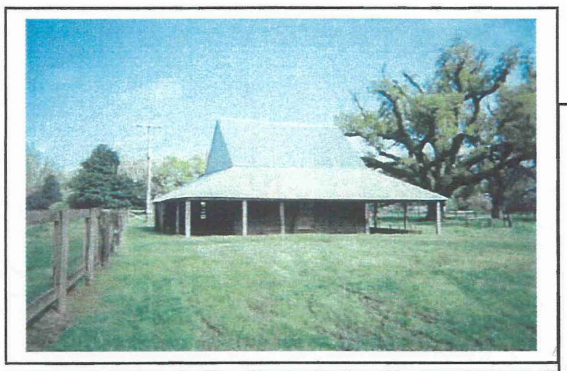
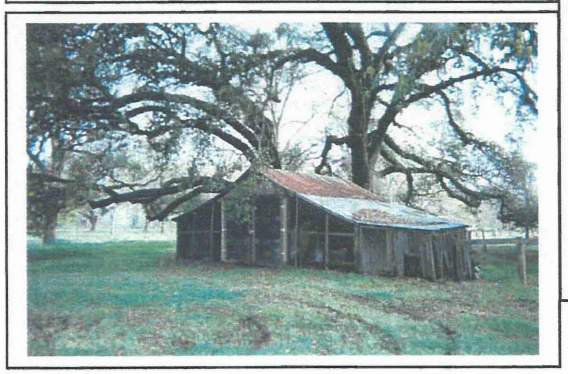
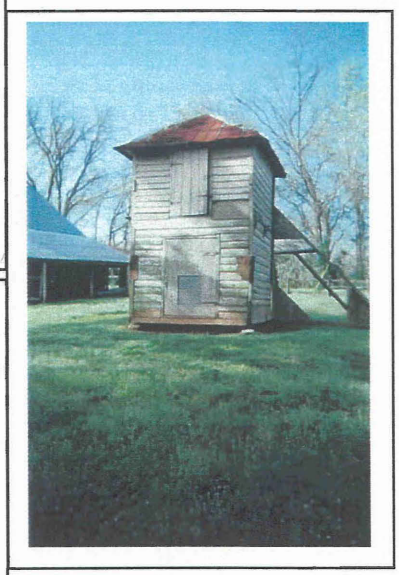
Historic Structures Report

November 2003

Magnolia Plantation
Blacksmith's Shop, Pigeonnier, and Carriage Shed
Cane River Creole National Historical Park
Natchitoches, Louisiana







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TECHNICAL INFORMATION CENTER
DENVER SERVICE CENTER
NATIONAL PARK SERVICE

Project Team and Methodology

Project Team

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Methodology

The contract for this Historic Structure Report restricted the amount of background research for this building to the information provided by the Park Service. In preparation for this report, information was obtained by Hartrampf, Inc. from the National Park Service regarding the history of the plantation and previous work completed by the Park Service at the buildings under consideration: the Blacksmith's Shop, the Pigeonnier, the Carriage Shed, and the Hospital/Overseer's House. The documents obtained from the National Park Service included Dr. Ann Patton Malone's *Magnolia Plantation Overview, Historic Structure Assessments* for the Blacksmith's Shop and the Hostpital/Overseer's House completed by Ali Miri, Historical Architect, of the National Park Service, the *Comprehensive Subsurface Investigation* for Magnolia Plantation completed by Dr. Bennie Keel and his staff of the Southeastern Archaeological Center, and *Building Materials Assessments* for the Blacksmith's Shop, the Pigeonnier, and the Hospital/Overseer's House by Barbara Yocum, Architectural Conservator at the Northeast Cultural Resources Center of the National Park Service. Electronic files of HABS drawings of the buildings of interest were also obtained from the Southeast Regional Office of the National Park Service. In addition to these resources, Hartrampf, Inc. already possessed copies of the General Management Plan for the park as well as background information on the history and social context of the general area in the form of Dr. Ann Patton Malone's unpublished manuscript, "Oakland Plantation – It's People's Testimony," and "Bermuda-Oakland Plantation, 1830-1880," an unpublished masters thesis by Carolyn Breedlove. Federal Census records provided additional insight into the changing demographics of the plantation. *Back of the Big House - The Architecture of Plantation Slavery,* by John Michael Vlach was also consulted.

An initial site visit was conducted on March 25 through March 29 of 2003 by members of the project team: Chau Tran and Deborah Harvey of Hartrampf, Inc., and Jack Pyburn and Jackie Renell of the Office of Jack Pyburn, Architect, Inc. During this visit, photographs and measurements of the buildings were taken, the Park Service staff was interviewed regarding stabilization measures already completed, and Ms. Betty Hertzog was interviewed regarding the general history of the plantation. The Hertzogs had previously allowed staff from the National Park Service to electronically scan some of

their large collection of historic photographs, and the staff at Cane River Creole National Park allowed the report team to make copies of those files that are pertinent to this report. A second site visit was made by Jack Pyburn, AIA, of the Office of Jack Pyburn, Architect, Inc. on May 1 and 2 of 2003 to verify some of the initial information.

Draft versions of this report were submitted to the National Park Service for review and comment at the 75% and 95% milestones, and comments, changes, and additional information were incorporated into the 95% and Final Submittal reports.

Acknowledgements

Hartrampf, Inc. and the Office of Jack Pyburn, Architect, Inc. would like to acknowledge the assistance of several people in the preparation of this report. Eric Ford, Project Supervisor at the Cane River Creole National Historical Park, and his staff were most helpful in locating and sharing information that they had obtained from the Hertzog family regarding the portion of Magnolia Plantation now contained within the confines of the park. In particular, Rick Gupman and David Williamson made themselves available and helped to facilitate locating and scanning of information in the park archives. Barbara Yocum of the Northeast Region Cultural Resources Center kindly clarified some of the information found in her Materials Analysis report. Our thanks to several workers at Magnolia Plantation who provided keys, information, and directions as needed, always with good humor. The writers of this report would like to thank Ms. Betty Hertzog for her patience in answering questions regarding the buildings at Magnolia Plantation, some of which she has probably answered many times. The assistance of these kind people greatly facilitated the writing of this report. Thanks also to the Denver Service Center for the use of their drawings of the Blacksmith's Shop.

Executive Summary

This report deals with three small outbuildings at the Magnolia Plantation unit of the Cane River Creole National Historical Park in Natchitoches Parish, Louisiana. The buildings are the Blacksmith's Shop, the Pigeonnier, and the Carriage Shed. These buildings were investigated during a site visit conducted by members of the project team on March 25 through March 29 of 2003, with a follow-up visit conducted on May 1 through May 2 of 2003. Information collected during the site visits, background information and previous research information obtained from the Park Service, and additional historical research resulted in this report on the three historic structures.

Historical Summary

About 1820, Ambroise LeComte I began to purchase land along the Red River (now known as the Cane River) that eventually became Magnolia Plantation. His grandson, Ambroise LeComte II extended the LeComte holdings even further. Although the exact date of construction of the Blacksmith's Shop, Pigeonnier, and Carriage Shed is unknown, they can certainly be considered historic structures contributing to the overall understanding of the plantation. The two earliest structures, the Blacksmith's Shop and the Pigeonnier are located on land that appears to have been part of the property purchased by Ambroise LeComte I from Barthelemy LaCour in 1824. The Carriage Shed, though of twentieth-century vintage, is located on lands purchased by Ambroise LeComte II from Gasparite LaCour in 1835. An 1858 plat map of Magnolia Plantation completed for Ambroise LeComte II by surveyor, George Walmsley, shows both the Blacksmith's Shop and a Pigeonnier in existence. While it is likely that the Blacksmith's Shop shown on the plat is the same as the one that currently stands at Magnolia Plantation, the Pigeonnier is shown at a different location on the plat map than the one at which the current Pigeonnier stands. It is possible that the current Pigeonnier is the same as that shown on the plat map but moved to its present location. However, this possibility has **not** been established as fact.

After Ambroise LeComte's daughter, Atala LeComte married Matthew Hertzog, the couple undertook the management of Magnolia Plantation for her father. Ambroise LeComte eventually moved to his townhouse in Natchitoches, and Matthew and Atala Hertzog moved into the Main House. Unfortunately, during the Red River Campaign of the Civil War, this house burned to the ground. The Hertzogs were obliged to move into another structure on the plantation that had previously been used as a slave hospital until they could afford to rebuild the Main House. The rebuilding did not occur for thirty years until, in 1897, the Hertzogs moved into a new Main House constructed on the foundations of the old.

Although a way of life vanished with the Civil War, most of the built environment that had supported it continued to be used in much the same way after the war. Some buildings fell into disuse and disrepair and were eventually dismantled and the useful parts recycled for some other use. Some buildings were remodeled to facilitate new or

expanded use. Some buildings were relocated to more convenient locations. And, some new buildings were constructed. The Blacksmith's Shop was likely among those that remained and continued to be used for their original purposes. The Pigeonnier may be one that was moved to a more convenient location. The Carriage Shed is definitely one that was constructed as a new need – the shelter of an automobile or gasoline-powered motorized farm equipment – arose. By the 1930s, some gasoline-powered motorized farm equipment was in use on Magnolia Plantation.

During the 1950s, the Hertzogs relied increasingly on machinery to do the farm work and less on manpower. Fewer workers were needed on the farm due to mechanization, and fewer workers were available due to outmigration of young workers to more lucrative jobs in factories in the north. The Hertzogs diversified their crops and revived the raising of cattle as a cash crop. By 1976, many buildings on the plantation were no longer needed for the management of the plantation and were in danger of being lost due to deterioration and vandalism. Reluctant to see the historic structures from this part of their history lost, the Hertzogs donated the portion on which many of the buildings stood to Museum Contents, Inc., a non-profit preservation group of Natchitoches, with the understanding that the group would locate a suitable patron to preserve and protect the structures. The buildings were added to the National Register of Historic Places in 1979, and, in 1996, ownership of the tract of land on which they stood was transferred to the National Park Service to become part of the newly-designated Cane River Creole National Historical Park.

The National Park Service immediately embarked on stabilization activities aimed at curtailing the deterioration that the structures in their care were experiencing. Some of these activities included replacing deteriorated roofing, shoring sagging walls, floors or ceilings, removing debris and damaged materials, protecting historic materials with plywood and screening, and rebuilding deteriorated foundations. These activities are chronicled in the following portion of this summary. On January 3, 2001, the Blacksmith's Shop, Pigeonnier, and Carriage Shed were named contributing structures when Magnolia Plantation, part of which is included in the Cane River Creole National Historical Park, was designated a National Historical Landmark.

Architectural Summary

The Blacksmith's Shop, Pigeonnier, and Carriage Shed are important plantation support buildings that contribute to the historic built environment of Magnolia Plantation. Each serving a unique function of the daily plantation operations, these buildings have retained a significant amount of their fabric and character since their initial construction. The Blacksmith's Shop and Pigeonnier are located in close proximity to one another in the northwestern corner of the current National Park Service property. Both of these buildings date to the earlier years of plantation life at Magnolia, as indicated by several architectural details, such as the presence of hand-hewn lumber, mortise-and-tenon and pegged joinery, and early, wrought-iron strap hinges. The Carriage Shed is located southeast of the Blacksmith's Shop and to the west of the Overseer's House. Available information suggests the date of the Carriage Shed's construction to be the second quarter of the twentieth century (1925-1950). The most revealing piece of information regarding

this date is the use for which it was likely constructed, as a garage for automobiles and/or motorized farm equipment. Other features of the building, such as the circular-sawn and creosote-treated pole framing, common wire nails, and galvanized 5-V roofing were typical in that period. While these details do not definitively date the building, given its overall appearance, it is unlikely that the Carriage Shed predated this timeframe.

To accomplish the proposed interpretive goals of the General Management Plan, it is necessary to preserve and convey the 1960 characteristics of the Blacksmith's Shop, Pigeonnier, and Carriage Shed. The appearance of these buildings in 1960 represented their function on the plantation. Though each building is different in use, the three structures share the common purpose of supporting plantation life. The physical qualities of the Blacksmith's Shop, Pigeonnier and Carriage Shed in 1960 are summarized as follows.

The Blacksmith's Shop

- The walls were exposed, heavy-timber framing infilled with *bousillage*[1], which was in a partially deteriorated state. The original hewn and circular-sawn timber frame was substantially intact.
- The main portion of the building had a gabled roof oriented northeast to southwest. The roofing on the gable was 5V-galvanized metal.
- A shed, comprised of a single-pitched roof supported by wood posts bearing directly on the ground wrapped around all four sides of the building. The roofing on the shed was corrugated, galvanized metal.
- A livestock pen existed in the western corner of the wrap-around shed. Portions of the pen were enclosed with circular-sawn boards and galvanized sheet metal.
- A fence likely enclosed the northeastern end of the livestock pen.
- A closet existed in the western interior corner of the main building.
- The ceiling of the main room was the unfinished floor framing and flooring of the attic. There were two openings in this flooring.
- A wooden ladder provided access to the attic via the opening in the attic floor near the southwestern wall.
- Relics of the blacksmithing craft present in the building include: two wooden workbenches, a round, plaster-coated forge, and, possibly, a blower. Many other artifacts from the Blacksmith's Shop are in the National Park Service collection. Other significant features of the building that likely existed at that time include: two shoe soles nailed to the southwest exterior wall, handprints in the *bousillage* of the southwest interior wall, and branding imprints on the interior of the main door to the building.
- There were four door and two window openings in the building. The four doors were located as follows: one on the southeast elevation of the main building, one on the southwest elevation of the attic, and two on the southeast elevation of the

[1] *Bousillage* was a common means of creating walls generally used in Louisiana until the close of the Civil War or shortly thereafter. *Bousillage* was a mixture of clay and plant material or animal hair installed within a system of horizontal lath, called *barreaux,* affixed between the heavy timber upright members of a wall. The *bousillage* could remain an exterior finish of a structure, but it was usually either plastered and whitewashed or covered with board siding to protect the material.

livestock pen. The two windows were centrally located on the northeast and southwest elevations of the main building.

The Pigeonnier

- The exterior walls were finished with lapped siding and whitewashed.
- The roofing was 5V-metal applied over historic wood shingles and shingle lath.
- The original hewn and circular-sawn frame was intact, unfinished, and exposed to the interior.
- The stone foundation piers were the same as those that exist today.
- Shelving existed on the interior walls of the first story.
- Pigeonholes existed on the southeast, southwest, and northwest elevations.
- Pigeon roosting perches existed on the interior of the building, immediately beneath the pigeonholes and on the interior of the second story walls.
- The interior ceilings were unfinished. The first story ceiling was the exposed floor framing and flooring for the second story. The second story ceiling was the exposed roof framing and underside of the historic wood shingles.
- Two board-and-batten doors existed on the northeast elevation of the building. Each door provided access to one of the two stories.

The Carriage Shed

- The exterior walls were finished with board-and-batten siding.
- The roof and wall framing structures were exposed to the interior and were unfinished.
- The roofing was 5V-corrugated metal.
- A pen existed at the southeast end of the shed.
- The floor of the building was dirt.

Summary of National Park Service Work

The National Park Service is actively working towards the stabilization and rehabilitation of the buildings and landscapes that comprise the portion of Magnolia Plantation in its possession. These efforts have included 1996 materials analyses and 1997 historic structures assessments for the Blacksmith's Shop and Pigeonnier, as well as a 2002 Design Analysis for the Blacksmith's Shop. The Blacksmith's Shop, Pigeonnier and Carriage Shed have each been stabilized. According to the Design Analysis completed by the Denver Service Center for the Blacksmith's Shop, a general contractor selected by the National Park Service completed stabilization work on all the buildings in 1998. Additionally, modifications were made to the Blacksmith's Shop. The work completed on each building is listed below.

The Blacksmith's Shop

- Installing screen wire over the interior and exterior *bousillage* walls to deter any additional deterioration caused by carpenter bees and other insects.
- Installing new 5-V and corrugated metal roofing on the gable and shed roofs.
- Replacing the historic log rafters and shingle lath on the gable roof with new materials similar in size, shape, and configuration.

- Replacing the existing rafters and widely spaced metal roofing lath with new materials similar in size, shape, and configuration.
- Replacing all but one of the shed support posts existing and installing several new shed support posts similar in size, shape, and configuration to those that existed historically.
- Replacing deteriorated portions of the sill beams and connecting post framing of the main *bousillage* walls.
- Replacing the historic flush-board siding over the exterior gable ends of the attic with new lapped siding.
- Constructing and installing a board-and-batten door in the opening of the southwest gable end.
- Removing and storing the historic, but deteriorated, attic ladder.

The Pigeonnier

- Removing and storing the historic board-and-batten door from the first floor and installing a temporary stabilization door in the opening.
- Installing screen wire over the pigeonholes, metal panels over some of the rafter openings in the eaves, and protective plywood on portions of the exterior walls where the historic siding is missing.
- Installing a temporary plywood-and-lumber brace along the exterior western corner boards to provide lateral support to the building.

The Carriage Shed

- Installing two new screened doors in the opening to the central bay.
- Installing new, galvanized, 5-V metal roofing on the southeastern bay and new, galvanized, corrugated metal roofing on the dog pen.
- Reconstructing some of the interior wall framing and the entire roof framing with modern lumber.

The work preformed on the Blacksmith's Shop, Pigeonnier, and Carriage Shed by the contractor working for the National Park Service to date has, in some cases, not been representative of the level of preservation these buildings deserve. In particular, the installation of new, galvanized metal roofing on the Blacksmith's Shop has had a dramatic effect on the character of both the building and the overall historic setting in that area of the plantation, given the non-weathered appearance of the metal. On the other hand, the National Park Service has taken some positive steps to protect the buildings from future deterioration. The screen wire that was installed over the Blacksmith's Shop walls, while visually not the optimal long-term solution, has been effective in protecting the *bousillage* from further carpenter bee damage. This is a temporary solution provided by the National Park Service preservation crew.

Summary of Recommended Treatments

Understanding the history of Magnolia Plantation will be best achieved by protecting the remaining historic buildings, structures, and landscapes for future generations. The optimal treatment approach for buildings is based on the knowledge of, and respect for, their historic materials and how they are assembled. As prescribed in the General

Management Plan, the buildings are to be preserved and restored to their 1960 character. The General Management Plan has prescribed that the Blacksmith's Shop, Pigeonnier and Carriage Shed be interpreted from the exterior. The history and condition of these buildings has been researched and analyzed, and recommended treatments have been established for the consideration of the National Park Service. These treatments are summarized as follows.

The Blacksmith's Shop

- Unearth and preserve the existing brick piers wherever possible. Where the historic materials have significantly deteriorated, repoint and/or rebuild the piers as necessary.
- Eliminate all contact between the sill beams and the ground to prevent further deterioration of the historic materials due to moisture and insect damage. This recommendation will require the evaluation of the existing treatment possibilities and the impact each may have upon the historic materials and overall integrity of the structure. Several approaches to treatment are included in Part Two of this report.
- Protect the *bousillage* walls from further deterioration and insect infestation. This recommendation will require the evaluation of the existing treatment possibilities and the impact each may have upon the historic materials and overall integrity of the structure. Several approaches to treatment are included in Part Two of this report.
- Preserve all existing doors and windows. Restore the interior of the main door to the building, retaining the graffiti that exists over the historic branding imprints. According to Park officials, the graffiti was applied some time prior to 1960 and, therefore, is significant to the historic appearance of the building. Re-hang any historic doors that still exist but are currently stored elsewhere. If none of the removed historic doors still exist, replacements should be constructed to match those that existed historically using the 1986 Historic American Building Survey (HABS) drawings of the Blacksmith's Shop as a guide. Likewise, the missing shutter in the southwest elevation should be restored if still existing. If this shutter no longer exists, a replacement shutter should be constructed to match that which existed historically using the remaining shutters on the Blacksmith's Shop as a guide.
- Preserve the wrap-around shed and livestock pen.
- Retain the dirt floor within the shed area, livestock pen, and interior of the first floor.
- Remove the temporary shoring beneath the attic floor. Reinforce the attic floor framing from above the attic floor structure, if structurally necessary. This treatment could be accomplished through the installation of a tension cord running from the ridge of the roof structure to midpoint of the attic floor framing.
- Restore the forge by cleaning and repointing the bricks using the appropriate mortar to match the historic mortar in appearance. This could be a treatment such as a simple lime mixture. The finished result should present a seasoned appearance of the forge that will support interpretation. Preserve and restore, as

necessary, the crucible mounted inside the forge and the date inscribed upon the top of the forge.

- Retain and preserve the woodworking benches located along the northeast and southwest interior walls.
- Retain and preserve the closet located in the western corner of the interior. Restore the loose closet floorboard currently stored inside the closet.
- Reconstruct the ladder once located along the southwest interior wall that provided access to the attic. According to National Park Service staff, the historic ladder was removed due to its deteriorated condition and is currently stored inside one of the slave cabins at Magnolia. The ladder should be for interpretive purposes only and should not be used for access to the attic. Rope stanchions should be used to prevent access to the ladder.
- Provide security to the building via operable screens attached to the exterior walls and over the existing window openings. These screens can be opened for interpretation of the *bousillage* walls and the historic window shutters, which can also be opened for interpretation of the building interior. Locking hardware can be installed upon the framing for the screens and on the existing main door to the building.

The Pigeonnier

- Restore and rebuild the stone foundation pier.
- Restore and repair, where necessary, the existing clapboard siding. This treatment includes whitewashing the exterior and repairing the deteriorated pigeonholes.
- Restore the existing pigeon perches on the exterior of the building. Reconstruct any missing perches to match those that are in place.
- Examine the existing roofing for any existing damage or moisture infiltration. Repair where necessary using materials that match the historic.
- Re-hang the historic board-and-batten door in its original opening. This door is currently stored inside the building
- Remove all organic refuse that has accumulated inside the building, paying special attention to the second floor. Repair damaged flooring as necessary, using materials to match the historic.
- Restore the existing wall and ceiling framing and pigeon roosting perches inside the building.

The Carriage Shed

- Retain and restore the dog pen.
- Restore the existing board siding. Replace the portions of the siding that are missing or are in poor condition. Consider replacing the missing battens on the joints of the board siding, based upon information provided in a circa 1999 photograph.
- Examine the existing roofing for any existing damage or moisture infiltration. Repair where necessary using materials that match the historic.
- Install supplemental support for the framing in a manner that does not detract from the historic characteristics of the structure.

- Remove the screen doors from the southwest opening of the central bay. Reconstruct the deteriorated board-and-batten door on the southeast elevation of the shed.
- Retain the dirt floor in both the shed and dog pen.
- Retain and preserve the structural framing of the interior walls and roof.
- Retain and secure the existing electrical components for interpretive purposes.

The National Park Service is committed to educating the public on the history and function of Magnolia Plantation. Therefore, it will be important to faithfully treat the Blacksmith's Shop, Pigeonnier, and Carriage Shed, as well as the remaining buildings at Magnolia, in a manner that will achieve a consistent presentation of their composition, materials, and assembly in 1960, as established in the General Management Plan. This treatment approach will ensure the visitor a glimpse at how Magnolia Plantation supported agricultural activities throughout its history as a working, productive business.

Administrative Data

Locational Data:

Building Name: Blacksmith's Shop
Building Address: Magnolia Plantation, Derry, Louisiana, 71456
LCS #

Building Name: Pigeonnier
Building Address: Magnolia Plantation Derry, Louisiana, 71456
LCS #

Building Name: Carriage Shed
Building Address: Magnolia Plantation, Derry, Louisiana, 71456
LCS #

Related Studies:

Keel, Bennie C., with Christina E. Miller and Marc A. Tiemann, *A Comprehensive Subsurface Investigation at Magnolia Plantation.* Tallahassee: Southeast Archeological Center, 1999.

Malone, Ann Patton, Ph.D., "The Magnolia Plantation Overview," unpublished MS, November 1996.

Miri, Ali A., *Historic Structure Assessment Report – Blacksmith's Shop, Magnolia Plantation.* Atlanta: Southeast Field Area, National Park Service, 1997.

National Park Service, *Cane River Creole National Historical Park General Management Plan/Environmental Impact Statement,* 2001.

National Park Service, *Design Analysis – The Blacksmith's Shop – Preserve and Stabilize Magnolia Plantation Structures,* Denver: Denver Service Center, 2002.

Yocum, Barbara A., *"Magnolia Plantation: Building Materials Assessment and Analysis.* Lowell, Massachusetts: Northeast Cultural Resources Center, Northeast Field Area, National Park Service, 1996.

Cultural Resource Data:

National Register of Historic Places: The LeComte-Hertzog Plantation (Magnolia Plantation), was listed in the National Register of Historic Places in 1979.

National Historic Landmark: The Blacksmith's Shop, the Pigeonnier, and the Carriage Shed were named contributing structures when Magnolia Plantation was designated a National Historic Landmark on January 3, 2001.

Period of Significance: The period of significance for Magnolia Plantation begins with the founding of the plantation and concludes about 1960, around the time that the last of the sharecroppers and tenants were leaving the plantation.

Proposed Treatment and Use: According to the National Park Service General Management Plan for this park, the Pigeonnier and the Carriage Shed are to be preserved and interpreted from the exterior only as structures contributing to the overall interpretation of the plantation landscape, with no visitor access to the interior. Though the General Management Plan also calls for the interpretation of the Blacksmith's Shop from the exterior only, Park personnel wish to interpret both on the exterior and the interior, with limited visitor access to the interior. This report gives consideration to that desire.



Blacksmith's Shop and Pigeonnier, Magnolia Plantation, 2003

PART I
DEVELOPMENTAL HISTORY

Historical Timeline

1753 – Jean Baptiste LeComte I applies for and received a French land grant on both sides of the Red (now Cane) River.

1756 – Jean Baptiste Lecomte I marries Marguerite LeRoy. It is believed that they settled in the Shallow Lake area, across the river from present-day Magnolia Plantation.

1760 – Ambroise Lecomte I born.

1786 – Jean Baptiste LeComte II born to Ambroise LeComte I and his wife, Helene Cloutier.

1793 – Invention of the cotton gin by Eli Whitney.

1799 – Whitney gins are first sold commercially, making cotton a viable cash crop for large-scale production. Cotton becomes a major agricultural crop along the Cane River.

1806 – Jean Baptiste LeComte II marries Mary Anne Cephalide Lambre.

1807 – Ambroise LeComte II born.

1815 – End of the War of 1812; beginning of a cotton boom in the Lower South.

1820 – 1835 – Ambroise LeComte I and Ambroise LeComte II systematically buy riverfront land from family and neighbors in need of cash. This includes the land on which the Blacksmith's Shop, Pigeonnier, and Carriage Shed are currently located. The purchases may have included the Blacksmith's Shop and Pigeonnier, though the Pigeonnier has been moved from an earlier location to the present site.

1827 – Ambroise LeComte II marries Julia Buard.

1845 – Julia Buard LeComte dies.

1846 – Ambroise LeComte II marries Lise Victorie Desiree Sompayrac.

1850 – Federal census records show Ambroise LeComte II living in the LeComte townhouse in Natchitoches with his wife and their combined family.

1851 – Construction of a "new house" is documented in the correspondence of Magnolia Plantation overseer, W. B. Eddins with Ambroise LeComte II.

1851 – Blacksmith, Daniel, dies from eating ashes. Charles becomes blacksmith in his place.

1852 – Ursula Atala LeComte, daughter of Ambroise LeComte II, marries Matthew Hertzog. They apparently manage Magnolia Plantation for Ambroise LeComte II after the death of the overseer, W. B. Eddins, in September of that year.

1858 – Plat of Magnolia Plantation drawn by G. S. Walmsley for Ambroise LeComte II. It indicates the layout of the buildings located at the time on the plantation grounds, including the Blacksmith's shop in its present location and a pigeonnier in a different location. The current Pigeonnier has not been positively identified as being the same as that shown on the 1858 plat, but it is possible that it is the same.

1861 – Civil War begins at Ft. Sumter, Charleston, South Carolina.

1864 – Red River Campaign; Magnolia Main House burned to the ground. Matthew and Atala Hertzog, who had been living in the Main House, move into the former Slave Hospital and renovate it for their own use as a residence.

1865 – End of the Civil War.

1883 – Ambroise LeComte II dies; Matthew and Atala Hertzog inherit Magnolia Plantation.

1897 – Matthew and Atala Hertzog move from the old Slave Hospital into the newly-constructed Main House at Magnolia Plantation.

1898 – Atala Hertzog dies.

1903 – Matthew Hertzog dies, and the plantation is divided between Ambrose J. Hertzog and Fannie Hertzog Chopin. Fannie Hertzog Chopin inherits the portion on which the Gin Barn sits. She sells her portion to her brother to keep the working plantation intact.

1939 – A tornado rips through Magnolia Plantation, destroying one cottage and damaging the eight remaining slave cabins and the gin barn.

Late 1930s – Ambrose J. Hertzog acquires movie and still cameras and begins to document daily life on Magnolia Plantation.

1960s – Period photographs indicate a baseball field between the Main House and the Blacksmith's shop. The Pigeonnier appears in these photographs in its current location.

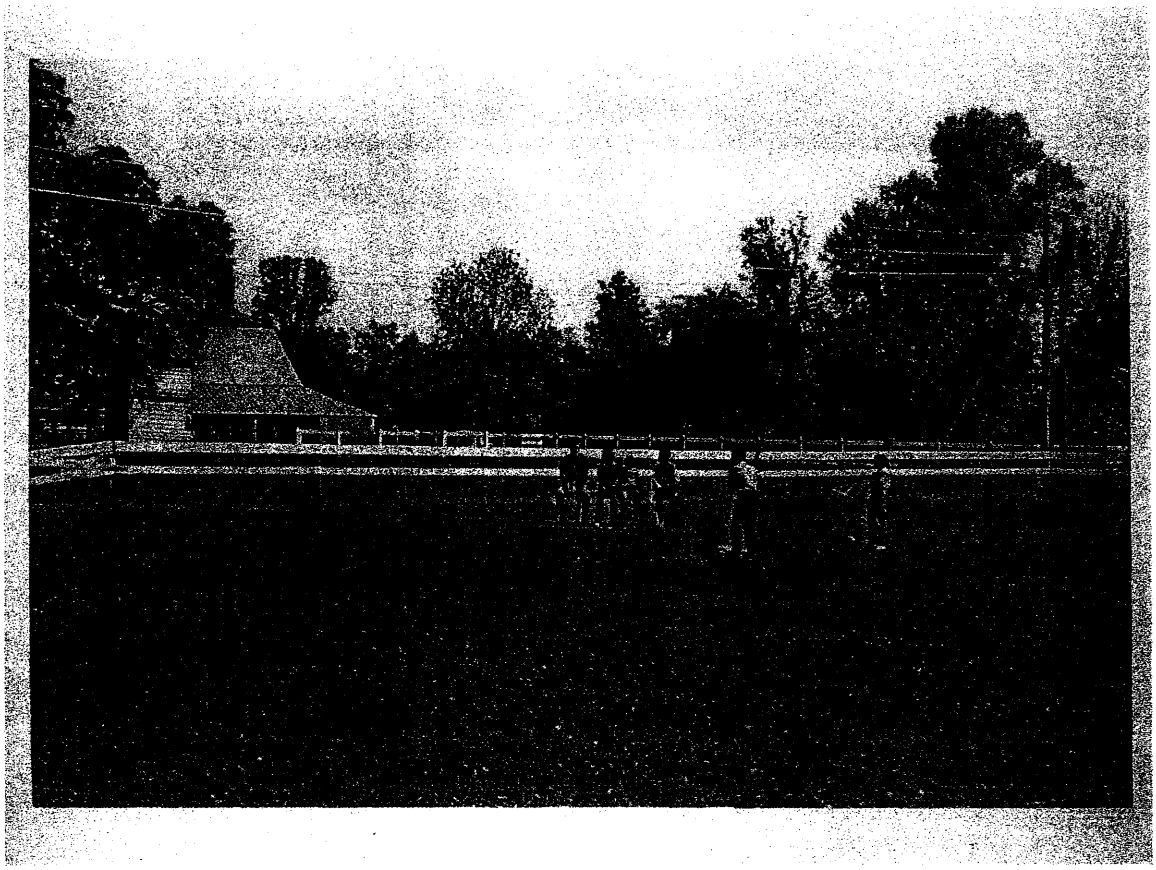
1976 – Hertzog family donates the portion of Magnolia Plantation that now comprises the Magnolia unit of the Cane River Creole National Historical Park to a non-profit organization, Museum Contents, Inc., located in Natchitoches, Louisiana for preservation and restoration.

1986 – The plantation buildings are recorded in detailed architectural drawings for the Historic American Buildings Survey.

1996 – The Magnolia Plantation property belonging to Museum Contents, Inc. is transferred to the ownership of the National Park Service to become part of a new national park, the Cane River Creole National Historical Park.

1998 – The National Park Service undertakes a contract for stabilization and repair activities at Magnolia Plantation.

2001 – Magnolia Plantation is designated a National Historical Landmark. The Blacksmith's Shop, the Pigeonnier, and the Carriage Shed are designated as Contributing Structures.



Baseball at Magnolia Plantation, 1961.
Note Blacksmith's Shop and Pigeonnier in the background.
Photograph courtesy of Ambrose J. Hertzog III

Historical Background and Context

This history deals with Magnolia Plantation, part of which is included in the Cane River Creole National Historical Park in Natchez, Louisiana. The buildings under discussion in this report are the Blacksmith's Shop, the Pigeonnier, and the Carriage Shed. Historian, Dr. Ann Patton Malone Rose, compiled a comprehensive history of Magnolia Plantation for the National Park Service in 1996. This overview of the history of the plantation on which the buildings under review stand is based largely on her work and will not be individually noted unless explicitly quoted. Other references are noted in the body of the text.

Magnolia Plantation was established about 1835 by Ambroise LeComte II and his wife, Julia Buard LeComte. However, much of its lands were secured earlier by his grandfather, Ambroise LeComte I, who assembled his plantation by combining lands obtained through French and Spanish land grants made to the LeComte family in the mid and late 1700s with judicious purchases of land from smaller planters during times of economic distress or disbursement of estates. Jean Baptiste LeComte I, father of Ambroise LeComte I, received a land grant in 1753 on both sides of the Red River (later, known as the Cane River). He settled in the Shallow Lake area, across the river from present-day Magnolia Plantation, with his wife, Marguerite LeRoy. It was there that Ambroise LeComte I was born in 1760. By 1786, Ambroise LeComte I had married Helene Cloutier, and they had one son, Jean Baptiste LeComte II. Ambroise LeComte I also received a Spanish land grant in an area 30 miles west of Cloutierville, which he developed into a ranch. Preoccupied with this development, he left the management of the Cane River property to his son, Jean Baptiste LeComte II, who married Marie Anne Cephalide Lambre in 1806. Their son, Ambroise LeComte II, was born in 1807. After the Panic of 1819, Ambroise LeComte I began to purchase lands adjoining the original grant on the Cane River. With his son acting as his representative, he purchased lands on the east bank of the Cane River from Gasparite LaCour; Louis, Belloni, and Jacques Vercher; and L. Gallien in April of 1820. He purchased more property from Barthelemy LaCour in 1824, from Nanet Larnadier in 1825, and from Louis Gallien in 1826.

In 1827, Ambroise LeComte II married Marie Julia Buard. In October of 1833, either he or his grandfather, Ambroise LeComte I, purchased a tract of land on the east bank of the Cane River from the estate of Athanase Brosset and his wife, Celeste Baudoin. In December, Ambroise LeComte also purchased the Barthelemy LaCour plantation, and, in 1834, he purchased land on both sides of the Cane River from Jean Baptiste LaCour. In July of 1835, Ambroise LeComte II purchased property on both sides of the Cane River from Gasparite LaCour that included "houses, outhouses, cotton gin and other buildings thereon."[2] This is the land on which the Magnolia Plantation gin barn is located.

It is not known what outbuildings were included in this sale. The buildings that are currently part of the Cane River Creole National Historical Park are mostly located on the

[2] Dr. Ann Patton Malone, "The Magnolia Plantation Overview," unpublished MS completed for the National Park Service, 1996, p. 37.

property purchased from Gasparite LaCour in 1835. However, two of the buildings that are the focus of this report, the Blacksmith's Shop and the Pigeonnier, appear to be currently located on property purchased from the LaCour family earlier. The Pigeonnier and the Blacksmith's Shop appear, from a comparison of the 1818 plat of LaCour lands included in Malone's report and the 1858 Walmsley plat of Magnolia Plantation, to be located on lands purchased from Barthelemy LaCour in 1824. Though the Blacksmith's Shop appears to be in its original location, the Pigeonnier seems to have been moved from its original location between the slave hospital and the quarters as shown on the 1858 Walmsley plat. Whether the Blacksmith's Shop existed at the time of purchase of the property in 1824 is unclear. Though it is obviously one of the oldest structures on the plantation, material analysis did not definitively determine whether it was constructed before 1830.[3] According to Architectural Conservator, Barbara Yocum, the construction materials of the Pigeonnier do not contradict a possible construction date between 1840 and 1855,[4] so the existing Pigeonnier may be the original one shown in another location on the 1858 plat.

Despite the Panic of 1837 and the recession of the early 1840s, Ambroise LeComte II continued to expand his holdings until about 1845, when his wife, Julia Buard LeComte, died. He remarried in 1846 to the Widow Bossier, Lise Victoire Desiree Sompayrac, and began to devote his time to horse breeding and racing, leaving the daily management of the plantation to his overseers. He and his wife, with their combined families of children, moved to his townhouse Natchitoches. In 1852, his daughter, Ursele Atala LeComte, married Matthew Hertzog. After their marriage, Ambroise LeComte II gave the couple a 40% interest in Magnolia Plantation, retaining 60% for himself.[5] The couple moved into the new Main House at Magnolia Plantation, probably in late 1852,[6] and undertook the management of the plantation for Ambroise LeComte II. However, residence at the Main House appears to have been a fluid arrangement. By the 1860 census, Ambroise LeComte II and his wife were again living on Magnolia Plantation.[7] The location of Matthew and Atala Hertzog is uncertain. Though they were enumerated in Natchitoches Parish in 1860, they were not enumerated at either Magnolia Plantation or in the town of Natchitoches.[8] According to family lore, they were living at Magnolia Plantation by 1864.

The main crop at Magnolia Plantation was cotton, which replaced indigo and tobacco as the major export crops in the area in the early 1800s. The 1850s were a time of high cotton prices and high expectations for the planters along Cane River. It was a period of expansion and improvement to the plantation operations. At Magnolia, the cotton gin was converted to steam by 1856. A plat of Magnolia plantation rendered in 1858

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[3] Barbara A. Yocum, *Magnolia Plantation: Building Materials Assessment and Analysis,* Lowell, Massachusetts: National Park Service Northeast Cultural Resources Center, 1996, p. 71.
[4] *Ibid.*, p. 84.
[5] Dr. Bennie C. Keel, *A Comprehensive Subsurface Investigation at Magnolia Plantation,* Tallahassee: National Park Service Southeast Archeological Center, 1999, p. 19.
[6] *Ibid.*, pp. 85-87.
[7] *Eighth Census of the United States, 1860 Population Schedule, Natchitoches Parish, LA,* reviewed online at Ancestry.com, 2003.
[8] *Ibid.*

indicates that the Blacksmith's Shop was existing at this time in its current location. In 1858, the blacksmith's name was Charles. He succeeded the former blacksmith, Daniel, who had been the LeComtes' blacksmith since the inception of the plantation but died in 1851 at the age of forty-four from eating ashes.[9] A Pigeonnier also existed according to the plat, though in a different location from the current Pigeonnier.

The outbreak of the Civil War in 1861 changed life on Cane River, as it did elsewhere in the nation. Although cotton production was high, distribution for sale became increasingly difficult and, eventually, impossible. With the fall of New Orleans to Federal forces in 1862, the last outlet for the sale of Cane River cotton closed. Planters in the area turned to other crops for local consumption and stored their cotton, hoping to recoup their losses when the war ended. The fighting reached the area in 1864 during the Red River campaign, and directly impacted Magnolia Plantation. Federal forces, retreating down the Cane River, burned buildings as they went. Despite their original orders to fire only cotton in order to deprive the South of a means of financing a continuation of the war effort, they also burned barns, gins, and houses. The Main House at Magnolia Plantation was burned to the ground.

With the plantation house gone, Matthew and Atala Hertzog moved their family into a building on the plantation that had previously been used as a slave hospital. The Hertzogs, like their neighbors in the area, found themselves in seriously reduced circumstances. With their cash crop destroyed, their livestock and foodstuff confiscated by both the Confederate army and the foraging Federal forces, and their workforce depleted by conscription and desertion, their prospects looked bleak. They and their remaining workforce turned to subsistence farming for the remainder of the war.

After the end of the Civil War in 1865, the situation began to improve. The former relationship between the planters and their workforce was ended, but a new one was forged, though not without difficulty. The local Union commander, Lieutenant colonel S.G. Van Anda, issued orders instructing the freed workers of the area to remain on the plantations where they had formerly been slaves and instructing their former owners to sign contracts with them as hired labor.[10] The Freedmen's Bureau helped the former slaves to negotiate labor contracts with their former owners. However, discontent with the contract situation caused many workers to refuse to sign contracts in 1867 and 1868. They felt that the contract labor system was not a sufficient improvement over their original, enslaved condition. As an alternative, sharecropping was gradually introduced to the area to provide labor to produce the crops. Though an imperfect alternative, the laborers saw sharecropping as a means of accumulating enough wealth to eventually purchase land of their own. To the planters, it provided relief from the necessity of producing cash payments for their workers on a quarterly basis regardless of the success of the previous crop. The laborers, thus, assumed a share of the responsibility for the success of the crop, since their own profits depended upon that success.

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[9] Keel, p. 86.

[10] Carolyn Breedlove, "Bermuda/Oakland Plantation, 1830-1880," unpublished masters thesis, Northwestern State University of Louisiana, 1999, p. 45.

Unfortunately, though cotton prices were high immediately after the war, production was low due to floods, caterpillars, and labor problems. As the labor problems were resolved and production began to climb, prices began to drop. During the 1870s, farmers were able to increase production, but prices were often below cost. As a result, both sharecroppers and owners often found it difficult to make ends meet. When they could not meet their charges for supplies for the crop of the current year, they were obliged to borrow or charge even more in order to purchase supplies for the crop of the following year. This debt spiral made it increasingly hard for sharecroppers to make a living, and many of them left the area in the late 1870s to try their luck at homesteading in Kansas.

In 1883, Ambroise LeComte II died. His daughter, Atala, and her husband, Matthew Hertzog inherited Magnolia Plantation, which they had managed for him for thirty years. In the 1890s, the Hertzogs began the rebuilding of the Main House, using the existing foundation that remained after the destruction of the original house in 1864. They demolished many of the original brick slave houses in the Quarters in order to use the brick for the construction of the new Main House. Matthew and Atala moved into the new house in early 1897, less than a year before Atala's death.

After Matthew Hertzog also died in 1903, his estate was inherited by his two surviving children, Ambrose J. Hertzog, and Frances "Fanny" Hertzog Chopin, and divided between them. Ambrose Hertzog received the major portion of Magnolia Plantation that is included in the Cane River Creole National Historical Park. Fanny, however, inherited, among other parcels, the land on which the Gin Barn and Quarters are located. She sold that portion to her brother to keep the work area intact. Ambrose J. Hertzog and his wife, Sarah (Sallie) Hunter Hertzog continued to operate Magnolia Plantation.

Ambrose J. Hertzog and Sallie Hunter Hertzog married in 1892 and had five children who survived infancy: Matthew Hertzog II, Marie Louise Hertzog, Marie Atala Hertzog, Sarah Hunter Hertzog, and Ambrose John Hertzog II. Their oldest son, Matthew Hertzog, served in the Armed Forces during World War I and then returned to the plantation to assist his parents in its management. With his bride, Lydia Compton Hertzog, he shared the Main House with his parents. Their daughter, Betty Hertzog, still resided at Magnolia's Main House at the time of the writing of this report. The youngest son of Ambrose and Sallie Hertzog, Ambrose John Hertzog II, married Irma Behrens. They had three children: Irma Jane Hertzog, Ambrose John Hertzog III, and Matthew Hertzog. Ambrose J. Hertzog II died in 1991, but his son, Ambrose J. Hertzog III, still resides at Magnolia Plantation (in 2003), in a house built in 1976 to the north of the Main House. Betty Hertzog and Ambrose J. Hertzog III are the current (2003) owners of the portion of Magnolia Plantation not included in the Cane River Creole National Historical Park.

By 1938, electricity had come to the Cane River area. Matthew Hertzog II reported in about 1941 that electrification had been partly introduced to the plantation, but, for the most part, the Hertzogs continue to use the traditional methods of farming, including crop rotation and cultivation using manual and animal-powered methods. Magnolia plantation boasted little in the way of mechanization, though that was slowly changing. The

Hertzogs used both sharecroppers and day laborers in their operations. They provided housing for all of their workforce. According to Betty Hertzog, the day laborers, who were usually single men, were housed in the former slave quarters, and the tenant farmers, generally family men, were housed in tenant houses constructed along the roadside and close to their assigned plots of land.[11] At one time, the Hertzogs provided housing and work for up to fifty families. The day laborers were generally assigned to operate the mechanized equipment, such as tractors and ginning equipment. The tenant farmers relied on mule-powered equipment to farm the forty acres assigned to them. They were also "required to own a cow and a mule and to raise a crop of vegetables to supply their own tables."[12]

In 1939, a tornado ripped through Magnolia Plantation, demolishing Cottage Buard, where the plantation overseer, Neuville Prudhomme, was living, as well as damaging the eight remaining slave cabins and the cotton gin barn. The steam-powered cotton gin was destroyed. As a result, the Hertzogs decided to stop ginning their own cotton.[13] Instead, they took their cotton to a newly-built gin nearby and used the gin barn to store hay. Possibly in response to the necessity of replacing damaged farm equipment, the move to mechanization at Magnolia Plantation accelerated. The former slave cabins used as housing for the day laborers were repaired, and electricity installed by 1946.

During the 1950s, the Hertzogs ended sharecropping arrangements with their workers, as did most of the planters of the area, but continued to hire day laborers to work their crops. Fewer workers were needed due to mechanization, and fewer workers were available due to the continued outmigration of young people to work in the factories in the north. The Hertzogs revived the raising of cattle as a cash crop and diversified their field crops.

In 1976, the Hertzog family donated the portion of Magnolia Plantation that now comprises the Magnolia unit of the Cane River Creole National Historical Park to a non-profit organization, Museum Contents, Inc., located in Natchitoches, Louisiana for preservation and restoration.[14] The buildings located on this tract, including the Gin Barn, the eight remaining buildings in the Slave Quarters, the Blacksmith's Shop, the Plantation Commissary, and the Overseer's House (formerly the slave hospital and later, the Hertzog dwelling from 1864 to 1897) were all added to the National Register of Historic Places in 1979.[15] In 1986, the plantation buildings were recorded in detailed architectural drawings for the Historic American Buildings Survey. In 1996, the Magnolia Plantation property belonging to Museum Contents, Inc. was transferred to the ownership of the National Park Service to become part of a new national park, the Cane River Creole National Historical Park.[16] In 1998, the National Park Service embarked on

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[11] Betty Hertzog to Deborah Harvey, oral interview, March, 2003.
[12] Malone, p. 99.
[13] Tommy Jones, "The Gin Barn, Magnolia Plantation, Cane River Creole National Historical Park – Historic Structure Report." Draft of report prepared for the Southeast Regional Office Cultural Resources Center, National Park Service, 2002, p. 11.
[14] Ambrose J. Hertzog, II to Charles Thornton, Continental-Eagle Corporation of Prattville, Alabama, letter dated December 2, 1989.
[15] *Ibid.*
[16] Yocum, p. 3.

a series of stabilization measures intended to preserve the existing structures at the Cane River Creole National Historical Park portion of Magnolia Plantation. The Blacksmith's Shop, the Pigeonnier, and the Carriage Shed were all named Contributing Structures when Magnolia Plantation was designated a National Historical Landmark on January 3, 2001.

Chronology of Development and Use

Information regarding the use and development of these three small buildings on Magnolia Plantation is minimal. It appears that they were always put to the uses that their names indicate, that they were not used for other activities, and that changes made to the buildings were minor and consistent with their use.

Chronology of Development – The Blacksmith's Shop

Physical evidence and written documentation dates the Blacksmith's Shop to circa 1840. The earliest written reference to a blacksmith's shop at Magnolia that has been uncovered at the time of this writing is G. S. Walmsley's 1858 plat map. However, letters written by overseer W. B. Eddins to Ambroise LeComte II in 1851 make reference to the blacksmith, Daniel. From this, the inference can be made that a Blacksmith's Shop probably existed at that time. The Walmsley map shows the Blacksmith's Shop in its current location. While this does not definitively indicate that the existing building is that which was identified on the 1858 map, the roof profile on the map is similar in character to the historic profile of the Blacksmith's Shop. The map is supporting evidence of the physical findings. The wall framing of the building is constructed of hewn posts and beams and infilled with *bousillage.* This method of construction is labor intensive and is rarely seen in structures built after the Civil War, suggesting an ante-bellum date of construction. From the existing historic documentation of the building, the structure appears to be in its original configuration. It has a square plan and a gabled roof, oriented northeast to southwest. A shed surrounding the primary structure on all four sides consists of a single pitched roof supported by wood posts bearing directly on the ground. A livestock pen, exists in the western half of the shed and appears to have been an early addition to the building. The interior of the main structure consists of one open room with a loft area above and a small closet in the western corner. Aged, wrought-iron strap hinges and nails, doubtless forged by the plantation blacksmith, are used on the windows and doors.

While the building appears to have retained its original floor plan, several modifications were made to the original materials throughout its history. As identified in Barbara Yocum's 1996 materials analysis and confirmed by the field observations made for this report, round logs and square, circular-sawn posts replaced earlier hewn posts. In 1986, the Historic American Building Survey (HABS) documented this building. The drawings indicate the varied arrangement and shape of shed support posts. In 1998, a contractor for the National Park Service completed a series of stabilization modifications to the building. In response to the poor condition of the building, some deteriorated historic materials were replaced. As documentation of these actions, as well as those completed after 1998, the National Park Service prepared a Design Analysis for the Blacksmith's Shop in November, 2002. This analysis outlines the work undertaken on the structure by the Park. Among the National Park Service changes to the building was the introduction of new shed support posts where the earlier posts were missing. At the time of Barbara Yocum's analysis, the National Park Service had not begun their treatment of this

building. The shed posts identified during Yocum's analysis were noted as replacements of earlier hewn posts, only one of which still remains. Therefore, it is presumed that the Hertzog family, who were the previous owners of the Blacksmith's Shop, installed these replacement posts at some point before donating the property, and the contractor for the National Park Service installed replacement posts for those documented in Yocum's study.

Given their apparent age, several of the building material modifications can be considered historic. The circular-sawn horizontal siding that finishes the lower portions of some of the walls of the main structure is a later, historic addition. Other identified additions to the building that can be considered historic include later *bousillage* patch material applied to reinforce the historic infill, strap hinges located on the main door to the building, supplementing the original, wrought-iron strap hinges, and the use of corrugated and 5V-metal roofing that originally replaced, or was laid over, historic wood shingles. Historic photographs dating to circa 1960 show both of these types of metal roofing on the building.

Remnants of a livestock pen exist in portions of the southwest and northwest shed. The pen was partially enclosed with horizontal board walls constructed at the western corner of the shed and spanning the depth of the southwest shed. Two doorways were framed in this latter wall, each fitted with a board-and-batten door, that provided for human and animal access to the pen. A split rail fence was constructed at the northeast end of the pen, but it is unknown what was historically used to enclose the northwest side. The vertical framing for the pen walls is circular sawn. Wrought-iron strap hinges were used on the board-and-batten doors to the pen. Given the characteristics of the building materials, it is possible that the pen was an early, if not original, addition to the Blacksmith's Shop. Galvanized sheet metal was added at some point, likely in the early to mid-twentieth century, to the exterior walls at the western corner of the pen. Photographs of the building dating to circa 1960 show the sheet metal in place.

On the interior of the building remain characteristic features of the building's historic use. A masonry forge is located near the northwest wall approximately at the center of the building. The circular forge has a coating of plaster that bears the inscription, "March, 1924" along the top of its northeast side. The significance of this date, if any, is not known. However, it is possible that it dates the forge construction or reconstruction as a replacement to an earlier forge. Another theory is that it is the date the existing plaster coating was applied. Yocum's materials analysis does not discuss this feature of the forge and no other information on the forge was provided at the time of this report.

The remaining non-historic changes made to the Blacksmith's Shop include the balance of those made by a contractor for the National Park Service. These changes include the installation of new, galvanized, corrugated and 5V-metal roofing, new framing of the gable and shed roofs, new wood clapboard siding in the exposed gabled ends of the structure above the shed on the northeast and southwest elevations, a new attic door in the southwest gable end, new portions of the sill beams and post framing on the main

structure, wood shoring posts on the interior of the building, and the removal of the historic, wood ladder that was used to access the loft.

Chronology of Use – The Blacksmith's Shop

The Blacksmith's Shop appears to have always been put to the use for which it was originally built. According to John Michael Vlach, in *Back of the Big House – The Architecture of Plantation Slavery*, before the Civil War, a planter with a number of gifted slaves would construct workplaces in which they could practice their particular skills.[17] The plantation blacksmith would have been an especially valuable member of this group of slave craftspeople and was highly regarded by both the other slaves and the owner. It was the blacksmith who crafted much of the metalwork used on the plantation: hinges, nails, horseshoes, cooking utensils, and tools, to name just a few. Solomon Williams, the blacksmith at Oakland Plantation upriver from Magnolia, made grave markers and decorative objects in addition to the utilitarian ones.[18] One notable creation of the Magnolia Plantation blacksmith was the branding iron, as evidenced by the test brands burned into the inside of the main door of the Blacksmith's Shop. The blacksmith also made repairs and shod the mules and horses of the plantation. The plantation owner might rent the services of the plantation blacksmith to others in the neighborhood that were not so fortunate to have such a craftsperson among their workforces. In addition, some plantation owners allowed their slaves to take on outside work in their spare time to earn extra money.

After the Civil War, there was still a need for blacksmiths. Former slaves were able to hire their services to their former masters and to others in the community. Solomon Williams, for instance, remained at Oakland Plantation and negotiated a contract with the Prud'hommes for his services,[19] but he also worked for other planters in the neighborhood. What became of the blacksmith at Magnolia Plantation is unknown, but the plantation apparently continued to use the forge. An inscription in the plaster coating on top of the forge reads "March, 1924." This may indicate the date that this particular forge was constructed, or it may indicate the date that it was resurfaced due to deterioration from continued use. However, as the twentieth century wore on, the need for blacksmiths diminished, as well as the knowledge of the craft. Exactly when the forge was abandoned is not known.

The enclosed pens around the Blacksmith's Shop were probably not constructed to house animals in any permanent way, but only to pen them while they waited to be shod. Photographs of the Blacksmith's Shop in the mid-twentieth century indicate that the posts of the exterior shed and, possibly, the enclosures, were still being used for temporary containment of horses and mules. The Blacksmith's Shop is currently closed to the

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[17] John Michael Vlach, *Back of the Big House – The Architecture of Plantation Slavery,* Chapel Hill, NC: The University of North Carolina Press, 1993, p. 83.
[18] Sandra Prud'homme Haynie, *Legends of Oakland Plantation,* Shreveport: LaPress Company Printing, 2001, p. 65.
[19] *Ibid.*, p. 67.

public is being used by the National Park Service only for exterior interpretation and some minimal storage of artifacts and materials relating to the building.

Chronology of Development - Pigeonnier

The developmental history of the Pigeonnier has not previously been documented. G. S. Walmsley's circa 1858 plat map illustrates a pigeonnier at Magnolia Plantation located between the building noted to be a "Slave Hospital", believed to be the present day Overseer's House (c.1840), and the Slave Quarters. The similarities between the roof profile on the Walmsley map and that of the existing pigeonnier leaves open the possibility that the two buildings are one and the same. Given this theory, it is possible that the building was moved from its circa 1858 site, as the existing Pigeonnier is located to the immediate north of the Blacksmith's Shop. However, there is insufficient information available for this report to establish this as fact. If the building was moved, it would have been a move of approximately 300 feet or so based on the extant building relationships correlated with those on the Walmsley map.

Physical examination of the Pigeonnier revealed remnants of white paint on the exterior. Barbara Yocum's materials analysis identified this paint as whitewash and reported that whitewash was historically used on the exterior of such plantation outbuildings. No finishes were found on the interior of the Pigeonnier. Both circular sawn and hewn framing members comprise the structure of the building. At least one of the hewn beams was recycled from another building, as evidenced by the open mortises along its underside. The siding, flooring and board and batten doors are circular sawn. Circular saws were available in rural Louisiana around 1850 and, as Yocum's report points out, the 1858 map indicates the presence of a sawmill on the plantation. It is likely that wood for the Pigeonnier was cut in this sawmill. Wrought-iron strap hinges and machine-cut nails were observed throughout the building. The wrought iron hinges were likely forged in the existing Blacksmith's Shop, which is thought to have been constructed circa 1840. Yocum's findings support this theory. No nail samples were taken from the Pigeonnier during Yocum's materials analysis. However, machine-cut nail samples were taken from the attic roof framing and floorboards in the Overseer's House during Yocum's analysis. As stated in her report, these nails have shear points and face-pinched shafts below the heads, two common characteristics of machine-cut nails that were produced between 1836 and 1885. In consideration of the age and other physical characteristics of the building materials used in the Pigeonnier, it is reasonable to assert that the cut nails present in the building date to the 1836-1885 manufacture period.

In consideration of the hewn beams, circular-sawn framing and finishes, aged, wrought-iron hinges, and machine-cut nails, the building was clearly constructed in the nineteenth century, possibly prior to 1858. However, none of this establishes that the existing Pigeonnier was relocated from the location suggested on the Walmsley map. There is, however, one physical feature of the building that lends credence to the theory that the building may have been moved from a prior location. Pieces of rectangular sheet metal were once attached to all four corners of the exterior at about 4' to 5' above grade and wrapped around the corners of the structure. Three of these panels are still in place; the

fourth is located on the ground near the southeast side of the building. A "ghost" of the fourth panel is evident on the south corner of the building. The function of these panels is not certainly known. Yocum's materials analysis does not discuss this feature. However, given their location, it appears that they may have been installed as a means of bracing the frame at the corners, possibly to provide added support to the building so that it could be moved or to provide protection for the wood from rope or chain used to move the building.

To protect the structure from the elements, the National Park Service installed a protective plywood door on the first story, patched the exterior siding with plywood, covered the pigeonholes with screen wire to deter birds and vermin, and constructed a structural brace at the western corner of the building to counteract the forces that are causing the building to lean.

Chronology of Use – Pigeonnier

According to John Michael Vlach, "the [pigeonnier] was once so commonplace in Louisiana that Frederick Law Olmsted referred to it in 1857 as the 'universal appendage of a ... planter's house.'"[20] Raising fowl as food was one plantation survival strategy and, like the chicken coop used to house chickens, the pigeonnier (or, dovecote, in English-speaking parts of the country) was used to house pigeons. Young pigeons, called squab, were a delicacy. Mayo Prud'homme of Oakland Plantation, in an interview with historian Dr. Ann Patton Malone Rose, specifically mentioned having "squabs on toast for breakfast."[21] The pigeons were tough after they matured, and could only provide pigeon droppings, which was used as fertilizer, and more young pigeons for food. Although there is speculation that these pigeons were also used for communication, there is no evidence that pigeons being raised by planters in the Cane River area were, indeed, carrier or homing pigeons. Carrier pigeons are pigeons trained to return to their home base. They can then be used to carry messages from one location to another, as long as they are familiar with the location to which they are sent (their home base). Carrier pigeons were still in use as a communication system during World War II, but neither the c. 1850 diary of Lestan Prud'homme nor the memories of Mayo Prud'homme of Oakland Plantation include the training or use of the pigeons raised on the plantations for communication purposes. In Lestan Prud'homme diary, for instance, he specifically records sending messages from one plantation to another by a trusted slave and sending and receiving posted mail using the passing steamboats on Cane River, but he makes no mention of training pigeons or of sending messages by pigeon.[22]

Pigeonniers were built as two-story structures. The upper story housed the pigeons. To allow the pigeons access to their nesting areas, openings, appropriately called "pigeon holes," were made at the second story level. Beneath the openings, on both the inside

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[20] Vlach, p. 83.

[21] Malone, p. 164.

[22] Pierre Lestan Prud'homme, diarist, "Diaries - 1850-1852," Irma Sompayrac Willard Collection, Cammie G. Henry Research Center, Watson Memorial Library, Northwestern University, Natchitoches, Louisiana, reviewed 2003, passim.

and the outside of the building, ledges were installed to allow the pigeons to roost on either side. In many pigeonniers, the pigeon droppings were allowed to fall to the first floor, and were periodically removed and used as fertilizer. In the Magnolia Pigeonnier, however, it appears that it was necessary to ascend to the second level of the structure through the access door above the main door to retrieve this source of fertilizer. The floor of the second level is solid, and it appears that the first floor of the Pigeonnier was used for storage. A small advertisement for Paris Green that is tacked to the south interior wall of the Pigeonnier indicates that the bottom of the Magnolia Pigeonnier may have been used to store this arsenic-based insecticide, based on documentation of this same practice at Oakland Plantation.[23] The Pigeonnier is currently being used only to store the historic door that belongs to it.

Chronology of Development – Carriage Shed

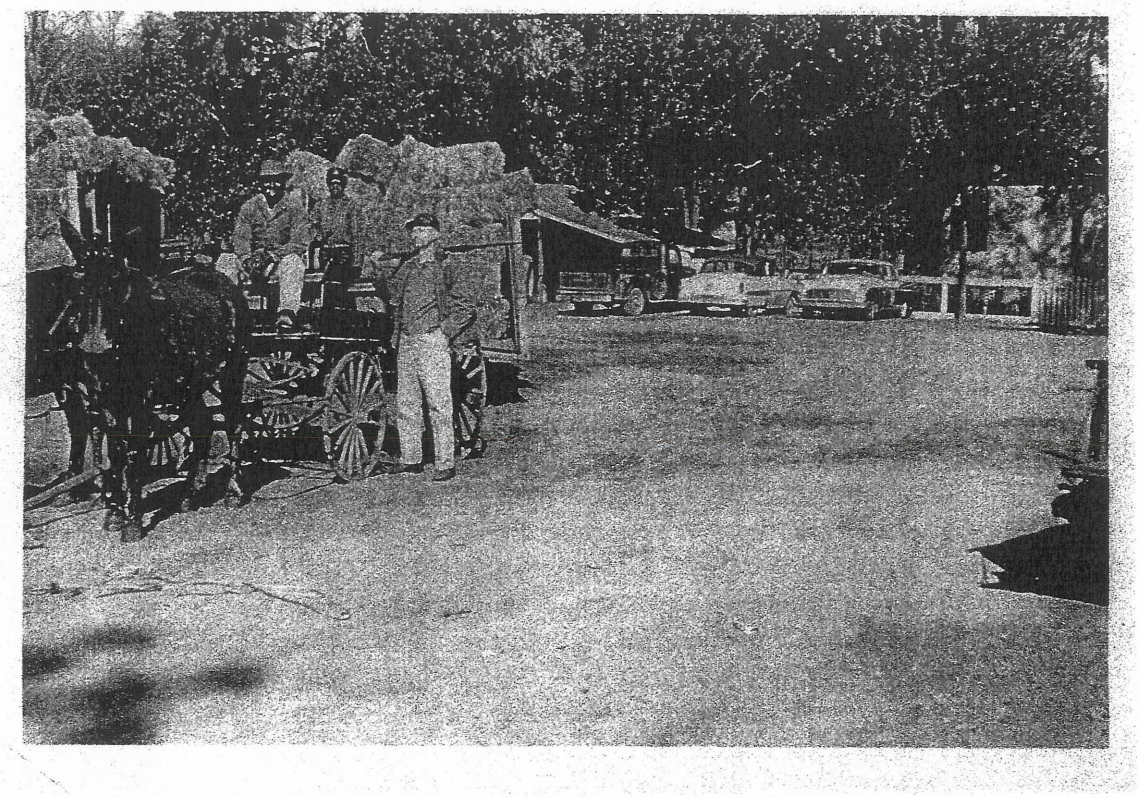
Little is known about the history of the Carriage Shed. Clearly a twentieth century building, physical analysis of the building suggests the structure was likely constructed in the second quarter of the twentieth century. A photograph dating to circa 1960 shows the southeastern end of the Carriage Shed. The photograph reveals that the shed had at least two open bays along the southwestern elevation and that a small enclosure, likely a dog pen, was located on the southeastern end of the building. Also, the exterior of the dog pen was painted white, and the roofing material on the shed was 5V-metal. Another photograph of the Carriage Shed dating to circa 1999 is taken from the western corner of the building. This photograph illustrates an open northwestern bay, with a wall dividing this space from an adjacent bay. Additionally, it shows a central bay with double, out-swinging wooden doors. These doors are not present in the circa 1960 photograph. From what is known of the Carriage Shed as it exists today, it is clear that the current doors to the central bay are a recent addition by the National Park Service and not the same as those that existed in 1999. Also, it is known that the current 5-V metal roofing is historically accurate to the circa 1960 appearance. It is unclear whether the new corrugated metal roofing that currently covers the dog pen is historically accurate, as the circa 1960 photograph of the building does not reveal the roofing on this portion of the building due to shadows cast by trees overhead. Additionally, the wall that once divided the northwest and central bay of the shed appears to have been partly removed at some point since 1999.

Chronology of Use – Carriage Shed

No documentation into the early use of the Carriage Shed has been located at the time of the writing of this report. Therefore, assumptions as to its use must be based on its location, configuration, and construction. Despite its monicker as a "Carriage Shed," it seems unlikely that the structure ever housed a carriage. It is more likely a garage for an automobile or a storage building for farm machinery. Its proximity to the Overseer's House make it seem likely that it was built for the use of the occupant of the house, if it was a garage, or to be more accessible to work areas, if it was used to house farm machinery. Its three-bay configuration, with two of the bays originally divided from the

[23] Malone, p. 165.

third by a wall, suggest that it may have performed a variety of functions, perhaps a combination of automobile garage and farm machinery storage, plus some other storage. The animal pen at the south side was doubtless a dog pen. This building does not appear to have ever been put to any other use. It is currently being used by the National Park Service for storage of materials. However, the park is still under development, and the use of the Carriage Shed may change. It would be a logical place to store period equipment related to Magnolia Plantation.



Late 1950s photograph of area near the Overseer's House.
A portion of the Carriage Shed may be seen in the background.
Photograph courtesy of Ambrose J. Hertzog III

Physical Description – Blacksmith's Shop



Northeast elevation of the Blacksmith's Shop

Summary of Historic Character

The Blacksmith's Shop is a 47'-1"by 44'-5½", timber-framed, *bousillage*[24] structure on a brick pier foundation with a gabled roof. A shed wraps around the exterior of the main structure. Posts and beams support the shed roof. The support posts are set in the ground. The General Management Plan identifies the Blacksmith's Shop as being the only remaining *poteaux sur sille,* or post-on-sill, structure still intact in Louisiana. Although the main portion of the building is post-on-sill, this designation as a rare construction type is incorrect; post-on-sill construction is fairly common throughout the region, and several examples exist at Oakland and Magnolia Plantations alone. It is possible that this description was confused with post-in-ground, or *poteaux en terre* construction. Because this type of construction utilizes posts bearing directly on the ground, the rate of structural deterioration is high. Therefore, historic buildings originally constructed in this manner are a rarity today. The Blacksmith's Shop utilizes this method of construction for its porch. However, the existing posts are replacements probably dating to the last decade, and at least six of the posts are replacements added during the 1998 stabilization efforts.

The main building consists of one large, interior room with a closet in the western corner and a loft above. A ladder to access the loft once existed along the southwest interior wall. Due to extensive termite damage, this ladder was removed from the building and has not been replaced.[25] A livestock pen is located in the western corner of the shed

There are three doors and two windows in the building. HABS drawings from 1986 document a fourth door located on the southeast elevation of the livestock pen. This door has been removed from the opening.

The Blacksmith's Shop was used as a workspace by the plantation blacksmith. Historic objects and structures of this craft remain in the building and enhance its historic character and content for interpretation. A brick and metal forge is located just off of and approximately centered along the northwest interior wall. In the brick oven is a metal crucible. A wrought-iron horseshoe is among several metal artifacts resting on top of the forge. Additionally, branding marks are evident on the interior surface of the main door (Door 1).

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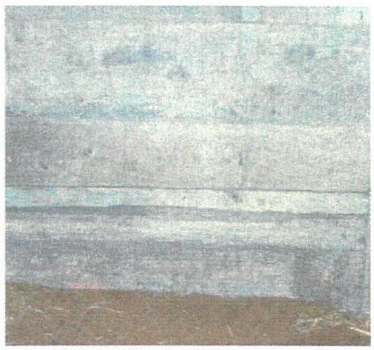
[25] Ali A. Miri, *Historic Structure Assessment Report – Blacksmith's Shop, Magnolia Plantation,* Atlanta: Southeast Field Area, National Park Service, n.p.

In 1998, a contractor hired by the National Park Service completed a series of stabilization modifications. In response to the poor condition of the building, some deteriorated historic materials were replaced. As documentation of these actions, as well as those completed subsequent to 1998, the National Park Service prepared a Design Analysis for the Blacksmith's Shop in November, 2002. This analysis outlines the work undertaken on the structure by the contractor. The contractor's work included replacing the metal roofing with new galvanized roofing, installing new roofing lath, installing new wood clapboard siding in the exposed gabled ends of the structure above the shed on the northeast and southwest elevations, building and installing a new attic door in the southwest gable end, replacing portions of the sill beams and post framing on the main structure, and replacing portions of the shed roof beams. Missing shed support posts were also replaced.

Structural System

Foundation

Brick piers exist beneath the northwest and southeast sills of the building. There are four, equally spaced piers evident beneath the northwest sill and one pier evident beneath the east end of the southeast sill. From the north end of the northwest sill, these piers measure 34", 37", 31", and 36" long, respectively. The width of the piers is approximately 9", which is also the width of the northwest sill beam. Beneath the south end of the southeast sill is the exposed top layer of bricks of a buried pier. The unearthed portion of the pier measures 32" wide by 34" deep. The width of the pier is approximately 10", which is also the width of the southeast sill beam. The Design Analysis completed by the National Park Service indicates that there are ten piers supporting the structure and that some are buried beneath the ground surface. As no soil was moved as a part of the field investigation, only those piers referenced above were visible.



Foundation detail, southeast

Floor Framing

The Blacksmith's Shop has a dirt floor, and, therefore, the only framing at floor level is the sills. The southeast, southwest, and northeast sills are historic, hewn members. The southeast sill measures 10" by 9½"; the southwest sill measures 10" by 8"; and the northeast sill measures 11" by 8". The northwest sill is a newer, circular-sawn member, presumably installed by the National Park Service. This sill measures 9" by 9".



Temporary shoring posts installed in Blacksmith Shop

The framing for the loft floor consists of four joists running southeast to northwest spanning the width of the structure. Four temporary posts have been installed down the center of the main room, running in a northeast to southwest line, in alignment with the loft floor joists. The two posts located in the southwestern half of the room measure approximately

5¼" by 3½". The two posts located in the northeastern half of the room are each two 1½" by 5½" boards nailed together to form posts. The Design Analysis indicates that the National Park Service installed these posts as temporary shoring for the loft floor joists.

The beams at the loft elevation are also the upper beams supporting both the roof and the loft framing. The northeast and southwest perimeter beams are hewn and measure 6" by 6". The southeast and northwest perimeter beams are hand hewn and measure 8" by 6".

The loft joists measure 6" by 6" except for the northeastern-most joist that measures 6" by 7". All of the joists are hewn. The spacing of the joists varies from 4'-9½" to 4'-11".

Wall Framing

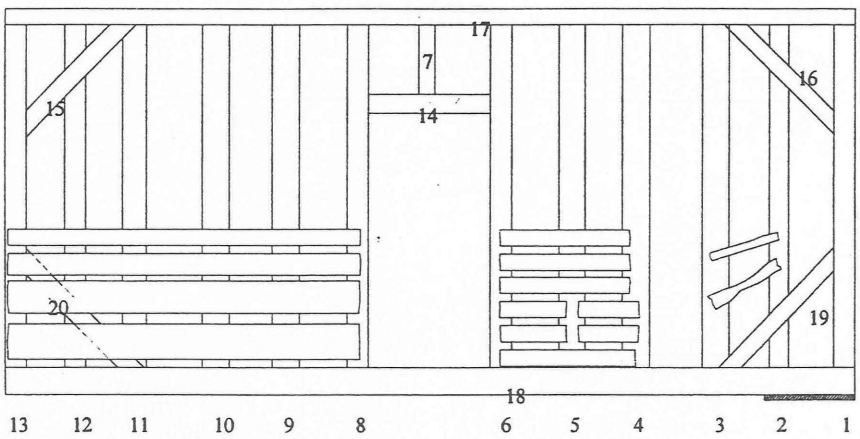
The wall framing in the Blacksmith Shop's is exposed post-and-beam construction with *bousillage* infill. Diagonal mortise-and-tenon and pegged bracing members exist in the four corners of each of the four walls of the building. All of the corner bracing is circular sawn. The beams and posts in the southeast and northeast walls are hewn. The northwest wall framing is hewn except where the National Park Service has spliced in new, circular sawn segments of the framing posts. These new posts were installed where deterioration rendered the historic members structurally unsound. The framing members of the southwest wall are hewn. Nailed to the southwest wall are two shoe soles, an interesting relic of the blacksmithing craft. The timber frame and bousillage walls of the Blacksmith's Shop have been covered on both the exterior and interior with wire screening to protect against insect infestation. The size and configuration of the members are identified in the following tables and corresponding diagrams.

Southeast Wall Framing

Framing Member	Width	Depth	Length	Cut
1	8"	6"	10' 7"	Hewn
2	7"	6"*	11'-0"	Hewn
3	10"	6"*	11'-0"	Hewn
4	10 1/2"	6"*	11'-0"	Hewn
5	10"	6"*	11'-0"	Hewn
6	8"	6"*	11'-0"	Hewn
7	6"	6"*	2' 9"	Hewn
8	8"	6"*	10'-7"	Hewn
9	10"	6"*	10'-7"	Hewn
10	10"	6"*	10'-7"	Hewn
11	9"	6"*	10'-7"	Hewn
12	8"	6"*	10'-7"	Hewn
13	8"	6"*	10'-7"	Hewn
14	7"	6"*	3'-9"	Hewn
15	7"	5"	4'-2"	Hewn
16	8"	6"*	5'-2"	Hewn
17	8"	6"*	NA**	Hewn
18	10"	8"	NA**	Hewn
19	5 1/2"	6"*	4'-10"	Hewn
20	6 1/2"	6"*	5'-3"	Hewn

*These members are inaccessible. The depth of these members is an approximate measurement based on their similarity to post number 1.

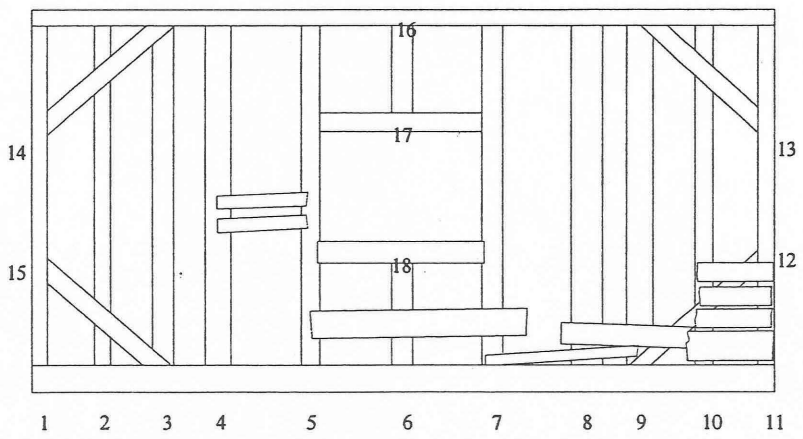
**Length of the beam was inaccessible.



Southwest Wall Framing

Framing Member	Width	Depth	Length	Cut
1	6"	8 1/2"	10'-2"	Hewn
2	6"	NA	10'-2"	Hewn
3	8"	NA	10'-2"	Hewn
4	10"	NA	10'-2"	Hewn
5	7"	7"	10'-2"	Hewn
6	8"	8"*	10'-2"	Hewn
7	8"	7"*	10'-2"	Hewn
8	12"	9"*	10'-2"	Hewn
9	10"	9"*	10'-2"	Hewn
10	7"	5"	10'-2"	Hewn
11	6"	6"	10'-2"	Hewn
12	5 1/2"	8"	5'-2"	Circular Sawn
13	7"	8"*	4'-6"	Hewn
14	7"	8"	10'-7"	Hewn
15	7"	8"	5'-2"	Hewn
16	*	*	*	Hewn
17	7"	5"*	5'-4"	Hewn
18	8"	5"*	5'-4"	Hewn

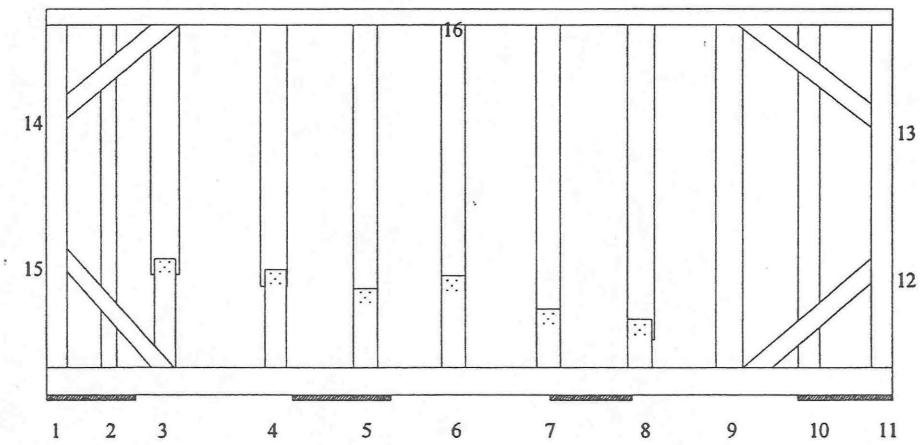
*These members are inaccessible. The depth of these members is an approximate measurement based on visual inspection.



Northwest Wall Framing

Framing Member	Width	Depth	Length	Finish
1	8"	6"	10'-7"	Hewn
2	6"	6"*	10'-7"	Hewn
3	11"/9" splice	6"*	10'-7"	Hewn, bottom sawn & spliced in
4	10"/9" splice	6"*	10'-7"	Hewn, bottom sawn & spliced in
5	9"/9" splice	5"*	10'-7"	Hewn, bottom sawn & spliced in
6	9"/9" splice	6"*	10'-7"	Hewn, bottom sawn & spliced in
7	9"/9" splice	6"*	10'-7"	Hewn, bottom sawn & spliced in
8	10"/9" splice	6"*	10'-7"	Hewn, bottom sawn & spliced in
9	10"	6"*	10'-7"	Hewn
10	8"	6"*	10'-7"	Hewn
11	8"	6"	10'-7"	Hewn
12	7"	6"	5'-2"	Hewn
13	7"	NA	4'-8"	Hewn
14	7"	NA	4'-5"	Hewn
15	6"	6"*	4'-10"	Hewn
16	N/A	NA	NA _	Hewn

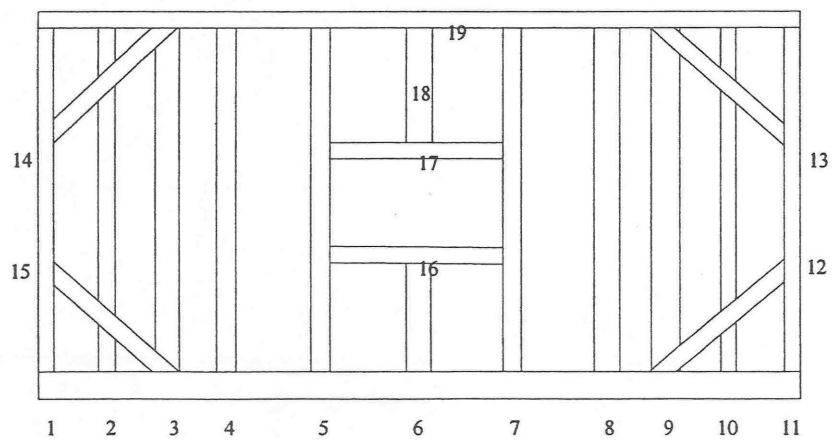
*These members are inaccessible. The depth of these members is an approximate measurement based on visual inspection.



Northeast Wall Framing

Framing Member	Width	Depth	Length	Cut
1	6"	8"	10'-7"	Hewn
2	6 1/2"	6"*	10'-7"	Hewn
3	9"	7"*	10'-7"	Hewn
4	7"	7"*	10'-7"	Hewn
5	7"	7"*	10'-7"	Hewn
6	9 1/2"	6"	2'-5"	Hewn
7	6 3/4"	7"*	10'-7"	Hewn
8	9 1/2"	7"*	10'-7"	Hewn
9	11"	7"*	10'-7"	Hewn
10	5 1/2"	7"*	10'-7"	Hewn
11	6"	8"*	4'-4"	Hewn
12	6 1/2"	8"	4'-1"	Hewn
13	6"	7"	4'-10"	Hewn
14	6 1/2"	7"	5'-2"	Hewn
15	6 1/2"	NA	5'-2"	Hewn
16	6"	6"*	5'-2"	Hewn
17	6"	6"*	5'-7"	Hewn
18	10"	6"*	3'-4"	Hewn
19	NA	NA	NA	Hewn

*These members are inaccessible. The depth of these members is an approximate measurement based on visual inspection.

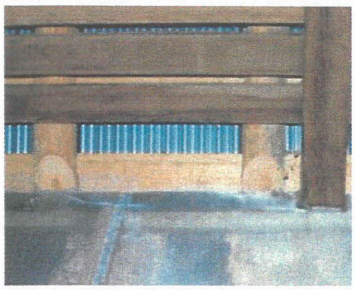




Roof framing, looking northeast

Main Structure Roof Framing

The roof framing includes new rafters installed by the contractor for the National Park Service in the stabilization and rehabilitation of the structure. The rafters are 6½" diameter members spaced at 36" on center. The lower ends of the rafters are sawn on an angle and notched into the southeast and northwest top wall plates. There is no ridge member. Collar beams measuring 6" by 6" span the rafters at approximately 14" below the ridge. The gabled ends of the roof are each supported by seven vertical 4¼" by 2¼" supports, spaced at 34" to 35" on center. In the southwest gable there is a door (Door 4). This door is located just southeast of the centerline of the gable and is framed between two of the vertical supports.



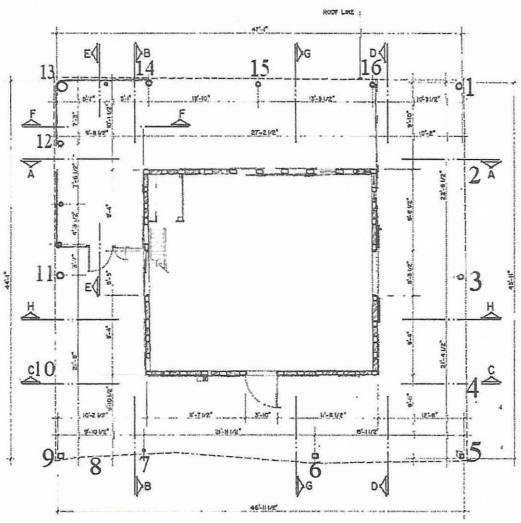
Detail of rafter ends and connections

Shed Framing

A shed consisting of galvanized metal roofing supported by posts and beams wraps around the main structure. The floor of the shed is dirt. There are both round and square posts supporting the shed roof. According to the Design Analysis completed by the Denver Service Center for the Blacksmith's Shop, a general contractor selected by the National Park Service completed stabilization work on all the buildings in 1998. The contractor replaced all but one of the shed support posts existing and installed several new shed support posts similar in size, shape, and configuration to those that existed historically. The round posts are modern, creosote logs, such as those used for telephone poles, and natural logs. The square posts are primarily modern, circular-sawn replacements with one historic square hewn post located on the southeast elevation (#6). The post sizes and characteristics are identified in the table and corresponding diagram below. It is probable that at least some of the posts are reused from other structures. Of note is the western corner post, which is a 10" diameter section of a tree trunk. Probably as a result of the assembly of the new roof framing, the beam and rafters are not bearing on post #13 as identified as a natural log in the Shed Post Framing table following.

Shed Post Framing

Post	Size	Type
1	8 1/2"	Round Creosote*
2	6" w x 5" d	Sawn Modern
3	8 1/2"	Round Creosote
4	6" w x 5" d	Sawn Modern
5	6" w x 6" d	Sawn Modern
6	9" w x 6" d	Hewn
7	7 1/2"	Round Creosote
8	6 1/4" w x 6" d	Sawn Modern
9	6" w x 6" d	Sawn Modern
10	6" w x 5" d	Sawn Modern
11	9"	Round Creosote
12	5" w x 6" d	Sawn Modern
13	13"	Natural Log
14	8 1/2"	Natural Log
15	7 1/2"	Round Creosote
16	6 1/4" w x 6" d	Sawn Modern

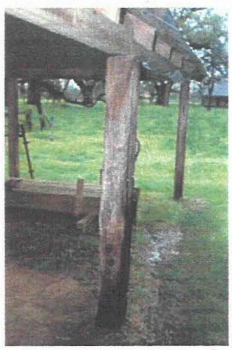


Shed post framing

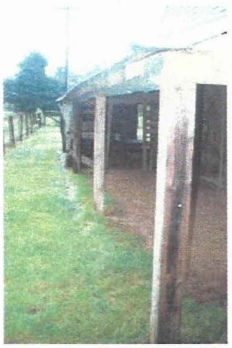
**Round Creosote* identifies round posts that have been treated with creosote.



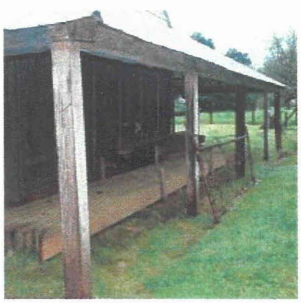
Located in the western corner of the livestock pen, post 13 does not support the header beam of the porch.



Hewn post in southeast elevation of porch



Posts of southwest porch



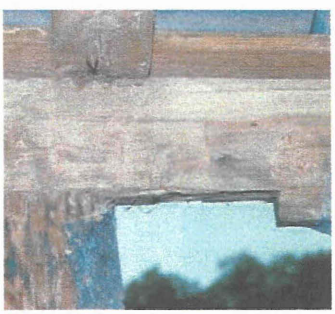
Posts of northeast porch



Detail of southeast porch roof

Shed Roof Framing

By 1998, the shed roof had been substantially rebuilt by a contractor for the National Park Service using circular-sawn lumber and new, galvanized roofing. The historic, hewn header beams



Detail of northwest porch roof

were retained and remain intact. The sizes and characteristics of the rafters and header beams are identified in the tables and corresponding diagrams below. Of particular note is the length of several of the header beams, which run the full length of the side of the shed.

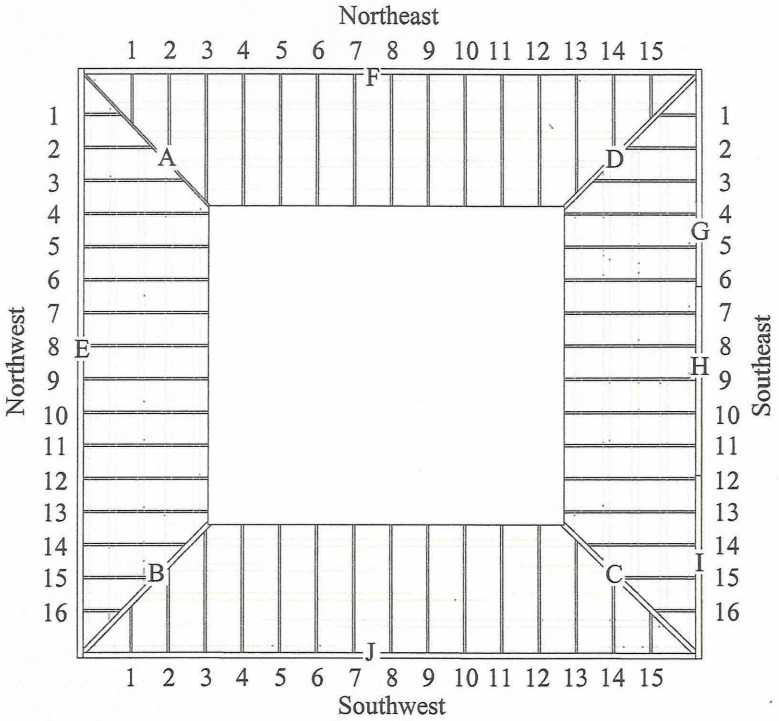
Shed Support Beams

Beam	Width	Height	Length	Finish
Ridge Beam A	2"	4 1/4"	Full	Sawn Circular
Ridge Beam B	4 1/2"	4 1/2"	Full	Hewn
Ridge Beam C	4 1/2"	3 1/2"	Full	Hewn
Ridge Beam D	5"	5"	Full	Planed Modern
E	5"	7"	Full	Hewn
F	5"	7"	Full	Hewn
G	5"	6"	16' 1/2"	Hewn
H	5 1/4"	7 1/4"	14' 3"	Sawn Modern
I	5 1/4"	7 1/4"	16' 4"	Sawn Circular Modern
J	5"	7"	Full	Hewn

Shed Roof Rafters

	NE		SE		NW		SW	
Rafter	Width	Height	Width	Height	Width	Height	Width	Height
1	2"	4"	2"	4"	2"	4"	2"	4"
2	2"	3 3/4"	2"	4"	2"	3 3/4"	2"	4"
3	2"	4 1/2"	2"	4"	2"	4 1/4"	2"	4 1/4"
4	2"	4"	2"	4 1/2"	2"	4"	2"	4"
5	2"	4 1/4"	2"	3 3/4"	2"	4 1/4"	2"	4 1/2"
6	2"	4 1/2"	2"	4 1/2"	2"	4"	2"	4 1/2"
7	2"	4 1/2"	2"	4"	2"	4 1/2"	2"	4 1/4"
8	2"	4 1/4"	2"	4 1/4"	2"	4"	2"	4 1/4"
9	2"	4 1/2"	2"	4 1/2"	2"	4"	2"	4"
10	2"	4"	2"	4 1/4"	2"	4 1/4"	2"	4 1/2"
11	2"	4 1/2"	2"	4"	2"	4"	2"	4 1/4"
12	2"	4"	2"	4 1/4"	2"	4"	2"	4"
12a*					4 1/2"			
13a*							2"	4 1/2"
13b*	2"	4"	2"	4 1/4"	2"	4"	2"	4"
14	2"	4"	2"	3 3/4"	2"	4 1/2"	2"	4 1/2"
15	2"	4"	2"	4 1/2"	2"	4"	2"	3 3/4"
15b*					3 1/2"			
16			2"	4 1/2"	2"	4 1/4"		

*Original pole rafter. Measurement denotes diameter of pole.




Detail of new metal roofing

Roofing

The main portion of the building has new, corrugated metal roofing applied over circular-sawn roofing lath installed by a contractor for the National Park Service prior to 1998. It is believed that the roof was originally covered with wood shingles.[26] Twelve rows of roofing lath measuring 4/4" by 10" run perpendicular to the roof framing on the main structure. There are 6" to 8" spaces between the rows of lath.

The shed roof has new, 5V metal roofing applied over circular-sawn roofing lath measuring 5/4" by 6" and spaced at approximately 20" on center. All the roofing and lath was installed by the contractor for the National Park Service by 1998.

Doors

Door 1: Door 1 is the main access to the interior of the Blacksmith's Shop. The opening measures 3'-9" by 8'-1". The framing members for this opening measure 10" by 10". This door is comprised of two layers of boards joined together with hand-wrought nails. The exterior of the door is comprised of ½"-thick, beaded boards that are arranged horizontally. The interior of the door is comprised of ½"-thick, beaded boards that are arranged vertically with tongue-and-groove connections. The sizes and configurations of the boards are identified in the tables and corresponding diagrams below. The exterior

[26] Yocum, p. 71.

boards are slightly larger than those used on the interior, and, thus, the overall measurements of the exterior vary slightly from those on the interior. The exterior measures 3'-9" by 7''-5" and the interior measures 3'-7½" by 7'-4". Wrought nails are used to join the boards together and are located every 2", horizontally, and every 1½", vertically.

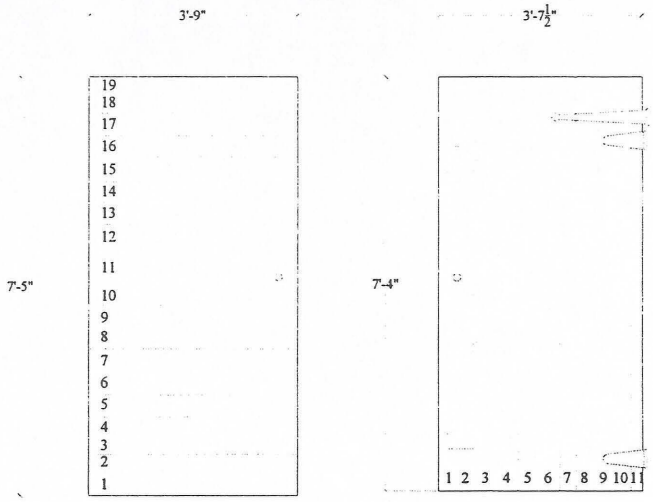
A vertically aligned board is nailed to the southwest side of the exterior elevation of the door. There is a small hole in this board at the approximate location that a lock or a latch might exist. While no locking mechanism currently exists, this hole may have once been related to earlier hardware.

The existing door hardware consists of three strap hinges, all of which are hand-wrought. The uppermost hinge appears older than the lower two and measures 21" by 3". The other two hinges measure 9½" by 4". Numerous imprints, made by branding irons, are evident on the interior face of this door. These imprints are interesting features of the historic character of the Blacksmith's Shop.

Door 1 Board Dimensions

Detail	Outside Dimensions
1	3 1/4" x 1/2"
2	4 1/2" x 1/2"
3	4 3/4" x 1/2"
4	4 1/2" x 1/2"
5	5" x 1/2"
6	4 1/2" x 1/2"
7	4 1/2" x 1/2"
8	5" x 1/2"
9	7 1/2" x 1/2"
10	4 1/2" x 1/2"
11	5" x 1/2"
12	4 1/4" x 1/2"
13	4 3/4" x 1/2"
14	5" x 1/2"
15	4 1/2" x 1/2"
16	4 1/2" x 1/2"
17	3 1/2" x 1/2"
18	3 1/2" x 1/2"
19	4 1/2" x 1/2"

Detail	Inside Dimensions
1	3 1/2" x 3/4"
2	4 1/2" x 3/4"
3	4 1/2" x 3/4"
4	4 1/2" x 3/4"
5	4 1/2" x 3/4"
6	4 1/4" x 3/4"
7	3 1/2" x 3/4"
8	3 3/4" x 3/4"
9	4" x 3/4"
10	4" x 3/4"
11	2 3/4" 3/4"



Outside Face Inside Face

Door 2: This door is located in the southeast wall of the livestock pen, a portion of which is located in the southwest shed. The small size of this door indicates its use for animal access. This door measures 1'-5" by 2'-1" and is constructed of two butt-jointed boards connected to two horizontal battens with wire nails. The butt-jointed boards are circular sawn and measure 12" by 4/4" and 5" by 4/4".[27] The battens are also circular sawn and measure 4" by 4/4" and 3½" by 4/4". The door hardware includes two hand-wrought strap hinges. The strap hinges measure 10" by 2". See below for illustrations.

Door 3: This door opening is located to the immediate southwest of Door 2 and provided access to the livestock pen. The opening is irregular in shape. Running clockwise along the inside and starting at the head, the door opening measures 2'-9½" by 6'-1" by 3'-3½" by 5'-11". There is no door in the opening. However, the 1986 HABS drawings illustrate a board-and-batten door hinged to the southwest post framing this opening. There is no head or jamb condition other than the adjacent posts, nor is there any remaining hardware associated with this opening.

Door 4: This door provides exterior access to the loft. The opening measures 5'-8" by 2'-4¾". The door measures 2'-4¼" by 6'-7½" and is constructed of four, circular-sawn boards measuring 2" by 6" by ¾". A ½" gap exists between each of the boards. Two horizontal battens and a cross brace are screwed to the boards. The battens and cross brace all measure 6½" by ¾". The contractor for the National Park Service installed this door when the metal roof and gable wood lap siding were replaced. The placement of this door is the same as that of the door that historically existed in this location according to photographs taken of the building prior to the rehabilitation work and according to the HABS drawings that were completed in 1986.

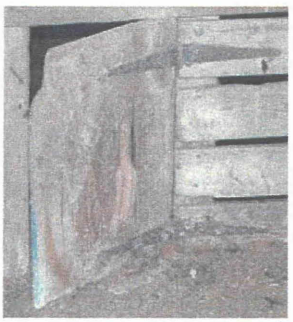
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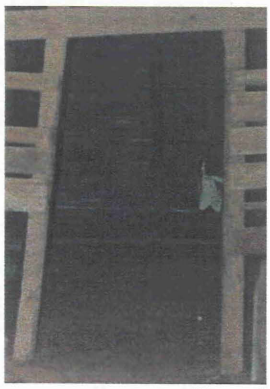
[27] The use of fractions in lumber dimensions denotes true measurements. For example, 4/4" indicates four quarters of an inch or a 1" lumber dimension.

Door Elevations

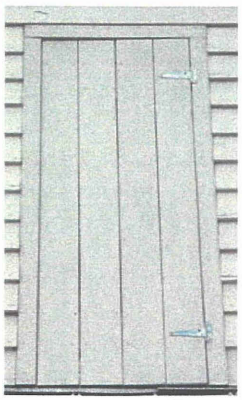

Door 1, Exterior


Door 1, Interior

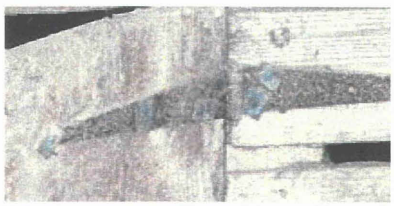

Door 2


Door 3

Door Details


Door 4


Strap hinges, Door 1


Strap hinge, Door 2

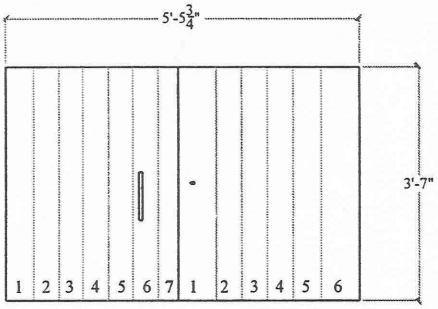
Windows

There are two windows in the Blacksmith Shop, one on the northeast elevation and one on the southwest elevation. Both windows are framed openings without sashes or casings. Each window was constructed to hold two outward-swinging, casement-type shutters. The nails joining the window shutters are wrought.

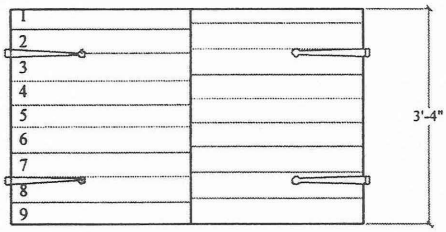
Window A: This window is located on the northeast wall. The window opening measures 5'-6" by 3'-4". Both of the shutters for this window are in place. They are each constructed of vertical, tongue-and-groove, bead boards measuring 4/4" thick. The bead profile measures ½" wide. The hardware for these shutters consists of four, wrought, strap hinges, two on the outer edge of each shutter. The hinges on the southeast shutter measure 15½" by 1½", and the hinges on the northwest shutter measure 14½" by 1½". The width and configuration of the boards are identified in the table and corresponding diagram on the following page.

Window A Shutters

Board #	Northwest Shutter	Southeast Shutter
1	5"	7"
2	4 3/4"	5"
3	4 3/4"	4 3/4"
4	4 1/2"	5"
5	4 3/4"	5"
6	4 3/4"	7"
7	3 1/2"	n/a



Window A, Interior

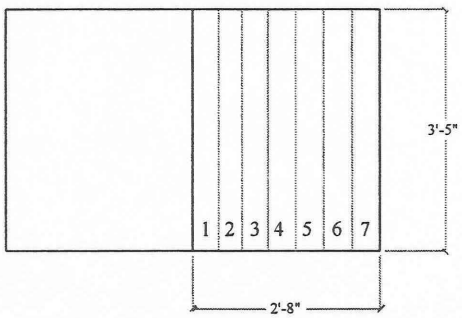


Window A, Exterior

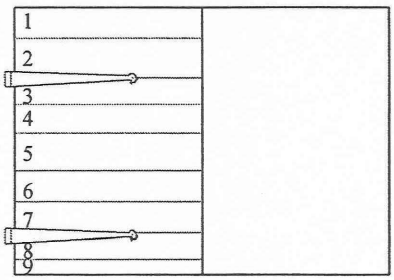
Window B: This window is located on the southwest wall. The dimensions of the opening are 5'-4" by 3'-1". Only the northwest shutter for this window is in place. The shutter is constructed of vertical, tongue-and-groove, bead boards measuring 4/4" thick. The bead profile measures ½" wide. The hardware for this shutter consists of two 2 ½" by 22 ½" wrought strap hinges located along its northwest edge. The width and configuration of the boards are identified in the table and corresponding diagram.

Window B Shutter

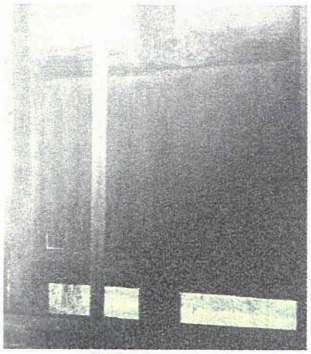
Board #	Width
1	4 1/2"
2	4 3/4"
3	4"
4	4 1/2"
5	4 3/4"
6	4 1/2"
7	4 1/2"
8	4"
9	2 1/2"



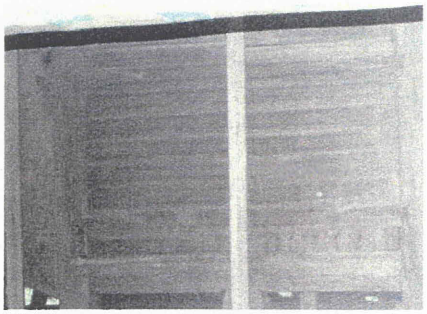
Window B, Interior



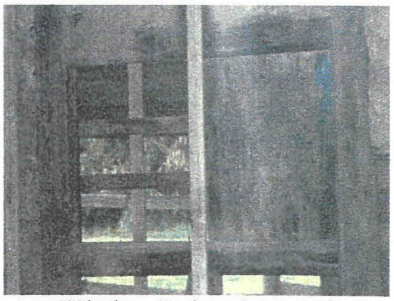
Window B, Exterior



Window A, interior, northeast elevation



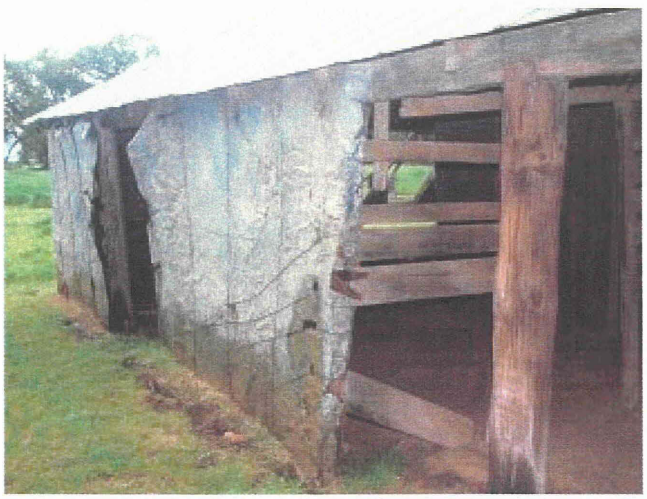
Window A, exterior, northeast elevation



Window B, interior, southwest elevation

Exterior Finish Materials and Characteristics

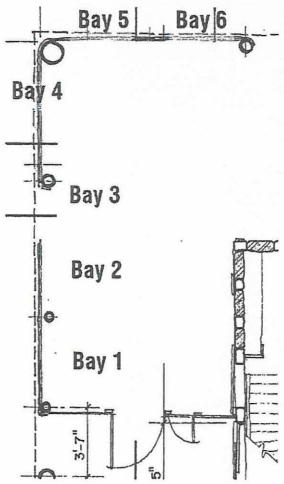
The depth of the shed varies on each elevation. On the southeast side, the shed measures 9'-2" deep. On the southwest side, the shed measures 10'-2" deep. On the northwest side, the shed measures 9'-8". One the northeast side, the shed measures 9'-4½" deep. The height of the shed ranges from 6'-4½" at the post line to 11'-1" at the wall of the main structure.



Livestock pen in southwest porch

Livestock Pen

The remains of a livestock pen are located in the west end of the southwest shed. This pen extends around to the northwest shed. The western ends of both the southwest and northwest elevations of the shed are partially enclosed with remnants of wood siding covered with 2'-4" wide, panels of galvanized sheet metal nailed to posts and random framing. Where existing, the sheet metal extends from the ground to the eave of the shed support beam to form a pen. For clarity in describing the interior characteristics of the pen, each bay of the exterior pen walls has been assigned a reference number. See the corresponding diagram on the following page.



Livestock Pen

Bay 1: Bay 1 is comprised of exposed pieces of 6" by 4/4" board siding framed between 5" diameter and 5½" diameter, round framing posts. The siding is covered on the exterior with sheet metal.

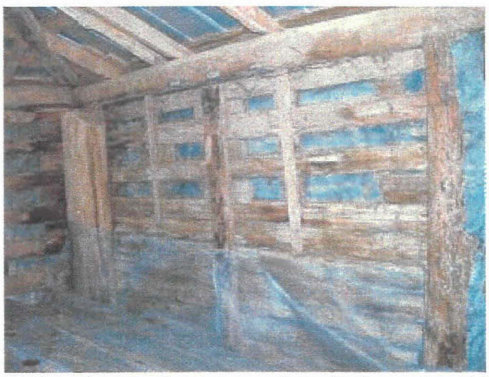

Southwest interior wall of livestock pen, southwest porch, bays 1, 2 and 3

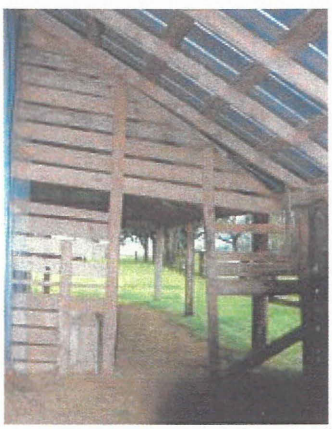
Bay 2: Bay 2 is comprised of exposed pieces of 6" by 4/4" board siding framed between a 5½" diameter round post and a 5" by 6" rectangular post. The siding is covered on the exterior with sheet metal.

Bay 3: Bay 3 is open to the exterior.

Bay 4: Bay 4 is comprised of seven, reused 4½" by 4/4" tongue-and-groove boards framed between an 8" diameter, reused, creosote post and a 13" diameter round post. There is a 5" space between each board. The siding is covered on the exterior with sheet metal.

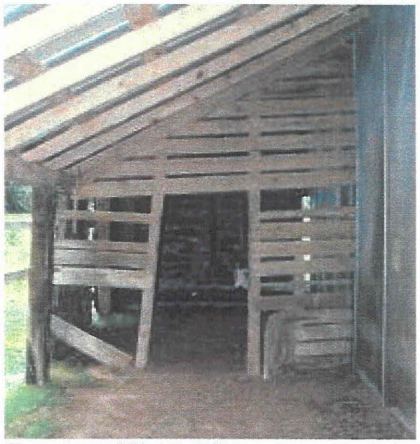
Bay 5: The upper portion of Bay 5 has three exposed 5½" by 4/4" boards framed between a 14" diameter, round post and a 4½" by 3½" rectangular post. There is a 3½" space between each board. The lower portion of the bay is comprised of eight, tongue-and-groove, 5½" by 4/4" boards framed between the posts. There is no gap between the boards in this section. The siding is covered on the exterior with sheet metal.


Interior northwest porch wall, bays 5 and 6


Southeast interior wall of livestock pen, southwest porch

Bay 6: The upper portion of Bay 6 is comprised of three exposed 5½" by 4/4" boards framed between a 4½" by 3½" rectangular post and a 9" diameter round post. There is a 3½" space between each board. The lower portion of the bay is comprised of eight, tongue-and-groove, 5½" by 4/4" boards framed between the posts. There is no gap between the boards in this section. The backsides of the exterior sheet metal panels are exposed behind the siding.

The southeast wall of the livestock pen consists of 4/4" thick boards of varying widths spanning the distance between the southwest exterior wall of the main building and the exterior edge of the porch. There are eight 6¼" boards above the height of the shed support beam. There is a 1" to 2" gap between these boards. Centrally located in this wall is Door 3. Door 2 is located to the northeast of Door 3. To the right of these doors, the boards enclosing the space vary from 2' to 6½" wide. To the left of these doors, the boards vary from 3½" to 7" wide. Several boards are missing in this section of the wall.

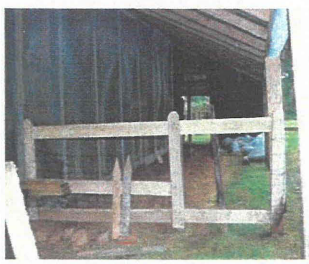


Exterior of livestock pen at west end of southwest porch



Strap hinge, southwestern porch

A strap hinge is located at the exterior, southwest edge of the shed support post at the end of this wall. It appears that it may have been used as hardware on a no longer existing gate to an exterior pen, which also no longer exists.



Fence located at the northeastern end of livestock pen

Located at the north corner of the northwest elevation of the main building is a fence that spans the depth of the porch, extending northwest from the corner of the main building to a shed support post. This fence line appears to have once been the northeastern end of the livestock pen. The fence is constructed of two, 4/4" thick, circular-sawn boards spanning the depth of the shed and framed between 4¾'' to 5½" wide by 4/4" thick, vertically aligned boards. A third board is vertically positioned in the fence line. This board measures 4¾" by 4/4". Framed between this third vertical fence board and the southeastern fence



Northwest exterior elevation of Blacksmith Shop, note livestock pen

post is a 6" by 4/4" board. Currently, the space between this fence line and the sheet metal enclosure located at the western end of the northwest elevation is open.


East end of southeast wall

Walls

The exterior walls of the Blacksmith's Shop are exposed timber framing and *bousillage* infill. Some of the *bousillage* has been lost. That which remains primarily exists in the upper portion of the walls, leaving the diagonal *barreaux* exposed between the framing on the lower section. *Barreaux* are small sticks of wood sharpened on the ends and inserted on a diagonal alignment into notches in the hewn posts. They provide additional bonding capacity for the *bousillage*. According to the materials analysis completed for this building, the *bousillage* was finished with a thin coat of clay-colored plaster, which is a darker shade than the red clay used in the infill. The National Park Service has installed temporary wire screening over the walls to protect them from carpenter bee infestation.

The condition of the suspended *bousillage* is of concern. Other than the *barreaux* described above, there is no support on the underside of the *bousillage*. Given the amount of traffic, particularly periodic heavy truck traffic, that passes by Magnolia Plantation, the *bousillage* is subject to continued deterioration. This issue, coupled with the threat of carpenter bee infestation, deserves particular attention. Possible solutions to this problem are discussed in the Treatment and Use section of this report.


Southwest elevation of Blacksmith Shop

The gabled ends of the structure, above the shed roof, are finished with ¾" thick, lapped siding with a 6" exposure. A board-and-batten door, Door 4, is located just right of center in the southwestern gable. All of the siding and the door are new and part of the 1998 stabilization work completed by the contractor for the National Park Service.

Interior Finish Materials and Characteristics

First Floor

The interior of the Blacksmith's Shop is comprised of one open room, a closet located in the western corner of the main room, and an attic space.

Ceiling

The ceiling is the unfinished underside of the loft flooring, which is unfinished and comprised of a series of 4/4" by 6" circular-sawn boards spanning from joist to joist and running in a northeast-southwest direction. There is a 2" space between each floorboard.



Dirt floor

Flooring

With the exception of the closet located in the west corner of the building, there is no finished flooring on the first floor of the Blacksmith Shop.

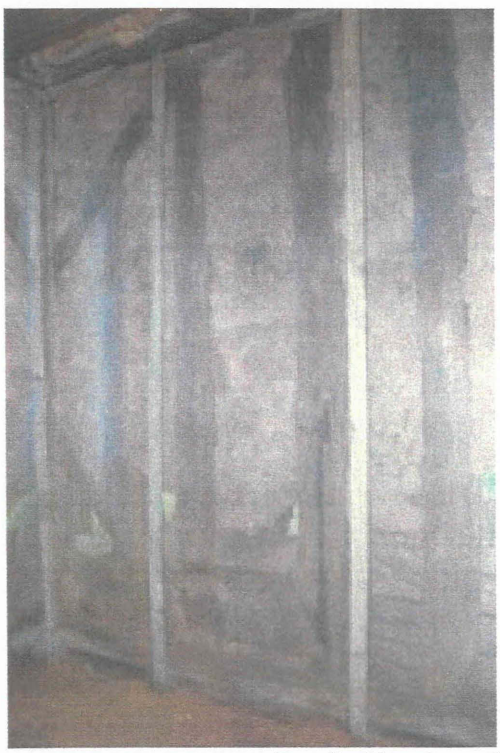


Closet flooring

Walls

The interior walls are the exposed timber framing and *bousillage* structure. According to the materials analysis completed for this building, the *bousillage* is finished with a thin coat of clay-colored plaster, which is a darker shade than the red clay used in the infill. Imprinted in the *bousillage* on the southeast interior wall are handprints, which presumably were made when the wall was constructed. It is possible that these handprints date to the original construction of the wall. Both these handprints and shoe soles nailed to the exterior wall are interesting artifacts from the building's period of occupation.

As with the exterior walls, the National Park Service has installed wire screening over the interior walls to prevent carpenter bee infestation. Door 1 is centrally located in the southeast wall. In addition, Windows A and B are centrally located in the northeast and southwest walls, respectively.



Detail of interior wall

Forge



Northwest elevation of forge

A forge is centrally located between the northeast and southwest walls, approximately 1'-4" from the northwest wall. It measures 4'-4" in diameter and is 2'-3" high. The forge is constructed of brick and coated in plaster. The plaster surface has deteriorated somewhat and overall appears in fair to poor condition. There is an opening in the southeast face of the forge. This opening extends to the interior of the forge, in which the crucible remains attached. The distance between the outside edge of the forge and the interior wall of the oven is 1'-11". Inscribed in the plaster on top of the forge, on the northeast side, is a date, March, 1924. This date may represent the month and year the forge was constructed, or it may represent the date the existing forge was replastered.



Detail of forge and crucible



Bench located along northeastern wall

Benches

A 9'-11" by 2'-3" bench is located along each of the northeast and southwest walls of the building. The top of the northeast bench is located 2'-1" above the floor and is constructed of two hewn boards that measure 10" by 3" and 11" by 3". The top of the southwest bench is located 2'-4" above the floor and is constructed of two hewn boards that measure 11" by 4" and 10" by 4". The benches are currently used for wood storage.

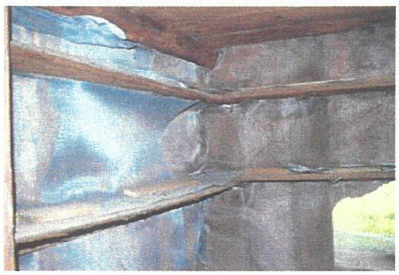
Closet

Located in the western corner of the building is a 5'-9½" by 6'-0" by 7'-8" closet constructed of circular-sawn boards. The entrance to this closet is through an opening located on its southeastern elevation. No door is associated with this opening. Two interior walls of the closet are the exposed framing and *bousillage* perimeter walls of the building. These walls have been covered with wire screening to prevent insect infestation. The two walls on the interior of the building are wood framed with horizontal siding on the long side and vertical siding on each side of the opening to the closet. The ceiling of the closet is comprised of seven boards of widths ranging from 9½" to 11¼" and oriented northeast to southwest. The flooring in the closet is comprised of five, butt-jointed boards oriented northeast to southwest. From the



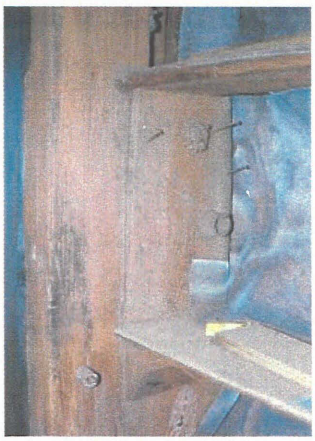
Exterior of closet

entrance to the closet towards the back, the floorboards measure 9", 12", 11¼", 11" and 11¼". At the back of the closet, a sixth board has been removed, leaving a space open to the dirt floor below. There is a board lying atop the floorboards, perpendicular to their orientation, at the northeast end of the closet. It appears that this board could be the sixth floorboard.


West interior corner of closet

Located on the interior northwest and southwest walls of the closet are several wooden shelves constructed of ½" to 1" thick boards supported by crude brackets. These brackets are simply pieces of wood affixed to the framing to provide support for the shelves. There are two shelves on the northwest wall. The top shelf measures 4'-3" by 9" by 1" and is supported by crude 8" by 13½" brackets. The top of this shelf is located approximately 5'-2" above the floor. The lower shelf measures 10" by 4'-3" by 1" and is supported by crude 7½" by 12½" brackets. The top of the lower shelf is located approximately 4'-1" above the closet floor.

There are also two shelves on the southwest wall. The top shelf is a 5'-2½" by 8¾" by ¾" board spanning the ends of two vertically aligned boards that are flush with the walls of the closet. These boards measure 8¾" by 3'-7" by 1". The top of this shelf is located approximately 5'-1½" above the floor. The lower shelf measures 5'-0½" by 9" by ½" and is supported by two crude brackets of differing sizes. The top of the lower shelf is located approximately 3'-11½" above the floor. The bracket supporting the southeast end of the shelf measures 2" by 4½". The bracket supporting the northwest end of the shelf measures 3" by 10" by 5". Located on the shelves are a few unidentified metal objects. The National Park Service should determine if these objects are artifacts related to the blacksmithing activities that occurred in this building.


South interior corner of closet

Attic

Ceiling

There is no finished ceiling in the attic. The roof framing is exposed to this room. The height of the attic from the finished floor to the roof ridge is 9'-7½".


Underside of attic floor

Flooring

The attic flooring is unfinished and comprised of a series of 4/4" by 6" circular-sawn boards spanning from joist to joist and running in a northeast-southwest direction. There is a 2" space between each floorboard. According to information provided in the Design Analysis and the materials analysis, some of the boards were replaced by a contractor working for the National Park Service

during 1998 stabilization and rehabilitation work. Those boards that were not newly installed are historic. There are two openings in the attic flooring that provide access to the attic. One is centrally located along the southwest wall and measures 6'-4" wide by 4'-11" deep. According to the Historic Structure Assessment for this building and the 1986 HABS drawings of the Blacksmith's Shop, a wood ladder was once located in this building. This ladder provided access to the attic through the southwest opening at one time. The ladder was badly deteriorated from termite damage and has been removed from the building. According to National Park Service staff, the historic ladder is currently being stored inside one of the slave cabins at Magnolia. The other opening is centered along the northwest wall between the two central floor joists. This opening measures 4'-9½"wide by 4'-8" deep, on the long axis of the floor.


Southwest opening to attic; note attic walls

Walls

The attic walls are comprised of the exposed roof and gabled end wall framing. The roof framing encloses the southeast and northwest sides of the attic with exposed rafters, roofing lath, and underside of the galvanized sheet metal roofing. The southwest and northeast walls are exposed vertical roof supports and the backside of the exterior lapped siding. Door 4 is located slightly off-center in the southwest wall.

Structural Evaluation

Although a structural analysis is not part of the investigation for this report, the building was inspected by a structural engineer from Hartrampf, Inc. The structure appears to be in generally sound condition. The National Park Service has undertaken stabilization measures to ensure the condition of this building. These measures appear to be adequate.

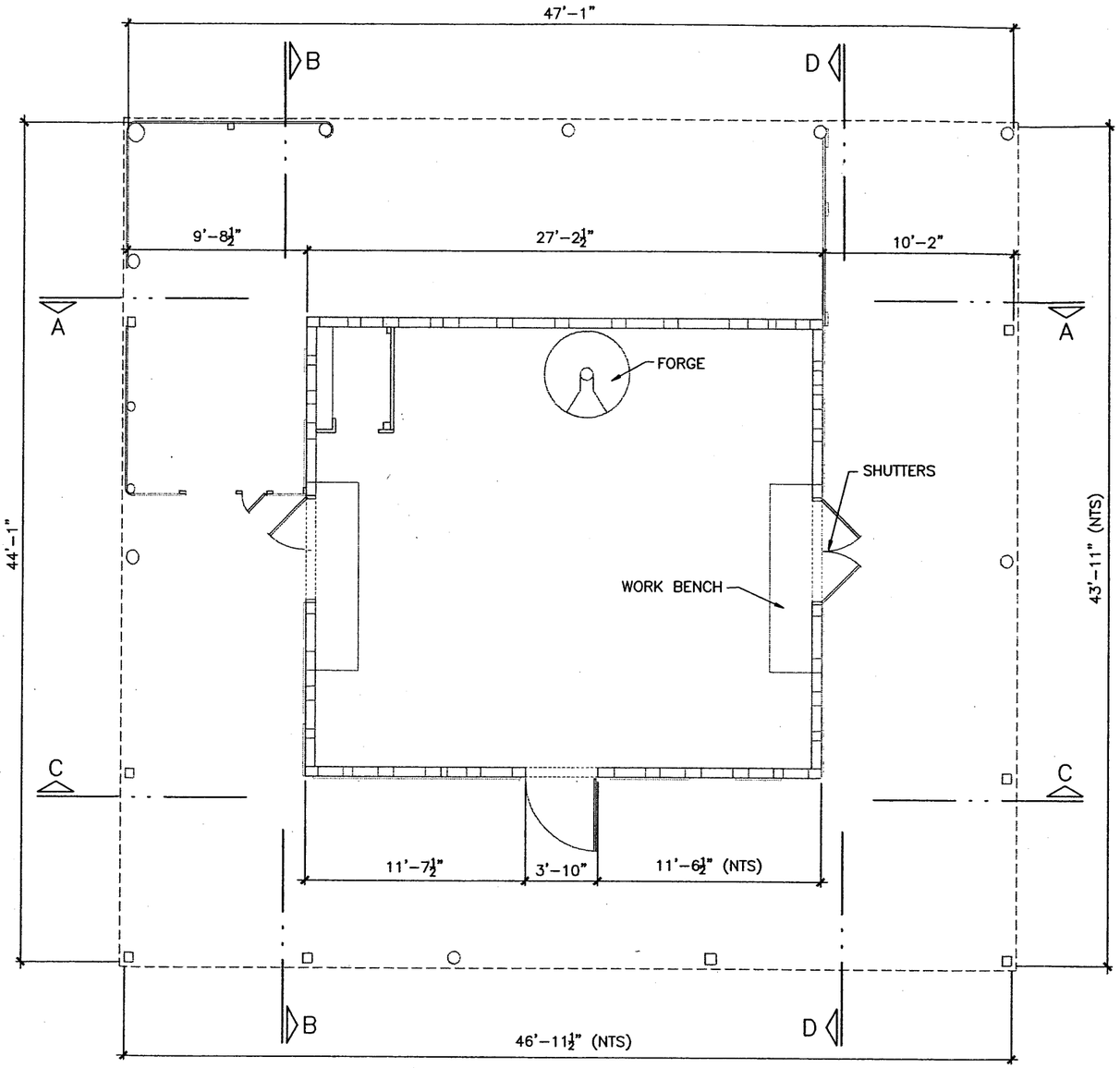
Electrical Evaluation

This structure has never been electrified, and there is currently no electricity to this structure. However, there is power on site, and power is available to the outside of this structure.

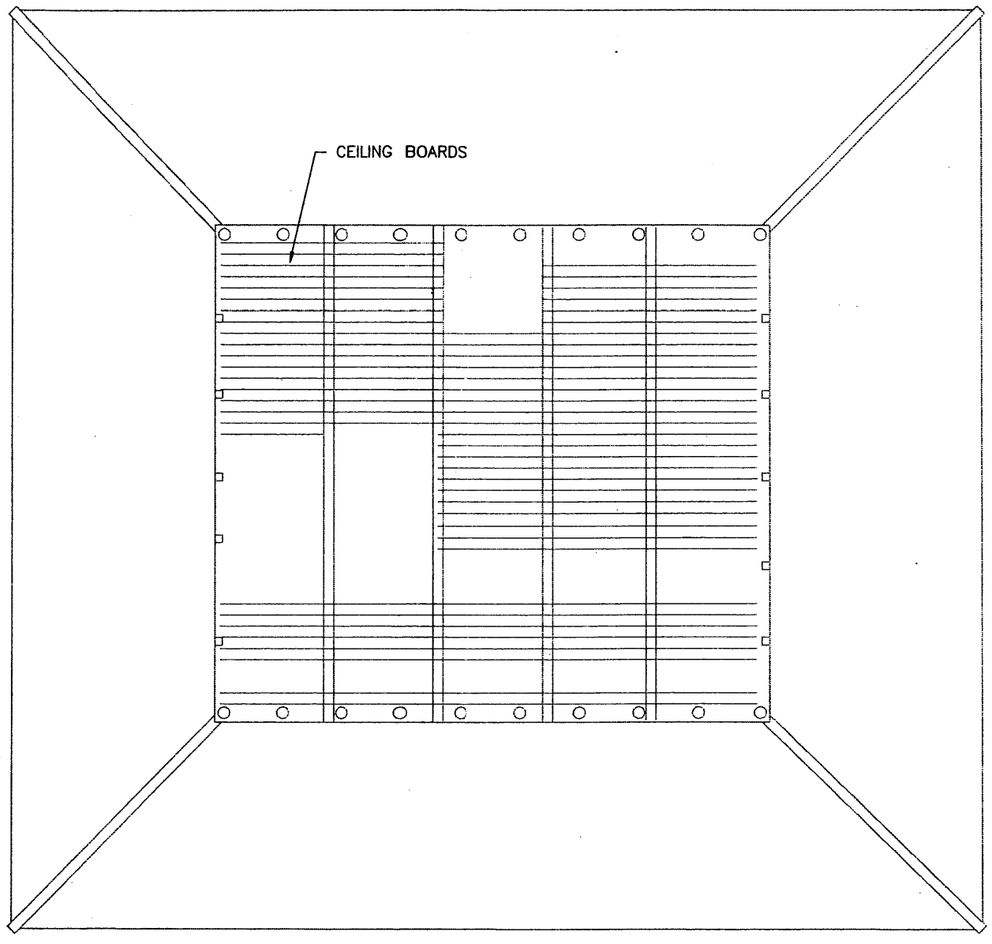
Summary of Materials Research Findings

Only two paint samples were taken from the Blacksmith's Shop during Barbara Yocum's materials analysis. The findings of this study revealed that both the interior and exterior *bousillage* walls were finished with a thin, light-orange coating, which could be plaster. No other finish was found on the walls. Trace evidence of whitewash was found on the doors and window shutters. No other finishes were found on the building.

Drawings – Blacksmith's Shop



1 / A1 FIRST FLOOR PLAN
SCALE (A)



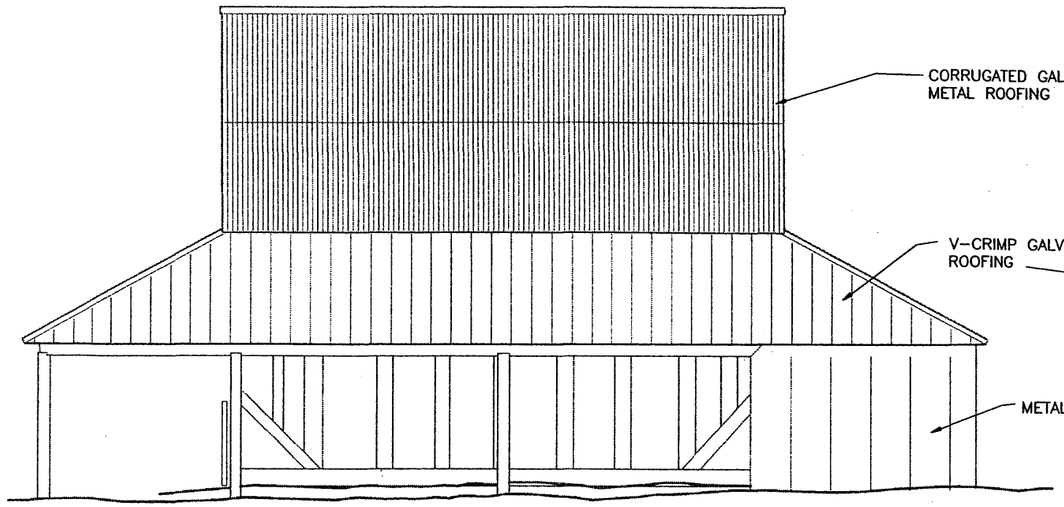
2 / A1 ATTIC FLOOR PLAN
SCALE (A)

BLDG

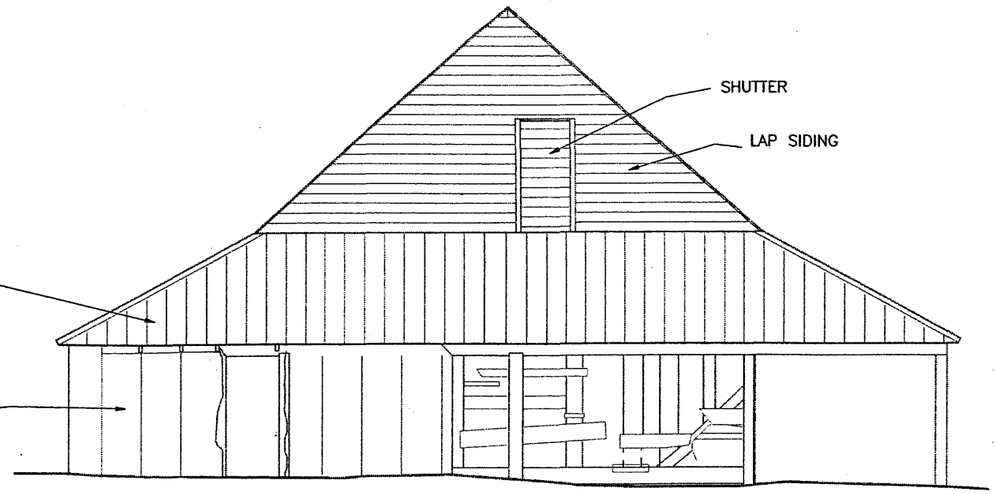
4 0 4 8
SCALE OF FEET

DESIGNED: CADD TECH. REVIEW: DATE: 11/02	SUB SHEET NO. A1	TITLE OF SHEET BLACKSMITH SHOP EXISTING PLANS MAGNOLIA PLANTATION CANE RIVER CREOLE NHP	DRAWING NO. 494 PKG. NO. CARI 103 SHEET 4 OF 9	

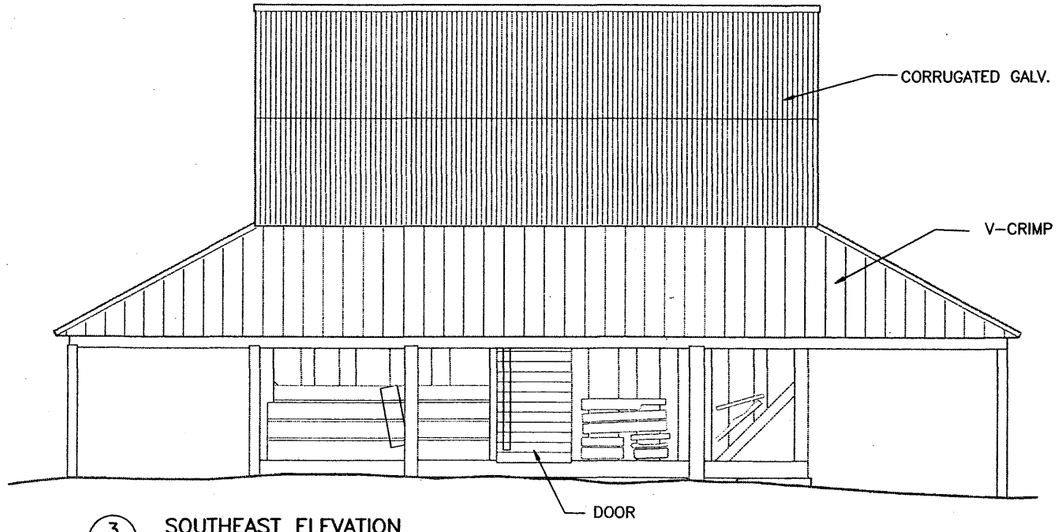
11/25/02 12:20 THOMASS R15 P:\CARI\103\BLACKSMITH\EXISTING\A1 PLANS.DWG XREFS: P:\CARI\103\BLACKSMITH\BASE\X_BASE PLANS.DWG;



1/A2 NORTHWEST ELEVATION
SCALE (A)

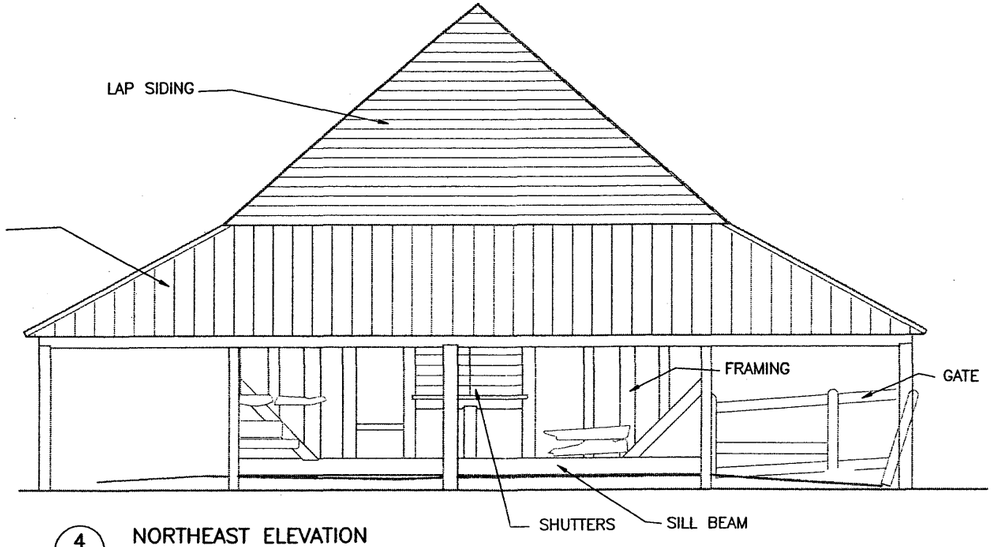


2/A2 SOUTHWEST ELEVATION
SCALE (A)



3/A2 SOUTHEAST ELEVATION
SCALE (A)

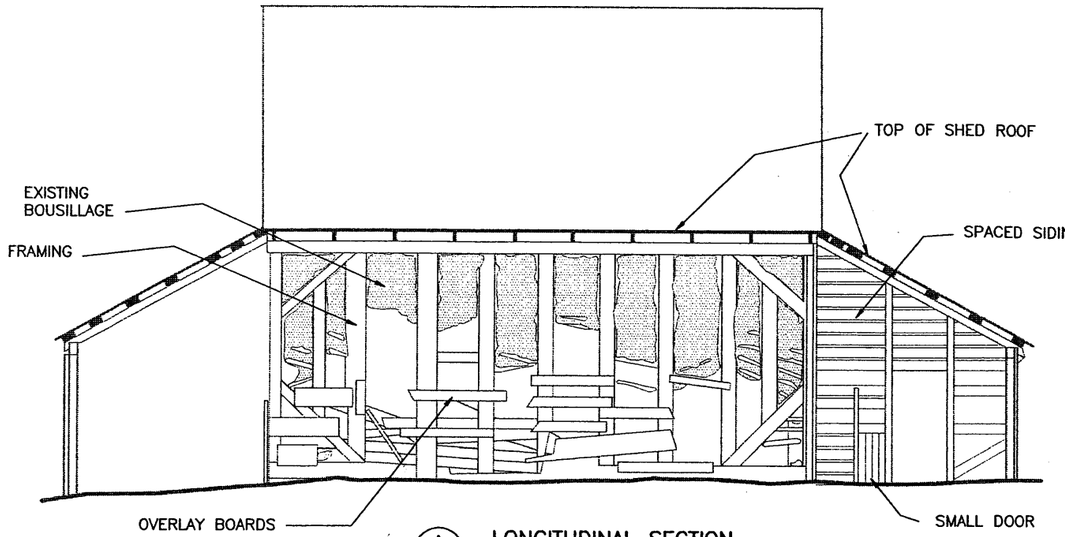
NOTE: SEE SECTIONS FOR BOUSILLAGE, FRAMING AND BOARD OVERLAY.



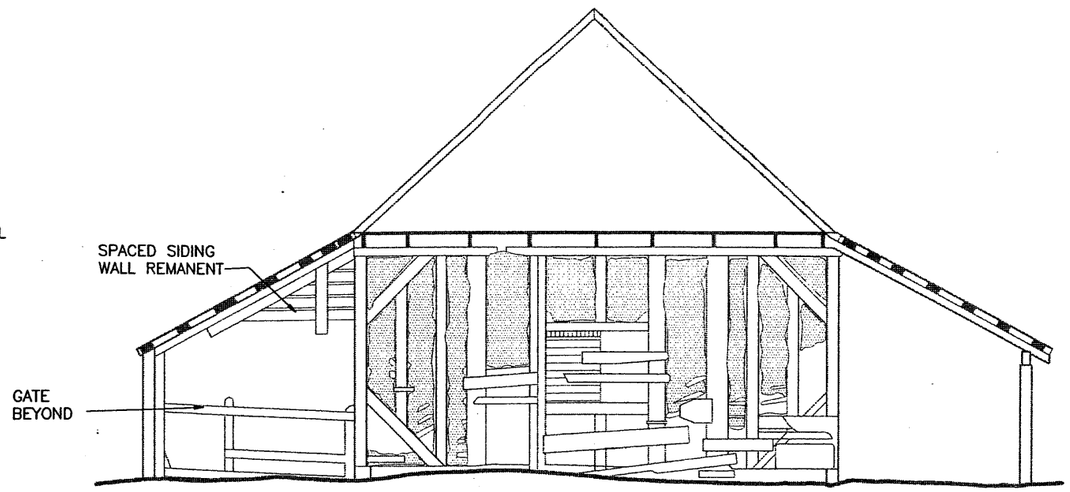
4/A2 NORTHEAST ELEVATION
SCALE (A)

DESIGNED: GADD TECH. REVIEW: DATE: 11/02	SUB SHEET NO. A2	TITLE OF SHEET BLACKSMITH SHOP EXISTING ELEVATIONS MAGNOLIA PLANTATION CANE RIVER CREOLE NHP	DRAWING NO. 494 PKG. NO. CARI 103	SHEET 5 OF 9

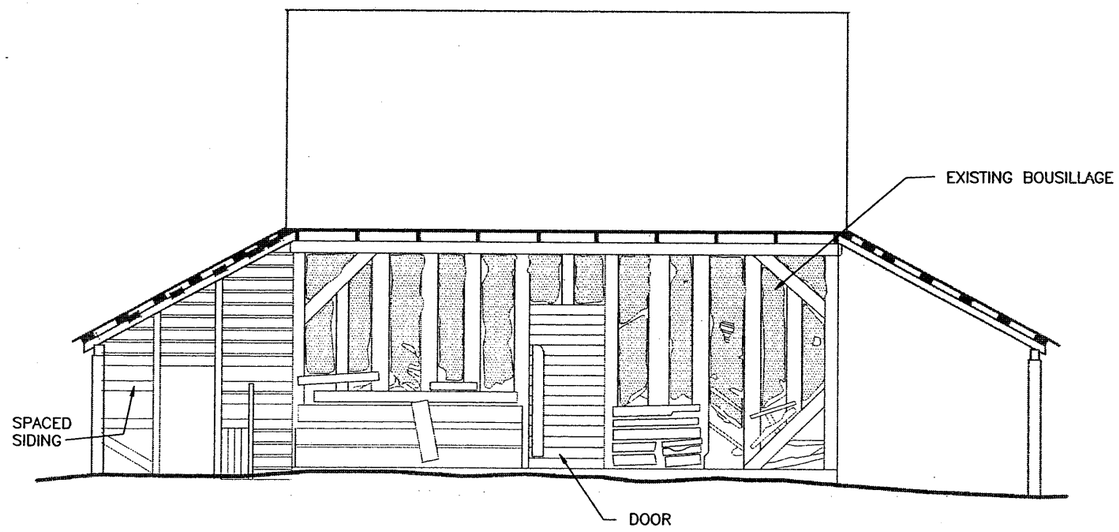
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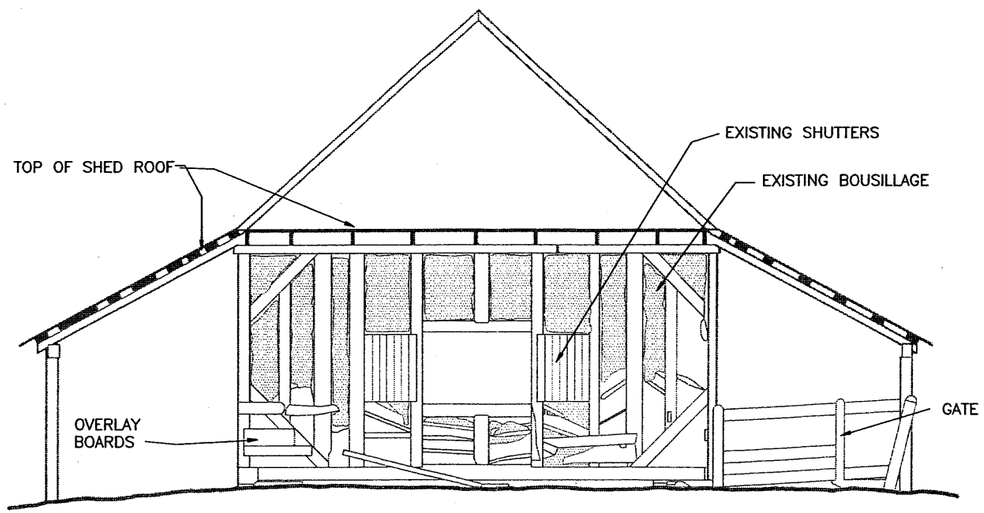
A / A3 LONGITUDINAL SECTION
SCALE (A)



B / A3 TRANSVERSE SECTION
SCALE (A)



C / A3 LONGITUDINAL SECTION
SCALE (A)



D / A3 TRANSVERSE SECTION
SCALE (A)

SCALE (A) 4 0 4 8
SCALE OF FEET

DESIGNED: CADD TECH. REVIEW: DATE: 11/02	SUB SHEET NO. A3	TITLE OF SHEET BLACKSMITH SHOP EXISTING SECTIONS MAGNOLIA PLANTATION CANE RIVER CREOLE NHP	DRAWING NO. 494 PKG. NO. CARI 103 SHEET 6 OF 9

11/25/02 12:23 THOMASS R15 P:\CARI\103\BLACKSMITH\EXISTING\A3 SECTIONS.DWG

Physical Description - Pigeonnier


Northeast elevation of Pigeonnier

Summary of Historic Character

The Pigeonnier is a square, 10'-3½" by 10'-4", two-story, heavy timber frame building with a pyramidal roof. Two doors are located on the northeast elevation, one at the first story and one at the second story. There is no interior access between the two levels of the building. Pigeonholes are located just above the finished floor of the upper story on the southeast, southwest and northwest elevations. Historically, a bracketed shelf, or perch, was located beneath each set of pigeonholes. Only one of these perches remains.

The Pigeonnier was used for storage and to house pigeons. The first story of the building was used for storage and has shelving on the southwest, northwest, and parts of the northeast walls. The second story was used for pigeon roosting and has tiered perches on the southeast, southwest and northwest walls. The pigeons would enter the building through the pigeonholes and rest, or "roost" on these perches.

To stabilize the structure, the National Park Service installed a protective plywood door on the first story, patched the exterior siding with plywood, covered the pigeonholes with screen wire, and constructed a structural brace at the western exterior corner of the building. All of these stabilization measures are temporary and will not impact the historic integrity of the building.

Structural System

Foundation

Stone piers support the east, west and north corners of the building. However, the west pier is on grade due to a combination of settling and/or earth fill around the base of the structure. Likewise, the sill is in contact with the earth at the western corner of the building.


Remnants of west pier


East foundation pier

The east foundation pier measures 13" by 11½" by 4½". The pier is in fair condition. However, due to the slope of the grade the southeastern sill is in contact with the ground just beyond the pier. Two boards, stacked one upon another and measuring 9½" by 6½" by ¼" and 9½" by 6½" by 1¼" have been shimmed between the pier and the sill. The purpose of the shim is not certain. However, a similar foundation treatment has been identified on other buildings at Magnolia and Oakland Plantations. On these buildings it was determined that the wood shims were installed as barriers meant to prevent moisture

that had risen through the masonry piers from penetrating the wood sills. It is also a possibility that the shims were installed as a means of leveling the structure.


North foundation pier

The north foundation pier measures 11" by 7 ½" by 2". The stone has deteriorated, is spalling, and is in poor condition. Two 1½" thick boards have been shimmed side by side between the pier and sill. While these boards appear sound, they do exhibit some weathering.

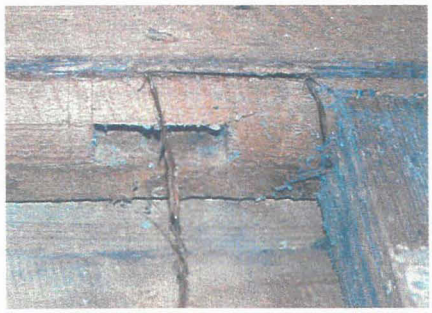

Sill on grade, south corner


Second story floor framing

Floor Framing

Access to the first floor framing is limited to visual observations from the edge of the structure due to the close proximity of the structure to the ground. The northeast sill beam measures 8" by 8", the southeast sill beam measures 7" by 7¼", and the northwest sill beam measures 7" by 5". The southwest sill beam was not accessible. Each of the observed beams is hewn. Observations of the first floor framing made from the northeast side of the structure indicate a 3' dimension between the northeast sill beam and the closest floor joist. This hewn joist is located at approximately the third point in the structure, runs in a northwest to southeast direction, and is framed into a pocket in the southeast sill beam. HABS drawings indicate that there are two floor joists spanning the sills. The second joist is not visible from the edge of the structure. However, given the characteristics of the existing framing, it is likely that both the southwest floor joist and sill beam are hewn members.

The floor framing for the second floor also consists of two joists running northwest to southeast and framed into the perimeter beams. The northeast joist measures 6" by 4". The southwest joist measures 4¾" by 4". The northeast perimeter beam measures 8" by 4¾", the southeast perimeter beam measures 8" by 5¾", the southwest perimeter beam measures 8½" by 5½", and the northwest perimeter beam measures 8½" by 5¾". The joists are hewn, but the perimeter beams are circular sawn. There are open mortises in the underside of the northeast beam, indicating it was recycled from another location, a common practice.


Unused mortise in northeast beam



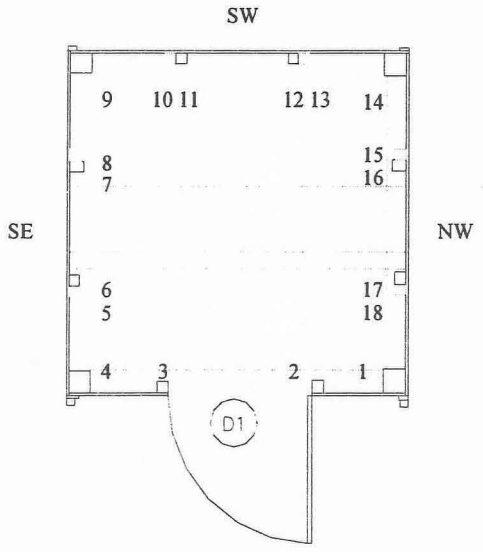
Southwest wall framing, first story

Wall Framing

The wall framing in the Pigeonnier is a braced frame construction exposed on the interior of the structure. Diagonal bracing exists in the southeast, southwest, and northwest walls at the first floor. The wall framing members are all circular sawn and of random sizes. The spacing of the members varies slightly on each wall. On the northeast wall, the spacing between the posts measures 1'-8½" to 4'-4" to 1'-11½". On the southeast wall, the spacing between the posts measures 2'-6" to 3'-0" to 2'-7". On the southwest wall, the spacing between the posts measures 2'-6" to 3'-0½" to 2'-6". On the northwest wall, the spacing between the posts measures 2'-6½" to 3'-0" to 2'-4". The characteristics of the wall framing members are presented in the tables and corresponding diagrams on the following pages.

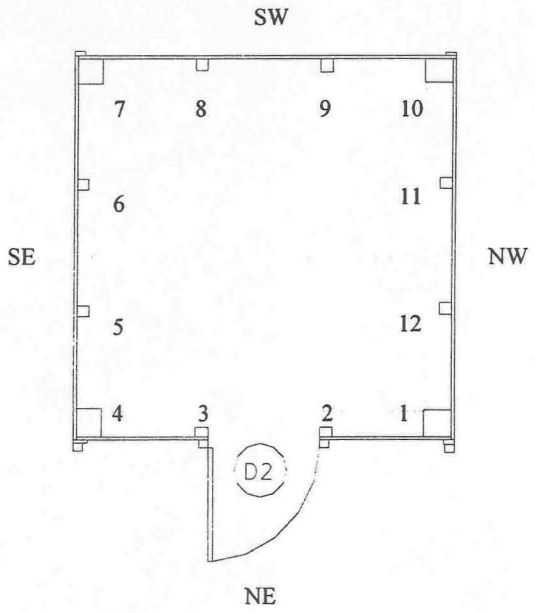
First Floor Wall Framing

Post #	Cut	Width	Depth	Connection
Northeast				
1	Circular Sawn	8 1/2"	7 7/8"	Mortise and Tenon
2	Circular Sawn	4 1/2"	4 1/4"	Mortise and Tenon
3	Circular Sawn	3 7/8"	3 7/8"	Mortise and Tenon
4	Circular Sawn	7 3/4"	7 1/2"	Mortise and Tenon
Southeast				
5	Circular Sawn	4 1/8"	3 7/8"	Mortise and Tenon
6	Circular Sawn	3 7/8"	3 1/2"	Mortise and Tenon
7	Circular Sawn	3 3/4"	4 7/8"	Mortise and Tenon
8	Circular Sawn	4 1/4"	4 3/4"	Mortise and Tenon
9	Circular Sawn	7"	7 3/4"	Mortise and Tenon
Southwest				
10	Circular Sawn	4 1/4"	4"	Mortise and Tenon
11	Circular Sawn	3 3/4"	3 7/8"	Mortise and Tenon
12	Circular Sawn	3 3/4"	3 1/2'	Mortise and Tenon
13	Circular Sawn	4 1/4'	3 7/8"	Mortise and Tenon
14	Circular Sawn	8"	8"	Mortise and Tenon
Northwest				
15	Circular Sawn	4 1/2"	3 3/4"	Mortise and Tenon
16	Circular Sawn	4"	5"	Mortise and Tenon
17	Circular Sawn	4 1/2"	3 7/8"	Mortise and Tenon
18	Circular Sawn	3 3/4"	3 3/8"	Mortise and Tenon



First Floor Plan

Post	Cut	Width	Depth	Connection
Northeast				
1	Circular Sawn	9"	8 1/2"	Mortise and Tenon
2	Circular Sawn	4"	3"	Mortise and Tenon
3	Circular Sawn	4 1/4"	3"	Mortise and Tenon
4	Circular Sawn	8"	9"	Mortise and Tenon
Southeast				
	Circular Sawn	3 1/2"	3 3/4"	Mortise and Tenon
6	Circular Sawn	3 1/2"	3 1/2"	Mortise and Tenon
7	Circular Sawn	8"	8"	Mortise and Tenon
Southwest				
8	Circular Sawn	3 3/4"	3 3/4"	Mortise and Tenon
9	Circular Sawn	4'	4 1/4"	Mortise and Tenon
10	Circular Sawn	9"	7 1/2"	Mortise and Tenon
Northwest				
11	Circular Sawn	3 1/2"	4"	Mortise and Tenon
12	Circular Sawn	3 3/4"	4"	Mortise and Tenon



Second Floor Plan

Roof Framing

The roof framing is comprised of a circular- and sash-sawn top plate and rafters. A 6½" by 4½" circular-sawn girt running southeast to northwest spans the top plate at midpoint. Because the roof is hipped, there is no ridge beam. The rafters are connected to a vertical support post. This vertical post is hewn, measures 7¾" by 8", and is supported by the underlying girt. The sizes, characteristics, and configurations of the beams and rafters are identified in the table and corresponding diagram below.



Detail of post and rafter connections



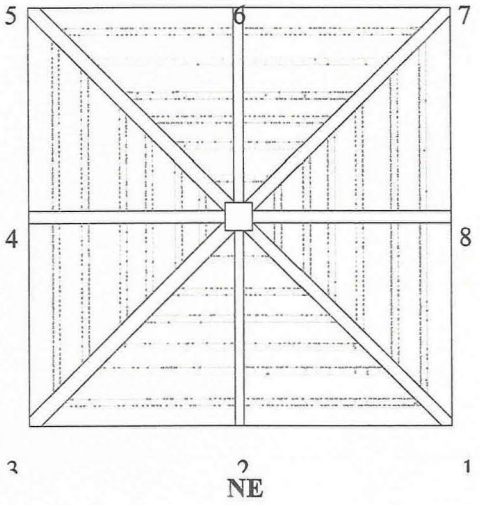
Roof framing



Detail of top plate and girt

Roof Framing

Beam / Rafter	Cut	Width	Height
Northeast			
Beam	Circular Sawn	8"	8"
Rafter 1	Circular Sawn	3 1/2"	5"
Rafter 2	Circular Sawn	2 1/2"	3 3/4"
Southeast			
Beam	Circular Sawn	8 1/2"	8 1/4"
Rafter 3	Circular Sawn	3 1/2"	3 1/2"
Rafter 4	Circular Sawn	8"	8"
Southwest			
Beam	Circular Sawn	8 1/2"	8"
Rafter 5	Circular Sawn	4'	4 1/4"
Rafter 6	Circular Sawn	2 3/4"	3 3/4"
Northwest			
Beam	Circular Sawn	8 1/2"	8"
Rafter 7*	Circular Sawn	3 1/2"	3"
Rafter 8**	Circular Sawn	3 1/2"	3 1/2"



Reflected Ceiling Plan

*Note that this rafter is a quarter round beam.
**Rafter 8 is a modern replacement.

Roofing

The building has 5V-metal roofing applied over wood shingles on shingle lath. Additionally, there are galvanized metal panels over each of the four ridges of the roof. The shingle lath is circular sawn and measures 4/4" thick[28] and ranges from 6¾" to 12" wide. There is approximately a 2" wide space between the shingle lath.



Detail of metal roofing



Shingle lath and overlying wood shingles

Doors

Door 1 / Opening 1: This door opening is located on the first floor of the northeast elevation of the building and measures 4'-4½" wide by 6'-6" high. The historic door for this opening (Door 2) has been removed from its frame and is stored on the first floor. A plywood stabilization door has been constructed and installed in this opening by the National Park Service to secure the building at the first floor. The plywood door is fitted with a metal louver to aid in ventilation of the building. The strap hinges used on this door are Type 1 and measure 1½" by 15¼" and 1½" by 15¼". A tag on the upper hinge reveals that the hinges were taken from another location on the plantation and installed on the stabilization door. See below for illustrations.

Door 2: This door has been removed from its frame and is leaning against the shelving on the northwest wall of the first floor. The door measures 4'-3¾" by 6'-4½" and is constructed of nine circular-sawn, vertical, butt-jointed boards. These boards measure 5¾", 5¾", 5½", 5¾", 5¾", 5¾", 5¾", 5", and 6¼" wide by 4/4" thick. Two horizontal battens connect the boards on the interior face of the door. These battens measure 5¾" by 4/4" and 6" by 4/4". Cut nails were observed on this door. The door hardware includes two wrought iron strap hinges and a rim lock. The strap hinges are Type 2 and measure 9" by 1½" by ¼" and 9¼" by 1½" by ¼". See below for illustrations.

Door 3/ Opening 2: This door is located on the second floor of the northeast elevation. The opening measures 3'-½" by 5'-5". The door measures 3'-1" by 5'-5¼" and is constructed of five circular-sawn, tongue-and-groove, beaded boards. These boards measure 8½", 8¾", 9½", 7", and 3" wide by 4/4" thick. Two horizontal, beaded battens connect the boards on the interior face of the door. These battens measure 7¼" by 4/4" and 7½" by 4/4". Cut nails were used to attach the boards to the battens. The door hardware includes two historic, wrought iron strap hinges, one modern, galvanized strap

[28] The use of fractions in lumber dimensions denotes true measurements. For example, 4/4" indicates four quarters of an inch or a 1" lumber dimension.

hinge, and an historic rim lock. The historic strap hinges are Type 1 and measure 11½" by 1¾" and 11" by 1¼". The modern strap hinge has been installed on the northwest door jamb as a hasp for the door. The rim lock measures 1" by 3¼" by 4". See below for illustrations.

Door Elevations



Door 1, Exterior



Door 1, Interior



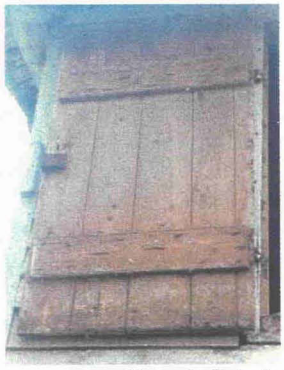
Door 2, Exterior



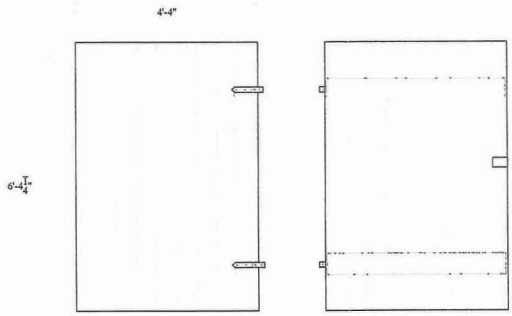
Door 2, Interior



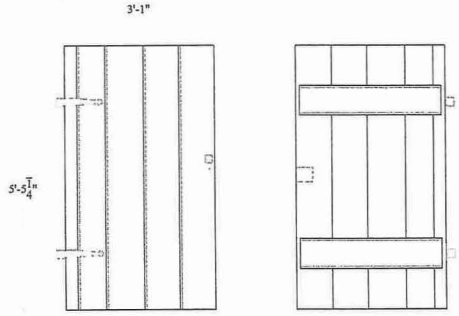
Door 2, Exterior



Door 2, Interior



Door 1



Door 2

Door Details



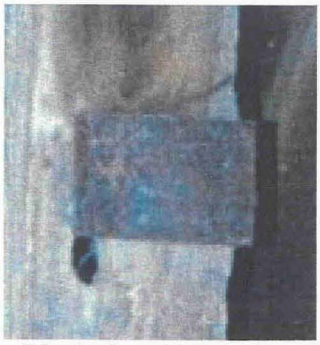
Type 1 strap hinge, used on temporary Door 1



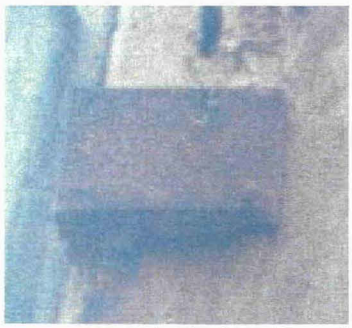
Type 2 strap hinge, used on historic Door 1



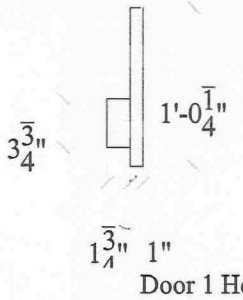
Type 1 strap hinge, used on temporary Door 1



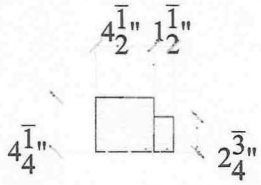
Rim lock on historic Door 1.



Rim lock on Door 2



Door 1 Head



Door 1 Jamb

Pigeonholes and Perches

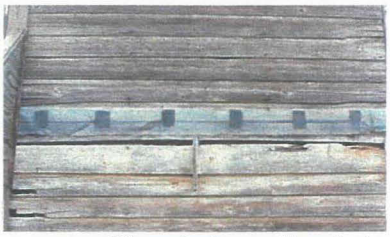
There are several small openings located just above the second story floor line on the southeast, southwest, and northwest elevations of the Pigeonnier. These openings are pigeonholes and provided the plantation pigeons with access to the upper floor roost of the building. Typically, the pigeonholes are approximately square with a slightly arched top and span two boards of the lapped siding. The National Park Service has covered these holes with wire mesh to protect the building from invasive insects and animals. On the exterior of the structure and beneath the pigeonholes were originally bracket-supported ledges that provided perches for pigeons.



Pigeonholes and roosting ledge, southeast elevation

Southeast Elevation

There were originally four pigeonholes on this elevation. Three of the holes have been deteriorated, resulting in one larger, horizontal opening. The fourth hole is located to the right of this larger opening. The original, intact hole measures 4" by 6" with a slight curve (the height of the arc is ¾") along the top. Observation of the three altered holes suggests that they were originally similar in size to the fourth. They were spaced approximately 14" apart. A perch supported by three, equally spaced brackets is located beneath the holes. The shelf measures 6" by 10'-3" by ¾". See bracket detail below.



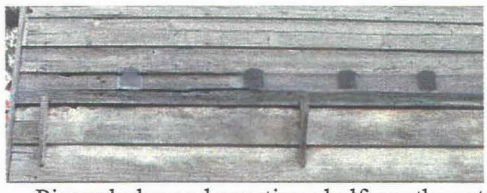
Pigeonholes and brackets, southwest elevation

Southwest Elevation

There are six pigeonholes on the southwest elevation, each measuring 4" by 6" and spaced 12" to 14" apart. The perch beneath the holes no longer exists. However, two brackets that once supported the perch still exist. The spacing of the brackets suggests that a third was at one time located on the western end of the elevation. See bracket detail below.

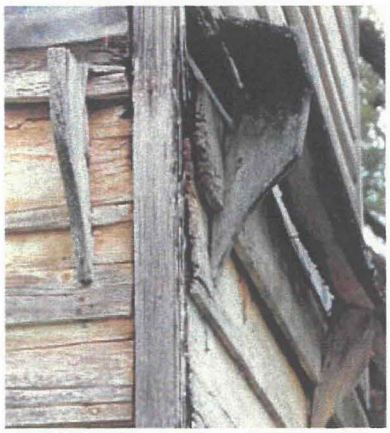
Northwest Elevation

There are five pigeonholes on the northwest elevation, each measuring 4" by 5". The spacing between these holes varies from 13" to 22". There is no perch board roosting shelf beneath the holes. However, there are two brackets located beneath the holes that, along with a missing third bracket, once supported a perch. See bracket detail below.

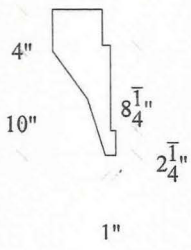


Pigeonholes and roosting shelf, northwest elevation

Roosting Shelf Details



Detail of roosting shelf brackets, south corner

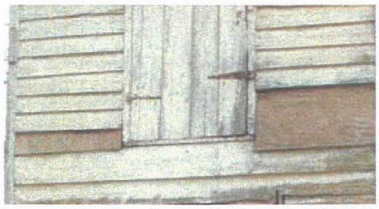


Exterior Finish Materials and Characteristics

The exterior of the Pigeonnier is clad in lap siding. The siding boards generally have a 1" lap and vary in size. Corner boards, measuring 6" wide, exist on all four corners of the building. Rectangular sheet metal, measuring approximately 19" wide and 24" long, wraps around the corner boards just above midpoint of the first story on the north, east and west corners of the building. A shadow where a metal strap was once located is evident on the south corner of the building in a location similar to the other straps. There is a metal panel located on the ground near this corner. This is likely the missing panel. A new, triangular, galvanized metal panel has been installed beneath this shadow.



Metal strap on east corner of Pigeonnier



Plywood applied to northeast elevation

Northeast Elevation

The exposure of the lap siding on northeast elevation ranges from 5¾" to 9½". The bottom four boards on this wall are butt-jointed, and measure 5", 8", 8", and 8½" wide, respectively. Plywood has been installed on both sides of Door 3, just above the floor line of the second story, where the lap siding is missing.



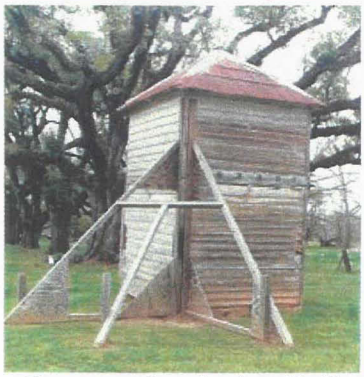
Eastern view of Pigeonnier

Southeast Elevation

The exposure of the lap siding on the southeast elevation ranges from 6¼" to 9½". The exposure of the bottom board of this siding is slightly larger than the average on this elevation, measuring 10½". There is a 6" by 12" metal panel nailed under the exposed rafters at each corner of the wall. It is presumed that these panels were installed over the openings beneath the rafters as a means of preventing access to the roosting area from the eaves.



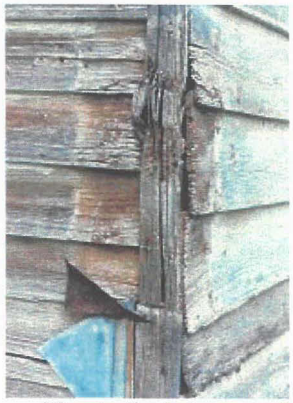
Note metal panel beneath rafter



Temporary bracing installed by the National Park Service

Southwest Elevation

The exposure of the lap siding on the southwest elevation ranges from 5¾" to 8½". The National Park Service has constructed a plywood and modern-dimension-lumber bracing system on the western corner of the building as a temporary stabilization measure. This bracing is in response to the lean of the structure in that direction. The lean in the structure is likely a physical response to the deterioration of the foundation pier and/or the sill beam at the western corner of the building. As a result of the deterioration, it is possible that the building's joints have weakened and settled, resulting in a shifting of the structure. This theory is based upon the absence of any significant spacing between the eastern corner pier and the sill beams at that location. If the building had merely leaned as a result of the deteriorated foundation support without experiencing movement in the framing connections, it would have lifted off the eastern corner pier to compensate for the opposing deteriorated pier beneath the western corner.



Ghost of missing metal panel on south corner – note the new galvanized metal panel below.

Northwest Elevation

The exposure of the lap siding on the northwest elevation ranges from 5½" to 9". There is a 6" by 12" sheet metal panel nailed under the exposed rafters at each corner of the wall. It is presumed that these panels were installed over the openings beneath the rafters as a means of preventing access to the roosting area from the eaves. .

Interior Finish Materials and Characteristics

First Story / Room 100



First floor ceiling

Ceiling

The ceiling height in Room 100 is 8'-2½" to the underside of the second floor floorboards. The floor framing and flooring of the second story, Room 200, is exposed to this room. Sixteen butt-jointed boards, running northeast to southwest and spanning two hewn joists, comprise the ceiling in this room. The boards are of random widths and are listed on the following page. The boards are numbered southeast to northwest, with board number one at the southeast interior elevation.

Board	Width	Board	Width
1*	3"	9	8"
2	9 1/2"	10	6 1/2"
3	8"	11	8 1/2"
4	6"	12	8 1/2"
5	6 1/2"	13	9"
6	9"	14	8"
7	9"	15	9"
8	8"	16*	3 1/2"

** Note: These measurements are of the exposure in Room 100. As these boards comprise the flooring in Room 200, they are actually wider than indicated. Conditions in Room 200 prevented further observation of these boards.*



Flooring, first floor

Flooring

The flooring is comprised of 11½" to 12" butt-jointed, circular sawn boards running in a northeast to southwest direction.



Northeast wall. Note box shelf

Walls

The interior walls are the exposed, unfinished framing and backside of the exterior lap siding. Shelving is mounted on the southwest, northwest, and northeast walls.

Northeast Elevation

Centered on the northeast wall is Door Opening 1 with temporary Door 1. To the right of the door and framed between to posts is a small, rectangular, wooden, box shelf, the top edge positioned 3'-8¼" above the floor. The box is constructed of four, circular-sawn boards nailed to the wall framing. The boards



Detail of box shelf

measure (starting at the top and running clockwise) 4/4" by 5¼", 1¼" by 3", 4/4" by 5¾", and 1¼" by 3½". Crudely made, wedge-type brackets are nailed beneath the boxes for support. The southeast bracket measures 6" wide by 9½" tall and 4/4" thick. The northwest bracket measures 1 5/8" wide by 12" tall by 1¾" deep.



Southeast wall

Southeast Elevation

This is the only wall without shelving in Room 100. Nailed to this wall is an old advertisement for Paris Green, a toxic, arsenic-based powder often used as a pesticide, particularly for cotton plants.



Paris Green advertisement



Southwest wall – note shelf at top of photograph

Southwest Elevation

A crudely made shelf was located on this wall, 5'-3" above the finished floor. Only two circular-sawn brackets that, presumably, once supported a board, exist on the wall. The southeastern bracket is constructed of a board measuring ½" by 7¾" by 29", nailed horizontally, and braced by an additional diagonal board measuring ¼" by 2½" by 28". The northwestern bracket is constructed of a horizontal board measuring 1" by 4" by 29½" nailed to diagonal board measuring ¼" by 3¼" by 29".



Southeastern shelf bracket, southwest wall



Northwestern shelf bracket, southwest wall



Detail of shelf and brackets, northwest wall

Northwest Elevation:
A crudely made shelf was located on the northwest wall, 3'-4" above the finished floor. Only four, circular- sawn wood brackets that, presumably, once supported a board, exist on the wall. The four support brackets measure (from the southwest) 1¼" by 4" by 21 ½", 1¼" by 4½" by 22", ½" by 3½" by 16", and 1½" by 4" by 23".



Northwest wall

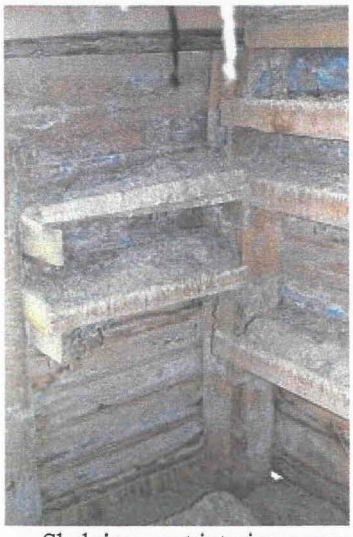
Second Floor / Room 200

Ceiling
There is no finished ceiling in the second level of the Pigeonnier. The roof framing, shingle lath, and underside of shingle roofing is exposed in this room.



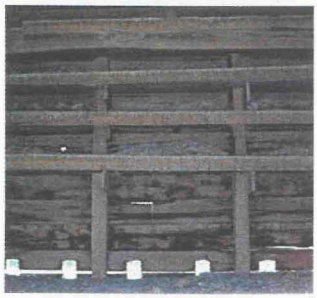
Flooring, second floor

Flooring
The flooring is comprised of butt-jointed boards of random widths running in a northeast to southwest direction. See ceiling schedule for Room 100. Examination of the flooring from the second level was prevented by a layer of pigeon droppings more than 4" deep on top of the floor.



Shelving, east interior corner

Walls
The interior walls are the exposed, unfinished framing and backside of the exterior lap siding. Centered on the northeast wall is Door 3. Tiered roosting perches exist on all four walls of this room. The perches are constructed of boards spanning single-board supports and finished with a simple trim to hold nesting material in place on the roost. The sizes, characteristics, and configurations of these shelves are identified in the following table and corresponding diagram on the following page.



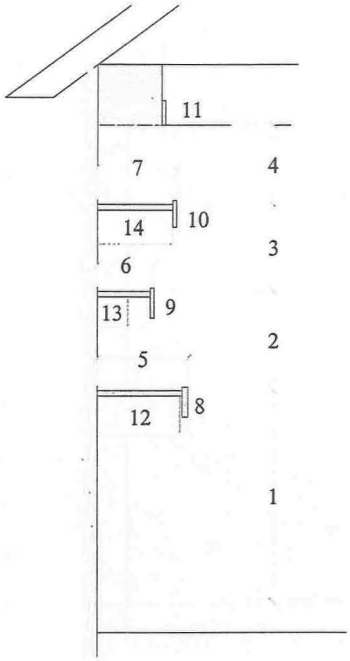
Southwest wall



West interior corner; note northwest wall to right



South interior corner; note southeast wall to left



Northwest Wall Section

Wall ***Detail***	**Northeast**	**Southeast**	**Southwest**	**Northwest**
1	2'-9"	2'-0"	2'-4"	2'-7"
2	12"	1'-6"	1'-1"	11"
3	-	9 1/2'	11 1/2"	12"
4	1'-1"	5"	10 1/2"	9"
5	12"	12"	12"	1'-1 1/2"
6	10"	8"	7"	8"
7	-	11"	10 1/2"	11"
8	2 1/2" x 3/4"	3/4" x 4"	4" x 3/4"	3" x 3/4"
9	1/2" x 3"	3/4" x 3 1/4"	4" x 1/2"	3" x 3 1/2"
10	-	3/4" x 4"	3 1/2" x 1/2'	3 3/4" x 1/2"
11	3" x 1/2"	3/4" x 6 3/4"	4" x 3/4"	3 1/4" x 1/2"
12	10 1/2" x 4"	4/4" x 7" x 11"	1 1/2" x 5" x 3/4"	10 1/2" x 5 1/2" x 3/4"
13	10 1/2" x 4"	4 1/2" x 3/4" x 7"	4" x 4" x 3/4"	4" x 4" x 3/4"
14	-	6" x 3/4" x 11"	4 1/2" x 4/4" x 10 1/2"	10 1/2" x 5 1/2" x 3/4"

Structural Evaluation

Although a structural analysis is not part of the investigation for this report, the building was inspected by a structural engineer from Hartrampf, Inc. The structure appears to be in generally sound condition, though the lean evidenced by the exterior bracing installed by the National Park Service should be corrected so that this non-historic feature can be removed.

Electrical Evaluation

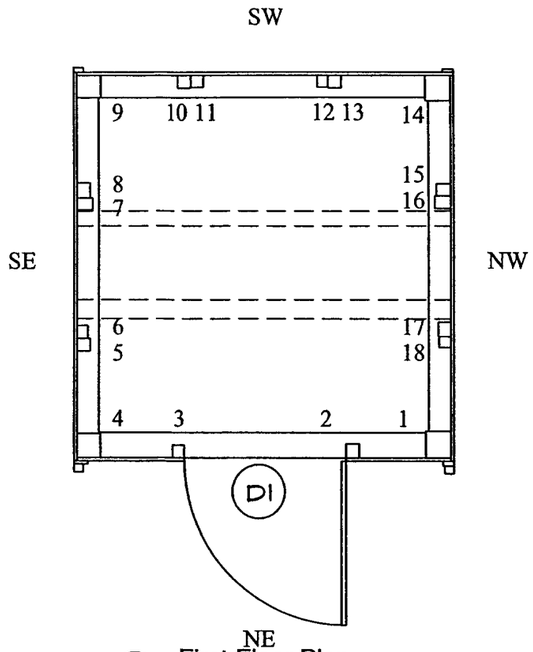
This building has never been electrified, and there is currently no electricity installed in this building. However, electricity has been run to the site.

Summary of Materials Research Findings

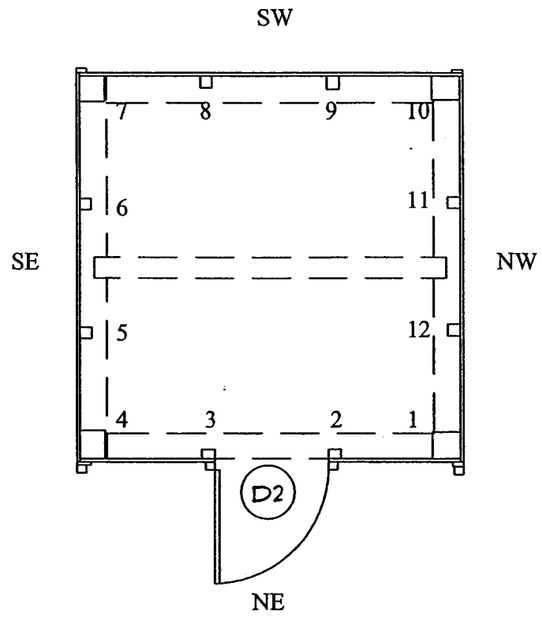
One paint sample was taken from the Pigeonnier during Barbara Yocum's analysis. The findings of this study revealed that the wood sided exteriors were historically finished with whitewash. No other finishes were found on the exterior. Likewise, no finishes were found on the interior of the building.

Drawings - Pigeonnier

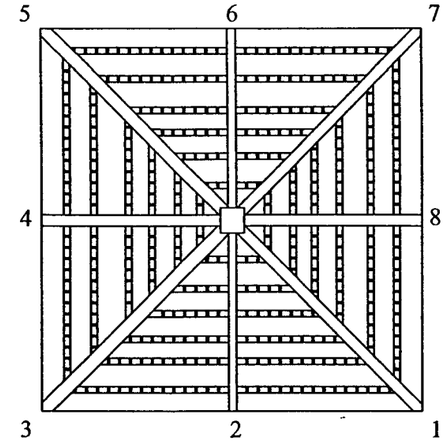
No drawings for the Pigeonnier were supplied by the National Park Service. The contract for this report did not include provisions for creating plan and elevation drawings. However, some drawings were created incidental to the Physical Description portion of this report. The drawings contained in this report are those drawings and drawings derived from the 1986 HABS drawings.



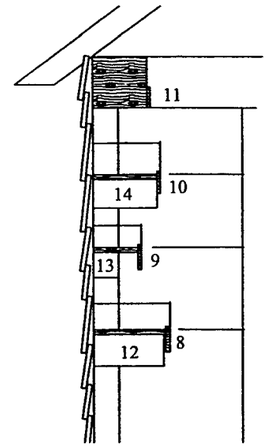
1/1 First Floor Plan
SCALE: 1/8"=1'-0"



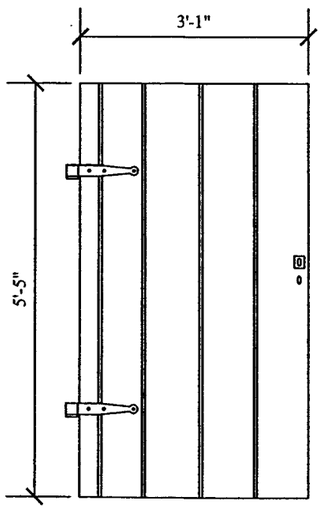
1/1 Second Floor Plan
SCALE: 1/4"=1'-0"



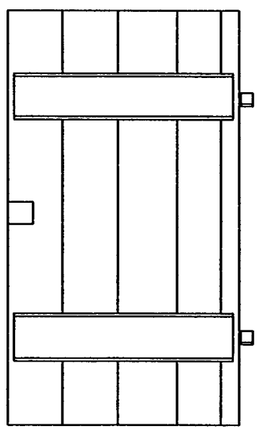
1/1 Reflected Ceiling Plan
SCALE: 1/4"=1'-0"



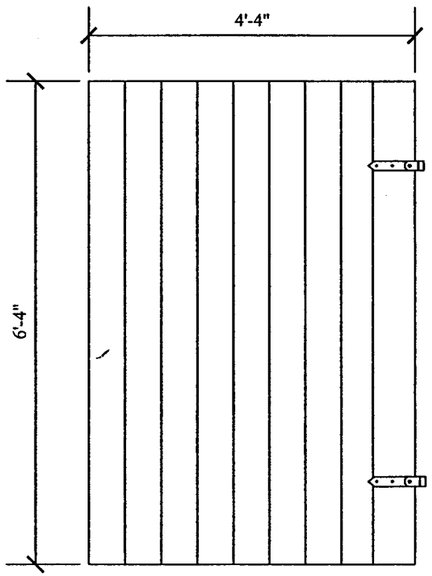
1/1 Northwest Wall Section, 2nd floor
SCALE: 1/2"=1'-0"



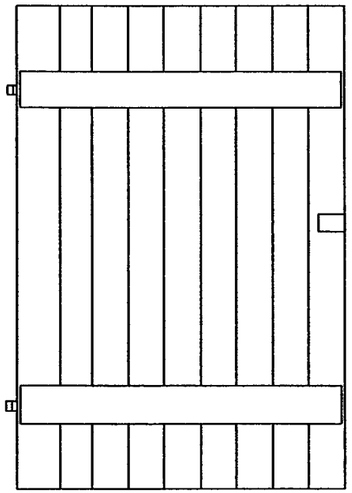
D2 Outside



D2 Inside



D1 Outside



D1 Inside

1/1 Doors
SCALE: 1/2"=1'-0"

OJP/Architect, Inc.
Historic Preservation
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MEASURED DRAWINGS

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
SOUTHEAST SUPPORT OFFICE

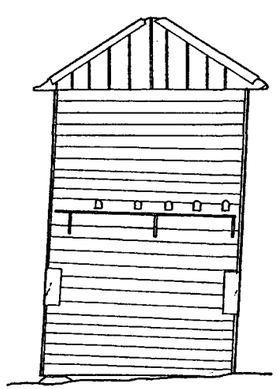
CARRIAGE SHED

MAGNOLIA PLANTATION

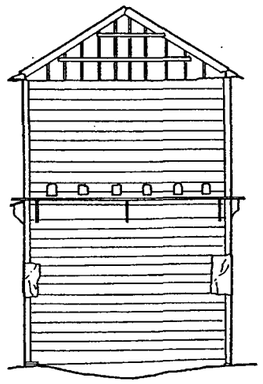
CANE RIVER CREOLE NATIONAL HISTORICAL PARK
STATE
LA

DRAWING NO.

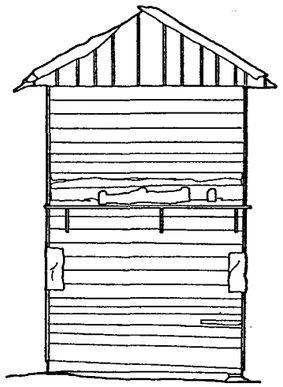
SHEET
1
OF 2



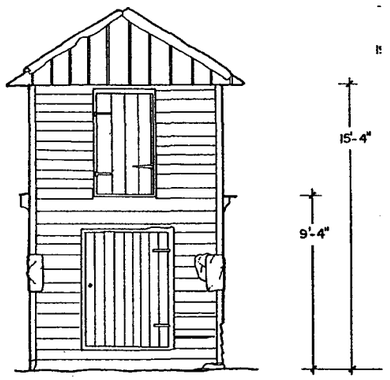
1/2 North Elevation
SCALE: NTS



2/2 West Elevation
SCALE: NTS



3/2 South Elevation
SCALE: NTS



4/2 East Elevation
SCALE: NTS

Elevations taken from Historic American Buildings Survey Number 3A-1193-E

OJP/Architect, Inc.
Historic Preservation
Architecture & Planning

MEASURED DRAWINGS

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
SOUTHEAST SUPPORT OFFICE

CARRIAGE SHED

MAGNOLIA PLANTATION

CANE RIVER CREOLE NATIONAL HISTORICAL PARK
STATE
LA

DRAWING NO.

SHEET
2
OF 2

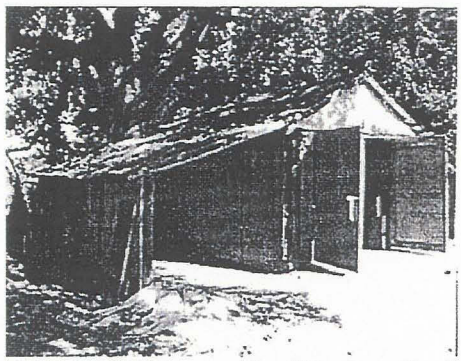
Physical Description – Carriage Shed



Southwest elevation of Carriage Shed

Summary of Historic Character

The Carriage Shed is a three-bay, pole-in-the-ground structure with a small pen on the southeast end. The perimeter of the building measures, clockwise, starting with the southwest elevation, 37'-1" by 21'-1" by 29'-3" by 22'-6". The pen measures 7'-1" by 10'-2". The main portion of the building has three bays separated from the pen by a wall located at its southeast elevation. The pen has one bay, measuring approximately half the depth of the main shed. The roof over the main shed is gabled. A shed roof covers the pen. The building is constructed with log and circular-sawn posts bearing directly on the ground and circular-sawn wall and roof framing. Vertical, butt-jointed, wood siding encloses the northwest, northeast, and a portion of the southeast elevations. The gable over the southwest opening is enclosed with butt-jointed, 4/4" by 5¾" boards. The balance of the southwest and southeast elevations is enclosed with wire screening spanning a wood frame installed by the National Park Service. There are three door openings on the building, two in the main shed and one in the pen. Only two of these openings have doors mounted in them: the main opening contains a set of two screen doors installed by the National Park Service. At the eastern end of the southeast elevation is a door opening to the main shed. This opening contains the remnants of a board-and-batten door.



1999 photograph of Carriage Shed, courtesy of the National Park Service. Note interior wall and characteristics of exterior wall, doors, and roofs.

A photograph dating to 1999 reveals some changes from the conditions that presently exist. As shown in the photograph, an interior wall separated the northwest and central bays in the main shed. This photograph also identifies the main doors to the shed as being different from those that currently exist, and having different hardware. Also evident in the photograph is what appears to be metal siding in the upper gabled end of the southwest wall.

Currently, the building is being used by the National Park Service to store materials and maintenance supplies.



Concrete pier beneath dog pen

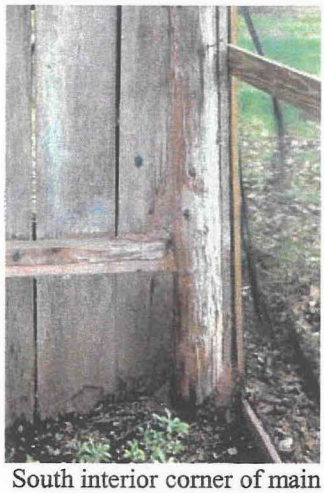
Structural System

Foundation

The building framing bears directly on the ground, with the exception of the framing for the southeast elevation of the pen. There are four posts along the southeast wall of the pen. Beneath the two middle posts in this wall are concrete pads measuring 16" by 16" by 2". The National Park Service installed both the posts and pads in an effort to stabilize the structure.

Floor Framing:

The Carriage Shed has a dirt floor. There are no sills at floor level.



South interior corner of main shed

Wall Framing

The wall framing in the Carriage Shed is post-and-beam construction. The framing is exposed to the interior of the structure. The spacing of the lines of posts divides the main structure into three bays. All the posts in the main structure, with the exception of those in the southeast wall, are creosote-treated poles typical of those used as utility poles and fence posts. The posts in the southeast elevations of the main building and pen are a combination of rectangular and round posts. One exception to this is the post at the eastern corner of the shed. This support is one half of a round post. The round posts in the main structure are not treated with creosote. The sizes and configurations of the posts are identified in the table and corresponding diagram on the following page.

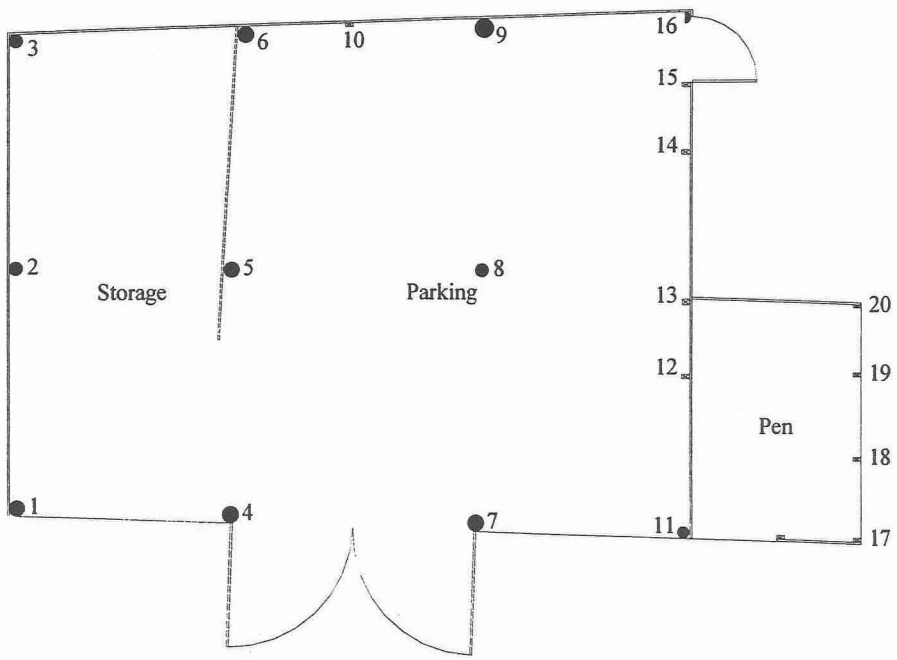


Northwest interior wall



Southwest elevation of dog pen

Wall Posts	Size	Type
1	8" diameter	Creosote Post
2	7" diameter	Creosote Post
3	7" diameter	Creosote Post
4	8 1/2" diameter	Creosote Post
5	8" diameter	Creosote Post
6	8 1/2" diameter	Creosote Post
7	8 1/2" diameter	Rectangular
8	7" diameter	Creosote Post
9	2" x 4"	Rectangular
10	10" diameter	Creosote Post
11	6"	Round
12	2 1/4" x 4"	Rectangular
13	3 3/4" x 3"	Rectangular
14	4 1/4" x 2 1/2"	Rectangular
15	4 1/2" x 2 1/4"	Rectangular
16	6" diameter	Half-round
17	4" x 2 1/2"	Rectangular
18	4" x 2"	Rectangular
19	4" x 2"	Rectangular
20	1 3/4" x 4"	Rectangular



The spacing of the framing that supports the board siding between the posts varies. On the northwest and southeast walls, 4/4" by 6" boards, to which the siding is attached, divide the height of the wall and span two posts. These boards serve as approximate midpoint supports for the vertical exterior board siding. Along the northeast wall, the framing consists of a 4/4" by 4" board at approximately the midpoint of the wall. The top plate measures 2¼" by 4'. A 4/4" by 5½" board ties the northwest posts together at the round elevation and provides a point of attachment for the exterior siding.

Top plates of 2" by 6" span the center bay on the southwest and northeast side. The upper bearing plate in the southeast wall line of the main structure is sagging. It measures 1½" by 5½" and bears on the short axis of the member.



Roof framing, main shed



Detail of rafter connections

Roof Framing

The roof framing is divided into four sections, the northwest, central, and southeast bays of the main shed, and the pen. All of the roof framing members in the Carriage Shed, including the pen, are circular sawn. The roof structure of the main shed is gabled, with the ridge oriented southwest to northeast. The framing in the northwest bay includes 2¼" by 4" rafters spaced at 38" on center. The rafters are oriented northwest to southeast and span the 2¼" by 4" circular-sawn, northwestern, upper bearing plate and the 2" by 6" circular-sawn, upper bearing plate at the next interior post line. The framing in the central bay consists of 2½" by 4½" rafters, running northwest to southeast and spaced at 38" on center. The rafters in the center bay span from 2" by 6" circular sawn perimeter beams to a 1" by 12" ridge member. A 1½" by 6½" upper plate spans over the southwest door and the corresponding span at the northeast wall in the center bay. The framing in the southeast bay consists of 2" by 4" (nominal) rafters running northwest to southeast and spaced at distances that vary from 2'-9" to 3'-3". The framing in the pen varies from that in the main shed area. The roof of the dog pen is a shed design pitched in alignment with the gabled roof covering the main shed area. There are two rafters, measuring 2" by 4", spaced at third points in the dog pen roof structure. Like those in the main shed area, the rafters in the dog pen run northwest to southeast and span perimeter beams measuring 2" by 4".

Roofing

The roofing over the gabled portion of the Carriage Shed is 5V galvanized metal. The National Park Service has replaced the roofing over the southeast bay of the main shed with 5V-galvanized metal to match in profile the older panels remaining on the



Varied roofing on Carriage Shed

northwest and center bays. The northwest bay has five rows of roofing lath, spaced at varying distances from 2'-11" to 2". The roofing lath located in the center bay varies in size and spacing. The lath located northwest of the gable in this bay measures 2" by 6", 4/4" by 8" and ¾" by 6" and is spaced randomly. The lath located southeast of the gable in this bay measures 4/4" by 8" and 4/4" by 10" and is spaced at 32" on center. The roofing lath located in the southeast bay measures 1" by 12" and ¾" by 12" and is spaced at 24" on center. The roofing on the shed roof of the pen is new, 2½"corrugated, galvanized metal. The roofing lath in the pen is of varied spacing and widths. The lath over the southwest third of the roof structure measures 1" by 4" and 1" by 12". The lath over the central third of the roof structure measures 4/4" by 10" and 4/4" by 6". The lath over the northeast third of the roof structure measures 4/4" by 6", 4/4" by 7" and 4/4" by 5½".

Doors

There are three door openings in the Carriage Shed. Two openings are located in the main shed area. The remaining opening provides access to the pen.

Door 1:This door opening is located on the southwest elevation of the Carriage Shed. This opening measures 9'-10½" by 5'-0¼" and holds a set of two doors that were constructed by the National Park Service. These doors are constructed of modern lumber and heavy-gauge screen wire. The hardware on these doors includes galvanized strap hinges and a hasp-and-staple lock.

Door 2: This door opening is located on the southwest elevation of the pen. The opening measures 3'- 2" wide by 4'- 9" to 4'- 7" high (the opening is irregular) and is currently covered in heavy-gauge wire. There is no door in the opening.

Door 3: This opening is located on the southeast elevation of the Carriage Shed and measures 2'-5" wide by 4'-8" wide. There are remains of a board-and-batten door hanging in the opening. A 6" by 2" modern strap hinge is secured to a 6" by 4/4" board that is nailed to the exterior wall of the pen. The hinge is connected to the remains of the door, which are comprised of an 11" by 4/4" board and an 8" by 4/4" batten.

Door Elevations



Door 1

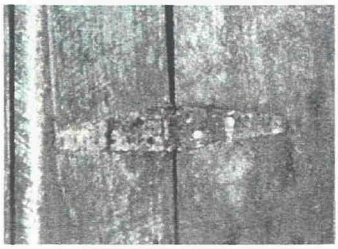


Door 2



Door 3

Door Details



Strap hinge on Door 3

Exterior Finish Materials and Characteristics

Walls / Pen

Southwest Elevation:

The National Park Service has enclosed the framed opening of Door 2, located in the pen, with heavy-gauge wire screening. The remaining part of the southwest pen wall is finished with 4/4" thick, vertical, butt-jointed boards that have deteriorated. All of the boards are circular sawn. A framed opening in this wall comprises Door 3.



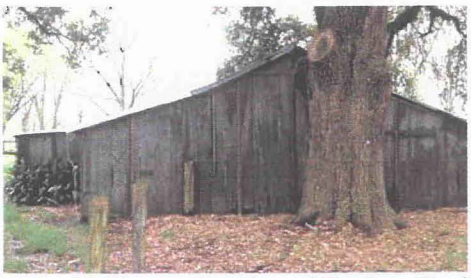
Southwest elevation of Pen



Southeast elevation of Pen

Southeast Elevation:

The National Park Service has enclosed the southeast elevation of the pen with protective, heavy-gauge screening framed on new lumber.



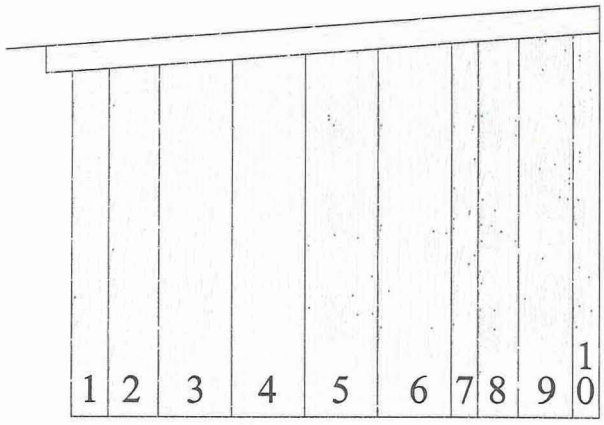
Northeast elevation of Carriage Shed

Northeast Elevation:

The northeast elevation of the pen is sided with 4/4", vertical, butt-jointed boards, portions of which bear remains of a whitewash finish. All of the boards are circular sawn. The sizes and configurations of these boards are identified in the table and corresponding diagram below.

Northeast Elevation of Pen

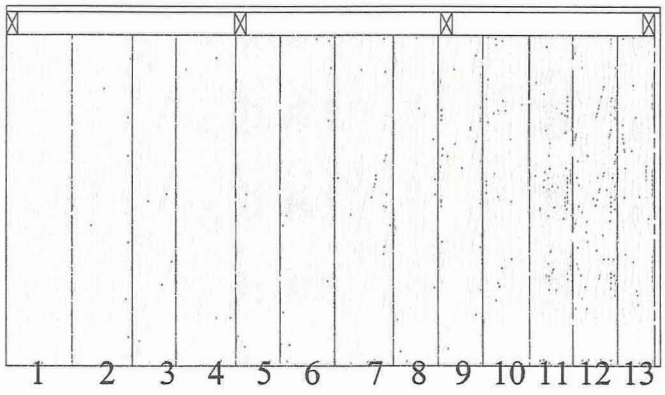
Detail	*Width*
1	5 1/2"
2	7 1/2"
3	11"
4	11"
5	11"
6	11"
7	4"
8	6"
9	8"
10	4"



Northeast elevation of Pen

Northwest Interior Elevation of Pen

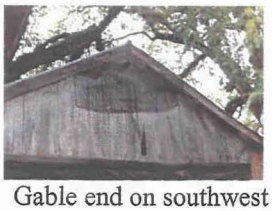
Detail	*Width*
1	11 1/2"
2	10 1/2"
3	7 1/2"
4	10 1/2"
5	7 3/4"
6	9 1/2"
7	10 1/4"
8	7 3/4"
9	7 3/4"
10	8"
11	7 1/2"
12	7 3/4"
13	6 1/2"



Northwest interior elevation of pen

Walls / Main Shed

The exterior walls are finished with 4/4" vertical, butt-jointed boards. Portions of the boards have remnants of a whitewash finish.



Gable end on southwest elevation

Southwest Elevation:

The National Park Service has enclosed the three main bays of the southwest elevation with temporary framing and heavy-gauge wire screening, including the set of doors that comprise Door 1. The gable end above Door 1 is sided with 4/4" by 5¾", vertical, butt-jointed boards, portions of which bear remains of a whitewash finish. All the boards are circular sawn.



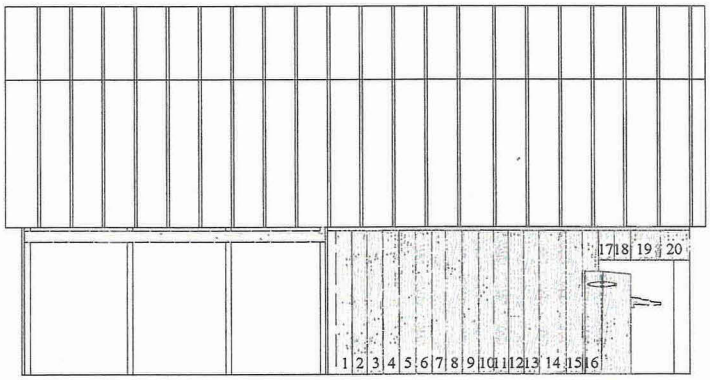
Southeast elevation of Carriage Shed

Southeast Elevation:

The pen is located on the southeast elevation of the main Carriage Shed. To the right of the pen, the wall of the shed is sided with 4/4", vertical, butt-jointed boards, portions of which bear remains of a whitewash finish. All the boards are circular sawn. The sizes and configurations of these boards are identified in the table and corresponding diagram below.

Southeast Elevation of Main Shed

Detail	Width
1	6"
2	5 1/2"
3	6"
4	6"
5	6"
6	6"
7	5"
8	6"
9	6"
10	5 1/2"
11	5 1/2"
12	5 1/2"
13	5 1/2"
14	10"
15	8"
16	6"
17	6"
18	6"
19	11"
20	11"



Southeast elevation



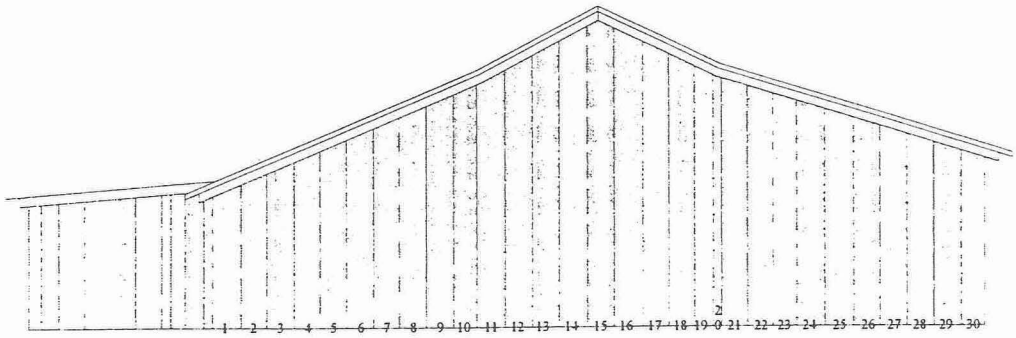
Northeast elevation of Carriage Shed

Northeast Elevation:

The northeast wall of the Carriage Shed is sided with 4/4" thick, vertical, butt-jointed boards, portions of which bear remains of a whitewash finish. All the boards are circular sawn. The sizes and configurations of these boards are identified in the table and corresponding diagram on the following page.

Northeast Elevation of Main Shed

Detail	*Width*
1	12"
2	11"
3	12"
4	11"
5	11 1/2"
6	11 1/2"
7	11"
8	11 1/2"
9	11 1/2"
10	10"
11	12"
12	12"
13	11 1/2"
14	12"
15	11 1/2"
16	12"
17	11"
18	11"
19	8"
20	3 1/2"
21	11"
22	11"
23	10"
24	12"
25	12"
26	11 1/2"
27	11 1/2"
28	11 1/2"
29	11 1/2"
30	10"



Northeast elevation

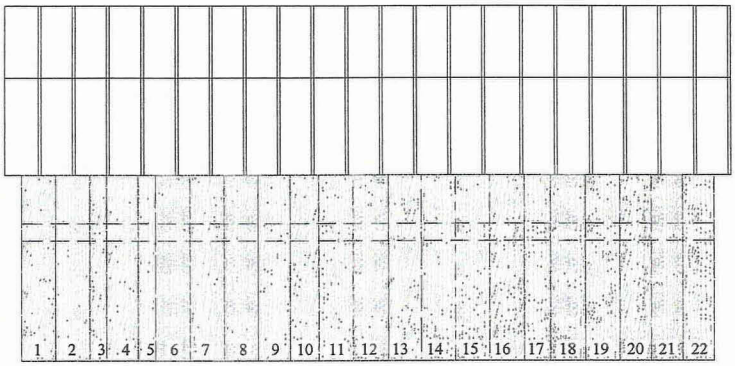


Northwest elevation of Carriage Shed

Northwest Elevation:
The northwest wall of the Carriage Shed is sided with 4/4" thick, vertical, butt-jointed boards, portions of which bear remains of a whitewash finish. All of the boards are circular sawn. The sizes and configuration of these boards are identified in the table and corresponding diagram below.

Northwest Elevation of Main Shed

Detail	Width
1	12"
2	12"
3	6"
4	11"
5	6"
6	12"
7	12"
8	12"
9	11 1/2"
10	10"
11	12"
12	12 1/2"
13	11 1/2"
14	12"
15	12"
16	12"
17	9"
18	12"
19	12"
20	11"
21	11"
22	11"



Northwest elevation

Interior Finish Materials and Characteristics

Ceiling
The ceiling is the exposed roof framing, roofing lath and underside of the metal roofing.

Flooring
The floor of the Carriage Shed is dirt.

Walls
The interior walls are the exposed structural framing and backside of the exterior butt-jointed siding.

Electrical Fixtures
The Carriage Shed was wired for electricity at one time. A ceramic-based, ceiling-mounted fixture with a hanging bulb socket and pull chain is suspended from the roof beam above the posts dividing the two southernmost bays of the structure. Wiring is stapled along the beam and runs down the interior support post to a duplex outlet fixture affixed to the post. Other wiring is draped along the roof beams to the southeast corner of the structure and exits above Door #3. Wiring is coiled on the roof above the door opening and hangs down to the ground. This wiring appears to be no longer connected to power.

Structural Evaluation

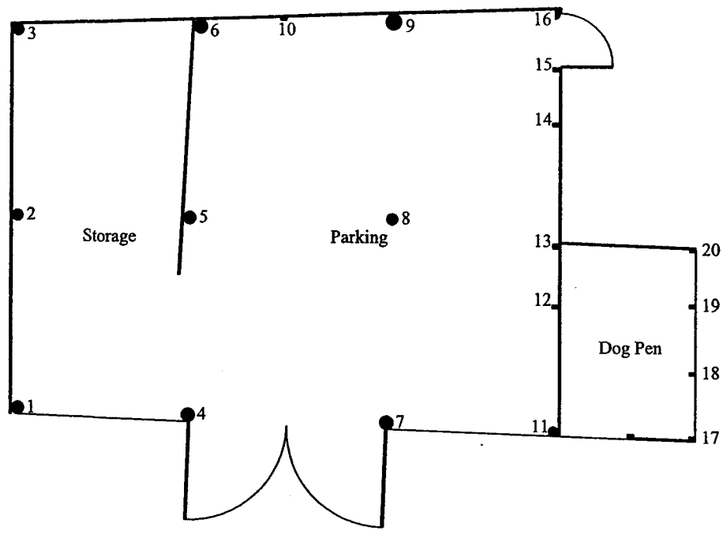
Although a structural analysis is not part of the investigation for this report, the building was inspected by a structural engineer from Hartrampf, Inc. The structure appears to be in generally sound condition.

Summary of Materials Research Findings

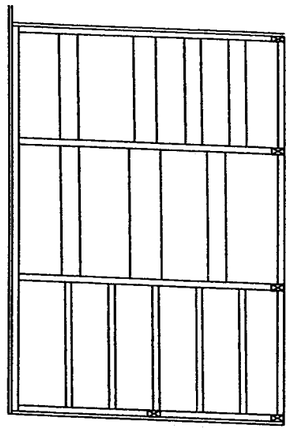
No samples were removed from the Carriage Shed for analysis. A Materials Analysis was not completed for this structure.

Drawings – Carriage Shed

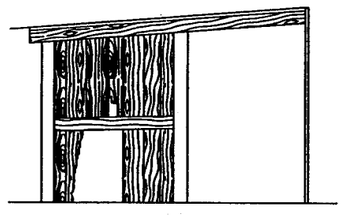
No drawings for the Carriage Shed were supplied by the National Park Service. The contract for this report did not include provisions for creating plan and elevation drawings. However, in the course of the physical description, some drawings were created that are included in this report.



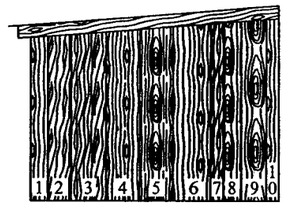
1/1 Plan
SCALE: 1/8"=1'-0"



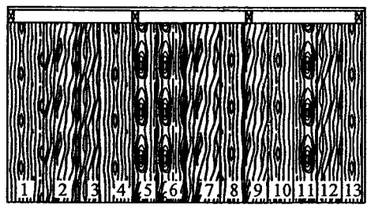
2/1 Dog Pen
Reflected Ceiling Plan
SCALE: 1/4"=1'-0"



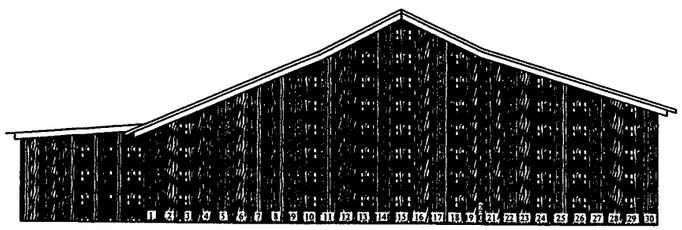
4/1 Dog Pen
Southwest Interior Elevation
SCALE: 1/4"=1'-0"



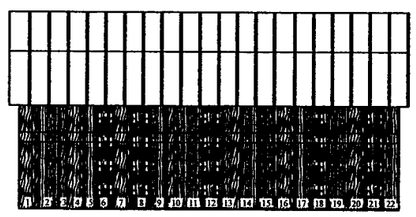
3/1 Dog Pen
Northeast Elevation
SCALE: 1/4"=1'-0"



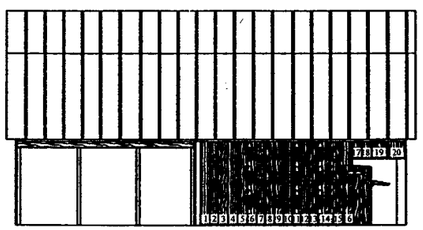
5/1 Dog Pen
Northwest Interior Elevation
SCALE: 1/4"=1'-0"



6/1 Northeast Elevation
SCALE: 1/8"=1'-0"



7/1 Northwest Elevation
SCALE: 1/8"=1'-0"



8/1 Southeast Elevation
SCALE: 1/8"=1'-0"

OJP/Architect, Inc.
Historic Preservation
Architecture & Planning

MEASURED DRAWINGS

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
SOUTHEAST SUPPORT OFFICE

CARRIAGE SHED

MAGNOLIA PLANTATION

CANE RIVER CREOLE NATIONAL HISTORICAL PARK
STATE
LA

DRAWING NO.

SHEET 1 OF 1

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PART II
TREATMENT AND USE

Treatment and Use – Blacksmith's Shop

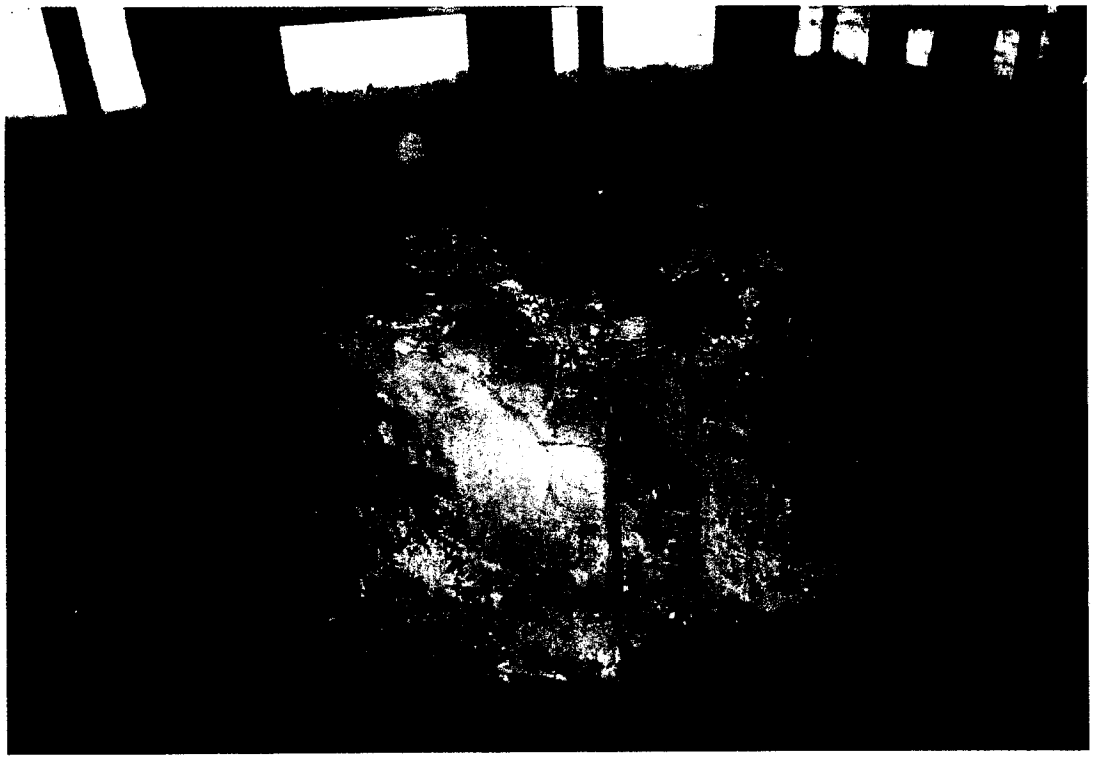
Introduction

The Blacksmith's Shop at Magnolia Plantation is unique to the Cane River National Historical Park in that it is the only building in the Park through which the practice of nineteenth- and twentieth-century blacksmithing can be accurately interpreted. The General Management Plan (GMP) for the Cane River Creole National Historical Park has designated the Blacksmith's Shop for exterior interpretation. However, it is understood that the interior of the building may be accessible on a limited basis. The historic features and integrity of this building are sufficiently intact to serve as a meaningful resource for the interpretation of blacksmithing at Magnolia Plantation.

The physical character of the Blacksmith's Shop in 1960 is substantially intact, with some exceptions. The modifications to the building from its character in 1960 primarily constitute those made to stabilize the structure, most notably the replacement of the roofing and roof framing by the National Park Service. However, the treatment of the roof framing, gable siding, and attic door detailing appear to vary from the historically important characteristics of the structure. The following are representative of the building's characteristics in 1960.

- The exterior and interior walls were the exposed heavy timber framing and *bousillage* infill. A thin, light-orange colored, plaster-like coating finished the walls. The *bousillage* infill was in a partially deteriorated state.
- A wrap-around shed existed on all four sides of the building. The shed had a roof supported by posts bearing directly in the ground. The floor of the porch was dirt.
- The roofing on the main gable was corrugated metal over widely spaced lath. The roofing on the shed roof was 5V-metal.
- The original hewn and circular sawn timber frame was substantially intact.
- The partially buried, historic brick foundation piers that exist at the time of this report are the same as those in existence in 1960.
- A livestock pen existed in the western corner of the wrap-around shed. Portions of the southwest and northwest walls of the pen were enclosed with circular sawn, horizontal boards and galvanized sheet metal panels.
- The fence line located at the northern end of the northwest porch was likely in existence.
- The wooden closet existed in the western interior corner of the building.
- The ceiling of the main room was the unfinished floor framing and flooring of the attic. Two openings existed in the attic floor, one centered along the southwest wall and the other centered along the northwest wall.
- A wooden ladder was located along the southwest interior wall. This ladder provided access to the southwestern opening in the attic floor.
- Two wooden benches existed in the main room of the building, one located along the southwest wall and one located along the northeast wall.
- There were four doors in the building, one on the southeast wall of the main building, one on the southwest wall of the attic and two on the southeast wall of the livestock pen. The smaller door to the livestock pen was used for animal access.

- There were two windows in the building, one on the northeast elevation and the other on the southwest elevation. The windows were without sashes or frames and were each fitted with two, outward swinging, casement shutters.
- A round, plaster-coated, brick forge and oven was located near the northwestern wall of the main structure. Positioned within the brick oven was a metal crucible. A blower marked Champion Blower Forge Co. Lancaster, PA.USA patented April 15, 1902, June 11 and July 30, 1901 may have been located inside the building at this time. This blower was documented among the contents of the building in the report completed by Ali Miri for the National Park Service in 1997.



Forge, Blacksmith's Shop, Magnolia Plantation, 2003

Requirements for Treatment and Use – Blacksmith's Shop

The primary requirement for use is to treat the structure in accordance with the 1960 period of significance as established in the General Management Plan (GMP). The appropriate response to the period of significance will be to preserve, protect, and restore the layers of history contained in the structure for inclusion in the interpretative program for Magnolia Plantation. The interpretive program will explain the role of the Blacksmith's Shop and the functions it housed, communicating their importance to the daily operation of the Plantation.

Treatment of the building should be guided by the International Building Code, including that code's statement regarding historic buildings, as follows:

> **3406.1 Historic Buildings.** The provisions of this code related to the construction, repair, alteration, addition, restoration and movement of structures, and change of occupancy shall not be mandatory for historic buildings where such buildings are judged by the building official to not constitute a distinct life safety hazard.

Threats to public health and safety will be eliminated, but, because this is an historic building, alternatives to full code compliance are recommended where compliance would needlessly compromise the integrity of the historic building.

Applicable Laws: Section 106 of the National Historic Preservation Act (NHPA) mandates that federal agencies, including the National Park Service, take into the account the effects of their actions on properties listed in or eligible for listing in the National Register of Historic Places (NRHP) and give the Advisory Council on Historic Preservation a reasonable opportunity to comment. NHPA regulations (36 CFR 800.10) mandate special requirements for protection of National Historic Landmarks. Section 110(f) of the Act requires that the Agency Official, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark that may be directly and adversely affected by any undertaking. The National Park Service's "Cultural Resource Management Guideline" (DO028) requires planning for the protection of cultural resources whether or not they relate to the specific authorizing legislation or interpretive programs of the parks in which they lie. The Blacksmith's Shop should be understood in its own cultural context and managed in light of its own value, as well as that of Magnolia Plantation as a whole, so that it may be preserved and rehabilitated, unimpaired, for the enjoyment of present and future generations. To help guide compliance with these statutes and regulations, the Secretary of the Interior has issued *Standards for the Treatment of Historic Properties.* The National Park Service's *Preservation Briefs* also provide detailed guidelines for appropriate treatment of a variety of materials, features and conditions found in historic buildings.

Functional Requirements: Using the Blacksmith's Shop for exterior interpretation, as prescribed in the General Management Plan, would require few actions to return the

building to its appropriate character and condition. However, these would include the reversal of some modifications made by the National Park Service prior to 1998. Given the historic integrity of the building, the following measures are recommended in order for the building to meet the established use expectations.

- Restore the exterior siding in the northeast and southwest gabled ends to its historic configuration. This would require replacing the existing clapboard siding with flushboard siding, as discussed in the Design Analysis and as illustrated in the 1986 HABS drawings.
- Remove the temporary shoring beneath the attic floor. Reinforce the attic floor framing from above the attic floor structure, if structurally necessary. This treatment could be accomplished through the installation of a tension cord running from the ridge of the roof structure to midpoint of the attic floor framing.
- If in existence elsewhere on the Plantation or off-site, reinstall the board and batten door in the opening to the livestock pen. If not still in existence, reconstruct the door to match the historic door.
- Reconstruct the missing shutter in the southwest window to match the existing shutter.
- Provide security to the building via operable screens attached to the exterior walls and over the existing window openings. These screens can be opened for interpretation of the *bousillage* walls and the historic window shutters, which can also be opened for interpretation of the building interior. Locking hardware can be installed upon the framing for the screens and on the existing main door to the building.

Human Safety: With the actions addressed in other sections of this document, no significant health safety issues were identified.

Fire Protection: To maintain an historically appropriate setting, it has been recommended that neither the exterior nor interior of the building be artificially lit. Therefore, absent the introduction of any other electrical wiring, the risk of fire to the building is minimal. The Design Analysis recommends installing a sprinkler system in the building. The primary risk of fire would be from conditions external to the building, provided it remains secure to vandals. It is reasonable to assume there is always the potential for fire caused by natural occurrences such as lightning. However, with regard to resource protection, this risk appears negligible when compared to the ultimate negative impact installing invasive equipment such as a sprinkler system would have upon the historic fabric of the building. Additionally, the likelihood that the building would be occupied during inclement weather is low, minimizing the threat to personal safety. Therefore, installing a sprinkler system is not recommended. However, an appropriately-rated fire extinguisher should be located in or in close proximity to the building to support a quick response should a fire occur. In addition, lightning protection should be installed on the exterior of the building in a manner that is unobtrusive and reversible. Ultimately, all efforts to protect the building should ensure that its historic features and integrity be preserved as much as possible. Finally, restricting smoking from the entire park will significantly reduce the risk of accidental fires occurring.

Energy Conservation: Energy conservation is not an issue in this structure. This building will not be heated or cooled.

Abatement of Hazardous Materials: There is no information on the presence of hazardous materials in the building. The primary potential source for hazardous materials in the Blacksmith's Shop would be the chemicals used during the metal working process or otherwise on the plantation that inadvertently came in contact with the earthen floor in and around the perimeter of the structure. A common historic hardening agent used on wrought iron was a salt rub containing cyanide. Given the toxic nature of cyanide, it would be important to establish if it or any other toxic chemicals or materials are evident in the soil in and around the structure. This examination would determine what, if any, abatement actions are necessary for the building and surrounding soil.

Handicapped Accessibility: It is understood that the building may be interpreted through both exterior and some limited, restricted, interior access. Therefore, handicapped accessibility to the interior of the building must be addressed. To this end, the Design Analysis discussed the feasibility of installing a ramp at the main entrance to the building, noting that it would impact the ability to close the front door. With respect to the historic fabric and overall intrinsic feel of the building, as well as the historic context of the surrounding site, the use of a ramp at the main entrance to the building is **not** recommended. Given the height of the sill beam at the main doorway, 9½", a 1:12 sloped ramp is required to provide safe access for disabled visitors into and out of the building, in accordance with the Americans with Disabilities Act (ADA). This treatment would require a 9'-6" long ramp installed on either side of the doorway. The interior of the building is approximately 25' by 25'. Therefore, a ramp of this size would be a significant intrusion into the interior space. Likewise, installing a ramp along the exterior of the building would have a significant impact upon the historic integrity of the front elevation of the building.

It is important to stress the small size of the interior, the amount of natural light that penetrates the building through the existing windows and doors and openings in the walls where the *bousillage* infill is missing, and the opportunity to obtain an appreciable view of the interior from the exterior of the building. The number of openings in the walls, windows, doors and through the framing provides numerous vantage points around the exterior of the building from which to observe the interior. The interior of the building is small and square in shape and the effect of natural lighting within the building is historically appropriate to the blacksmithing activities that once occurred within the structure. While the light is somewhat diffused, the interior view offered through these openings is considerable for interpretive purposes, providing an experience comparable to stepping into the building. This "Alternative Minimum" approach appears to be the most prudent option for providing disabled visitors a quality understanding and experience of the building while protecting the historic integrity of the structure.

Alternatives for Treatment – Blacksmith's Shop

The General Management Plan (GMP) provides for exterior interpretation of the Blacksmith's Shop. Given the historic integrity of the building, the opportunity for understanding its purpose exists through exterior interpretation. There is some ambiguity as to what this designation indicates with regard to visitor access. It is uncertain whether this use restricts visitor access to all views of the building interior or rather limits visitor access to the exterior while providing a visual understanding of the interior through the doors, windows and other openings in the exterior walls. Due to the historic features remaining inside the building that are specific to the blacksmithing craft, the role of the plantation blacksmith is best understood through both interior and exterior examination. There is not another building at Oakland Plantation or Magnolia Plantation where the visitor can learn about blacksmithing. Therefore, it will be important to interpret the historic features found both on the interior and exterior of the building.

While the GMP's proposed interpretive use for the Blacksmith's Shop is somewhat vague, as previously discussed, according to National Park Service officials, some limited, restricted access to the interior is desirable. This is evident in the prescribed treatments identified in the 2002 Design Analysis. Specifically, the Design Analysis indicates the interior of the building will be interpreted and includes recommendations geared towards such use that address the issues of accessibility, lighting, and liability, among others. As it is unclear what the ultimate interpretative goals are, the following information addresses the recommended interior interpretation alternative through two options. The second option is the recommended approach to interior interpretation.

First Option

The first option would be to interpret the interior of the Blacksmith's Shop from the doorway located on the southeast elevation, the windows located on the northeast and southwest elevations, and through the openings in the exterior walls that are a result of the loss of historic *bousillage.* The door on the southeast elevation would be opened and entry would be restricted through the use of a rope positioned across the doorway. This would allow visitors to view the historic branding marks evident only on the interior of the door. Additionally, through this door opening, the two existing window openings, and various places along the walls, visitors would be able to obtain a better understanding of the interior space, which includes the historic forge, closet, and workbenches. These historic features, along with the characteristics of the historic door are significant to the historic integrity of the building. They are integral to an enhanced understanding of the role of the plantation blacksmith. The building has never been artificially lit. While it is somewhat dark inside the interior of the main room, providing natural light through the window, door, and wall openings would be the ideal option for lighting, providing for an historically appropriate appearance. It is recommended that storyboards be used to provide a complete interpretation of the unique features of the building's interior. These storyboards should be installed along the exterior of the building so that visitors may observe the smaller details on the interior not easily seen with the natural lighting. This treatment will eliminate the need for additional lighting to view the interior.

Second Option

The second option is to provide limited visitor access to the main interior room. In doing this, it would be necessary to either make the interior accessible to disabled visitors or apply the "Alternative Minimum" approach, in accordance with the ADA. The sill of the building at the main door on the southeast elevation measures 10" by 9½". In order to provide for disabled access into the building's interior, it would be necessary to install an appropriately-sloped ramp at the interior and exterior approach to the door, with a platform over the sill. In consideration of the small confines of the building, this approach is not recommended, as installing appropriately-sloped ramps would likely intrude upon the historic character of the interior. To meet the ADA requirement, the "Alternative Minimum" approach is recommended. This method of interpretation is consistent with that which is described in the First Option.

In addition to ADA considerations, there are the issues of proper lighting, human safety, and building maintenance. As discussed above, artificial lighting is neither recommended nor necessary given the amount of natural light provided through the existing openings. The installation of storyboards along the exterior of the building will allow for full interpretation of the unique features of the building while preserving the overall historic appearance of the interior. The issue of human safety applies primarily to the attic, made accessible through the recommended reinstallation of a ladder along the southwest interior wall. Access to the attic is not appropriate for public use, due to the risk involved. However, a visual understanding of the attic space and roof framing could be obtained through one of the two openings in the attic floor. It would be important to restrict access to this ladder through the use of a rope stanchion or other prohibitive feature. Alternatively, the ladder could be reconstructed with only the rails to interpret this historic feature without the need for a rope stanchion. Given the amount of interpretative potential within the interior of the building, this option is the preferred recommendation for the Blacksmith's Shop.

Ultimate Treatment and Use – Blacksmith's Shop

Ultimate Use

The General Management Plan (GMP) guidelines for Magnolia Plantation have slated the Blacksmith's Shop for exterior interpretation. As proposed, this approach will afford access to the exterior of the building inclusive of the shed area and, possibly, including views of the interior through the existing openings in the building. The grounds around the shop will be used for interpretation and interpretive demonstrations. The following recommendations are made for the treatment and use of the Blacksmith's Shop to fulfill its assigned interpretive function.

Treatments for the Ultimate Use

The most effective way to interpret the Blacksmith's Shop in accordance with the General Management Plan would be to restore the missing historic features and stabilize the framing while preserving the exterior character. As little has changed since the end of the period of significance, with the exception of the rehabilitation of the roof structure and roofing, only minor treatments of the character-defining features of this building will be necessary. The approach to presenting the 1960 physical character of the building requires the following treatments.

Foundation and Sill Beams: The brick piers and sill beams are historically significant to the building. Some of the brick piers are completely buried beneath the ground. Likewise, the sill beams are partially buried and are susceptible to moisture and insect damage. The piers should be inspected to determine their stability and overall condition. To do so, it will be necessary to unearth one or more of the piers. Additionally, it is recommended that the positioning of the sill beams be evaluated to determine the optimal approach to preventing further deterioration of the beams through contact with the ground. One possible treatment option would be to lay pea-sized gravel beneath and just around the sill beams to provide a barrier between the sills and organic matter. The pea gravel would also provide a means for percolation of rainwater. Upon evaluating the needed treatments, the sill beams will need to be assessed to determine their overall condition. All efforts should be made to retain and preserve as much of the historic fabric of both the piers and beams as possible.

Roof Framing and Roofing: The existing roof framing and roofing are circa 1998 replacements. Both were installed to match the historic materials and configuration of the 1960 appearance. While the configuration and materials are similar to those that existed historically, there are some notable differences. The roofing lath and log rafters that currently exist are more regular and have a less natural appearance than the original lath and rafters. However, given their configuration, no treatment is recommended for these features. When it is deemed necessary to install new roofing, all new materials should match those that existed circa 1960. Specifically, 5V-metal roofing should be used on the main gable, and corrugated metal should be used on the wrap around shed roof. Likewise, the structural members of the roof should match those that existed circa 1960 in size, configuration and material.

Walls: The exposed framing and *bousillage* infill comprise the historic configuration of the exterior walls of the Blacksmith's Shop. The Blacksmith's Shop is the only building at Magnolia Plantation where the *bousillage* method of construction is largely exposed with little overlying siding treatment. Therefore, preserving and maintaining its walls will be an important part of the interpretive program. Currently, the walls are temporarily covered with wire screening to guard against insect infestation and a further loss of *bousillage.* To preserve the historic *bousillage,* horizontal bracing should be installed immediately beneath the infill. This bracing would offer support to the *bousillage* and help avoid additional failure due to gravity. One possible option for bracing would be to install horizontal or diagonal wood supports beneath the *bousillage.* To compensate for any gaps still evident between the uneven surface along the bottom of the historic *bousillage* and the bracing, new *bousillage,* comprised of a clay-mixture producing a different color than the historic materials could be used as infill. This would provide the needed support to the existing historic materials, while producing an appearance that clearly differentiates between the old and new *bousillage.*

The Design Analysis recommends that new *bousillage,* comprised of a different color clay, and new board siding be installed, in entirety, where the historic infill and boards have been lost as indicated on the 1986 HABS drawings. While the proposed infill material would be of a dissimilar color so as to differentiate where the historic and new fabric exists (as described above), this treatment is not recommended. The loss of materials offers the visitor a glimpse into how time affects *bousillage* buildings and a sense of the relationship between the characteristics of the structure and the function it supports. The mission for Magnolia Plantation, as discussed in the General Management Plan, is to offer the public a "contemplative" experience, one in which they can explore the Plantation grounds, learn about its history, and understand the buildings that supported its functions. Providing a more "worn" appearance is appropriate to that mission. Additionally, the existing condition of the *bousillage* exhibits the physical structure of the wall and affords the visitor a better understanding of this type of construction. Replacing the lost *bousillage* would prevent this opportunity. Furthermore, from photographs dating to circa 1950-1965, it is known that some of the *bousillage* was missing at that time. Therefore, to return the building to its 1960 period of significance, the missing *bousillage* infill should not be reconstructed except as necessary to support it at the bottom. However, the missing boards should be replaced using materials that match the historic in cut, size, and species.

Given the exposed environment of the walls, they will always be susceptible to insects. The optimal approach to this issue involves managing the carpenter bees with some type of repelling agent. This issue needs to be explored to determine whether or not such an agent exists, and if so, if it would negatively affect the historic building materials, promoting further deterioration. Any product used on the *bousillage* to repel carpenter bees should be reversible. An alternative approach to this issue would be to install protective screening over the interior and exterior walls. For interpretive purposes, the screening could be installed in operable frames hinged to non-historic surfaces along the walls. The framed screens could then be opened during visitation periods to allow light to permeate the building and provide for interior examination. Additionally, copper screen

wire could be used. Because it turns dark brown as it weathers, it would provide a more natural appearance in relation to the clay *bousillage.*

Doors: The existing doors, with the exception of the attic door, are all historic. All of the doors should be retained and preserved in the building. Special consideration should be given to the historic brands on the interior of Door 1. These markings are a significant feature of the activities that occurred in the Blacksmith's Shop. This door has painted graffiti over the branding marks. However, according to National Park Service officials, this paint predates 1960, and therefore contributes to the historic character of the door and building. This door should remain intact and uncovered so that visitors may appreciate this unique feature of the building. Door 3, if in existence elsewhere on the Plantation or off-site, should be preserved and re-hung in its historic location on the southeast elevation of the livestock pen. The attic door (Door 4) is sufficiently inappropriate to the structure and should be replaced. The 1986 HABS drawings do not indicate the presence of a door in this opening. Given that it is unknown what, if anything, historically hung in this opening, one option for treatment is the installation of a new panel should be made in a manner that provides for interior security and protection from the elements, yet does not misrepresent the historic appearance of the building. One approach to this is to install a new panel, constructed of plywood and simple 1" reinforcement and painted black or a dark, neutral color, where the existing, non-historic door exists. Such a feature would acknowledge an opening while securing the interior from the elements and physical intrusion. Alternatively, the existence of the historic door could be researched further to determine its appearance. A possible source for research is the collection of home movies filmed by Matthew Hertzog, which were not available at the time of the writing of this report. According to National Park Service officials, these movies may depict the Blacksmith's Shop and reveal the historic loft door.

Windows: The existing window openings are historic and should be retained and preserved. Likewise, the three remaining shutters and their hardware are historic and should be retained and preserved in the building. The missing shutter in the southwest window should be reconstructed using materials to match the remaining shutter in that opening. While it is not certainly known what the appearance of this shutter was, given that the two shutters in the northeast window match one another and that which remains in the southwest window, it is probable that the lost shutter was similar in appearance.

Shed: The wrap-around shed is a character-defining feature of the Blacksmith's Shop and should be preserved. The shed roof was largely reconstructed and covered with new roofing material by a contractor for the National Park Service to match those that existed historically. Some historic posts remain. These posts should be retained and preserved. A contractor for the National Park Service installed new posts during the 1998 stabilization efforts. These posts were installed to match the shape and location of those that were documented during Barbara Yocum's 1996 materials analysis. However, as discussed in the materials analysis, the documented posts were replacements for the original hewn posts that supported the shed.

The livestock pen is an historically-significant part of the northwest and southwest sheds. The galvanized metal and wood siding both date to the period of significance, as do the two door openings located in the southeast wall of the pen. As stated above, Door 3 should be re-hung in its historic location if available and in suitable condition to do so. If the historic Door 3 is no longer available, a replacement door should be fabricated based on existing photographs of the door and installed in the door opening.

Flooring: The floor of both the porch and the main room in the interior of the building is dirt. As discussed earlier in this section, it is recommended that a protective barrier be installed between the sill beams and ground to protect the beams against moisture and insect damage. This treatment could involve raising the building off the prevailing grade or re-grading around the sill beams to eliminate contact between the ground and the framing. However, the potential effects of raising the building or re-grading the surrounding area should be determined prior to undertaking either. Raising the building is likely to have a negative impact on other parts of the Blacksmith's Shop, particularly the framing connections and the remaining *bousillage*. Such an action is not recommended. Re-grading is the preferred method to address drainage issues at the building. However, any ground-disturbing activity will first require an archaeological survey of the subject area to determine if any significant resources are present at the site. In the event significant archaeological resources are identified, full mitigation measures should be explored and completed prior to commencing any re-grading activities.

The National Park Service replaced some of the flooring in the attic using materials to match the historic materials. Therefore, no treatment is recommended for the attic floor.

Ceilings: There are no separate ceiling finishes in this building. The ceiling conditions in the porch, attic, and main room are the exposed, unfinished framing of the roof systems and upper floor, respectively. As previously discussed, these systems were largely replaced by the National Park Service to match the materials and configuration of the historic roof framing, floor framing, roofing, and flooring.

Forge: The forge and crucible are important historic features to the building, as they are the significant components of the blacksmithing craft. The masonry in the forge should be re-pointed as necessary with the appropriate mortar to secure any loose bricks. Likewise, the forge should be cleaned sufficiently from non-contributing residue to both preserve, and as desired, support the interpretation of blacksmithing inside the structure. The date inscribed in the plaster on top of the forge should be preserved.

Benches: The workbenches along the northeastern and southwestern interior walls are historically significant and should be retained and preserved.

Closet: The closet located in the western corner of the building is historically significant and should be retained and preserved. The loose floorboard currently stored within the closet should be reinstalled in its historic location.

Artifacts: Special consideration should be given to the material artifacts present in and on the building, including the shoe soles nailed to the southwest exterior wall, the horseshoe and the metal-working tool currently resting on the forge, and the miscellaneous metal objects located on the closet shelves. It is understood that the National Park Service has previously collected numerous objects from inside and around the building that are associated with the blacksmithing activities that occurred within the building. With regard to the material artifacts remaining in the building, the National Park Service should determine if these objects are also historically significant to the building. If so, they should be catalogued and preserved as such, either within the building for interpretative purposes or off-site in a collection. In addition to these loose objects, protection of the handprints in the interior *bousillage* of the southeast wall and the branding marks made on the interior of the southeast main door is critical to interpretation of the historic character of the building.

Attic Access: For interpretive purposes, it is recommended that a ladder, matching that which existed historically in this building be located along the southwest interior wall, providing access to the attic and attic door. It is important to restrict access to this ladder through the use of a rope stanchion or other prohibitive feature. Alternatively, the ladder could be reconstructed with only the rails to interpret this historic feature without the need for a rope stanchion.

Treatment and Use - Pigeonnier

Introduction

The Pigeonnier at Magnolia Plantation is one of the few remaining pigeonniers in Louisiana according to the General Management Plan (GMP) for the Cane River Creole National Historical Park. The General Management Plan has designated the Pigeonnier for exterior interpretation. Overall, the historic features and integrity of this building are significantly intact to serve as a meaningful resource for the interpretation of the French Creole plantation tradition of keeping pigeons for food and fertilizer.

The physical character of the Pigeonnier as it was in 1960 is substantially intact. The modifications to the building from its 1960 character primarily constitute those made to stabilize the structure. The following are representative of the building's characteristics in 1960.

- The exterior walls were clad in lap siding nailed to the heavy timber frame. The siding was whitewashed.
- The roofing was 5V metal over historic wood shingles and shingle lath.
- The original hewn and circular-sawn timber frame was intact.
- The historic foundation piers that exist at the time of this report are the same as those in existence in 1960. It is presumed that the condition of the stone piers in 1960 was somewhat better than today, given the their deterioration due to spalling, settling, and sill deterioration that produced shifting forces in the structure.
- The interior walls were unfinished, exposed framing and the backside of the exterior finish.
- Shelving existed on both the first and second levels of the structure. The first level wall shelving consisted of two bracketed board shelves and one box shelf located on the northeast, southwest, and northwest walls. The second level consisted of tiers of pigeon roosting perches on all four walls.
- The ceiling of the first level was the exposed, unfinished, floor framing and flooring of the second story.
- The ceiling of the second level was the exposed, unfinished roof framing and underside of the historic wood roof shingles.
- A single row of small, arched pigeonholes located just above the floor in the second level existed on the southeast, southwest, and northwest elevations.
- Two board-and-batten doors existed on the northeast elevation of the building, one on the first level and one on the second level. No access existed between the two levels on the interior.

Requirements for Treatment and Use - Pigeonnier

The primary requirement for use is to restore the structure in accordance with the 1960 period of significance as established in the General Management Plan. The appropriate response to the period of significance will be to preserve, protect, and restore the layers of history contained in the structure for inclusion in the interpretative program for Magnolia Plantation. The interpretive program will explain the role of the Pigeonnier in French-Creole plantation life, illustrating its tradition, purpose, functional features, and building type.

Treatment of the building should be guided by the International Building Code, including that code's statement regarding historic buildings, as follows:

> **3406.1 Historic Buildings.** The provisions of this code related to the construction, repair, alteration, addition, restoration and movement of structures, and change of occupancy shall not be mandatory for historic buildings where such buildings are judged by the building official to not constitute a distinct life safety hazard.

Threats to public health and safety will be eliminated, but, because this is an historic building, alternatives to full code compliance are recommended where compliance would needlessly compromise the integrity of the historic building.

Applicable Laws: Section 106 of the National Historic Preservation Act (NHPA) mandates that federal agencies, including the National Park Service, take into the account the effects of their actions on properties listed in or eligible for listing in the National Register of Historic Places (NRHP) and give the Advisory Council on Historic Preservation a reasonable opportunity to comment. NHPA regulations (36 CFR 800.10) mandate special requirements for protection of National Historic Landmarks. Section 110(f) of the Act requires that the Agency Official, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark that may be directly and adversely affected by any undertaking. The National Park Service's "Cultural Resource Management Guideline" (DO028) requires planning for the protection of cultural resources whether or not they relate to the specific authorizing legislation or interpretive programs of the parks in which they lie. The Pigeonnier should be understood in its own cultural context and managed in light of its own value, as well as that of Magnolia Plantation as a whole, so that it may be preserved and restored, unimpaired, for the enjoyment of present and future generations. To help guide compliance with these statutes and regulations, the Secretary of the Interior has issued *Standards for the Treatment of Historic Properties.* The National Park Service's *Preservation Briefs* also provide detailed guidelines for appropriate treatment of a variety of materials, features and conditions found in historic buildings.

Functional Requirements: Using the Pigeonnier for exterior interpretation as set forth in the General Management Plan will require few actions to return the building to its

appropriate character and condition. Given the historic integrity of the building, the following measures are recommended in order for the building to meet the established use expectations.

- Restore and reinforce the foundation and floor framing system to ensure structural stability. The existing building foundation piers are in fair to poor condition.
- Reinstall the historic, board-and-batten door on the first story. This door is currently stored inside the first story of the building.
- Remove the temporary screen wire and metal panels that were installed on portions of the building exterior to prevent destructive animal infestation. Install less visually obtrusive protective screening on the interior to meet this purpose.

Human Safety: With the actions addressed in other sections of this document, no significant health safety issues were identified.

Fire Protection: The primary risk of fire would be from conditions external to the building provided it remains secure to vandals. It would be wise to locate an appropriately rated extinguisher in or in close proximity to the structure to support a quick response should a fire occur in proximity to the building.

Energy Conservation: Energy conservation is not an issue in this structure. This building will not be heated or cooled or otherwise have utility service.

Abatement of Hazardous Materials: As discussed earlier in this report, an advertisement for Paris Green, an arsenic-based pesticide, is nailed to the southeast interior wall of the building. The presence of this advertisement suggests the product was used on the plantation and may have been stored inside the Pigeonnier. Given the toxic nature of this substance, it will be important to establish if the hazardous materials associated with this product remain in the building or in the surrounding soil and to determine if abatement actions are necessary for the building. Additionally, all organic refuse, namely pigeon droppings, should be properly removed from the buildi2ng interior and discarded. According to National Park Service officials, this area was previously identified, put into the Project Management Information System (PMIS) and funded in 2003. Remediation should start some time in late 2003.

Handicapped Accessibility: Given the proposed exterior interpretation of the building, handicapped accessibility will not be required or functionally necessary.

Alternatives for Treatment - Pigeonnier

The General Management Plan (GMP) provides for exterior interpretation of the Pigeonnier. The proposed use will illustrate the French-Creole history of keeping pigeons as a food and fertilizer source. The pigeonnier was a sign of affluence among plantation owners. An alternative use for the Pigeonnier is to interpret it from both the interior and exterior. Through this alternative use, the interior would be made accessible to the public.

A full interpretation of the interior of this building would require access to both of its levels. With the absence of an interior staircase between the two stories, access to the second floor is currently available only through the use of a ladder positioned at the exterior of the northeast elevation. This type of access is not reasonable for public use due to the risk involved. The second level layout and use by pigeons should be interpreted with exhibit panels and docent interpretation.

Ultimate Treatment and Use - Pigeonnier

Ultimate Use

The General Management Plan (GMP) for the Magnolia Plantation unit of the Cane River Creole National Park has slated the Pigeonnier for exterior interpretation. Given the specific nature of this structure throughout its history and the opportunity for a clear interpretation of its purpose through exterior observation, this is an appropriate use of the Pigeonnier.

Treatments for the Ultimate Use

The most effective way to interpret the Pigeonnier in accordance with General Management Plan would be restore the structural stability of the building while preserving the exterior features. Because little has changed since the end of the period of significance, only minor treatments of the character-defining features of this building will be necessary beyond the need for framing and foundation restoration. The approach to presenting the 1960 physical character of the building requires the following treatments.

Exterior Treatments

Foundation: The remaining stone piers are historically significant to the building. However, due to erosion and settling, their assembly is in a deteriorated condition. The piers should be rebuilt using the historic stone to the maximum degree possible and, where necessary, spalled or otherwise deteriorated stone should be replaced with stone that matches the existing in color and type. If footings are required, there are two options. One option would be lift the structure, install subgrade concrete footings beneath the piers and reinstall the stone piers to match the original assembly. The other option would be to use injection grouting with the piers in place. The choice of foundation restoration depends on the specific subgrade conditions, including the condition of the historic stone piers currently below grade

Siding: The clapboard siding was applied directly over the heavy timber structure sometime after 1850. The existing clapboard siding should be retained and preserved. Portions of the siding that are missing or are in poor condition should be replaced, using materials identical in dimension, configuration, and species. According to the materials analysis completed for this building, the exterior was historically finished with whitewash. Circa 1950-1965 black and white photographs show the exterior of the Pigeonnier with a worn whitewash finish. Based upon this information, the exterior siding should be whitewashed in order to present an appearance consistent with the 1960 period of significance.

The metal panels that wrap around the corner boards on the east, west, and north corners of the building are historically significant and should be retained. As previously discussed, a fourth metal panel was identified on the ground near the southern corner of the building. Likewise, a shadow, the approximate size of the metal panel, exists on the south corner of the building. The presence of this panel is illustrated in the HABS drawings that were completed for this building in 1987. If possible, this panel should be reinstalled in its appropriate, historic location. If the panel is in a deteriorated state, a

replacement panel, matching the historic, should be reinstalled in the area where the shadow of the removed panel is evident.

The damaged pigeonholes should be repaired to reflect the historic openings. All existing coverings over the pigeonholes located in the siding on the southeast, southwest, and northwest elevations should be removed. In order to protect the interior of the building from insect and animal infestation, insect screen wire should be applied over the interior of these openings.

Roofing: Overall, the condition of the 5V-metal roofing appears to be sound. The metal panels should be checked for pinholes or spots that have rusted through or will rust through in the near term. Roofing sheets with holes or those likely to leak in the near term should be replaced. All the existing wooden shingle roofing should be retained as an earlier, historically significant feature of this building.

Doors: The temporary stabilization door should be removed. Historic Door 1 should be preserved and re-hung using the existing hardware still in place on this door.

Interior Treatments

Flooring: The interior flooring on both stories of the Pigeonnier is historically important and should be retained and preserved. As discussed earlier in this section, special attention should be given to the second story of the building, as large amounts of organic refuse have accumulated in this level. Should the second floor flooring be damaged, it should be replaced to match the historic dimensions, saw characteristics, and installation. From the underside, the second level flooring appears in structurally sound condition.

Walls: The interior wall characteristics of the Pigeonnier are historically important and should be retained and preserved. All of the shelving, used for storage on the first story and for pigeon roosting on the second story, should be retained and preserved. As discussed earlier in this section, special attention should be given to the second story of the building, as large amounts of organic refuse have accumulated in this level.

Ceilings: There are no separate ceiling finishes in this structure. The ceiling condition in both the first and second story are the exposed, unfinished framing of the upper floor and roof systems, respectively. As with all of the structural framing in this building, these features are historically significant and should be retained and preserved.

Treatment and Use – Carriage Shed

Introduction

Little has been documented on the developmental history of the Carriage Shed. From what is known, the Carriage Shed appears to have retained most of its 1960 historic character. The General Management Plan (GMP) has designated the Carriage Shed for exterior interpretation. The historic features of this building are sufficiently intact to meet this interpretative use.

From what is known of the physical character of the Carriage Shed in 1960, the historic integrity of the building appears to be substantially intact. The modifications to the building from its character in 1960 primarily constitute those made to stabilize the structure. The following are representative of the building's characteristics in 1960.

- The exterior walls were finished with vertical board and batten siding. The battens are currently missing.
- The roof and wall framing structure was exposed to the interior. There were no interior finishes.
- The roofing was 5V corrugated metal.
- A pen existed on the southeastern elevation of the shed.
- The floor of the Carriage Shed and pen was dirt.

Requirements for Treatment and Use – Carriage Shed

The primary requirement for use is to treat the structure in accordance with the 1960 period of significance as established in the General Management Plan. The appropriate response to the period of significance will be to retain and structurally secure the identified historic features of the structure for inclusion in the interpretative program for Magnolia Plantation.

Treatment of the building should be guided by the International Building Code, including that code's statement regarding historic buildings, as follows:

> **3406.1 Historic Buildings.** The provisions of this code related to the construction, repair, alteration, addition, restoration and movement of structures, and change of occupancy shall not be mandatory for historic buildings where such buildings are judged by the building official to not constitute a distinct life safety hazard.

Threats to public health and safety will be eliminated, but, because this is an historic building, alternatives to full code compliance are recommended where compliance would needlessly compromise the integrity of the historic building.

Applicable Laws: Section 106 of the National Historic Preservation Act (NHPA) mandates that federal agencies, including the National Park Service, take into the account the effects of their actions on properties listed in or eligible for listing in the National Register of Historic Places (NRHP) and give the Advisory Council on Historic Preservation a reasonable opportunity to comment. NHPA regulations (36 CFR 800.10) mandate special requirements for protection of National Historic Landmarks. Section 110(f) of the Act requires that the Agency Official, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark that may be directly and adversely affected by any undertaking. The National Park Service's "Cultural Resource Management Guideline" (DO028) requires planning for the protection of cultural resources whether or not they relate to the specific authorizing legislation or interpretive programs of the parks in which they lie. The Carriage Shed should be understood in its own cultural context and managed in light of its own value, as well as that of Magnolia Plantation as a whole, so that it may be preserved and rehabilitated, unimpaired, for the enjoyment of present and future generations. To help guide compliance with these statutes and regulations, the Secretary of the Interior has issued *Standards for the Treatment of Historic Properties.* The National Park Service's *Preservation Briefs* also provide detailed guidelines for appropriate treatment of a variety of materials, features and conditions found in historic buildings.

Functional Requirements: Using the Carriage Shed for exterior interpretation as set forth in the General Management Plan will require few actions to return the building to its appropriate character and condition. Given the existing condition of the building, the

following measures are recommended in order for it meet the established use expectations.

- Reconstruct the board-and-batten door located on the southeast elevation, Door 3.
- Evaluate post framing and exterior siding for moisture damage due to contact with the ground. Avoid contact between soil and wood where possible. Leaves and debris should be removed from the base of the structure regularly.
- Evaluate the tree at the north corner of the structure. With time, this tree will damage the structure at this location due to its proximity and root system growth.
- Reconstruct the board-and-batten siding to ca. 1960 appearance. Repair siding on southwest elevation of pen.

Human Safety: With the actions addressed in other sections of this document, no significant health safety issues were identified.

Fire Protection: The primary risk of fire would be from conditions external to the building. If the structure is to be used for interpretation, it should be open and not used for storage. Under these conditions, the risk of fire should be minimal. However, locate an appropriately rated extinguisher in or in close proximity to the structure to support a quick response should a fire occur in or near the building. In addition, develop a fire protection management plan for the site with specific recommendations for the shed.

Energy Conservation: Energy conservation is not an issue in this structure. This building will not be heated or cooled.

Abatement of Hazardous Materials: There is no information on the presence of hazardous materials in the building. However, as this building may have been used for storage sometime in its past, it will be important to determine if any toxic substances are present in the soil beneath and surrounding the building. This examination will determine whether abatement actions will be necessary for the building.

Handicapped Accessibility: Given the proposed exterior interpretation of the building, handicapped accessibility will not be required or functionally necessary.

Alternatives for Treatment – Carriage Shed

The General Management Plan (GMP) provides for exterior interpretation of the Carriage Shed. The proposed use will illustrate how the building was used as a garage, for storage, and as small animal housing. An alternative use for the Carriage Shed is to interpret it from both the interior and exterior. Through this alternative use, the interior would be made accessible to the public.

A full interpretation of the interior of this building would require access to the interior of the main shed area. This would be accomplished via access through the southwest opening. However, given the open nature of the shed, it is possible to obtain a complete understanding of its past uses and how they relate to the building layout from the exterior. To accomplish this, however, the protective screening that has been installed on the southwest elevation should be removed. This would provide a historic appearance consistent with that of 1960. Additionally, all temporary storage should be removed from the inside the shed to afford a clear view of the interior. Due to the limited height of the dog pen, access to the interior is not reasonable. However, the small size of the pen affords a complete understanding of its past use through exterior observation from the doorway. As with the recommended treatment for the main shed, the screening should be removed from the door opening on the southwest elevation of the dog pen.

Ultimate Treatment and Use – Carriage Shed

Ultimate Use

The General Management Plan (GMP) for the Magnolia Plantation unit of the Cane River Creole National Park has slated the Carriage Shed for exterior interpretation. While a detailed history of the Carriage Shed is unknown, it is likely that the building was used as garage space for a vehicle and farm equipment, as well as for other types of storage in support of domestic and farming activities. Given the multiple uses of the structure throughout its history and the opportunity for a clear interpretation of its purpose through exterior observation, this is an appropriate use of the Carriage Shed.

Treatments for the Ultimate Use

The most effective way to interpret the Carriage Shed in accordance with General Management Plan would be restore the structural stability of the building while preserving the exterior and interior features. As little has changed since the end of the period of significance, only minor treatments of the historic features of this building will be necessary. The approach to presenting the 1960 physical character of the building requires the following treatments.

Exterior Treatments

Foundation: The foundation conditions appear sound. Only the two concrete pads supporting temporary posts on the southeast elevation of the pen are a non-historic condition.

Siding: The butt-jointed exterior wall siding was applied directly to light wood framing supported by the post and beam structure sometime prior to 1960. Therefore, the existing siding should be retained and preserved. Portions of the siding that are missing or are in poor condition should be replaced, using materials identical in dimension, configuration, and species. A photograph from 1999 suggests battens were in existence on the walls. Consideration should be given to reinstalling the battens on the exterior walls.

Roofing: Overall, the condition of the remaining historic 5V metal roofing appears to be sound. The historic metal panels should be checked to make sure they have not rusted through or will not rust through in the near future. Roofing with holes or those likely to leak in the near term should be replaced. All of the existing roofing is either identical or similar to that which existed on the building during the period of significance and, whenever possible, should be preserved.

Doors: Information on the historic doors at Opening 1, the main doors, does not exist. However, it is as likely that there were no doors on this opening in 1960. Absent specific information on the doors, it is recommended that no doors be placed on this opening and the building be interpreted in that configuration. Door 3 should be restored to its 1960 configuration using the remaining board and batten structure as guidance.

Interior Treatments

Flooring: The interior flooring is dirt and should not be changed.

Walls: The interior wall characteristics of the Carriage Shed are historically important and should be retained and preserved.

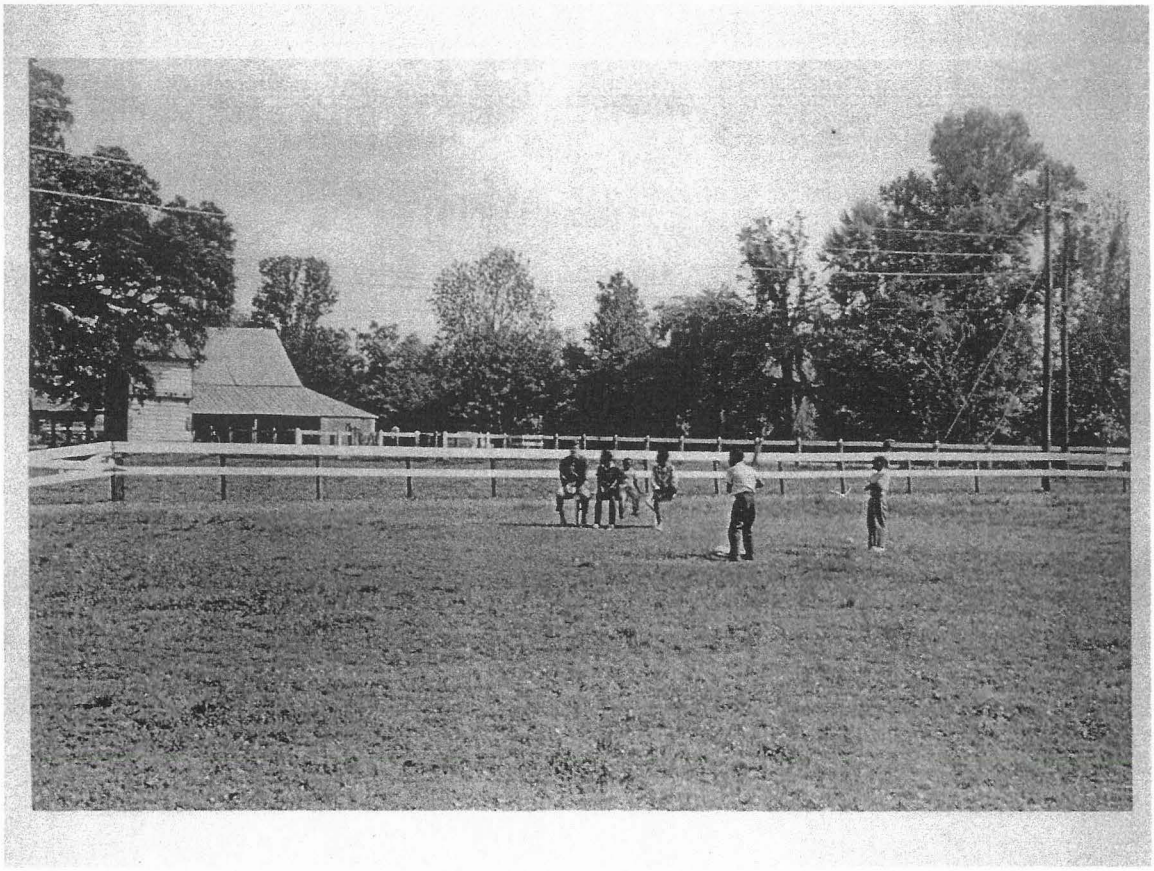
Ceilings: There are no separate ceiling finishes in this structure. The ceilings are the exposed roofing and roof framing. As with all of the structural framing in this building, these features are historically significant and should be retained and preserved.

Electrical: While it is not useful to reinstall electricity to this structure for interpretive purposes and could even be a fire hazard, the existing electrical components should be cleaned and re-secured in their current locations. The original electrical wiring was surface applied or draped and secured with nails or staples to the framing of the building; this configuration should be retained.

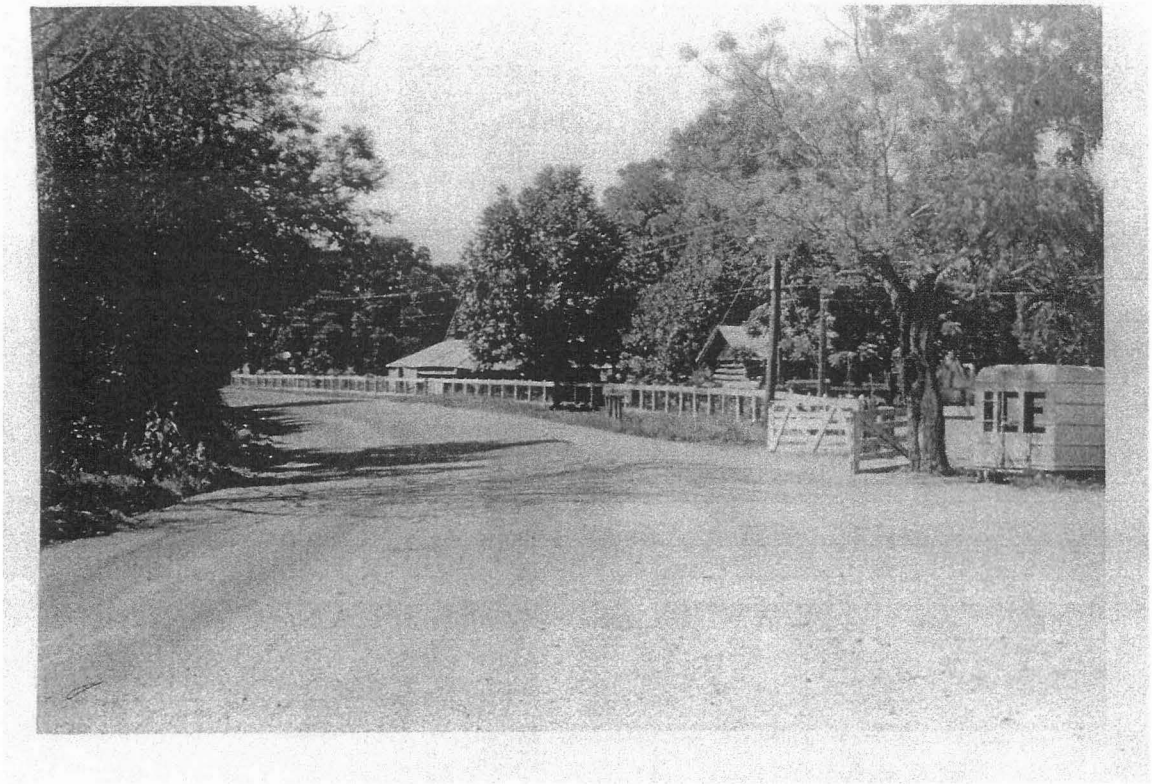
APPENDICES

A. **Historic Photographs**
B. **Supplementary Photographs**

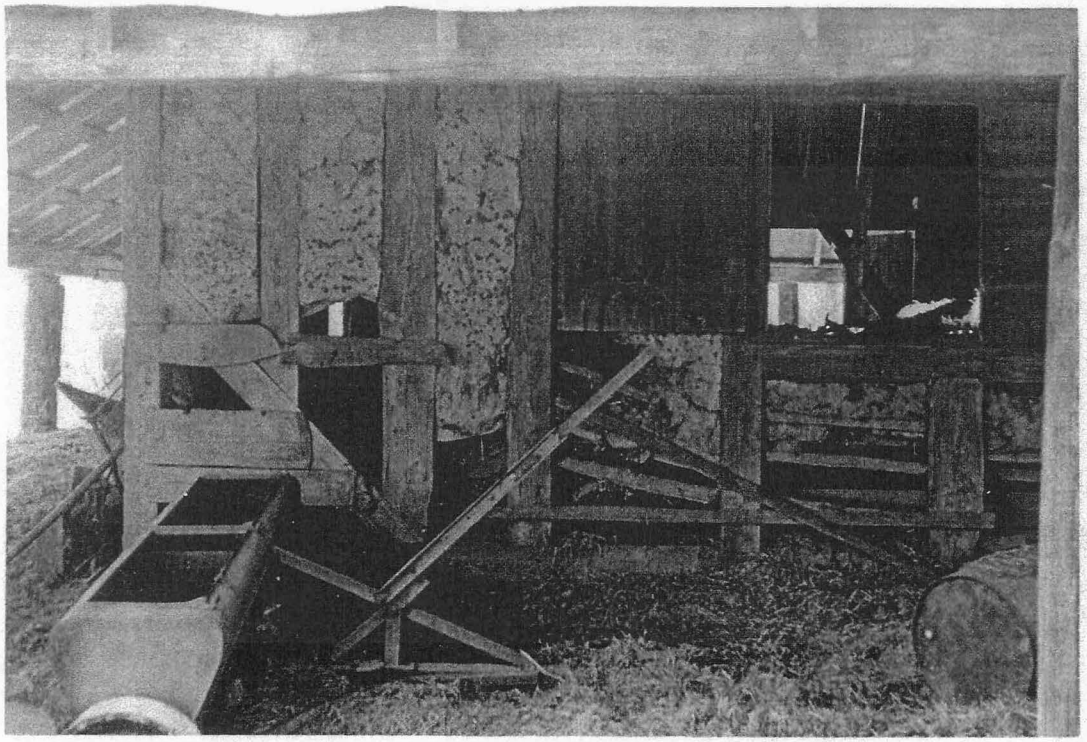
HISTORIC PHOTOGRAPHS



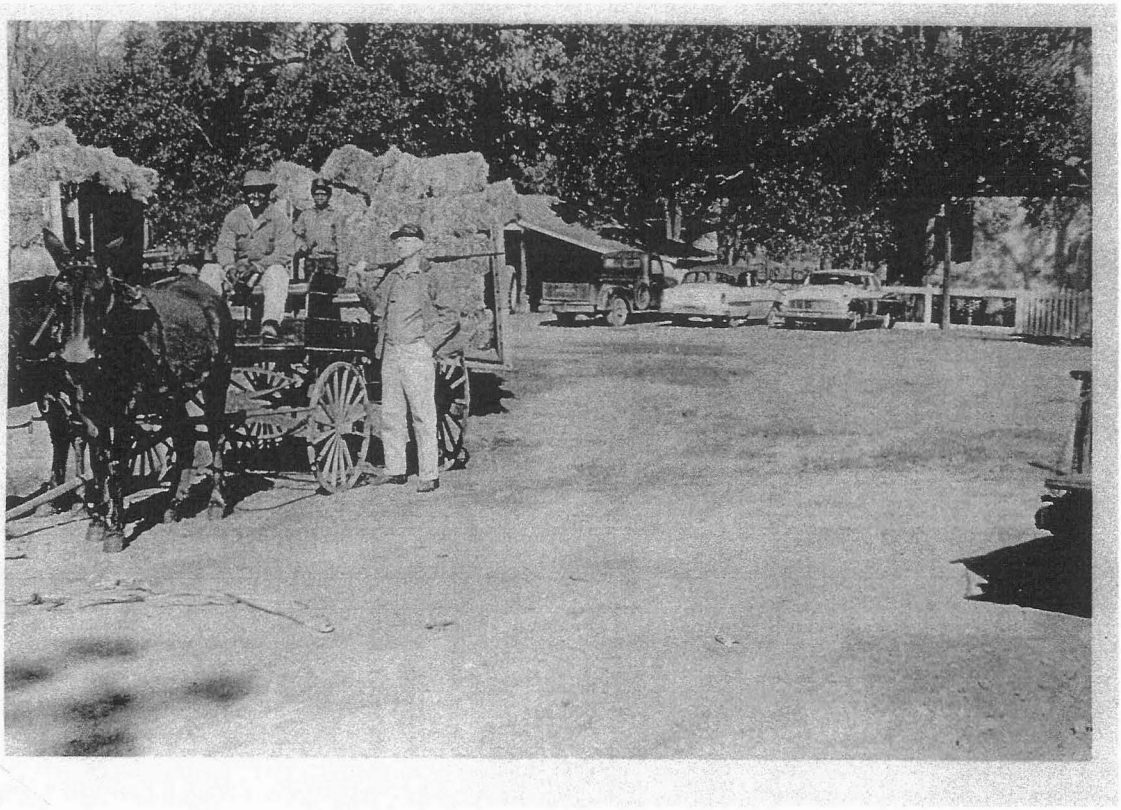
1961 Photograph with Blacksmith's Shop and Pigeonnier in Background
Photo courtesy of Ambrose J. Hertzog III



1965 photo showing fence along road with Blacksmith's Shop in background
Photo courtesy of Ambrose J. Hertzog III



1965 photo of interior of shed surrounding Blacksmith's Shop
Photo courtesy of Ambrose J. Hertzog



Late 1950s photograph showing carriage shed in the background
Photo courtesy of Ambrose J. Hertzog III

SUPPLEMENTARY PHOTOGRAPHS

Supplementary photographs are not included with this copy.
Please see the master copy of this report for original photographs and negatives.