard, and some fencing. The property was located along Long Run and West Virginia Secondary State Route No. 19/16 (U.S. Army Corps of Engineers real estate files).

The land where the house stood entered Johnson family ownership in 1883 when Jesse Johnson, Sr., purchased a 25 acre parcel of land from D.B. Burns (Braxton County Deed Book 38:240). According to Jesse Johnson, Jr., his father helped to build the house. Since Johnson also said that the house was nearly 100 years old, it would appear that his father built the structure shortly after he bought the property.

Informant:
Jesse Johnson, Jr., R.D. 1, Box 16A, Sutton, West Virginia, Age - 78 years.

Architectural Comments:

The Johnson house was originally a two story, medium, tin covered gable roofed 20'9" x 22' rectangular yellow poplar (Liriodendron tulipifera) log (U.S. Department of Agriculture, Forest Products Laboratory 1978, pers. comm.) structure. Frame additions were later attached to the rear and the left end of the house (Figure 33). Until about 10-15 years ago the roof was covered with boards (30" long split shingles) (Jesse Johnson, Jr. 1978, pers. comm.).

The original log portion of the house with logs varying from 15½"-20½" in width and 5"-7½" in thickness was constructed using the half dovetail notching technique; only the interior and exterior log faces were hewn. The log sills rested on stone piers: one at each corner and one centered along each wall. The walls were 7 logs high on the front and rear elevations and 8 logs high on the side elevations; there were 10 floor joists. The areas between the plate and the roof peak on the ends of the house were covered with narrow clapboards. The front door (3'0" x 6'4") was offset to the right. Just to the left of the door was a vertical board partition wall (attached to the left side of the middle ceiling joist) which divided the house into 2 nearly equally sized rooms with 6'6" ceilings. An exterior cut sandstone fireplace opened into the right side elevation. The fireplace extended outward from the house 3'

and was approximately 5'10" wide. Approximately 7'6" above ground level the sandstone fireplace gave way to a daubed wooden slat chimney (Figure 37). That chimney had been built using narrow white oak (Quercus sp.) slats as the framework. The interior and the interstices between the slats were plastered with mud (Jesse Johnson, Jr. 1978, pers. comm.). The exterior of the chimney may originally have been similarly covered.

The floor of the second story rested on 9 joists placed 2'3" on center. The roof rested on 12 rafters attached to a ridge board and was exposed to view from the second floor; this story consisted of a single room.

There were no windows in the front, but there was one 3'3" wide casement window in the rear wall to the left of the 3'0" wide rear door. The door was almost directly in line but perhaps slightly more offset than the front door. The left side of the house had one 3' wide window slightly offset to the left on the first story. On the second floor of the same elevation, a scant 3' wide section of the sixth log (window opening?) had been removed in the center of the wall. The interior walls throughout the log dwelling were covered with wallpaper (Jesse Johnson, Jr. 1978, pers. comm.).

The frame addition to the rear was divided into 2 rooms, one of which had a stove for heat. These rooms served as bedrooms as did the unheated room on the first floor and the entire second floor of the log house. The frame addition to the left end of the log house was the kitchen. The room with the fireplace in the log house functioned as a sitting room and a bedroom. The floors in the log house consisted of random width (8"-12") poplar boards (Jesse Johnson, Jr. 1978, pers. comm.).

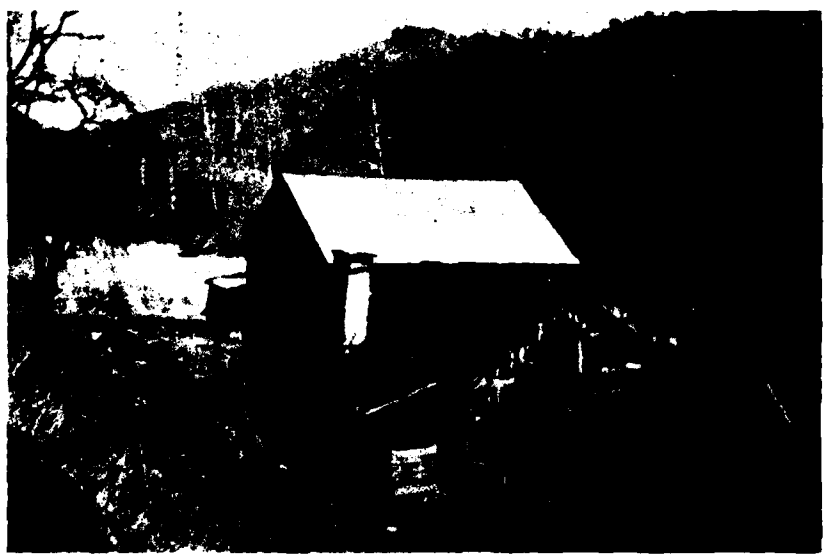


Figure 33. Jesse Johnson dwelling, ca. 1975. Only the central portion of the dwelling is described. Neither Corps real estate files nor informants provided details for the additions.

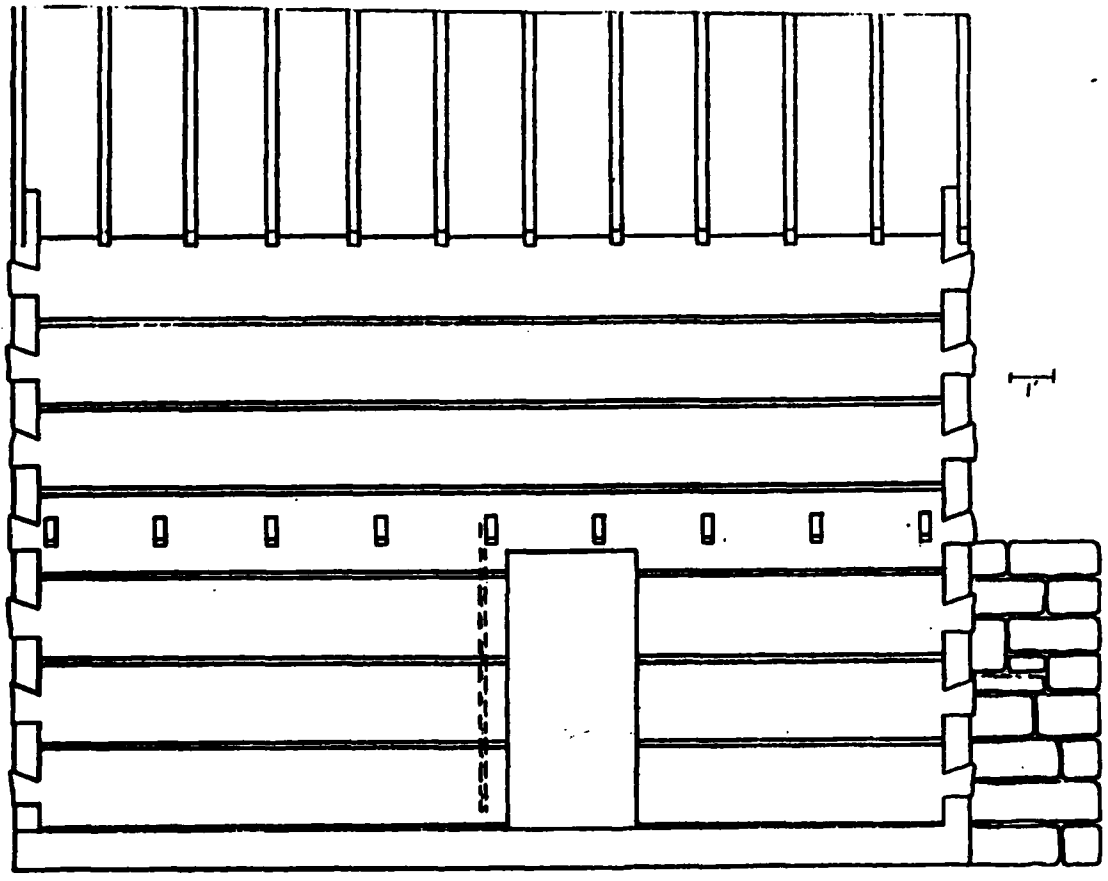


Figure 34. Jesse Johnson dwelling. Line drawing of facade. Upper wooden portion of chimney not shown. Note floor line for second story and board partitions inside the front door.

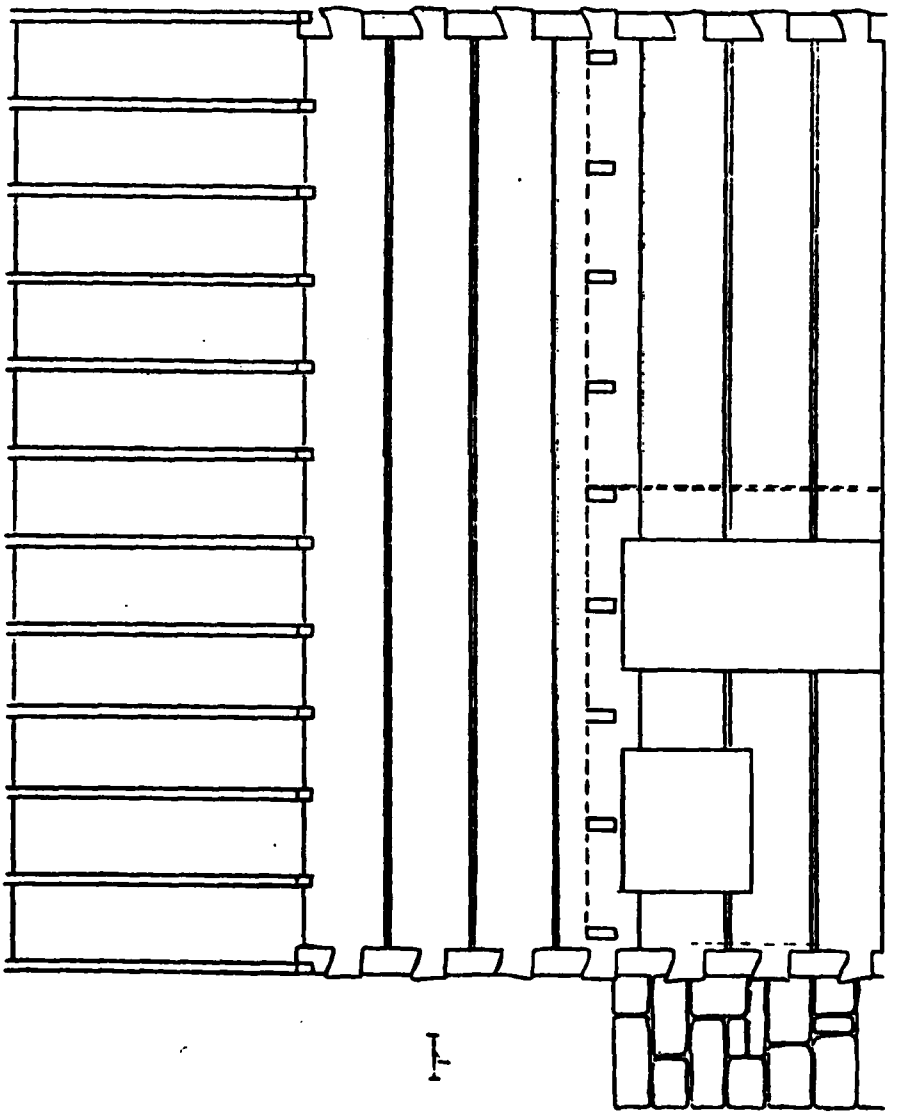


Figure 35. Jesse Johnson dwelling. Line drawing of rear of dwelling.

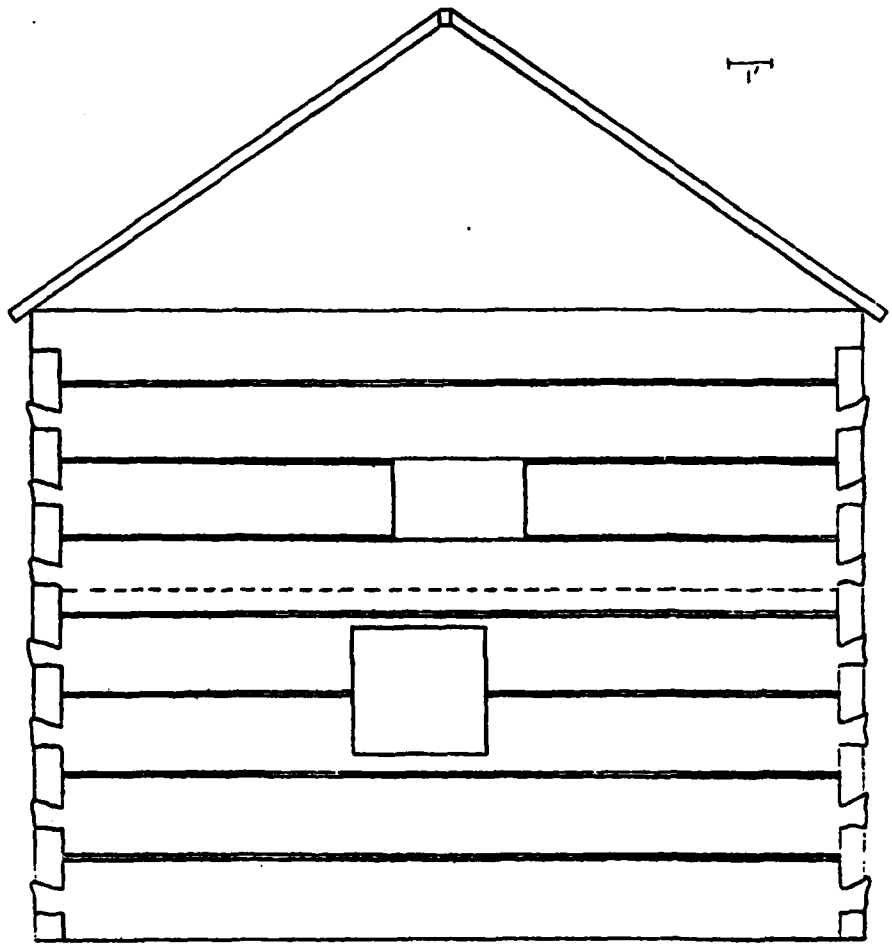


Figure 36. Jesse Johnson dwelling. Line drawing of left side of dwelling. Note second floor line and possible window opening in second story.

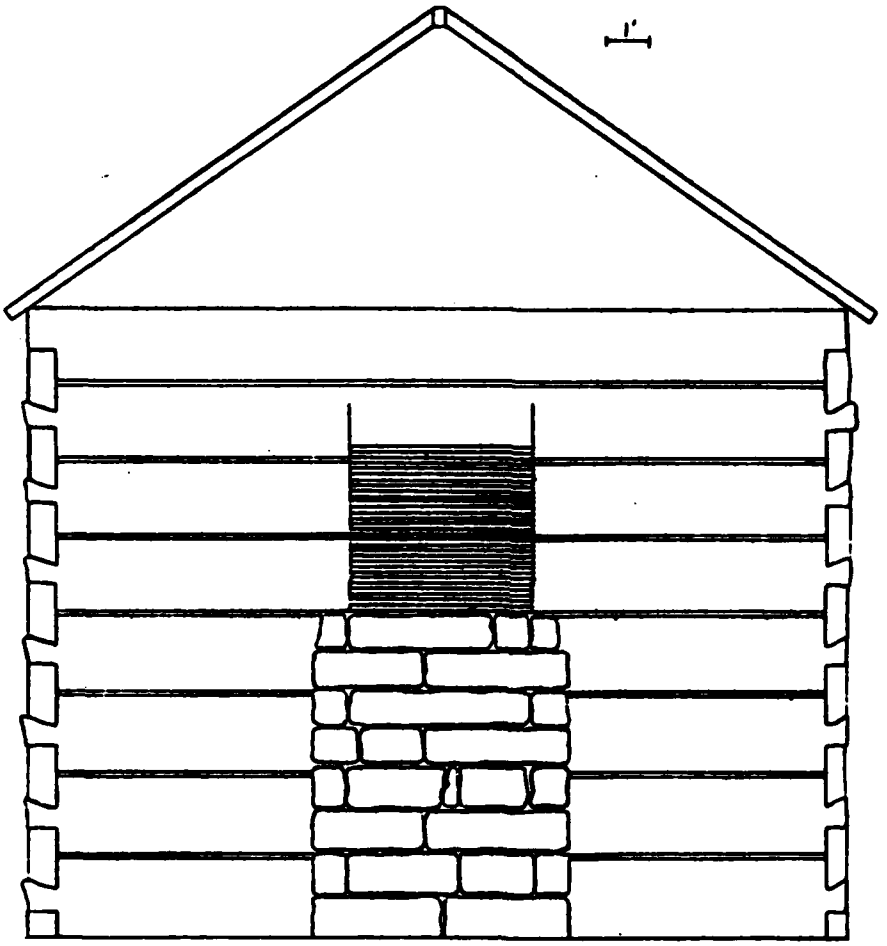


Figure 37. Jesse Johnson dwelling. Line drawing of right side of dwelling. Note remnant of daub wooden slat chimney. The upper portion of the chimney was missing at the time of dismantling by the Corps of Engineers (Jesse Johnson, Jr. 1978, pers. comm.).

Tract Number 903.

Location: Burnsville Lake, Salt Lick District, Braxton County, West Virginia.

Structure: Cunningham Farmstead (Figures 38-46).

Property Description and General History:

The Cunningham Farmstead is situated along West Virginia Secondary State Route 19/12, which is commonly known as the old Weston Gauley Bridge Turnpike, and adjacent to Millstone Run, a first order tributary of the Little Kanawha River (Figure 38). The property has been in Cunningham family ownership since the early 1800s when Henry Cunningham purchased 1500 acres in the vicinity of the farmstead (Hardesty 1973:70).

Henry Cunningham was born in 1791 in Pendleton, (West) Virginia. He later lived in Randolph County [prior to 1818 Braxton County was part of Randolph County; between 1818 and 1836 it was principally part of Nicholas County (Sutton 1919:26-27)] where he married Nancy Hayes. Five years after moving to Randolph County he relocated his family, which at that time consisted of at least himself, his wife, and one son, Moses, along Adams Run, Lewis County. They lived there for eight years and then moved to present Braxton County where they "erected a cabin" on the ridge between the forks of Knawl Creek (Hardesty 1973:70).

Little is known about the Henry Cunningham family except that they had ten children. They were evidently religious people as Henry and his son Elias, in about 1815, financed and helped to erect a log Methodist church and school for the area residents, and Henry is said to have been a member of the congregation for the next 40 years (Hardesty 1973:69-70; Sutton 1942:14).

Although it could not be determined if Henry Cunningham constructed the extant dwelling, he did apparently live in it, and after his death in 1863, his son Moses (1815-1879) resided in the structure. (Hardesty 1973:69-70; Ruth Cunningham Skinner 1978, pers. comm.). Again little is known of Moses Cunningham except that at different times both he and his brother, Elias, served as Justices of the Peace for Braxton County.

It was on the farm of Moses Cunningham that the Civil War Battle of Bulltown was fought on 13 October 1863. Cunningham is aledged to have stepped from his house on to the porch and yelled "hurrah for Jeff Davis," after which he was shot either in the back or leg (Sutton 1942:20; Ruth Cunningham Skinner 1978, pers. comm.). It has also been reported that the Union troops took him prisoner and threatened to shoot him. At that time it is believed that he requested and received permission to make a statement. He purportedly said, "hark the tomb, a doleful sound, my ears attend the cries; ye living man come view the ground where you d____ Yankees must shortly lie" (Cook 1933:256).

Figure 38. Stereo pair of aerial photos showing the Cunningham farm (1) and Civil War Union Trenches on the Cunningham farm (2) and Weston Gauley Bridge Turnpike (3). U.S. Army Corps of Engineers, Huntington District, April 10, 1965, Burnsville Lake, photos 182 and 183.

Elias Haymond (E.H.) Cunningham (1845-ca. 1925), the son of Moses and Phoebe W. Haymond (1804-1879) Cunningham, was the next resident of the dwelling and probably its most prominent occupant. Perhaps named Elias after his wife's father who was the son of John Haymond, one of the founders of the Bulltown salt works, he was appointed notary public by Governor Mathews in 1879, and in 1881 he was given the same title by the county court. Between the two appointments he, in 1880, succeeded his father as Justice of Peace. In 1883 he became president of the board of education in the Kanawha district (Hardesty 1973:78).

The fourth Cunningham to reside in the extant log dwelling was John Henry (J.H.) Cunningham (1885-ca. 1954) whose daughter Ruth Cunningham Skinner still lives in the house. Thus, five generations of Cunninghams have made their home on the farm.

Despite the continuous Cunningham ownership and occupancy of the farm, little of substance can be said about it except that it has always been a self sufficient farm with nearly all the effort of the family members directed to the production of crops.

Only small amounts of crops and small numbers of farm animals were marketed. Today, the family garden still supplies much of the family's food; they also butcher their own hogs and cattle. Although much of the meat is currently frozen, Ruth Cunningham Skinner still cans beef. Pork fat is rendered, and soap is made from some of the lard (lard, lye, and water or lard, lye, water, borax, and ammonia if a whiter soap is desired). White corn, which they have ground into meal, is also grown (Ruth Cunningham Skinner 1978, pers. comm.; Paul Skinner 1978, pers. comm.).

The outbuildings on the farm nearly all date from the twentieth century, but they include many structures typical of a nineteenth century farm: barn, hog house, chicken house, cellar house, wood and coal house, wash house, privy, meat house, granary, and hay sheds.

Informants:
Ruth Cunningham Skinner, Bulltown, West Virginia.

Paul Skinner, Bulltown, West Virginia.

Architectural Comments: Dwelling (Figures 39-46).

The most architecturally important aspect of the Cunningham farm is the two story, gable roofed log dwelling. A cursory examination of the exterior of the structure belies some of the structural subtleties of the building. It is rectangular in shape and has a porch supported by six turned columns. The porch is floored with random width boards attached with cut nails across the facade. At the rear, a four room shed roof frame addition has been attached. The entire house is sided with narrow clapboards which were once painted white; they are attached

with a combination of cut and wire nails. Centered on each end of the dwelling are cut sandstone fireplaces, and the entire structure, with the exception of the porch, rests on a drylaid rubble sandstone foundation. The porch is built on seven sandstone piers, each of which is composed of three stacked stones. The roof is covered with sheet metal roofing.

The extent of exterior alterations to the house cannot be determined without some destructive examination of the walls; however, several architectural alterations, in addition to the building of the rear room, were detected during the examination under discussion.

(1) The most substantial change occurred when two square-notched log cribs / left unit (cf. Figure 45) was built from oak (Quercus sp.) logs of the white oak group while the right unit was constructed from oak (Quercus sp.) of the white oak group and yellow poplar (Liriodendron tulipifera) logs (U.S. Department of Agriculture, Forest Products Laboratory 1978, pers. comm.)/ were connected by framing in the 6'5" space between them to form the existing rectangular structure. At that undetermined time, the dwelling was probably sided with narrow clapboards to disguise the framing and to provide the structure with a unified appearance. The combination resulted in a dwelling measuring 38'11¼" x 18'1" plus porch. Whether the rear addition was built at the same time is not known, but the present clapboard siding extends across the interstices between the log units and the rear addition. This indicates that the dwelling and its rear addition were sided with the present clapboards after the addition was completed or that the dwelling was partially re-sided after the rear rooms were built. The integration of the siding of the log units and the rear addition may or may not have occurred simultaneous with the combining of the two log pens. With the rear addition, the structure measures 38'11¼" x 26'4".

(2) The chimney of the right end (as the structure is approached today) has been rebuilt (Figure 41). A short distance above ground level, the depth of the chimney measured outward from the house wall decreases from 3'6" to 2'10", and the appearance of the mortar above and below the point of the offset differs. The chimney was apparently rebuilt and reduced in size.

(3) There are no double hung sash 6/6 light windows or other common nineteenth century window configurations present on the main floor. The windows have apparently all been replaced. Some of the 6 light single sash windows may be original.

(4) The roof of the entire house, including the porch, was covered with sheet metal roofing. In all likelihood the original roof covering was wooden shingles (often called "boards" in the local area).

The interior of the dwelling may lack the architectural integrity characteristic of the exterior. It was from carefully examining the

interior that the house was suspected of having originally consisted of two separate structures with an open area between them. The bases for that suspicion were several (Figures 45-46): the presence of two separate stairways to the second floor providing access only to the areas directly above rooms 1 and 3, the existence of an enclosed area (6'5" wide x 16'6" deep) on the second floor between rooms 9 and 11 which is only accessible via a ladder from a nearly identically sized area below it on the first floor, the apparent original lack of access to room 3 from the right pen without first going outdoors before the rear addition was built, the absence of a door between rooms 2 and 3, rooms 9 and 10, and rooms 10 and 11, the existence of log walls between rooms 1 and 2, 2 and 3, 9 and 10, and 10 and 11, and the lack of an exterior log wall in rooms 2 and 10. While the room arrangement might suggest that the original structure was built in a variant of the "I" or the dogtrot style (Glassie 1968a:88-100) this possibility cannot be assessed without destructive disturbance to the dwelling walls to determine if there was prior direct access between rooms 1 and 3. Room 3 had been the kitchen during the early twentieth century (Ruth Cunningham Skinner 1978, pers. comm.), and it may have always been a kitchen, even as a separate building. The fireplace is currently covered so no determination of its style was possible; the present fireplace may or may not be the original.

The rooms in the log portion of the present house are well finished and show that care was taken in their completion. All of the walls in these rooms are covered with hand planed 7½" x 1" tongue and groove, beaded wainscotting vertically applied on the first floor and horizontally applied on the second floor. The paneling on the second floor also covers the sloping and flat portions of the ceiling. Currently the wainscotting is covered with discolored, torn wallpaper.

The floors, both upstairs and down, consist of random width boards which are covered with linoleum or a similar material. The second floor joists (8½" x 3") which extend from the front to the rear of the log units, are beaded and exposed to view as the ceiling of rooms 1 and 3. The ceilings in these rooms measure 7'9" in height taken to the lowest part of the joist. The second floor joists exposed in room 2 extend across the opening between the log units, i.e., perpendicular to joists in both log cribs. The are beaded and measure 4 5/8" x 3 3/4".

The stairways to rooms 9 and 11 are similar to each other consisting of twelve steps plus a riser. Measurements for the stairs are:

Room 1 to Room 9	Room 3 to Room 11
width of tread - 2'6½"	width of tread - 2'5½"
depth of tread - 10 3/4"	depth of tread - 10"
height of riser - 8"	height of riser - 8"

All the doors of the dwelling are board and battan construction and nearly all of them are hung with butt hinges. The only door hardware believed original to the structure includes a box style lock with a safety latch on the door between rooms 1 and 6 and HL hinges on the doors between room 3 and 5 and from the porch into room 3. The windows

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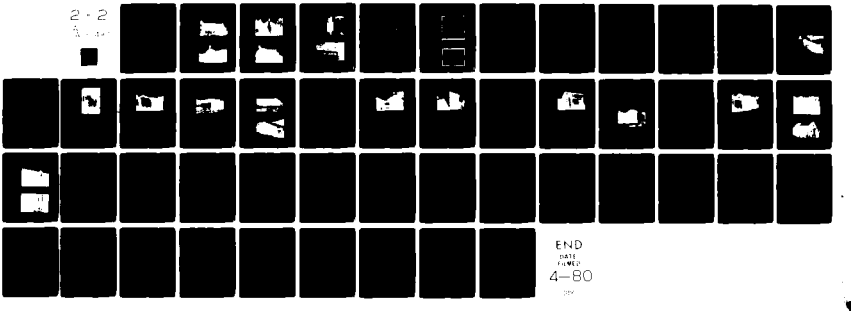

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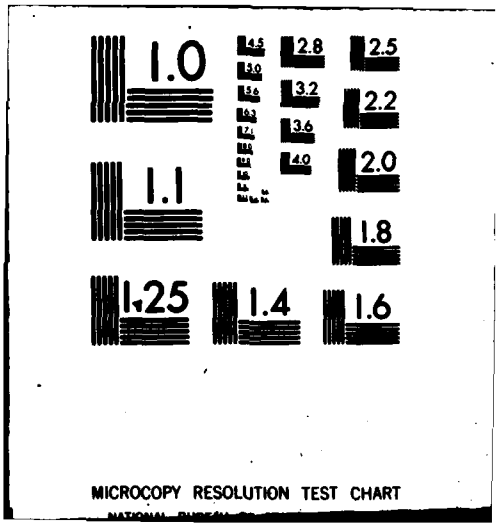
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on the first floor are double hung sashes while the second floor windows are single sashes; all the sashes are pegged together. For dimensions and characteristics of the doors and windows, see tables 4 and 5.

Table 4
Door Dimensions

Door Number	Opening Size	Style*	Hinges
1	2'8½" x 6'4"	7 board, 3 batten, cut nails	2-3½" butt**
2	2'4½" x 5'10"	6 board, 2 batten, cut nails	butt
3	2'8" x 6'3"	5 board, 2 batten, cut nails	2-3" butt
4	2'8" x 6'4"	7 board, 3 batten, cut nails	2-3 3/4" butt
5	2'10" x 6'1"	7 board, 3 batten, cut nails	12" x 9½" HL**
6	2'4 3/4" x 5'8"	6 board, 2 batten, cut nails	2-2" butt
7	2'7½" x 6'½"	5 board, 3 batten, cut nails	12" x 9" HL**
8	2'7¼" x 6'½"	5 board, 3 batten, cut nails	strap (modern)
9	2'7" x 5'10"	screen	2-6" strap
10	2'8" x 6'3"	6 board, 2 batten, cut nails	2-3" butt
11	2'10 3/4" x 8'3"	no extant door	none
12	2'7" x 5'9"	6 board, 2 batten, cut nails	2-2½" butt
13	2'7" x 6'	5 board, 2 batten, wire nails	1-3" butt, 1-2" butt

*All the vertical door boards are beaded except those of the doors between rooms 6 and 7.
**Hinges attached with pointless (pre 1846) screws (Mercer 1926:25).

Table 5
Window Dimensions

Window Number	Opening Size	Style
A	2'4½" x 4'7"	double sash, 2/2 light
B	2'5" x 4'6"	double sash, 2/2 light
C	2'3⅛" x 4/6"	double sash, 2/2 light
D	2'5" x 4'6"	double sash, 2/2 light
E	2'4½" x 4'6½"	double sash, 2/2 light
F	2'4½" x 4'6½"	double sash, 2/2 light
G	2'5" x 4'8"	double sash, 2/2 light
H	2'5" x 4'5"	double sash, 2/2 light
I	2'3" x 4'6"	double sash, 2/2 light
J	2'4½" x 2'8 3/4"	single sash, 6 lights
K	2'9" x 2'11"	single sash, 2 lights
L	2'4½" x 3'	single sash, 6 lights
M	2'4" x 2'8"	single sash, 6 lights
N	2'3" x ?	single sash, 6 lights*
O	**	single sash, 6 lights
P	2'11 3/4" x 2'0½"	single sash, 2 lights
Q	2'10" x 3½"	single sash, 2 lights

* A ca. 1925 photo does not show this window.
** There was no access to this window.

Figure 39. Cunningham dwelling. Facade, 1978.

Figure 40. Cunningham dwelling. Facade and left side, 1978.

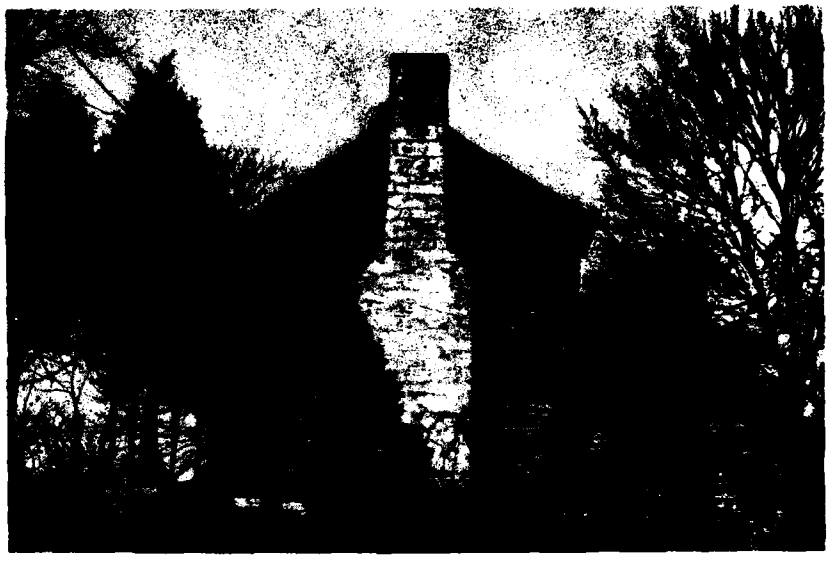

Figure 41. Cunningham dwelling. Right side, 1978. Note addition at right of picture.

Figure 42. Cunningham dwelling. Rear and right side, 1978.

Figure 43. Cunningham dwelling. Detail of box style lock, interior door 4, 1978.

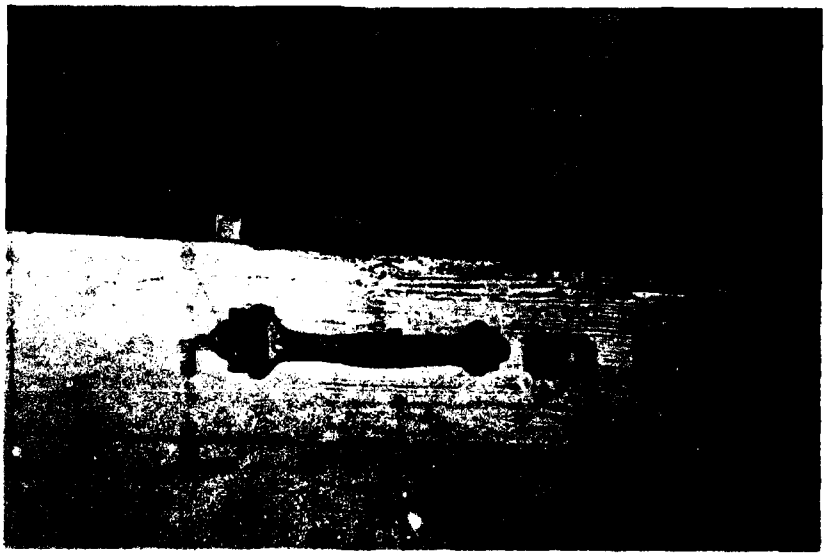

Figure 44. Cunningham dwelling. Detail of a cast thumb latch, door 3, 1978.

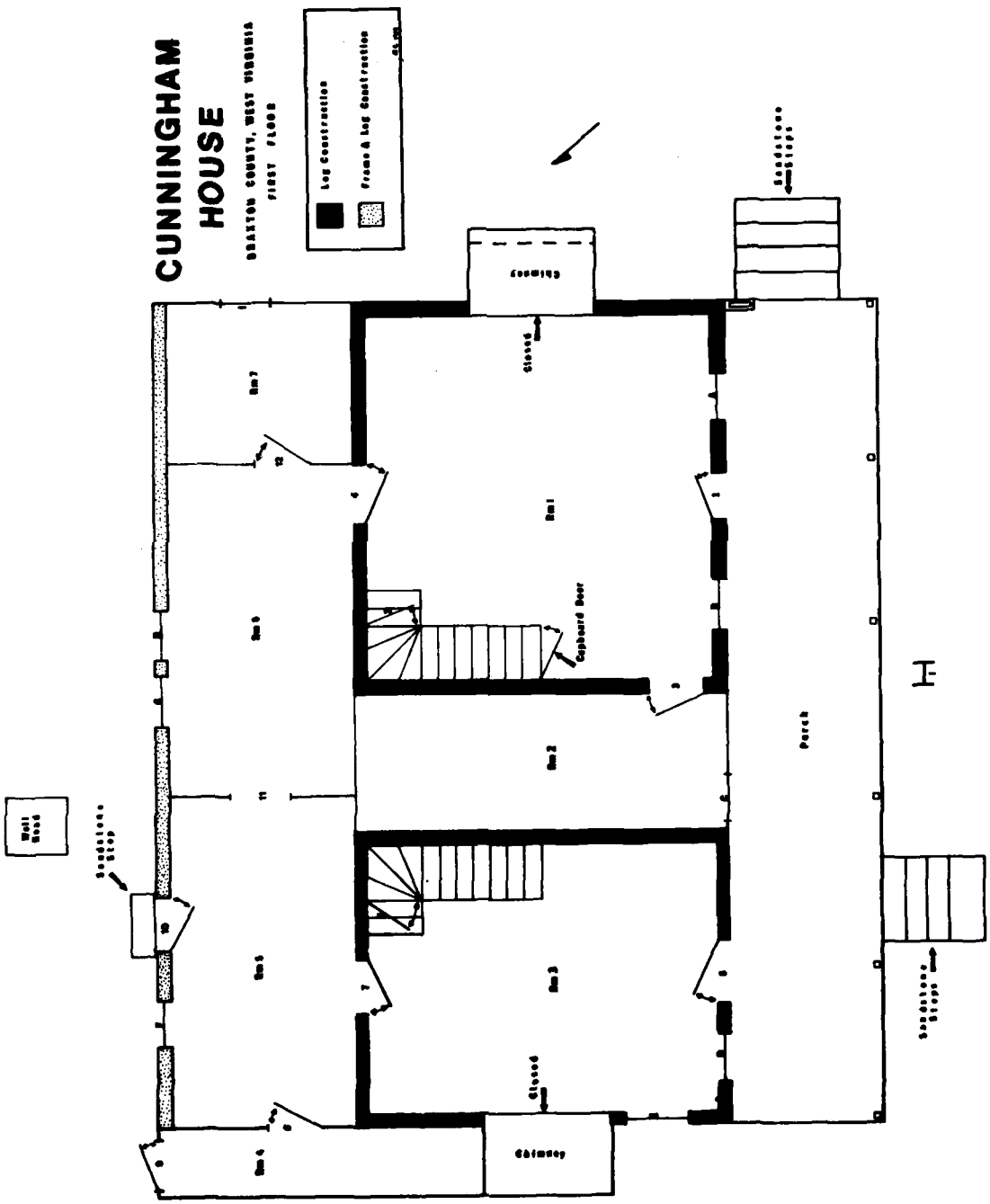

Figure 45. Cunningham dwelling. Plan of first floor.

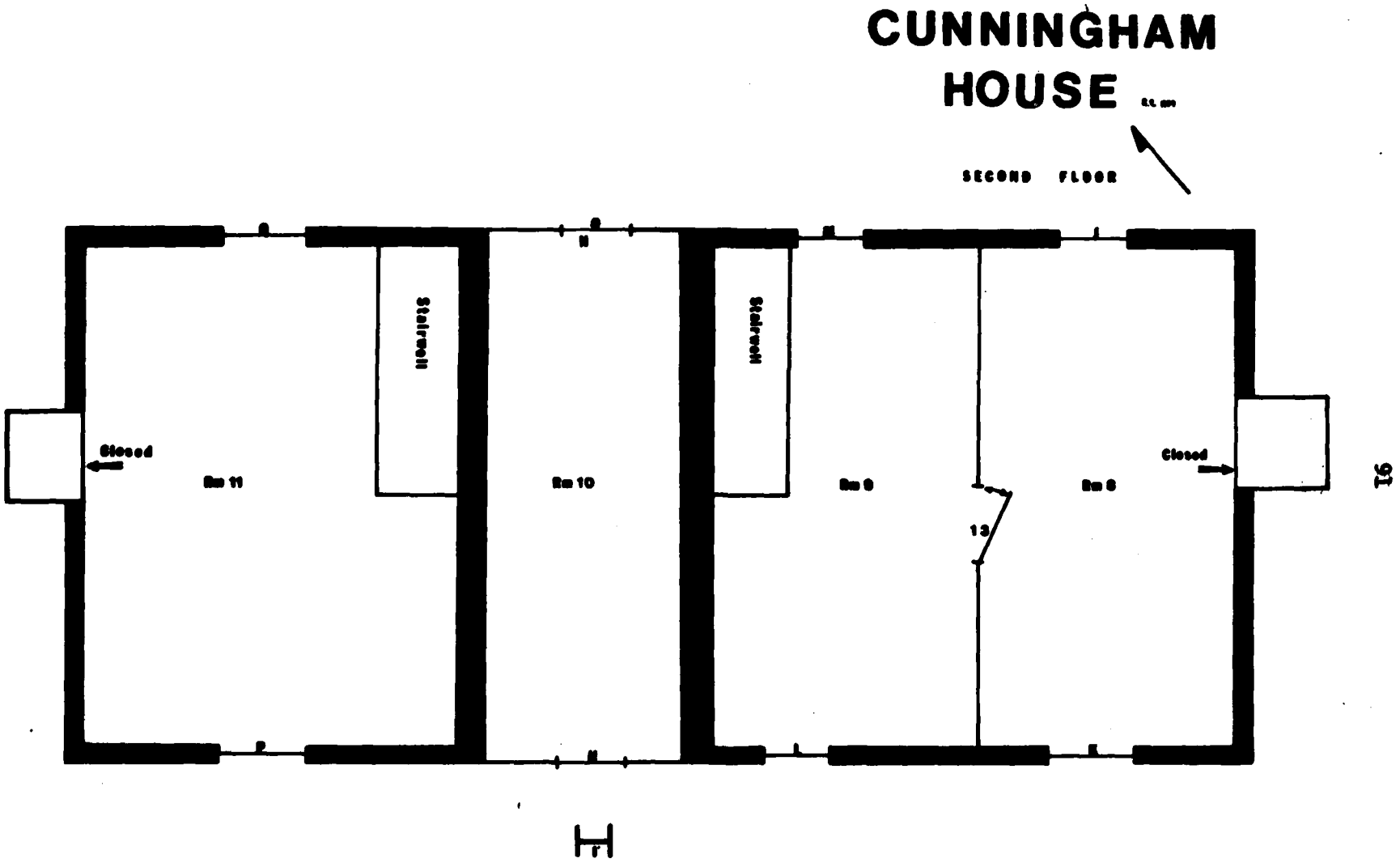

Figure 46. Cunningham dwelling. Plan of second floor.

Currently, room 1 is the living room, room 5 is the kitchen, room 6 is the dining room, rooms 7 and 10 are storage areas, and the other rooms are bedrooms. There is a small sink with a hand pump in room 5 /well is outdoors directly opposite the sink (Figure 45)/.

The rear addition is heavily framed with the interior walls covered by pressed board paneling. The building date of the addition could not be ascertained, but some wire nails appear to have been used for the construction or for repairs. The doors and windows in the addition are compatible with the original sections of the house. During the early twentieth century room 6 was used for the Bulltown telephone switchboard, and room 7 was used as the Bulltown post office. They were operated by the wife of E.H. Cunningham (Ruth Cunningham Skinner 1978, pers. comm.).

Architectural Comments: Outbuildings (Figures 47-72).

There are thirteen wholely or partially extant outbuildings on the Cunningham property. According to Ruth Cunningham Skinner and her son Paul (1978, pers. comm.), all except perhaps No. 6 - Cellar House, No. 8 - Wood and Coal House, No. 12 - Spring House, and No. 13 - Granary are anywhere from ten to fifty years old. The cellar house, wood and coal house, spring house, and granary were built prior to Ruth Cunningham Skinner's birth or at least prior to her memory of their construction (Ruth Cunningham Skinner 1978, pers. comm.). Since the cellar house and the wood and coal house were built using wire nails, they apparently date to the early twentieth century. The use of cut nails in the general construction of the granary (except for the possibility of renewed diagonal slat sides) suggests that it may have been built during the nineteenth century. A construction date for the badly deteriorated spring house cannot be ascertained.

No. 1 - Former Meat House and Vehicle Shed (Figures 47-48).

From left to right, the units of the building are old meat house, vehicle storage, vehicle storage, and general storage. The units were built at varying times, but basically, with the exception of the old meat house, were erected using pole or rough sawn timber construction with some of the walls covered with sheet metal. Other walls are covered with vertical boards. The old meat house section was built with rough sawn lumber and has horizontally applied board walls and three doors.

The old meat house roof is covered with boards and rolled roofing while the other units are roofed with corrugated sheet metal. The rear of the vehicle storage area farthest to the right is enclosed only with open-mesh fencing.

The unit roughly measures 43'4" x 19'6".

Nails: wire.

No. 2 - Toilet/Privy (Figures 49-50).

The frame, one seat toilet measures 4'4 3/4" x 5'4½". It has clapboard siding, a shed type roof covered with corrugated sheet metal, and a four board backward Z batten door. For light, toward the front of the toilet, on opposite sides, two 1937 Dodge car windows have been installed. At the rear of the toilet (3'10" above the ground) and on opposite sides, there are square ventilation holes. The holes are connected via horizontal wooden box type ducts to a vertical box type wooden duct which opens into the waste area below the toilet seat.

Nails: wire.

No. 3 - Chicken House (Figures 51-52).

This frame building measures 2'10¼" x 9'7". There are three doors plus two rectangular, screen covered ventilation openings in the house. The roof is covered with sheet metal roofing.

Nails: wire.

No. 4 - Chick House (Figures 53-54).

This frame, shed roof house measures 7'7" x 8'7". It is sided with horizontal boards, and the roof is covered with sheet metal roofing. The building rests on piles of bricks at each corner. It has one door.

Nails: wire.

No. 5 - Barn (Figures 55-57).

The one story frame barn is the largest outbuilding on the Cunningham property. It is rectangular shaped with the main section covered by a low gable roof. A hay shed has been attached across the right end, and an equipment shed and a general storage shed are connected to the left end (outbuilding number 3 is adjacent to the general storage area).

The main unit of the barn is covered with vertical board siding and is roofed with sheet metal roofing. The interior is divided into equipment storage areas and cattle stalls with a manger. The stalls have a concrete floor.

The hay shed was built using pole construction. It is covered with corrugated sheet metal roofing.

The equipment and general storage sheds are sided and roofed with sheet metal.

Nails: wire.

No. 6 - Cellar House (Figures 58-59).

The two story cellar house measures 12'2" x 14'2" and is one of the oldest outbuildings on the farm. The frame structure is sided with vertical boards with battens, and the roof is covered with sheet metal. The roof overhangs about 4'9" at the front thus providing a protected entryway to the building.

The door is composed of a double thickness of boards; on the exterior the boards are vertical while on the interior they are horizontally arranged. The single window measures 2'5" wide x 2'4" high. The floor and foundation are poured concrete. The floor boards on the second floor, for food storage purposes, are covered with sawdust. The interior walls and ceiling are board covered, and the space between the inner and outer walls is insulated with sawdust.

Nails: wire.

No. 7 - Meat House (Figures 60-61).

The shed roof meat house is the newest building on the farm; it is covered with vertical boards with battens and is roofed with sheet metal. It measures 8'2½" wide x 10'3" deep.

Nails: wire.

No. 8 - Wood and Coal House (Figure 62).

The sheet metal gable roofed wood and coal house measures 14'5" wide x 20'5" deep. The frame structure has horizontally applied board walls. There are doors in both the front and back sides. The front or main door is five boards wide; they are secured by three battens.

A sheet metal roofed tool shed measuring 6'6" wide x 9'10" deep is attached to the front right side of the building.

Nails: wire.

No. 9 - Beef Fattening Shed (Figures 63-64).

This frame building has a sheet metal covered shed roof and measures 7'1" wide x 8'5" long.

Nails: wire.

No. 10 - Hay and Equipment Shed (Figures 65-66).

Two sides of this pole construction, shed roof structure are enclosed. The back is sided with horizontal boards while the right end is covered with sheet metal as is the roof. It measures 30'4" wide x 12'5" deep.

Nails: wire.

No. 11 - Wash House (Figures 67-68).

The frame wash house has a sheet metal covered shed type roof and is sided with horizontal boards. It has windows which measure 2'5" x 2'6 3/4" and 2'4½" x 2'. Overall the structure measures 8'7½" wide x 12'3" deep.

Water for washing clothes is pumped by an electric pump from a spring in the spring house which is adjacent to the building.

Nails: wire.

No. 12 - Spring House (Figure 69).

All that remains of the spring house are the collapsing cut sandstone foundation walls. The spring, however, is still a source of water (now brackish) on the site. Water is both dipped and pumped with an electric pump from it. The walls measure approximately 9'6" wide x 19' long.

No. 13 - Granary (Figures 70-73).

The granary is actually a complex of buildings: corncrib, hay shed, equipment shed, and hog house.

Originally the complex consisted of only the gable roofed corncrib. The floor of this structure is 4' above the ground surface. It is sided with narrow diagonally applied boards with a space between each board for air circulation. Entry is gained by ascending five steps at the front and passing through a doorway closed by a four board, two batten door which is hung from two strap hinges and held closed by a wooden latch mechanism and a forged hasp (Figure 72). The building rests on six stone piers evenly spaced three on each side of the structure.

To the right of the corncrib, a frame, shed roof hay storage area has been added. To the right of the hay shed, a frame, shed roof hog house was constructed. To the rear of both the corncrib and the hay shed, a pole construction equipment shed was attached. All the shed additions are sided and roofed with sheet metal.

Measurements:
Corncrib - 11'4½" wide x 16'10" deep
Hay Shed - 13'5" wide x 25' deep
Hog House - 8'5 3/4" wide x 12'6" deep
Equipment Shed - 9' wide x 33'10" deep

Nails:
Corncrib - cut except for diagonal siding which is attached with wire nails
Hay Shed - wire
Hog House - wire
Equipment Shed - wire

Recommendations:

While recommendations specific to the preservation of the Cunningham buildings as well as for the other Historic Area structures are presented in a separate section, the Corps is here advised to seek acquisition, through a gift or purchase, of both the Cunningham papers and the Cunningham Battle of Bulltown artifact collection.

Ruth Cunningham Skinner, while being interviewed by the authors, indicated that her father's family papers (probably including letters and farm receipts but perhaps also diaries or other material) has remained in the house untouched since his death in 1954. Although Mrs. Skinner indicated a willingness to examine the papers for materials pertinent to this study, the authors, over the next two months, were unable to gain access to any of the information.

After acquisition of the papers, the Corps should catalog and otherwise preserve the collection as part of an archive at the Historic Area. If on-site preservation is determined not to be feasible, the collection might be deposited with the Braxton County Historical Society in Gassaway, the public library in Sutton, West Virginia University, or the archives for the state of West Virginia. If one of the latter locations is chosen for deposition of the material, the institution should be selected on the basis of its ability to preserve the collection in perpetuity and the ease of access to the collection for scholarly research.

The Cunningham Civil War Battle of Bulltown artifact collection, which is already being scattered among family members and was not available for photographing in its entirety, should, after acquisition, be prepared for display in a protected location near the battlefield area. However, before it is displayed, it must be catalogued and the artifacts cleaned and preserved. Information on cleaning most of the materials can be found in Ivor Noël Hume, Historical Archaeology (1969), Chapter 8. Before any treatment of the artillery shells is undertaken, they should be inspected by an ordnance expert and, if necessary, emptied of their bursting powder charge and fuses (if such are fused).

Figure 47. Cunningham outbuilding. Former Meat House and Vehicle Shed, 1978.

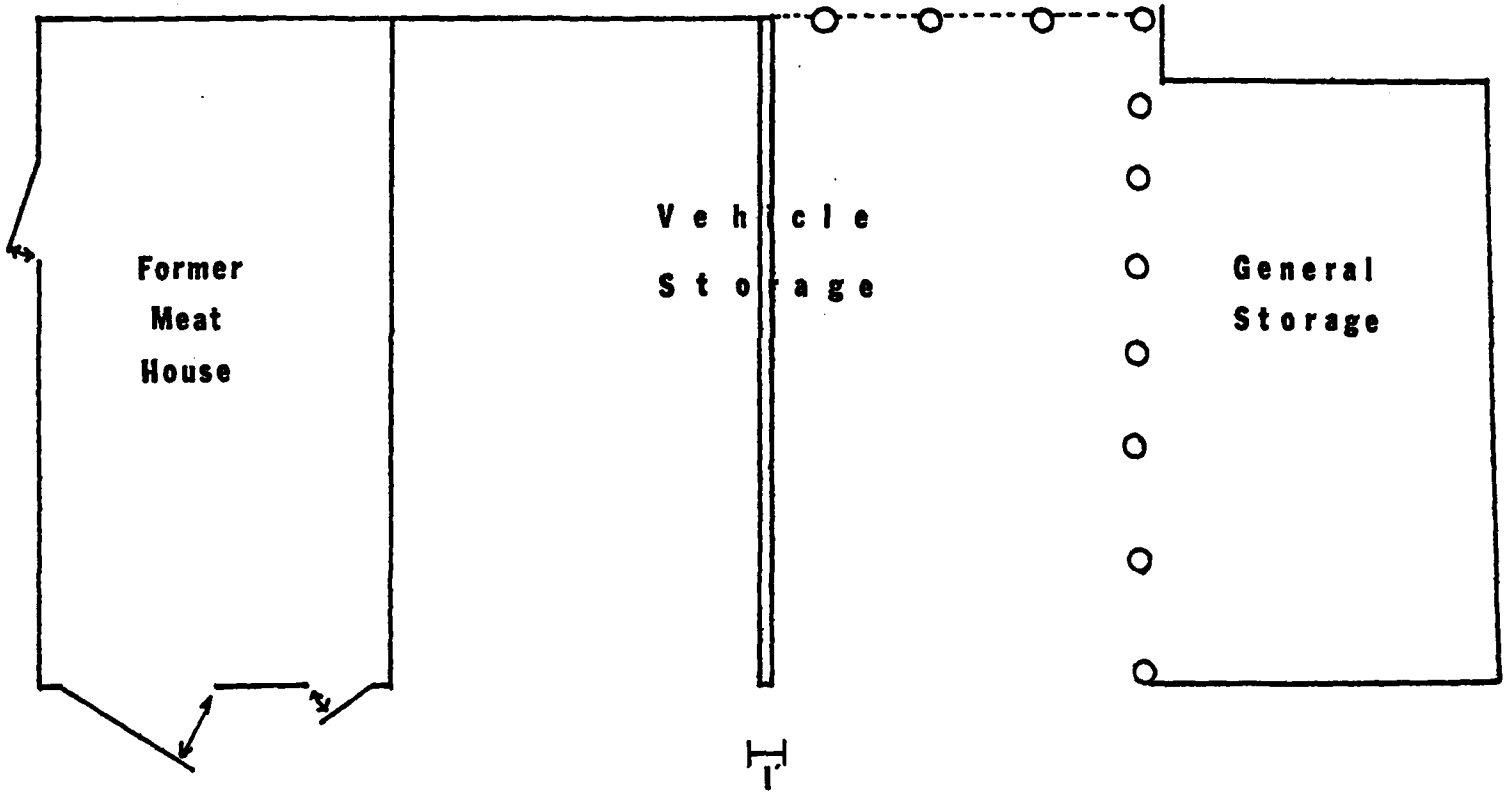

Figure 48. Cunningham outbuilding. Plan of Former Meat House and Vehicle Shed.

Figure 49. Cunningham outbuilding. Toilet/Privy , 1978.

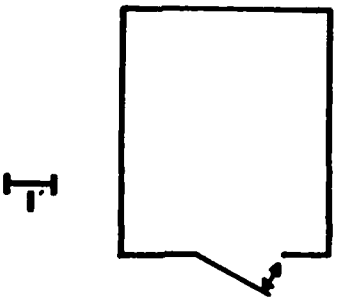

Figure 50. Cunningham outbuilding. Plan of Toilet/Privy .

Figure 51. Cunningham outbuilding. Chicken House.

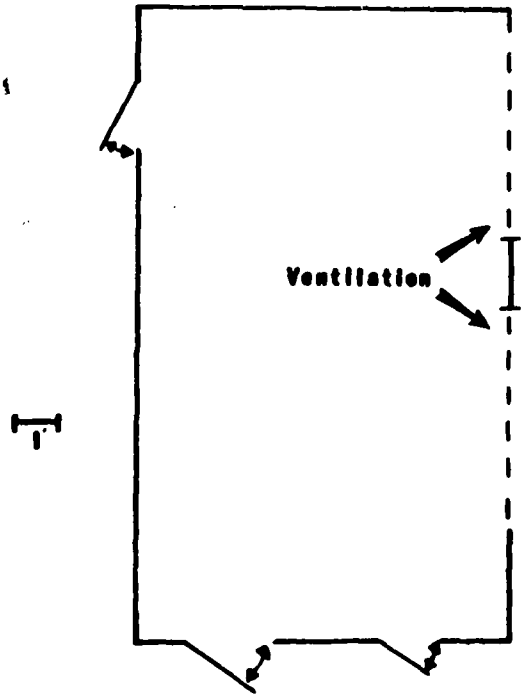

Figure 52. Cunningham outbuilding. Plan of Chicken House.

Figure 53. Cunningham outbuilding. Chick House, 1978.

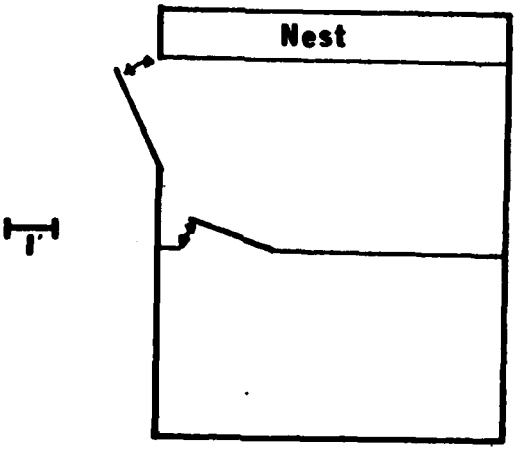

Figure 54. Cunningham outbuilding. Plan of Chick House.

Figure 55. Cunningham outbuilding. Barn Facade, 1978.

Figure 56. Cunningham outbuilding. Barn back side, showing chicken yard at right, 1978.

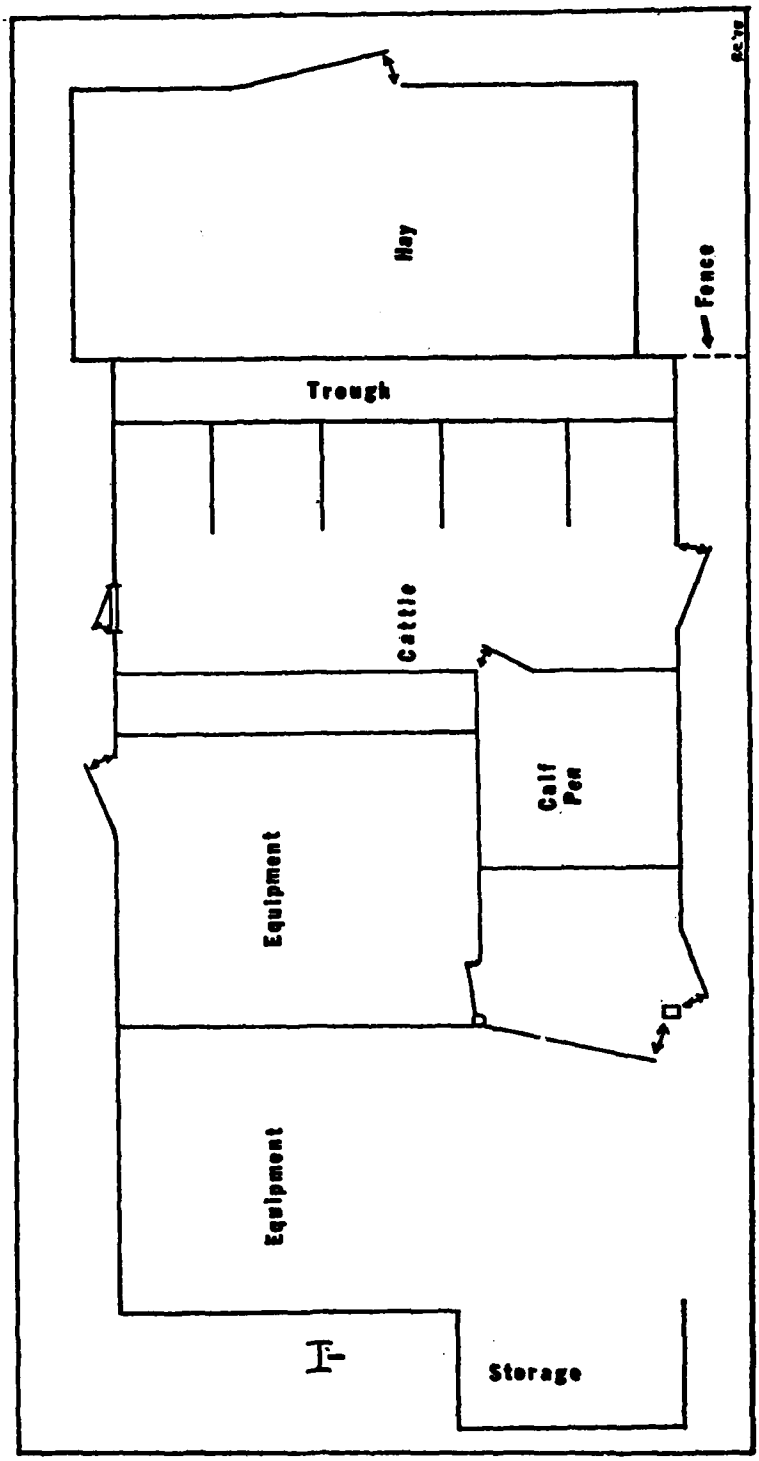

Figure 57. Cunningham outbuilding. Plan of Barn.

Figure 58. Cunningham outbuilding. Cellar House, dwelling is at the left, 1978.

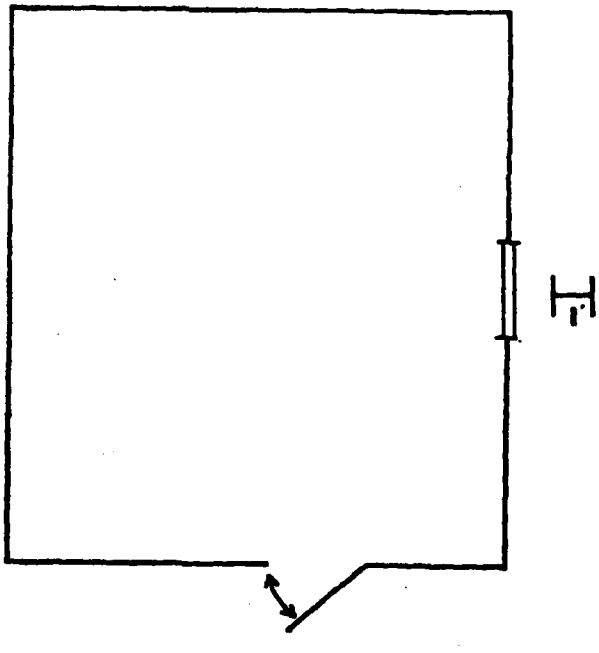

Figure 59. Cunningham outbuilding. Plan of Cellar House.

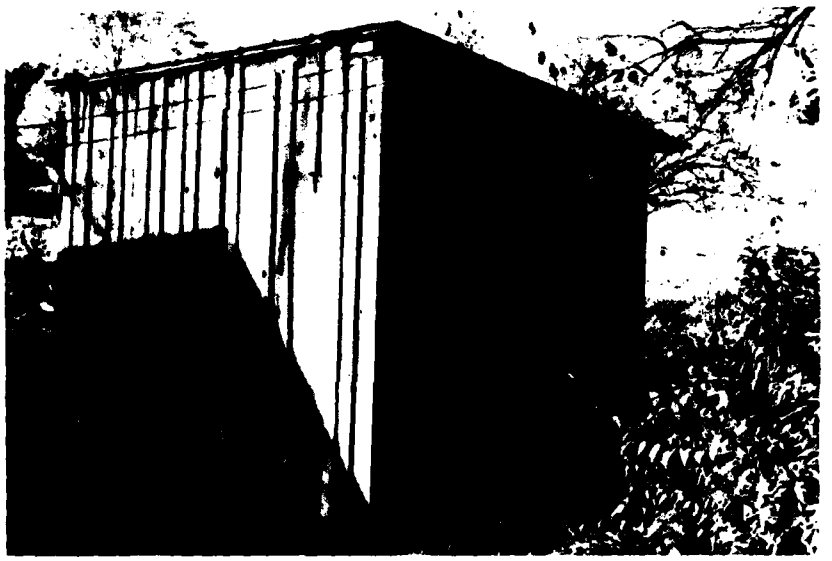

Figure 60. Cunningham outbuilding. Meat House, 1978.

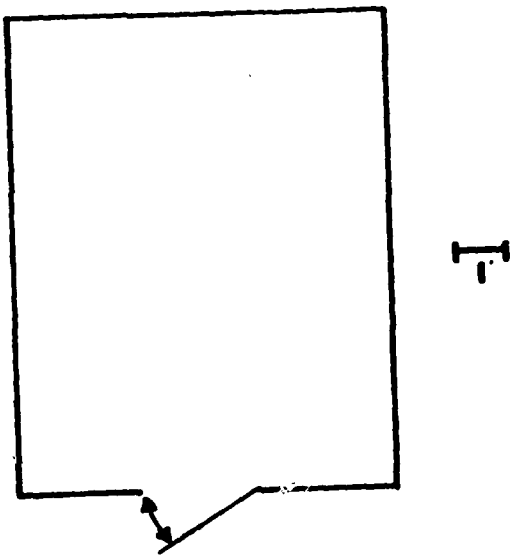

Figure 61. Cunningham outbuilding. Plan of Meat House.

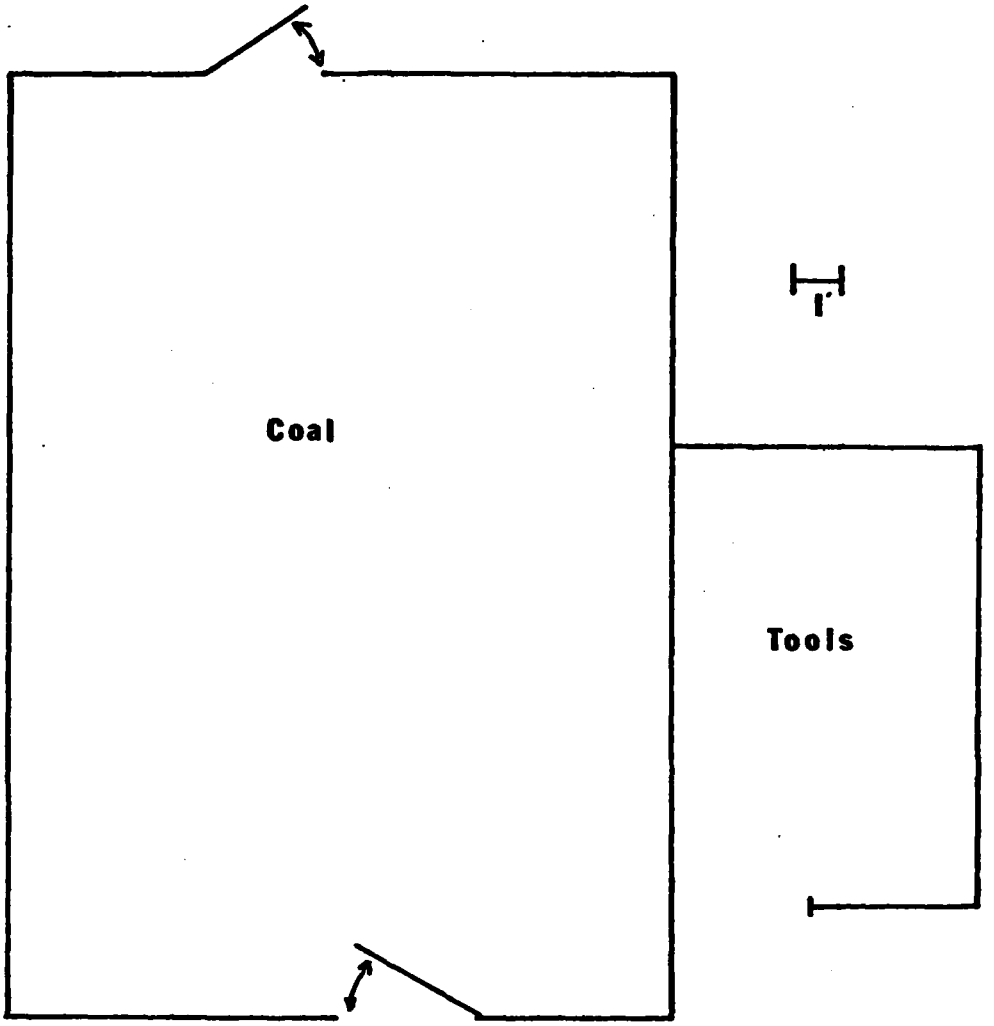

Figure 62. Cunningham outbuilding. Plan of Wood and Coal House.

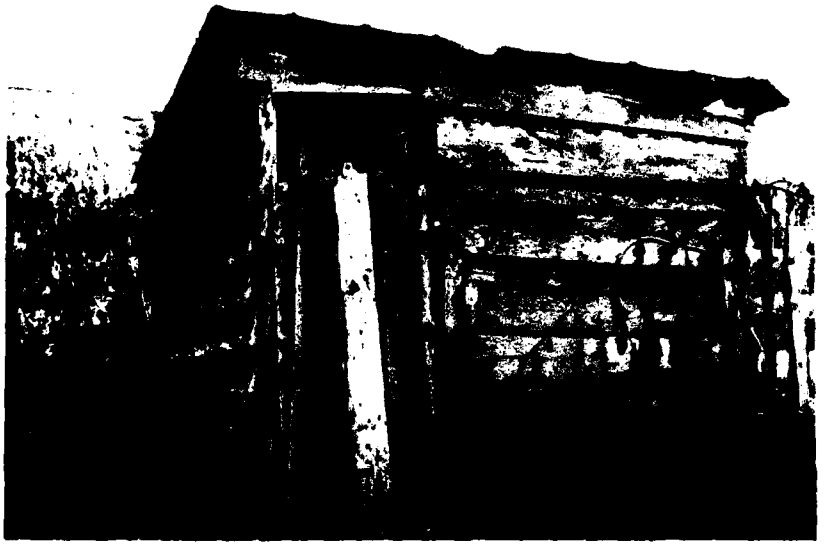

Figure 63. Cunningham outbuilding. Beef Fattening Shed, 1978.

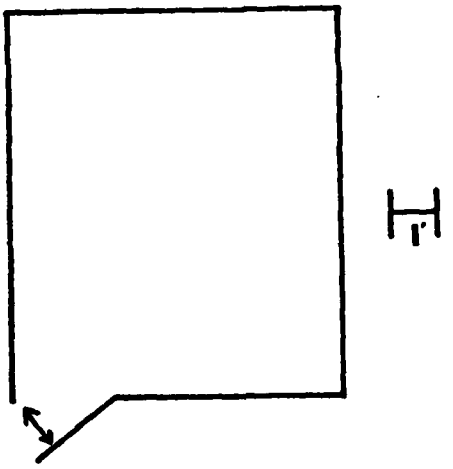

Figure 64. Cunningham outbuilding. Plan of Beef Fattening Shed.

Figure 65. Cunningham outbuilding. Hay and Equipment Shed, 1978.

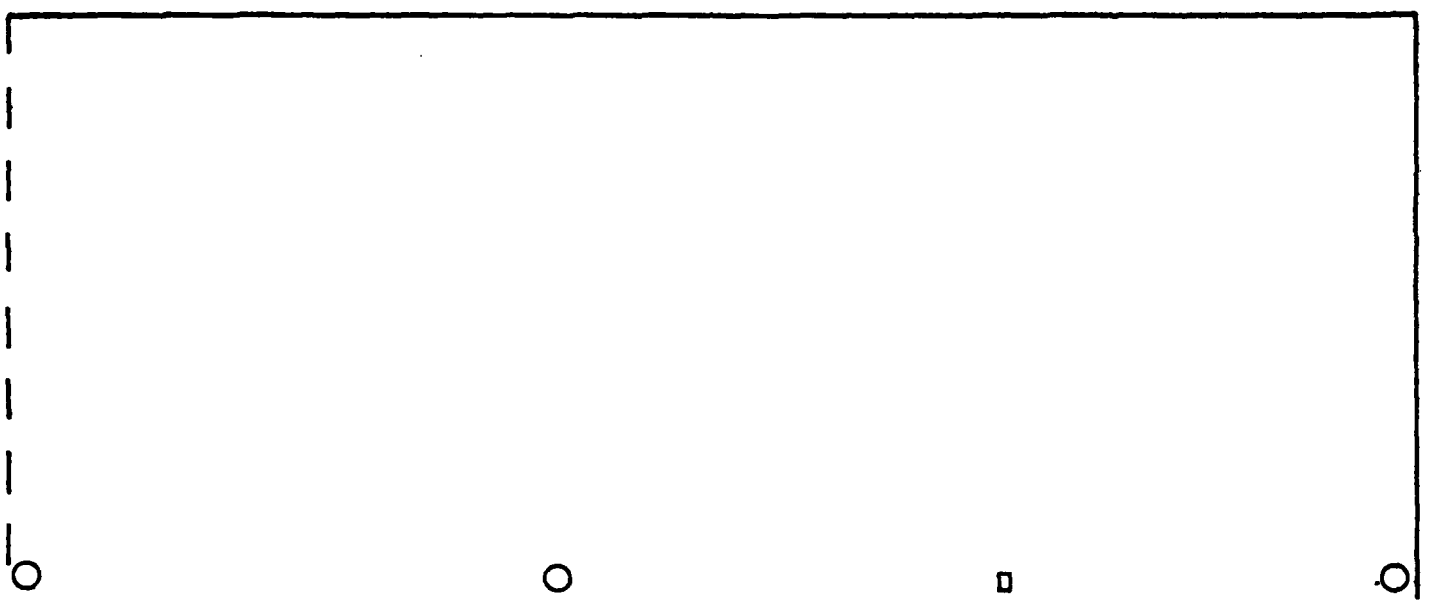

Figure 66. Cunningham outbuilding. Plan of Hay and Equipment Shed.

Figure 67. Cunningham outbuilding. Wash House, 1978.

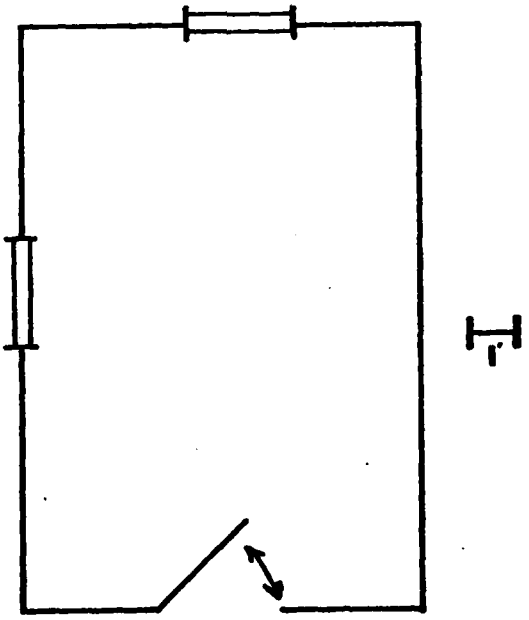

Figure 68. Cunningham outbuilding. Plan of Wash House.

Figure 69. Cunningham outbuilding. Spring House, 1978.

Figure 70. Cunningham outbuilding. Granary, facade, and left side. Note spaced, diagonal planking at left to provide air circulation into the corncrib.

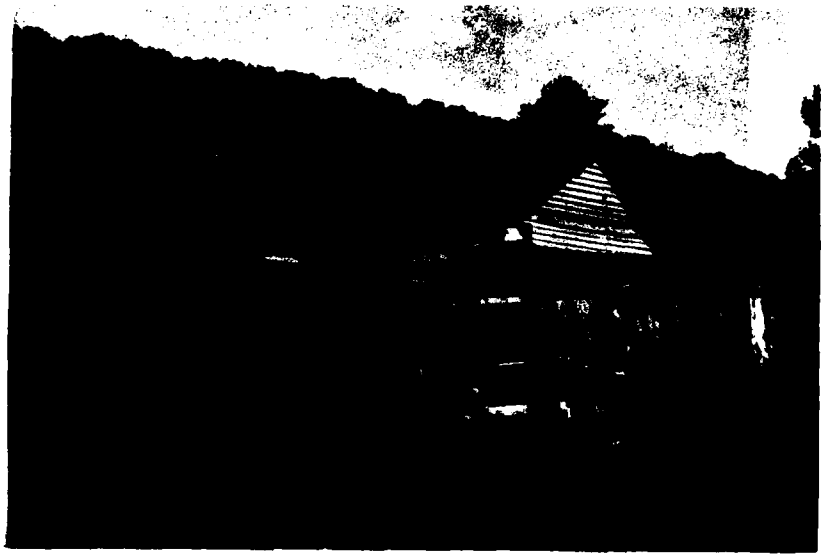

Figure 71. Cunningham outbuilding. Granary, left and back sides showing hay and equipment storage areas, 1978.

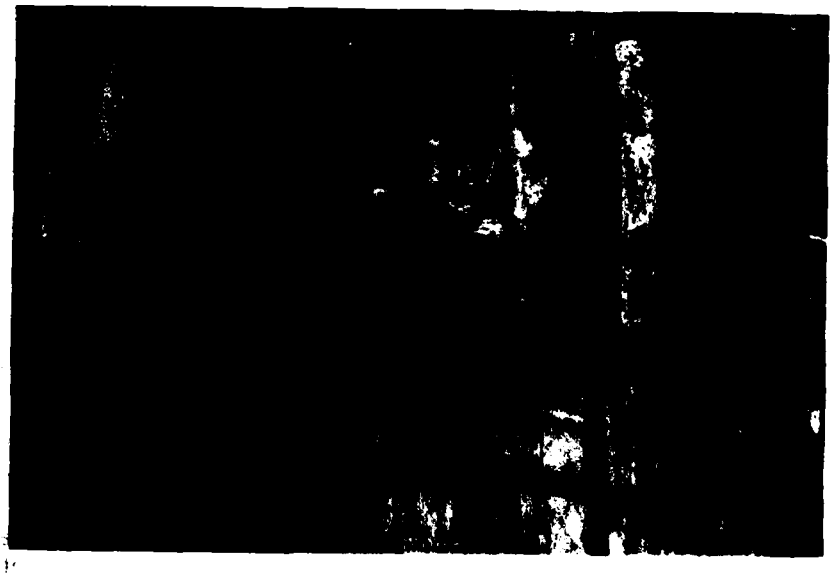

Figure 72. Cunningham outbuilding. Granary, detail of latch on main door to corncrib section, 1978.

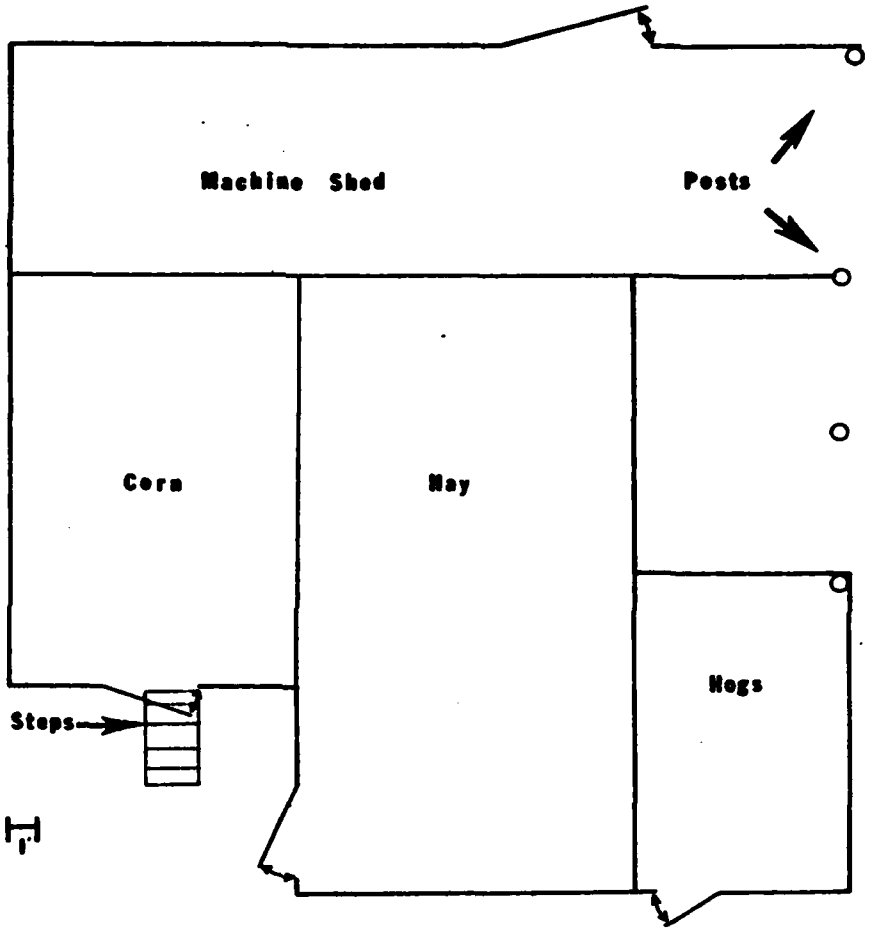

Figure 73. Cunningham outbuilding. Plan of Granary.

Preservation Recommendations

Historic preservation recommendations for the Burnsville Lake project area are divided into three major areas:

1. Guidelines to insure accurate archaeological assessment of Indian Bulltown, the Civil War entrenchments, the tanyard, and the salt works.
2. Guidelines to insure accurate reassembly, restoration, stabilization, preservation, and protection of the structures within the Historic Area.
3. Guidelines for the protection, stabilization, preservation, rehabilitation, and restoration of the Cunningham house and outbuildings.

The specific recommendations outlined in this section are adapted from The Secretary of the Interior's Standards for Historic Preservation Projects, Office of Historic Preservation, Heritage Conservation and Recreational Service, U.S. Department of the Interior, Washington, D.C.

Entrenchments, Tanyard, and Salt Works

Most urgent is the need to protect the Civil War entrenchment areas from "relic hunters." With the opening of the Historic Area, this area could be frequented by persons with metal detectors and shovels who might dig indiscriminately through the ruins in hopes of recovering bullets, shells, and other objects dating to the Battle of Bulltown. Unless the area is to be immediately developed for visitation, it should be fenced, regularly patroled, and supervised by the reservoir manager or his designate.

Once the areas are protected, steps should be undertaken to thoroughly map the Union trenches and Confederate overlook and to archaeologically examine them. The archaeology should, at a minimum, include cross-sectioning the trenches and rifle pits and testing within the perimeter of the Union entrenchments. Preparatory to excavation, the National Archives collections, particularly the pension records, should be thoroughly searched for data on the battle. Several secondary works on the battle have been printed, but these reflect minimal primary research.

Systematic exploratory test excavations in the presumed area of the salt works as well as at the potential site of the tanyard and Indian Bulltown should be integrated into any scope of work detailing archaeological requirements at the battle site. Such excavations should be aimed toward the identification of any physical remains of these sites, the definition of the site boundaries, and the determination of the need for extensive archaeological work at the sites. Archaeological testing should be directed toward the acquisition of historical-technological data relating to early nineteenth century tanning and salt industries and the recovery of data reflecting both Indian and Euro-American occupation of the Bulltown area.

Historic Area

The Historic Area as it is presently designed will contain the Civil War entrenchments, several relocated and reassembled buildings which previously existed at various sites within the reservoir, and the Cunningham dwelling and farm buildings. Whereas gathering the structures into a compound provides an effective and realistic means of protecting them from vandalism, care should be taken to insure that the relocated structures are secure from damage from flooding along Millstone Run which is adjacent to the area. Likewise, trees and other vegetation subject to wind or snow damage which could adversely affect any of the structures within the Historic Area need to be keptclear of the buildings.

To restrict vehicular traffic in and around the compound, a fence historically compatible with the structures, such as the split rail fence that was removed from the site of St. Michael's Roman Catholic Church, should be erected. In order to diminish unauthorized entry to the compound or the buildings, a lighting and intrusion alarm system should be installed. Perhaps the most effective deterent to unauthorized entry to the area and the best warning against catastrophic natural disasters occurring there would be the housing of an on-site Historic Area manager. Most logically this person would not be housed in one of the relocated dwellings but within the Cunningham house.

Beyond protecting the resources within the Historic Area, all of the structures must be stabilized, preserved, and restored. Several steps should be followed to insure the longest possible life to the structures.

1. Weakened structural members (sleepers, joists, etc.) will need to be replaced with appropriate and compatible material. Care should be given to matching wood types to purpose.

2. Attention should be directed toward matching size, shape, texture, and appearance of replaced members with original members. Whenever possible, original material should be retained for use in the structure.

3. Consideration should be given to the use of wood preservatives appropriate to the susceptibility of the wooden element to deterioration. Extreme care should be exercised in preventing unnecessary exposure of the structure to water and other destructive natural agents. Roofs, in particular, should be inspected periodically (at least once a year) for signs of destructive weathering.

4. Where feasible, original windows, glass, doors, and hardware should be faithfully employed or duplicated.

5. Where possible, porches and steps of the original structures should be reconstructed. Even if these are somewhat later in style, such features are often important to the integrity of the structure. Step positioning is important since these indicate major paths or points of cultural activity around a structure.

6. Foundations and supports for structures should faithfully duplicate the original system. Thus, for instance, stone faced concrete block foundations are unacceptable reconstruction substitutes for sandstone pier supports of log dwellings, barns, etc.

7. The greatest care should be exercised in the choice of chinking material for use between the interstices of logs. The previous, and presumably original, use of such filler, should be substan-

tiated by a careful examination of the logs involved. In some cases, chinking may not have been used, particularly if the log walls were originally sided with clapboards or weatherboards. The fact that the log components for the reassembled buildings remained out of doors and were stored unprotected from exposure to the weather may already have made the examination process for chinking traces difficult, if not impossible. When physical examination or informant interviews can attest to the presence of chinking originally, great care must be exercised in the choice of materials to be used in duplicating the chinking.

General guidelines for the composition of chinking are available in Robert C. Mack (1976) and Harley J. McKee (1973) which deal with lime mortar composition applied to the restoring of historic brick buildings. It is necessary to orchestrate the selection and application of replacement chinking with the selection method of wood preservation. The two must be compatible and together should work to assist in the stabilization of the structure. Particular attention should be paid to the exclusion of water from the interface between logs and chinking. Numerous authors address the question of wood preservation and several of the better discussions can be found in Darrel D. Nichols (1973), Farmer's Bulletin 2104 (1962), and Forest Products Laboratory (1974).

From the inspection of the log components to be used in the Burnsville Historic Area reconstructions, it would appear that the services of a professional preservationist to advise on the choice of stone, wood, and mortar to be used at the site should be secured. Some technical advice is available to the U.S. Army Corps of Engineers from the Technical Preservation Services Division, Office of Archaeology and Historic Preservation, Heritage Conservation and Recreation Service, U.S. Department of the Interior, Washington, D.C.

8. Roofing material choice and its application should generally duplicate, as closely as possible, the original roofing since the structures are being reconstructed as they were originally constructed and not as they were when acquired by the Corps in approximately 1974. Inasmuch as no attempt was apparently made during the dismantling process to ascertain evidence of the original roofing, duplication of the type of roofing material and attachment method utilized on other period log dwellings in the Burnsville area should be adopted. If, for instance, 30 inch long, 6 inch wide white oak shingles were attached to lathing strips, restoration should not include attaching 18 inch long, 3 inch wide oak shingles to sheathing. Sheathing can be used as long as lathing is attached to it and the sheathing is not visible. However, only 6 inch wide, 30 inch long shingles are acceptable in this instance for faithful restoration.

If it is found that raised seam sheet metal roofing was originally used for roofing, it should be re-applied.

Cunningham House

Before specific guidelines for the protection, stabilization, preservation , and restoration of the Cunningham farmstead can be prepared, decisions must be made as to the time period the farmstead is to display. If the complex is to display a date from the early nineteenth century, it will be necessary to raze all the structures except the dwelling and perhaps the undated spring house. Steps will need to be taken also to determine the original configuration of the Cunningham dwelling. Even if the decision is made to rehabilitate the farmstead to the Civil War era to make it compatible in time with the Bulltown Battlefield and closer in date to the reassembled structures, all except the dwelling and perhaps the granary and the spring house ruins will have to be eliminated. Again, it will be necessary to determine the configuration of the dwelling, ca. 1860.

To avoid removal of nearly all the structures on the property and to provide the reservoir with a unique Historic Area instead of one where a group of buildings are collected to display what buildings in central West Virginia might have looked like about 100 years ago, serious attention should be given to exhibiting the Cunningham farm as a living example of a turn-of-the century Appalachian farm. The farm could be operated as a living example of Appalachian life by devotees of rural life practices who could also act as caretakers for the reassembled structures. "Living" or experimental farms are successfully operating at several locations within the country, e.g., Colonial Pennsylvania Plantation, Edgement, Pennsylvania; Turkey Run Farm, McLean, Virginia. In addition to a caretaker, an apprentice program could be developed where persons could, for varying amounts of time, live at the farm, help with the daily chores, and, in general, live as an Appalachian farmer did ca. 1890 or 1910.

While it may seem that a ca. 1900 farm is too recent a period to recreate, it should be remembered that a 1900 Appalachian farm, in level of farming sophistication, would probably be similar to a ca. 1870 farm in New York or eastern Pennsylvania. Further, although it could be said by some persons that operating a farm as a living example of such a recent way of life is absurd, the Historic Area is being created not only for today but for the future. Furthermore, it is not only for persons who are familiar with twentieth century Appalachia but for thousands of people who have never visited Appalachia and who are not familiar with farming practices or life in general in that area.

The farm currently is operated largely as a ca. 1900 subsistence farm, and with stabilization, and in some cases reconstruction of the existing structures (if they are too badly deteriorated to be preserved) the farm could continue to function.

In order for the farm to continue to operate, immediate attention needs to be directed toward preservation of all the outbuildings and the dwelling. Preservation remarks in the section of this report on the Historic Area would be applicable to most of the farm buildings, but more specific recommendations are appropriate to the dwelling.

1. Stabilization of the logs should be of highest priority. Where visible beneath the clapboard siding, the logs show signs of dry rotting and insect infestation. The problem of log deterioration may be especially acute in the sleepers which have been cut in places to accomodate electrical wiring and gas pipes. This stabilization should also include removal and replacement of the clapboard siding after the logs are inspected.

2. The fireplaces should be made operable. This should include repointing and rebuilding where necessary with historically appropriate materials.

3. The front porch should be stabilized or re-built duplicating the porch deck support piers, columns, structural members, and roofing.

4. The roof should be carefully examined for rot, and any deteriorating rafters and roof boards should be replaced. The sheet metal roofing should either be renewed or replaced with wooden shingles if it can be established that the building was shingle covered during the period to which it is being restored.

5. The dwelling interior should be redecorated following a papering and painting scheme which can be documented after studying the present dwelling interior. Door hardware should be reproduced to match the earlier examples noted in some of the rooms.

6. Consideration should be given to reconstructing the post office and the telephone switchboard in the rear addition.

Whenever the restoration is to begin at the Cunningham house, persons with knowledge of Appalachian log architecture, historical archaeology, and historic preservation techniques should be present so that the removal of the roof, siding, etc., can be supervised in a manner that will preserve evidence of the chronology of the evolution of the physical appearance of the building. By carefully studying the structure with the roofing and siding removed, it should be possible to complete the interpretation of the architecture of the dwelling. Acquisition of such data is vital to any interpretation of the structure offered to a visiting public.

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Appendix
Some Comparative Comments on the Utility of the Burnsville Study

by

Ronald C. Carlisle

Most academic papers (and even some worthwhile ones that grow out of, pardon the expression, "contracts") conclude with a summary statement of their major goals and accomplishments. More acceptable still are those which discuss not only the internal interrelationships among various aspects of the data but which also draw comparisons or analogs to data accumulated from other studies. Such recapitulation is laudable (if not always possible) and lends a sense of completion, attainment, and finality gratifying to authors, readers, and federal contracting officers alike. It allows one to think that some unruly body of knowledge has been tamed, that order has somehow been wrought from disarray. Unfortunately, the present case in some respects does not lend itself to quite the same feeling of accomplishment and the gratification that comes therefrom. No really startling discoveries have been made or insights gleaned from the data that has been collected and assessed since the senior author and I made the first of three trips to the Burnsville Reservoir area. At best, the historical research is particularistic and/or biographical; in many cases it has, nonetheless, pointed out the need for primary research to correct many of the ambiguities and inaccuracies of our historical "knowledge" of the area. The architectural work, too, is less than satisfying. Here, even basic, primary information including deed, will, and tax data are unpreserved, incomplete, or simply unspecific. The architectural sample size for the study is also small consisting of one log church built in 1878, one heavily modified saddle notched log barn that could data to anywhere between ca. 1878-and 1928, and one building each of a saddlebag (Fleming) two story rectangular (Johnson) and an I or dogtrot variant (Cunningham).

In addition, some low-level information was gathered on a log granary (Fleming) and some measurements and functional analyses on the Cunningham outbuildings were made. In all cases except the Cunningham property, the structures had been dismantled and removed from their original locations some years prior to our study. Thus, the cultural geographical component is missing as is much architectural data on chinking patterns, specific measurements on gable construction, chimney and firebox construction, flooring, and a host of other vital details. Fortunately, scale drawings of the log portions (but omitting any frame additions) of these structures were prepared or the present study, limited as it is, would have been impossible. The selection of certain structures from within the project area was non-random and influenced by considerations

other than their architectural/historical worth (however assessed). Yet, the data at hand, though imperfect, is 100% more than would otherwise be available for the area.

The work at Burnsville, it should be stressed, was undertaken to fulfill the requirements of a very specific though eclectic scope of services for the U.S. Army Corps of Engineers. It is a contracted study with the established purpose of summarizing certain data and of setting forth recommendations and guidelines that will provide for the preservation of select buildings and which will aid in effectively transmitting knowledge to the general public. The study is therefore not academic in the strict sense of the term; its goals, methodology, and the timetable for its completion differ vastly from the analogous project that might have been done by the same authors under a more traditional scheme of academic inquiry. This is not an apology for an attenuated historical or architectural project. Indeed, much of the historical data on Captain Bull, Bulltown, and the Bulltown Salt Works and Tanyard, are presented here for the first time. Similarly, it must be remembered that there have been no systematic (or even unsystematic) studies of the folk architecture of the Central West Virginia area. Glassie's superb, holistic study of folk housing in Middle Virginia (Glassie 1975) as well as his unpublished survey of log architecture in Southwestern Pennsylvania (Glassie 1973) are closest geographically to the present study area. To the southwest of Braxton County, I had the pleasure of doing two small architectural inquiries in Lawrence and Johnson counties, Eastern Kentucky in 1977 and 1978 (Carlisle 1978, n.d.) which despite simliar contract limitations to those discussed above provide some of the first descriptive information on folk architectural patterns and traditions in that locale (see also Thomas 1974). Moreover, I was able to visit and to record these structures in their original locations, and this forms an important contrast to the present study.

The limitations of this study, both those explicitly outlined above and others which can be observed by reading "between the lines" suggest that a conclusion or summary statement in the usual sense is not appropriate. It is, after all, very difficult to join the disparate themes of this composition. A few concluding remarks are in order, however.

Most studies of the Delaware Indians have focused on their historical presence in Eastern Pennsylvania and surrounding regions. Very little had been written about the impact of the progressive westward movement of Euro-American settlers on the Delaware. In the study of Captain Bull and the Indians at Bulltown, one can actually see the results of this presence despite the fact that historical fact and fantasy are not always clearly discernible. The themes that history reveals here are those of overriding cultural incompatability, greed, hate, revenge, shifting political alliances, and sporadic though remarkable socio-economic adaptability. In presenting the raw data, we have attempted to outline these and other themes that characterize what otherwise is only a brief historical vignette.

Similarly, there is a cultural continuity between the Indian presence at Bulltown and that of succeeding white inhabitants. That continuity is salt. Important enough for Roman troops to once have been paid in it, salt is also the common thread to the story of Bulltown. It almost surely was the reason that Captain Bull chose the area to settle in initially and it provided a tenuous economic and thereby social link to the ever encroaching world of the white man. In turn, the same salt led to the establishment of Bulltown's first business. It probably also played at least a supporting role in the development of the Bulltown Tanyard. For all intents and purposes, the economic and historical importance of Bulltown and surrounding areas is inextricably linked to simple sodium chloride--the importance of which to a non-refrigerated, non-monosodium glutamated world extended far beyond its abilities to enliven a bland meal. We have tried to outline the character and dynamics of the Bulltown salt industry and further, to suggest that in a larger geographical context the subject is terribly important to understanding the historical and economic development of West Virginia.

The section on the Civil War Battle of Bulltown reveals the tip of yet another iceberg. The "battle," in reality a minor skirmish when viewed in the larger sense, nevertheless has its importance. Essentially, it is the geographical setting which defines this importance. Had Confederate troops succeeded in capturing the Federal outpost at Bulltown, an interior northeast corridor into Northern West Virginia and Southwestern Pennsylvania along the Weston Gauley Bridge Turnpike might well have opened. This might have had disastrous consequences for the Union despite the fact that by late 1863, the ultimate fate of the Confederacy had probably already been sealed at Gettysburg. Certain technological insufficiencies in the Confederate cause (i.e., artillery shells that failed to burst) are demonstrable and physically evident in the artifactual remains at Bulltown. In summarizing some of the details of this battle, we have also attempted to place the archaeological remains (humble though they are) in a technological/historical context. This is rare in any study of a Civil War period site and underscores the importance of synthesizing historical and archaeological data with our knowledge of ordnance technology and cultural geography. This is a peculiarly if meager beginning for the continuing historical reassessment of that great internecine struggle of the mid-nineteenth century.

As hinted above, there is an increasing tendency in "social science" to merge traditionally distinct lines of academic thought and methodology. On the whole, this is a beneficial if personally humbling experience. One need only read the major works in American folklife studies to realize how far that particular area of attention has progressed in the last 10 years (e.g., Yoder 1976 and Kniffen 1976). The integration of data and the holistic approach that has occurred in this time has resulted in the confluence of theoretical and methodological considerations from traditional folklife studies, cultural geography, anthropology, history, urban studies (Rappaport 1969, 1976), and a multitude of other disciplines. One major area of concentration has been on folk architecture wherein a rather extensive if not always readily available corpus of data now

exists (see, for example, references in Glassie 1968a, 1968b, 1975; Yoder 1976; Brunvand 1968; Riedl et al. 1976; Walker and Haag 1974; Wilson 1975). The marvelous, descriptive, comparative, synthesizing and theoretically wide ranging works of Glassie, Kniffen, Riedl, Wilson and others who have examined patterns and traditions in folk architecture in the Eastern United States are regarded admiringly. We must, therfore, cautiously interpret the Burnsville Project lest we "assert anything and prove nothing" (Glassie 1975:13). The following comments seem appropriate if conservative:

1) All of the log dwellings (3) in the Burnsville Project Area for which architectural data and informant testimony could be gathered represent one or another variation of standard Appalachian folk housing types described for the Upland South Material Folk Culture Region with ties ultimately to the Mid-Atlantic and Northeast (Glassie 1968a:39, Figure 9) or the Southern Mountain Folk Architectural Complex (Glassie 1968b:339, Figure 1). These types include the two story rectangular dwelling, the double pen saddlebag type, and the Cunningham house which may be a heavily modified square notched corner dogtrot or I type house. Glassie (1968b:340, 363 n. 4) does not include the dogtrot house type in his Southern Mountain Folk Architectural Complex nor the square notched log technique of construction. The first has a distribution in the northern North Carolina piedmont, in Southeast Kentucky, mountainous Alabama, the Tennessee Valley, and the Deep South. A few examples are also reported from the Blue Ridge Mountains of North Carolina and Tennessee (Glassie 1968b:363 n.4). Square notched corner timbering is said to be prevalent in the Valley of Virginia, throughout the Virginia and North Carolina piedmont and Eastern Kentucky (Glassie 1968b:363 n.3). At present, without knowing exactly what the original configuration and appearance of the Cunningham home may have been, it would be foolhardy to make too much of the situation. This is especially true since we are not in a position to say whether other similar types of dwellings are or were to be found in Central West Virginia.

2) In terms of the techniques of construction and with the exception of the Cunningham house, log preparation is similar to that suggested for the Missouri and Arkansas Mountains, the Tennessee/North Carolina Blue Ridge (Glassie 1968a:112-13) as well as that observed in Lawrence and Johnson counties in Eastern Kentucky (Carlisle 1978, n.d.). Specifically, this involved hewing logs on the interior and exterior faces while the superior and inferior faces, though often decorticated, are unmodified. The rectangular planks thus created are laid up using a well executed corner notching technique, usually the half dovetail. The distribution of the popular half dovetail corner notch is widespread and it is reported from such diverse areas as Alabama (Wilson 1975), the Normandy Reservoir in Tennessee (Riedl et al. 1976:25), Central Pennsylvania (Glassie 1968b:351) and Eastern Kentucky (Carlisle 1978, n.d.).

3) In choice of wood, poplar (Liriodendron tulipifera) and oak of the white oak group (Quercus sp.) appear to have been the favorites of residents of the Burnsville area. Poplar, in particular, was well suited since it combined the qualities of high tensile strength, durability, workability, lightness, and availability (see Thomas 1974).

4) The McCauley barn reflects admirable versatility and adaptability to a constantly changing variety of rural needs. From its beginning as a simple, single log crib, it was easily expanded and modified by building shed-roofed attachments to three of its four sides; the building was also raised in height to provide for yet other needs. The round, saddle notched logs of the central crib serve to distinguish the techniques used in the barn's construction from those employed in what may well have been contemporaneous or nearly contemporaneous domestic dwellings. This lack of architectural sophistication in no way diminished the barn's basic utility to those whom it served. The adaptive use of the upturned horseshoe as a gate securing device is yet another example of rural economy and has been noted in the Normandy Reservoir of Tennessee (Riedl et al. 1976) among other places.

5) The Fleming house reflects an important occurrence of a combination of log construction techniques. While most of the dwelling reflects half dovetail corner notching, the juncture of the two pens was effected by the use of mortised piece sur piece construction. This technique, ultimately French in origin (Riedl et al. 1976:25) has also been noted in a single instance in Knox County, Eastern Tennessee (Fielder 1976). Its readily apparent economy in eliminating the need for a second parallel interior log wall in the two pen structure suggests that it may have been employed much more extensively than is currently recorded.

6) The Johnson dwelling's single most striking feature is the persistance of its "cat and clay" chimney into the 1970s. This type of chimney remains common in the New World only in the Ouachita Mountains of Arkansas (Glassie 1968a:113) and is probably ultimately derived from similar chimneys in England, Wales, and Ireland (Glassie 1968a:113). It may or may not be coincidental that this chimney type occurred on the home of a black resident of Braxton County. No other examples of the "cat and clay" chimney were observed in the area, and they are (as far as I know) non-existent in the predominantly white counties of Eastern Kentucky (Carlisle 1978, n.d.). It is tempting to suggest, therefore, that the presence of such a chimney in West Virginia represents a continuity with and manifestation of an older, more southern folk tradition that grew out of the unconscious cultural interaction between white and black residents of the Deep South. In this respect, it is most unfortunate that other aspects of the Johnson home could not be completely assessed prior to its dismantling for that step might well have resulted in the

cataloguing of other potentially ethnic architectural and functional components.

7) The term "board roof" for what is often called a shake roof in the North is an established lexical item in Braxton County as it is throughout much of Appalachia (Glassie 1968b:347). In contrast, I noted no such use of the term in Lawrence and Johnson counties in Eastern Kentucky--both of which remained loyal to the Union (apparently linguistically as well as politically) during the Civil War.

8) Two additional architectural features noted in the Burnsville area correspond to observations made in Eastern Kentucky (Carlisle 1978, n.d.). The first consists of the predisposition to employ sandstone pier supports (usually three) as the foundation for the sill logs of structures in the Burnsville area. This information was gathered from informant interviews since all of the structures except the Cunningham home were dismantled prior to the time of the study. Interestingly, the Cunningham structure, apparently somewhat aberrant in other architectural ways (see above) is unusual in this respect also. It is the only surveyed structure to employ a full though dry laid sandstone foundation. Any reconstruction of the log structures from the Burnsville Project Area should pay strict attention to this observation.

The second point to be made is the tendency to encase log structures in frame siding. This proclivity to "modernize" has been mentioned by Brunvand (1968:275-76) and Wilson (1975) and is attributed to a variety of non-folk influences including the appearance of reciprocating and circular sawmills during the second half of the nineteenth century (Riedl et al. 1976:18). The Cunningham home's use of square notched corner timbering instead of the more common half dovetail may reflect a conscious match of log skeleton and frameskin. It may simply be that the logs of the home were never meant to show. The square corners so easily obtained by using a square notch greatly facilitated the application of frame aberrancy with the prevailing architecture of the Burnsville area.

Of the domestic structures surveyed in Burnsville, only the Jesse Johnson home retained its original, unencased log appearance (despite the building of frame additions). Very tentatively, I would like to suggest that this may be another socioeconomic/ethnic trait. Blacks simply may not have had the financial wherewithall to "modernize" their homes by encasing them in neater, more finished frame siding (or by building stone rather than retaining "cat and clay" chimneys). If this supposition is borne out (and I stress that it needs to be tested), we may be seeing an architectural correlate of increasing racial and economic polarization in West Virginia in the post-Civil War decades.

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