
National Park Service
Cultural Landscapes Inventory
1998



Voorheis Estate (Twin Creeks)
Great Smoky Mountains NP - North District

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Inventory Unit Summary & Site Plan

Inventory Summary

The Cultural Landscapes Inventory Overview:

CLI General Information:

Purpose and Goals of the CLI

The Cultural Landscapes Inventory (CLI), a comprehensive inventory of all cultural landscapes in the national park system, is one of the most ambitious initiatives of the National Park Service (NPS) Park Cultural Landscapes Program. The CLI is an evaluated inventory of all landscapes having historical significance that are listed on or eligible for listing on the National Register of Historic Places, or are otherwise managed as cultural resources through a public planning process and in which the NPS has or plans to acquire any legal interest. The CLI identifies and documents each landscape's location, size, physical development, condition, landscape characteristics, character-defining features, as well as other valuable information useful to park management. Cultural landscapes become approved CLIs when concurrence with the findings is obtained from the park superintendent and all required data fields are entered into a national database. In addition, for landscapes that are not currently listed on the National Register and/or do not have adequate documentation, concurrence is required from the State Historic Preservation Officer or the Keeper of the National Register.

The CLI, like the List of Classified Structures, assists the NPS in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, National Park Service Management Policies (2006), and Director's Order #28: Cultural Resource Management. Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report information that respond to NPS strategic plan accomplishments. Two GPRA goals are associated with the CLI: bringing certified cultural landscapes into good condition (Goal 1a7) and increasing the number of CLI records that have complete, accurate, and reliable information (Goal 1b2B).

Scope of the CLI

The information contained within the CLI is gathered from existing secondary sources found in park libraries and archives and at NPS regional offices and centers, as well as through on-site reconnaissance of the existing landscape. The baseline information collected provides a comprehensive look at the historical development and significance of the landscape, placing it in context of the site's overall significance. Documentation and analysis of the existing landscape identifies character-defining characteristics and features, and allows for an evaluation of the landscape's overall integrity and an assessment of the landscape's overall condition. The CLI also provides an illustrative site plan that indicates major features within the inventory unit. Unlike cultural landscape reports, the CLI does not provide management recommendations or

treatment guidelines for the cultural landscape.

Inventory Unit Description:

The Voorheis Estate is a cultural landscape located within the North District of GRSM. The 38-acre site encompasses the former mountain retreat that was developed by Louis E. Voorheis from 1928-1944, and contains less than one percent of the land in the 521,490-acre park. The site is located off of Cherokee Orchard Road, approximately one mile from Gatlinburg, Tennessee.

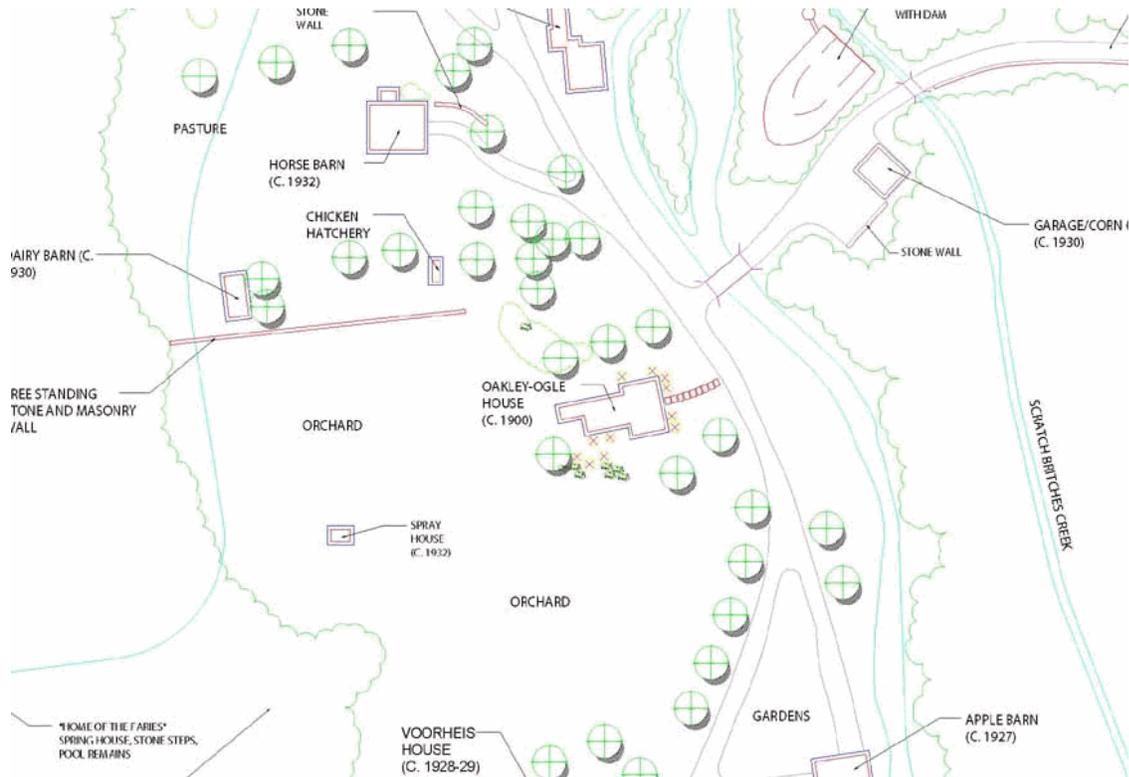
The Voorheis Estate is an example of a rustic style of architecture and landscape architecture that is evident throughout the cultural landscape boundary in the form of structures and designed water features. The intentional use of natural materials such as hand-hewn logs, cedar shingles, and fieldstone, as well as sound workmanship and design convey the rustic appearance that Voorheis consciously sought to establish on his estate in both the buildings and the designed landscape features.

Two creeks that originate on Mount Le Conte and several mountain springs flow through the estate boundary. Voorheis used this naturally occurring water flow in his landscape design that focused on unique stone garden features that incorporated flowing water. Additionally, he planted numerous flowers, shrubs, and trees for a variety of functions - ornamental color, visual character, and outlining walks with seasonal color.

In 1933, Voorheis deeded the property as a gift to NPS, subject to a lifetime lease. In 1952, NPS assumed full management of the property. The period of significance for this inventory unit has been established to be 1928-1952, when the property was under Voorheis ownership and maintenance. The significance of the landscape is due to the extant assemblage of rustic style structures, gardens, and remnant water garden features that were developed during this period.

Today the Voorheis Estate consists of the main house, two guest cabins, a horse barn, and an apple barn, as well as remnants of numerous designed landscape features. NPS has removed several buildings and some historic landscape plantings over the years and a lack of maintenance has allowed most of the landscape features to fall into disrepair. Current park management practices are allowing portions of the historic designed landscape to return to a successional forest. Existing historic documentation does not provide enough information to recreate the historic landscape. Despite changes to the historic landscape, the Voorheis Estate still retains integrity as most of the buildings are in good condition and the historic circulation patterns remain relatively unchanged.

Voorheis Estate (Twin Creeks)
Great Smoky Mountains NP - North District



A portion of the historic base map. See attached full-sized print of drawing for plan of entire landscape.

Property Level and CLI Numbers

Inventory Unit Name:	Voorheis Estate (Twin Creeks)
Property Level:	Landscape
CLI Identification Number:	550198
Parent Landscape:	550198

Park Information

Park Name and Alpha Code:	Great Smoky Mountains NP - North District -GRSM
Park Organization Code:	5468
Subunit/District Name Alpha Code:	Great Smoky Mountains NP - North District - GRSM
Park Administrative Unit:	Great Smoky Mountains National Park

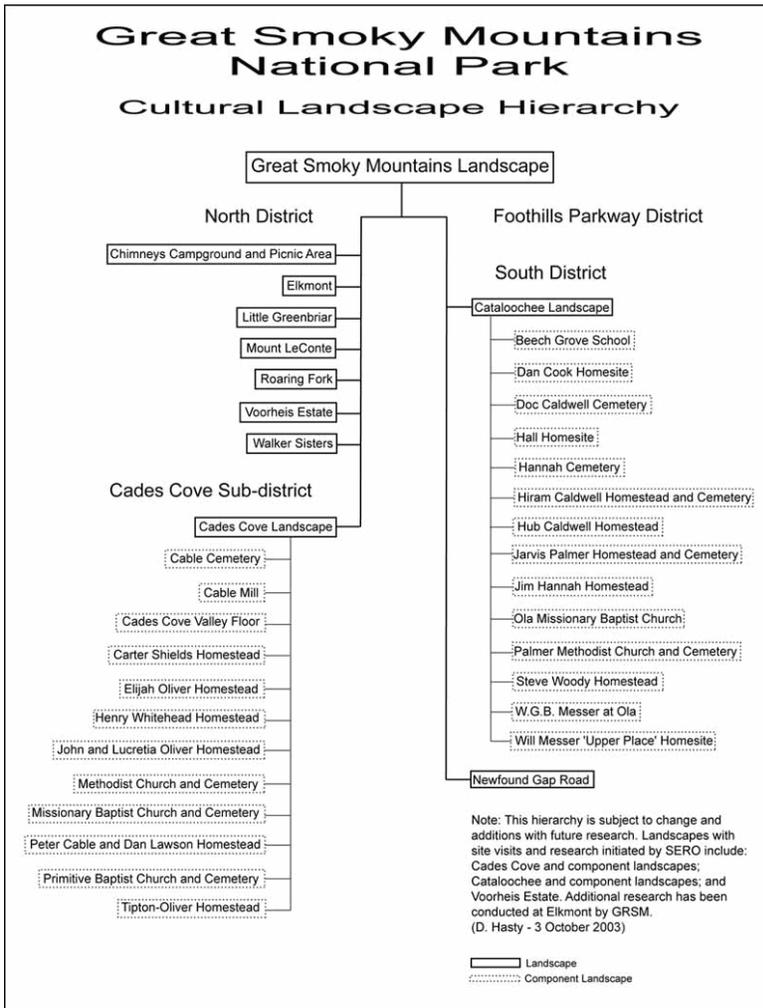
CLI Hierarchy Description

Voorheis Estate (Twin Creeks)
Great Smoky Mountains NP - North District

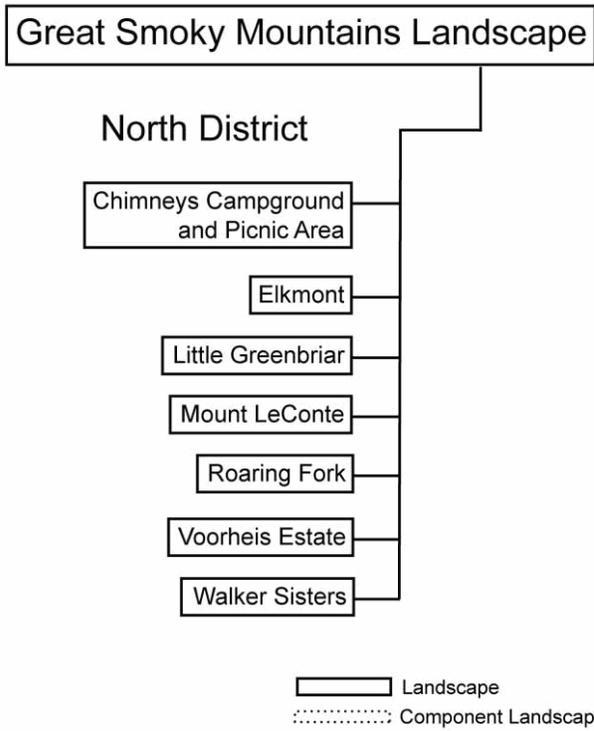
The Voorheis Estate (Twin Creeks Natural Resource Center) is a cultural landscape in the North District of GRSM. The estate was donated to NPS by Louis E. Voorheis in 1933, the only donation of its kind to the park. The estate was used as a summer retreat by Voorheis and contained numerous buildings and landscape features designed by Voorheis himself. The cultural landscape incorporated a rustic style of architecture and landscape architecture and features buildings, gardens, and water gardens built to reflect this rustic theme.

The CLI Level I was started in 1998 by Ruthanne Mitchell and Cari Goetcheus (NPS). It was completed in 2003 by The Jaeger Company. The inventory methodology consisted of a review of existing documentation and an inspection of current conditions on site at the Voorheis Estate. The CLI Level II was completed by David Hasty, SERO in FY 2004.

The Voorheis Estate is classified as a significant landscape due to the design of its structures and landscape features, which reflects the period in which they were constructed as well as the vision of a private estate holder in the area in the 1930s.



Great Smoky Mountains National Park CLI Hierarchy



Great Smoky Mountains National Park CLI Hierarchy - North District

Concurrence Status

Inventory Status: Complete

Completion Status Explanatory Narrative:

The park contact is David Chapman. A CLI was initiated by Ruthanne Mitchell in 1998 and completed by The Jaeger Company (TJC) who was awarded an IDIQ contract through Pond and Company (Prime) in FY 2002. David Hasty completed the CLI in FY 2004, and sent it to the park on 28 June for approval.

Concurrence Status:

Park Superintendent Concurrence:	Yes
Park Superintendent Date of Concurrence:	07/27/2010
National Register Concurrence:	Eligible -- SHPO Consensus Determination
Date of Concurrence Determination:	06/18/2002

National Register Concurrence Narrative:

A National Register nomination was prepared under the direction of Bob Blythe, SERO, and forwarded to the park. The nomination effectively documents the cultural landscape features at the site. GRSM sent the nomination to TN-SHPO during consultation on the proposed development of the adjacent Twin Creeks Science Facility replacement. TN-SHPO replied that the Voorheis Estate is eligible for listing on the National Register.

Geographic Information & Location Map

Inventory Unit Boundary Description:

Beginning with the entry road to the site, the boundary extends 25' to the west from the centerline of the driveway from where it starts at Cherokee Orchard Road to Scratch Britches Branch.

From the intersection of Scratch Britches Branch and the driveway, the boundary line continues downstream to the point where it joins Le Conte Creek. This line follows the north side of the branch and encompasses the pools and riffles and house foundations.

At the confluence of Scratch Britches Branch and Le Conte Creek, the boundary passes across the creek and turns to continue upstream on Le Conte Creek to the point where there is a clearing for the parking area.

At the parking area, the boundary turns SSE towards the caretaker's house, encompassing the rock gardens and daffodil beds N and NE of the caretaker's house.

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Behind the caretakers house, the boundary turns E, paralleling the treeline, approximately where the steep hillside begins.

Approaching the “House of the Fairies” spring house, the boundary line turns S, up the hillside along the ridgeline that encloses the western viewshed of the spring house. The boundary line continues around above the spring house and then turns back downhill along the slight ridgeline that encloses the eastern viewshed of the spring house. The intent of this section is to include all of the area visible from the spring house within the National Register boundary.

When the boundary reaches the base of the steep hillside, it turns E again towards the barbecue area. The boundary includes the barbecue area, as well as the stone wall and curving steps. The boundary continues S up the hillside to include the steel water tank, old spring house and stone wall, taking care to include the viewshed around this area as with the spring house area.

The boundary now crosses E over the slight ridgeline into the hollow that contains the piers for the water tank and the boulder wall on the eastern slope. Again, the boundary should include the viewshed of these two features, ending up on the ridgeline E of the boulder wall heading down towards Le Conte Creek.

The boundary now passes across both branches of Le Conte Creek and turns W to parallel Le Conte Creek downstream, encompassing the mill ruins and the concrete dam.

Once past the concrete dam, in the experimentation area, the boundary passes NNE to cross Scratch Britches Branch.

Once across Scratch Britches Branch, the boundary continues downstream to where it closes 25° E of the centerline of the driveway from where it crosses the branch back to Cherokee Orchard Road.

State and County:

State: TN

County: Sevier County

Size (Acres): 38.00

Boundary UTMS:

Source:	USGS Map 1:24,000
Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17
UTM Easting:	273,551
UTM Northing:	3,952,118
Source:	USGS Map 1:24,000
Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17
UTM Easting:	273,680
UTM Northing:	3,952,098
Source:	USGS Map 1:24,000
Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17
UTM Easting:	273,798
UTM Northing:	3,952,298
Source:	USGS Map 1:24,000
Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17
UTM Easting:	273,836
UTM Northing:	3,952,275
Source:	USGS Map 1:24,000

Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17
UTM Easting:	273,731
UTM Northing:	3,952,070
Source:	USGS Map 1:24,000
Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17
UTM Easting:	273,842
UTM Northing:	3,952,009
Source:	USGS Map 1:24,000
Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17
UTM Easting:	274,133
UTM Northing:	3,951,814
Source:	USGS Map 1:24,000
Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17
UTM Easting:	274,161
UTM Northing:	3,951,738
Source:	USGS Map 1:24,000
Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17

UTM Easting:	274,124
UTM Northing:	3,951,636
Source:	USGS Map 1:24,000
Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17
UTM Easting:	273,995
UTM Northing:	3,951,645
Source:	USGS Map 1:24,000
Type of Point:	Area
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UTM Zone:	17
UTM Easting:	273,907
UTM Northing:	3,951,787
Source:	USGS Map 1:24,000
Type of Point:	Area
Datum:	NAD 27
UTM Zone:	17
UTM Easting:	273,835
UTM Northing:	3,951,899
Source:	USGS Map 1:24,000
Type of Point:	Area
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UTM Zone:	17
UTM Easting:	273,806
UTM Northing:	3,951,839

Source: USGS Map 1:24,000
Type of Point: Area
Datum: NAD 27
UTM Zone: 17
UTM Easting: 273,734
UTM Northing: 3,951,865

Source: USGS Map 1:24,000
Type of Point: Area
Datum: NAD 27
UTM Zone: 17
UTM Easting: 273,720
UTM Northing: 3,951,929

Source: USGS Map 1:24,000
Type of Point: Area
Datum: NAD 27
UTM Zone: 17
UTM Easting: 273,653
UTM Northing: 3,951,908

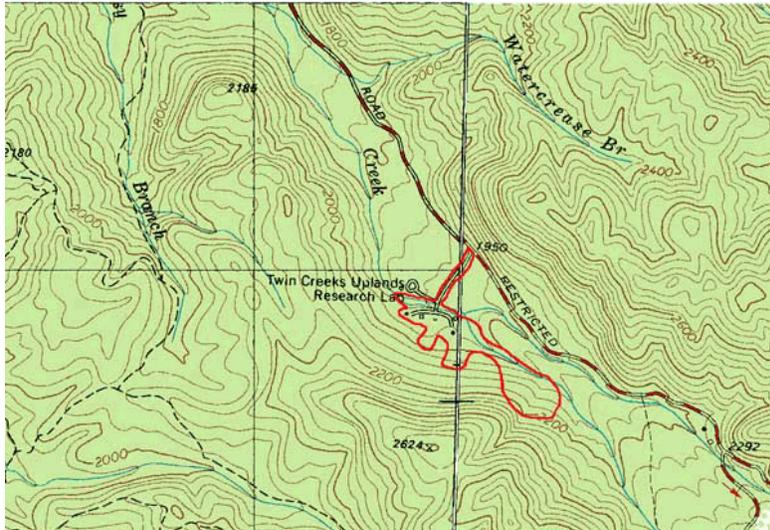
Source: USGS Map 1:24,000
Type of Point: Area
Datum: NAD 27
UTM Zone: 17
UTM Easting: 273,629
UTM Northing: 3,951,982

Source: USGS Map 1:24,000
Type of Point: Area

Voorheis Estate (Twin Creeks)
Great Smoky Mountains NP - North District

Datum:	NAD 27
UTM Zone:	17
UTM Easting:	273,546
UTM Northing:	3,952,035

Location Map:



Voorheis Estate (Twin Creeks) Location Map (compilation of two USGS Quadrangles: Gatlinburg, Tenn., 1979 (west), and Mt. Leconte, Tenn.-N.C., 1964 (east)).

Regional Context:

Type of Context: Cultural

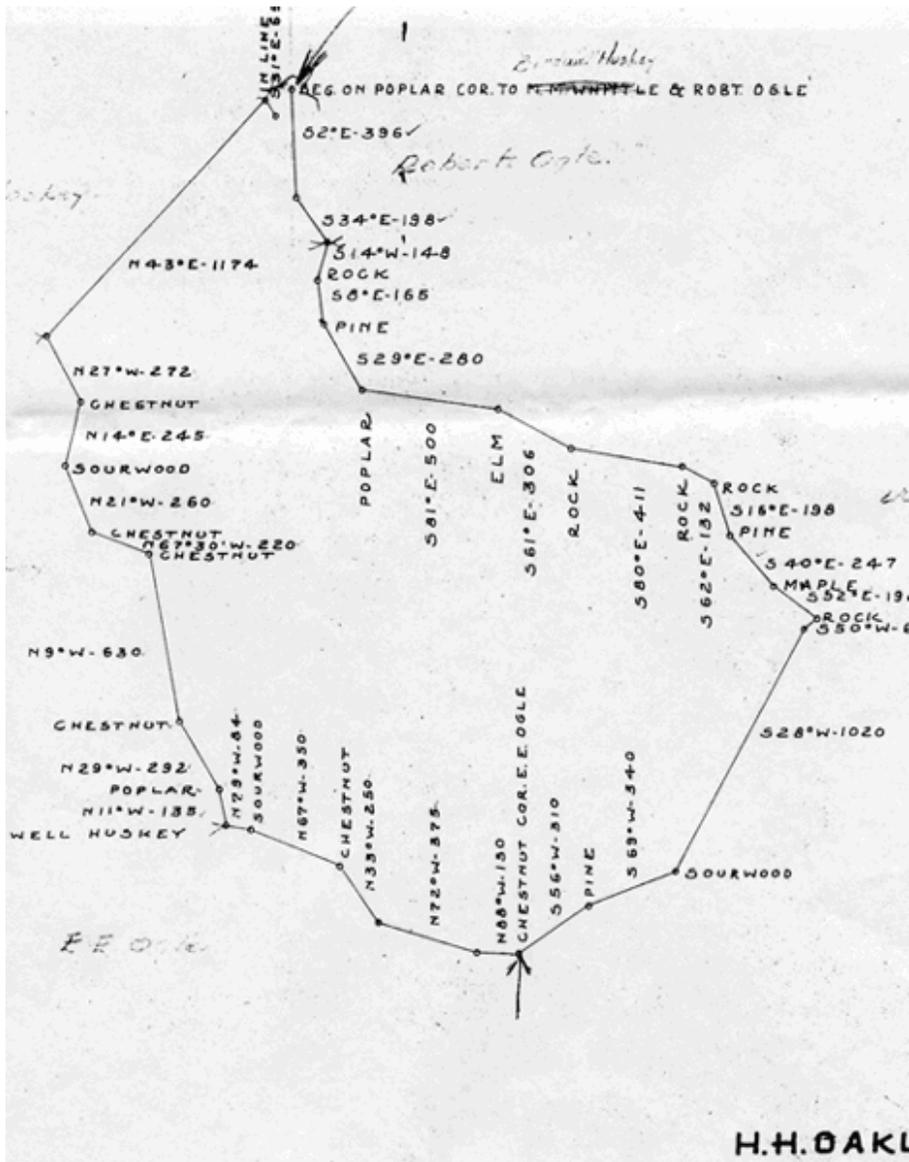
Description:

The initial Anglo-European settlement of the Unaka Mountain Range in east Tennessee began as early as the 1780s. Settlers arrived in the Cherokee province following a series of treaties during the colonial and federal periods. The Treaty of State of Franklin in 1784 and 1785 and the Treaty of Hopewell in 1785 resulted in the Cherokee ceding claims to lands in lying south of the French Broad River in east Tennessee. (Royce 1975:23-29)

Pioneer settlers arrived from Virginia and the Carolinas. They selected the rich bottomlands along the Little Pigeon and French Broad Rivers and later followed the branches of the Little Pigeon River in to the Great Smoky Mountains. (Jones 1996) In 1837, members of the Thomas and Isaac C. Ogle families received grants from the State of Tennessee for lands on Mill Creek (now known as Le Conte Creek). Subsistence farming was the norm for the mountain area until the advent of the lumber industry in the late 1800s, which provided additional income to the mountain farmers well into the twentieth century.

A dispersed settlement pattern of approximately twenty-four farmsteads existed along Mill Creek (now Le Conte Creek) at the time the boundaries were proposed for the Great Smoky Mountains National Park. Family names associated with the community located along Cherokee Orchard Road southeast of Gatlinburg included the Ogles, Whittles, Oakleys, Reagans, Cardwells, and Huskeys. (Aiken 1983 and GRSM Land Acquisition Records) In 1927, Harve H. Oakley's land was surveyed. A copy of the survey plat is located at park headquarters and in the GRSM Archives and Library.

Harve and Sara Oakley sold their farm and orchard to a wealthy Cincinnati businessman and socialite, Louis E. Voorheis, who wanted to build a mountain retreat. Voorheis employed local craftsman to construct rustic style buildings and structures and to install a rustic landscape alongside the two mountain streams that crossed his land. He renamed Mill Creek to Le Conte Creek. Voorheis's mountain resort development took place at the time when land was being acquired for the new park and caused some concern to officials acting for the State of Tennessee and the National Park Service. In a general historical context, the period of development of Voorheis's Twin Creek Orchard falls within a period of recreation and tourism development (1900-1933) in the Great Smoky Mountains.



1927 Survey of Harve H. Oakley's Land. (GRSM Archives)

Type of Context: Physiographic

Description:

Twin Creeks Natural Resources Center is situated in the Unaka Mountain Range of the Blue Ridge Physiographic Province in the Great Smoky Mountains National Park about one mile southeast of Gatlinburg in Sevier County, Tennessee. Twin Creek Orchard is located in the Le Conte Creek watershed. Le Conte Creek rises at 5200 feet elevation on the northwest slope of Mount Le Conte and flows northwesterly to join the West Prong of the Little Pigeon River at Gatlinburg. (Chiles 1978) The study area is located on a terrace of the south side of Le Conte

Creek at 1960 feet at the bottom of a steep slope (unnamed mountain). The stream terrace slopes down from east to west. Two tumbling, high gradient mountain streams, Le Conte Creek and Scratch Britches Branch come together on the eastern edge of the terrace. Thin soils and large boulders characterize the slightly rolling and near level land which lays along the south side of Cherokee Orchard.

The Le Conte Creek watershed lies within the Unaka Mountain Range. The land is underlain by the Roaring Fork Sandstone formation composed of sedimentary rocks, chiefly sandstones, slates, shales, and conglomerates. (Hubbard, et al 1956) In this area wetlands may occur where springs come to the surface. The steep terrain is interlaced by tumbling or high gradient streams and springs. (Parker and Pipes 1990:44) Le Conte Creek, which flows through the Twin Creeks property, originates from a spring on the slope of Mount Le Conte, the most prominent physical feature of the natural landscape and the third highest mountain (6,593') in the Smokies. Rippling past Bullhead Mountain (4,282'), the creek and its branches flow through the Twin Creeks area, and empty into the West Prong Little Pigeon River.

Type of Context: Political

Description:

The Voorheis Estate is located in the US First Congressional District and in Tennessee District 8.

Tract Numbers: Tract 761 Deed 32 (Tract 03-106 on Land Status Map 133/92002)

Management Information

General Management Information

Management Category: Should Be Preserved And Maintained

Management Category Date: 06/08/2004

Management Category Explanatory Narrative:

The Voorheis Estate retains its historic integrity despite its changing role from a place of leisure to a place of research. The structures and buildings help preserve the historic spatial quality that was created by Voorheis at the estate. The interiors of the structures have lost much of their integrity, but the doors, walls, and windows on most structures have not been changed.

The landscape has not been as fortunate as the buildings and structures. Nearly all of the landscape features and plant materials have been destroyed or removed. It is documented that the apple orchard was removed to conduct research in 1987. Additionally, Mrs Voorheis-Murray removed some plantings when she sold her life estate in 1952. (McGee)

Agreements, Legal Interest, and Access

Management Agreement:

Type of Agreement: Special Use Permit

Expiration Date: 12/31/9999

Management Agreement Explanatory Narrative:

The only management agreement for the Voorheis Estate area is for use of the picnic area that is just outside the boundaries of the cultural landscape.

NPS Legal Interest:

Type of Interest: Fee Simple

Public Access:

Type of Access: With Permission

Explanatory Narrative:

The property is currently used as the Uplands Research Center and is not generally open to the public.

Adjacent Lands Information

Do Adjacent Lands Contribute? No

Adjacent Lands Description:

The Voorheis Estate boundary and viewshed are located completely within GRSM.

National Register Information

Existing National Register Status

National Register Landscape Documentation:

Undocumented

National Register Eligibility

National Register Concurrence:

Eligible -- SHPO Consensus Determination

Contributing/Individual:

Individual

National Register Classification:

District

Significance Level:

State

Significance Criteria:

B - Associated with lives of persons significant in our past

Significance Criteria:

A - Associated with events significant to broad patterns of our history

Significance Criteria:

C - Embodies distinctive construction, work of master, or high artistic values

Period of Significance:

Time Period:

AD 1928 - 1952

Historic Context Theme:

Creating Social Institutions and Movements

Subtheme:

Recreation

Facet:

Tourism

Other Facet:

None

Time Period:

AD 1928 - 1952

Historic Context Theme:

Expressing Cultural Values

Subtheme:

Landscape Architecture

Facet:

Development Of Transportation And Land Tenure Systems

Other Facet:

None

Area of Significance:

Area of Significance Category: Landscape Architecture

Area of Significance Subcategory: None

Area of Significance Category: Architecture

Area of Significance Subcategory: None

Area of Significance Category: Community Planning And Deve

Area of Significance Subcategory: None

Statement of Significance:

The Voorheis Estate is an example of an early twentieth-century resort. The estate is significant under Criteria A and C for listing in the National Register of Historic Places. Under Criterion A the estate represents how private individuals would have developed the land within the park boundaries had the Great Smoky Mountains National Park not been created. It is the only private estate of substantial integrity that survives within the park boundaries. Under Criterion C the estate represents an excellent example of rustic architecture and landscape architecture in Tennessee. An extensive use of minimally-worked local materials survives on site to represent the original owner's intent in developing the property. The Voorheis Estate is unique because of its location in the Great Smoky Mountains National Park, the design of its structures and landscape, and the materials and workmanship used in construction. The integrity of design is particularly strong; the use of natural materials such as fieldstone, cedar shingles, and hand-hewn logs conveys the rustic appearance that Voorheis consciously sought.

The Vooheis Estate/Twin Creeks Natural Resource Center today consists of the main house, two guest cabins, the horse barn, the apple barn, and a number of landscape features. The National Park Service removed two of the guest residences and a small cabin at the west end of the complex. A majority of the landscape features and plant material have either been removed or fallen into disrepair.

Chronology & Physical History

Cultural Landscape Type and Use

Cultural Landscape Type: Vernacular
Designed

Current and Historic Use/Function:

Primary Historic Function: Estate Landscape

Primary Current Use: Government-Other

Other Use/Function	Other Type of Use or Function
Farm (Plantation)	Historic
Research Facility (Laboratory)	Current

Current and Historic Names:

Name	Type of Name
Twin Creeks Orchard	Historic
Louis E. Voorheis Estate	Historic
Twin Creeks Resource Center	Current

Ethnographic Study Conducted: No Survey Conducted

Chronology:

Year	Event	Annotation
AD 1837	Land Transfer	Land along Mill Creek (now Le Conte Creek) granted to members of the Ogle Family by the state of Tennessee
AD 1907 - 1928	Purchased/Sold	Harve H. Oakley and his wife Sarah purchase two tracts of land along Mill Creek to create a 94-acre farm.
AD 1928	Purchased/Sold	Oakley sold his 102.3-acre farm to Louis E. Voorheis for \$8000
AD 1928 - 1932	Developed	Voorheis built an assemblage of rustic style buildings and a landscape setting which emphasized rustic wooden bridges, a waterwheel powered mill, flower and vegetable gardens, and stone retaining walls
AD 1932	Land Transfer	Voorheis donated his estate to GRSM, subject to a lifetime lease for himself and his wife

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AD 1952	Purchased/Sold	Ethel K. Voorheis Murray sold her lifetime lease to NPS for \$38,000
AD 1961	Built	A public picnic shelter and pit toilets are constructed on the north side of Le Conte Creek adjacent to the Voorheis Estate as part of Mission 66 Construction
AD 1964 - 1975	Removed	Buildings 239, 240, 241, 242, and 243; a dairy barn; a chicken house; a shed below the Fairy House; and a garage building at the site entrance were removed from the estate
AD 1975	Established	Uplands Field Research Center was established in the main Voorheis residence
AD 1987	Built	An Ozone Fumigation Chamber was constructed for research, removing mature apple trees in the process
AD 1988	Reconstructed	Mission 66 picnic shelter adjacent to the estate was rebuilt and improved
AD 1993	Established	Twin Creeks Resources Center was established

Physical History:

Pre-settlement (- 1830)

Archeologists believe that the Great Smoky Mountains area was the domain of the Cherokee until they were defeated and driven from the Sevier County area in the late Eighteenth Century. Previous archeological research has focused on the river valleys and there is a lack of information for upland areas. Lithic procurement (quartzite) sites and seasonal hunting camps may have existed in stream valleys. (Byrne 1990) No archeological resources from the Paleo-Indian to Mississippian Periods have been recorded at the Twin Creeks Natural Resources Center.

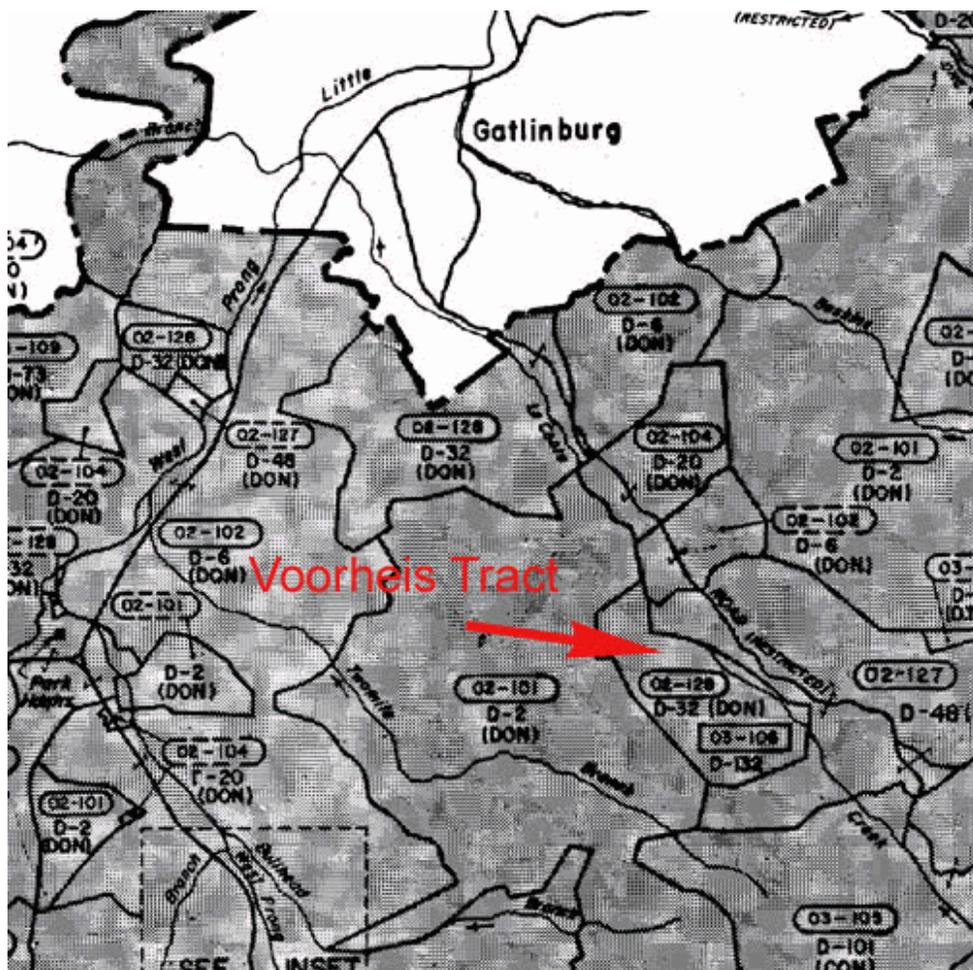
Prior to Anglo-European settlement, the natural setting within the Mill Creek watershed probably consisted of an "oak-chestnut" forest or mesic cove hardwood forest. Lower slopes may have contained large hardwoods, chestnuts, oaks, hickories, and maples. The diversity of the woodlands in small valleys and ravines gave rise to poplars, birch, mountain pines, and hemlocks. Dense thickets of mountain laurel and rhododendron made up the undergrowth. (Silver 1990) Miller's GRSM Vegetation Map may be a good indicator of pre-settlement forest type. In undisturbed areas he delineated an oak-chestnut forest for the area. (GRSM Archives) Present day ecologists rate the Appalachian Cove Forest as "tremendously lush and diverse." (Kricher and Morrison 1988)

The steep terrain was interlaced by tumbling or high gradient mountain streams and springs. (Parker and Pipes 1990:44) Le Conte Creek, which flows through the Twin Creeks property, originates from a spring on a slope of Mount Le Conte, the most prominent physical feature of the natural landscape and the third highest mountain (6,593') in the Smokies. The creek flows past Bullhead Mountain (4,282'), through the Twin Creeks area, and empties into the West Prong Little Pigeon River in Gatlinburg (1900'). The watershed was underlain by the Roaring Fork Sandstone formation. Wetlands probably existed where springs come to the surface.

Early Settlement (1830 - 1907)

The first settlers migrated to Sevier County, Tennessee, from Virginia, North Carolina, and South Carolina as early as the 1780s. They selected the rich bottomland along the Little Pigeon and French Broad Rivers and later followed the branches of the Little Pigeon River into the mountains. (Jones 1996) In 1835, a village known as White Oak Flats was established on the West Prong Little Pigeon River between Roaring Fork Creek and Mill Creek (present day Le Conte Creek). Members of the Thomas and Isaac C. Ogle families received grants from the state of Tennessee on Mill Creek in 1837.

A dispersed settlement pattern consisting of approximately twenty-four mountain farmsteads existed along Mill Creek when boundaries were drawn for the Great Smoky Mountains National Park (see Figure 4). Family names associated with this community between Gatlinburg and Cherokee Orchard included in this period Ogle, Whittle, Oakley, Reagan, Cardwell, and Huskey. (Aiken 1983 and GRSM Land Acquisition Records)



Status Map showing land divisions from GRSM Archives. Voorheis Tract is indicated on map.

C.E. Ogle - Harve H. Oakley Farmstead (1907 - 1928)

In 1907, Harve H. Oakley and his wife Sarah Kear Oakley bought fifty acres from Inman Watson and his wife Sarah for \$400. The land lay along the waters of Mill Creek and beginning on the bank of the "big branch" (probably Scratch Britches) and running to the mountaintop. (Sevier County Deed Book 10:144) Six years later, the Oakleys purchased a forty-five acre tract on Mill Creek from C.E. and Nan Ogle. This adjoining tract extended from Mill Creek to the mountain (Sevier County Deed Book 56:208) and brought the total farm acreage to 94 acres.

The Oakley farmstead was located about one and one-half miles southeast of Gatlinburg on the road to Cherokee Orchard. Survey Plat 761 delineates only boundary lines and adjacent land owners; however, a 1931 USGS Topographic Map of the Great Smoky Mountains National Park depicts three structures and the access road into the farmstead. Perhaps these three

structures were the farmhouse, the old log house between the creeks, and an outbuilding. The farmstead also included an apple orchard and pasture on the steep hillside, as well as truck gardens, cornfields, and a cow pasture. (GRSM Land Acquisition III-43; GRSM Survey Plat Book; GRSM Tract Maps, Aiken 1983, and Sevier County Deed Book 56:317)

Although neither deed contained any description of improvements, two photographs dating to the late 1920s document the presence of a one-story frame house on the property. A 1927 photograph documents Cliff Oakley standing next to his father's house. (photograph from the collection of Maude Oakley Cole) His sister, Mrs. Maude Oakley Cole, said she was born in a log house on her father's farm in 1908 and recalled that the family later moved into a one-story frame house (now Building 238). A dirt road passed the house on an east-west axis and intersected with the entrance road. (Maude Oakley Cole 1998)

Only a vague picture of the Oakley period landscape can be drawn. One landscape feature that is known to date to this era is the fieldstone wall along the entrance road. Built prior to 1927, the wall is drylaid with fieldstone and approximately three to four feet high and two to three feet thick. It extends 500 feet along the eastern edge of the access road.

While period photographs of the Oakley farm house and apple barn exist, they provide scant information (see Figures 5 and 6). One photograph shows Cliff Oakley standing in front of the apple barn surrounded by packing baskets. Maude Oakley Cole remembered her brother took bushels of apples to market in Knoxville in a mule-drawn wagon. She also recalled an old corncrib/wood shed that was located between the creeks on the east side of the entrance road. Like other family farms, there may have been a shed or barn for cattle or mules. Another known feature of the Oakley farm was their apple orchard that ran up the steep north-facing slope behind the farmhouse. If the Oakley farm was similar to other subsistence farms in the mountain area, it probably had subsistence crops as well as livestock on both the level land and on the slopes.



Oakley family house, now Building 238. (GRSM Archives)



Cliff Oakley standing in front of the apple barn, Building 246, in 1927. (Maude Oakley Cole personal collection)

Louis E. Voorheis Era (1928 - 1944)

Harve H. Oakley and his wife Sarah sold their farm, consisting of 102.3 acres to Louis Eugene Voorheis in June of 1928 for \$8,000. A resident of Cincinnati, Ohio, Voorheis was known as a Cincinnati manufacturer, socialite, and philanthropist. He built his mountain retreat in the Great Smoky Mountains. A graduate of Yale in 1898, he was a wealthy businessman who had homes in Del Ray Beach, Florida, and Cincinnati, Ohio. He served as vice-president of the Standard Carbonic Company and the American Tool Works Company in Cincinnati. (Smith: 1932, Cincinnati Enquirer and Cincinnati Times Star 1944)

According to Park records, Voorheis selected a location for his mountain retreat in an area that lay within the proposed boundary of the Great Smoky Mountains National Park. It is not known if Voorheis understood that the property he purchased was within the boundary. He told a Knoxville newspaper reporter that he wanted to build a mountain retreat to get away from the crowds. The existence of two mountain streams may have been one of the reasons he chose the property since he reportedly enjoyed playing with waterpower. Twin Creeks Orchard, Voorheis name for his estate, was so called because of two creeks, Mill Creek and Scratch

Britches Branch, which run east to west on the northern edge of the property and the old apple orchard. He changed the name of Mill Creek to Le Conte Creek. Soon after purchasing the land, Voorheis began constructing a dam on Le Conte Creek for hydroelectric power. Over the next four years he constructed an assemblage of rustic style buildings and a landscape setting that emphasized rustic wooden bridges, a waterwheel powered mill, flower and vegetable gardens, and stone retaining walls. His design focused on creating unique stone garden features that captured water from the natural mountain streams and springs (see Figures 7-9).

From the time of Voorheis's purchase, the Tennessee Park Commission, the state agency responsible for purchasing land for the proposed GRSM was concerned about his building plans since the estate lay within the proposed park boundary. Aware of their concerns, Voorheis negotiated with the Col. David Chapman of the Tennessee Park Commission and the Assistant Director Cammerer of the National Park Service about donating his land to the park. He maintained cordial relations with NPS and Tennessee officials and in 1932 decided to donate his property for the purpose of the new national park. He and Ethel M. Keinath, his secretary whom he later married, deeded the property to the Tennessee State Park and Forestry Commission as a gift subject to a lifetime lease on the property. This was the park's only donation of privately owned land. (Lix 1958)

In 1933, the appraisal was conducted to evaluate Voorheis's property as part of the process to donate his estate to the National Park Service. Fourteen structures, a pump house, three septic tanks, 1800 feet of piping and valves, machinery in shop, 800 linear feet of waterline, a stone house (springhouse) and two 750 gallon water tanks were listed in the appraisal. The property was appraised and valued at \$100,000. The 1953 sketch map that exists shows the water and sewer system as well as the buildings and the locations of a few garden areas. (GRSM 34-65 drawn by Reagan and GRSM Land Acquisition III-43-B.T. Thomas Company)

Voorheis died on July 17, 1944, at the age of 69. Although he was cremated in Cincinnati, Cliff Oakley stated in a video-taped interview that he buried Voorheis's ashes near a big rock in the back yard of the Voorheis Residence at Twin Creeks. (GRSM Archives Videotape 1990) When Mrs. Maude Oakley Cole visited Twin Creeks in March and April 1998 she was not able to identify the spot where the ashes were buried. Following her husband's death, Ethel remarried and moved to Jackson, Tennessee. GRSM had no personal information about Mrs. Voorheis or when she last resided at Twin Creeks. In March of 1952, Ethel K. Voorheis Murray sold her lifetime estate lease to NPS for \$38,000. (GRSM Murray File and Sevier County Deed Book 108, page 11) At that time all of the houses except the main residence were already rented to park employees. Upon purchase of the lifetime lease, the park superintendent moved into the former Voorheis residence. (Lix 1958 and GRSM Land Acquisition III-43)



View of the Voorheis Estate ca. 1930. (GRSM Archives)



The Voorheis Cabin, Building 237, in June 1931. (GRSM Archives)



Figure 9: Arbor and stone work on the Voorheis Estate. (GRSM Archives)

Park Residential Quarters (1952 - 1976)

Even before the park purchased Mrs. Murray's interest in the lifetime lease (deed dated March 3, 1952), NPS had decided that the buildings would become park residential quarters. In January 1952, the NPS Director in Washington wrote to the Regional Director stating that the GRSM Superintendent should utilize the Voorheis main house for a residence if he so desired (see Figure 10). (NPS Memo 01/30/1952) Superintendent Preston was the first of a series of Park superintendents to reside in the main house at Twin Creeks. (Lix 1958 and GRSM Land Acquisitions III-43)

In another memo dated February 1952, the NPS Acting Director wrote to the Region One Director and offered the following description of the Twin Creeks property (NPS Tract 761). "The land, other than 87 acres of timbered mountainside, has been extensively developed. Four acres are in a cultivated orchard and eleven acres are developed land with structures and other improvements thereon." The memo listed "major improvements" as a lodge, four substantial dwelling houses, two small guest houses, a large horse barn, seven miscellaneous farm buildings, a fish pond, a swimming pool, water reservoir, and walks and driveways. The buildings were said to be about twenty years old, structurally sound, and in excellent condition.

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(Acting Director to Regional Director, Region One 1952)

Preston wrote to the regional director stating several NPS employees, a caretaker, and two non-federal tenants occupied the buildings. The Superintendent moved into the former Voorheis residence in April 1952. (GRSM Superintendent's Monthly Report: May 13, 1952)

The Twin Creeks buildings were systematically recorded on forms by park maintenance staff. Records dating from the summer of 1952 and the winter of 1953 included photographs and floor plans. In addition, information on the use, value, construction materials, and existing conditions was recorded. Each building was assigned a number and these numbers were used on park plans and drawings. GRSM Maintenance Division building records list the names of the occupants of each building. For example, the Voorheis caretaker, Cliff Oakley, resided in Building 241, and R.A. Wilhelm, the parks landscape architect, had quarters in Building 239. Wilhelm rented his house from Mrs. Voorheis Murray and continued to live there for some years. (GRSM Maintenance Voorheis-Murray File, GRSM Archives and Maintenance Division Building Records and Drawings 34-60, c. 1956, and 34-63)



The Voorheis Cabin in 1952. (GRSM Archives)

Uplands Research Center (1975 -)

In 1975, Boyd Evison was named GRSM superintendent and elected not to reside at Twin Creeks. The former Voorheis residence (Building 237) was eliminated from Park Quarters

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listing and designated as the Uplands Field Research Center (see Figure 11). A succession of park scientists have lived and worked in the former residences at Twin Creeks. The horse barn and the apple barn/garage are used for storage and the Park Wives Club used the upper level of the horse barn for meetings and special events.

A current employee who began working at the Center in 1976 does not remember several sheds or buildings 239, 240, 242, and 243. The garage at the entrance was most likely demolished prior to 1975 as well. Water storage tanks have been replaced several times. For instance, a round wooden tank with a cedar shake roof and shingle siding was replaced by a steel tank. (Sue Powell, GRSM employee interview 1998)



View of the Voorheis Cabin in 1998. (NPS)

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

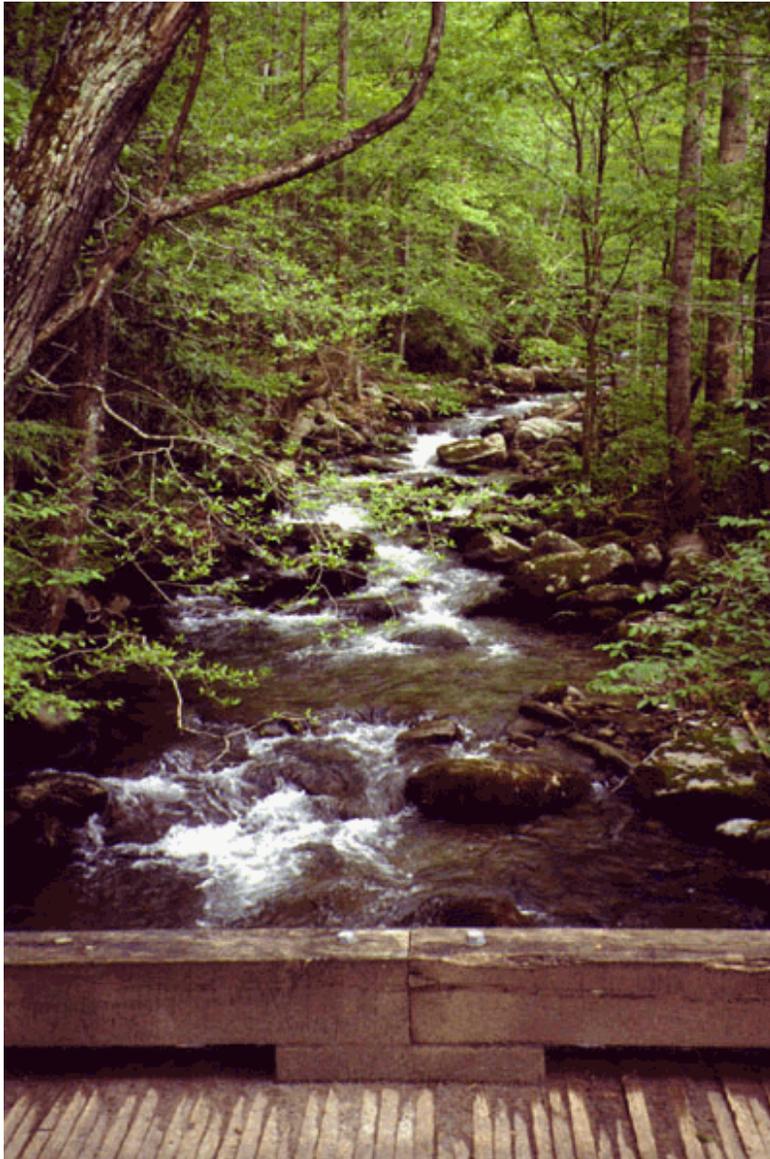
The Voorheis Estate is an example of early twentieth-century architecture that is significant for the quality of workmanship and materials that were used in construction. Voorheis successfully conveyed a rustic appearance in both the buildings and designed landscape features. Nearly all of the historic landscape has been destroyed or removed over the years and not enough documentation survives to restore the historic landscape accurately.

Landscape Characteristic:

Natural Systems And Features

Two high gradient streams, Le Conte (Mill) Creek and Scratch Britches Branch, tumble down from Mount Le Conte and cross the northern boundary of the Voorheis property on the way to the West Prong Little Pigeon River in Gatlinburg. In general terms the topography varies greatly from rolling land to hillsides and steep slopes within the Le Conte Creek watershed. Voorheis developed the terrace between the base of a mountain slope and the creek. The lowest point on his property was 1920' at the bridge on Le Conte Creek. The highest elevation was approximately 2600' on the mountaintop which formed the southern boundary.

Landscape Characteristic Graphics:



View of Le Conte Creek in 1998. (NPS)



View of Scratch Britches Creek in 1998. (NPS)

Buildings And Structures

Voorheis Cabin (237) -- Park maintenance records included the file for Building 237, the "Big House." A 1930s photograph illustrates the two story, shingle-sided residence with its front facing stone chimney and facade. This building, completed in 1930, featured hand-hewn chestnut shingles and oak logs on the exterior and chestnut, cherry, and pine on the interior. From the large front porch, guests could view Mount Le Conte since, at that time, the surrounding forests had been logged. The house was based upon Voorheis's own design, a rustic style of architecture, which apparently set the style for Gatlinburg and Elkmont. (Smith 1932)

Apple Barn/Garage (246) -- This two level building was probably constructed by Harve Oakley before 1928. It is typical of apple barns which once existed on old farmsteads in the area. It is built into the bank adjacent to Le Conte Creek. The loop road drive-through provides access to three bays on the lower level which may have been used for storage and animal stalls. It is known that the Oakley family owned mules and cows. A historic photograph of the apple barn depicts Cliff Oakley standing by bushels of apples. It was reproduced in a recent book authored by the former park historian, Ed Trout. (Cliff Oakley: Apple Barn)

Worker's residences -- Other dwellings and the caretaker's and gardener's houses were also given rustic shingle siding. The gardener, Homer Cole, lived in Building 241 and Cliff Oakley

lived in Building 238 (former Ogle-Oakley farmhouse), although he later also lived in Building 241. These two dwellings were delineated on a 1938 survey map for the electric power line. Photographs of Buildings 239, 240, 241, 242, and 243 were found in the GRSM Archives and were delineated on several GRSM maps. (GRSM Maintenance Map Files 1953-1964) The locations of a guest dwelling and an "office," thought to be Buildings 240 and 243 were shown on an island between the two creeks. Also shown on the map was a "shop," believed to be building 238, on the south side of the creek across the road from the horse barn. Walt Cardwell, a master carpenter and furniture maker, was responsible for constructing the Voorheis buildings.

Barns and outbuildings -- The horse barn (244) is a gambrel-roofed, two story structure exhibiting high quality construction methods and materials unlike the construction methods apparent in the apple barn/garage (246). The installation of steel stalls and a special device for oats documents the level of quality construction. The flooring consists of laid hardwood bricks. Ceilings and walls are tongue-and-groove boards. A drive leads into the lower level through the building. At the backside of the barn the drive turns right and circles back into the main driveway. Voorheis never kept horses at Twin Creeks according to the former caretaker. (Cliff Oakley videotaped interview with Bill Landry 1990) It should be noted that a horse trail to Mount Le Conte crossed the Voorheis entrance road. Voorheis stated that he expected "to be ready for those new bridle trails the government is going to build in the Great Smokies." (Smith 1932)

Garage at Entrance -- A garage existed on the east side of the entrance road between the two bridges. It was probably the Oakley corner/shed as seen in several of the period photographs. (GRSM 1956 Map and 1930 Snow Landscape Photo)

A cow barn was listed on the 1933 property appraisal. This "model cow barn" complete with electric lights, running water, a concrete floor, steel feeding and milking stalls, and automated drinking fountains was described in a newspaper article. (Smith 1932) Park maps dated 1953 and 1956 show the location of this dairy barn (Building 245). No livestock of any kind was listed in the appraisal of the estate in 1933. There is no information that suggests a location for pasture. However, Mrs. Cole stated that cows were allowed to graze in the orchard area.

There were also "chicken hatcheries" on the estate according to Smith's description. "The chicken hatcheries were spotlessly clean, electrically lighted and heated. The two park maps for this period illustrated the location of three sheds. Perhaps one or two of these sheds were used for chicken houses and hatcheries.

According to a 1953 park drawing, there was a spray house below the House of the Fairies. This was labeled "shed" on a 1956 map. There was also a pump house and reservoir at the House of the Fairies springhouse.

A second pump house (stone building) was located southeast and uphill of the Voorheis

residence. This structure was associated with two water tanks (250 and 500 gallon). An underground water system, septic tank, and sewer disposal system also existed. A park employee recalls that a round wooden tank with a wood shake roof existed on the mountain hillside until the 1970s. (Powell 1998) A rustic style water tank would have fit with Voorheis's vision for a rustic landscape. No known photographs show the wooden tank.

An Insecticide tank was located on the slope at the top of the orchard. This tank was part of an "ingenious system ... Nearby is a handy spring, for the water must be used in equal parts with the spray. This spray is piped underground through the orchard, with laterals and outlets for the spray machine. Gravity furnishes plenty of pressure for the spraying machine."

The following are extant buildings, building remnants, ruins, and structures on the Voorheis Estate:

237: Voorheis Residence or Main House -- This building was once used for the Superintendent's residence. It was altered in 1976-1977. The large building has an irregular plan and a rustic exterior treatment. It is currently used for Twin Creeks Resource Center Inventory and Monitoring Offices. Although it has been impacted by inappropriate rehabilitation, the NPS List of Classified Structures (LCS) assessed the building as being in good condition in 2002 with low impacts to the resource.

238: Ogle-Oakley Farmhouse -- The front saddlebag portion of this building predates the Voorheis ownership. The original house has a gabled-roof rear ell and a shed-roofed porch supported by six log posts, which are thought to have been added on in 1928-1930 when Voorheis purchased the property. The building has been used in the past for seasonal park housing and is currently used for the Botany and Air Resources Offices. The overall condition of the building is good (assessed 2002) although it has been impacted by inappropriate rehabilitation. (LCS)

241: Employees' Quarters -- This house was reportedly built for Cliff Oakley in 1932 when Voorheis purchased the property. It was rehabilitated in 1991 and is currently occupied by students conducting research for GRSM and is in good condition. (LCS)

244: Horse Barn -- The upper level of the barn was modified in 1957 to accommodate the activities of the park wives' club. The lower level is used for storage. The building was assessed to be in fair condition in 2002, due to the inappropriate alterations on the upper floor. (LCS)

246: Apple Barn -- This barn, built prior to Voorheis ownership, experienced little change during the period of significance. It was altered in the 1980s when the covered porches at the lower level were removed. The lower level is used for storage and the upper level is used for office space as well as storage. The building was assessed to be in good condition in 2002. (LCS)

Concrete Dam on Le Conte Creek -- This dam, built between 1930 and 1940 was a former hydroelectric plant for the estate. It provided electricity and motive power for wood-working. It was listed as being in fair condition in 2002. (LCS)

Concrete Dam at the swimming pool -- See constructed water features.

Mill ruins and trail with a dry laid stone wall located on Le Conte Creek -- A water-powered mill and workshop were built on the right bank of Le Conte Creek, upstream from the Apple Barn. Only the stone superstructure remains extant today and is fair condition. (LCS) The mill is also discussed under constructed water features.

Two wood deck bridges on the entrance road -- These bridges, identified as 193P and 189P are replacements and do not date to the Voorheis period. The nonhistoric bridges are not a duplication of the previous bridge design that dated to the Voorheis era. (McGee)

Twin Creeks Picnic Shelter and Comfort Station -- This structure is adjacent to the property owned by Voorheis and was constructed as part of Mission 66 development in GRSM. The shelter was rebuilt and improved in 1988. It is accessible from the Voorheis main entry drive and is relevant to GRSM park development.

TVA Research Station adjacent to Comfort Station -- This structure is nonhistoric.

Water research shed on Le Conte Creek -- This nonhistoric research facility is abandoned and decaying.

Utility Building -- A small, wood, shingle-sided structure is located east of the parking area at Building 237.

Ozone fumigation chamber -- This nonhistoric structure is enclosed by a chain link fence and now abandoned. A holding space for native plants has been added to the fenced Ozone monitoring facility.

Numerous stone remnants of water garden features -- See Constructed Water Features.

Landscape Characteristic Graphics:



1930 view of the Voorheis Cabin, Building 237. (GRSM Archives)



1998 view of the Apple Barn, Building 246. (NPS)



2002 side-view of Apple Barn, Building 246. (NPS SERO)

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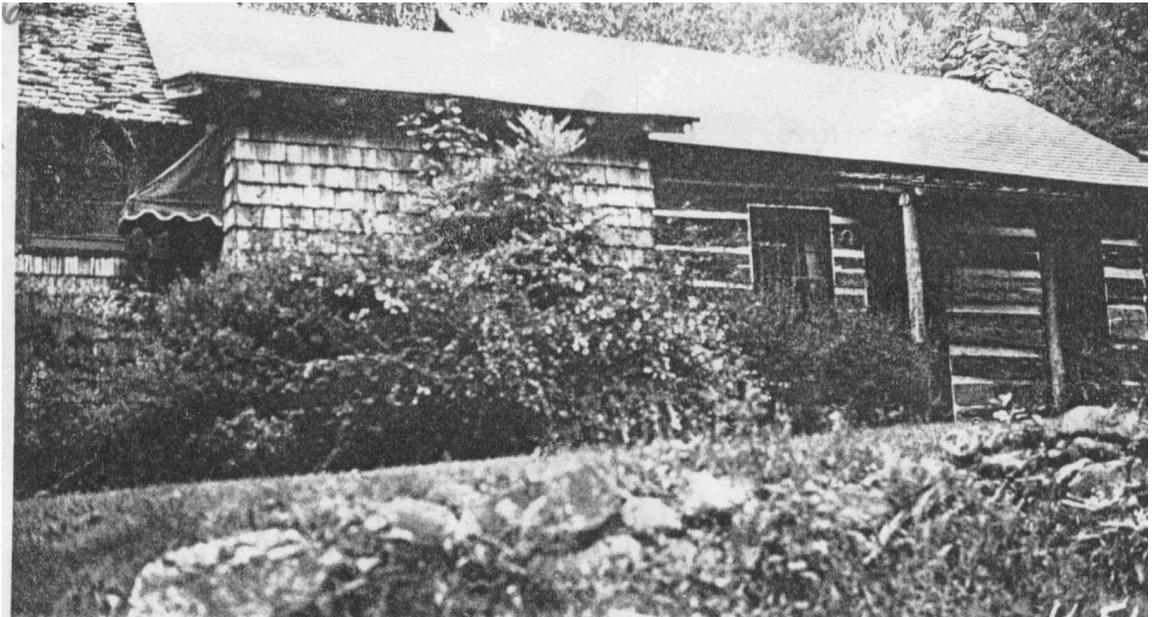
1930s view of Building 238, former Ogle-Oakley farmhouse. (GRSM Archives)



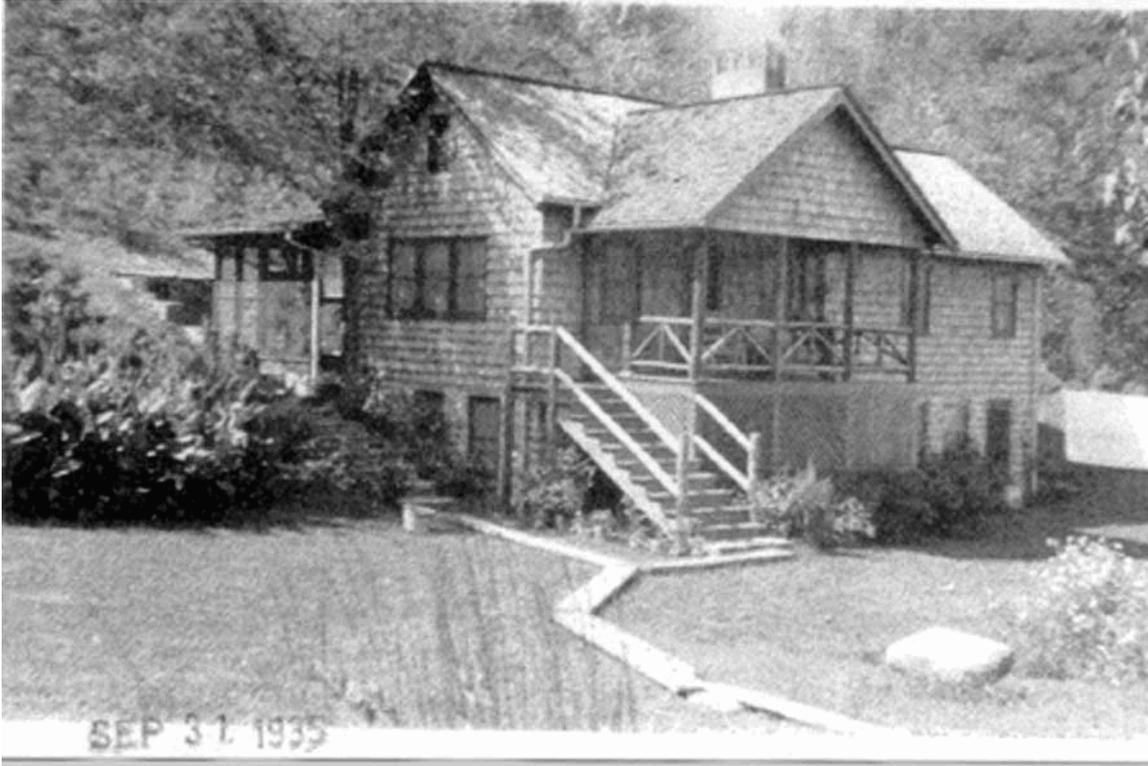
2002 view of Building 238. (NPS SERO)



Historic view (date unknown) of Building 239. (GRSM Archives)



Historic view (date unknown) of Building 240. (GRSM Archives)



1935 Historic view of Building 241. (GRSM Archives)



2002 view of Building 241. (NPS SERO)



Historic view (date unknown) of Building 242. (GRSM Archives)



Historic view (date unknown) of Building 243. (GRSM Archives)



1998 view of the horse barn, Building 244. (NPS)

Circulation

Dating back to the Oakley Farmstead, the Voorheis Estate access drive from Cherokee Orchard Road remains with only slight modifications. The original road was a nine foot gravel road during the Voorheis ownership. The gravel road was paved with asphalt and widened to ten feet for higher and heavier traffic volumes by NPS. Three gravel pull-offs have been created for the passing of two vehicles at once. The bridges built by Voorheis on the entry drive have been replaced. (See Figures 23 and 24.)

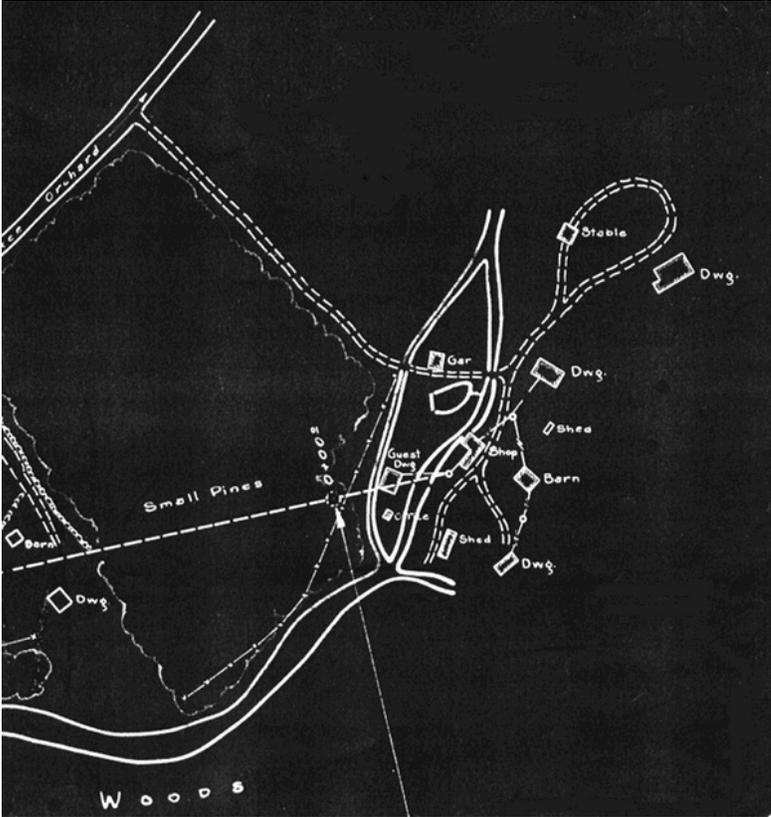
The circulation drive on the estate has been modified from its original design, but it still consists of two loops. The first loop is west of the entry and circles in front of the main residence. The

second smaller loop that once existed to the west of the main entry was paved over to create a parking lot. A new loop was created going through Building 237. Three spurs existed off the main drive. The first spur went from the main drive to the entry of Building 244; another spur went to the upper level of Building 246; and a spur off the east loop provided access to the waterwheel/woodshop. It is likely that there were other vehicle service routes on the estate as well. (See Figures 25 and 26.)

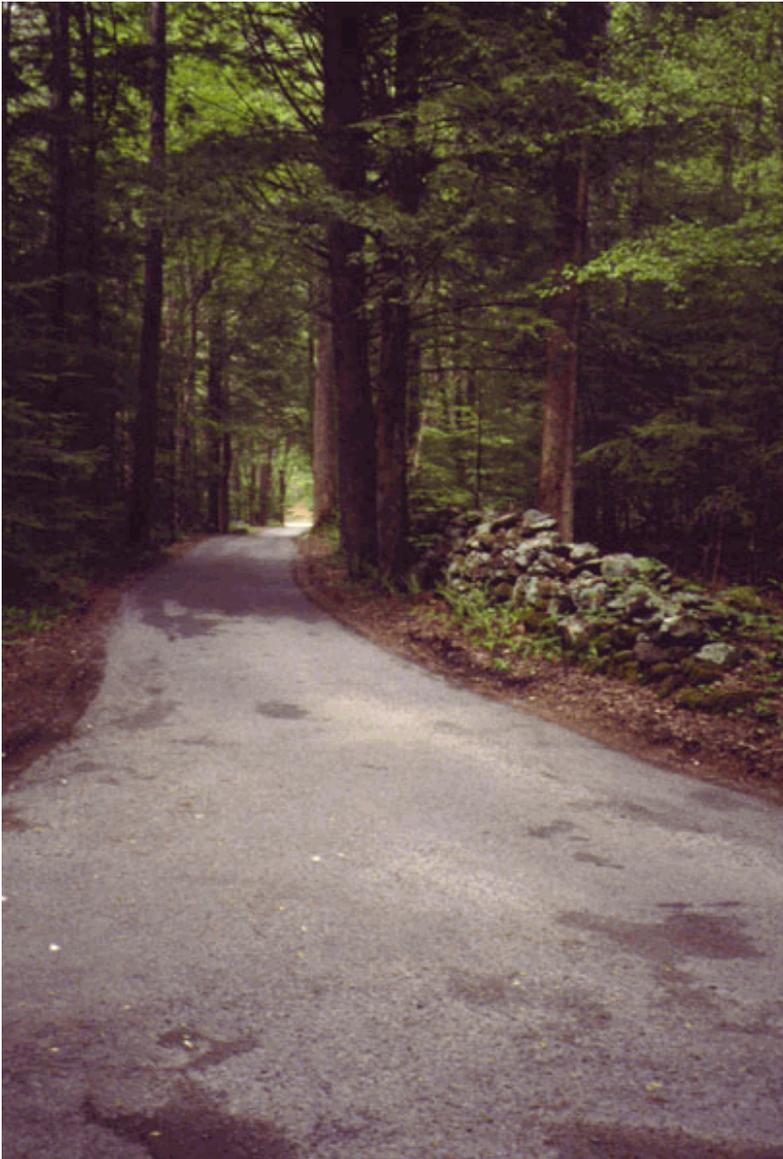
The need for parking at the estate prompted NPS to create some additional parking areas. One is located southwest of the main entry drive on the site of the former corncrib/shed. Another lot that holds up to five cars is located immediately west of the entry drive at Building 238. The third lot was created for employees working in Building 237 and is at the upper end of the east-west road. A large lot that services Buildings 241 and 244 is located at the northwest end of the drive, west of Building 244. This lot has caused the destruction of the historic vehicular loop.

A system of pedestrian paths originally connected the dwellings, structures, and former gardens to one another. Stepping stones originally led from the circulation drive to each of the dwellings, some of which still exist. The "Azalea Lane" led from the Voorheis House to the House of the Fairies spring while another path followed Le Conte Creek upstream to the water-powered mill. Although most of the garden paths have been removed, a stone path that leads from opposite the Voorheis House down towards the lower level of the Apple Barn remains. NPS created a nonhistoric trail that traverses the main entry drive and connects the Noah "Bud" Ogle residence to Cherokee Orchard Road near the park boundary.

Landscape Characteristic Graphics:



1938 map of circulation routes on the estate. (GRSM Archives)



1998 view of the entrance drive. (NPS)



Nonhistoric parking lot near Building 244. (NPS)



View of the historic east loop road and Building 241 in 1998. (NPS)

Small Scale Features

Voorheis developed a rustic designed landscape that reflected an appreciation of mountain heritage. He based his landscape design on the natural setting and the use of mountain springs and streams. He emphasized the use of native stone in building garden walls, retaining walls, steps, water features, bridge piers, a swimming pool, a fish pool, and the waterwheel-powered mill. He also used native wood to construct the buildings and wooden bridges.

The following is a more detailed description of extant small scale features:

A freestanding stone wall that predates the Voorheis ownership is located to the southeast of the entry drive extending 560 feet and averages two to three feet in width and three to four feet in height. (LCS) It was constructed circa 1920-1927 and its location along the access road established the historical entrance to the estate that continues to be used today.

Several retaining walls are extant on the property. A remnant of a 140 foot stone retaining wall is located east of the Voorheis Main House. This wall once helped to define the designed rock garden behind the building and is currently in fair condition. A stone retaining wall extends along the back south side of Building 241. This wall was built in 1932 and rehabilitated in 1991 so that it could continue to serve its original function, which was to divert water run-off from the hillside behind the house away from the building foundation. (LCS)

Landscape Characteristic Graphics:



2002 view of stone wall along entrance road.

Constructed Water Features

The House of the Fairies was a prominent water feature located at a spring site gushing from the hillside. Voorheis built a fieldstone retaining wall and a series of stone terraces through which the water trickled. The stone veneer spring house is characterized by a concrete barrel vault. A concrete reservoir is located immediately in front of the spring house and water trickled down a series of stone pools and riffles, mimicking a natural spring. Stone steps flanked the series of pools and riffles. The steps, constructed of dressed stone laid in concrete, followed the watercourse down the hillside.

The Water Garden at the Voorheis Main House was described by a newspaper reporter as "trickling from the hillside across . . . moss-covered stones to a gem of a lily pond." The stone walled water course led to the pool (also called the lily pond) which was circled by large boulders and located behind the building. Water in the pool was retained by a concrete dam and the pool was filled with water through an underground system of pipes that fed water into the pool through a fountain spout.

Immediately west of the pool was another water garden feature. It began near the concrete dam and followed the northern stream bank. This stone water garden was on an island-like piece of land created by the close proximity of the two streams and featured four round stone pools about three to four feet in diameter. The linear placement of stones, about 100 feet in length, connecting the pools formed a riffle-like appearance, mimicking the natural stream. This feature led down to the former guest house, Building 240.

Historically, water features on the estate were a main focus of the landscape. The passing of time and a lack of continuing maintenance have caused these aquatic garden features to no longer function and to no longer convey their historic character. This has resulted in a loss of integrity for most of the water features on site. For the features that still retain identifiable elements, such as the House of the Fairies, the loss of integrity is not as extreme. Other water features, such as the stone pools used to create the riffled water, have not fared as well. Without contact with running water, these features fade into the landscape and are in danger of being lost completely. In 1998 the following were existing remnant water features:

The House of the Fairies -- built circa 1928-1932, the spring house is of barrel vault construction and built into the side of the hill. Stone steps descend from the spring house down past a series of terracing stone-lined pools. The water feature is in fair condition and is threatened by flooding and neglect. (LCS) The wooden fairy house that was historically located on one of the terraces no longer exists. Portions of the stone steps have been displaced and portions of the terrace wall are failing (see Figures 27 and 28).

Mill -- Ruins of a water-powered overshot wheel mill on Le Conte Creek exist upstream from the Apple Barn (see Figures 29 and 30). The stone superstructure is all that remains of this feature and it is in fair condition. (LCS)

Voorheis Pool, Dam and Fountain--This water garden feature consisted of four stone pools and a water course that led downslope from the swimming pool toward the former location of Building 240 on the island between Le Conte Creek and a small branch creek. This water feature is now essentially a ruin of the former aquatic landscape. The former pool fountain still has its foundation but lacks the bronze dolphin spout. One standing wall of the pool remains. The concrete dam and spillway are still intact with underground pipes exposed. The four smaller riffle pools exist as stone-lined outlines (see Figures 31 -33). This feature is in poor condition and is threatened by both structural deterioration and the encroachment of dense vegetation. (LCS)

Concrete block Spring House and Retaining Wall--This feature is located on the slope southeast of the Voorheis Main House (see Figure 34). The rubblestone retaining wall appears to have been used to create a level terrace at this site. It was assessed to be in fair condition in 2002. (LCS)

Landscape Characteristic Graphics:



Circa 1930 view of the House of the Fairies. (Collection of Maude Oakley Cole)



House of the Fairies remnant features in 1998. (NPS)



Historic view of the Mill. (GRSM Archives)



View of the mill site in 1998. (NPS)



Swimming pool in 1930. (GRSM Archives)



2002 view of fountain site from the southwest.



2002 detail of the fountain.



Stone pool remnants near Building 240 in 1998. (NPS)



1998 view of the dam on Le Conte Creek. (NPS)



View of former spring houses in 1998. (NPS)

Vegetation

The Voorheis planned landscape was extensive. It included a variety of plant materials, stonework, and structures. The NPS appraisals used to determine a fair value of the estate in the 1930s provide the most accurate written descriptions of the Voorheis landscape.

Although the Voorheis design was rustic in nature, it incorporated numerous non-native species such as peonies, iris, daffodils, jonquils, quince, lilacs, and nursery cultivated azaleas. Many seeds, ornamentals, and bulbs ordered from Wayside Gardens in Ohio thrived in the mountain setting. Plant materials were used for a variety of functions: ornamental color, visual character, fruit production, row crops, visual foundation plantings, the use of large trees for shade, and to outline walks with seasonal color. Voorheis used the microclimate created by the west-facing slope of the site to support and introduce a variety of native and non-native plant materials to the estate.

One of the most distinctive attributes of the Voorheis landscape was the placement of Norway Spruce (*Picea abies*), Dogwoods (*Cornus florida*), and Japanese Maples (*Acer palmatum*) near the main residence. Norway Spruce were also planted along the east-west road to the loop

under the apple barn and down towards the eastern end of the property near the gardener's residence and alongside the entrance road bridges.

The current management of Twin Creeks Natural Resource Center is allowing for a natural succession to occur in areas not adjacent to structures. The native vegetation has begun to regenerate back into an Appalachian Cove Forest, its natural state. Only a few of the plants from the period of significance remain on site. The condition of these surviving plants ranges from fair to poor. Mrs. Voorheis took some plant material with her when she sold her life lease in 1952. The lack of historic plant material is due in part to Park Service Management Policies 2001, Section 4.4.4.2, Removal of Exotic Species Already Present. This policy allows for the removal and destruction of non-native plants. Employees have removed some exotic species for personal use. The apple orchard was removed by biologists. Other shrubs did not survive or have been destroyed to prohibit the spread of disease or to control the species. The most notable shrubs that still remain on site are the common boxwoods (*Buxus semperviens*) used as borders in front of Building 238. On the island created by Le Conte Creek, English Ivy (*Hedera helix*) covers more than half of the area where Building 239 was located.

In the early spring, flowers from remnant garden plantings have been known to appear. Some of these remnant plants include jonquils, daffodils, hyacinth, and iris. In the late spring and mid-summer, a brush old field succession area (grasses, weedy herbs, wildflowers, blackberries, and poison ivy) occur between Buildings 237 and 238 in the level to rolling area adjacent to the greenhouse. Similarly, trees, shrubs, weedy herbs, and grasses occur between the paved driveway and Le Conte Creek.

Because of the significant deterioration of many of the stone features and the loss of planned vegetation that dates to the period of significance, the Voorheis Estate no longer conveys the extensive planned landscape that it did historically. Remnant vegetation and garden features hint at the past design that Voorheis created. Extant vegetation features on site include the following:

Remnants of water garden features, double stone wall, and stone stairs behind Building 237.

A rock garden in front of Building 241 was originally an area planted with perennials and azaleas and surrounded with fieldstone boulders. It is currently listed as being in fair condition with encroaching vegetation and minimal maintenance being the major impacts. (LCS)

Rock garden on the west side of the apple barn, opposite Building 237.

Dogwoods -- pink and white opposite the main house.

Norway Spruce -- on the creek bank near the apple barn.

Stone steps, stone retaining walls, and a remnants of a stone-lined water garden feature are

located behind the main house. This is the former site of the rustic arbor seen in Figure 9. Constructed circa 1930-1944, the garden hardscape survives in fair condition (LCS) but the arbor and water feature, as well as most of the original vegetation, are no longer extant.

Remnants of cultivated shrubs and perennials -- See site plan.

Two apple trees between Buildings 237 and 238 -- This was the original location of the apple orchard.

Norway Spruce trees alongside the road from 237 downhill toward the east end of the developed section.

Chinese chestnut (*Castanea mollissima*) in the grove on the east side of 237 and seedlings along the loop drive to the apple barn.

Spirea (*Spirea* sp.) and Japanese Barberry (*Berberis thunbergii*) shrubs at the Horse Barn.

Forsythia (*Forsythia* sp.) at the rock garden on the west side of Building 241.

English Ivy (*Hedera helix*) near the site of former Building 241

Condition

Condition Assessment and Impacts

Condition Assessment: Fair
Assessment Date: 12/10/2002
Condition Assessment: Fair
Assessment Date: 10/14/2004
Condition Assessment: Fair
Assessment Date: 07/27/2010

Impacts

Type of Impact: Operations On Site
External or Internal: Internal

Type of Impact: Release To Succession
External or Internal: Internal

Type of Impact: Removal/Replacement
External or Internal: Internal

Stabilization Costs

Landscape Stabilization Cost: 38,500.00

Cost Date: 10/22/2003

Level of Estimate: C - Similar Facilities

Cost Estimator: Regional Office

Landscape Stabilization Cost Explanatory Description:

LCS Structure Stabilization Cost is the total from the Voorheis LCS entries with interim treatment cost data available:

090279 Voorheis House 45K 1 June 1998
090284 Voorheis Pool, Dam and Fountain 5K 1 June 1998
090285 Voorheis Estate Fieldstone Wall-Access Road 15K 1 June 1998
091378 Voorheis House of Fairies Springhouse/Stone Terraces 2.5K 1 June 1998
091707 Voorheis Barbecue and Patio 1K 1 June 1998
092193 Voorheis Dam and Turbine Box 3K 1 Feb 1999
092194 Voorheis Mill and Woodshop Ruins 3K 1 Feb 1999
092195 Voorheis Concrete Block Springhouse and Retaining Wall 2K 1 Feb 1999
092196 Voorheis House grape arbor stone features 2K 1 Feb 1999
092197 Voorheis House Retaining Wall remnant 2K 1 Feb 1999
092198 Voorheis House Rock Gardens and Stone Path 4K 1 Feb 1999

Landscape stabilization costs for the site are based on the summertime efforts of 2 GS-5 STEP interns (along with GS-11 Level supervision) in documenting plant material and landscape infrastructure, management of forest succession, and supplies.

Treatment

Treatment

Approved Treatment: Undetermined
Approved Treatment Document: Cultural Landscape Report
Document Date: 08/06/2002

Approved Treatment Document Explanatory Narrative:

Jerry McGee, former GRSM Historical Landscape Architect, was the primary author of a draft Cultural Landscape Report (CLR) for the Voorheis estate in 2002. The CLR suggests preservation for treatment, but this has not yet been approved.

Approved Treatment Completed: No

Approved Treatment Costs

Cost Date: 08/06/2002

Landscape Approved Treatment Cost Explanatory Description:

No approved treatment costs exist for the site. The CLR is still in draft form, without approval or cost data. The LCS lists no approved treatment documents and only provides interim treatment costs for certain structures.

Bibliography and Supplemental Information

Bibliography

- Citation Title:** Survey Plat Books
Source Name: Other
Citation Location: GRSM Staff Ranger Wightman
- Citation Title:** Great Smoky Mountains National Park
Source Name: Other
Citation Type: Both Graphic And Narrative
Citation Location: GRSM Library
- Citation Title:** Reference Lists of Native Plants of the Great Smoky Mountains
Source Name: Other
Citation Type: Narrative
Citation Location: GRSM Library
- Citation Title:** Land Acquisition Records III-43
Source Name: Other
Citation Type: Both Graphic And Narrative
Citation Location: GRSM Library
- Citation Title:** Photographs in the collection of Maude Oakley Cole
Source Name: Other
Citation Location: Maude Oakley Cole (Mrs. Homer Cole) of Gatlinburg, TN
- Citation Title:** The Flora of the Great Smoky Mountains National Park: An Annotated Checklist of the Vascular Plants and a Review of Previous Floristic Work
Source Name: Other
Citation Type: Narrative
Citation Location: SERO OCR Library

Citation Title: Watershed of Great Smoky Mountains National Park: A Geographical Information System Analysis

Source Name: Other

Citation Number: Research/Resources Management Report SER-91-01

Citation Type: Both Graphic And Narrative

Citation Location: SERO OCR Library

Citation Title: Terrestrial Plant Ecology in Great Smoky Mountains National Park Biosphere Reserver: A Fifteen-Year Review and a Program for Future Research

Source Name: Other

Citation Number: NPS Research/Resources Management Report SER-84

Citation Type: Narrative

Citation Location: SERO-OCR Library

Citation Title: Sevier County Deed Books

Source Name: Other

Citation Type: Narrative

Citation Location: Sevier County Courthouse

Citation Title: Soil Survey of Sevier County

Source Name: Other

Citation Type: Both Graphic And Narrative

Citation Location: Sevier County, TN

Citation Author: Jerry McGee

Citation Title: Cultural Landscape Report--Draft

Year of Publication: 2001

Source Name: Other

Citation Type: Both Graphic And Narrative

Citation Location: GRSM

Citation Author: NPS - SERO - CRD
Citation Title: List of Classified Structures
Year of Publication: 2003
Citation Publisher: N/A
Source Name: Other
Citation Type: Both Graphic And Narrative
Citation Location: SERO CRD Library and Online Database