



**PITTSYLVANIA COUNTY TOBACCO BARN SURVEY
FINAL REPORT**

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Barbara Hinkle, Jean Stone and Mark Joyner received Special Appreciation Awards from Preservation Virginia in 2014 for volunteering with the Tobacco Barns Survey. Not pictured are Sarah Capps, Deborah Dix and Debra McClane.

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PART I: INTRODUCTION

From 2013-2015, Preservation Virginia, with the assistance of volunteers, completed an architectural survey of tobacco barns in Pittsylvania County with funding from a Cost Share Grant provided by the Virginia Department of Historic Resources. The survey was part of Preservation Virginia's larger Tobacco Barns Preservation Program which began in 2012 and was designed to raise awareness of the importance of tobacco barns as a tangible symbol of the state's rich tobacco heritage.

SURVEY GOALS

The purpose of the survey was to document physical and historical information of historic tobacco barns in Pittsylvania County, Virginia for research and educational purposes and future preservation planning including the development of heritage tourism initiatives.

PART II: BACKGROUND

PRESERVATION VIRGINIA'S TOBACCO BARN PROGRAM

Preservation Virginia, a private non-profit organization and statewide historic preservation leader founded in 1889 has been dedicated to perpetuating and revitalizing Virginia's cultural, architectural and historic heritage for 125 years. Tobacco heritage is a central element of Virginia's history, tying the state together in countless ways. Some of the leading reminders of tobacco heritage are the historic tobacco barns that still exist, especially in southern regions of the state. Recognizing the lack of programs to protect the state's historic rural and agricultural structures, and recognizing that there are few heritage resources that are as unique and original to Southside Virginia than tobacco barns, Preservation Virginia launched the Tobacco Barns Preservation Program in 2012. The program was designed with several components which included public workshops on barn repair, an oral history project to record stories of elderly tobacco farmers, a grants project to provide funding to repair tobacco barns and an architectural survey of tobacco barns, which is the subject of this report.



M and M Construction repairing a tobacco pack barn as part of Preservation Virginia/JTI Mini-Grants Project to repair barns in a 3-county region.

TOBACCO HISTORY AND THE REGION

The variety of tobacco grown by Native Virginians, *Nicotiana rustica*, was considered bitter and disagreeable to Europeans arriving in Virginia in the 17th century. By 1612, John Rolfe began experimenting with different types of tobacco including a milder Spanish tobacco from the West Indies

known as *Nicotiana tabacum*. Rolfe's tobacco was shipped to England and proved to be popular causing many more settlers in Virginia to plant tobacco along the Tidewater's river bottoms. By the late 17th century, tobacco dominated Virginia's economy, replacing the fur trade with Native Virginians as Virginia's most productive industry.

In 1680, the General Assembly passed the first act that created port towns to establish tobacco warehouses. Tobacco was stored and inspected at the warehouses before it was exported to England. Fluctuating tobacco prices during King William's War, Queen Anne's War and the American Revolution caused many farmers to switch to growing food crops. However, tobacco production continued and as the Tidewater soils were depleted, tobacco production spread to more western parts of the state.

Bright-leaf Tobacco

Most of the tobacco grown in Virginia in the 17th and 18th centuries was a strong, dark-leaf variety but sometime after the War of 1812, demand for a milder, lighter, more aromatic tobacco arose. Farmers had been experimenting with different tobacco varieties and different curing processes for years and growers in the Virginia and North Carolina Piedmont began to notice that sandy soils would produce thinner, less robust tobacco plants. Around 1839 Stephen Slade, an enslaved person owed by Abisha Slade, near the Virginia border in Caswell County, North Carolina accidentally produced the first true "bright" tobacco by using charcoal to quickly restart a fire in a tobacco barn. The surge of heat turned the leaves bright yellow. Using Stephen's discovery, Abisha Slade developed a system for producing "bright" tobacco that used tobacco grown in thin soils and used charcoal for heat-curing.



Bright-leaf tobacco historical marker in Caswell County, NC.

Around the same time, the flue-curing method which carried heat around the interior of a barn by flues and kept smoke from infiltrating the leaves, was being perfected and was found to be well suited for the new brightly- colored tobacco. The terms “flue-cured” and “bright-leaf” tobacco eventually became almost synonymous. The fairly infertile, sandy soils of the piedmont were suddenly profitable and formerly unproductive Piedmont farms reached 20–35 times their previous worth. By 1855, the Piedmont region led Virginia’s tobacco market.



Tobacco farmer carrying leaves to a barn in Pittsylvania County. ca 1940
Image courtesy of Danville Historical Society.

By the outbreak of the Civil War, the town of Danville, Virginia had developed a bright-leaf market for the surrounding area. Danville was also the main railway head for Confederate soldiers going to the front. The soldiers brought bright-leaf tobacco with them from Danville to the lines and traded it with each other and Union soldiers. When the soldiers returned home at the end of the war, a national market quickly developed for bright-leaf tobacco. Tobacco growing and processing has dominated Virginia's economy for over three centuries, and continues to be an important part of the state's economy.

TOBACCO BARNNS

Types of Tobacco Barnns

Tobacco barnns generally fall into one of two categories: curing barnns and pack barnns. Curing barnns are used to cure tobacco leaves after they are harvested while pack barnns or pack “houses” are used to store, humidify, strip, grade and tie tobacco before it is taken to the markets.

Curing Barns

Curing barns have been in use in Virginia since the 17th century. Curing barns have been constructed in a variety of ways (wood-framed, log-built, timber-framed) depending on the date of construction and region of the state they were built in (see History of Tobacco Barns below), but the interiors usually contain tier poles in which tobacco leaves were hung on sticks to cure. The open spaces created by the tier poles are referred to as “rooms” or “bents.” Earlier tobacco curing barns had up to 6 or 7 rooms, but most late 19th – early 20th century curing barns have 4 or 5 rooms.



Tobacco curing barn in Pittsylvania County

The various types of curing methods (air-curing, fire-curing and flue-curing) result in different barn configurations and construction techniques. Air-curing and fire-curing barns are typically open and airy, while flue-curing barns are airtight. Flue-curing barns also have furnaces, often known as fireboxes, which are used during the curing process. Early fireboxes were built of stone or brick inside the barn with an opening extending to the barn’s exterior into which wood was fed. A system of flues or pipes originated from the firebox and circulated heat around the interior of the barn. Most of the early wood-burning fireboxes were replaced by more efficient oil or gas burners beginning in the mid-20th century.

Pack Barns

Pack barns or pack houses were used for several phases of tobacco leaf processing including storing the cured tobacco leaves, adding moisture back into the leaves for easier handling (ordering), stripping leaves from the stalk (before the leaves were primed or pulled individually), grading tobacco leaves (which was also called stripping in some regions of the state) and the art of tying bundles of leaves for market. Pack barns exhibit a remarkable variety of styles; however, most have a ground floor, a storage loft and an ordering pit. Ordering pits were dirt floor basements that contain rudimentary framing where cured tobacco leaves were hung so that moisture would infiltrate the leaves to make them pliable for the grading and tying processes.

Some of the existing pack houses in Southside Virginia are of log construction while others are wood-framed. Some pack houses were one structure while others were built of several adjoining structures that served distinct purposes. (See Part IV: Results of the Survey)



A pack barn owned by the Sparks Family in Pittsylvania County is partially log-constructed and partially wood-framed.



View of a severely eroded ordering pit in a pack barn. Interior trap doors usually lead to the ordering pits.



A one-room, wood-framed pack barn in Pittsylvania County.



A log and frame pack barn in Pittsylvania County showing various rooms and roof configurations. The partially below-ground, shed-roofed section in the foreground is the stripping room and the ordering pit is under the center section.



A mid- 20th century wood-frame and concrete block pack barn in Pittsylvania County. The shed-roofed section is the stripping room.

HISTORY OF TOBACCO BARNs

17th and 18th Century Tobacco Barns in Virginia

In the first few years of tobacco cultivation in Virginia, tobacco plants were covered with hay and left in the field to cure or "sweat." The leaves were also often hung on sticks and placed on scaffolds or fence rails to air cure. By the 1620's, wood-framed, weather-boarded tobacco barns were in use in the state. The average size of the barns was 30 by 20 but larger sizes were also present. During the curing process, the entire stalk of tobacco was cut and either pegged or split and hung on sticks. The plants were then placed on scaffolds around a tobacco barn to cure. After curing the sticks were placed on tiered poles or crossbeams inside the barn. Some evidence exists that the curing process may have been hastened by making small fires on the dirt floor of the barn. The fires may also have been used to control humidity.

In the eighteenth century, the setting of small and controlled open fires in the barn began to grow in popularity. The fires were covered with wet sawdust to prevent the crop or the barn from igniting. During the War of 1812, there appears to have been a considerable shift to fire-curing owing to the demand in Europe for a smoky flavored leaf ; however, the most common method to cure tobacco at the time appears to have still been air-curing.

19TH Century Barns and the Flue-Curing System

In the early nineteenth century in many parts of the state, the fire-curing process was beginning to be replaced by the flue-curing method in which fires were kindled in masonry furnaces built into the perimeter walls of the barns. The flues were usually trenches cut into the dirt floor and covered with sheet iron through which heat would radiate into the barn. As the hot air was drawn upward by a vent in top of the barn, it passed evenly through the tobacco leaves hanging from the tier poles. The flues also kept smoke from infiltrating the leaves.

Early flue-curing barns were timber –framed, wood-framed, log-built or in some rare instances, made of brick. A timber- framed tobacco barn fastened with mortise and tenon joints and wooden pegs, built in the 1820s-1830s, still exists in Pittsylvania County and a rare brick tobacco barn currently stands at Green Level Plantation in Campbell County, Virginia. The flue-curing system required the barns to be airtight and to be able to withstand nearly five tons of weight, which increased the number of log-built barns.

Early flue-cured log tobacco barns resembled log cabins, especially in their small size (about 18 square feet). The logs were typically pine or oak and could be hand-hewn or round. Some barns have lower logs

of oak and upper logs of pine. To reinforce the airtightness, the spaces between the logs were filled with chinking (small pieces of split wood or stones) and daubing (a clay and water mixture).

The barns had gabled roofs originally covered in cedar shingles with vents that could be opened or closed from the ground. Most had field stone foundations and either one or two small doors. Many tobacco barns had “lean-to” sheds built attached to the outside walls. Lean-tos served multiple purposes including providing a shady place for the stringing operation, protecting the fireboxes from rain and providing shelter to the attendant who slept overnight at the barn during the curing process. In eastern regions of the state and in some pockets of the Piedmont (for instance Drakes Branch in Charlotte County), bright-leaf tobacco was never grown, only “dark tobacco,” so air-tight, flue-curing barns were not needed. In these areas, the tobacco barns retain their air-curing or fire-curing characteristics of being open, airy, wood-framed structures. Some scholars maintain that flue-curing tobacco barns are more than utilitarian, but are a testimony to a way of life and a microcosmic culture that varied even from one county to another. (See Catherin Bishir)

20TH Century Tobacco Barns

The flue-cured tobacco barn changed little from the late 19th to the 20th century. Tobacco barns built in the 20th century were typically 18 feet by 18 feet and constructed of logs. Because of the increased use of tin, new barns were built with tin roofs and most of the older barn’s original cedar roofs were replaced with tin. Because of the scarcity of good pine, later flue-curing barn builders were often forced to try other materials especially in more eastern parts of Virginia and North Carolina. These efforts generally proved unsatisfactory because frame barns are poorly insulated. Various types of siding such as sheet metal, asphalt or tar paper were installed over the siding to improve insulation and a small number of barns were parged or stuccoed with plaster or concrete. By 1925, some tobacco barns were being built of concrete block.

Later Heating Systems and Bulk Barns

Before World War II wood was the preferred fuel for curing barns. After World War II, tobacco growers began to switch from wood to fuel oil as a heating source, but they still used flues that carried the combustion gases through the barn. In the early 1970s, growers began to switch to natural or propane gas, which was more readily available than fuel oil. Because gas burns so cleanly, growers were able to discard the flues, and began using direct-fired barns. In both cases, the older tobacco barns could be retrofitted with oil or gas burners.

As tobacco production continued to mechanize in the late 1960s, more fuel efficient, all-metal, prefabricated, rectangular “bulk” barns began replacing traditional barns. Interior racks in bulk barns could hold more tobacco per curing cycle than older barns and automated controls eliminated several labor intensive tasks.



Typical mid-late 20th century bulk barn.

PART II: SURVEY DESIGN

The survey focused on historic tobacco barns as rural, agricultural resources associated with tobacco production in Pittsylvania County from the mid-18th to mid-twentieth centuries. In many instances the barns were within large domestic assemblages. In these cases, the other historic resources were noted, mapped and photographed, but were not fully surveyed. Volunteers were trained in using the Virginia Department of Historic Resources survey guidelines and survey forms as well as architectural photography.

The coverage area for the survey was Pittsylvania County. Pittsylvania County lies in the southern Piedmont and borders North Carolina and was chosen for the survey due to its large number of still standing tobacco barns.

The barns surveyed were acquired in two different methods: A public announcement was made in several local news sources requesting that barn owners who were interested in having their barns surveyed to contact Preservation Virginia. This request produced hundreds of barns for the survey. To insure that the entire county was covered geographically, barn owners were contacted directly in “missed” areas of the county.

Data Collected

Department of Historic Resources reconnaissance and intensive survey forms were used during the survey. The data in the chart below was gathered in the field. Field maps were drawn for each site and a series of medium-high quality (5 megabytes or higher) digital photographs were taken of each barn. In several instances, the barn owners accompanied the surveyors and were able to provide important historical information about the barn or property.

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Overall Site Data	Barn Specific Data
Overall site description	Date or period of construction
Brief description of any nearby or associated resources	Exterior descriptions including form and design, construction techniques, openings, roof and siding and other building materials, chinking and daubing and any character defining features.
	Interior descriptions including curing systems (fireboxes or flues present, retrofitted, etc).
	Accurate building dimensions

	Descriptions of lean-to sheds, or other additions
	Description of alterations
	Physical condition assessment
	Possible threats to the resource



Surveying barns

PART II: RESULTS OF SURVEY

A majority of the sites surveyed were moderate sized early- to mid- 20th century rural farmsteads that contained tobacco barns; however some of the sites consisted of only tobacco barns either singularly or in clusters. A total of 232 tobacco barns were surveyed. Since the focus of the survey was tobacco barns, most of the historic dwellings and other structures were noted, mapped and photographed; however, in some cases they were fully surveyed.

The barns surveyed represent a sample of the standing tobacco barns in Pittsylvania County. County tax records indicate that over 2,000 tobacco barns currently exist in Pittsylvania County. This number is not all-inclusive since many tobacco barns are within wooded and out-of-the-way locations and are not taxed. The survey attempted to investigate all parts of the county; however barn owner interest was greatest in the Callands community, therefore a disproportionate number of tobacco barns were surveyed in the Callands area. Northern parts of the county, north of Gretna, are underrepresented; however, the northern parts of the county do appear to contain a lower number of standing tobacco barns. It is unknown if this is due to a large number of tobacco barns being demolished in the northern parts of the county or if this area historically had less tobacco production and therefore fewer barns. During the survey, it appeared that the largest concentration of extant tobacco barns are located in the central and eastern parts of the county in the Blairs, Keeling, Kentuck and Ringgold communities.

The majority of barns surveyed were curing barns; however 35 pack barns, 3 barns that served as both curing barns and pack houses and 1 barn that functioned as both a curing barn and a prizery were also surveyed. The function of 5 barns was unknown either due to limited access or the condition of the barn.

Type of Barns	Number of Barns
Curing Barns	188
Pack Barns	35
Curing and Pack Barns	3
Curing and Prizery Barn	1
Unknown	5

The majority were log-constructed barns with V-notched corners, tin-covered, gable-roofs and field stone foundations. A small percentage of the barns were square-notched, diamond-notched or half dovetail notched. Most of the logs were hand-hewn. Most of the chinking consisted of small pieces of split wood

and the daubing was clay; however, small stones were used for chinking in some instances and some of the barns were daubed with mortar. Most of the wood-framed barns were built in the mid- later 20th century and had CMU block foundations.



Hand-hewn logs, Compton barn.



Unusual stone chinking, Jones Barn

The interiors of the barns consisted of one undivided room with a dirt floor and with tier poles that started at approximately 5-6 feet from the floor and extended to the ceiling. Only the barns that had been converted into cabins had concrete or wooden floors. The majority of barns surveyed had been converted in the 20th century to use fuel oil or gas. In most of these cases, the original stone or brick fireboxes had been removed. A few barns retained the original fireboxes. (See F.L. Reynolds Barn 1)



An oil burner next to an intact stone firebox.

The majority of barns surveyed were built in the early- mid 20th century. Six barns were built in the 19th century and four was deemed to have been built in the late 19th-early 20th centuries. The exact date of construction of tobacco barns is typically difficult to determine unless the barn owner is aware of when the barn was built.

Approximate Date of Construction	Number of Barns
Early 19 th Century	1
Mid 19 th	5
Late 19 th -Early 20 th	4
Early 20 th	99
Early- Mid 20 th	48
Mid 20 th	65
Mid-Late 20 th	9
Late 20 th	1

A sample of mid-to late 20th century “bulk barns” were surveyed as well as two “transitional” bulk barns. The transitional barns were curing barns built in the mid -20th century by farmers experimenting with the bulk barn concept that had been introduced at that time. Bulk barns utilized different building materials (concrete and metal) and more efficient heating methods. The two transitional bulk barns were rectangular concrete block barns that had interior racks and used oil or gas heating systems. The owner of

one of the transitional barns (Lawrence-Wilson Barn) stated that they did not function as well as intended and were quickly superseded by the prefabricated, metal bulk barns.

19th Century Barns

In general, the 19th century barns appeared to be better built than the 20th century barns. The access to old growth trees is evident in the large oak, including chestnut, and yellow pine logs. Many tobacco barns built in the 19th century also have superior corner notching. The size of the barns appears to have remained constant (approximately 18 by 18 feet and 20-25 feet in height) from the late 19th to the 20th centuries; however, earlier 19th century barns (Nuckols farm) were larger, taller and had steeper pitched roofs. The brick tobacco barn at Green Level in Campbell County measured 60 by 75 feet. The roof pitch was likely due to the necessity for taller barns since the method of production at that time was to cut the entire stalk of tobacco at one time and hang it on sticks in the barns. Later brightleaf tobacco leaves were primed or pulled individually and hung on sticks which required less distance between tier poles. The only timber –framed barn surveyed (Nuckols, Barn 1) was built in the 19th century. (see Notable Barns below).

Construction Method	Number of Barns
Timber-framed	1
Log	164
Log and Wood-Framed	10
Wood-Framed	35
Wood-Framed and Concrete Block	2
Concrete Block	7
Prefabricated Metal	9
Unknown	4

Notable barns

Pack Houses

Some of the most remarkable barns surveyed were pack barns because of the large variety of configurations. Because of this, all of the pack barns surveyed are considered to be “notable barns.”

Pack barns or pack houses were used for several phases of tobacco leaf processing including storing the cured tobacco leaves, adding moisture back into the leaves for easier handling (ordering), striping leaves from the stalk (before the leaves were primed or pulled individually), grading tobacco leaves (which was also called stripping in some regions of the state) and the art of tying bundles of leaves for market. Most

pack barns contain a ground floor, a storage loft and an ordering pit. Ordering pits were dirt floor basements that contain rudimentary framing where cured tobacco leaves were hung so that moisture would infiltrate the leaves to make them pliable for the grading and tying processes. Some of the pack houses surveyed were of log construction, some were wood-framed and others were both log and framed. Some pack houses were one structure while others were built of several adjoining buildings that served distinct purposes.

1. Compton (071-5396) Pack Barn

The Compton farm pack barn is a mid-late 19th century pack barn that consist of four different structures or rooms each of which had a separate function. See site form for further description.



2. Yates/Mountain Land Company (071-5118) Pack Barn

The Yates/ Mtn. Land Company pack barn #1 is an impressive log- built, multi-structure pack barn. The two structures on the ends were used to store cured leaves while the middle structures were used to grade or strip and tie or bundle leaves for market. The ordering pit existed under the far left structure. This pack barn was part of the Carter/Yates family farm. It stood on State Route 29, north of Danville for at least 100 years but was dissembled in 2013 along with two nearby curing barns. A cemetery at the site



was moved in the 20th century to a nearby property. The main dwelling and other outbuildings were destroyed when Route 29 was expanded in the 1960s.

3. Chapin/Oakes (071-5383) Pack Barn

The Chapin-Oakes pack house has a central structure made of logs and two adjoining frame structures. The central building was used to store cured leaves. The two adjoining structures were used for grading and tying leaves. An ordering pit exists under the central building.



4. Nuckols (071-5406) Curing/Pack Barn

The Nuckols Barn #1 is one of the oldest tobacco barns in Pittsylvania County and dates to the 1820s. It is a highly unusual barn because it is built of timber- frame construction using beams with mortise and tenon joints and wooden pegs. The barn was originally a curing barn but was used as a pack house in later years.





Timber framing inside Nuckols Barn 1

5. Nuckols (071-5406) Curing/Prizery Barn

The Nuckols Barn 2 is an early-mid 19th century curing barn that was at one time used as a prizery. The barn is taller than 20th century barns and the tier poles are farther apart than most barns.



6. Sparks (071-5399) Curing Barns

The Sparks curing barns (Barns 1 and 2) appear to be mid -late 19th century curing barns. They are slightly smaller in size than later 18 by 18 feet barns and have steeply pitched roofs.



PART V: SUMMARY

This survey is an attempt to gather data on historic tobacco barns in Pittsylvania County, Virginia; it is not a comprehensive study of tobacco barns in Southside or the state. A total of 232 tobacco barns were surveyed, the large majority of which were built in the early to mid -20th century. While attempts were made to locate earlier tobacco barns, more 19th century barns likely exist in Pittsylvania County that were not examined. For this reason, the survey represents a fairly comprehensive study of early-to mid- 20th century tobacco barns in Pittsylvania County, but not of 19th century tobacco barns. One of the most notable discoveries during the survey was the large variety of pack barns that exist not only in Pittsylvania County but in other parts of the state that have not been surveyed. The existence of the timber-framed tobacco barn on the Nuckols Farm was also of note. Tobacco barns represent some of the most original and important agricultural structures in the state. More county-wide surveys of tobacco barns need to be completed so that a thorough statewide survey of tobacco barns can be done.

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