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National Register of Historic Places Multiple Property Documentation Form

This form is used for documenting property groups relating to one or several historic contexts. See instructions in National Register Bulletin *How to Complete the Multiple Property Documentation Form* (formerly 16B). Complete each item by entering the requested information.

X New Submission

Amended Submission

A. Name of Multiple Property Listing

Historic Resources of Great Smoky Mountains National Park

B. Associated Historic Contexts

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

- 1. Settlement and Community Development in the Great Smoky Mountains, 1790–1933
- 2. Extractive Industries in the Great Smoky Mountains, 1820-1944
- 3. Recreation and Tourism in the Great Smoky Mountains, 1900-1942
- 4. The Initial Development of Great Smoky Mountains National Park, 1926-1942
- 5. Early National Park Service Preservation Philosophy, ca. 1930-1960
- 6. Mission 66 Era of National Park Service Planning and Development, 1945-1972

C. Form Prepared by:

name/title Stephen Olausen/Sr. Architectural Historian, John Daly/Sr. Industrial Historian, Laura Kline/Architectural Historian

organization	The Public Archaeology Laboratory, Inc. (PAL)
	OCH C C

street & numb	ber 26 Main Street				
city or town	Pawtucket	state	RI	zip code	02860
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telephone	401-728-8780	date	April 2016		

D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

Signature of certifying official

Title

State or Federal Agency or Tribal government

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Signature of the Keeper

28-2016

Date of Action



<u>Historic Resources of the Great Smoky Mountains</u> <u>National Park</u> Name of Multiple PropertyListing Tennessee & North Carolina State

The Historic Resources of the Great Smoky Mountains National Park Multiple Property Submission is a sound basis for evaluating and nominating properties under the historic contexts provided.

Commenting/Concurring Official

placel

Claudette Stager DSHPO

aupt 24, 2016

Historic Resources of Great Smoky Mountains National Park Name of Multiple Property Listing

Table of Contents for Written Narrative

Create a Table of Contents and list the page numbers for each of these sections in the space below. Provide narrative explanations for each of these sections on continuation sheets. In the header of each section, cite the letter, page number, and name of the multiple property listing. Refer to How to Complete the Multiple Property Documentation Form for additional guidance.

E. Statement of Historic Contexts

(If more than one historic context is documented, present them in sequential order.)

- 1. Settlement and Community Development in the Great Smoky Mountains, 1790–1933
- 2. Extractive Industries in the Great Smoky Mountains, 1820-1944
- 3. Recreation and Tourism in the Great Smoky Mountains, 1900-1942
- 4. The Initial Development of Great Smoky Mountains National Park, 1926-1942
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- 6. Mission 66 Era of National Park Service Planning and Development, 1945–1972

F. Associated Property Types

(Provide description, significance, and registration requirements.)

- 1. Farmsteads
- 2. Churches and Schools
- 3. Mills
- 4. Lumber and Mining Resources
- 5. Tourist Developments
- 6. Administrative and Public Contact Facilities
- 7. Campgrounds and Picnic Areas
- 8. Road Systems
- 9. Bridges and Culverts
- 10. Fire and Lookout Towers
- 11. Outdoor Field Museums

G. Geographical Data

H. Summary of Identification and Evaluation Methods

(Discuss the methods used in developing the multiple property listing.)

I. Major Bibliographical References

(List major written works and primary location of additional documentation: State Historic Preservation Office, other State agency, Federal agency, local government, university, or other, specifying repository.)

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 250 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, PO Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

[TBD]

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E. STATEMENT OF HISTORIC CONTEXTS

Summary

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Great Smoky Mountains National Park (Great Smoky Mountains NP) is one of the nation's most important recreational resources and is a designated International Biosphere Reserve (1976) and World Heritage Site (1983). Each year more than nine million people visit the park, which occupies more than a half million acres of land in portions of Blount, Sevier, and Cocke counties in Tennessee and Swain and Haywood counties in North Carolina. The nearest sizable cities are Knoxville, Tennessee, and Asheville, North Carolina. The geography of the Smokies had a profound influence on settlement and living patterns. Archeological investigations have produced evidence of human occupation that extends back about 9,000 years. Woodland Period sites discovered in the park indicate that some of the earliest organized horticulture in North America occurred along its river floodplains. At the time of European contact, the area was inhabited by the Cherokee Indians. The white pioneers who explored and settled the Smokies in the late eighteenth and early nineteenth century initially occupied the more fertile lands of the lower foothills and valleys and moved farther upward into the mountains only after the other lands were already taken. The rugged topography and poor soils of the uplands forced the settlers to adopt a "farm-and-forest" household economy that combined market-oriented husbandry and limited agriculture with subsistence activities such as hunting, fishing, and small plot farming. Resources related to the distinctive Southern Appalachian Mountain culture that evolved in these circumstances are preserved in the park through its impressive collection of log houses and wood-frame churches, stores, and agricultural processing buildings.

During the early twentieth century, logging operations and other forms of extractive industry threatened to destroy the vast forests that covered the mountains. In the 1920s, preservationists in North Carolina and Tennessee joined together to advocate for the creation of a national park to protect what remained. Great Smoky Mountains National Park was authorized by legislation passed by the United States Congress and signed into law by President Calvin Coolidge on May 22, 1926 and President Franklin D. Roosevelt officially dedicated the park on September 2, 1940. The facilities constructed by the National Park Service (NPS) in the 1930s and 1940s to accommodate its new recreational function reflect the prevailing NPS landscape and architectural design principles that initially were developed and applied at the western national parks. The Park Service's Mission 66 program, which introduced a new design precept based on modern architecture (termed Park Service Modern) into the National Park System, added another layer of historical development in the early 1960s.

A recent Historic Resources Study (HRS) for Great Smoky Mountains NP identified more than 400 historic resources associated with one or more of the following significant historic contexts:

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- Settlement and Community Development in the Great Smoky Mountains, 1790-1933;
- Extractive Industries in the Great Smoky Mountains, 1820-1944;
- Recreation and Tourism in the Great Smoky Mountains, 1900-1942;
- The Initial Development of Great Smoky Mountains National Park, 1926-1942;
- Early National Park Service Preservation Philosophy, ca. 1930-1960; and
- Mission 66 Era of National Park Service Planning and Development, 1945–1972.¹

1. Settlement and Community Development in the Great Smoky Mountains, 1790-1933

The story of the settlement of the Great Smoky Mountains is part of the larger story of the expansion of European settlements from the Atlantic coastal plain into the interior of the North American continent. Because of geographic and cultural similarities, settlement patterns and agricultural practices in the Smokies differed only in degree from those found in other parts of mountainous Upland South (broadly defined as the southern Appalachian Mountains). The particularly rugged geography of the Smokies, the area's relative isolation, and the close contact between white settlers and the Cherokee Indians had some influence on the mountain way of life. However, most of the cultural attributes found in the mountains were preadaptive: traits already possessed by the settlers that gave them an advantage in occupying a new environment. This context outlines the history of migration into and settlement of the Smokies, provides brief descriptions of individual communities, and describes the vernacular architecture and other aspects of the material culture of the settlers.

Prior to the coming of white European settlers in the second quarter of the nineteenth century, the Cherokee Indians, linguistically an Iroquoian nation, populated the Central and Southern Appalachians. The Cherokees lived in more than forty well-organized riverside villages, each with several dozen to several hundred dwellings, in present-day east Tennessee, north Georgia, and the western portions of the Carolinas. The villages fell into four major geographic divisions: the Lower Towns along the Savannah River, the Middle Towns on the Tuckaseegee and the headwaters of the Little Tennessee, the Upper Towns on the Hiawassee, and the Overhill Towns on the lower stretches of the Little Tennessee. Practicing agriculture and hunting, the Cherokees maintained fields of corn, squash, and beans near their villages. One sizable Cherokee town, Tsiyahi, may have been located in Cades Cove, which later became part of the park.

¹ John Daly and Laura Kline, *Great Smoky Mountains National Park Historic Resource Study*, submitted to National Park Service, Southeast Regional Office, Atlanta, GA, by PAL (The Public Archaeology Laboratory, Inc.), Pawtucket, RI, 2015.

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The Smokies provided the Cherokees with rich hunting and gathering grounds, and networks of their trails crossed the mountains, connecting major watersheds.²

Among the trails that had later importance as routes of penetration for white settlers was the Indian Gap Trail, which followed the watershed of the West Prong of the Little Pigeon, passed through Indian Gap, and then descended through the Oconaluftee Valley into North Carolina. The Tuckaleechee and Southeastern Trail ran from near present-day Sevierville, Tennessee, through Tuckaleechee Cove into Cades Cove, where it split into several separate trails. One branch crossed the Smokies at Spence Field Gap and passed through the valley of Hazel Creek, while another proceeded westward out of Cades Cove through Ekaneetlee Gap, down the valley of Twentymile Creek to the Little Tennessee River.³

Cherokee fur trade with whites commenced about 1650 and continued for more than one hundred years. As contacts with whites increased, diseases new to the Cherokees reduced their numbers, from an estimated 22,000 in 1650 to about 15,000 in 1775. By the 1770s, whites were moving ever closer to the Southern Appalachians from the east and north. Hundreds of whites already had illegally settled Cherokee lands west of the Appalachians in the Great Valley of East Tennessee, formed by the tributaries of the Tennessee River: the Watauga, Nolichucky, French Broad, and Holston rivers. Seeking to protect their ancestral lands from further white encroachment, the Cherokees sided with the British during the Revolutionary War and attacked pioneer settlements. Retaliatory raids by Revolutionary militia devastated dozens of Cherokee towns in 1776 and 1777.⁴

The victory of the colonists over the British increased the pressure on the Cherokees, who were compelled to cede tracts of land in the Smokies by treaties with the federal government in 1791, 1798, and 1819. Many of the militiamen who burned the Cherokee towns during the war marked the locations of promising land and returned later to settle. In the 1819 treaty, commonly referred to as the Calhoun Treaty or Calhoun's Treaty⁵, the Cherokees ceded all territory north of the Little Tennessee River, opening all of the Great Smokies range to white settlement. In the early decades of the nineteenth

² R. S. Cotterill, *The Southern Indians: The Story of the Civilized Tribes Before Removal* (Norman, OK: University of Oklahoma Press, 1954), 5; Charles C. Royce, *The Cherokee Nation of Indians* (Chicago: Aldine Publishing, 1975), 12–16; T. Stell Newman, "An Overview of the Probable Indian Cultural History, Great Smoky Mountains National Park" (typescript, n.d., NPS, Denver Service Center, Denver, CO), 10–11.

³ H. C. Wilburn, "The Indian Gap Trail" (typescript, 1940, Great Smoky Mountains National Park, Gatlinburg, TN), 1-3.

⁴ Cotterill, *The Southern Indians*, 42–43; James Mooney, *Myths of the Cherokees and Sacred Formulas of the Cherokees* (1900; reprint, Nashville, TN: Charles and Randy Elder, 1982), 47–52; John R. Swanton, *The Indians of the Southeastern United States* (1946; reprint, Washington, DC: Smithsonian Institution Press, 1979), 113.

⁵ The full title is "Articles of A Convention Made between John C. Calhoun, Secretary of War, being specially authorized therefore by the President of the United States, and the undersigned Chiefs and Head Men of the Cherokee nation of Indians, duly authorized and empowered by said nation at the City of Washington on the twenty seventh day of February in the year of our Lord one thousand eight hundred and nineteen." The Cherokee Nation refers to the agreement as the Treaty of Washington I. The Cherokee Nation, "The Treaty of Washington I", http://www.cherokee.org/AboutTheNation/History/Facts/TreatyofWashingtonI.aspx; Department of War, ed., *Indian Treaties and Laws and Regulations Relating to Indian Affairs* (Washington, DC: Way & Gideon, 1826), 146.

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century, many Cherokees adopted aspects of white culture, but it availed them little. Unrelenting pressure for new agricultural property and the discovery of gold on Cherokee land in north Georgia in 1829 led directly to the confiscation of Indian property and finally the forced removal of the Cherokees in 1838. One quarter of the 18,000 Cherokees who began the trip to the Indian Territory (present-day Oklahoma) perished along the Trail of Tears. Several hundred Cherokees avoided removal by withdrawing from the Cherokee Nation and claiming North Carolina citizenship. Many of their descendants continue to live on the Qualla Reservation, located along the southern boundary of the park.⁶

White settlers learned a number of skills and techniques from Native Americans that helped them to thrive in the Upland South. Whites adopted the cultivation of corn, squash, pumpkins, tobacco, and gourds from Native Americans. Other borrowed practices included clearing forest land by girdling trees to kill them, rotating fields instead of rotating crops within a field (patch farming), maple sugar making, and the use of native plants for medicinal purposes.⁷ Indian trails facilitated white settlement of the mountains, and many later roads and turnpikes followed the routes of these trails.

The first white settlers of the Smokies came largely from nearby areas of East Tennessee and the Carolinas that had previously been settled in the second half of the eighteenth century.⁸ These European-American occupants of the North Carolina Piedmont and the Great Valley of East Tennessee were part of a broad stream of internal migration originating in the Midland cultural hearth (or core) area. Of the three major cultural hearth areas in colonial America, the Midland area (southeastern and south-central Pennsylvania and adjacent areas of New Jersey and Maryland) had by far the greatest impact on the Upland South. The New England hearth area, which sent migrants throughout the Great Lakes region, had almost no impact on the Appalachian South. A few settlers from the Tidewater hearth area of coastal Virginia and North Carolina moved west and mingled with the stream moving south from the Midland core area.⁹

Beginning about 1725, as population and land values increased in the Midland hearth area, single families and small groups migrated out. Deterred from moving due west by the presence of Native Americans and the French, the migrants moved southwestward to form new settlements in the Upland South following a long chain of paths and roads through bottomlands that threaded through the ridge-and-valley terrains of Maryland, Virginia, and Tennessee. These settlers traveled first through the Shenandoah Valley of Virginia. Some settled in Virginia, while others either entered the Carolina Piedmont through a gap in the Blue Ridge at Roanoke or continued to the southwest into the Great Valley of East Tennessee, forming settlements along the Holston, Watauga, French Broad, and Nolichucky Rivers. A smaller, later

⁶ Cotterill, *The Southern Indians*, 239; John R. Finger, *Cherokee Americans: The Eastern Band of Cherokees in the Twentieth Century* (Lincoln, NE: The University of Nebraska Press, 1991), 1; Royce, *The Cherokee Nation*, 98–100, 130–34, 260–61; Swanton, *Indians of the Southeastern United States*, 80, 113; H. W. Lix, "Short History of the Great Smoky Mountains National Park," (typescript, 1958, Great Smoky Mountains National Park, Gatlinburg, TN), 13–14.

⁷ G. Melvin Herndon, "Indian Agriculture in the Southern Colonies," North Carolina Historical Review 44 (July 1967): 284–88.

⁸ Tennessee was part of North Carolina until 1784, undertook various secession and reintegration movements with that state between 1784 and 1795, and was admitted to the Union as the sixteenth state in 1796.

⁹ Lix, "Short History," 25; Raitz and Ulack, Appalachia, 115-17.

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stream of migration came from the coastal areas of Virginia and the Carolinas and made its way westward into the Piedmont and the mountains. The settlement frontier did not proceed in a solid front but was intermittent and discontinuous. By 1800, the general settlement frontier split at the Smokies, a relatively inaccessible region of narrow valleys and small coves that still retained a substantial Cherokee presence.¹⁰

Numerically dominating the migration to the Upland South were individuals of Celtic ancestry—Scotch-Irish, Scots, and Welsh—and Englishmen from the "Celtic frontier," those areas of England bordering Scotland and Wales. Many historians have emphasized the role of the largely Presbyterian Scotch-Irish, some 250,000 of whom immigrated to the American colonies between 1725 and 1775, in settling the Upland South.¹¹ Most of this Scotch-Irish immigration was initially to the Midland cultural hearth area. Other Celts and those from the Celtic frontier shared many cultural characteristics, such as the dispersed farm and free-range grazing, with the Scotch-Irish. McDonald and McWhiney have estimated that as much as 70 percent of the population of the Southern Appalachian area in 1800 shared this Celtic or border-Celtic cultural heritage. Germans from the Palatinate of southwestern Germany formed another major component of the migration from the Midland cultural hearth area. Approximately 200,000 Palatinate Germans arrived in Delaware Valley ports before the Revolutionary War.¹² Cultural characteristics of the Scotch-Irish, Germans, and other ethnic groups cross-pollinated in the core area, and migrants of Celtic ancestry became the major transmitters of these characteristics throughout the Upland South.¹³

Among the cultural attributes typical of the Midland hearth area were a number that proved ideally suited to the settlement of the Appalachian South, with its heavy forest cover and narrow valleys unsuited to intensive row-crop agriculture. Chief among these were the kinship-based dispersed settlement; a generalized stock-raising, farming, and hunting economy; great adaptability in the choice of crops; evangelical Protestantism with strong congregation autonomy; and the courthouse-town system. A specific contribution of the Scotch-Irish and other Celts was the Celtic dispersed farm,

¹⁰ Raitz and Ulack, *Appalachia*, 94–100, 117; Carl Bridenbaugh, *Myths and Realities: Societies of the Colonial South* (Baton Rouge, LA: Louisiana State University Press, 1952), 122–24; Raymond D. Gastil, *Cultural Regions of the United States* (Seattle, WA: University of Washington Press, 1975), 169–70; John A. Williams, *Appalachia: A History* (Chapel Hill: The University of North Carolina Press, 2002), 30–39.

¹¹ The Scotch-Irish, sometimes referred to as the Scots-Irish, were lowland Scots and northern English who settled the Ulster provinces of Northern Ireland at the behest of the British crown in the late seventeenth century. Population pressures and religious restrictions in Ulster produced a large outmigration of these generally Protestant individuals to America in the eighteenth century. During the eighteenth century, migrants from Ulster generally referred to themselves simply as "Irish." Use of the term "Scotch-Irish" extends back to the late seventeenth century but was popularized in the United States in the nineteenth century by the Ulster migrants' descendants, who wished to distinguish themselves from more recent Irish-Catholic immigrants. Williams, *Appalachia: A History*, 43–44.

¹² These immigrants were called the "Pennsylvania Dutch" because their English-speaking neighbors confused the German word for "German" (Deutsch) with the English word for Netherlander. Williams, *Appalachia: A History*, 38.

¹³ Forrest McDonald and Grady McWhiney, "The South from Self-Sufficiency to Peonage," *The American Historical Review 85* (December 1980): 1107–8; Patricia D. Beaver, "Appalachian Cultural Adaptations: An Overview," in *Cultural Adaptations to Mountain Environments*, ed. Patricia D. Beaver and Burton L. Purrington (Athens, GA: University of Georgia Press, 1984), 78; Milton Newton, "Cultural Preadaptation and the Upland South," in *Man and Cultural Heritage, vol. 5 of Geoscience and Man*, ed. H. J. Walker and W. G. Haag (Baton Rouge, LA: Louisiana State University School of Geoscience, 1974), 148–50.

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characterized by free-range livestock grazing and the kitchen garden. Before major migration from the core area occurred, all ethnic groups had adopted horizontal, corner-notched log construction, probably of Germanic origin, which spread throughout the Upland South.¹⁴ Although the southern mountain environment had some influence on cultural patterns, most cultural traits were in place in the core area and were brought along in the great wave of migration. The suitability of these traits to the mountain environment ensured their widespread use and persistence.¹⁵

Celtic and German migrants tended to form separate settlements due to different religious and geographic preferences. However, these preferences were not rigid determinants—some intermarriage occurred, and there were always exceptions. Those of Celtic ancestry preferred settling in the heavily forested upper valleys and in mountain-ringed coves, where wild game and mast (windfall acorns and other nuts) for livestock grazing were abundant. Germans, with a preference for intensive mixed agriculture in more open country and a stronger orientation toward town life, were more likely to settle the broader lower valleys in dispersed homesteads, particularly in North Carolina. Members of all ethnic groups migrated in single-family units or groups of two to three families and usually were joined by additional related families and friends once a foothold had been gained. In some instances, the possible presence of iron ore may have also provided an inducement to settlement for knowledgeable forge masters.¹⁶

Excepting some more strictly organized German settlements, the typical early settlement in the Southern Appalachians was the kinship-linked dispersed hamlet. Rather than establishing an isolated farmstead miles from the nearest neighbor, a family settled with a handful of others, often related by blood or marriage, in a cluster defined by geographic features (e.g., a valley, cove, or gap) for mutual support and protection. Gene Wilhelm, Jr., has identified six folk settlement types in the Virginia Blue Ridge: the gap, cove, ridge, meadow, and two varieties of hollow settlement. These types were established in the Virginia Blue Ridge area between 1730 and 1800. Available evidence indicates that they then spread throughout the Southern Appalachians, including the Great Smoky Mountains, in the later eighteenth and early nineteenth centuries. Although building construction techniques changed with time, the basic spatial organization of settlements remained essentially constant.¹⁷

In the Great Smokies, because steep mountain ridges separated watersheds, hollow and cove settlements were by far the most numerous and formed the basic community unit. Gap, ridge, and meadow settlements were rare in the Great Smokies. The first settlers chose land near the mouth of the creek valley, usually in the coves. Later arrivals moved up into hollows, or narrow valleys located farther up a watershed. Most hollow settlements were linear, with farmsteads

¹⁴ Most scholars accept the Germanic origin, although some have argued for a seventeenth-century Swedo-Finnic origin. See discussion in the log cabins section below.

¹⁵ Newton, "Cultural Preadaptation," 152; Raitz and Ulack, Appalachia, 119–21; Williams, Appalachia: A History, 38.

¹⁶ Raitz and Ulack, Appalachia, 115–17; Newton, "Cultural Preadaptation," 152.

¹⁷ Raitz and Ulack, *Appalachia*, 121; Gene Wilhelm Jr., "Folk Settlements in the Blue Ridge Mountains," *Appalachian Journal 5* (Winter 1978): 204–7; Newton, "Cultural Preadaptation," 152.

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extending up the watercourse at one-quarter to one-half-mile intervals. If additional tributaries, or branches, with arable lands branched off from the main stream, a fan-shaped settlement pattern evolved. Cove settlements featured farmsteads at the edge of the basin, close to the surrounding hillsides, leaving the interior for cultivation and creating an oval distribution pattern. Once the population grew large enough to support community functions, settlers built churches, mills, schools, and stores, usually clustered at the mouth of the hollow or cove. When a given region reached a sufficient population density, a new county was established, with the ideal size of a county being predicated on the distance that a person could ride on horseback (from their residence to the county seat).¹⁸

Settlers in the hollows and coves of the Great Smoky Mountains, as elsewhere in the Upland South, developed a farmand-forest economy that was based on stock-raising and diversified small-scale agriculture, supplemented by extensive hunting, gathering (nuts, berries, medicinal plants), and fishing. Landholdings were generally 150 or fewer acres. From 20 percent to 40 percent of the total acreage was cleared for crops and pasture, and the rest remained in forest. Many farmers practiced patch farming, clearing fields for temporary use, then abandoning them and clearing new ones from their forest acreage when yields declined. Upwards of 80 percent of the farmers in the mountain areas owned their own land in the first half of the nineteenth century. Property lines typically ran to the tops of ridges, but almost everywhere the hillsides were considered communal land where all could hunt and graze livestock. Instead of fencing grazing land, farmers fenced their gardens and corn patches to keep livestock out. Most production was for home consumption, with cash income coming largely from the sale of livestock. Pelts, butter, eggs, and marketable herbs and roots such as ginseng often were traded at country stores for sugar, coffee, salt, and other items. Corn was the staple grain crop, but oats, wheat, hay, sorghum, rye, and potatoes were also grown. Mountain folk were adaptable and switched to new crops when market incentives changed. To supply the table, almost every farm had a kitchen garden containing onions, lettuce, cabbages, Irish potatoes, sweet potatoes, green beans, sweet corn, tomatoes, and turnips. Many had a few fruit trees, usually apple; a grape arbor; and bee hives.¹⁹ As in many areas of the Upland South, a portion of the corn crop in the mountains was distilled into whisky, the sale of which was an additional source of cash.

The raising of livestock, especially hogs, was extremely important in the Upland South prior to the Civil War. Meat provided a large proportion of the average diet, and a substantial portion of cash income came from selling stock each fall. From April to October, hogs, cattle, and sheep were allowed to roam free in the woods and clearings. The vast oak-hickory-chestnut forests provided abundant amounts of mast to feed the livestock. Owners marked the ears of their stock for identification and visited them once a week to give them salt (an important dietary supplement) and keep them gentle.

¹⁸ Wilhelm Jr., "Folk Settlements," 219–36; Ronald D. Eller, *Miners, Millhands, and Mountaineers: Industrialization of the Appalachian South, 1880–1930* (Knoxville: University of Tennessee Press, 1982), 8; Williams, *Appalachia: A History*, 113–114, 137.

¹⁹ Eller, Miners, Millhands and Mountaineers, 16–19; Frank L. Owsley, Plain Folk of the Old South (Baton Rouge, LA: Louisiana State University Press, 1949), 24; Beaver, "Appalachian Cultural Adaptations," 80–81; John S. Otto, The Southern Frontiers, 1607–1860: The Agricultural Evolution of the Colonial and Antebellum South. (New York, NY: Greenwood Press, 1989), 5–6; Williams, Appalachia: A History, 125–126.

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In the fall, farmers rounded up the stock and drove them in large herds to markets in the Piedmont or as far away as Charleston. The plantation economy of the Piedmont and coastal areas provided a ready market for livestock. Farmers in more productive coves and lowlands capable of producing grain surpluses also profited from selling fodder to the drovers as they passed through with their herds.²⁰ The Indian Gap Trail, which crossed the Smokies via the watersheds of the West Prong of the Little Pigeon River and the Oconaluftee, was an important drovers' route prior to the Civil War.

Because the largely self-sufficient, owner-occupied family farm was the basic economic unit, a relatively open and egalitarian social structure characterized the settlements of the Great Smokies, as in other mountain communities. Self-reliance and mutual assistance in times of need were the lodestars of community life, and position in the community often depended less on wealth than on status and behavior. Lawyer-merchant elites existed in the mountain counties, but members of these elites resided mostly in the county seats, where they had limited influence in the mountain settlements. Instead, the fundamental cleavage was between the respectable and the disreputable. In this vein, churches—mostly Baptist, Methodist, and Presbyterian (but limited to Baptist and Methodist in the community of Cades Cove, for example, a sub-community of moonshiners formed at the southwest edge of the cove in Chestnut Flats. Respectable cove residents shunned the denizens of Chestnut Flats. Independence and freedom from deadening routine, at least for adult males, were highly valued, and everywhere a strong attachment to the land and the home place was evident.²¹

The degree of isolation of mountain communities in the nineteenth and early twentieth centuries has often been exaggerated, both by romantics who saw the mountaineers as forgotten throwbacks to a noble pioneer past and by denigrators who saw ignorance and vice flowing from isolation. In practical terms, the lack of good roads or other means of transportation prior to the 1920s and 1930s did make travel in the mountains difficult. However, all but the most isolated residents made trips to outside communities. For example, for the communities of the Great Smoky Mountains, regular trips to markets in towns like Knoxville and Maryville on the Tennessee side and Bryson City and Waynesville in North Carolina were a staple. The mail brought letters and newspapers from outside, and telephone service came to even a relatively remote place like Cades Cove in the 1890s. As logging and mining infrastructure penetrated the region, these connections multiplied. Even prior to the twentieth century, however, the physical isolation of mountain communities was balanced by economic webs of interdependence that linked these areas with county seats and the outside world. Instead of a polarized scheme where communities were either "isolated" or "connected," communities are now understood to have

²⁰ Frank L. Owsley, "The Pattern of Migration and Settlement of the Southern Frontier," in *The South Old and New: Selected Essays* of Frank Lawrence Owsley (Athens, GA: University of Georgia Press, 1969), 13–14; Donald Edward Davis, *Where There Are* Mountains: An Environmental History of the Southern Appalachians (Athens, GA: University of Georgia Press, 2005), 138–142; Eller, Miners, Millhands, and Mountaineers, 19–21; McDonald and McWhiney, "The South," 1105–7; Williams, Appalachia: A History, 114–115.

²¹ Eller, *Miners, Millhands, and Mountaineers*, 9–12; McDonald and McWhiney, "The South," 1102–3; Durwood Dunn, *Cades Cove: The Life and Death of a Southern Appalachian Community, 1818–1937* (Knoxville, TN: University of Tennessee Press, 1988), 195–97.

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existed historically within a more complex matrix where transportation, economics, communication, and other factors played a role in determining their relative degree of connectedness.²²

The traditional ways of life in the Upland South began to change after the Civil War for several reasons. These changes affected the Great Smokies unevenly, depending on their relative geographic and economic isolation. Communities such as Cades Cove, which had a higher degree of connectedness to outside regions, suffered more than the high mountains, which were always more self-sufficient and somewhat less dependent on outside markets than lower-lying areas. Still, many families and some whole communities faced challenges caused by outside forces and the limited availability of arable land in the Upland regions. The war disrupted market relationships and reduced livestock herds, which had to be slowly rebuilt. With the end of slavery, plantation owners no longer bought livestock in large quantities, depriving the Upland livestock producers of a ready market. When the economy of the South began to recover during the late nineteenth century, the meat packing industry in the Midwest provided strong competition for southern stock raisers. Local fencing laws in the South also made long stock drives less feasible. Unable to readily sell their herds for good prices, mountain folk faced the difficult task of coaxing more production from their small patches of cropland. Once their children came of age to start their own families, many were forced to settle on marginal lands far up the mountain valleys or eke out a living from a portion of an established farm after it was divided among their siblings. The Civil War also changed social attitudes toward change and outside influence, as communities such as Cades Cove that were subject to interference and outright attack, as well as internal divisions, during the conflict became inward-looking and distrustful of change and outsiders.23

The most dramatic changes to the life ways of many Upland South communities were wrought by extractive industries, such as logging and mining, and other forms of industrial production during the period from about 1880 through 1920. Those developments altered traditional economic patterns and often resulted in a concomitant breakdown of the social order in the pre-industrial mountain communities they touched through a combination of ills, including out-migration and farm abandonment, usurpation of property rights, environmental exploitation and despoliation, a dependency on wage labor that altered the traditional ideal of agrarian self-sufficiency, and a fragmenting class consciousness.²⁴

Settlements within the Great Smoky Mountains

Cades Cove and Big Greenbrier Cove in Tennessee constituted the two major cove settlements located in the area that

²² Eller, Miners, Millhands, and Mountaineers, 12–16; Dunn, Cades Cove, 85; David C. Hsiung, Two Worlds in the Tennessee Mountains (Lexington, KY: The University Press of Kentucky, 1997), 10–15.

²³ Mark T. Banker, Appalachians All: East Tennessee and the Elusive History of an American Region (Knoxville, TN: The University of Tennessee Press, 2010), 70; McDonald and McWhiney, "The South," 1115–18.

²⁴ Eller, *Miners, Millhands and Mountaineers*, 225–242. The history of the development of extractive industries in the area of Great Smoky Mountains NP is provided in Section E.2.

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eventually became part of the park. There were also a number of hollow or valley settlements, including Forks of the River and Sugarlands on the Little Pigeon River, Cosby Creek, and Greenbrier, Tennessee; and Little Cataloochee and Cataloochee on Cataloochee Creek²⁵, Ravensford on the Raven Fork, Oconaluftee, Deep Creek, Forney Creek, and Hazel Creek, North Carolina. As was typical throughout the Appalachian South, pioneers first claimed the somewhat broader, more level lower valleys. Latecomers and the children of original settlers took land farther up the valleys. Most settlers purchased land directly from the states of North Carolina and Tennessee. Many were squatters at first and secured title some years later. The first permanent white settlement within the park boundary was probably in the lower Oconaluftee Valley on the North Carolina side in the mid-1790s. At about this same time, settlers established themselves at the site of Gatlinburg, Tennessee, just outside the north park boundary. Families were soon pushing up the West Prong of the Little Pigeon to the Sugarlands Valley and beyond. Most sizable valleys within the park were settled by the 1830s or 1840s. Precise dates of settlement are frequently difficult to establish because many settlers occupied land for a number of years before acquiring legal title to it and maps for the period are meager in detail. The following brief history of the former communities within the park.²⁶

Oconaluftee Valley (Swain County, NC)

The Oconaluftee River begins in the high elevations of the Smokies just below Newfound Gap. Before reaching the park boundary, it is joined by the Bradley Fork and the Raven Fork. Below Bradley Fork, the Oconaluftee forms a fertile and relatively broad valley, by Smokies standards. As mentioned above, the Indian Gap Trail ran through the Oconaluftee Valley. John Mingus, a German emigrant from Saxony, settled the lower valley before 1800. Three of his sons took land on the Raven Fork; and one, Dr. John Mingus, acquired property along Mingus Creek. Others settlers arrived between 1800 and 1820. Abraham Enloe in 1803 purchased a 250 acre farm that included the site later chosen for the Oconaluftee Ranger Station. Other early residents were Ralph Hughes, Samuel Sherrill, Isaac Bradley, Samuel Conner, Robert Collins, and John Beck.²⁷

Two community centers evolved in the Oconaluftee Valley: Ravensford at the mouth of Raven Fork and Bradley Town (later renamed Smokemont) about 5 miles upstream, where the Bradley Fork joins the Oconaluftee from the north. Smokemont area residents organized the Oconaluftee Baptist Church in 1836, meeting in private houses until the erection

²⁵ This area is often referred to as a "cove."

²⁶ Only communities with surviving resources are included—Deep Creek (in Swain County, North Carolina) and Cosby (in Cocke County, Tennessee) are excluded because they do not retain and resources from this period relating to this context. Wilma Dykeman and Jim Stokely, *Highland Homeland: The People of the Great Smokies* (Washington, DC: NPS, 1978), 43–45; Robert S. Lambert, "The Pioneer History of the Great Smoky Mountains National Park: A Report to the Superintendent Based upon Documentary Sources" (1957, typescript, Great Smoky Mountains National Park, Gatlinburg, TN), 12–15, 24–31.

²⁷ Robert S. Lambert, "The Oconaluftee Valley, 1800–1860: A Study of the Sources for Mountain History," *The North Carolina Historical Review* 35 (October 1958): 419, 424; Lambert, "Pioneer History," 22–26.

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of a church building. In the 1830s, residents attempted to improve portions of the Indian Gap Trail as the Oconaluftee Turnpike. Although improvements proceeded slowly, the road over the mountains served for a time as an important route for livestock drives to the Piedmont and for bringing other items to market.²⁸ In 1886, Dr. John Mingus hired a Virginia millwright, Sion Thomas Early, to construct a gristmill on his property on Mingus Creek. The new medium-sized, twoand-one-half-story turbine mill replaced an earlier mill on the site. The mill remained in the Mingus-Flovd family and operated until the middle 1930s, when the park acquired it. Both Ravensford and Smokemont hosted substantial logging activity and infrastructure in the early twentieth century, discussed in Section E.2.²⁹ Resources from Smokemont and Ravensford that remain from Oconaluftee Valley communities are the Mingus Mill, Smokemont Baptist Church, two Luten concrete bridges spanning the Ravens Fork of the Oconaluftee River (in Oconaluftee) and the Bradley Fork of the Oconaluftee River at Smokemont, and the Floyd/Enloe Barn (relocated to the Oconaluftee Mountain Farm Museum).

Hazel Creek (Swain County, NC)

The next watershed west of Deep Creek is Hazel Creek, named for the hazelnut bushes that grew along its banks. Hazel Creek and the nearby watersheds of Eagle Creek and Twentymile Creek in the southwestern part of Great Smoky Mountains NP were not added to the park until the 1940s, when the Tennessee Valley Authority (TVA) dammed the Little Tennessee River at Fontana. The TVA purchased the land that would be inundated by Fontana Lake and additional acreage aggregating 44,170 acres that it donated to the park.³⁰ Hazel Creek rises high in the mountains, just southwest of Silers Bald. Major tributaries are Bone Valley Creek, Walker Creek, Sugar Fork, Shehan Branch, and Cable Branch, all entering from the northwest. Hazel Creek now empties into Fontana Lake of the Little Tennessee River. The first settlers were Moses and Patience Proctor, who came originally from north Georgia and resided briefly in Cades Cove before settling near the mouth of the Shehan Branch in the 1830s. They were soon joined by another family from Cades Cove, Samuel and Elizabeth Cable and their seven children. Other families arrived from the North Carolina side using dirt tracks and old Indian trails. By 1860, at least four families-the Proctors, Cables, Welches, and Bradshaws-resided on the creek, all comparatively close to its outlet. After the Civil War, more settlers arrived and took land farther up Hazel Creek and its tributaries. John Craten "Crate" Hall arrived in the 1870s and eventually built an impressive two-story house of poplar logs on Sugar Fork, the earliest structure still standing in the Hazel Creek watershed.³¹

By 1900, Hazel Creek was well settled, and two community centers had emerged: Medlin at the mouth of Sugar Fork and Proctor at the mouth of Shehan Branch (Possum Hollow). Turn-of-the century Hazel Creek had four Baptist church/school buildings at Bone Valley, Walkers Creek, Cable Branch, and Proctor, as well as three general stores and two post offices

²⁸ Lambert, "The Oconaluftee Valley," 423; Carl G. Lambert, "The Oconaluftee River and the First White Settlers," in The Heritage of Swain County, North Carolina (Winston-Salem, NC: Hunter Publishing, 1988), 4-7.

²⁹ Ed Trout, "Milling in the Smokies" (typescript, 1978, Great Smoky Mountains National Park, Gatlinburg, TN), 44-45.

 ³⁰ Lix, "Short History," 70; Superintendent's Annual Report, 1950.
 ³¹ Duane Oliver, *Hazel Creek From Then Till Now* (Maryville, TN: Duane Oliver, 1989), 4–6, 8–11, 39.

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operating out of stores at Proctor and Medlin. The logging activities of the William M. Ritter Lumber Company (1903– 1926) dramatically transformed the Hazel Creek communities, particularly Proctor, where a large company town was established (see Section E.2).

Hazel Creek was also home for several years to author Horace Kephart, the most famous chronicler of the Smokies. Kephart lived in a cabin on Little Fork of Sugar Fork from 1904 to 1907, gathering material for his classic portrait of the Appalachian South, *Our Southern Highlanders*, published in 1913.³² Currently, the only resources under this context extant in the Hazel Creek watershed are the Hall family house, which is referred to as the Kress (Hall) Cabin and the Calhoun House.

Cades Cove (Blount County, TN)

Cades Cove, a broad, level, oblong area of approximately 5,000 acres at the west end of the park, was by far the most populous settlement within current park boundaries. Eighteen branches feed Abrams Creek, which runs through the cove from east to west, and mountain ridges almost completely encircle the cove. To the north, Rich Mountain separates Cades Cove from nearby Tuckaleechee Cove (outside the park boundary), and several Cherokee trails once connected the two coves across Rich Mountain and Cades Cove Mountain. With its expanse of level, fertile land and abundant springs and creeks, Cades Cove was certain to attract settler interest. A year before the 1819 Treaty of Calhoun extinguished Cherokee title to the cove, John and Lucretia Oliver moved there from Carter County in northeast Tennessee. The Olivers obtained legal title to their land in 1826. In 1821, William Tipton began buying up much of the cove's land and reselling it to settlers. Iron ore deposits in the cove enticed knowledgeable settlers such as Tipton, who was an experienced iron worker (see the iron mining context in Section E.2). Joshua Jobe and many friends and relatives from Carter County arrived beginning in 1821. Robert Shields and Pennsylvania-born Peter Cable both arrived in 1825. Early settlers took land in the northeast section of the cove, which was higher and better drained. By the time the Cades Cove Baptist Church was organized as a branch of Wear's Cove Church in 1827, a community had formed.³³

Attracted by the arable land and other economic opportunities and aided by an expanding road network, settlers flowed into Cades Cove for three decades, producing a population of 671 by 1850. In the late 1820s, Peter Cable drained the swampy lower sections of the cove by constructing dikes and log booms, opening more land for settlement. Circa 1821, the Tipton family established a forge on Forge Creek. Daniel D. Foute acquired these works in 1837 and operated them as the Cades Cove Bloomery Forge. The forge smelted iron from local ores and provided employment for a few residents (see Section E.2). Agriculture, however, was the basis of the cove's economy. Land was cleared in the middle of the cove for pasture and crops, and the surrounding hillside forests provided abundantly for the settlers, supplying them with

³² Oliver, Hazel Creek, 12; Lambert, "Logging in the Great Smoky Mountains," 40-42; Frome, Strangers in High Places, 156-57.

³³ Dunn, Cades Cove, 1–16; Dykeman and Stokely, Highland Homeland, 45.

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building material, game for the table, mast for livestock grazing, and medicinal herbs and roots. Nearby balds, open expanses of meadow on mountain tops, also provided good pasturage. Throughout the nineteenth century, residents used notched-log construction for houses, barns, and outbuildings; a number of fine examples remain as exhibits in the cove. By 1850, five wagon roads were developed into the cove, including Cooper Road (1830–1834), Laurel Creek Road (1836), Parsons Branch Road (1861), the Anderson Road (currently Bote Mountain Trail, 1830s) to the southeast, and Rich Gap Road (1840, aka Rich Mountain Road, an improved Cherokee trail to Tuckaleechee Cove).³⁴

With its greater tillable acreage and relatively dense road network, Cades Cove was probably more market-oriented than many mountain communities. Some corn was milled in the cove, at first with tub mills. Frederick Shields built the first overshot wheel mill in the 1840s, and John P. Cable built a large overshot wheel mill at the west end of the cove in the 1860s, which stands today as a notable reminder of agricultural patterns in the community (see discussion of mills below). Farmers regularly made the two-day trip by wagon to Knoxville or a shorter trip to Maryville to sell crops and returned with store-bought goods. Residents also traded at Snider's Store in Tuckaleechee until 1873, when the first store opened in the cove.³⁵

Cades Cove's population declined substantially in the 1850s, as many residents sought opportunities in newly opened land west of the Mississippi River. After reaching a population low of 296 in 1860, the community slowly rebuilt during the difficult period of Reconstruction and thereafter. Little in-migration occurred following the Civil War, and the ties of kinship strengthened as a sense of community became more firmly established. Life in Cades Cove, which resembled life in other rural Tennessee communities, did not remain static. Residents showed themselves to be highly adaptable, adopting new farming techniques when they fit their needs and changing to new crops when it was desirable. Although travel was slow and at times difficult, residents were connected to the outside world in many ways.³⁶

By 1900, lumber companies were moving into the Smokies to clear cut its forests. Some Cades Cove residents sought jobs with timbering and sawmilling operations, but most continued to make their livelihoods through grazing and farming. The proliferation of sawmills made milled lumber readily available, and many residents built framed houses. In 1922, Rich Mountain Road was partially re-routed and fully paved between Cades Cove and Tuckaleechee Cove, giving residents better access to markets and making it easier for tourists to enjoy the cove and surrounding scenery. A spate of tourist-

³⁴ Historical nomenclature for roads along or near the Rich Mountain Road alignment conflict in secondary reports. According to the Historic American Engineering Record (HAER) documentation for roads in the Smoky Mountains, an unidentified wagon road was authorized ca. 1840 through Indian Grave Gap. This was replaced with the present Rich Mountain Road in 1920. According to the CLI for the Cades Cove Landscape, the nineteenth-century road was called Rich Mountain Road and its 1920s replacement was called Rich Gap Road. Rich Mountain Road is the nomenclature used on road maps for the current active road alignment (established in 1922) and is therefore the name used in this document. Dunn, *Cades Cove*, 20, 65–69, 242–243; Maher and Kelleher, "Great Smoky Mountains National Park Roads & Bridges, Gatlinburg Vicinity, Sevier County, TN," 20–21, 62; NPS, *Cultural Landscapes Inventory: Cades Cove Landscape*, 24–26, 29, 32, 38.

³⁵ Dunn, Cades Cove, 81-82, 183.

³⁶ Dunn, Cades Cove, 85, 146–47, 200.

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and recreation-oriented development followed in the cove to take advantage of the increase in visitors, including resident John Oliver's construction of a tourist lodge in 1928. As of that year, Cades Cove was the largest settlement within the future park's authorized boundary, with 110 families and approximately 600 people.³⁷

Following the incorporation of Cades Cove into Great Smoky Mountains NP, there was some use of lands in the area for agriculture, specifically hay and cattle grazing, until circa 1940. After some discussion, the NPS in the 1940s decided to retain a few log structures and others in the cove and make it an outdoor museum of mountain culture that interpreted the "pioneer" or early stage of settlement. Because emphasis was on the "best" examples of notched-log construction, the Park Service removed frame buildings and many farm outbuildings, moved others within the cove, and rebuilt others. The details of these changes are provided in Section E.5, under the context of early Park Service preservation philosophy, ca. 1930–1960. Cades Cove retains thirty-two buildings and structures associated with pre-park community settlement and development and/or with Park Service preservation activities.

West Prong of Little Pigeon River (Sevier County, TN)

The town of Gatlinburg, on the West Prong of the Little Pigeon just north of the park boundary, was established as the settlement of White Oak Flats about 1800. Soon thereafter, settlers penetrated farther up the narrow river valley, which was christened Sugarlands for the large sugar maple trees then growing in it. Early settlers in this area included the Ogle, Huskey, Whaley, Reagan (or Regan), Ownby, and Trentham families. The terrain was precipitous and boulder strewn, making the clearing of land difficult. By the mid-nineteenth century, approximately twenty-five farmsteads dotted the valley and lower hillsides. The community's center was Forks of the River (aka Fighting Creek), where Fighting Creek enters the West Prong. Residents established a church, school, store, gristmill, and sawmill in this vicinity. Sugarlands was another important locus of settlement. Many descendants of the first settlers remained in the valley until the coming of the park. Other offspring left in the nineteenth century to settle Le Conte Creek and Roaring Fork, tributaries of the West Prong lying to the east of the Sugarlands. The John Ownby log cabin is the only surviving structure from the Sugarlands settlement. Several log structures also have been preserved on Le Conte Creek and Roaring Fork, tributaries of the West Prong lying to the east of Gatlinburg.³⁸

Greenbrier Cove (Sevier County, TN)

Greenbrier Cove, sometimes styled Big Greenbrier to distinguish it from Little Greenbrier (home of the Walker Sisters), is defined by the Middle Prong of the Little Pigeon and a number of tributaries. The Middle Prong is formed by several

³⁷ Dunn, Cades Cove, 226-27, 242-43.

³⁸ Lambert, "Pioneer History," 34–36; H. C. Wilburn, C. S. Grossman, and A. Stupka, "Report on the Proposed Mountain Culture Program for Great Smoky Mountains National Park" (Gatlinburg, TN: Great Smoky Mountains National Park, 1938), 34–36.

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branches that originate on the flanks of Mounts Guyot, Chapman, and Sequoyah. This cove is not nearly as broad or level as Cades Cove, and farmsteads were mainly strung out along streams as in a typical hollow settlement.

The early settlement of Greenbrier is poorly documented, but some of the first permanent residents came from nearby Tennessee communities, particularly Emerts Cove. The Whaley, Ownby, Proffitt, Bohanan, and Huskey families were prominent, with the Whaleys being especially prolific. By the late nineteenth century, Greenbrier displayed the extended kinship relationships typical of Smoky Mountain communities. The community supported two churches, Friendship Missionary Baptist Church and Greenbrier Primitive Baptist Church, as well as a general store, a shoemaker, three blacksmiths, two or three gristmills, and a least one sawmill. By the time of the establishment of the park, Greenbrier had many frame houses and only a few log houses.³⁹

Residents of the upper portions of the cove, known as "The Indian Nation," recalled with fondness their one-room school, The Granny Cottage. Because children in the upper cove had an especially long and difficult trek to school, William "Vander Bill" Whaley offered the Sevier County school superintendent free use of one half of a large saddlebag poplar log house if the county would supply a teacher. The superintendent agreed, and The Granny Cottage, named for Whaley's mother, Catherine Brown Whaley, was born. Today, the only remaining Greenbrier resource is the John Messer Barn (aka Smoky Mountains Hiking Club Barn).⁴⁰

Cataloochee (Haywood County, NC)

The Cataloochee Valley, at the eastern end of the park, comprised two distinct areas of settlement: Cataloochee Creek itself (often styled Big Cataloochee) with its major tributary, Palmer Creek; and Little Cataloochee Creek, which enters the Cataloochee River from the west. Noland Mountain, elevation 3,951 ft (feet), divides the watersheds of Little Cataloochee Creek and Cataloochee Creek. Big Cataloochee runs through a narrow cove, and the surrounding area features rugged topography typical of the Great Smokies, with small parcels of tillable land present in scattered creek bottoms. The Cataloochee Trail, a Cherokee trail that extended from Jonathan Creek (now Waynesville), North Carolina, across the mountains into present-day Cosby, Tennessee, ran through a portion of the valley.

By the 1830s, herdsmen were grazing cattle in the Cataloochee Valley and had erected huts for shelter, aided by the construction of the Cataloochee Turnpike around 1825 between Jonathan Creek, North Carolina, and the Cataloochee Valley. Before 1845, several individuals, including Evan (or Ivan) Hannah, James and Levi Colwell (also spelled Coldwell or Calwell), George Palmer, Young Bennett, and Jonathan Woody, had permanently settled along the Big

³⁹ Jerry Wear, Mary Alice Teague, and Lynn Alexander, ed., Lost Communities of Sevier County Tennessee: Greenbrier (Sevierville, TN: Sevierville Heritage Committee, 1985), 8, 24, 35, 40.

⁴⁰ Wear et al., *Lost Communities*, 4–6.

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Cataloochee. Most of these families stayed in the valley and intermarried, maintaining a tradition of community until the park's establishment. A clustered settlement formed at the confluence of Palmer Creek and Rough Branch with Cataloochee Creek. The settlement at this location was eventually named Nellie, for Nellie Palmer, a daughter of George Palmer, and came to include a store/post office, Palmer's Chapel, and a school.⁴¹

In the 1850s, children of the original settlers crossed Noland Mountain and bought farms on Little Cataloochee Creek, clustering around a stream crossing where a post office was later established. Over time, residents built a Baptist church, a school, and a store. Communication and trade were expanded with the completion of the Cataloochee Turnpike along additional portions of the old Cataloochee Trail in 1851 and 1860 by the states of North Carolina and Tennessee, respectively. The Cataloochee Road (aka Cataloochee Valley Road) developed as a spur of the Cataloochee Turnpike to allow circulation through the valley. Farms in the Cataloochee area, which averaged 150 acres in the 1860s, grew hay, corn, and some Burley tobacco. As elsewhere, cattle raising was an important activity. Most Cataloochee and Little Cataloochee and Little Cataloochee grew in the 1870s and 1880s. In 1900, the Cataloochee area had about 800 residents and 150 dwellings.⁴²

Cataloochee remained a close-knit community linked by extended kinship ties well into the twentieth century. After 1910, apples became an important crop, especially in Little Cataloochee. W. G. B. (Will) Messer, whose parents had settled Little Cataloochee in the 1870s, was the most prosperous farmer and businessman in that settlement. His 340 acre farm was a showplace, with its 600 apple trees and a twelve-room house with hot and cold running water. Messer also operated the general store at Ola, which is named for one of Messer's daughters. Access to markets improved in 1900, when the Tennessee and North Carolina Railroad reached Mount Sterling Post Office, approximately 10 miles outside the park boundary. The construction of Walters Dam and a hydroelectric generating station on the Pigeon River near the mouth of Cataloochee Creek also affected the community, providing employment and increased contact with outsiders. The large sawmill at Mount Sterling had a similar impact.⁴³

With the park's creation and as residents vacated their premises, almost all structures within Big and Little Cataloochee

⁴¹ Cornelius Maher and Michael Kelleher, "Great Smoky Mountains National Park Roads and Bridges, Cataloochee Trail and Turnpike," HAER No. TN-35-N (Washington, DC: Historic American Engineering Record, NPS, 1996), 6–12; Peter Shelburne Givens, "Cataloochee and the Establishment of the Great Smoky Mountains National Park" (Master's thesis, Western Carolina University, 1978), 42–49.

⁴² Dianne L. Flaugh, *Cataloochee Historic District: Draft Cultural Landscape Report, Great Smoky Mountains National Park* (Atlanta, GA: NPS, 1999); Givens, "Cataloochee," 50–59, 89; Cornelius Maher and Michael Kelleher, "Great Smoky Mountains National Park Roads and Bridges, Cataloochee Valley Road," HAER No. TN-35-F (Washington, DC: Historic American Engineering Record, NPS, 1996), 6–13; Maher and Kelleher, "Great Smoky Mountains National Park Roads and Bridges, Cataloochee Trail and Turnpike," 6–12; Roy Carroll and Raymond Pulley, *Historic Structures Report, Little Cataloochee, North Carolina* (Boone, NC: Appalachian State University Department of History, 1976), 13.

⁴³ Flaugh, Cataloochee Historic District: Draft Cultural Landscape Report, Great Smoky Mountains National Park; Givens, "Cataloochee," 59–62, 68, 76–77, 93, 101, 106; Carroll and Pulley, Historic Structures Report, Little Cataloochee, 22; Arthur, Western North Carolina, 485.

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were burned by the NPS. Lush Caldwell, the last permanent resident, left in the late 1960s. Seventeen community and farm buildings, as well as two bridges, survive in the Cataloochee area. Notable surviving buildings include the Jim Hannah Cabin, Will Messer Barn (moved to Big Cataloochee), and Little Cataloochee Baptist Church in Little Cataloochee and the Big Cataloochee Methodist Church (Palmer Chapel) and Beech Grove School (aka Cataloochee/Indian Creek School) in Big Cataloochee. See Section E.5 for further discussion of the early park preservation activity at Cataloochee.

Architecture

The characteristic nineteenth-century farm in the Great Smokies, as elsewhere in the Upland South, was the dispersed or scattered farm. Settlers built separate, freestanding farm buildings on their cleared acreage with some regard to site topography but according to no preconceived plan. A reliable supply of potable water was important, and farmers often built their cabins near a spring. Around the dwelling house were usually a barn, a corncrib, a springhouse, and a smokehouse. A hog pen, chicken coop, and root cellar might also be present. Near the house would be a vegetable garden and a small orchard. Farmers usually planted a corn patch on the most level ground available, which might be near the stream bed in a lower hollow. Farther upstream in a hollow, farmers planted where they could, sometimes constructing narrow terraces with stone retaining walls. Split-rail fences enclosed the house-garden-orchard-corn patch complex to keep out free-ranging livestock.44

Throughout the nineteenth century in the Smokies, settlers constructed cabins and outbuildings using horizontal logs with interlocking notched corners.⁴⁵ Well-established among the migrants from the Midland cultural hearth area, log construction was ideally suited to the heavily forested Appalachian South. With just an axe, a settler could raise a crude, dirt-floored, round-log cabin, often called a pole shack, within a day or two. For a pole shack, round logs were roughly saddle-notched close to their ends. The saddle-shaped cut on the top, bottom, or both sides of a log accommodated the log in the adjoining wall, and log ends extended past the corner. Once a farmer settled in, he raised a more sophisticated hewn-log house with squared corners. Round-log construction remained common for smaller farm outbuildings even after the initial settlement phase, while better-constructed barns often employed hewn logs.⁴⁶ Beginning in the 1890s, more prosperous farmers in the Smokies began to sheath their log houses with milled lumber, and most new houses from this period on were of milled lumber. Logs remained a common material for outbuildings up to the coming of the park. The first community buildings in most settlements, such as churches and schoolhouses, were also constructed of hewn logs.

⁴⁴ Wilhelm, "Folk Settlements," 221-22; Terry G. Jordan and Matti Kaups, The American Backwoods Frontier: An Ethnic and Ecological Interpretation (Baltimore, MD: Johns Hopkins University Press, 1989), 129-31.

⁴⁵ Although some historians use "cabin" to denote a rude pole shack and "log house" to describe a single-pen hewn-log dwelling, "cabin" is used herein in its primary meaning (of Irish origin) of any one-room house. Henry Glassie, "The Appalachian Log Cabin," in Appalachian Images in Folk and Popular Culture, ed. by W. K. McNeil (Ann Arbor, MI: UMI Research Press, 1989), 310. ⁴⁶ Glassie, "The Appalachian Log Cabin," 310; Terry G. Jordan, American Log Buildings: An Old World Heritage (Chapel Hill, NC:

University of North Carolina Press, 1985), 18.

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Log Cabins and other Residential Architecture

Long before settlers entered the Great Smokies, the construction technology and form of the log cabin were established throughout the Upland South. In the first half of the seventeenth century, the settlers of New Sweden on the Delaware River brought with them a tradition of single-pen log construction and a variety of corner-notching styles. The influence of New Sweden on later settlers is debatable, but the German immigrants of the eighteenth century contributed their own heritage of log building, which substantially reinforced the Fenno-Scandinavian contribution if it was not the primary source of log construction in America. The three-room plan and central chimney typical of Pennsylvania-German log houses did not travel far, being replaced by the one-room plan and external gable-end chimney favored by English and Celtic immigrants. The external gable-end chimney was probably a contribution of migrants from the Tidewater hearth area. Representing a synthesis of the contributions of different ethnic groups, the log cabin became a defining characteristic of the nineteenth-century settlement of the Upland South.⁴⁷

Log cabins throughout the Upland South varied remarkably little in form; the following description of the prototypical Smokies cabin would apply with minor variations to many other locales. The Smokies cabin was a side-gabled, one-andone-half-story, usually rectangular, single-pen structure ranging in size from 20 ft by 15 ft to 26 ft by 20 ft. Logs were hewn with axe and adze on the front and back to create a roughly plank-shaped form and secured at the corners by carefully crafted notches. Pine, poplar, and oak, in that order, were used most frequently in constructing cabins. Log cabins are most commonly classified by the type of corner notching employed, with the principal notching types consisting of saddle, full dovetail, half dovetail, V, diamond, and square. Half-dovetail notching predominated in Great Smokies cabins, with V-notching the second most common type. These construction techniques allowed the ends of the hewn logs to be cut off flush, producing a neat, water-tight corner. The inevitable gaps between logs were chinked with small pieces of wood or stones and daubed with mud. A front and rear door, typically in line with each other, were usually present in Smokies cabins, as were one or more windows. Isolated pier foundations of stone or log segments elevated the cabin a foot or two off the ground. Small chestnut or oak logs were split to form puncheons that were used as floorboards. The low-pitched gable roof was framed with poles, and large hand-split shingles (called simply "boards" in the Upland South) were laid on the outside, usually over horizontal roofing boards. Before nails were widely available, the shingles were secured by pairs of poles (one inside and one outside) that were tied at their ends, forming a simple clamp. Vertical boards usually covered gable ends in the Smokies, although occasionally builders used hewn logs of decreasing length in

⁴⁷ Fred Kniffen and Henry Glassie, "Building in Wood in the Eastern United States: A Time-Place Perspective," *The Geographical Review* 56, no. 1 (1966): 58–59; John Morgan, *The Log House in East Tennessee* (Knoxville, TN: University of Tennessee Press, 1990), 8–11; Henry Glassie, "The Appalachian Log Cabin," 310.

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Although round-log pole shacks often made do with a daubed stick chimney, more permanent cabins generally had stone chimneys. The stones were either dry-laid or mortared with mud. Most Great Smokies cabins featured a shed-roofed front porch, which served as an important outdoor room in warm weather. Back or side porches were not uncommon, and many cabins had shed or lean-to additions, often constructed of dimensioned lumber from sawmills after 1890. Kitchen functions commonly were moved out of the main cabin into the addition when one was built.⁴⁹

Log construction by its nature is modular, and log splices are difficult to accomplish. Consequently, major enlargements to log cabins generally took the form of a separate pen built close to the original structure. If the second pen were built on the far side of the end-wall chimney so that both pens shared the chimney, a saddlebag house resulted. When a central covered breezeway separated the two pens, the result was known as a dogtrot house. Less common was the construction of a new pen at the gable end opposite the chimney, a type known as the Cumberland house (which is also characterized by having two front doors). In other variations, a new pen might be constructed at a 90 degree angle to the original house or parallel to its long side a few feet away. The saddlebag was the most common double-pen form in East Tennessee generally, but the great majority of Smoky Mountain log houses were single-pen structures. In addition to increasingly using milled lumber after 1890, many cabin owners also replaced board roofs with raised-seam metal roofs in later years.⁵⁰

Inside, the cabin usually featured a single room that served as kitchen, bedroom, and dining room, although occasionally the interior would be partitioned into two rooms with vertical boards. Hewn floor joists placed 3 to 5 ft below the top of the wall allowed the construction of a loft with considerable headroom. The loft was used for storage and as older children's sleeping space and was generally reached by a narrow stair. The space beneath the stair almost always was paneled off to form a small closet. The cabin's interior walls might be left untreated, whitewashed, or papered with newspaper. A prominent feature in the one-room cabin was the open fireplace, used for heating and cooking and equipped with a crane, pot hooks, and iron pots and frying pans. Pegs and shelves for storage lined the interior walls, but furnishings were few, consisting of a table, many chairs, beds, and a cupboard. Much furniture was homemade, but manufactured pieces—a clock, carpet, or even a piano—appeared in many homes.⁵¹

⁴⁸ Jordan, *American Log Buildings*, 16–18; Henry Glassie, "The Types of the Southern Mountain Cabin," in *The Study of American Folklore: An Introduction*, ed. Jan Harold Brunvand (New York, NY: W. W. Norton, 1968), 345–47; Glassie, "The Appalachian Log Cabin," 310–11; Morgan, *The Log House*, 13, 20–23, 34; John Rehder, *Tennessee Log Buildings* (Knoxville, TN: University of Tennessee Press, 2012).

⁴⁹ Glassie, "The Types of the Southern Mountain Cabin," 348-49; Morgan, The Log House, 23-25.

⁵⁰ Morgan, *The Log House*, 30–33; Glassie, "The Appalachian Log Cabin," 313–14; Fred Kniffen, "Folk Housing: Key to Diffusion," *Annals of the Association of American Geographers* 55 (Dec. 1965): 561; Rehder, *Tennessee Log Buildings*, 56–76.

⁵¹ Glassie, "The Types of the Southern Mountain Cabin," 353-55.

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The John Oliver House in Cades Cove, built early in the nineteenth century, is an excellent example of the single-pen Smokies log cabin. A number of log houses within the park began as single-pen structures and later received additions. The Peter Cable House (Cades Cove) has front and rear shed-roofed additions. The Walker Sisters' House in Little Greenbrier has a second pen built perpendicular to the original structure. At the Henry Whitehead Place (Cades Cove), the second pen lies parallel to the first, a few feet from its rear porch. The Noah Ogle House in the Junglebrook Historic District, Sevier County, Tennessee, is a good example of a saddlebag house.

The late nineteenth and early twentieth century witnessed an increased diversity of architectural styles in rural Tennessee and western North Carolina, facilitated by the penetration of popular literature, pattern books, and other media and modes of cultural transmission. As increased numbers of sawmills made dimensional lumber available within the communities of the future park, wealthier residents sometimes turned to frame construction for their homes, although log architecture persisted. One of the more prevalent residence forms was the Federal-influenced I-house, which has been identified by historians of vernacular architecture throughout the Tidewater South and the Mid-Atlantic regions. Executed in log, frame, and masonry construction, or sometimes in a combination of log and frame, these homes are one room deep, two or more rooms wide, and two stories tall. A long-lived house type, I-houses were constructed throughout the nineteenth and early twentieth centuries and could feature a variety of decorative detailing drawn from the architectural vogue of the day, such as Greek Revival, Italianate, Eastlake, or Queen Anne. Framed examples are the most common in East Tennessee, where their presence is associated with an elevated degree of economic attainment. A variant of the form in East Tennessee, seen most often in Knox County, has a one-story porch extending across the entirety or three-quarters of the facade. Within the park, the John P. and Becky Cable House in Cades Cove provides an example of the form. Other vernacular house types in rural Tennessee and western North Carolina include the T-plan, the gable-front-and-wing design, and the hipped pyramidal family. In county seats and other developed areas, high-style examples of popular latenineteenth and early-twentieth-century architectural styles, such as the Queen Anne and Colonial Revival, were numerous. However, rural areas continued to rely on vernacular types that had only minimal applied detailing, as in the case of the Ihouse.52

Barns and other Agricultural Outbuildings

The most important farm outbuilding was the barn, which served multiple functions, including grain and hay storage, shelter for horses and mules, and tool storage. Several basic barn types arose in the Midland cultural hearth area in Pennsylvania; these types changed substantially as they moved south with the waves of migration. Each four-walled log

⁵² Henry Glassie, Vernacular Architecture (Philadelphia, PA: Material Culture, 2000), 116–120, 139–140; Rehder, Tennessee Log Buildings, 142; Philip Thomason, National Register Multiple Property Documentation Form: The Historic and Architectural Resources of Blount County, Tennessee (1989); Virginia Savage McAlester, A Field Guide to American Houses (New York, NY: Alfred A. Knopf, 2013), 142.

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unit in a barn or other outbuilding is called a crib, the term pen applying only to dwellings. The square or rectangular single-crib barn is the simplest type. This type had either a high hayloft under the roof or, occasionally, a full second story. Very often, the roof of a single-crib barn extended beyond the crib on one or both sides to provide open-walled stabling and storage space. In contrast to the side-opening English barn common to New England, the Midland barn had its opening in the gable end, usually secured by a simple hatch-type door of vertical boards (sometimes called a batten door). As this type traveled south, where most livestock ranged freely, the crib became smaller and was devoted exclusively to the storage of corn. On many small Southern Appalachian farms, a single-crib structure with sheltered side bays for a horse and a few tools (called a corn crib as often as a barn) was the only major outbuilding needed.⁵³

Another early development in Pennsylvania was the double-crib barn, with the two cribs separated by a covered central passage, analogous to the dogtrot house. In Pennsylvania, the central area often sheltered a threshing floor; in the Upland South, where corn replaced small grains, this became simply a wagon runway. The runway might be left open or walled off and equipped with a door. This barn type spread throughout the Upland South and the Midwest. Several examples survive within the park, including the John P. Cable Barn in Cades Cove and the Jim Bales Barn in Roaring Fork, Sevier County, Tennessee. An elaboration of this type was the great Pennsylvania forebay barn, with a full second story cantilevered over the lower story on one long side. On the opposite side, the barn was often built into a hillside so that wagons had direct access to the second floor.⁵⁴

A barn type found in relatively large numbers in East Tennessee (compared to its presence in the rest of the Upland South) is the cantilever barn. The diagnostic traits of this type are: 1) the two log cribs for the foundation support and 2) two sets of cantilevered beams that support overhanging lofts on all four sides of the building. In its most common subtype the two cribs are separated by a runway, with a second story cantilevered out on all four sides (double cantilever). Other variants have only a single cantilever (front and back) and may use one or four cribs rather than two. The cantilever barn may have evolved from the Pennsylvania forebay barn, although Moffett and Wodehouse recently suggested a similarity to frontier defensive blockhouses, which typically featured doubly cantilevered second stories. Inventories of the barn type have identified between 195 and 316 cantilever barns in East Tennessee, with Sevier County containing perhaps 76 percent of the total in the state. Other counties with these barns, listed in descending order by percentage of the total, are Blount, Johnson, Bradley, Meigs, and Morgan.⁵⁵ Henry Glassie reported a wider distribution of the type across multiple states in

⁵³ Kniffen, "Folk Housing," 561–563; Jordan, *American Log Buildings*, 30–31. Most of the front-gable opening, single-crib farm outbuildings in the Smokies that correspond to the basic Southern Appalachian barn (as described by Fred Kniffen) are known locally as corn cribs and are considered under other farm outbuildings.

⁵⁴ Kniffen, "Folk Housing," 563; Jordan, American Log Buildings, 30-31.

⁵⁵ The Moffett-Wodehouse survey, published in 1993, identified 316 double cantilever barns in East Tennessee. The Rehder survey, published posthumously in 2012, identified 195 double-cantilever barns using Tennessee Historical Commission (THC) survey data. Rehder did not provide a definitive explanation for the discrepancy but speculated that his research missed many examples documented in the THC's image archive. The county distribution figures are Rehder's based on his total of 195 barns. Rehder, *Tennessee Log Buildings*, 93–95.

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the 1960s, but by the 1990s Moffett and Wodehouse could identify only six such barns outside the region: three in North Carolina, one or two in Kentucky, and one in Georgia. The reconstructed Tipton-Oliver Barn in Cades Cove is a fine example of the two-crib, double-cantilever barn.⁵⁶

An Upland South elaboration of the double-crib barn was the four-crib barn, which had cribs at the four corners and two runways crossing at the center. The Hiram Caldwell Barn at Big Cataloochee represents this type. When the cribs were aligned in two parallel rows of from two to four cribs each, with a central runway, the result was a transverse crib barn.⁵⁷ A notable example of this type is the large eight-crib barn at the Oconaluftee Mountain Farm Museum.

Many log barns in the Smokies were built for durability with half-dovetail-notched hewn logs. After about 1890, many owners sided their barns with milled lumber, and many new barns were built entirely from this material. Frame barns almost always followed one of the traditional plan types, with the transverse-crib type being the most popular. Among the early twentieth-century frame barns in the park are the John Oliver Barn (aka Hugh Myers Barn) and Lawson Barn in Cades Cove and the Jarvis Palmer Barn in Big Cataloochee.

Many smaller outbuildings in the Smokies—corn cribs, smokehouses, springhouses—were single-crib log structures with front-gable openings. Often constructed with saddle-notched logs left in the round and unchinked, these buildings frequently featured roofs cantilevered several feet over the front gable end to provide shelter. Many corn cribs in the Smokies are indistinguishable from the single- and double-crib barns described above. The corn crib at the Walker Sisters' Place, with its broad gable roof sheltering the central crib and two open-sided bays on each side, represents the more carefully built type of corn crib. The single-crib, shed-roofed Elijah Oliver Corn Crib in Cades Cove is an example of a more modest corn crib, while the Ephraim Bales Corn Crib (Roaring Fork Historic District) is a double-crib type with a covered central runway.

Settlers constructed springhouses of log or, occasionally, stone to protect their sources of fresh water and to keep milk, butter, and other perishable foods cool. Springhouses ranged from 6 by 8 to 8 by 12 ft in plan and often had stones lining the basin where spring water bubbled to the surface. Where possible, settlers constructed troughs to allow the water to circulate freely around containers of milk. Shelves on the inside provided additional storage space for food.⁵⁸ Several log and frame springhouses survive in the park, including a half-dovetail-notched log springhouse at the Walker Sisters' Place in Greenbrier Cove.

⁵⁶ Marian Moffett and Lawrence Wodehouse, *East Tennessee Cantilever Barns* (Knoxville, TN: University of Tennessee Press, 1993), 1–8, 21–24; Rehder, *Tennessee Log Buildings*, 91–97.

⁵⁷ Kniffen, "Folk Housing," 564-65; Jordan, American Log Buildings, 36.

⁵⁸ Allen G. Noble, *Wood, Brick and Stone,* vol. 2, *Barns and Farm Structures* (Amherst: University of Massachusetts Press, 1984), 81–82; Deice Dyer, "The Farmstead Yards at Cades Cove: Restoration and Management Alternatives for the Domestic Landscape of the Southern Appalachian Mountaineer," (Master's thesis, University of Georgia, 1988), 12.

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Smokehouses were essential for curing pork for long-term use. Hog-butchering began in late November, when temperatures were low enough to prevent spoilage, and typically involved the entire family. After the butchering, which often occurred under the gable end of the smokehouse, hams, shoulders, and other cuts were salted and placed inside. Larger than springhouses, smokehouses were also usually single-crib, gable-end-opening buildings. Opinion differed on whether a tightly chinked smokehouse or one with small gaps to allow smoke to escape produced the best results. Most smokehouses had shelves where the meat was placed to cure and a fire pit in the middle of the floor. Following the curing period, the meat would be hung from the joists for the actual smoking, which lasted two to six days.⁵⁹ A good example within the park is the Peter Cable Smokehouse in Cades Cove.

More specialized outbuildings constructed on some farms included woodsheds, pig pens, chicken houses, blacksmith shops, apple houses, and shelters for bee gums. Most of these were single-crib structures of hewn or round logs. The Jarvis Palmer blacksmith shop and the blacksmith shop at the Oconaluftee Mountain Farm Museum present a sharp contrast in construction technique. The Palmer blacksmith shop is a substantial building of half-dovetail-notched logs with sawn planks in the gable ends, while the Oconaluftee shop is a crude structure of minimally squared-off logs laid up without benefit of notching or chinking. The chicken house at Oconaluftee is also a single-pen hewn-log structure, equipped on the inside with roosting racks and a stone trough. A rough enclosed pig pen survives at the Ephraim Bales place along Roaring Fork. The early twentieth-century apple house at Oconaluftee (moved from Cataloochee) has a reconstructed foundation wall of rubble stone supporting a half-story of hewn logs.

Two objects found in the yards of most Smokies farms were bee gums and ash hoppers. Bee gums took their name from the type of wood, black gum, customarily used in their construction. A beekeeper hollowed out a portion of the trunk with a chisel, transplanted a hive to the gum, covered the top with a wood lid, and chinked up all openings but one at the bottom. To protect the gums, he might also construct an open-sided shelter like the reconstructed one at the Tipton-Oliver Place in Cades Cove. Ash hoppers were for the collection of wood ash, which produced lye for soap-making. Ash hoppers were simple wood bins with a trough at the bottom. Lined with straw or paper, the hoppers stored ashes until water was run through them to produce lye.⁶⁰

Split-rail fences surrounded the yard, corn patch, kitchen garden, and other areas needing protection from free-roaming livestock. In the simplest version (known variously as Virginia, worm, snake, or zigzag fences), settlers used hand tools to split rails from 10 to 12 ft logs and then laid them in a zigzag fashion so that the stacked rails would stand without further support. For added stability, angled stakes were often placed at each crossing and the top rail (rider) laid in the crotch of

⁵⁹ Dyer, "The Farmstead Yards at Cades Cove," 34; Noble, *Barns and Farm Structures*, 89–90; Eliot Wigginton, ed., *The Foxfire Book* (New York, NY: Anchor Books, 1972), 199–200.

⁶⁰ Wigginton, The Foxfire Book, 156-57; Dykeman and Stokely, Highland Homeland, 13-14.

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the stakes, creating the classic stake-and-rider (aka post-and-rider) fence. Chestnut and oak were the most durable wood for fences, and sometimes the bottom rails were placed on fieldstone pads to retard water seepage and rot. Even so, the most carefully made rail fence would need replacement within a few years.⁶¹

To provide an added degree of security to garden or yard areas, especially against foraging chickens, homesteaders often built a paling or palen fence (sometimes called a picket fence). Pales were split or sawn boards, generally from 2 to 6 inches wide, that were placed close together and came down to the ground to form a tight barrier. The simplest method of securing the pales was to bury the bottom ends in the earth, but this led to rapid rotting. Where nails were available, farmers nailed the pales to horizontal rails secured (usually by mortising) to fence posts. A third method involved using the bottom rail as a sill and placing the pales inside the middle board and outside the top board, creating a woven paled fence. Lastly, the pales might be secured to each other via woven wire. Stacked rock walls were also used and may be found within the park.⁶²

Yards were almost always bare dirt and were frequently swept clean. Native grasses might be present in clumps, especially along the yard edges. Front yards tended to have more formal and ceremonial functions, while backyards were functional. Foot traffic between work sites and outbuildings established well-worn paths in the backyards. Common yard trees were Eastern red cedar, black walnut, and various apple varieties. Grape vines trained on trellises or arbors were also common. In their yards, families planted shrubs such as lilac and numerous flowers, among them dahlias, daffodils, peonies, tiger lilies, hollyhocks, and roses.⁶³

Mills

As previously described, corn was the basic grain of the mountains, supplying the settler's table, feeding his livestock in winter, and providing the raw material for moonshine whisky. The widespread cultivation of corn and much more limited planting of wheat required mills to grind the corn kernels into meal and the wheat berries into flour. Early settlers soon abandoned the primitive mortar and pestle and water-powered pounding mills that relied on reciprocal action and had extremely limited output. Taking advantage of the area's many fast-moving streams, farmers in the Smokies relied on their own tub mills or took their corn to one of a few custom millers with vertical waterwheel or turbine operations.

Tub mills employ the direct drive principle, with a vaned horizontal wheel located in the streambed connected to the

⁶¹ Robert Steele Withers, "The Stake and Rider Fence," in *Missouri Historical Review* (April 1950): 225–29; Noble, *Barns and Farm Structures*, 121–22; Carl Lounsbury, ed., *An Illustrated Glossary of Early Southern Architecture and Landscape* (New York, NY: Oxford University Press, 1994), 410–11; Wilma Dykeman, *At Home in the Smokies* (Washington, DC: NPS, 1984), 30–34.

⁶² Dykeman, At Home in the Smokies, 30–34; E. Raymond Evans, "The Palen Fence: An Example of Appalachian Folk Culture," in Appalachian Images in Folk and Popular Culture, ed. W. K. NcNeil (Ann Arbor, MI: Research Press, 1989), 317–21; Lounsbury, Glossary of Early Southern Architecture, 255–56.

⁶³ Dyer, "Farmstead Yards at Cades Cove," 39, 42, 142, 178.

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upper (or runner) millstone by a vertical shaft. The rotation of the runner stone against the stationary bed stone grinds the grain into meal. Frequently, a wooden flume directs water onto the waterwheel. The basic technology dates to ancient Greece and remained largely unchanged into the nineteenth century. The term "tub mill" derives from the practice of surrounding the waterwheel with a circular wooden enclosure or tub to help channel the flow of water. Although the enclosures that gave the tub mill its name do not appear to have been used in the Smokies, the name was firmly linked to this type of mill when the technology arrived in the mountains around 1800. A tub mill's millstones were housed in a simple one-room structure perched on the stream bank—the front of the building rested on the bank, while the rear was raised on posts over the stream bed. Tub mills were comparatively easy to build, taking up little space and needing only meager water flow in a fast-moving stream. A farmer typically would have to hire someone to make the wheel and mill machinery but could do the rest of the construction himself. Dozens of tub mills once lined the upper reaches of streams in the Smokies. Local tradition maintains that fourteen were present on Le Conte Creek alone. A tub mill typically served one family and perhaps a few neighbors.⁶⁴

Two tub mills survive in the park. The Noah Ogle tub mill on Le Conte Creek in the Junglebrook Historic District is a simple log crib supported on braced log posts. A 50 ft wood flume directs water to the 27 inch diameter waterwheel. The Alfred Reagan tub mill on Roaring Fork is considerably more sophisticated. Built of sawed, dimensioned lumber, the Reagan mill could operate even when the water level was low. This mill has a 32 inch waterwheel and 26 inch mill stones. It was also equipped with a small, hand-powered bolting machine. The presence of a bolting machine, used to sift flour into various grades, indicates that some wheat was grown along Roaring Fork.⁶⁵

Custom mills were small businesses, milling grain for all comers, and consequently were much larger operations than tub mills. Custom mills typically were powered by vertical waterwheels attached to the mill building, producing the sort of "old mill" image familiar to most Americans. The motion of the vertical waterwheel was transferred to a horizontal main drive shaft and then by a system of gears to a vertical shaft that turned the millstone itself. The use of gears allowed both greater efficiency and changes of speed. The power supplied by the vertical wheel also could be used to saw lumber and turn wood. Custom mills required a steady, fairly large volume of water and typically were built on the lower reaches of medium-sized streams. Millers often built dams to form mill ponds for a reliable supply of water. Mill races and wooden flumes then brought the water to the wheel. The steep terrain of the Smokies allowed the use of the overshot-type waterwheel, where the water flow strikes the wheel near its top. This is more efficient than the breast or undershot types of waterwheel. Other custom mills employed brass or steel turbines, where a steady stream of water under considerable pressure passes through vanes attached to a central shaft.⁶⁶

⁶⁴ Trout, "Milling in the Smokies," 13, 33.

⁶⁵ Trout, "Milling in the Smokies," 34-35.

⁶⁶ Trout, "Milling in the Smokies," 15-17, 36.

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Of the two custom mills remaining in the park, one, the John P. Cable Mill, is equipped with an overshot wheel, while the other, the Mingus Mill, has a turbine. The Cable Mill, at the western end of Cades Cove, is typical of small custom mills in the Smokies. As many as seven similar mills once operated in Cades Cove. Built in the 1870s and restored by the NPS in 1935–1936, the Cable Mill is a one-room frame structure with a basement. Water reaches the 11 ft diameter waterwheel from Mill Creek by means of a millrace and an open-topped wooden flume. A low dam across the creek impounds water for the mill, and a channel cut by John Cable from nearby Forge Creek to the millpond helps ensure a sufficient flow of water. The waterwheel is connected by a wooden shaft to a wood and metal gear system in the basement, which transfers power to a vertical shaft connected to the millstones on the main floor. About half of the 18 ft by 22 ft main-floor room is occupied by the millstones, a meal bin, and other milling equipment, while the other half is an open area for customers waiting for their meal. The Cable Mill waterwheel also once powered a separate wheat mill in a building a few feet distant from the extant mill, and a second waterwheel powered a sash sawmill. No trace of either operation remains.⁶⁷

One of the most impressive and heavily visited structures in the park is the two-and-one-half-story Mingus Mill, located on Mingus Creek in the Oconaluftee section of the park. Powered by a turbine concealed beneath the building, the Mingus Mill had separate mills for corn and wheat. Constructed in 1886 by Virginia millwright S. T. Early, the extant Mingus Mill was at least the second mill built on the site. Mingus Creek was dammed to provide a water supply, which then traveled through a millrace and a 200 ft flume to a 22 ft high penstock. The penstock built up the water pressure needed to power the turbine, which developed 400 rpm and eleven horsepower. The vertical shaft from the turbine was connected to an elaborate system of shafts, pulleys, and belts. The turbine powered not just the two sets of millstones for corn and wheat but also a wheat cleaner and a conveyer apparatus that moved wheat between floors of the building. Customers brought grain to the main floor of the building, which contained the millstones, bins, and other equipment. Corn was ground into meal and returned to the customer's sack. Wheat moved by conveyer to the second floor for cleaning, returned to the first floor through chutes to the waiting customer.⁶⁸ The mill dam (a small diversion weir) is not currently visible within Mingus Creek—it is unknown whether it survives beneath the stone and gravel of the creek bed. The millrace has been rehabilitated along its original course and then empties into an elevated wood flume that carries the water to the mill. The flume has been rebuilt and repaired on several occasions.

Churches and Schools

The first community building in a typical mountain hollow settlement was the church, made of hewn logs in much the

⁶⁷ Edward L. Trout, "Draft Historic Structure Report, John Cable Mill" (typescript, n.d., Great Smoky Mountains National Park, Gatlinburg, TN), 3-8.

⁶⁸ Edward L. Trout, "Draft Historic Structure Report, Mingus Mill" (typescript, 1990, Great Smoky Mountains National Park, Gatlinburg, TN), 2–7.

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same fashion as a log cabin. These buildings often served as school rooms as well, until the population was large enough to justify the construction of a separate schoolhouse. In the Smokies, the Baptist and Methodist denominations predominated. Given the small congregations and the emphasis these denominations placed on preaching and singing rather than liturgical ritual, the needs of the faithful were met by simple one-room buildings. A raised platform at one end for the preacher's lectern and rows of benches for the congregants were all the interior furnishings needed. The main exterior embellishment was a belfry or steeple. The ringing of the church bell summoned the neighborhood to services and also tolled upon the death of a neighbor.

Until free public schools reached the mountains in the late nineteenth century, Smokies residents relied on subscription schools. Community members "made up" a school by contributing to a common fund to hire a teacher and by supplying a building. The school term lasted about three months, and all ages were taught together in the single room. A desk and chair for the teacher, benches for the pupils, and pegs and a blackboard attached to the walls were the furnishings. Instruction was limited to the basics of reading, writing, and arithmetic.⁶⁹

Representative of the one-room hewn log schools of the Smokies' early days is the 1882 Little Greenbrier School. The structure served as a school and a Primitive Baptist Church from its construction until the mid-1920s. The last school session was held in 1935–1936.⁷⁰ The 1907 Beech Grove (Indian Creek) School in the Cataloochee area of the park is a weather-boarded balloon-frame structure built for the community by the Board of Education of Haywood County, North Carolina. It represents rural elementary schools from the early part of the twentieth century. After the establishment of the park, class sizes dwindled, but instruction continued into the early 1950s.⁷¹

Six substantial frame church buildings survive in the park as reminders of the central role that the small Baptist and Methodist churches played in the lives of mountain residents. As stated above, community social life revolved around church services, Sunday school, annual week-long revival meetings, grave decoration, church suppers, weddings, and funerals. Many mountain communities could not support a full-time minister and relied on circuit-riding preachers who visited one weekend a month. When the coming of the national park forced area residents to leave, they prevailed upon the Park Service to allow continued use of the churches by the congregations. Maintenance was at first largely the responsibility of the congregations but has now been assumed by the Park Service. The most potent symbols of the park's lost communities, the churches now figure prominently in the annual reunions held in many of the former communities.

All six of the churches are relatively plain, gable-end opening, rectangular-plan, framed structures. These are essentially

⁶⁹ Dykeman and Stokely, Highland Homeland, 99.

⁷⁰ Edward L. Trout, "Draft Historic Structure Report, Little Greenbrier School" (typescript, n.d., Great Smoky Mountain National Park, Gatlinburg, TN), 9–13.

⁷¹ Edward L. Trout, "Draft Cataloochee Historic Structure Reports: Palmer Chapel, Beech Grove School, Little Cataloochee Baptist Church" (typescript, n.d., Great Smoky Mountains National Park, Gatlinburg, TN), 6–8.

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rectangular boxes providing an open auditorium for worship and other community activities. Weather boarded, painted white, and pierced by evenly spaced windows on each sidewall, they bespeak the simple beauty of the country church in the woods. Although basically similar, the churches exhibit subtle variations of detail. Four of the churches have belfries perched on their ridgelines, and two have bell towers articulated as distinct masses at their entrances. The interiors of the churches are much alike: all have single open rooms with a raised platform at one end for the minister and open floor space for movable benches or pews. Cemeteries are associated with all six of the churches.

The Cades Cove Primitive Baptist Church is probably the plainest of the park's churches. Cades Cove residents established this church in the 1820s, making it one of the oldest documented congregations within the park's boundaries. Meeting at first in private homes and later in a hewn-log building, the Primitive Baptists constructed the present building in the early 1880s. The congregation maintained the building under a special-use permit until 1971, when the NPS assumed maintenance responsibility.⁷² The nearby Cades Cove Methodist Church (1902) is quite similar in design but boasts a bit more decoration, with its pedimented window hoods and paired doors with three-light transoms. Cades Cove's third church, the Missionary Baptist Church, is distinguished by an enclosed entry porch and an apsidal choir room projection at the back. Smokemont Baptist Church and Cataloochee Methodist Church (Palmer Chapel) in North Carolina both have bell towers projecting from their facades and serving as entries. The Smokemont congregation, originally the Oconaluftee Baptist Church, was organized in 1836. The extant Smokemont church building, constructed in 1912, culminates in a louvered belfry with a pyramidal roof. Most elaborately adorned of the six park churches is Little Cataloochee Creek. Scalloped bargeboards, jigsawn eave boards, and a cross-gabled belfry sheathed with "fishscale" shingles add to the charm of this country church.

Roads and Bridges

The earliest settlers of the Smokies built primitive wagon and sled roads, many of which followed existing Native American trails or ran through valleys and along ridges. County roads were established along these and additional routes in the mid-nineteenth century as interior areas were more densely settled and needed reliable connections for trade and communication with the historical market communities outside the park. Many of these primitive roads later were reworked and paved and today serve motorists visiting the park. A prime example is the Newfound Gap Road (U.S. 441), which in large part follows the route of the Indian Gap Trail. Other settlement-period roads became truck or horse trails. Much of the work of the Civilian Conservation Corps (CCC) in the park involved stabilizing and improving old settlement roads (see Section E.4).

⁷² Edward L. Trout, "Draft Historic Structure Report, Cades Cove Historic District (Churches)" (typescript, 1991, Great Smoky Mountains National Park, Gatlinburg, TN), 2–3.

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Roads were always of critical importance to the residents of Cades Cove, a fertile agricultural area isolated by surrounding mountains from easy access to markets. Before the Civil War, settlers built the Parsons Branch Road, leading from the southwest corner of the cove to the Little Tennessee River. Largely following ridgelines as it exits the cove and later running through the valley of Parsons Branch, the Parsons Branch Road generally follows its pre-1861 alignment and is unpaved. About 1920, Blount County built winding Rich Mountain Road to connect Cades Cove with Tuckaleechee Cove. Considered a modern motor road when built, Rich Mountain Road replaced earlier roads through Rich Mountain Gap, the primary means of access for early settlers of Cades Cove. Rich Mountain Road was the most heavily traveled road into the cove from the early 1920s to the early 1950s, when the Laurel Creek Road was finished. Today it is a 12 mile, hard-packed gravel, one-way road out of Cades Cove, closed in winter. As discussed above, roadways into the Cataloochee Valley in North Carolina followed a similar progression from Native American trail to county road to NPS motor route. The Cataloochee Turnpike was of critical importance for the growth of the community and was subsequently improved by the CCC.⁷³

As more and better roads began to be constructed in the Great Smokies in the twentieth century, the need increased for durable, well-constructed bridges over streams. Early roads in the mountains typically relied on fords to get across creeks, and the humid conditions of the mountain environment necessitated the frequent replacement of wooden bridge members. In America, the development of bridges made of more permanent materials—iron, steel, and concrete—was closely tied to the spread of railroads in the nineteenth century and of motor roads in the twentieth.

The rapid growth of an American rail network beginning in the 1840s brought with it the need for bridges of unprecedented strength, permanence, and fire resistance. Iron (later, steel) was the logical material for railroad bridges, and the truss form emerged as the most efficient. A truss is an arrangement of relatively short individual members formed and connected into a rigid unit. The diagonal bracing members of a truss create a system of triangles, which is the key to the strength and rigidity of a truss. If a roadway is laid on the top horizontal member (chord) of two parallel trusses, a deck truss bridge is the result. Placement of the roadway on the bottom chord creates a through truss bridge. Timber truss bridges were built in America from the late eighteenth century and often included a supporting arch for added security. In the 1840s, iron began to replace wood in truss bridge construction, and the decade also witnessed the patenting of the two types of truss bridge that eventually came to dominate. The American father and son team of Caleb and Thomas Pratt patented the Pratt truss in 1844. The Pratt design included crossed diagonal members in each panel of the truss. James Warren and Willoughby Monzani in England invented the Warren truss, patented in 1849. Originally designed with diagonals and chords but no vertical members, the Warren truss's most efficient form eventually proved to include posts

⁷³ Bureau of Public Roads, "Report on Great Smoky Mountains National Park Roads" (typescript, 1951, Great Smoky Mountains National Park, Gatlinburg, TN); A. Randolph Shields, *The Cades Cove Story* (Gatlinburg, TN: Great Smoky Mountains Natural History Association, 1977), 13.

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and a single diagonal per panel.⁷⁴

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Although steel Pratt and Warren trusses were used for many early highway bridges, concrete emerged in the twentieth century as the material of choice for this application. By 1880, monolithic (unreinforced) concrete was in widespread use in the United States for simple structural elements under compression. Developments in reinforcing concrete with iron or steel bars allowed the material's use where tensile and shearing stresses were present. Reinforced concrete bridges are of two main types: concrete arch bridges and concrete girder bridges. Engineer Ernest L. Ransome designed the first reinforced concrete bridge in America, the 1889 Alvord Lake Bridge in San Francisco's Golden Gate Park. Another innovator in concrete arch bridge technology was engineer Daniel B. Luten, who left his career as a professor of engineering in 1900 to found a firm that specialized in concrete arch bridges. Between 1900 and 1911, Luten supervised the design and construction of more than 4,000 concrete arch bridges. After World War II, the mass-producible concrete girder bridge came to dominate highway construction, and the more labor-intensive concrete arch bridge was rarely used.⁷⁵

The Pratt and Warren truss bridges over Cataloochee Creek and the two Luten concrete arch bridges spanning tributaries of the Oconaluftee, all built around 1920, represent the advent of better automobile roads in the Smokies in the 1920s. These durable, all-weather bridges greatly improved communications between the mountain communities and nearby places. Each is a comparatively rare example of its type in western North Carolina.

2. Extractive Industries in the Great Smoky Mountains, 1820-1944

This context evaluates resources built for logging, mining, and related industrial processes that occurred in the nineteenth and early twentieth centuries, primarily before the establishment of Great Smoky Mountains NP. Within this context, extractive industries are those activities related to the removal of raw materials from their natural environment so that they may be processed into bulk commodities or utilized through industry for the manufacture of goods. Excluded from this context are those activities and related resources that were primarily subsistence-based and therefore associated with patterns of settlement and community development in the park or region (see Section E.1).

Extractive industries in the communities that would make up the park operated within county, regional, or sometimes national markets by direct participation in commodities sales or indirectly through relationships with other industrial

⁷⁴ Carl Condit, American Building: Materials and Techniques from the First Colonial Settlements to the Present (Chicago, IL: University of Chicago Press, 1968), 52–53, 93–100.

⁷⁵ Condit, *American Building*, 158, 173–74, 251; "Reinforced Concrete Bridges of the Luten Design" (Indianapolis, IN: Hollenbeck Press, n.d.), 5.

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concerns. For this reason, the development of extractive industries within Great Smoky Mountains NP is best understood within patterns of regional industrial development in western North Carolina and East Tennessee.

Broadly speaking, industrial development of the counties making up the park may be divided into two eras separated by the Civil War: ca. 1820 to 1861 and 1880 to 1944. Soon after white settlers arrived in the Smokies in the late eighteenth century, a minority of residents had far-sighted visions that the region's timber and mineral wealth might be exploited and developed at a regional level. Although the predominant and instinctive economic endeavors of the regions revolved around agricultural pursuits, by about 1850 a substantial amount of small-scale industry and would-be industrialists were looking for new opportunities. In East Tennessee, these included mining, iron manufactures, and logging. African American slaves were commonly used in these endeavors. With the development of the iron industries in Pittsburgh and Birmingham, there was a logical assumption that coal and iron resources in Tennessee could contribute to a similar iron-producing boom there. In the 1840s, the discovery of the Ducktown, Tennessee, copper ore deposits (discussed below) also generated interest in other minerals. Knoxville and Chattanooga became the centers of speculative capitalists, whose agents fanned out into the mountains. The construction of the East Tennessee, Virginia, and Georgia Railroad (ETV&G) connected Bristol and Chattanooga, Tennessee, via Knoxville in 1858. Even before its completion, the railroad heightened the prospects for industrial advancement and seems to have contributed to increased interest in mineral and timber assets in the study region.⁷⁶

Generally, inadequate local capital, limited markets, and impingements on year-round heavy freight transportation in the form of the Appalachian Mountains and the inadequacies of the Tennessee River placed limits on the industrial growth of the region. Just when the coming of the railroad seemed to offer hope of advancement, prospects were cut short by the Civil War (1861–1865). This conflict was a significant setback for industrial activity in the region, especially East Tennessee. Because of its strategic importance, the Cumberland Gap region became one of the more contested during the war as both Confederate and Union soldiers occupied the region at different times. Each side's successive efforts to destroy the transportation and manufacturing infrastructure of the region further laid waste to its industrial resources.⁷⁷

A prolonged pause in industrial development followed the Civil War. A period of dramatic industrial expansion began ca. 1880 and continued almost unabated until ca. 1920. Within southern politics and business emerged the concept of the "New South," a catch-all phrase used by community leaders to describe the vision of a modern, industrialized economy. This vision depended in large part on exploiting the South's natural resources. Its advocates sought to attract capital, skills, and manpower from outside the region to fulfill this goal. New South politics meshed with corporate interests that had already started exploiting northern Appalachia, and there was a dramatic influx of "mineral men" or "mineral

 ⁷⁶ Banker, Appalachians All, 56, 63, 67–70; Eller, Miners, Millhands and Mountaineers, 52–53; Susan L. Yarnell, The Southern Appalachians: A History of the Landscape (Asheville, NC: US Forest Service, Southern Research Station, 1998), 16.
 ⁷⁷ Banker, Appalachians All, 56, 63, 67–70; Yarnell, The Southern Appalachians, 16.

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hunters" who were scouting for prospects on their own behalf or on behalf of investors outside the region. In the Great Smoky Mountains, the resources of primary interest were timber and copper.

Railroads played a substantial role in facilitating industrial development by linking natural resources to regional production centers and then to the long-sought national markets. The ETV&G emerged as an important carrier in Postbellum Tennessee. In North Carolina, the Western North Carolina Railroad reached Asheville in 1880 and soon completed two branches that skirted the Smokies. The first branch, completed in 1882, ran through Madison County to the Tennessee state line, where it connected with another route to Knoxville. A second branch ran to Waynesville, North Carolina, in 1884 and was extended to the Georgia state line by way of Sylva and Bryson City, North Carolina, by 1900.⁷⁸ These routes were later all consolidated into the Southern Railroad. Narrow- and standard-gauge short lines quickly branched off from these main line routes to more remote coves or valleys in the push to access mineral and timber resources. The mining or lumber companies often constructed these short lines.⁷⁹

The industrial development of this period was accompanied by a population shift toward urban centers. These included not only established cities such as Knoxville but also company towns such as the lumber cities of Sunburst and Ravensford, North Carolina. The declining competitive status of mountain farms contributed to this trend. In a parallel development, a relatively small number of entities from outside the region gained control of Great Smoky Mountains real estate and mineral rights. For example, by 1910, just 13 corporations controlled more than 75 percent of the lands in what later became the North Carolina portion of the park.⁸⁰

Logging in the Great Smoky Mountains, ca. 1880-ca. 1940

Mountain residents had always relied on the forests that surrounded them for the raw material for buildings, fences, furniture, utensils, and farm implements. After the Civil War, scattered sawmills started operating to satisfy the local demand for finished lumber. Beginning about 1880, however, large national lumber and pulp companies became interested in the timber resources of the southern Appalachians, partly because of the decline of the previously dominant Great Lakes lumber industry. By the time that Great Smoky Mountains NP was formed, an estimated 40 percent of the parklands had been corporately logged, with 51 percent of the North Carolina side of the park logged in comparison to 27 percent in Tennessee.⁸¹

⁷⁸ Eller, *Miners, Millhands and Mountaineers*, 99–100; Robert S. Lambert, "Logging in the Great Smoky Mountains National Park: A Report to the Superintendent" (typescript, 1958, Great Smoky Mountains National Park, Gatlinburg, TN), 10.

⁷⁹ Eller, Miners, Millhands and Mountaineers, 48–57, 65–66; Yarnell, The Southern Appalachians, 17–18.

⁸⁰ Eller, Miners, Millhands and Mountaineers, xix-xxi.

⁸¹ Charlotte Pyle, "The Type and Extent of Anthropogenic Vegetation Disturbance in the Great Smoky Mountains before National Park Service Acquisition" *Castanea* 53 (September 1988):187.

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Commercial exploitation of the forests within the future park can be broadly divided into two phases of activity. In the first phase, from 1880 to about 1900, local and regional lumber companies purchased individual trees of exceptional quality as cabinet wood or prime construction timber for delivery by the owners. The most profitable tree species was poplar, while some ash and cherry also was removed. A minimal amount of tanbark for leather processing was taken from chestnut, oak, and hemlock trees. Local capital and initiative dominated this phase of logging. Timber sales were often a source of supplementary income for farmers who harvested timber in more accessible areas of the forest.

This early phase of logging was intensive in its use of manual and animal labor, as well as streams. After cutting trees to log length, loggers would use horse or oxen to drag ("snake") the logs through the standing timber to the nearest stream. There, logs would be accumulated in anticipation of heavy rainfalls that would allow logs to be run downstream to the nearest river. Alternately, loggers would construct splash dams (temporary plank and log structures) to impound the stream. These would be released to send the logs to the river. This practice was inefficient, as saleable lumber would often be left stranded on the creek banks. On reaching the river, logs could be assembled into rafts to be floated to their ultimate destination. In other instances, a portable mill might be brought into the woods and logs cut there. Loggers would take the resulting boards to the nearest railhead by wagon.⁸²

A second phase of commercial logging started about 1900 and lasted into the 1930s. As more readily accessible timber stands in the northern states were depleted, lumber companies began to purchase large forested tracts in the Smokies. The speed, scale, and technology of logging changed as companies brought their increasingly mechanized operations into the heart of the mountains.⁸³ Steam-powered ground skidders, incline skidders, or overhead cableway skidders could remove logs from previously inaccessible terrain and reach up to the highest peaks of the Smokies.⁸⁴ In some instances, log slides were constructed over long distances.⁸⁵ Railroad trains powered with geared Heisler and Shay locomotives carried the skidders into the mountains and extracted the logs *en masse* to mills. The railroads paralleled streams into formerly remote areas of the Smokies. As logs were cut out of a particular watershed, the tracks would be removed for use elsewhere, leaving the railroad bed behind. The companies established their mills in strategic locations, usually on rail lines and in larger valleys or coves in and around the Smokies. At the mills, giant band saws that could accommodate larger logs and process them faster and with less waste replaced the circular saws prevalent during the first historical

⁸² Lambert, "Logging in the Great Smoky Mountains," 14-15.

⁸³ Eller, *Miners, Millhands and Mountaineers,* 86–90; Robert S. Lambert, "Logging in the Great Smoky Mountains," 9–10; Frome, *Strangers in High Places,* 166.

⁸⁴ A ground skidder was a steam-powered cable hoist mounted on a railcar. An incline skidder (colloquially referred to as a "Sarah Parker") was the same device but mounted directly on tracks running directly up the mountain side. The skidder would hoist itself up and down the slope. The overhead cableway skidder, as its name implies, mounted steel cable and hoists on booms and could move logs aerially up to 5,000 ft. Lambert, "Logging in the Great Smoky Mountains," 13–19.

⁸⁵ Plank troughs built down a mountainside.

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phase of logging.⁸⁶ Mechanization permitted processing of large quantities of timber, and the economic calculus of their operation demanded high production figures to justify and recoup the capital investment.⁸⁷

The logging companies established semi-permanent villages and temporary camps for employees and their families. Villages such as Smokemont and Ravensford, North Carolina, and Elkmont, Tennessee, were examples of short-lived communities that existed only as long as the stands of merchantable timber held out. Typical communities might house 300 to 1,000 people in bunkhouses and cabins and offered minimal social facilities such as a store, church, and post office. Residences were designed with cost and rapid construction in mind and were usually simple board-and-batten wood buildings without plumbing. Small, remote camps provided only bunkhouses and a dining hall for male residents. Most transitory were the temporary logging camps known as "stringtowns," so named because they were strung alongside the company railroad. These camps used portable wood buildings (sometimes called "set-off" houses) that could be loaded on railroad flatcars and moved as cutting proceeded from area to area. Although thousands lived and worked at mill villages and lumber camps, few structures remain from the extensive forest-related industry once carried out in the park. These are addressed in the individual community narratives below.⁸⁸

Companies operating in this later period responded to increased demand for wood products from several manufacturing sectors. Building construction was a substantial market that grew even larger because of a boom associated with World War I. The nascent aviation industry, which also benefitted from the war, relied extensively on spruce for construction of airplane fuselages. Perhaps most significant was the introduction of the kraft process (aka sulfate process) of paper manufacture in the late nineteenth century, which created a substantial demand for pulp wood derived from coniferous species such as hemlock. Paper-making also substantially changed the character of logging: trees of previously unmarketable size and species could now be cut profitably, thus clearcutting became more common.

Federal involvement in forest preservation played a role in the surge of interest in the timber stands of the Smoky Mountains. Under the direction of Gifford Pinchot, the famous forest conservationist who headed the Department of Agriculture's Division of Forestry,⁸⁹ Horace B. Ayres and William W. Ashe surveyed the southern Appalachians in 1901 and wrote a widely publicized report documenting the need to manage the timber riches of the Smoky Mountains. The report helped to encourage Congress to pass the Weeks Act of 1911, which permitted the federal government to purchase private land to protect the headwaters of rivers and watersheds in the eastern United States. While the Act eventually led

⁸⁶ As of 1908–1909, only seven large band mills existed in western North Carolina, but these accounted for 16 percent of the lumber processed in the period. The remainder was processed by about 300 portable mills and a small number (100–150) of water-powered saw mills. J. S. Holmes, "Forest Conditions in Western North Carolina," *The North Carolina Geological and Economic Survey, Bulletin No. 23* (Raleigh, NC: Edwards and Broughton Printing Co., State Printers, 1911), 60–63.

⁸⁷ Davis, Where There Are Mountains, 163–169; Holmes, "Forest Conditions in Western North Carolina," 60; Lambert, "Logging in the Great Smoky Mountains," 12–19; Eller, Miners, Millhands and Mountaineers, 110.

⁸⁸ Eller, Miners, Millhands and Mountaineers, 122.

⁸⁹ The Division of Forestry was reorganized into the United States Forest Service in 1905.

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to the creation of a system of national forests in the eastern United States during the twentieth century, it initially sparked a race among commercial lumber companies seeking to buy and exploit timber stands before the government could intervene. By 1925, logging companies owned close to one-sixth of the land in Sevier County. Within the future park, 18 timber and pulpwood concerns held about 85 percent of the land.⁹⁰ On the North Carolina side of what became the park, logging and pulp companies clear cut extensively in the watersheds of Twentymile Creek, Eagle Creek, Hazel Creek, Forney Creek, the Oconaluftee River, and Big Creek. Large sawmills and mill villages operated at Fontana (the mouth of Eagle Creek), Proctor on Hazel Creek, Smokemont (where the Bradley Fork joins the Oconaluftee), Ravensford on the Raven Fork of the Oconaluftee, and Crestmont on Big Creek. In Tennessee, the Little River Lumber Company's efforts on the east, middle, and west prongs of the Little River constituted the bulk of activities in the park. As discussed below, this company established a large company town outside the park at Townsend and smaller camps within the park at Tremont and Elkmont.⁹¹

Logging and the associated industries it supported provided employment to thousands of men (and many women) in the Great Smoky region.⁹² In addition to the portable and permanent mills in the park, large permanent mills were established at the foothills of the mountains in cities such as Asheville, North Carolina, and Knoxville, Tennessee. Logging operations were sometimes subsidiaries of, or worked in concert with, manufacturing companies. For example, Canton, North Carolina, was established for paper-making and processed pulpwood cut from the Smokies. A tan-bark industry would also develop as an offshoot of the lumber industry and in turn foster a lively leather industry that settled in locales like Walland in Blount County, Tennessee, which hosted the Schlosser Tannery from the 1890s until around 1930. Sevierville in Sevier County, Tennessee, emerged as a railroad transportation hub for the logging industry.⁹³ Local farmers found increased demand for supplying company towns and logging camps with items like dressed pork, honey, apples, grapes, butter, and eggs.⁹⁴

By 1920, the most accessible and profitable forests in the region had been exploited and the logging industry in the region was in decline. The destructive practices used to harvest timber had profound environmental effects. Clearcutting left behind large quantities of flammable slash—treetops, limbs, and other unusable tree parts—that fueled many devastating forest fires. Open clear-cut swaths disfigured the mountainsides and were highly susceptible to soil degradation and

⁹⁰ Catton, A Gift for All Time, 46.

⁹¹ Margaret Lynn Brown, *The Wild East: A Biography of the Great Smoky Mountains* (Gainesville, FL: University of Florida Press, 2000), 49–51; Lambert, "Logging in the Great Smoky Mountains," 25–46. In addition to the report already cited, Robert S. Lambert published two articles: "Logging on Little River, 1890–1940," East Tennessee Historical Society's Publications 33 (1961):32–42; and "Logging the Great Smokies, 1880–1930," Tennessee Historical Quarterly 21 (Dec. 1961):350–63.

⁹² It should be emphasized here that the loggers were not always native to the county or region.

 ⁹³ Banker, Appalachians All, 112; Inez E. Burns, History of Blount County Tennessee: From War Trail to Landing Strip, 1795–1955, Revised (Maryville, TN: Inez Burns, 1957), 229–230; Eller, Miners, Millhands and Mountaineers, 122; Smoky Mountain Historical Society, The Gentle Winds of Change: A History of Sevier County, Tennessee, 1900–1930 (Maryville, TN: Printers, Inc., 1986), 103; Thomason and Associates, Cultural Resource Assessment: Section 8b Foothills Parkway, Sevier and Cocke Counties, Tennessee (Nashville, TN: Thomason and Associates, February 1995), 9; Williams, Appalachia: A History, 247.
 ⁹⁴ Dykeman and Stokely, Highland Homeland, 120.

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erosion. Plant and animal populations diminished as the biotic web of the forest was fragmented. Although some companies established programs of reforestation, most simply abandoned their tracts when they became unprofitable and moved on to timberlands in other areas of the United States. The destruction of Appalachia's great forests ultimately catalyzed the conservation movement and set the stage for the acquisition of forest tracts that were later incorporated into Great Smoky Mountains NP.⁹⁵ Logging within the future park continued well into the 1920s, but most logging activities ceased in 1928 after John D. Rockefeller, Jr. made his \$4.5 million gift for the establishment of the park. Some companies retained logging privileges and continued operations well into the 1930s.⁹⁶

Logging Activities within Great Smoky Mountains National Park

This section provides a discussion of logging and related community development in Great Smoky Mountains NP. As with the settlement that preceded it, logging activities were organized geographically according to watershed. The following discussion follows the same geographic sequence utilized in Section E.1 that begins with the Oconaluftee River watershed in North Carolina and proceeds clockwise through the park.

The Raven and Straight Forks of the Oconaluftee River and Ravensford, 1909-ca. 1930 (Swain County, NC)

In 1909, the West Virginia firm Parsons Pulp and Paper Company acquired large tracts of land in Swain County on the Raven and Straight Forks of the Oconaluftee River. Between 1909 and 1918, the company established a saw mill and village at Ravensford. At its peak of activity, Ravensford had a double band saw mill with a capacity of 2 to 3 million board feet per month, a boarding house, a commissary, and about forty houses. The Appalachian Railroad serviced the company's holdings, running from Ravensford up the Straight Fork of the Oconaluftee and along its tributary, Balsam Corner Creek, to the timber stands. Ravensford Lumber Company, a successor to Parsons Pulp and Lumber, held the property when it was sold to the park commissioners.⁹⁷

The Oconaluftee River and Smokemont, ca. 1905-ca. 1928 (Swain County, NC)

The Oconaluftee River watershed hosted the largest lumber company to operate within the Smoky Mountains. This area had first been logged selectively for hardwoods in the early 1900s by the Harris-Woodbury Lumber Company (on the Bradley Fork) and Three M Lumber Company (on the upper Oconaluftee and Collins Creek). About 1917, the huge

⁹⁵ Davis, Where There Are Mountains, 163–169; Eller, Miners, Millhands and Mountaineers, 110.

⁹⁶ An unofficial condition, or gentlemen's agreement, underlying Rockefeller's donation was that the two state park commissions would ensure the cessation of logging in the park. Catton, *A Gift for All Time*, 44; Eller, *Miners, Millhands and Mountaineers*, 110, 123.

⁹⁷ Brown, The Wild East, 54; Eller, Miners, Millhands and Mountaineers, 106; Lambert, "Logging in the Great Smoky Mountains," 30-32.

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Champion Fibre Company consolidated large tracts of land in the watershed to access hemlock and spruce for papermaking. Peter G. Thompson, owner of the Champion Coated Paper Company of Ohio, established the Champion Fibre Company as a subsidiary in 1905 after visiting western North Carolina to search for timberland. During the next decade, his new company acquired more than 300,000 acres of mountain land in North Carolina and Tennessee; its holdings comprised almost 20 percent of the present national park. This land extended outside the Oconaluftee into other watersheds (discussed below). A second subsidiary, Champion Lumber Company, handled the logging operations.⁹⁸

Champion Fibre Company established extensive infrastructure to support its endeavor and was described as "the most gigantic enterprise which western North Carolina has seen."⁹⁹ Its narrow-gauge Oconaluftee Railway extended north up the river past Ravensford with branches on the Bradley Fork and Kephart Prong tributaries.¹⁰⁰ Within the park, the company founded the mill village of Smokemont adjacent to the river (now the site of the Great Smoky Mountains NP campground of the same name), where a large pulpwood and lumber mill, commissary, hotel, boardinghouse, and multiple residences were constructed. From 1920–1925, an estimated 116.9 million board feet of lumber was processed at the band saw mill, which had a capacity of 35,000 board feet per day.¹⁰¹ Much of the wood was shipped via the Southern Railroad to Canton, North Carolina, outside the future national park. This company town was the site of Champion's huge pulp mill, which consumed between 300 and 350 cords of wood and produced 200 tons of paper pulp daily. The pulp was initially shipped to Ohio for paper manufacture, but after ca. 1930, the Canton plant began to produce postcard paper and grew into the largest paper and pulp mill in the country. Champion ceased operations in the park in 1928.¹⁰²

Hazel Creek and Proctor, ca. 1890–1928 (Swain County, NC)

From ca. 1890 until ca. 1900, the firms Taylor and Crate, W. C. Heiser, and Block Mountain Timber Company performed selective hardwood logging of poplar, ash, and cucumberwood (aka cucumber magnolia, yellow cucumbertree, yellow-flower magnolia, and mountain magnolia) along Hazel Creek. Splash dams were established on Hazel Creek near the tributary of Walker Creek, on Bone Valley Creek, and just below Proctor.¹⁰³

Beginning in 1903, the William M. Ritter Lumber Company (W. M. Ritter Lumber Co.) began acquiring timber rights and land in the watershed. W. M. Ritter Lumber Co. was one of the largest logging companies in the greater Appalachian

⁹⁸ Champion also acquired holdings to the west on Deep Creek and Noland Creek, some of which are outside the present park boundaries. These areas were accessible from the Southern Railroad and had been selectively logged for hardwoods in the 1880s and 1890s. A mill was located adjacent to the railroad at the mouth of Noland Creek (now within Fontana Lake). Eller, *Miners, Millhands and Mountaineers*, 108; Lambert, "Logging in the Great Smoky Mountains," 36–37.

⁹⁹ Eller, Miners, Millhands and Mountaineers, 108.

¹⁰⁰ Lambert, "Logging in the Great Smoky Mountains," 33-36.

¹⁰¹ Brown, *The Wild East*, 54; Lambert, "Logging in the Great Smoky Mountains," 36.

¹⁰² Eller, Miners, Millhands and Mountaineers, 109; Frome, Strangers in High Places, 167; Oliver, Hazel Creek, 56.

¹⁰³ Lambert, "Logging in the Great Smoky Mountains," 40; Oliver, Hazel Creek, 12, 35, 40, 48-51, 55-58.

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region. Pennsylvania lumberman William Ritter, known as "the dean of the hardwood lumbermen of America," organized this company in West Virginia in 1890 that went on to acquire large swaths of timber property or rights in West Virginia, Virginia, Kentucky, and Tennessee totaling over two billion board feet of hardwood timber by 1913. During his company's operation, Ritter established more than twenty-eight mills in the southern Appalachian region and shipped his products internationally.¹⁰⁴

A subsidiary firm of Ritter's called the Hazel Creek Lumber Company pursued his interests in the Smokies, and actual logging operations began ca. 1910. Between this date and ca. 1920, the Hazel Creek Lumber Company turned the mountain village of Proctor from a sleepy hamlet of four or five houses to a thriving company town of more than 1,000. The site hosted a double-band sawmill with a capacity of 100,000 board feet per day, a planing mill, drying kiln, railroad depot, commissary, community building/movie theater, Baptist church, club house, and housing for workers and foremen. Hardwood flooring was a particular specialty of the company. Hazel Creek Lumber Company's rail line, the Smoky Mountain Railroad, ran almost 20 miles up Hazel Creek from its connection with the Southern Railroad to the foot of Silers Bald, bringing out timber and providing passenger service as far as Medlin. Between 1911 and 1926, the company employed thousands of laborers who extracted and processed about 210 million board feet of lumber. The company halted operations on Hazel Creek in 1926 and sold its land. Population figures are not available, but Proctor lost a substantial number of inhabitants and buildings such as the movie theater and clubhouse closed for want of customers and were eventually torn down. However, a sufficient population remained that as many as four stores continued to operate in Proctor and the immediate vicinity. Some of the families or persons known to have remained in the area were Fernham Farley, W. A. Franklin, George Rogers, the Woodward family, and the Kress family. The entire population of Hazel Creek relocated after the Fontana Dam was built and the area north of the Little Tennessee River was added to the park.¹⁰⁵

Eagle Creek and Fontana, 1904–1925 (Swain County, NC)

Unknown companies selectively logged Eagle Creek for poplar prior to 1904. Between 1904 and 1906, the Montvale Lumber Company acquired 27,000 acres of land in the Eagle Creek watershed. This firm was a subsidiary of the R. E. Wood Lumber Company of Baltimore, Maryland, one of the largest lumber dealers on the East Coast. The company established a mill at the creek mouth adjacent to the Southern Railway at the Little Tennessee River, resulting in the founding of the settlement of Fontana. This community, which extended about 1 mile up the creek, is now under Fontana Lake. A narrow-gauge railroad extended 14 miles up the main stem of the creek and had several spurs on the creek

¹⁰⁴ Eller, *Miners, Millhands and Mountaineers*, 104; W.M. Ritter Lumber Company, *The Romance of Appalachian Hardwood Lumber* (Richmond, VA: Garrett & Massie, 1940).

¹⁰⁵ Brown, The Wild East: A Biography of the Great Smoky Mountains, 53; Eller, Miners, Millhands and Mountaineers, 41–42; Oliver, Hazel Creek, 51–53, 87–90. The latter work contains an extensive description of the village during the Ritter years.

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tributaries. Logging continued until 1925, and a total of about 100 million board feet of timber were reportedly removed. After the discontinuance of logging, the railroad serviced the Fontana Copper Mine (discussed below).¹⁰⁶

¹⁰⁶ Lambert, "Logging in the Great Smoky Mountains," 43-45; Eller, Miners, Millhands and Mountaineers, 106.

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The Little River: Townsend, Tremont, and Elkmont, 1901–1929 (Blount/Sevier County, TN)

The Little River watershed—including Laurel Creek and the West, Middle, and East Forks of the Little River—hosted several small-scale hardwood logging operations utilizing teams and splash dams prior to ca. 1901. In 1901, the Little River Lumber Company began large-scale operations in the area. Veteran Pennsylvania lumberman W. B. Townsend founded this company in 1900 in partnership with fellow Pennsylvanian John W. Fisher, who operated the Schlosser Tannery in nearby Walland, Tennessee. The company was an innovator in applying new logging technology in the Smokies, making extensive use of log slides and incline and overhead skidders.¹⁰⁷

The Little River Lumber Company's timber holdings amounted to approximately 80,000 acres of forest in Tennessee's Blount and Sevier Counties, both within and outside the Great Smoky Mountains. The company established its base of operations in Tuckaleechee Cove outside the present park boundary, where the village of Tuckaleechee was renamed Townsend and a band sawmill was built in 1903. This facility employed hundreds of men and produced as much as 120,000 board feet of lumber daily. Also in the village was the company's combined office and railroad station. This wood-frame cottage was located on Route 73, a few miles outside the current park boundaries.¹⁰⁸ Logging within the future Great Smoky Mountains NP was pursued first on the West Prong and Laurel Creek tributaries of the Little River and then shifted to the East Prong. The company established a semi-permanent camp called Tremont, then a second one ca. 1907 at Elkmont. A much smaller camp with a commissary was also established on Fish Camp Prong. The company built its 18 mile long Little River Railroad from the Southern Railroad at Marysville, Tennessee, through Walland and Townsend and along the East Prong of the Little River to Elkmont at a cost of about \$360,000. The Little River Railroad became an early carrier of tourist passengers and, thus, an important factor in opening the Smokies to recreational uses (see Section E.3).¹⁰⁹

The Elkmont and Tremont camps each included a hotel for lumber buyers and other visitors; housing for workers; and a commissary, church, and school.¹¹⁰ Tremont had an equipment servicing facility and at least twenty camp houses clustered on tributaries of the West Fork. A two-story, twenty-two-room hotel served as a boarding house. A multi-story building nicknamed the "House of Education, Salvation, and Damnation" was a multi-purpose grammar school, church, movie house, and recreation center. A baseball field adjoined the school.¹¹¹ Elkmont provided a base of operations for logging in

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¹⁰⁷ Eller, Miners, Millhands and Mountaineers, 107.

¹⁰⁸ This building was listed in the National Register in 1974 but subsequently destroyed by fire. Michael Cranberry, *National Register Nomination: Little River Lumber Company Office* (1974).

¹⁰⁹ Banker, Appalachians All, 116–117; Robin Bible, "Stringtowns: Early Logging Communities in the Great Smoky Mountains" Forest History Today (Spring 2002), 31; Eller, Miners, Millhands and Mountaineers, 107.

¹¹⁰ Banker, *Appalachians All*, 119–120; Ed Trout, "Logging in Sevier County" (typescript, 1985, Great Smoky Mountains National Park, Gatlinburg, TN), 13–24; Eller, *Miners, Millhands and Mountaineers*, 107; Lambert, "Logging in the Great Smoky Mountains," 52–58; Bums, *History of Blount County*, 230–31.

¹¹¹ Bible, "Stringtowns," 32.

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the upper watershed of the Little River. This company town was located just north of the confluence of the main stem of the Little River and the Mids Branch, at the present-day location of Elkmont Campground. It included a post office, church, hotel, commissary, and houses and cabins for management personnel and laborers. There was also a large machine shop that could repair and rebuild locomotives, rolling stock, and skidders. In more remote operations areas, the company, like others in the region, utilized temporary "stringtowns" that were moved along the railroad lines. Company scrip was prevalent.¹¹²

The Little River Lumber Company sold its holdings to the Tennessee Park Commission in the 1920s, including most of the facilities and equipment in Elkmont after ca. 1926. However, it retained the right to log on park lands through 1938, extending its operations a decade beyond those of any other company. Estimates of its total cut within the park from 1901 to 1938 range from 560 million to one billion board feet of wood.¹¹³

The Little Pigeon River, ca. 1901 (Sevier County, TN)

Logging in the watersheds of the East and West forks of the Little Pigeon River was largely conducted as small-scale, selective harvesting operations in contract with smaller mills in the area. Along the West Fork, such mills were located within the park at the site of the present-day Chimneys Picnic Area and on Sugarland Mountain, and additional mills processed Smoky Mountain logs in the Gatlinburg vicinity and at Sevierville, Tennessee (both outside the park). The Champion Fibre Company later acquired large holdings on the West Fork but never commenced logging operations there.

Small portable mills operated during the early 1900s in the Greenbrier Cove vicinity on the East Fork of the Little Pigeon River. Schieffelin and Smith, dealers in mountain timberlands, acquired lands in this vicinity about 1901 but completed little logging before selling their holdings to the Champion Fibre Company at an unknown date. Champion's plans for railroad-based logging operations on these tracts were never implemented.¹¹⁴

Big Creek and Crestmont, ca. 1880–1918 (Haywood County, NC)

Logging of specimen trees began in the Big Creek watershed in the 1880s under the Scottish-Carolina Timber and Land Company. Scottish entrepreneur Alexander A. Arthur founded this firm after creating a logging and coal mining empire in Kentucky. However, his efforts in Haywood County were limited due to technological and operational difficulties. The North Carolina Land and Timber Company bought much of Arthur's holdings but quickly sold them to the Cataloochee

¹¹² Bible, "Stringtowns," 30.

¹¹³ Banker, Appalachians All, 119–122; Trout, "Logging in Sevier County," 13–24; Eller, Miners, Millhands and Mountaineers, 107; Lambert, "Logging in the Great Smoky Mountains," 52–58; Bums, History of Blount County, 230–31.

¹¹⁴ Lambert, "Logging in the Great Smoky Mountains," 59-62.

Lumber Company, which had more success.¹¹⁵

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In 1902, the Cataloochee Lumber Company extended a standard-gauge railroad from Waterville, North Carolina, up Big Creek to Crestmont (present-day Big Creek), just inside the park boundary. The firm built a band saw mill at Crestmont and ran a logging railroad 3 to 4 miles up the valley. The company went bankrupt in 1904, and the Pigeon River Lumber Company bought its Big Creek holdings ca. 1907. The Pigeon River Lumber Company made a substantial expansion to the Crestmont mill, converting it to a double-band saw and adding a steam-heated drying kiln. The company extended the railroad to a point about 10 miles upstream of the mill and utilized the latest in mechanical logging equipment. The Pigeon River Lumber Company. This firm extended the railroad along several Big Creek tributaries to the flank of Mt. Guyot, which was logged across its east slope. The Suncrest Lumber Company acquired the Big Creek holdings in 1917 and terminated logging operations in the valley in 1918.¹¹⁶

Cataloochee Creek, ca. 1890–1929 (Haywood County, NC)

Cataloochee Creek lay in a more remote portion of the mountains, and industrial-scale logging did not arrive until later in the study period. In the early period of logging, anecdotal accounts describe several small-scale mills in the watershed processing timber cut by local residents or during selective commercial harvesting. A water-powered saw stood above the gristmill on Palmer Creek, a steam-powered mill operated at Ola, and several portable mills moved through the valley. One of the later and larger operations was that of Sheriff William Palmer, who operated a steam-powered sawmill on the Mack Hannah property in Little Cataloochee.¹¹⁷

In the early 1920s, the Parsons Pulp and Lumber Company and the Appalachian Railroad (see discussion of the Raven and Straight Forks of the Oconaluftee River above) extended northeast out of the Oconaluftee River watershed into the Cataloochee Creek watershed via Pin Oak Gap (the vicinity of present-day Balsam Mountain Road). Here, Parsons Pulp and Lumber Company operations were focused around the Lost Bottom (aka Moody) Creek Area. The Suncrest Lumber Company also held about 26,000 acres in the Cataloochee area and, around 1925, routed a branch of its railroad north into the watershed from the vicinity of Saco Gap up through Paul's Gap (present-day Heintooga Ridge Road). Suncrest's sawmill was at Waynesville, North Carolina. After 1928, the Suncrest Lumber Company mounted substantial opposition toward any cessation of logging in the park but halted its activities in 1929 after a court order was issued.¹¹⁸

¹¹⁵ Davis, Where There Are Mountains, 163; Lambert, "Logging in the Great Smoky Mountains," 25–26.

¹¹⁶ Lambert, "Logging in the Great Smoky Mountains," 25-28.

¹¹⁷ Dianne L. Flaugh, Cataloochee Historic District: Draft Cultural Landscape Report, Great Smoky Mountains National Park (Atlanta, GA: U.S. Department of the Interior, NPS, 1999), 26.

¹¹⁸ Catton, A Gift for All Time, 47; Eller, Miners, Millhands and Mountaineers, 109; Lambert, "Logging in the Great Smoky Mountains," 32–33.

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Secondary Logging Areas

The Kitchen Lumber Company operated a hardwood logging operation on Twentymile Creek, a North Carolina tributary of the Little Tennessee River in Swain County, for an unknown period prior to 1926. The company extended a logging railroad about 15 miles up the creek from its base of operations on the river (now flooded under Fontana Lake).¹¹⁹

The woodlands of Forney Creek, Swain County, North Carolina, were subject to selective harvesting by unknown companies prior to 1900. The Norwood Lumber Company acquired these lands in 1906 and began logging in 1910 using inclines. The location of any mill associated with this operation is not known.¹²⁰

NPS and CCC Alterations to Logging Infrastructure

During the formative years of the park's development, most of the logging infrastructure in the park was removed. Many of the logging camps were located on ideal sites for park infrastructure and were demolished and used for recreational camps or other park facilities. The community of Ravensford, North Carolina, is completely demolished; its site is now the Great Smoky Mountains NP Oconaluftee maintenance facility and residential area. The only surviving resource associated with Ravensford is a single concrete Luten bridge across the Raven Fork of the Oconaluftee River (see discussion below). The Smokemont mill and village in North Carolina were removed, and the site now hosts the Smokemont Campground. Reportedly, development efforts by the NPS here included the removal of a steam locomotive, 40 railroad cars, milling equipment, several buildings and homes, and several miles of railroad track. Much of the smaller debris was buried on site; all that remains is the concrete Luten bridge across the Oconaluftee near the campground.

The NPS acquired Proctor, North Carolina, during the 1940s through its agreement with the TVA concerning the Fontana Dam. Prior to the NPS acquisition, the TVA oversaw salvage efforts of the buildings and burned the remainder. The Calhoun House, remains of the drying kiln, a pump house, valve house, and the log pond can still be seen at the site. Fontana is now flooded under Fontana Lake. The lumber camp at Tremont, Tennessee, is now the site of the Great Smoky Mountains Institute. The Little River Lumber Company sold portions of Elkmont, Tennessee, to groups of Knoxville investors who established the Appalachian Club and Wonderland resort communities. With the discontinuance of logging, the tracks were removed and buildings of the camp were gradually demolished ca. 1925–1942, although some residential "set-off" cabins from the camp were modified and incorporated into the "Daisy Town" portion of the Appalachian Club

¹¹⁹ Lambert, "Logging in the Great Smoky Mountains," 46.

¹²⁰ Lambert, "Logging in the Great Smoky Mountains," 38-39.

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vacation community (discussed in Section E.3). The primary camp site is now an NPS campground.¹²¹ Big Creek Campground and Ranger Station occupy the site of the mill village at Crestmont, North Carolina, and no resources survive here from the logging operations.¹²²

The North Carolina and Tennessee public works departments and the CCC (present in Great Smoky Mountains NP between 1933 and 1942) converted many logging railroad beds into roads by widening and resurfacing them. Examples of such works include the Cataloochee Lumber Company's line up Big Creek (now the Big Creek Entrance Road to Big Creek Campground); the Little River Lumber Company's lines on the East, Middle, and West prongs of the Little River (now the Little River Road and Elkmont Road); and the lines of the Parsons Pulp and Paper Company and Suncrest Lumber Company near Balsam Mountain (now the Heintooga Ridge Road).¹²³

Mining in the Counties of the Great Smoky Mountains, 1820–1944

The sequence of geological events that culminated in the creation of the Great Smoky Mountains produced a diverse range of rock formations and associated mineral types that had potential value for subsistence use or extractive industries. Although the footprint of mining activities within the land areas making up Great Smoky Mountains NP was relatively small compared to the scale and intrusion of logging, there was substantial interest in locating mineral resources in the mountains. By one account, there are more than one hundred inactive or abandoned mines near the national park. Within the present park boundaries, evidence for most of these activities is meager or non-existent and includes little in the way of surviving cultural material. All known mining and quarrying locations within the park are briefly discussed below, however, as part of the general context for those resources that remain.¹²⁴

The most important mineral resources within and near the park were its metallic sulfide ores, which were associated with the Copperhill Formation, a dark-gray slaty metasiltstone within the Great Smoky group. These were exploited during the late nineteenth and early and mid-twentieth centuries for production of copper and limited amounts of zinc. A second mineral resource of some consequence in the history of the Great Smoky Mountains was limonite, an iron ore, utilized in at least two park sites during the nineteenth century. Mineral salts produced by sulfide rock were a minor mineral resource. Lastly, the metasedimentary slates, shales, and sandstones provided a source of easily worked building stone and

¹²¹ M. Todd Cleveland, Cultural and Historic Landscape Assessment for the Elkmont Historic District, Great Smoky Mountains National Park, Sevier County, Tennessee (Submitted to Great Smoky Mountains National Park, Gatlinburg, TN, by TRC Garrow Associates, Inc., Atlanta, GA, 2004); Eller, Miners, Millhands, and Mountaineers, 108–9; Lambert, "Logging in the Great Smoky Mountains," 36; Daniel S. Pierce, The Great Smokies: From Natural Habitat to National Park (Knoxville, TN: University of Tennessee Press, 2000), 177–178.

¹²² Lambert, "Logging in the Great Smoky Mountains," 25-27; Oliver, Hazel Creek, 92-93.

¹²³ Catton, A Gift for All Time, 70; Cornelius Maher and Michael Kelleher, "Great Smoky Mountains National Park Roads & Bridges," HAER No. TN-35 (Washington, DC: NPS, US Department of the Interior, 1996), 22–33.

¹²⁴ Seal et al., Preliminary Report on Water Quality Associated with the Abandoned Fontana and Hazel Creek Mines, Great Smoky Mountains National Park, North Carolina and Tennessee (Reston and Denver, CO: US Geological Survey, 1998), 5.

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were quarried at several locations within and close to the park, although the temporal period for this activity is not well documented.¹²⁵

The mining history of the park parallels the broad contours of extractive industries generally in Southern Appalachia. The first documented mining activity (and extractive industry generally) in the region was for iron ore, commenced in East Tennessee between 1790 and 1811 and continued until ca. 1880. Within the future park lands, iron mining and smelting were concentrated in Tennessee's Blount and Sevier counties and were active ca. 1820-1845. Mineral salts were exploited in the early nineteenth century and up through the Civil War for use in patent medicines and saltpeter, an ingredient in gunpowder. In what is now Great Smoky Mountains NP, mineral salts were mined at Alum Cave on Mount Le Conte, Sevier County, Tennessee, between the 1830s and the Civil War. During the 1850s, there was a sudden increase of interest in minerals including zinc, copper, tin, silver, and gold within the Southern Appalachians, and large numbers of prospectors infiltrated the area. Accounts of this activity are largely anecdotal, and the exact reasons for the activity are not known, but likely factors included the presence of iron ore in the area, the imminent arrival of the ETV&G Railroad, and the identification of the Ducktown copper ores. Within the future park, Rich Mountain between Cades Cove and Tuckaleechee Cove, Tennessee, was prospected or mined during this time. Dr. Calvin Post, a physician and mineralogist from Elmira, New York, came to Cades Cove in 1846. Post made extensive but largely unsuccessful explorations of the Cove environs in the hope of finding deposits of gold, silver, copper, and iron and corresponded with or represented New York mineral companies who he hoped would be attracted to the region. Leases issued at this time for lands within the Cades Cove area included references to mineral rights. Thomas Lanier Clingman, for whom Clingmans Dome is named, was a mining prospector as well as a booster, businessman, and US senator. He explored the mountains extensively in this period. Despite the intense scrutiny, no new mines were established in what would become the park in the two decades leading up to the Civil War.¹²⁶

After the interruption of the Civil War years, prospecting and mining continued at a heightened pace in line with regional trends. However, Tennessee's Blount, Sevier, and Cocke counties witnessed no substantial mining activities between 1865 and the establishment of the park. In Western North Carolina, mining of copper ore became the chief mineral extraction activity and occurred primarily within the future park boundaries in Swain County, as discussed below. Haywood County, North Carolina, also fared well. There, the Redmond Lead-Zinc Mine at Shelton Laurel was discovered in 1905 and worked until 1943 (with a brief re-opening in 1951) in campaigns by three companies: Rathbone & Adkins; the U.S. Smelting, Refining, and Mining Company; and the Haywood Mining Corporation. Much of the ore was shipped

¹²⁵ Southworth et al., *Geologic Map of the Great Smoky Mountains National Park Region, Tennessee and North Carolina.* Pamphlet to Accompany Scientific Investigations Map 2997 (Reston, VA: US Geological Survey, 2012), 16; Taylor et al., "Volcanic-Associated Massive Sulfide Deposits," in *Preliminary Compilation of Descriptive Geoenvironmental Mineral Deposit Models*, ed. Edward A. du Bray (Denver, CO: US Geological Survey, 1995).

¹²⁶ Dunn, Cades Cove, 80, 86–87, 270; Frome, Strangers in High Places, 104–105.

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to the Ozark Smelting and Refining Company in Kansas.¹²⁷ Mica extraction was also a noteworthy industry in the early twentieth century: the Franklin-Silva mining district for mica extended across Haywood, Jackson, and Macon counties in North Carolina and produced about 15 to 20 percent of the state's mica output between 1925 and 1965.¹²⁸

Copper Mining in Swain County, North Carolina, ca. 1889–1944

Mining of copper ore was historically the most important extractive industry in Swain County, and several of the county's copper mines were within the future boundaries of Great Smoky Mountains NP. The copper deposits exploited were of the massive, metallic sulphide type (sometimes referred to as the Appalachian sulfide coppers) and composed a small example of a grouping of such ores deposited in belts along the eastern piedmont of the Appalachian chain from Newfoundland, Canada, to Alabama. Sulfide ores were largely unusable for copper production in colonial America—an elaborate and costly pyritic ore smelting process developed at Swansea in Wales gave England a monopoly on copper production for two centuries. Once introduced into the United States, smelting of these ores was a costly, energy-intensive, and complicated process. Therefore, the successful exploitation of sulfide ores in the Great Smoky Mountains and elsewhere depended on a calculus of technological capability for extraction and smelting; market supply and demand; and the costs of raw materials, labor, and transportation.¹²⁹

The metallic sulfide ores are one of two categories of copper ores exploited historically in the eastern United States. The other category was the "oxide" ores (green malachite, blue azurite, reddish black cuprite, or native metal). These ores were less common in the eastern United States than the sulfide type but could be converted to copper through relatively simple direct smelting and were, thus, the more desirable of the two types.¹³⁰

The search for copper was an early focus of miners and entrepreneurs in North America. Not surprisingly, early American copper mines were of the oxide type. The first productive American copper orebody was the Simsbury Mine, which was established around 1707 in Hartford County, Connecticut. Additional modestly scaled oxide ore mines followed in Connecticut; Bellville, New Jersey (prospected in 1813); and northwestern Maryland (opened about 1750). The American Revolution coincided with the practical exhaustion of the known oxide ore deposits.¹³¹

¹²⁷ Jarvis B. Hadley and Richard Goldsmith, "Geology of the Eastern Great Smoky Mountains, North Carolina and Tennessee," *Geological Survey Professional Paper 349-B*, (Washington, DC: US Government Printing Office, 1963), 112; Medford W. Clark, *The Middle History of Haywood County, North Carolina* (Waynesville, NC: Medford W. Clark, 1968), 7.

¹²⁸ Jasper Leonidas Stuckey, North Carolina: Its Geology and Mineral Resources (Raleigh, NC: Department of Conservation and Development, 1965), 419–420.

¹²⁹ Gilbert H. Espenshade, "Geology of Some Copper Deposits in North Carolina, Virginia, and Alabama." Contributions to Economic Geology, Geological Survey Bulletin 1142-I (Washington, DC: US Geological Survey, 1963); Otis R. Young, Jr., "Origins of the American Copper Industry," Journal of the Early American Republic 3 (1983):118.

¹³⁰ Espenshade, "Geology of Some Copper Deposits"; Young, "Origins of the American Copper Industry," 118.

¹³¹ Young, "Origins of the American Copper Industry," 123–125.

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The period 1790–1840 was an unsettled one for copper mines and smelters in the United States. The increased use of copper sheathing on ships' bottoms and tariffs associated with the War of 1812 increased demand for domestic copper, but fuel and transportation costs were a hindrance and the technique for pyritic smelting remained elusive in the country. Domestic smelters recycled old copper or imported oxide ores. Thus, sulfide ores had no domestic market, and the only foreign market was England, where extensive ore deposits were already available. However, the opportunities were sufficient for entrepreneurs to continue to search for copper ore deposits along the Appalachian piedmont. The first substantial sulfide ore deposit was identified and entered production in Orange County, Vermont, from ca. 1795 to 1825.¹³² Other substantial early nineteenth-century mining and smelting efforts took place in Hartford County, Connecticut, and in southeastern Pennsylvania.¹³³

After ca. 1845, American copper mines and smelters were able to leave the margins of the industry and compete directly with British producers. Improved transportation networks reduced the cost of coal. Because British ore deposits were nearing exhaustion, the British smelting industry organized a monopolistic trade association with strict price controls on ore and smelted copper, inadvertently creating a cost advantage for would-be American producers. Entrepreneurs built sizable pyritic smelters in several eastern seaboard cities during the 1840s and 1850s using Welsh and German technologies, thus creating a market for Appalachian sulfide ore. The Vermont mining district was substantially revived and expanded at this time. More importantly, the huge Ducktown, Tennessee, deposits were discovered in 1847, thus bringing awareness of the ore and its market potential to the Southern Appalachian region. Most of the ore extracted from this district in the nineteenth century was shipped to Baltimore for smelting.¹³⁴

While smelters had some success in producing market-quality copper, smelting techniques were inconsistent in quality and not cost effective. The period 1860–1880 witnessed a number of improvements in ore processing and the design of smelting furnaces, although the sulfide mines themselves were moribund at this time due to the exploitation of large deposits of native copper and oxide ores in upper Michigan. One noteworthy experiment in ore processing took place at the Ore Knob Mine in Ashe County, North Carolina. In the 1870s, mine operators leached copper ore with a mixture of hot "copperas" and brine as a means to extract copper from the raw ore.¹³⁵

The development of the electrical power industry introduced an unprecedented demand and price surges for copper at the end of the nineteenth century and during World Wars I and II. As Michigan's high-grade ores were played out, there was a resurgence of investigations into more efficient extraction and smelting of low-grade sulfide ores in the Appalachian

¹³² The ore at this location was initially exploited for the manufacture of "copperas" (iron sulfate), not copper. Copperas was used in tanning, inks, and dyes.

¹³³ Young, "Origins of the American Copper Industry," 128–130.

¹³⁴ Ducktown is in Polk County in southeastern Tennessee and outside this report's study area. Young, "Origins of the American Copper Industry," 130–132.

¹³⁵ Young, "Origins of the American Copper Industry," 132–136.

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region and the American West. These factors were important in making the copper ores of the Great Smoky Mountains worthy of investigation.¹³⁶

State geologists have classified North Carolina copper deposits into three bands or regions according to native rock type and location within the state: the Eastern Zone, the Central Zone, and the Western Zone (the latter inclusive of the Great Smoky Mountains). The Eastern Zone was concentrated in the so-called Virgilina District in parts of Granville and Person counties and in the Gold Hill and Cid districts of Cabarrus, Rowan, Stanly, and Davidson counties. Mines in the Eastern Zone were exploited as early as 1852 or 1853, but the bulk of the activity seems to have occurred from about 1890 to 1910, with small amounts of exploratory work during the 1940s and 1950s. The Central Zone was a marginal production area and hosted a number of small gold and copper mines in Guilford, Cabarrus, and Mecklenburg counties during the early and mid-nineteenth century. The Fentress or North Carolina Mine in this zone was reputedly the first to be exploited for copper in the state, although its opening date is not known.¹³⁷

The Western Zone was historically the most important of the three regions, and all of the noteworthy copper deposits were of the sulphide type. Many of the substantial mines were prospected or opened before 1860, making the Fontana and Adams mines in Swain County relative latecomers but important nonetheless. Between 1890 and 1940, there was intermittent production of copper in the region. By the 1940s, only the Fontana mine was producing ore.¹³⁸ In addition to the Fontana and Adams mines, important copper-producing mines in North Carolina's Western Zone included the Cullowhee Copper Mine and the Ore Knob Mine. The Cullowhee Copper Mine was located in southern Jackson County on Cullowhee Mountain about 2 miles from East LaPort. The mine may have opened before the Civil War, but no details are available concerning its early operation. It was worked between 1900 and 1910 to a small extent, at which time a small smelter operated. The Tennessee Copper Company reopened the mine briefly from 1929–1930 and extracted 4,500 tons of ore containing 4 percent copper, which was shipped off the premises for smelting.¹³⁹

The Ore Knob Copper Mine was a highly productive lode located in Ashe County, North Carolina, 7 miles east of Jefferson. Perhaps the best known of the state's copper mines, it first opened in 1855 shortly after the discovery of Ducktown but closed a year later due to its inaccessibility. It reopened in several campaigns under various owners in 1873–1881, 1896, 1913, 1917–1918, 1927, 1942–1943, and 1953–1962. The mine was abandoned after 1962 when testing determined that the usable ore was exhausted. The 1873–1881 campaign uncovered some remarkable ores that attracted the attention of geologists and mining engineers. During this effort, more than 200,000 tons of ore were mined and

 ¹³⁶ Matthew A. Kierstead, "History and Historical Resources of the Vermont Copper Belt," Society of Economic Geologist Guidebook Series 35 (2001), 176–181; Young "Origins of the American Copper Industry," 137.
 ¹³⁷ Stuckey, Mineral Resources of North Carolina, 281, 286–289.

¹³⁸ H.S. Rankin and C.E. Hunter, "General Information About North Carolina Copper Deposits" (typescript, July 20, 1942), on file in the Mineral Commodity Files at the North Carolina Geological Survey - Division of Energy, Mineral, and Land Resources; Stuckey, *North Carolina*, 282–286.

¹³⁹ Rankin and Hunter, "North Carolina Copper Deposits."

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yielded approximately 12,500 tons of copper. A small smelter was located at the mine and was the site of experimental refining (see discussion above). In the 1953–1962 campaign, an additional orebody was identified that contained an estimated 1.3 million tons of ore, but the production volumes relating to this period are not known. However, the volume was sufficient to justify construction of a new crushing and milling plant.¹⁴⁰

In addition to these more substantial operations, exploratory or small-scale efforts occurred at four other locations in North Carolina's Western Zone. The Savannah Prospect in Jackson County was partially explored about 1900–1910, and the ore vein(s) were found to contain about 5 to 10 percent copper. The Elk Knob Copper Prospect in western Ashe County was partially explored sometime before 1900 and then re-explored about 1940 to 1953. The Wayhutta Copper Prospect was in Jackson County and contained a vein of about 6 ft in width but had a small overall ore body that would not have been cost effective to mine. Within the boundaries of the park, several prospects were explored in the early twentieth century for possible copper ores, but these provided no substantive results. A brief discussion of the prospects in the park is provided below.¹⁴¹

North Carolina copper production has never been large in the national context. Comparison among the state's copper mines on the basis of production is difficult, since production records are incomplete and no records were kept in the late nineteenth century. The total recorded state production for the nineteen years in which statistics were recorded was just over 5.1 million pounds of copper, with a value of approximately \$836,000. Yearly production figures were highly sporadic but averaged 246,268 pounds (123.3 tons) of copper annually for the years recorded (1901–1910, 1912, 1914–1917, 1919, 1923, 1942–1944, 1954, 1955). The lowest recorded production year was 1955, when 300 pounds of copper was produced. The highest production year was 1902, when 1,417,020 pounds was produced. The greatest periods of production were between 1873 and 1883 and 1925 to ca. 1945.¹⁴²

The Adams Copper Mine, Sugar Fork of Hazel Creek, ca. 1889–1944 (Swain County, NC)

The Adams Copper Mine (aka Hazel Creek Mine or Everett Mine) is located in northern Swain County in the headwaters of Hazel Creek, about 5 miles north of Proctor. The history of the mine is marked by a relatively long period of exploratory activity and a brief period of active development.

¹⁴⁰ Rankin and Hunter, "North Carolina Copper Deposits"; Stuckey, North Carolina, 283-284.

¹⁴¹ Espenshade, "Geology of Some Copper Deposits," 35–36; Rankin and Hunter, "North Carolina Copper Deposits." Sulfide deposits may also contain lead and/or zinc ores. A small deposit of this type was exploited between 1905 and 1943 at the Redmond Mine near Shelton Laurel, North Carolina, just outside the park boundaries. Southworth et al., *Geologic Map of the Great Smoky Mountains*, 27. ¹⁴² Production activity with no amounts was recorded for the years 1851, 1852, and 1873–1882. P. Albert Carpenter, "Metallic Mineral Deposits of the Carolina Slate Belt, North Carolina. Bulletin 84" (Raleigh, NC: North Carolina Department of Natural and

Mineral Deposits of the Carolina Slate Belt, North Carolina. Bulletin 84" (Raleigh, NC: North Carolina Department of Natural and Economic Resources, Division of Resource Planning & Evaluation, Mineral Resources Section, 1976), 14–15, Table 1; Stuckey, *North Carolina*, 281–293.

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A man named Fonzie Hall reportedly discovered the orebody in the late 1880s while prospecting for mica. He found an outcrop of gossan on Hazel Creek and, thinking it gold, brought it to a local mineral expert who told him it was copper.¹⁴³ At this time the land was owned by Ep Everett, a Bryson City resident and timberlands speculator.¹⁴⁴ In 1899, a mineral developer from Boston named Walter S. Adams heard of the prospect and bought 200 acres of land in the area. Adams formed the North Carolina Mining Company around 1901 and, between 1900 and about 1920, explored his property by means of a series of trenches and shallow open cuts. A New Orleans resident named George Westfeldt owned lands adjoining those of Adams and contested Adams' development, arguing that he, Westfeldt, owned the prospect. Westfeldt's lawsuit delayed any working of the mine before the case was settled in 1927. Some additional prospecting was performed during the 1920s through driving of ten adits and seven shafts.¹⁴⁵ In 1929 and 1930, the Ducktown Chemical and Iron Company drilled more exploratory holes, locating some additional undeveloped deposits. However, the lack of clear land title inhibited extraction and, up until 1930, the total mine production was only about 1,000 tons. The suppressed demand and prices for copper due to the Great Depression temporarily halted further exploration or development during the 1930s.¹⁴⁶

From December 1942 through 1943, the North Carolina Mining Company reexamined all the identified deposits within the claim and found that the ore also contained substantial quantities of zinc. Based on the evaluations, the mine was determined to be an opportune site for immediate development in support of the World War II effort. With assistance from the U.S. Reconstruction Finance Corporation, the company extracted and shipped 21 carloads of high-grade copper ore of more than 5 percent copper to an outside smelter between 1942 and 1944. This production totaled 1,278 tons of ore that were converted to just over 248,000 pounds of copper worth approximately \$49,000, a modest output in the context of the state production figures for the period. The net return was about \$19,000.¹⁴⁷

The Adams Copper Mine ore body was pipe-like in form and made of curving and overlapping lenses less than 100 ft long and averaging about 3 ft in width. The maximum thickness of the pure sulphide material was about 6 ft. The ore body

¹⁴³ Gossan is the result of the surface weathering of an overlying sulfide deposit. The sulfides leach out, leaving a hydrated iron oxide material. Gossan can be used by prospectors as an indicator of ores below the surface.

¹⁴⁴ Lance Holland, Fontana: A Pocket History of Appalachia (Robbinsville, NC: Appalachian History Series, 2001), 45; Oliver, Hazel Creek, 51–53.

¹⁴⁵ An adit is a horizontal or nearly horizontal passage driven from the surface for working of the mine or dewatering.

¹⁴⁶ Holland, Fontana, 46–49; Rankin and Hunter, "North Carolina Copper Deposits."

¹⁴⁷ Espenshade, "Geology of Some Copper Deposits," 30–32; Portland P. Fox, Earl C. Van Horn, and Robert E. Barnett, *Geology and Ore Deposits of the Hazel Creek Land Company, Tract FR-1132, Westerfeldt Prospect, and a Portion of the Adams Mine* (Knoxville, TN: Tennessee Valley Authority, Water Control Planning Department, Geologic Division, March 1944), 16; G.H. Espenshade, M.H. Staatz, and E.A. Brown, *Preliminary Report: Hazel Creek Mine, Swain County, North Carolina* (Washington, DC: US Geological Survey, April–June, 1943), 2–3; Holland, *Fontana*, 46–49; Joe Livingston, "The Copper Mine at Eagle Creek," last modified May 2002, http://www.ecjones.org/scenery/_Great_Smoky_Mtns_NP/_Eagle_Creek/Fontana_Mine/Fontana_Copper_Mine.pdf; Rankin and Hunter, "North Carolina Copper Deposits"; Stuckey, *North Carolina*, 285; Oliver, *Hazel Creek*, 51–53.

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strikes northeast in an irregular contorted fashion and has a dip of about 25–30 degrees to the south.¹⁴⁸ To follow this deposit, the mine was sunk over 180 vertical feet through drifts along five levels following the mineralized zone. A number of shafts were sunk, some beginning in the floor of the drifts.¹⁴⁹ The workings were accessed through four adits. Little information is available concerning the surface works of the mine. In 1944, a small concentrating mill was added at the mine head. The mill included a jaw crusher, ball mill, rake classifier, and four flotation cells. Production at the mine ceased when the Fontana Dam on the Little Tennessee River was completed in 1944.¹⁵⁰

The Fontana Mine, Eagle Creek, 1901–1944 (Swain County, NC)

The Fontana Mine is located on the headwaters of Eagle Creek about 7 miles northeast of Fontana Dam and about 3 miles west of the Adams Mine in Swain County. In contrast to other instances where gossan was visible at the surface, the outcrop of the Fontana lode was inconspicuous. The exact date and circumstances of the mine's discovery are not known, but it was first exploited ca. 1925 by the Montvale Lumber Company, which extracted a small amount of ore before leasing the mine in 1926 to the Fontana Mining Corporation, an affiliate of the large Ducktown Chemical and Iron Company. The Fontana Mining Corporation purchased the mine outright in 1928 and operated the works profitably until 1931. During this period, the mine produced just over 297,000 tons of ore with an average "carry" of 7.485 percent copper, for a total production of just over 44,000 pounds of copper. In 1931, an affiliate of the Tennessee Copper and Chemical Corporation, the North Carolina Exploration Company, purchased the mine. Under the new owners, the mine produced just over 286,000 tons of ore (about 200 tons of copper ore per day) of similar quality to the earlier campaign, and the ore was smelted at the parent company's facility in Copperhill, Tennessee, in the Ducktown District. The total yield of the mine from 1926 through 1944 was 583,505 tons of ore producing 83,516,000 pounds of copper with a value of more than \$10 million, a substantial output in the context of the limited state production data available. Production at the mine ceased at the time the Fontana Dam was completed in 1944.¹⁵¹ The resulting Fontana Lake flooded the standard and narrow-gauge railroad and nearby highway that provided access to the mine. Cities Services Realty Corporation,

¹⁴⁸ Strike is the course or bearing of a geological feature as measured at the surface. Dip (or pitch) is the angle at which the geological feature is inclined from the horizontal, as measured perpendicular to the strike. Espenshade, Staatz, and Brown, *Preliminary Report: Hazel Creek Mine*, 5.

¹⁴⁹ Rankin and Hunter, "North Carolina Copper Deposits."

¹⁵⁰ W.H. Emmons, "A Report on the Fontana mine, Swain County, North Carolina" (Typescript, August 1942, Mineral Commodity Files, Division of Energy, Mineral, and Land Resources, North Carolina Geological Survey), 42; Espenshade, "Geology of Some Copper Deposits," 131.

¹⁵¹ Emmons, "Report on the Fontana Mine," 1–3; W.H. Emmons "A Valuation of the Fontana Mine" (Typescript, March 15, 1943, Mineral Commodity Files, Division of Energy, Mineral, and Land Resources, North Carolina Geological Survey); Fox, Van Horn, and Barnett, *Geology and Ore Deposits*; Stuckey, *North Carolina*, 284–285.

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which acquired the mine at an unknown date from the North Carolina Exploration Company, retained title to the mine as a park in-holding until 1983, when the NPS purchased the property.¹⁵²

The Fontana Mine ore body was a single vein having a strike of about north 45–60 degrees east and a dip of approximately 40 degrees to the southeast. The vein and neighboring mineralized zones varied in width from a few inches to as much as 40 ft, though much of the mine's development followed an ore body less than 12 ft in width. The mine's workings were substantially larger than those of the Adams Copper Mine. Ore was taken from the mine about 3,000 ft down the dip.¹⁵³ As of 1942, the mine extended down 20 levels, or about 1,700 vertical feet.¹⁵⁴ The highest point of the mine was an air shaft at 1,941 ft above sea level. The mine was accessed via an adit at 1,801 ft above sea level (Level 1), where a skip was provided for miners and materials. Level 1 also contained a blacksmith shop, steel sharpening shop, and other service facilities.¹⁵⁵

Fontana's ore was sufficiently rich not to require beneficiation prior to shipment, excepting a small amount of hand sorting and select mining.¹⁵⁶ The surface works established for the mine consisted of two groupings of buildings and structures. At the mine head on what is now the Mine Branch of Eagle Creek were the hoist headframe, tipple, engine, and steam boiler; a narrow-gauge railway incline; and three or more wood-frame equipment sheds for a compressor, carbide lamp supplies, and a machine shop. South of the mine head at the confluence of Mine Branch and Ecoah Branch was the mine's administrative and residential complex. This camp-like grouping included about eight to twelve buildings of mostly wood-frame construction. These included staff housing and bunkhouses; a combined post office, drilling core shed, and barber shop; a steam plant for the incline; and a school and/or church. As noted above, the ore was smelted elsewhere. A mine-owned narrow-gauge railway about 3.5 miles in length connected the mine to the former Carolina and Tennessee Southern Railway at Fontana, North Carolina, where an ore dump was located.¹⁵⁷

¹⁵² The mine's profitability is not known but was assumed by geologists evaluating the mine at the time of its operation to be substantial given the grade of ore. Emmons, "A valuation of the Fontana Mine," 51; Espenshade, "Geology of Some Copper Deposits," 27–30; Holland, *Fontana*, 57; Clarence S. Ross, "Origin of the Copper Deposits of the Ducktown Type in the Southern Appalachian Region," *Geological Survey Professional Paper 179* (Washington, DC: US Government Printing Office, 1935), 92.

¹⁵³ Rankin and Hunter, "North Carolina Copper Deposits."

¹⁵⁴ Emmons, "Report on the Fontana Mine."

¹⁵⁵ Emmons, "Report on the Fontana Mine," 12; Espenshade, "Geology of Some Copper Deposits," 27–30. A skip is a large metal bucket drawn by a hoist and used in vertical or inclined shafts.

¹⁵⁶ Transportation costs only warranted removal of the high-grade ore (containing more than 5 percent copper). The marginal mineralized material adjacent to the ore body was left in the mine. Emmons, "Report on the Fontana Mine"; Rankin and Hunter, "North Carolina Copper Deposits."

¹⁵⁷ This railway was constructed by the Montvale Lumber Company and was included in the 1928 sale of the mine. Emmons, "Report on the Fontana Mine," 12; Holland, *Fontana*, 50–53; Livingston, "The Copper Mine at Eagle Creek."

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Minor Copper Prospects within Great Smoky Mountains National Park

The Westfeldt Mine (aka Westfeldt Prospect) was sited about 0.5 miles northwest of the Adams Copper Mine on a small tributary to Haw Gap Branch, a tributary of Hazel Creek in Swain County, North Carolina. There is little information concerning its historical development, but the prospect was established about 1900, possibly by Walter S. Adams and his North Carolina Mining Company. Between 1900 and ca. 1910, miners dug five adits and two shafts along 600 ft of stream bank. The main shaft reached a depth of approximately 100 ft. By the 1940s, the site consisted of a few pieces of abandoned mine equipment, an old shaft filled with water, and a dump of about 200 yards of waste rock.¹⁵⁸

At unknown dates in the early twentieth century, G. I. Calhoun of Proctor made several prospecting forays within the future bounds of the national park in North Carolina. He established the Calhoun Prospect in the Bone Valley Creek drainage upstream of Hazel Creek. Explorations consisted of a 20 ft long trench and side excavations. Calhoun also made explorations on the crest of Silers Bald and at Locust Gap near Walker Creek, but no significant excavations occurred at either location.¹⁵⁹

Iron Mining in Blount and Sevier Counties, Tennessee, ca. 1820-ca. 1900

Blount and Sevier counties fall within the so-called Eastern Iron Belt in Tennessee, a limonite, hematite, and magnetite iron ore-producing district extending along the Tennessee/North Carolina border at the foot of the Unaka Mountains. The deposits were primarily limonite, which is the product of weathering (oxidation and hydration) of iron-rich rocks or minerals and the re-deposition of the resulting iron oxide as brown or yellowish earthy concretions. Historically, the Eastern Iron Belt was recognized as having the largest, if not the richest, ore deposits in the state, and the deposits of Blount County were known for their purity. Within the study period, iron manufacturers identified and exploited limonite deposits throughout the Eastern Iron Belt and smelted them in blast furnaces and bloomery forges. The coves and other low-lying areas of Blount and Sevier counties within and near what became the national park were host to several extraction and bloomery forge sites, although direct linkages between specific extraction and smelting sites have not been established.¹⁶⁰

Prior to the Civil War, economic circumstances and limited transportation facilities dictated that limonite mining and iron production in these regions were co-located to some degree. However, markets for iron were both local and regional in nature. The first iron-smelting facilities were established in East Tennessee in Hawkins and Sullivan counties in about

¹⁵⁹ Espenshade, "Geology of Some Copper Deposits," 36.

¹⁵⁸ Espenshade, "Geology of Some Copper Deposits," 35; Fox, Van Horn, and Barnett, *Geology and Ore Deposits*, 10–12.

¹⁶⁰ According to state geologic surveys, there were historically no iron ore resources or ironworks within the counties making up the North Carolina side of the park. J. B. Killebrew, *Iron and Coal of Tennessee* (Nashville, TN: Printers to the State, 1881), 5–7; Southworth et al., *Geologic Map of the Great Smoky Mountains National Park*, 39; Stuckey, *North Carolina*, 310–319.

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1790 and 1811, respectively, and exploitation of iron resources in the southern counties of East Tennessee followed in the 1820s and 1830s after the Cherokee Indians ceded these territories. Frontier ironworks of the 1790s and early 1800s produced a variety of goods. Blast furnaces cast pig iron as a bulk commodity and also consumer goods such as hollowware (kettles, pots, and pans), stoves, and firebacks. Bloomery forges primarily produced malleable wrought iron, or bar iron, that was sold as a bulk commodity. Smiths or machinists could work the bar iron into numerous items including nails, horseshoes, hinges, wagon tires, and axe heads. As of 1854, there were about nine blast furnaces and thirty-nine forges in the counties of the Eastern Iron Belt, which by this time was one of the most productive iron-making areas in the southern Appalachians. Production in this region helped Tennessee become a modest producer of iron in the national context in the antebellum period. In 1840, Tennessee ranked third highest in bar iron production (9,673 tons of 197,233 tons nationally) and sixth-highest in cast iron production (16,129 tons of 286,906 tons produced nationally).¹⁶¹

Iron works suffered significantly during the Civil War. By 1880, the number of bloomery hearths and forges in East Tennessee was reduced to perhaps twenty. As had been the case before the War, these were small to medium-sized bloomery hearths and forges that each produced about 10 to 100 tons of merchant bar iron. The War was one of several setbacks and disadvantages that contributed to the demise of the industry by ca. 1900. The inefficient transportation infrastructure was a competitive disadvantage, especially as markets nationalized after the Civil War. After the mid-century, a surplus in the iron market caused prices to fall, making the mountain forges even less competitive. The Eastern Iron Belt's ores were also less rich than other parts of the state. The development of railroads to richer ore beds in the late nineteenth century allowed their shipment to established industrial centers such as Chattanooga, where coal or coke was more readily available and iron manufacture could be pursued at a larger scale for regional and national markets. Thereafter, the number of iron furnaces in the Eastern Belt was substantially diminished.¹⁶²

Fuel for blast furnaces and bloomery forges throughout the study period was primarily charcoal derived from local forests. Colliers would cut and stack wood, cover it with earth, and then burn it in the resulting oxygen-deficient environment. The smelters required substantial amounts of charcoal. Large forested tracts were reserved for charcoal production, and deforestation was a significant environmental effect of the industry. Charcoal production was completed by colliers, who would establish short-term camps at production sites. Iron production required skilled workers (forge masters) to operate

¹⁶¹ R. Bruce Council and Nick Honerkamp, *Industry and Technology in Antebellum Tennessee: The Archaeology of Bluff Furnace* (Knoxville, TN: University of Tennessee Press, 1992), 46–47; Davis, *Where There Are Mountains*, 149–153; Robert B. Gordon, *American Iron 1607–1900* (Baltimore, MD: Johns Hopkins University Press, 1996), 82–85, Appendix B; Killebrew, *Iron and Coal of Tennessee*, 14–41; James M. Safford, *Geology of Tennessee* (Nashville, TN: S.C. Mercer, Printer to the State, 1869), 455.

¹⁶² Council and Honerkamp, Industry and Technology in Antebellum Tennessee: The Archaeology of Bluff Furnace, 46–47; Davis, Where There Are Mountains, 149–153; Gordon, American Iron 1607–1900 (Baltimore, MD: Johns Hopkins University Press, 1996), 84–85; Killebrew, Iron and Coal of Tennessee, 14–41; Safford, Geology of Tennessee, 455.

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blast furnaces and forges and a larger unskilled labor pool. In the antebellum period, a substantial portion of the labor pool consisted of slaves.¹⁶³

Geologic surveys identified limonite pits or mines at several locations within Blount and Sevier counties. Limonite extraction activities occurred within the park at Cades Cove and to the north of the park at Tuckaleechee, Miller, and Wears coves.¹⁶⁴ Unfortunately, the temporal periods of such activities are not provided in the literature. Multiple forging operations occurred during the early and mid-nineteenth century in Blount and Sevier counties, presumably using the limonite from the above locations. At least two unnamed iron works were active in Blount County during 1820, as reported in the census of that year. Miller's Cove hosted Blount County's largest ironworks, the Amerine Forge. George Amerine ran this furnace on Hess's Creek from 1845 until the Civil War. He produced bar iron and was noted for having produced 15 tons of this product in 1856. According to secondary sources, "a few slag heaps from this mining operation remain visible."¹⁶⁵ Other short-lived operations included ironworks in Tuckaleechee Cove and the Shields Bloomery Forge. The former operated for only a few years in the 1830s before it was destroyed in a flood. The latter was located on the Little River at Sunshine until it was destroyed in a flood in 1850.¹⁶⁶

Bloomery forge operations occurred at two locations within the park: the Cades Cove Forge and the Abram's Creek Forge, both in Blount County. In Cades Cove, Thomas and William Tipton, who were experienced iron workers, established an "iron works" on Forge Creek at an unknown date prior to 1821, making it one of the earlier such operations in Blount County.¹⁶⁷ Deed records for Cades Cove from the 1820s contain numerous references to "forge tracts" for either minerals or timberland for charcoal production. The Tiptons sold the forge to Robert Shields in 1834, but it is not known whether Shields operated the forge while it was under his ownership. In 1837, Daniel D. Foute acquired the forge, which came to be known as the Cades Cove Bloomery Forge. Foute operated the forge until ca. 1847, when it was reported to be abandoned. By 1859, the forge was reported to have almost disappeared. Mid-twentieth-century geological surveys of Cades Cove identified overgrown pits and waste piles in a limonite deposit at an unspecified location in the southwest part of the cove, while county histories state that the ore source was removed 1 mile to the northeast of the forge. These two accounts may refer to a single ore mine.

¹⁶³ Council and Honerkamp, Industry and Technology, 46–47; Davis, Where There Are Mountains, 149–151; Gordon, American Iron 1607–1900, 82–83, Appendix B; Killebrew, Iron and Coal of Tennessee, 14–41; Safford, Geology of Tennessee, 455.

¹⁶⁴ Robert B. Neuman and Willis H. Nelson, "Geology of the Western Great Smoky Mountains Tennessee," *Geological Survey Professional Paper 349-D* (Washington, DC: US Government Printing Office, 1965), 32, 73.

¹⁶⁵ Since slag is a by-product of smelting, not mining, it is not clear whether this statement references the mine works or the forge. Burns, *History of Blount County*, 244–245; Thomason, *Multiple Property Documentation Form: The Historic and Architectural Resources of Blount County, Tennessee.*

¹⁶⁶Elizabeth Cahill, "The Cades Cove Bloomery Forge" (Draft Master's Thesis: The University of Tennessee, 2007); Thomason, Multiple Property Documentation Form: The Historic and Architectural Resources of Blount County, Tennessee.

¹⁶⁷ This date and the date of Foute's acquisition of the forge were established through primary source research by master's candidate Elizabeth Cahill. These dates revise Durwood Dunn's earlier account of the history of the forge. Cahill, "The Cades Cove Bloomery Forge"; Dunn, *Cades Cove*.

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In 1827, James Carson established Carson's Iron Works on Abram's Creek near Happy Valley, just north of Pine Mountain. Foute acquired these works at an unknown date and operated them as the Abram's Creek Forge until 1847. Daniel Foute was an important figure in the mid-nineteenth-century development of Cades Cove. In addition to the forges, he operated a resort hotel at Montvale Springs between 1843 and 1850 and instigated or sponsored several road-building projects. It is not known whether he had direct experience with iron forging or whether he employed a forge master.¹⁶⁸

Other Mining and Quarrying Activities

Stone quarrying and mineral salt mining were lesser-known and relatively minor extractive industries in Great Smoky Mountains NP. Longarm Quartzite is a medium-grained metasedimentary rock within the Snowbird Group that is good for dimension building stone. It was quarried within the park just northeast of Ravensford, Swain County, North Carolina, at a location between the present-day Blue Ridge Parkway and the Oconaluftee River. This stone was used during the 1930s for the construction of the Park Service Headquarters at Gatlinburg, the Oconaluftee Ranger Station, and other park structures. No information could be found on the name of this quarry or when it was opened. Superintendent reports also provide anecdotal evidence of additional project-specific NPS quarrying for building stone during the 1930s at the "old quarry site" near the Sugarlands Headquarters Area and the Old Sugarlands Trail, along the Newfound Gap and Clingmans Dome roads rights-of-way, and in the Smokemont vicinity. No information concerning the age of the "old quarry" at Sugarlands could be located. These construction quarries may now be obscured by the roads or other landscaped areas.¹⁶⁹

In the late nineteenth century, quarry operators established an industry extracting slate from the so-called "Pigeon" formation of East Tennessee at multiple points along the Little Tennessee River in Blount Country, East Tennessee. Slates of the Pigeon formation are grey-blue, blue, or purple in color; of a fine, even grain that easily split; and were found to be suitable for roofing and electrical devices. Within future lands of Great Smoky Mountains NP, perhaps three to five slate quarries or operations were opened on Abrams Creek's Panther Creek tributary, about 2 miles east of Chilhowee Dam. The Chattanooga Slate Company established the first of these (which were also the first commercial slate quarries in East Tennessee) when the company opened three quarries in 1895 to obtain roofing slates. The slates were brought down the creek valley on a former logging railroad or cable tram (records are unclear concerning the exact nature of the transportation infrastructure) to the Little Tennessee River, where they were shipped out by boat. Most of these slates

¹⁶⁸ Foute also owned slaves of an unknown number, but there is no evidence suggesting that he used these slaves at his forge or mining location. Banker, *Appalachians All*, 62; Burns, *History of Blount County*, 244–245; Dunn, *Cades Cove*, 82–85; Neuman and Nelson, "Geology of the Western Great Smoky Mountains National Park," 32, 73.

¹⁶⁹ Branch of Engineering, "Ravensford Tract and Vicinity, Drawing No. 5387" (Gatlinburg, TN: NPS, April 15, 1940); Dianne Flaugh, Cultural Resources Manager, email communication, January 29, 2014; James A. Jacobs, "Great Smoky Mountains National Park, Administration Building," HABS No. TN-256 (Washington, DC: NPS, draft dated 2012); Hadley and Goldsmith, "Geology of the Eastern Great Smoky Mountains," 73; Southworth et al., *Geologic Map of the Great Smoky Mountains National Park*, 12; Superintendent's Monthly Reports, March 1934, 10; April 1936, 3–4; May 1937,4; October 1938, 6; December 1938, 12.

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were sold in Chattanooga, with a lesser quantity sold in Maryville, Tennessee. In 1903, the Tennessee Slate Company was forced to sell its Panther Creek quarries by court action, apparently due to financial hardship brought about by the quarries' limited rail access and a stockholder lawsuit. Around 1932, J. T. Roberts, who had experience operating slate quarries in Georgia and Vermont, engaged in further prospecting on Panther Creek and may have opened a fourth and fifth quarry in the watershed. Currently, some remains of the cable tram and rail system are located in the Panther Creek watershed within the park boundaries.¹⁷⁰

Alum Cave on the slopes of Mount Le Conte in Sevier County, Tennessee, contains "blooms" of sulfate salts produced by the weathering of pyrite-rich shale. Prior to the Civil War, small-scale exploitation of these deposits occurred for the manufacture of "alum" hair salts, Epsom salt (a sulfate of magnesia), copperas, and saltpeter. In 1838, Ephraim Mingus, Robert Collins, and George Hays of North Carolina formed the Epsom Salts Manufacturing Company and bought Alum Cave. They constructed a camp at the base of the bluff and built hoppers and vats for processing the salts, which were brought to market on Knoxville on horseback. In 1854, finding that the mine was too remote to be worked profitably, Mingus, Collins, and Hays sold the cave to some East Tennessee investors. Saltpeter was a critical ingredient of gunpowder, and this cave, along with many others of the region, was the subject of intense interest on the part of the Union and Confederate armies during the Civil War. A Confederate force was stationed at Gatlinburg to protect the Alum Cave supply. In December 1863, two companies of Union soldiers evicted these troops and gained control of the mine in the Battle of Gatlinburg. Unknown parties made additional attempts to mine Alum Cave in the immediate Post-bellum period but also failed because of the mine's remote location. No known cultural resources are affiliated with this activity.¹⁷¹

3. Recreation and Tourism in the Great Smoky Mountains, 1900-1942

The mountainous sections of Western North Carolina and East Tennessee have been a magnet for visitors since the early nineteenth century. The moderate climate, breathtaking scenery, and many recreational opportunities of the area were at first known only to a few. As wealth and leisure became more widely distributed and the railroad and the automobile brought increased mobility, annual visits to these mountains increased from the hundreds to the millions. The coming of

¹⁷⁰ The Pigeon formation's name is derived from its proximity to the Little Pigeon River in Sevier County, Tennessee. The quarries are supposed to have operated until about 1940, although who operated them after the demise of the Tennessee Slate Company is unclear. No slate quarries within the park were visited for the preparation of this MPDF, as there are no intact buildings or structures that required evaluation under the methodology. H.C. Amick, "Slates of East Tennessee," *Economic Geology* 34 (1939), 455–457; F.M. Grace, "Slates in East Tennessee," *Stone* 9 (October 1894), 434–435; T. Poole Maynard, "The Pigeon Slates of Tennessee," *Stone* 34 (1913), 82; Stone, "The Slate Trade," *Stone* 26 (October 1903), n.p.; WBIR-TV 10, Knoxville, "Slate Quarries of Panther Creek" (video on website, http://www.wbir.com/video/1777188099001/1/Slate-Quarries-of-Panther-Creek-, 2015).
¹⁷¹ Joseph C. Douglas, "Miners and Moonshiners: Historic Industrial Uses of Tennessee Caves," *Midcontinental Journal of*

¹⁷¹ Joseph C. Douglas, "Miners and Moonshiners: Historic Industrial Uses of Tennessee Caves," *Midcontinental Journal of Archaeology* 26 (Fall 2001), 253; Edwin J. Foscue, "Gatlinburg: A Mountain Community," *Economic Geography* 21 (July 1945), 197; Hammerstrom et al., "Weathering of Sulfidic Shale and Copper Mine Waste: Secondary Minerals and Metal Cycling in Great Smoky Mountains National Park, Tennessee, and North Carolina, USA," *Environmental Geology* 45 (2003), 39; Pierce, *The Great Smokies*, 16–17. Southworth et al., *Geologic Map of the Great Smoky Mountains National Park*, 27.

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Great Smoky Mountains NP and its program of road building greatly facilitated recreational use of the mountains.

Planters from the Carolina low country seeking to avoid the heat and disease of the summer season were the first to discover the resort possibilities of the North Carolina mountains. In 1827, the completion of the Buncombe Turnpike from Greenville, South Carolina, to Greenville, Tennessee, opened Western North Carolina to the coastal elite. Within fifteen years, Flat Rock, the Cashiers Valley, Asheville, and Warm Springs near the Tennessee/North Carolina border were established summer resorts. Wealthy families bought large tracts and created estates with spacious houses and elaborately landscaped grounds. Wade Hampton's High Hampton property at Cashiers and Christopher C. Memminger's Rock Hill at Flat Rock were examples of notable estates.¹⁷² People of more modest means stayed at inns or hotels, such as the Farmers Inn at Flat Rock. Traveling by private carriage or stagecoach, the low-country families arrived with their retinues of slaves in May and returned to their coastal properties in October or November.¹⁷³

Many summer visitors sought the health-giving waters of the numerous mountain springs. In 1831, James Patton opened an inn at Warm Springs, on the French Broad River 35 miles by carriage northwest of Asheville, just a few miles shy of the Tennessee line. Warm Springs, later renamed Hot Springs, rapidly became a popular summer destination for Carolina and Tennessee families. In 1832, Daniel D. Foute opened a log hotel in Blount County, Tennessee, at Montvale Springs near Chilhowee Mountain, just outside the current northwest park boundary. In the 1850s, a subsequent owner built a three-story frame hotel and approximately fifty cottages to accommodate a steady flow of summer visitors, mostly from Georgia, Tennessee, and Alabama. The mountain resorts thrived until the Civil War, and many were able to resume operations after hostilities ended. Smaller resorts developed in the 1870s at Mount Nebo Springs in Miller Cove and at Kinzel Springs in Tuckaleechee Cove, both in Blount County.¹⁷⁴

The construction of a rail line from Knoxville to Maryville, Tennessee, in 1868 and the extension of the Western North Carolina Railroad to Asheville in 1880 made the mountain hotels and resorts accessible to many more visitors. The resort hotels offered dining and dancing, billiards, nine pins, walks on landscaped grounds, and carriage and horseback excursions to nearby scenic spots. Because of poor roads and trails, only the most adventurous visitors, often hunters and fishermen, ventured into the Smokies themselves. No inns existed in the more remote regions, so hikers and sportsmen had to either carry a tent and provisions or seek accommodations at cabins along the way.¹⁷⁵

¹⁷² In 1945, poet and Lincoln biographer Carl Sandburg purchased Rock Hill, then known as Connemara. After Sandburg's death, the NPS opened the property to the public as Carl Sandburg Home National Historic Site in 1974.

¹⁷³ Lawrence Fay Brewster, Summer Migrations and Resorts of Low-Country Planters (1947; Reprint, New York, NY: AMS Press, 1970), 7–9, 63–70, 86; Ora Blackmun, Western North Carolina: Its Mountains and Its People to 1880 (Boone, NC: Appalachian Consortium Press, 1977), 202–3, 289–95.

¹⁷⁴ Blackmun, Western North Carolina, 294–95; Burns, History of Blount County, 79–91.

¹⁷⁵ John J. Van Noppen and Ina Woestemeyer, *Western North Carolina Since the Civil War* (Boone, NC: Appalachian Consortium Press, 1973), 253–54; Burns, 235.

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An 1883 guidebook titled *The Heart of the Alleghanies or Western North Carolina* provides a revealing glimpse of conditions for travelers in the Great Smokies before the automobile age. The authors, Wilbur Zeigler and Ben Grosscup, described the resort hotels at Asheville, the major springs, and several mountain fishing and hunting excursions, some into areas later incorporated into the national park such as Oconaluftee and Clingmans Dome. The book included the names of cabin owners who were willing to feed and lodge visitors. For instance, those seeking to take a fishing trip to the Cataloochee Creek watershed could find accommodations at Mr. Palmer's "roomy house."¹⁷⁶ During a deer hunt up Eagle Creek, the authors noted that they encountered no dwelling for the first 10 miles before reaching the double cabin of brothers Jake and Quil Rose. Zeigler and Grosscup advised against venturing into the Smoky Mountain fastnesses without a good guide.¹⁷⁷

The first resorts catering to recreation seekers developed in the early twentieth century. The extensive operations of the Little River Lumber Company (described in Section E.2) led to the development of Elkmont in Sevier County, Tennessee, as a resort community. In 1907 and 1908, the company ran a standard gauge rail line up the East Prong of Little River and established a lumbering town at Elkmont, which served as headquarters for operations in the East Prong watershed. The company railroad's connection with the Knoxville and Augusta line at Walland allowed daily passenger service between Knoxville and Elkmont to begin in 1909. Eager to get some return on its cut-over lands, in 1910 the Little River Lumber Company sold 50 acres along Jakes Creek just upstream from the town of Elkmont to the Appalachian Club. The company also leased exclusive hunting and fishing rights on 40,000 acres to the club. The club, whose members were mostly Knoxville businessmen, built a clubhouse/hotel and allowed members to construct their own cottages. The Appalachian Club eventually comprised the clubhouse/hotel and about fifty-five cottages in three distinct communities: "Daisy Town," lining both sides of the road south of the clubhouse to its intersection with Jakes Creek Road; "Society Hill," farther south along Jakes Creek Trail leading up the mountain; and "Millionaires' Row," to the east along the Little River. The original clubhouse burned in the early 1930s; the present clubhouse dates to 1934.¹⁷⁸

In 1912, the Wonderland Park Company constructed the Wonderland Hotel on 65 acres just south of Elkmont that were also purchased from the Little River Lumber Company. Owned by three Knoxville brothers, John P., Charles, and T. M. Carter, the Wonderland Park Company aimed to make quick profits by selling off hundreds of small lots to would-be builders of vacation homes. Disputes among the brothers caused them to sell their holdings in 1913 to a group of Knoxville businessmen who turned Wonderland into a resort similar to the Appalachian Club operation. Club members

¹⁷⁶ Wilbur G. Zeigler and Ben S. Grosscup, *The Heart of the Alleghanies or Western North Carolina* (Raleigh, NC: Alfred Williams and Co., 1883), 125. The Palmer family belonged to the first group of European settlers in Cataloochee in the mid-1800s and remained there through the 1930s. The guidebook does not indicate which Mr. Palmer provided lodging for recreational fishing tourists in 1879. ¹⁷⁷ Zeigler and Grosscup, *The Heart of the Alleghanies*, 124–29, 145–53.

¹⁷⁸ Thomason and Associates, *The History and Architecture of the Elkmont Community*, Report Prepared for the NPS, Southeast Region (Nashville: Thomason and Associates, 1993), 8–10; John Ogden Morrell, "A Brief History of the Appalachian and Wonderland Clubs within the Great Smoky Mountains National Park" (typescript, 1976, Great Smoky Mountains NP, Gatlinburg, TN), 1–2.

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built a hotel annex in 1920 and constructed about twenty detached cottages.¹⁷⁹

The well-to-do summer residents of the two clubs at Elkmont enjoyed swimming, hiking, picnicking, horseback riding, fishing, and games like croquet, badminton, and horseshoes. Bands from Knoxville provided music for dancing on Saturday nights. Both clubs rented rooms in their clubhouse/hotels to the general public when demand from members was slack. Individual cabin owners also were free to rent out their quarters, giving the two clubs a semi-public character. By the time the Little River Lumber Company discontinued train service and removed its tracks to Elkmont in 1925, many club members were driving most of the way to Elkmont, either along a rough gravel road from Gatlinburg that ran along Fighting Creek or via a road through Maryville to Townsend. Following the removal of the railroad tracks, the roadbed from Townsend to Elkmont was converted to a motor road.¹⁸⁰

Burgeoning automobile ownership in America in the 1920s and the concomitant pressure for the construction of good roads dramatically changed recreational patterns in the Great Smokies and elsewhere. Unlike railroads, which usually brought people to fixed resort locations like Elkmont or the various springs, automobiles allowed visitors to ramble more widely, on their own timetables, carrying their fishing and camping gear and provisions with them. Automobile registrations nationwide jumped from 458,000 in 1910 to eight million in 1920 and twenty-three million in 1930. As auto ownership became available to broad sections of the public, motorists and the industries tied to the automobile (petroleum, tires, asphalt, and cement) organized to demand better roads. Increasing auto ownership, lobbying for better roads, and the promoting recreational areas were firmly linked in the 1920s and after. Typical of this convergence of interests was the central role of the Knoxville Automobile Club in the successful effort to establish Great Smoky Mountains NP, described more fully in Section E:4.¹⁸¹

Road building efforts in the 1920s greatly improved access to the Great Smokies. In 1922, it took four hours to drive from Knoxville to Sevierville; by 1925, a new macadamized road put Gatlinburg within one-and-one-half hours of Knoxville. The first motor road over the Smokies opened in 1932, connecting Gatlinburg and Cherokee via Newfound Gap. Later improved substantially by the NPS (see Section E.4), this road was critical in opening the Smokies to tourism on a massive scale. By the late 1920s, Rich Mountain Road, a passable hard-surface road from Tuckaleechee Cove over Rich Mountain into Cades Cove, increased tourist interest enough for several Cades Cove families to offer accommodations to travelers. Among these were establishments maintained by Walter Whitehead and John Oliver, neither of which still

¹⁷⁹ Thomason and Associates, The History and Architecture of the Elkmont Community, 11–15; Morrell, 2–3.

¹⁸⁰ Thomason and Associates, The History and Architecture of the Elkmont Community, 15–18; Vic Weals, Last Train to Elkmont: A Look Back on Life on Little River in the Great Smoky Mountains (Knoxville, TN: Olden Press, 1991), 85–86.

¹⁸¹ John A. Jakle, *The Tourist: Travel in Twentieth-Century North America* (Lincoln, NE: University of Nebraska Press, 1985), 103–4, 110–11, 120–27. For a more detailed consideration of the convergent interests of park promoters and the movement for better roads in the Great Smokies, see the Historic American Engineering Record report, "Hold Up That Road; Let Your Uncle Sam Build It."

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Several families with property bordering on Cataloochee Creek, known for its trout fishing, provided accommodations, meals, and stocked streams to attract tourists to the Cataloochee Valley in Haywood County, North Carolina. Between 1917 and 1924, Jarvis Palmer (1882–1946) built three basic tourist cabins or bunkhouses that he rented to visitors from April through September. Palmer charged 50 cents a day for fishing, 50 cents a night for a bunk, and 50 cents more for three meals a day prepared and served by his family. He added a new kitchen wing to his house in the early 1920s to accommodate guests. Furnishings in the tourist cabins consisted of iron beds, tables, benches, and cane-bottomed chairs. The Palmers ceased their tourist operation sometime in the 1930s and moved out of the valley in 1938. One board-and-batten cabin survives on the former Palmer property.¹⁸³ Beginning in the early 1920s, W. M. Hall built eight tourist cabins and created a 3-acre man-made lake and two nearby fish rearing ponds on his land. He charged visitors for lodging, fishing and swimming privileges, and boat rentals. From 1933 to 1937, Thomas Alexander leased the former W. M. Hall parcel and offered accommodations and horseback riding on what he called Cataloochee Ranch, with visitors using the lake primarily for swimming. Following the Alexanders' departure, the buildings were removed and the lake drained via two breaks in the earthen wall. Landscape features and ruins—including the lake walls, dam, and jetty and the rock-lined fish rearing ponds—are still evident on the property.¹⁸⁴

The creation of Great Smoky Mountains NP at almost the same time that reliable all-weather roads reached the Smokies meant that few resort hotels were constructed before the government acquired the land for the park. In 1925, brothers Ray and Oscar Bohannon and their brother-in-law Lillard Maples opened the Indian Gap Hotel, a small facility on the West Prong of the Little Pigeon River, just downstream from the present-day site of the Chimneys picnic area. Most guests arrived on horseback from Gatlinburg via the unimproved road through the Sugarlands, although a rugged Model A Ford or truck could have made the trip. Old photographs show a two-story wooden structure with full-facade verandas on both floors. A water-powered generator provided electric lights in the hotel. The Indian Gap Hotel operated for just eight years, then was purchased by the NPS in 1930 and demolished in 1933.¹⁸⁵ The hotel at Smokemont, although primarily serving employees and customers of Champion Fibre, also sheltered a few adventurous tourists. Had Great Smoky Mountains NP not been created, many hotels, lodges, and motels would probably have sprung up in the mountain valleys. As it is, motels, inns, and lodges have proliferated in Gatlinburg and Cherokee, the two main gateway communities for the park.

Still operating within the park is a unique mountain-top resort on Mt. Le Conte in Sevier County, Tennessee, established

¹⁸² Leland R. Johnson, *Memphis to Bristol: A Half Century of Highway Construction* (Nashville, TN: Tennessee Road Builders Association, 1978), 38; Mason, *The Lure of the Great Smokies*, 7, 297–301; Dunn, *Cades Cove*, 242.

¹⁸³ Edward Trout, "Draft Historic Resource Study, Jarvis Palmer House" (typescript, n.d., Great Smoky Mountains NP, Gatlinburg, TN).

¹⁸⁴ Dianne L. Flaugh, *Cataloochee Historic District: Draft Cultural Landscape Report Draft* (Gatlinburg, TN: Great Smoky Mountains National Park, 2000), 27, 95–98.

¹⁸⁵ "Indian Gap Hotel" file in Great Smoky Mountains NP Library.

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as a camp for hikers in the 1920s and gradually turned into a permanent complex thereafter. Members of the Great Smoky Mountains Conservation Association obtained permission from Champion Fibre Company to construct a camp on Mt. Le Conte in 1925. Association member and outdoorsman Paul Adams built the camp with the help of local residents Lavater Whaley and Ernest Ogle. After constructing tables, latrines, and lockers in the summer of 1925, Adams built a round-log cabin from nearby stands of spruce and balsam during the fall and winter. Long since demolished, the 15 by 20 ft cabin had four levels of bunks and was ready for use by the spring of 1926. Because supplies had to be brought in over 5 miles of trail, Adams fitted his dog, Cumberland Jack, with leather saddle bags. The dog made solo trips to the nearest store, carrying shopping lists from his owner and returning with up to twenty pounds of supplies.¹⁸⁶ Jack Huff, son of Andy Huff, the owner of the Mountain View Hotel in Gatlinburg, took over operations of the camp on Mt. Le Conte in May 1926. The Huff family was the first NPS concessionaire at Mt. Le Conte and operated Le Conte Lodge into the 1980s. Successive concessionaires have included Wilderness Lodging and LeConte Lodge Limited, both subsidiaries of Stokely Hospitality Enterprises.¹⁸⁷

The Smoky Mountains Hiking Club (SMHC), a conservation and recreation group organized in 1924, was allowed to build a cabin for its members' use in the Greenbrier section of the park along Porters Creek in Sevier County, Tennessee. The hiking club, whose membership was concentrated in Knoxville and nearby areas of East Tennessee, promoted conservation in the Smokies and later assisted the NPS in measuring trails and verifying and assigning place names within the new park. Among the club's more prominent members in the 1920s and 1930s were Harvey Broome, a founder of the Wilderness Society; Charles I. Barber, a noted Knoxville architect who later designed the Headquarters Building for the NPS (see Section E.4); and Carlos C. Campbell, who was active in the Great Smoky Mountains Conservation Association and later wrote *Birth of a National Park in the Great Smoky Mountains* (1960). After receiving permission from park authorities in 1934, SMHC members constructed the two-room Smoky Mountains Hiking Club Cabin around an existing chimney on the Whaley-Messer homestead. Working when they could, the members completed the cabin over a three-year period. They salvaged most building material from nearby hewn-log buildings that were being demolished and attempted to imitate a typical mountain log dwelling. The club used the cabin for overnight hikes until its Special Use Permit with the NPS ended in 1976.¹⁸⁸ Determined eligible for the National Register of Historic Places (National Register) in 1988, the hiking club cabin represents the recreational use of the park lands by an organized group from the

¹⁸⁶ Paul J. Adams, Mt. Le Conte (Knoxville, TN: Holston Printing Co., 1966), 5, 50-60.

¹⁸⁷ Tim Line, General Manager, Wilderness Lodging, telephone interview by Robert W. Blythe, November 30, 1995; Laura Thornborough, *The Great Smoky Mountains* (New York, NY: Thomas Y. Crowell, 1937; revised and enlarged edition, 1942), 126; "A Brief History of LeConte Lodge" (typescript, 2001, Great Smoky Mountains NP, Gatlinburg, TN), 2.

¹⁸⁸ Tom Duncan, "The Story of the SMHC Cabin: A Talk Given at the SMHC Cabin Social, April 10, 1976" (typescript, 1976, Great Smoky Mountains NP, Gatlinburg, TN).

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In 1928, Louis E. Voorheis, a retired Cincinnati inventor and industrialist, purchased a 102 acre tract at the foot of Mount Le Conte near Gatlinburg in Sevier County, Tennessee. Voorheis worked closely with his architect to create a private mountain estate very much in the tradition of rustic resort architecture. He kept and extensively remodeled at least two buildings from the Ogle-Oakley farmstead that had occupied the site along Le Conte Creek, in an area called Twin Creeks for two branches of the creek. Voorheis donated his Twin Creeks property to Great Smoky Mountains NP in 1932, retaining a life interest for himself and his wife. He died at the estate on July 17, 1944, and in 1952 his widow sold her life estate to the NPS for \$38,000. By that time, the guest cabins were being leased to the park for employee housing. After the transfer of ownership, the lodge was used as the park superintendent's quarters until the 1970s, when the estate was converted for use as a field research facility. Today, the Voorheis Estate consists of the lodge, two guest cabins, the main barn, a garage/stable building, and a number of landscape features. Some of the field research functions have relocated to the Twin Creeks Science and Education Center, constructed in 2007 immediately adjacent to the estate. Visiting researchers continue to use the Voorheis lodge for office space, while the NPS uses one guest cabin for office space and the main barn for seed and greenhouse equipment storage.¹⁹⁰

Businessman J. H. Kress established a hunting lodge facility in 1940 on land he purchased in Swain County, North Carolina, along the Bone Creek tributary of Hazel Creek. He built a five-bedroom frame lodge with board-and-batten siding and partially remodeled the 1910 Hall family log cabin on his property. The lodge was demolished after the construction of Fontana Dam brought the Hazel Creek watershed within the park's boundary (only a large fieldstone chimney and portions of the foundation remain). The cabin (NRIS #76000162, listed January 30, 1976) remains, but the NPS removed the alterations made by Kress.

4. The Initial Development of Great Smoky Mountains National Park, 1926–1942

The first documented proposals for a national park in the Southern Appalachian Mountains date to the 1880s. An 1885 *Journal of the American Medical Association* article proposing a health resort in the Smokies induced Ohio physician Chase P. Ambler to move to Asheville, North Carolina, where he later led the early efforts to establish a park. In 1899, Dr. Ambler and the Asheville Board of Trade formed the Appalachian National Park Association, which for six years lobbied intensively for the creation of a national park, either in the Smokies or another southern mountain range. Although the

¹⁸⁹ Herbert L. Harper, Executive Director, Tennessee Historical Commission, to Carol Shull, Chief of Registration, NPS, June 8, 1988; "Response to Questions Raised by National Register Regarding Eligibility of Smoky Mountain Hiking Club Cabin," March 1988. The John Messer Barn (aka the Messer Barn or Smoky Mountains Hiking Club Barn) and a Springhouse are also located on the Smoky Mountains Hiking Club Cabin site. The barn and springhouse are not listed in the National Register.
¹⁹⁰ "Louis E. Voorheis Is Dead; Businessman, Philanthropist"; Lix, "Short History," 70.

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park was supported by prominent politicians in North Carolina and Tennessee, the U.S. Congress failed to act.¹⁹¹

While Asheville businessmen promoted the creation of a national park, America's first professional foresters advanced the idea of national forest reserves in the Appalachians. As described in Section E.2, lumber interests by 1900 had acquired and begun to clear cut much of the remaining stands of virgin forest throughout the southern mountain ranges. Foresters like Gifford Pinchot, United States Chief Forester from 1898 to 1910, urged the federal government to demonstrate conservation-oriented management of timber resources in government-owned national forests.¹⁹² After repeated rebuffs to its national park concept, the Appalachian National Park Association changed its name to the Appalachian National Forest Reserve Association and joined the foresters' movement. These efforts finally resulted in the passage of the 1911 Weeks Law, authorizing the creation of national forest reserves in New Hampshire and the Southern Appalachians. For the first time, the federal government agreed to purchase private land for the creation of national forests.¹⁹³

The United States Forest Service (USFS) quickly established national forests on the borders of the Smokies: Cherokee National Forest in Tennessee and Pisgah and Nantahala National Forests in North Carolina. The USFS also acquired a purchase option on 61,350 acres in the Smokies held by the Little River Lumber Company. Between 1911 and 1916, the Forest Service erected fire towers and laid out fire protection trails on the optioned property. Faulty titles to some of the land delayed the creation of a national forest, and the Little River Lumber Company canceled the option when World War I brought higher lumber prices, killing any chances of providing even the limited protection of managed forestry to the Smokies.¹⁹⁴

Interest in a national park in the Smokies never entirely disappeared in spite of early setbacks. Following World War I, a stronger national parks movement and growing automobile tourism combined to help establish Great Smoky Mountains NP. The creation of the NPS in 1916 consolidated administration of the existing western national parks and gave conservationists an institutional voice in the federal government. NPS administrators soon began considering the creation of parks east of the Mississippi River. Although little federally owned land was available in the East, many conservationists and NPS officials recognized the need for parks to provide recreational opportunities for the great eastern

¹⁹¹ Carlos C. Campbell, Birth of a National Park in the Great Smoky Mountains, 2d rev. printing (Knoxville, TN: University of Tennessee Press, 1969), 15; Frome, Strangers in High Places, 174–75; Willard B. Gatewood, Jr., "North Carolina's Role in the Establishment of the Great Smoky Mountains National Park," North Carolina Historical Review 37 (April 1960):165.

¹⁹² A Division of Forestry was created within the Department of Agriculture in 1881, and Pinchot was named its chief in 1898. In 1905, the division became the United States Forest Service. The Forest Reserve Act of 1891 authorized the president to create forest reserves from federally owned land to be administered by the Department of the Interior. In February 1905, the reserves were transferred from Interior to Agriculture, and two years later they were renamed national forests (Harold K. Steen, *The U.S. Forest Service: A History* [Seattle: University of Washington Press, 1976], 17, 26, 47, 74–75).

¹⁹³ Frome, Strangers in High Places, 176–77; Gatewood, "North Carolina's Role," 165–66; Lix, "Short History," 32; Steen, The U.S. Forest Service, 128–29.

¹⁹⁴ Lix, "Short History," 32–33; Frome, Strangers in High Places, 177–78.

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centers of population.¹⁹⁵ Americans' leisure time and interest in outdoor recreation grew in the years following World War I in tandem with greatly expanded automobile ownership. As automobile registrations increased by 15 million in the 1920s, motorists demanded better roads and better recreational opportunities, and businessmen increasingly saw potential profits in catering to motor tourists.¹⁹⁶

Business leaders, motorists, and outdoors enthusiasts in Knoxville, Tennessee, recognized the recreational and commercial advantages of a Smokies park and led a new promotional campaign to secure one. In 1923, the Knoxville Automobile Club and the local Chamber of Commerce formed the Great Smoky Mountains Conservation Association with the specific objective of establishing a national park in the Smokies. Leaders of the association were Willis P. Davis, manager of the Knoxville Iron Company, and Colonel David P. Chapman, owner of a wholesale drug firm. North Carolina interests also pushed for a mountain park, but many at first favored areas other than the Smokies, such as Mount Mitchell, Grandfather Mountain, Linville Gorge, and Roan Mountain (on the border with Tennessee). Hiking clubs and the state governments of Tennessee and North Carolina lent strong support to the park campaign.¹⁹⁷

Responding to lobbying, congressional initiatives, and NPS advice, Secretary of the Interior Hubert Work in 1924 appointed five members to a Southern Appalachian National Park Commission. The secretary authorized the commission to study the entire southern mountain region and make recommendations for national parks. In December 1924, the commission recommended the creation of two parks—one in Virginia's Blue Ridge Mountains and one in the Great Smoky Mountains on the Tennessee–North Carolina border. Congress authorized boundary studies and the acceptance of gifts of land in 1925. North Carolina park boosters who had favored other sites now joined the push for a Smokies park. In April 1926, Secretary Work designated approximate boundaries for a Smoky Mountains park based on the completed studies. Finally, on May 22, 1926, President Calvin Coolidge signed legislation providing for the establishment of three new eastern parks: Great Smoky Mountains National Park, Shenandoah National Park in Virginia, and Mammoth Cave National Park in Kentucky.¹⁹⁸

Land Acquisition and Early Park Development, 1926-1932

The 1926 legislation authorizing Great Smoky Mountains NP was a milestone, but it did not guarantee a park. Congress was unwilling to purchase property for the park; so all land had to be donated or purchased by the two states. The law authorized the acquisition of as many as 704,000 acres. Limited NPS administration would begin when 150,000 acres had

¹⁹⁵ Frome, Strangers in High Places, 178-80.

¹⁹⁶ Jakle, The Tourist, 120-21, 145; Gatewood, "North Carolina's Role," 166-67.

¹⁹⁷ Frome, Strangers in High Places, 182-83; Campbell, Birth of a National Park, 16-18; Lix, "Short History," 33-40.

¹⁹⁸ Frome, *Strangers in High Places*, 180–89; Campbell, *Birth of a National Park*, 22–36; Gatewood, "North Carolina's Role," 167–73; Lix, "Short History," 38–47; Horace Kephart, "A National Park in the Great Smoky Mountains" (Bryson City, NC: Swain County Chamber of Commerce, 1926), 3.

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been turned over to the Secretary of the Interior, and full development only when a substantial portion (defined by Congress in 1934 as 400,000 acres, or 57 percent of the maximum) of the total acreage was accepted by the secretary. In 1927, the North Carolina legislature authorized a \$2 million bond issue for land acquisition, and Tennessee appropriated \$1.5 million. Private contributions and previously committed state funds brought the total available for land acquisition to about \$5 million, just half of the sum believed to be needed.¹⁹⁹

Funding for land acquisition received a tremendous boost in February 1928, when oil company heir and philanthropist John D. Rockefeller, Jr., announced a \$5 million matching grant from the Laura Spelman Rockefeller Memorial. The memorial, which subsequently was absorbed into the better-known Rockefeller Foundation, had been established in 1918 to honor Rockefeller's mother, the wife of Standard Oil Company founder John D. Rockefeller, Sr. The younger Rockefeller had a long-standing interest in America's national parks. Prior to 1928, he donated much of the land for Acadia National Park in Maine and sponsored the construction of museum buildings in several western parks. The Rockefeller gift to Great Smoky Mountains NP also produced one of the park's most-visited manmade features, the Rockefeller Memorial at Newfound Gap.²⁰⁰

With approximately \$10 million available for property acquisition, North Carolina and Tennessee began the tedious process of acquiring individual tracts through special state commissions set up for the purpose.²⁰¹ Assistant NPS Director Arno B. Cammerer helped establish priorities for acquisition and facilitated negotiations with landowners. Lumber companies owned 85 percent of the property sought, and most held out for the best price in protracted condemnation proceedings. The remaining land included 1,200 farms and some 5,000 vacation home sites and lots. Some residents settled quickly, while others fought condemnation through the courts. Federal appropriations of \$1,550,000 in 1933 and \$743,265 in 1938 and a small additional donation from the Rockefeller Foundation were needed to complete land acquisition. The State of Tennessee purchased the last major tract—16,288 acres owned by the Aluminum Company of America—in November 1940.²⁰²

Development of the park proceeded by stages as land acquisition progressed. By July 1930, the federal government had accepted title to 158,876.5 acres in the Smokies, satisfying the minimum requirement set by Congress to allow the NPS to begin limited administration of the park. In anticipation of this milestone, the NPS on June 20, 1930, named J. Ross Eakin, then superintendent of Glacier National Park, as the first superintendent of Great Smoky Mountains NP. During the limited administration years from 1930 through 1937, annual appropriations for the park were meager because property

¹⁹⁹ Frome, Strangers in High Places, 189–93; Campbell, Birth of a National Park, 50–54; Gatewood, "North Carolina's Role," 173– 75.

²⁰⁰ Raymond B. Fosdick, John D. Rockefeller, Jr.: A Portrait (New York: Harper & Brothers, 1956), 302–20; Rockefeller Foundation Annual Report, 1929 (New York, NY: Rockefeller Foundation, 1930); Campbell, 61–65.

²⁰¹ The long and complex history of land acquisition is sketched in only the broadest outline here.

²⁰² Campbell, Birth of a National Park, 12, 120–28; Frome, Strangers in High Places, 194–95; Gatewood, "North Carolina's Role," 177–84; Carson Brewer, "Our Park is 25 Years Old Officially," Knoxville News-Sentinel, June 14, 1959.

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acquisition was ongoing. No permanent visitor or administrative facilities could be constructed until the NPS and the Secretary of Interior were satisfied that funds were available to secure clear title to the 400,000 acres required to commence full administration of the park. This did not occur until Congress appropriated the final \$743,265 for land acquisition and a small amount for park development in February 1938.²⁰³

Superintendent Eakin spent much of his time establishing NPS authority over the park property that had been acquired. In his monthly superintendent reports written during the first few years of his administration, Eakin frequently lamented his inability to serve visitors more adequately and often reported the eviction of squatters, moonshine distillers, and other "lawless" elements from park property. He and his small permanent staff supervised seasonal employees in clearing old USFS fire trails and building new ones, cleaning up the mess left by logging and sawmill operations, and removing unneeded buildings from the park (see Section E.5 for more information on the park's early preservation policies and practices). Most of the removed structures were farmhouses and outbuildings, but at least one hotel and a few larger buildings erected by logging companies were also demolished. At the time, the two states' highway departments were constructing the Newfound Gap Road through the heart of the park from Gatlinburg, Tennessee, to Cherokee, North Carolina. The Emergency Road Construction Bill of 1932 provided \$509,000 to the park for road and trail construction and roadside cleanup.²⁰⁴

While Eakin was doing what he could to make improvements, members of the NPS planning team assigned to the park collected information for the development of a master plan to guide the long-range development. By the early 1930s the NPS had developed an innovative comprehensive planning process that emphasized naturalistic landscape design and the construction of visitor and administrative facilities that harmonized with the landscape. The process was initially conceived to address the fundamental problems of long-range planning at the wilderness parks in the west. The goal of those plans was to strike the proper balance between the development required to provide visitor access and the protection of the natural landscape and wildlife. The level of planning for the variety of facilities, including roads, trails, park villages, ranger stations, campgrounds, maintenance areas, and utilities, needed at the large natural parks was similar in scope to municipal planning and required contributions from a number of disciplines. Since those developments were primarily concerned with the treatment of park landscapes, NPS landscape architects took the lead in coordinating the design process with engineers, architects, botanists, foresters, geologists, and other disciplines. In 1927, Thomas C. Vint, Chief of the Division of Landscape Architecture, was put in charge of all master planning initiatives. Vint devised a three-part planning process that consisted of a narrative outline of the proposed development, a graphic representation of the development plan, and list of individual projects to be completed over a six-year period.

²⁰³ Campbell, Birth of a National Park, 96; Lix, "Short History," 51–52; "Great Smokies to Observe 30th Anniversary on June 15," Knoxville News-Sentinel, June 7, 1964.

²⁰⁴ Superintendent's Annual Reports, Fiscal Years 1932, 4; 1934, 3; Superintendent's Monthly Report, July 1932.

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By 1932, the three elements were collectively referred to within the National Park Service as "master plans."²⁰⁵

Park Development during the New Deal, 1933-1942

Along with most of the other national parks in existence at the time, Great Smoky Mountains NP greatly benefited from programs implemented during President Franklin D. Roosevelt's New Deal (1933–1942). The New Deal was designed to combat the effects of the Great Depression by initiating banking reforms, providing direct relief to the needy, putting unemployed Americans to work on public works projects, and reviving private agriculture and industry. In the first 100 days of his administration, Roosevelt submitted fifteen major bills to Congress addressing banking reform, regulation of the securities industry, improvement of industrial conditions and the depressed farm economy, and unemployment relief through public works projects and direct aid. These and the many other relief programs created subsequently were commonly referred to by their alphabetic acronyms. Examples included the CCC (Civilian Conservation Corps), WPA (Works Progress Administration²⁰⁶), and PWA (Public Works Administration), which all played important roles in the expansion of the National Park System during th² period.²⁰⁷

Of all the New Deal programs, the CCC had the most significant impact on Great Smoky Mountains NP. Congress authorized the creation of the CCC under the Federal Unemployment Relief Act of March 31, 1933. Its purpose was to provide unemployed young men work and training in conducting much-needed conservation work on America's public lands.²⁰⁸ The Act gave the President wide discretion in establishing wage rates, enrollment periods and requirements, and other administrative details of the CCC program, using whatever executive departments he deemed appropriate.²⁰⁹

On April 5, 1933, Roosevelt issued an executive order that assigned program responsibilities to various agencies with the goal of creating jobs for 250,000 young men by the following July 1. The Department of Labor would recruit men nationwide, the Army would enroll, condition, and transport them to work camps, and the Departments of Agriculture and Interior, through the USFS and NPS, would plan and supervise work projects and administer camps. Almost immediately, the Army's role was expanded to include running the camps. The target population of each camp was 200 men. The

²⁰⁵ Linda F. McClelland, Presenting Nature: The Historic Landscape Design of the National Park Service, 1916 to 1942 (Washington, DC: NPS, 1994), 80.

²⁰⁶ In 1939, the name was changed to Works Projects Administration.

²⁰⁷ Samuel E. Morison, *The Oxford History of the American People* (New York, NY: Oxford University Press, 1965), 942–43, 954– 56; Arthur M. Schlesinger, Jr., *The Crisis of the Old Order, 1919–1933* (Boston, MA: Houghton Mifflin, 1957), 3; Harlan D. Unrau and G. Frank Williss, *Administrative History: Expansion of the National Park Service in the 1930s* (Denver, CO: NPS, 1983), 75–77; Donald C. Swain, "The National Park Service and the New Deal, 1933–1940," *Pacific Historical Review* 41 (1972):327.

²⁰⁸ From 1933 to 1937, the organization's official name was Emergency Conservation Work. The program was commonly referred to as the Civilian Conservation Corps from the start; in June 1937, Congress made the popular name the official name (John C. Paige, *The Civilian Conservation Corps and the National Park Service, 1933–1942: An Administrative History* [Washington, DC: NPS, 1985], 24).

²⁰⁹ John A. Salmond, *The Civilian Conservation Corps, 1933–1942: A New Deal Case Study* (Durham, NC: Duke University Press, 1967), 13–23 (hereafter cited as *The CCC, 1933–1942*); Paige, 9–10.

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program limited eligibility to single men aged eighteen to twenty-five years who were willing to live away from home for at least six months in camps and send at least 22 dollars of their 30 dollar monthly wage home. The CCC soon expanded its ranks to include limited numbers of World War I veterans, Native Americans, and local experienced men (known as LEMs) who did not need to meet the age or marital restrictions and could live outside the camps. The LEMs usually had forestry or other specialized skills that they could teach to the inexperienced recruits, known as "juniors." Roosevelt chose the general vice president of the International Association of Machinists, Robert Fechner, as CCC director; an advisory council with representatives of the four executive departments assisted him.²¹⁰

CCC projects in national parks included forest conservation; soil erosion control; fire-fighting; building roads, trails, bridges, utility lines, and recreation structures; and providing services to park visitors. Eventually, the CCC allowed recruits to re-enlist three times, for a total of two years of service. Congress re-authorized the CCC several times but rejected Roosevelt's proposals to make the program permanent. As private-sector job opportunities expanded in the late 1930s, CCC recruitment became more difficult, and Congress terminated the program in June 1942 on the grounds that it did not support the all-out mobilization required for World War II. All told, some 2.5 million American men served in the CCC, and it has remained one of the most enduringly popular New Deal programs. Through the CCC experience, enrollees with limited work histories gained self-respect, learned how to work with others, and acquired marketable job skills.²¹¹

The PWA and the WPA were also designed to put the unemployed back to work and revive local economies through wage and construction expenditures. The PWA was established under the National Industrial Recovery Act of June 1933 as a funding source for large-scale public works projects. Administered by Secretary of the Interior Harold Ickes, the program provided grants and loans to states and local governments for construction projects and made allotments for federal undertakings. Most PWA-funded projects went to local contractors.²¹² Roosevelt established the WPA by executive order in May 1935 under the authority of the Emergency Relief Appropriations Act of that year. The WPA was a work relief program that hired persons who demonstrated need through a means test. The program not only funded many traditional construction projects but also sponsored agricultural, industrial, and demographic research; the Federal Arts Project; the Federal Writers' Project; and the Federal Theater Project. Through fiscal year 1937, the PWA and WPA allotted \$64 million to the NPS for park development projects. The aggregate of funds the NPS received from various federal public works programs in the years 1938 through 1940 totaled another \$69 million.²¹³

²¹⁰ Salmond, The CCC, 1933-1942, 26-34; Paige, The Civilian Conservation Corps, 10-15.

²¹¹ Conrad L. Wirth, Parks, Politics, and the People (Norman, OK: University of Oklahoma Press, 1980), 105; Paige, The Civilian Conservation Corps, 17–18, 21–24, 30–34, 79; Salmond, The CCC, 1933–1942, 145–61, 192–93, 210–17.

²¹² Arthur M. Schlesinger, Jr., *The Coming of the New Deal* (Boston: Houghton Mifflin, 1959), 284–88; Unrau and Willis, *Administrative History*, 96–101; Swain, "The National Park Service," 324.

²¹³ Unrau and Willis, *Administrative History*, 75, 99–101; Arthur M. Schlesinger, Jr., *The Politics of Upheaval* (Boston, MA: Houghton Mifflin, 1960), 270, 434–47.

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Roosevelt, a long-time advocate of natural conservation and historic preservation, made sure that there was no shortage of work for the New Deal programs by expanding the National Park System and the responsibilities of the National Park Service. In August 1933, he signed Executive Order 6166 giving the NPS jurisdiction over all historic sites, battlefields, monuments, and parks previously administered by the War Department, the Department of Agriculture, and the Office of Public Buildings and Public Parks of the National Capitol. The move nearly tripled the number of parks in the system from 63 to 161.²¹⁴ At the same time, significant activity occurred in association with the development of large new parks east of the Mississippi River, including Great Smoky Mountains, Shenandoah, Mammoth Cave, and the Blue Ridge Parkway. The NPS also assumed important responsibilities for planning and supervising the creation of state park systems. To handle the greater work load, the NPS used New Deal funding sources to greatly increase its staff of landscape architects, engineers, and foresters. Because of the Depression, the NPS was able to draw on a pool of outstanding professionals who had few opportunities for private employment. Many professionals hired as temporaries with CCC funds eventually converted to career status with the NPS.²¹⁵

Park Planning and Landscape Design Philosophy

A policy statement issued by Secretary of the Interior Franklin Lane in 1918 articulated the NPS philosophy. Lane established the principle that all roads, trails, buildings, and other development within parks should be in harmony with the landscape.²¹⁶ In the 1920s, the NPS Landscape Division refined and elaborated this broad policy through an evolving program of comprehensive park planning and the development of specific design standards and construction practices.²¹⁷

The NPS approach to landscape design evolved from well-established naturalistic landscape design principles with origins in the English landscape gardening tradition of the eighteenth and nineteenth centuries. In essence, naturalistic design sought by various techniques to artfully replicate "natural," pastoral landscapes rather than impose a formal, geometrically inspired order on the land. Informality, broad expanses of open meadow framed by undulating tree lines, the avoidance of straight lines, and an emphasis on striking visual effects characterized naturalistic designs.²¹⁸

In the second half of the nineteenth century, American landscape architects, led by Frederick Law Olmsted, Sr., adopted the English tradition and greatly expanded its application to public parks. As the twentieth century approached, landscape designers planned increasingly larger parks, while their developing understanding of ecological relationships produced an emphasis on native plant species. The success of large urban parks like Olmsted and Vaux's Central Park in New York

²¹⁴ Unrau and Willis, Administrative History, 43; Swain, "The National Park Service," 323.

²¹⁵ Wirth, Parks, Politics, and the People, 111; Unrau and Willis, Administrative History, 59-62.

²¹⁶ McClelland, *Presenting Nature*, 80. The summary of NPS landscape design philosophy and practice presented here relies heavily on McClelland's study.

²¹⁷ The Landscape Division became the Branch of Plans and Designs in 1933.

²¹⁸ McClelland, Presenting Nature, 6-7, 34.

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(developed 1858–1870s) inspired schemes for regional and state park systems. New York State created the Niagara Falls Reservation and the Adirondack Forest Preserve in 1885, and the Metropolitan Park Commission developed a regional system in the Boston area in the 1890s. Transportation advances, notably the electric streetcar and the automobile, forced landscape professionals to consider questions of access to parks and adequate circulation systems within parks.²¹⁹

From the Service's creation in 1916, NPS designers adapted well-established principles of naturalistic park design to the practical needs of national parks. Although often viewed by commentators as providing visitor access without compromising natural scenery, NPS landscape architects essentially designed the visitor's experience of natural wonders. Every development decision—the route of a road, the site of a campground or comfort station, the massing of a building—influenced the visitor's aesthetic reaction to a park. Frequently, NPS designers modified accepted landscape design principles to suit the larger national park properties. Additionally, by the 1920s park designs routinely accommodated ever-expanding automobile use in planning for roads, campgrounds, and other facilities. NPS practitioners also maintained close ties with leaders of the landscape architecture profession. Frederick Law Olmsted, Jr., John Nolen, Henry Hubbard, and other professional leaders strongly championed the NPS and consulted frequently both on general policies and specific projects.²²⁰

The NPS Landscape Division grew increasingly capable and self-confident throughout the 1920s as it gained experience in developing western parks for motor tourists. The role of NPS landscape architects and engineers steadily expanded until they had a strong voice in the location and appearance of all development in parks. In 1927, the NPS established a field headquarters in San Francisco, which served as the home of the Landscape Division. Landscape Architect Thomas C. Vint, head of the division in 1927, stayed with the NPS until 1961, eventually becoming Assistant Director for Design and Construction and providing unparalleled continuity and consistency in NPS landscape designs.²²¹ Striving for landscape preservation and harmonization, Vint in the late 1920s established a program of master planning and design review. Each park was to have a master plan to coordinate all development. Under Vint's direction, the Landscape Division developed standard designs for guardrail, bridge abutments, culverts, and small recurring recreation facilities like comfort stations.²²²

As auto use grew, the siting and construction of motor roads became a critical component of the NPS's philosophy of naturalistic design. A 1926 interagency agreement between the NPS and the Bureau of Public Roads (BPR), a predecessor to the Federal Highway Administration, helped ensure that naturalistic design principles would guide park road design.

²¹⁹ Norman Newton, *Design on the Land: The Development of Landscape Architecture* (Cambridge, MA: Belknap Press of Harvard University Press, 1971), 267–79, 325–32, 558.

²²⁰ Newton, Design on the Land, 535; McClelland, Presenting Nature, 33–34; Phoebe Cutler, The Public Landscape of the New Deal (New Haven: Yale University Press, 1985), 57, 64.

²²¹ Vint took the title of chief landscape architect in October 1927 and later became chief architect (McClelland, *Presenting Nature*, 116, 196–97).

²²² McClelland, Presenting Nature, 115-16, 181-85.

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Under the agreement, the BPR provided technical engineering skills while the NPS retained control of aesthetic decisions. In building roads, NPS landscape engineers strove to provide scenic views, follow natural contours, minimize cut and fill, avoid steep grades and sharp turns, and restore banks to a naturalistic appearance.²²³

The NPS also worked to integrate necessary park visitor and support facilities with the surrounding landscape. To do this, NPS architects developed the concepts of "visual harmonization" and "cultural harmonization." Visual harmonization relied on careful siting of buildings, horizontal massing, plantings, and the scaling of individual building members to the surrounding terrain. Thus, in rugged western mountain areas, building members often were over-scaled. Cultural harmonization meant designing structures that appeared to have been handcrafted from local, rough-hewn materials, usually logs or quarry-faced stone, and/or employing a vernacular architectural mode, usually one indigenous to the region of the park. NPS architects avoided severe straight lines and often employed or simulated "pioneer" or "primitive" construction techniques.²²⁴ This approach came to be known as the NPS "rustic style" of architecture, something of a misnomer because it was less a style, with a definable set of elements, than a broad design philosophy.

Antecedents of NPS rustic architecture can be found in several nineteenth-century sources. From the 1840s until the end of the century, books by landscape architect Andrew Jackson Downing circulated widely, promoting his concepts of landscape harmonization and designs for picturesque villas, cottages, and garden structures. In the 1880s, architect Henry Hobson Richardson worked with the Olmsted firm to design structures for Boston's Franklin Park. The bold arches and rugged masonry of the Franklin Park features profoundly influenced the design of park structures for decades. Finally, the resort structures of New York's Adirondack Mountains and the American West, such as the Old Faithful Inn (1903), shaped the emerging approach to park structure design. By the early decades of the twentieth century, park designers generally believed that informal structures using rugged natural materials to blend with natural surroundings were the best choice for park development. Naturalistic landscape design and rustic architecture were the twin guiding principles of NPS park development in the 1920s and 1930s.²²⁵ To help ensure harmonious results with park structures, the NPS Landscape Division developed design standards and detailed construction guidelines. Architects created standards for guardrail, bridges and culverts, and tunnel portals. Stone work received particular attention, with detailed guidance provided on selecting and dressing stones and breaking joints to avoid a monotonous, machine-like effect.²²⁶

The 1930 establishment of Colonial National Historical Park in Virginia, the creation of three large natural parks in the east (Great Smoky Mountains, Shenandoah, and Mammoth Cave), and the 1933 addition of former War Department sites

²²³ McClelland, Presenting Nature, 109.

²²⁴ Albert H. Good, *Park and Recreation Structures* (Washington, DC: US Government Printing Office, 1938), 5–8; William C. Tweed and Laura E. Soullière, *National Park Rustic Architecture, 1916–1942* (San Francisco, CA: NPS, Western Regional Office, 1977), i, 35.

²²⁵ McClelland, Presenting Nature, 50–64; Tweed and Soullière, National Park Rustic Architecture, 3–8.

²²⁶ McClelland, Presenting Nature, 126-31.

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to the system produced new directions in NPS design. Natural landscapes and architectural traditions east of the Mississippi River differed from those the NPS had worked with in the West. While western natural parks typically featured dramatic, large-scale mountain, canyon, or desert scenery, most of the new eastern parks were in settled rural areas with landscapes both less dramatic and more influenced by human intervention. Even the mountainous eastern areas that were developed as natural parks had gentler scenery than the Rockies or the Sierra Nevada range. Additionally, much of the East had a 200 to 300 year history of white settlement characterized by relatively sophisticated architecture and closer connections to European design trends. In 1930, the NPS established the Yorktown Office of the Branch of Plans under the leadership of landscape architect Charles E. Peterson. This office, which evolved into the Eastern Division of the Branch of Plans and Designs, had responsibility for developing the new eastern NPS properties. Peterson's staff modified standard NPS designs for guardrail, bridges, culverts, and recreational structures for use in eastern parks. As in the West, designers often drew inspiration from local architecture and building techniques. The dry-laid stone walls traditionally erected by some eastern farmers to divide fields were one design influence.

A notable departure for the NPS came with the designs for headquarters buildings at parks like Colonial, Kings Mountain, Great Smoky Mountains, and Guilford Courthouse. Surrounded by the architecture of the colonial period in their Yorktown office and perhaps influenced by the growing use of the Colonial Revival style for residential and roadside buildings, NPS architects designed eastern park headquarters buildings characterized by symmetry, refined detailing, and Colonial Revival elements. These buildings had a less rugged character than many western park buildings; squared quarry-faced stone and dimensioned lumber replaced boulders and peeled logs. Colonial Revival elements such as dormers and sidelighted and transomed entrances were common. Arguably, these Colonial Revival-influenced buildings adhered to NPS precepts of cultural harmonization when constructed at parks like Colonial and Guilford Courthouse that commemorated Revolutionary War battles. The Colonial Revival style had strong associations, in the popular mind at least, with the Revolutionary period.

In summary, the NPS by 1933 had well-established principles of park design and tested mechanisms for implementing them. Hallmarks of the NPS approach were: 1) preservation of the existing natural landscape; 2) the provision of easy visitor access to major scenic features; 3) a master plan for each park to guide all development; 4) a design review process to ensure that individual projects harmonized with the landscape and did not conflict with the master plan; 5) road and trail designs that followed the topography and lay gently on the land; 6) landscape restoration to erase construction scars; 7) use of rustic and vernacular architectural styles employing local materials and "pioneer" construction methods; 8) standardized plans and specifications for recurring features such as guardrail and comfort stations; and 9) guidelines for stone masonry, road bank restoration, campground design, etc., to ensure landscape harmonization.²²⁷

²²⁷ McClelland, Presenting Nature, 2-4, 181-85.

Planning a New Park

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The NPS philosophy of naturalistic landscape design guided the development of Great Smoky Mountains NP between 1933 and 1942. From 1931 through 1933, NPS officials, engineers, and landscape architects made extensive study trips to the park as a prelude to design work. Charles E. Peterson, head of the Yorktown Office of the NPS Landscape Division, and Assistant Chief Engineer Oliver G. Taylor were in the park in November 1931 studying conditions. Preliminary design drawings for the park bear the stamp of the Yorktown Office, established in 1930. This office evolved into the Eastern Division of the Branch of Plans and Designs, which largely oversaw the design and development of the park until the NPS adopted a regional structure in 1937. From that point, the Region One Branch of Plans and Designs assumed responsibility. A comprehensive development plan for the park was ready by spring 1932, and engineers and landscape architects began work on the park's master plan, which was essentially completed in 1934 and approved in July 1935. Superintendent Eakin noted that it was the first master development plan prepared for an eastern park by the Branch of Plans and Designs.²²⁸ Although no major structures could be started until the park was approved for full development in 1938, a development plan was necessary to begin work on the roads and other infrastructure needed to support full development.

The development of Great Smoky Mountains NP proceeded along established NPS design principles. Park planners operated on the assumption that the vast majority of visitors would come to the park in private automobiles. It became clear early on that the Newfound Gap Road (now a segment of U.S. 441)—the only through road across the Smokies within the park—would be the primary visitor access corridor. The first visitor services were sited along this road or roads planned to connect with it, notably the Clingmans Dome Road and the Laurel Creek/Little River Road. Designers planned roads that conformed to the mountain contours and framed scenic vistas; road banks were carefully landscaped in a naturalistic style; guardrail, culverts, bridges, and curbing at turnouts were stone or stone-faced; and campgrounds and other visitor facilities were as sensitive to the landscape as possible. In logged-over areas, the CCC undertook limited reforestation efforts. To ensure a consistent appearance, the planners of the new park made extensive use of the standard designs for stonework and recurring buildings created by the Branch of Plans and Designs.

Plans had been prepared by mid-1932 for the following resources along the main park road: a park administrative center at Sugarlands, permanent campgrounds at Chimneys and Smokemont, and a secondary administration area at an undetermined location on the North Carolina side of the park. Surveys had also been done for a scenic road (Clingmans Dome Road) diverging from the main park road at Newfound Gap and running west along the crest of the Smokies to the park's west boundary (of which only the portion to Forney Ridge was completed).²²⁹

²²⁸ Superintendent's Annual Reports, 1932 and 1934; Superintendent's Monthly Reports, November 1931 and July 1935.

²²⁹ Superintendent's Annual Report, 1933, 3.

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By 1935–1937, the park's master plan called for a road (Laurel Creek/Little River Road) in the northern section of the park running west from the Newfound Gap Road at Sugarlands along the valleys of the Little River and Laurel Creek to Cades Cove.²³⁰ Major tourist areas, including lodges and cabins for overnight stays, were envisioned for Sugarlands, Smokemont, and Greenbrier. In addition, a substantial expansion of the existing concessionaire's operation on Mount Le Conte was planned. Detailed plans were provided for the administration area, Chimneys and Smokemont campgrounds, a Sugarlands vacation area, Greenbrier, and Mount Le Conte. An extensive system of foot and horse trails was also part of the plan. Shelters along the Appalachian Trail, fire lookouts, and a limited restoration of pioneer structures were also envisioned. The master plan identified several areas—Cataloochee, Cosby, Flat Creek, and Heintooga Ridge—as sites for future development. A sub-administration area on the North Carolina side was planned for either Smokemont or Mingus Creek. An undetermined site near the abandoned village of Ravensford was earmarked for "the development of a transient and vacation camp for colored people."²³¹

Fire protection was an important aspect of the NPS's stewardship of the new park. NPS planners relied on fire lookouts and an extensive system of fire trails, often called "truck trails" because they could accommodate a pickup truck, to combat forest fires. Fire trails often did double duty as hiking or horseback trails, but their primary purpose was to allow ready access to the back country to fight fires detected by observers in the park's fire towers.²³²

Editions of the master plan from the 1930s called for substantially greater development of visitor facilities within the park than ultimately occurred. A 1936 *National Geographic* article on the new park touted the early schemes for cabin and lodge development and the extension of the Clingmans Dome Road as a "skyway" clear to the western park border. Aside from a limited expansion of facilities on Mount Le Conte, no permanent accommodations for overnight visitors were built after the creation of the park (see Section E.3 for information on hotels that pre-dated the park). Vigorous lobbying efforts by wilderness advocates defeated efforts to build the skyway, and the Clingmans Dome Road was never extended. The creation of a manmade lake in Cades Cove for aquatic sports, under consideration as late as 1937, was also abandoned.²³³ This change in the scope of projected development was in line with a change in emphasis in the conservation movement nationally, which increasingly valorized undeveloped natural areas.

Park Development under the New Deal, 1933-1942

²³⁰ The park's archives contain the Third Complete Master Plan, dated 1937, and a 1942 edition of the master plan, including the associated development narratives. Additional undated master plan narratives are in Record Group 79 in the National Archives in Washington. Because development narratives have been separated from the large master plan sheets in the National Archives, dating is problematic. The major aspects of the park's master plan remained largely consistent throughout the 1930s.

²³¹ Great Smoky Mountains National Park, North Carolina and Tennessee, Master Plan, Third Complete Edition, 1937. The segregated campground was never built.

²³² Lix, "Short History," 90-97.

²³³ Leonard C. Roy, "Rambling Around the Roof of Eastern America," National Geographic LXX, No. 2 (August 1936), 248, 258.

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By May 1933, when the park received its first CCC camps, only limited development had occurred. The state-constructed Newfound Gap Road through the park from Gatlinburg to Cherokee was open, the Tennessee portion having been completed in September 1930 and the North Carolina portion in April 1932. Park employees had cleared and improved several hundred miles of old USFS trails and built more than 55 miles of new fire trails. They had also razed or sold for removal several hundred structures, including the Champion Fibre Company sawmill complex at Smokemont. The survey and design of the Clingmans Dome Road were complete, although construction had not begun. Because no permanent campgrounds existed, the park issued individual permits for campers willing to brave the lack of facilities.

With the CCC program beginning to take shape, Superintendent Eakin went to Washington in April 1933 to plan for the establishment of CCC camps in his park. During 1933, the park received five camps in May, four in June, and six more in October. Overall, CCC camps occupied 22 different sites within the park, although all 22 never operated at one time. At the peak of CCC activity in the summer of 1935, 17 camps operated within the park. This represented almost 15 percent of the 115 camps then operating in all national parks.²³⁴ Camps typically were identified by a number based on their location (see Table 1). Each CCC company also had a number, and companies sometimes shifted between camps. For example, in the summer of 1935, seven CCC companies operating in the Smokies were transferred to western states, and six new companies moved in to replace them. Only nine camps were operating by May 1936, reflecting a national reduction of the program in that presidential election year. After 1936, the number of camps and average camp size slowly dwindled until only five camps were operating in early 1942, shortly before the program ended. During the war, Civilian Public Service (CPS) Camp No. 108 operated in the park from June 1943 to December 1946 out of the former Sugarlands CCC camp and continued some of the work begun by the CCC.²³⁵

The CCC was an entirely new kind of federal government involvement in the Smokies region. Area residents were reluctant to join the CCC until they saw the camps in operation, whereupon Eakin reported a rush to enroll. Eakin had generally smooth relations with the army officers who ran the camps. There were some early clashes over the construction of winter quarters and the number of men kept in camps for routine housekeeping duties, but these were soon resolved.²³⁶ CCC camps across the nation were segregated by race, and only white camps operated in Great Smoky Mountains NP. Eakin persuaded Fourth Corps CCC officials not to send any African American companies to the park, arguing that "local peace officers could not be expected to protect the colored companies."²³⁷

²³⁴ Wirth, Parks, Politics, and the People, 145; Superintendent's Monthly Report, May 1933, 6.

²³⁵ Charlotte Pyle, "CCC Camps in Great Smoky Mountains National Park" (typescript, 1979, Great Smoky Mountains National Park, Gatlinburg, TN), 2; Superintendent's Monthly Reports, May 1936, 3, February 1942, 5; Walter W. Miller, "The Civilian Conservation Corps in East Tennessee and the Great Smoky Mountains National Park, 1933–1942" (Research Paper, University of Tennessee History Department, 1974), 6.

²³⁶ Superintendent's Monthly Reports, June 1933, 2, 15.

²³⁷ Superintendent's Monthly Report, August 1935, 9–10.

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Camp	Location	Dates of Operation
NP-1	Laurel Creek	June 1933 to September 1933
NP-2	Sugarlands (double camp)	June 1933 to July 1942
NP-3	Middle Prong, Little River	June 1933 to November 1941
NP-4	Smokemont (double camp)	May 1933 to September 1939
NP-5	Kephart Prong	May 1933 to July 1942
NP-6	Cosby Creek	June 1933 to March 1937
NP-7	Big Creek	May 1933 to June 1939
NP-8	Greenbrier	June 1933 to April 1936
NP-9	Forney Creek	May 1933 to May 1936
NP-10	Sugarlands (double camp)	September 1933 to January 1936
NP-11	Cades Cove	October 1933 to July 1942
NP-12	Elkmont	October 1933 to January 1936
NP- 13	County Line, Tennessee	October 1933 to October 1935
NP-14	Smokemont (double camp)	October 1933 to September 1935
NP-15	Mingus Creek	October 1933 to October 1935
NP-16	Deep Creek	October 1933 to January 1936
NP-17	Black Camp Gap	June 1934 to October 1935
NP-18	Round Bottom	November 1934 to June 1935
NP-19	Round Bottom	November 1934 to January 1941
NP-20	Cataloochee	June 1935 to October 1935
NP-21	Never established	0
NP-22	Cataloochee	June 1939 to May 1942
NP-23	Hazel Creek	September 1939 to April 1942

NPS landscape architects, engineers, and foresters, hired with CCC funds, planned and supervised all CCC work projects in the park. A resident landscape architect and a small office staff planned and coordinated activity at the park level, with one or two NPS landscape architects, engineers, or foresters assigned to each camp to supervise ongoing work. V.

²³⁸ Pyle, "CCC Camps," 5–12.

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Roswell Ludgate was the park's first resident landscape architect, serving from September 1932 to June 1936. Frank E. Mattson replaced Ludgate in June 1936 and stayed until 1941, when R. A. Wilhelm took over. At first, the CCC work crews concentrated on truck, bridle, and foot trail construction; road and trail landscaping; forest cleanup; and building barracks to serve as winter quarters. Several camps worked on road bank improvements along the Newfound Gap Road to bring it up to NPS standards.²³⁹ The CCC operated a nursery and stone quarry near Ravensford, North Carolina; ran fish hatchery operations at several locations within the park; and maintained a visitor count. In 1938, after a federal appropriation for land acquisition assured the completion of the park project, the Secretary of the Interior approved the erection of permanent facilities, and the pace of construction activity accelerated. Enough permanent facilities were in place by Labor Day, September 2, 1940, for President Roosevelt to officially dedicate the park in ceremonies at the Rockefeller Memorial attended by 10,000 spectators.²⁴⁰

The New Deal public works programs, particularly the CCC, were critical to the park's development. In 1935, Superintendent Eakin observed that the CCC had helped develop the Smokies at "a much more rapid rate than any other Park ever built by the Federal Government."²⁴¹ Major projects completed between 1933 and 1942 included: rebuilding and landscaping of the Newfound Gap Road; the Clingmans Dome Road and associated development at Forney Ridge; the overlook, parking area, Rockefeller Memorial, and comfort station at Newfound Gap; the Chimneys and Smokemont campgrounds; the Kephart Prong Fish Hatchery; the Sugarlands headquarters complex; the Oconaluftee Administration Building; ten fire towers and nine lookout cabins; limited restoration of pioneer structures; an extensive trail system; and nine shelters on the Appalachian Trail.²⁴² The Little River/Laurel Creek Road was more than 90 percent complete at the time park construction projects ceased in 1942.

Road Construction

The Newfound Gap Road (located in both Sevier County, Tennessee, and Swain County, North Carolina; currently 31 miles long and designated U.S. 441) was and remains the only improved road traversing the Great Smoky Mountains in the park; consequently, its configuration and design were destined to have a profound impact on the visitor's experience of the park. The work done on the Newfound Gap Road by the states proved to be seriously deficient, and improving it was a top NPS priority. The Tennessee section (then designated Tennessee Route 71), which largely follows the West

²³⁹ "Great Smoky Mountains National Park, Roads – Trails – Utilities, 1934–1964," (Great Smoky Mountains National Park, Gatlinburg, TN, 1964), n.p.; Superintendent's Monthly Report, May 1933, 7.

²⁴⁰ Superintendent's Monthly Reports, September 1940, 1–3, and July 1942, 10; 1937 Master Plan.

²⁴¹ Superintendent's Monthly Report, September 1935, 4.

²⁴² The pioneer structure restorations are discussed in Section E.5 of this MPDF. The approximately 800 mile trail system that includes 71 miles of the Appalachian Trail and associated shelters is not addressed in this MPDF. A National Register MPDF for the entire Appalachian Trail was accepted by the Keeper in June 2015; individual nominations for each state's segment of the trail will address the portion located within Great Smoky Mountains NP. Future study of the historic significance of the remainder of the Great Smoky Mountains NP trail system may result in an amendment to this MPDF.

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Prong of the Little Pigeon River, was almost entirely reconstructed under NPS and BPR supervision with PWA funding between 1932 and 1939. The NPS also rebuilt portions of the North Carolina section (North Carolina Route 107). Between 1961 and 1965, the NPS entirely rebuilt a 10 mile section of the Newfound Gap Road in North Carolina extending from the gap south to Kephart Prong, following alignment and design standards similar to those employed in the initial road construction (see Section E.6). The remaining 6 miles of road from Kephart Prong to the Cherokee boundary follows the original alignment.²⁴³

Stone bridges, culverts, guard walls, retaining walls, tunnel portals, tree wells, and curbing and timber guardrail along Newfound Gap Road and the other pre-1942 park roads followed design guidelines developed by the Eastern Division of the Branch of Plans and Design. Although these guidelines grew out of those developed previously for the large western parks, stonework in Great Smoky Mountains NP used more squared-off stones, laid horizontally with more prominent joints, than was typical in the western parks. In 1932–1933, NPS Director Horace Albright approved standard stone guard wall and culvert designs for the park recommended by Charles Peterson. In 1935, Park Service landscape architects compiled a volume entitled *General Construction Notes for the Great Smoky Mountains National Park*. This work codified the design standards and construction experience gained in the park and helped guide the remaining development. Plans and design standards developed for the Newfound Gap Road were applied to the Clingmans Dome and Little River/Laurel Creek roads.

The NPS originally planned Clingmans Dome Road (Sevier County, Tennessee, and Swain County, North Carolina) as a scenic route running along the crest of the Smokies from Newfound Gap to the park's west boundary. Only a 7.66 mile, dead-end section was built, extending from the Newfound Gap Road, at the gap, to a parking lot on Forney Ridge, elevation 6,311 ft, on the southern slope of Clingmans Dome, a 6,643 ft peak. The BPR and NPS built the road with PWA funding. The road was completed in November 1935. Local stone was used for retaining walls, culvert headwalls, and curbing at pullouts following standards very similar to those specified for the Newfound Gap Road.

The Little River/Laurel Creek Road (Route 3, Sevier and Blount counties, Tennessee) is an east-west through road that runs from the Sugarlands headquarters through Fighting Creek Gap to Little River, along the Little River Gorge to Tremont Junction, up the West Prong and Laurel Creek, through Crib Gap to Cades Cove. Much of the 18 mile road paralleled existing roads and a logging railroad bed, but the section along Laurel Creek from Tremont Junction to Cades Cove was new. Construction proceeded on various segments of this road until suspended for the war effort. The section from Elkmont Junction to Fighting Creek Gap was finished in 1939. Most of the work on the segment from Townsend

²⁴³ Bureau of Public Roads, "Report on Great Smoky Mountains"; "Roads - Trails - Utilities, 1934–1964," 2, 4; Superintendent's Monthly Report, September 1934, 6; "General Report, Fifth Period, Emergency Conservation Work, Great Smoky Mountains National Park," 1935, 4–5; Memorandum, R. A. Wilhelm, Landscape Architect, to Superintendent, Great Smoky Mountains National Park, June 7, 1957; Notice of Final Inspection, Realignment of Newfound Gap Road, October 5, 1964; "Cherokee-Newfound Link Completed," *Waynesville Mountaineer*, July 5, 1965.

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Wye to Cades Cove was completed between 1938 and 1942. When work on the Little River/Laurel Creek Road was suspended in December 1942, it was reported to be 92.5 percent complete. Not until the early 1950s did the NPS complete and open to the public the final section from Three Forks to Cades Cove, which included five bridges over Laurel Creek. The portion from Sugarlands Headquarters to Fighting Creek was also rebuilt between 1947 and 1952.²⁴⁴ The sections of the road completed after World War II conform in all essential respects to the design philosophy and guidelines of the previous period.

The Elkmont Spur (Route 4), a 1.5 mile road from the Little River Road to Elkmont, follows the route of tracks laid by the Little River Railroad and abandoned in 1924. The State of Tennessee built a road over this right-of-way between 1928 and 1931. CCC men built two bridges in 1938 and 1939 on this road. The Park Service also rebuilt one major bridge and reconstructed culverts on the Townsend Entrance Road (Route 3C), the 0.75 mile road from the park boundary at Townsend to its junction with the Little River Road at Townsend Wye.²⁴⁵

In addition to the new road construction, the CCC made improvements to existing roads within the park. Between 1934 and 1938, CCC workers stabilized the slopes of Rich Mountain Road, reconstructed two bridges, and relocated an approximately 1 mile section of Parsons Branch Road near Cades Cove. They also constructed Balsam Mountain-Straight Fork Road over abandoned logging railroad beds stretching 33 miles from Ravensford through the Cherokee reservation to Round Bottom and Balsam Mountain then south to Black Camp Gap. The primitive dirt road functioned as an NPS truck trail between 1938 and 1943, when the section from Ravensford to the edge of Heintooga Ridge was opened to motorists. From 1934 to 1942, CCC laborers widened and resurfaced several miles of Cataloochee Turnpike (aka Route 284) and Cataloochee Road (aka Cataloochee Entrance Road or Cataloochee Valley Road).²⁴⁶

Newfound Gap Overlook (Sevier County, TN/Swain County, NC)

Newfound Gap was not only the highest elevation (5,548 ft) on the park's principal thoroughfare; it was also the original beginning point of the Clingmans Dome Road. NPS designers planned a scenic overlook and parking area with a comfort station for this spot and chose it as the site of the Rockefeller Memorial. The Newfound Gap Parking Plaza was complete

 ²⁴⁴ Master Plan, 1942; Superintendent's Monthly Report, October 1942, 3, August 1950, 1; "Inventory and Inspection Report, Cades Cove Road" (typescript, September 11, 1950, Great Smoky Mountain National Park, Gatlinburg, TN).
 ²⁴⁵ Master Plan, 1938.

²⁴⁶ Cornelius Maher and Michael Kelleher, "Great Smoky Mountains National Park Roads and Bridges, Cataloochee Valley Road," HAER No. TN-35-F (Washington, DC: Historic American Engineering Record, NPS, 1996), 6–13; Maher and Kelleher, "Great Smoky Mountains National Park Roads and Bridges, Heintooga Round Bottom Road and Balsam Mountain Road," HAER No. TN-35-M (Washington, DC: Historic American Engineering Record, NPS, 1996), 6–11; Maher and Kelleher, "Great Smoky Mountains National Park Roads and Bridges, Cataloochee Trail and Turnpike," HAER No. TN-35-N (Washington, DC: Historic American Engineering Record, NPS, 1996), 6–12; Maher and Kelleher, "Great Smoky Mountains National Park Roads & Bridges, Gatlinburg Vicinity, Sevier County, TN," 19–21, 62, 99; NPS, *Cultural Landscapes Inventory: Cades Cove Landscape*, 24–26, 29, 32, 38; Shields, *The Cades Cove Story*, 13.

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by 1938. The CCC contributed stone work and landscaping to the project. In a 1960s Mission 66 project, the NPS enlarged and reconfigured the parking plaza as part of an overall scheme to reduce traffic congestion at Newfound Gap; see Section E.6 for more details on these alterations.²⁴⁷ CCC laborers from one of the Sugarlands camps (NP-2) and the Kephart Prong camp (NP-5) began construction on the Newfound Gap Comfort Station in July 1938, and the facility opened in April 1939. In 1967, Job Corps enrollees rehabilitated this comfort station, the first of eight stone comfort stations erected in the park by the CCC.

The Rockefeller Memorial at Newfound Gap brought together John D. Rockefeller, Jr., whose largesse helped make the park possible, and Henry V. Hubbard, a prominent American landscape architect and partner in the landscape architecture firm Olmsted Brothers in Brookline, Massachusetts.²⁴⁸ The legislatures of Tennessee and North Carolina each appropriated \$10,000 for the memorial's design and construction. Paul Manship, a noted American sculptor with long-standing ties to the Rockefeller family, designed the cast bronze tablet affixed to the wall of the upper terrace. Hubbard designed a fountain with a bronze spout for the lower terrace.²⁴⁹ The memorial was completed in September 1939 and served as the site of the park's formal dedication by President Roosevelt in September 1940.²⁵⁰

Chimneys Campground (Sevier County, TN) and Smokemont Campground (Swain County, NC)

The first two permanent campgrounds in the park, at Chimneys (elevation 2,750), 6 miles south of the Tennessee park entrance, and Smokemont (elevation 2,198), 5 miles north of the North Carolina entrance, were designed to be easily accessible. Both were reached by short spur roads from the Newfound Gap Road and were sited in river valleys, where reasonably level land and water supplies were available. Chimneys had eighty-one camp sites and Smokemont originally had one hundred before it was expanded. By July 1938, one comfort station had been completed at each campground, and the park officially opened both campgrounds to the public on July 30, 1938.²⁵¹ The Chimneys Campground, now a picnic area, also originally included ten fish-rearing pools, constructed by the CCC in 1934 and placed in operation in April 1935. Until 1942, when the CCC program ended, CCC men raised trout fingerlings in the pools for release into park streams. CCC men also built an amphitheater at Smokemont, which was replaced by a new amphitheater in the Mission 66 period. Still functioning as a campground, Smokemont received forty additional campsites, three comfort stations, and

 ²⁴⁷ Superintendent's Annual Report, 1937, 5; Superintendent's Monthly Report, September 1937, 4; Drawing #2166, "Parking Areas," part of 1942 Great Smoky Mountains National Park Master Plan.
 ²⁴⁸ Hubbard was professor of landscape architecture at Harvard University from 1906 to 1941, long-time editor of the journal

²⁴⁸ Hubbard was professor of landscape architecture at Harvard University from 1906 to 1941, long-time editor of the journal *Landscape Architecture*, a partner in the Olmsted Brothers firm, and author of the widely used text *An Introduction to the Study of Landscape Design* (McClelland, *Presenting Nature*, 40–45).

²⁴⁹ John D. Rockefeller, Jr., to Arno B. Cammerer, April 21, 1938; Paul V. Manship to Henry V. Hubbard, May 26, 1938; Arno B. Cammerer to Henry V. Hubbard, May 28, 1938; Arno B. Cammerer to Paul V. Manship, June 8, 1938; Henry V. Hubbard to file, July 30, 1938; Henry V. Hubbard to H. T. Thompson, February 1939, all in Olmsted Papers.

²⁵⁰ John D. Rockefeller to Arno B. Cammerer, April 21, 1938, Olmsted Papers; Estimate for Laura Spelman Rockefeller Memorial, July 1938, Olmsted Papers; Superintendent's Monthly Reports, December 1938, January, April, and September 1939.

²⁵¹ Drawings NP-GSM 3027 and 3027B, "Comfort Station - Type 1," January 25, 1937.

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a campground store/shelter (later removed) after 1945 (see Section E.6).

Forney Ridge Overlook (Swain County, TN)

At the end of the Clingmans Dome Road, NPS landscape architects designed a parking area at Forney Ridge for 250 automobiles. CCC laborers landscaped the parking area and built a trail from its western end to the summit of Clingmans Dome. CCC men from the NP-2 camp at Gatlinburg began work on a stone comfort station near the west end of the parking area in July 1939, and the Forney Ridge comfort station opened in July 1941. CCC enrollees also graded and planted around the building in 1941. In 1968–1969, Job Corps enrollees remodeled the comfort station and altered its immediate surroundings. The NPS converted the facility ca. 2010 to a seasonal visitor information center.²⁵²

Because spruce trees on the summit obscured views, the CCC in 1937 began work on a log observation tower, which was completed in 1938. Supported by four large timbers at the corners, the tower's 14 ft square observation platform was 40 ft above the ground. Park staff removed the deteriorated tower in 1950. As part of the Mission 66 effort, the NPS erected a poured concrete observation tower with a spiral ramp on Clingmans Dome in 1959 (discussed in Section E.6).²⁵³

Fire Prevention²⁵⁴

To facilitate early detection of and response to forest fires, the NPS constructed ten fire lookout towers and nine lookout cabins in the park between 1934 and 1939. Several more towers were built just outside the park's boundaries in adjacent national forests to work in cooperation with the NPS. Fire towers were a critical component of the initial wildfire management policy developed by the United States Forest Service (USFS), which called for complete fire suppression as opposed to the prescribed burns generally employed to control wildfires in public lands today. During the 1930s, the CCC built 3,400 fire towers across the country. In Great Smoky Mountains NP, they constructed nine of the ten towers and the corresponding cabins; the NPS and the PWA are listed as the builders for the Shuckstack tower.²⁵⁵

In the 1970s, both the USFS and the NPS shifted away from fire suppression as a general policy. At the same time, they stopped manning fire towers in favor of more modern techniques such as aviation management.²⁵⁶ Many of the structures

²⁵² Drawing NP-GSM 2006A, "Comfort Station - Forney Ridge," August 31, 1939.

²⁵³ Superintendent's Monthly Report, September 1938, n.p., June 1939, 4, July 1939, 2, July 1941, 4, August 1941, 3; Superintendent's Annual Report, 1937, 5–6; Hubbard Trip Report, April 2–7, 1938; Letter, H. F. Holt to R. P. White, June 30, 1939; Carson Brewer, "Clingmans Dome Tower Opened," *Knoxville News-Sentinel*, October 24, 1959.

²⁵⁴ Information on the historical context for fire prevention at Great Smoky Mountains NP was taken from the recent thesis study by Laura Beth Ingle, "Every Day is Fire Day: A Study of Historic Fire Towers and Lookout Life in the Great Smoky Mountains National Park" (Master's thesis, The Graduate Schools of Clemson University and the College of Charleston, 2011).

²⁵⁵ Ingle, "Every Day is Fire Day," 13, 19.

²⁵⁶ Ingle, "Every Day is Fire Day," 26.

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associated with fire control deteriorated over the subsequent decades due to lack of maintenance, and large numbers of fire towers were removed. Four towers and one cabin remain extant within Great Smoky Mountains NP. The PWA erected the Shuckstack Fire Tower in 1934, at an elevation of 4,020 ft in Swain County, North Carolina. The CCC constructed the Mount Sterling and Cove Mountain towers in 1935. The Mount Sterling Tower, the highest tower in the park, sits at an elevation of 5,835 ft in Haywood County, North Carolina. The Cove Mountain Tower in Sevier County, Tennessee, is located at an elevation of 4,091 ft. CCC men from the Mount Sterling camp (NP-7) began construction of the lookout at Mount Cammerer (known as White Rock Mountain until 1942) in Cocke County, Tennessee, in June 1937, and completed it in September 1939.²⁵⁷ The stone structure with integral living quarters corresponds to the Type #9 octagonal stone fire lookout, one of several standard plans for fire lookouts developed between 1930 and 1932 by the NPS Landscape Division under Thomas Vint's supervision.²⁵⁸ The High Rocks Tower is no longer extant, but the adjacent lookout cabin constructed from 1935–1936 by the CCC remains at an elevation of 5,185 ft in Swain County, North Carolina.²⁵⁹

Headquarters Area (Sevier County, TN)

As early as July 1931 Superintendent Eakin investigated the Sugarlands area as a possible site for the park's headquarters. The Sugarlands is that portion of the valley of the West Prong of the Little Pigeon River lying from 1 to 2.5 miles south of the Gatlinburg entrance to the park. Versions of the master plan from the 1930s provided for a park administrative area at Fighting Creek's junction with the West Prong and a "Sugarlands Developed Area" in the meadowlands just to the south.²⁶⁰ The Sugarlands Developed Area, which was never realized, was to have included a one-and-one-half-story stone lodge with lounge and dining room, a bath house, 200 one- and two-room lodge cabins, 175 two- to four-room housekeeping cabins, a retail area, and an auto and trailer camp. For the park headquarters area, the 1930s master plans specified an administrative complex comprising a headquarters building and a museum building, a residential group for park staff, and a utility group.²⁶¹ All three groups were sited west of the Newfound Gap Road, with the headquarters complex in the V created by the confluence of Fighting Creek and the West Prong, the residential area on a rise just to the northwest across Fighting Creek, and the utility group farther north on the banks of the West Prong. Only the administration building, a garage building, and related roads, paths, bridges, and landscaping were completed prior to the onset of World War II.

From 1931 until 1940, the park's headquarters occupied two small frame buildings on the grounds of the now-demolished

²⁵⁷ Edward L. Trout, "Draft Historic Structure Report: Mt. Cammerer Fire Tower, Great Smoky Mountains National Park" (typescript, n.d., Great Smoky Mountains National Park, Gatlinburg, TN), 4–7; Superintendent's Monthly Report, September 1939, 1.

²⁵⁸ J. D. Coffman to J. Eakin, November 4, 1936; J. R. Eakin to Regional Officer, Region One, December 3, 1936; Conrad L. Wirth to J. R. Eakin, March 9, 1937; Drawing NPS-GSM 1126, 1937.

²⁵⁹ Ingle, "Every Day is Fire Day," 56-60.

²⁶⁰ 1937 Master Plan.

²⁶¹ 1937 Master Plan, 1942 Master Plan.

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Mountain View Hotel in Gatlinburg. In 1938, Charles I. Barber of the Knoxville architecture firm Barber & McMurry donated his services as consulting architect on the headquarters building. The final design for the headquarters building appears in an elevation signed by Charles I. Barber on October 31, 1938, and approved by NPS Director Arno B. Cammerer on November 8, 1938. A 1938 PWA allocation of \$65,000 allowed construction of the headquarters building to begin in December 1938 using day labor. In July 1939, the NPS awarded a contract for the completion of the building to Southeastern Construction Company of Charlotte, North Carolina. The new building was occupied January 19, 1940.²⁶²

The 1930s master plans specified two ten-bay garages for the area behind the headquarters building, with the three buildings forming a U-shaped court. Between the headquarters and the garages was a staff parking lot, and between the two garages was a planted island. Only the westernmost of the two garages was ever built. CCC laborers broke ground for the garage in October 1940 and completed the building the following October. The CCC devoted 3,518 man-days to the building's construction, and materials cost \$5,500.²⁶³ The CCC did the final grading, walks and drives, and landscaping around the headquarters area in 1940 and 1941.

Oconaluftee Administration Building (North Carolina Headquarters) (Swain County, NC)

Although the main park headquarters was assigned to the Tennessee side of the park, an administrative presence near the North Carolina entrance was also necessary. Park planners chose an area near the confluence of Raven Fork Creek with the Oconaluftee River, named Floyd Bottoms for the family that once farmed there. As envisioned in the 1930s versions of the master plan, the North Carolina headquarters was to have included an administrative group comprising an administration building/ranger station and a museum building, a residential group, and a utility group. Only the Oconaluftee Administration Building and related parking areas were completed prior to World War II.²⁶⁴ Architect Charles I. Barber also consulted on the design. Crews began work on the building in December 1938. After a number of construction delays caused by cold weather and the lack of detailed plans, rangers occupied the building November 25, 1940.²⁶⁵ Following the building's completion, CCC men finished grading, landscaping, and construction of parking areas. In the 1970s, the NPS constructed a new visitor parking area south of the administration building to supplement the lot on the west side of the building. In 2010, a visitor center/museum and a comfort station were built south of the administration building, at the east end of the expanded 1970s parking area, and the flagstaff was relocated closer to the new visitor center.

Fish Hatcheries/Kephart Prong Fish Hatchery (Swain County, NC)

²⁶² "Park Administration Building, Great Smoky Mountains National Park," typescript in park building files, n.d.

²⁶³ Superintendent's Monthly Reports, October 1940, October 1941.

²⁶⁴ Master Plan, n.d. [1935–1936?]; Drawing NP-GSM-2165-B, 1942.

²⁶⁵ Superintendent's Monthly Reports, October 1938, 1; November 1940, 1; "Final Report on Construction of the Secondary Administration Building," 1–4.

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In 1935 and 1936, the U.S. Bureau of Fisheries built a fish hatchery complex at the point where Kephart Prong enters the Oconaluftee River on the North Carolina side of the park. Sited in the V of land between the two rivers, the facility was reached by a short access road from the Newfound Gap Road. The WPA funded construction of four buildings—the hatchery, a workshop, a residence, and a garage—and CCC men built sixteen circular and six rectangular fish-rearing pools and graded and planted the 10 acre site. The hatchery suspended operations in 1948, and all traces of this installation are now gone. Surviving photographs show wooden, gable-roofed buildings and stone-rimmed rearing pools. The hatchery had an annual capacity of 250,000 rainbow and eastern brook trout, which were released to park streams. In December 1939, the CCC began work on footings for a new concrete bridge to carry the hatchery access road across the Oconaluftee River. Work on this bridge was suspended when the CCC program ended in July 1942 and never resumed.²⁶⁶

5. Early National Park Service Preservation Philosophy, ca. 1930–1960

The historic preservation program established at Great Smoky Mountains NP during its initial development and implemented between 1926 and 1959 rationalized the relocation and reconstruction of settlement-period buildings and structures as a method of interpreting the region's mountain culture through the creation of outdoor field museums. Many of the pioneer buildings and structures within the park, including some that have been moved, have been nominated to the National Register for their architectural significance. Resources restored and/or reconstructed on their original sites are also evaluated under the settlement-period context in Section E.1. Moved resources that lack integrity under the settlement-period context may still be considered eligible under the preservation context described in this section.

Historic Preservation in the United States, 1930-1960

The NPS developed its approach to managing extant cultural resources at Great Smoky Mountains NP during the initial park development period (1926–1942), which coincided with the agency's full-fledged entrance into historic site management. The same general approach continued to be used for post-World War II preservation projects at the park. Pragmatic considerations factored heavily in the decisions made, but the over-arching historic preservation principles put in place at the national level guided park management to some extent as well. These principles drew on national trends in the preservation and interpretation of historic resources, in particular the precedents set by Colonial Williamsburg and other outdoor museums established in the 1930s and 1940s and the prevailing "pioneer myth" of the 1930s.

Before the physical restoration of eighteenth-century Williamsburg, Virginia, in the 1920s and 1930s, historic

²⁶⁶ Superintendent's Monthly Reports, December 1939, 3, July 1942, 4; Superintendent's Annual Reports, 1936, 6, 1937, 6, 18; Drawing NP-GRSM-2168-A, "Kephart Developed Area," 1942.

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preservation in the United States remained largely in the local sphere, with small private organizations raising funds to save individual buildings as needed. The Reverend W.A.R. Goodwin took on a project of much greater magnitude when he embarked on his creation of an outdoor museum of Colonial American history at Williamsburg that ultimately involved the restoration and reconstruction of over 500 Colonial-period buildings alongside the demolition of over 700 buildings that post-dated 1790. Goodwin's cultivation of John D. Rockefeller, Jr., as the wealthy benefactor of his Colonial Williamsburg project pushed preservation into the realm of private philanthropy on a much broader scale and expanded the scope of preservation's potential. By the time the first phase of the Williamsburg restoration opened to the public in 1934, the site was firmly established as a cultural force that demonstrated the value of preserving one image of the past as an educational experience for the present.²⁶⁷

Reverend Goodwin first elucidated his vision for Williamsburg in a book he published soon after supervising the restoration of the city's historic Bruton Parish Church in 1907. When he returned to the area in February 1923, he began recruiting possible collaborators from the financial and technical spheres, including Henry Ford's son Edsel and brother William as well as Rockefeller, Jr. When Rockefeller authorized Goodwin to hire an architect to draw up a restoration plan, the latter worked closely with William Perry from the noted Boston firm of Perry, Shaw & Hepburn to produce a wealth of thoroughly researched and detailed materials that convinced Rockefeller of the project's worth. Rockefeller gradually expanded his investment in Goodwin's plans, with continued review by experts in various fields. As the work progressed, those involved encountered numerous challenges and issues related to questions of preservation ideology as well as practical questions of construction and authenticity. One of the most publicized examples was the conflict over how to develop the site of the Capitol building, where old foundations existed. To address such issues, Perry and Goodwin consulted key figures in historic preservation and architectural history, such as Fiske Kimball and A. Lawrence Kocher. The project organizers also created an advisory commission that included the most highly regarded architectural scholars of the time to review the entire process and draft restoration guidelines. Perry ultimately published his own report on the project in which he outlined his ten guiding principles for historic restoration work. The sheer volume of research done to support the project resulted in the development of a clearinghouse for all preservation-related information at Williamsburg. Kenneth Chorley, president of the Colonial Williamsburg foundation from 1935 through 1958, visited preservation groups across the country to publicize the restoration and to advise others interested in undertaking similar ventures.²⁶⁸

Colonial Williamsburg has generally been viewed as setting the standard for subsequent projects of its kind and establishing a prototype for the American historic outdoor museum. The key components of other privately funded as

²⁶⁷ Richard Handler and Eric Gable, *The New History in an Old Museum: Creating the Past at Colonial Williamsburg* (Durham, NC: Duke University Press, 1997), 31; Charles B. Hosmer, *Preservation Comes of Age, Volume I* (Charlottesville, VA: University Press of Virginia, 1981), 11, 65.

²⁶⁸ Hosmer, Preservation Comes of Age, Volume 1, 12-64.

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well as government-financed preservation work stemmed directly from key components of the Williamsburg project. These included the establishment of a strong research foundation for historic restorations and reconstructions through the assistance of expert consultants, along with a professional bias toward evaluations based on architectural merit. In the late 1920s, most professional historians focused primarily on documents rather than buildings and tended to distance themselves from historic preservation work and public history. Other professionals like landscape architects, archeologists, and contractors also had not yet looked at historic buildings as a possible area of research. Consequently, architects and architectural historians well-versed in historical revivalism strongly influenced the direction of historic preservation more fully.²⁶⁹ This architectural orientation manifested itself at Williamsburg in a greater initial focus on architectural considerations than on questions of historical interpretation. Williamsburg's success in attracting visitors to the restored city streets also popularized the trend of preserving and grouping buildings as interpretive tools and relying on nostalgia to appeal to public sentiment. Goodwin's work established a clear precedent for the reconstruction of lost buildings as well, demonstrating that the past could be re-created to suit any program. On a practical level, Goodwin also introduced the concept of employing lifetime leases as a development tool to enable restoration work to occur in active, as well as vacant, neighborhoods.²⁷⁰

Despite Williamsburg's popular success as a tourist attraction, criticisms of the site when it first opened included its "neatness and newness" as well as its static nature, lacking in any attempts to bring the city's history to life for visitors.²⁷¹ Later phases of the work at Colonial Williamsburg introduced shops with skilled tradesmen working at eighteenth-century crafts to interpret the meticulously restored streetscapes for the crowds of visitors. However, the Williamsburg project remained more committed to authentic restoration as its primary goal, as reflected in statements by Kenneth Chorley regarding his concern about the inaccuracy of the buildings at Henry Ford's outdoor museum in Dearborn, Michigan.²⁷²

American automotive entrepreneur Henry Ford opened Greenfield Village in 1929 in direct contrast to the development underway at Williamsburg. Ford imitated Goodwin's overall concept of using restored historic buildings to re-create the past and create an educational forum. However, the direct model for his museum came from farther afield, at Skansen in Stockholm, Sweden. One of the world's first open-air museums, Artur Hazelius founded Skansen in 1891, moving about 150 furnished houses and farmsteads from across the country to the site where he created a "miniature historical Sweden" composed of traditional culture exhibits that include cultivated plots and gardens and domestic and

²⁶⁹ Denise D. Meringolo, *Museums, Monuments, and National Parks: Toward a New Genealogy of Public History* (Amherst, MA: University of Massachusetts Press, 2012), 94–95.

²⁷⁰ Hosmer, Preservation Comes of Age, Volume 1, 12-64.

²⁷¹ Hosmer, Preservation Comes of Age, Volume I, 54.

²⁷² Hosmer, Preservation Comes of Age, Volume I, 77–78.

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wild animals.²⁷³ At Greenfield Village, Ford collected nearly one hundred buildings from the seventeenth century to the present and arranged them in a village setting that he presented as "an animated textbook" of American history. The village also included some reconstructions of significant historic buildings, such as a replica of Thomas Edison's laboratory complex in Menlo Park, New Jersey. Like Rockefeller, Ford relied on experts for advice, but overall he was less concerned about the architectural authenticity of his restorations.²⁷⁴

Other outdoor museums established after Williamsburg started from the same fundamental basis that historic building groups could serve as interpretive tools but adjusted the formula to adapt it to other circumstances. In most cases, the developers did not start with an existing historic community as at Williamsburg but instead created a synthetic museum setting on a more or less blank slate along the lines of Greenfield Village. Businessman Stephen C. Clark specifically intended his project in Cooperstown, New York, not as "another Williamsburg" but as a demonstration of "the life of village farmers in and around Otsego County in the early 1800s."²⁷⁵ The Farmer's Museum he opened there in 1944 included a re-creation of a village crossroads assembled as a collection of buildings relocated from other rural communities around New York State and a working farmstead complex. At Old Sturbridge Village in Massachusetts, which opened in 1946, businessman and antique collector Albert Wells created a reconstruction of a New England industrial community on a former mill site. Wells' goal was to establish a "living museum where the arts and industries of early rural New England will be preserved and taught anew...will not pretend...to be a finely accurate reconstruction or restoration."²⁷⁶ Notably, Wells engaged the principal landscape architect involved with the Williamsburg restoration, Arthur A. Shurcliff, to design the Sturbridge village green, manipulating the site to suit his vision in such a way as a playwright might hire a set designer to create a scene for a particular production.

The wealthy philanthropists behind the Cooperstown and Sturbridge projects saw the educational value in a cohesive grouping of buildings as superseding any concerns over integrity of location. Like Ford, they were less concerned with authenticity than with creating a suitable backdrop for their particular, highly selective view of history. However, often the relocation of a historic building in the service of the museum's primary educational objective also resulted in the beneficial effect of saving it from demolition. Beginning with their purchase of the Deerfield Inn in the early 1940s, the Flynt family restored a number of buildings on their original sites along Main Street in Deerfield, Massachusetts, in an effort to preserve the quaint New England atmosphere of the town and protect it from new development. They also moved in several buildings from nearby towns that were threatened with demolition, ultimately creating a composite outdoor museum of houses dating from 1730 to 1850. By 1949, plans involving re-created groupings of restored historic buildings were underway for similar outdoor museums in Mystic, Connecticut, Plymouth, Massachusetts, and

²⁷³ "About Skansen," accessed July 9, 2015, http://www.skansen.se/en/artikel/about-skansen-0.

²⁷⁴ Hosmer, Preservation Comes of Age, Volume 1, 78-80.

²⁷⁵ Hosmer, Preservation Comes of Age, Volume 1, 104.

²⁷⁶ Hosmer, Preservation Comes of Age, Volume 1, 114.

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Shelburne, Vermont, demonstrating the enduring popularity of the Colonial Williamsburg and Greenfield Village models.²⁷⁷

Sites like Greenfield Village and the Farmers' Museum presented nostalgic versions of history in part because these stories appealed to Americans in the first half of the twentieth century. The onset of public fascination with the nation's past occurred during the post-Civil War years, when the Colonial Revival movement inspired antique collecting, historical pageantry, reproduction furniture, period rooms, historic house museums, and architecture. Hereditary and patriotic organizations formed to assert the importance of tradition in reaction to a rapidly changing society. The cultural climate of the Progressive Era continued to espouse traditional values within a framework of reform that surged to the forefront after the Great Depression. National intellectual trends during the New Deal years emphasized regionalism, folklore, the idealization of our agrarian past, and nostalgia for self-reliant communities. Interdisciplinary efforts to document "authentic and indigenous ways of life in isolated corners of America" included many of the federal work programs implemented during this period, such as the Historic American Buildings Survey (HABS) project that documented buildings erected prior to 1860, the Farm Security Administration that photographed family farms throughout the country, and the Federal Writers' Project that gathered folktales and oral histories from former slaves, farmers, and workers.²⁷⁸ In 1936, *National Geographic* in 1936 observed that the traditional mountain folkways added "'human interest' to scenic beauty."²⁷⁹

Likewise, a sentimental and admiring, while simultaneously condescending and interventionist, perspective shaped much of the contemporary popular images of the cultural history of Southern Appalachia. Commentators in the late nineteenth and early twentieth century tended to exaggerate Appalachian residents' isolation from mainstream culture and emphasize the survival of archaic language, music, and crafts among their communities. Local colorists, such as Mary Noailles Murfree and Horace Kephart, depicted the region's culture in fiction and brought national recognition to the area. Murfree visited Cades Cove in the 1870s and wrote novels based on her highly romanticized impressions of the people, while other writers in the 1880s depicted their lives as brutal and desperate. Kephart, an early advocate for the development of a national park in the Smokies, published his own romanticized views of mountain life and customs in the 1906 *Camping and Woodcraft* and the 1913 national bestseller *Our Southern Highlanders*. He and others idealized the mountaineers as the last vestige of America unspoiled by industrialization, urbanization, and immigration, according them the status of folk herces.²⁸⁰

²⁷⁷ Hosmer, Preservation Comes of Age, Volume I, 123–131.

²⁷⁸ Meringolo, Museums, Monuments, and National Parks, 118–120.

²⁷⁹ Roy, "Rambling Around the Roof of Eastern America," 244.

²⁸⁰ Catton, A Gift for All Time, 252; Dunn, Cades Cove, xiii-xiv; Pierce, The Great Smokies, 21.

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Settlement workers and home missionaries also encouraged the myth of the pioneer. Pi Beta Phi Settlement School, Gatlinburg, founded by the PBP Fraternity for Women in 1912, aimed to provide better education and health care for Appalachian children as well as to preserve native handicrafts. In 1929, representatives of several groups in the area, including Pi Beta Phi and six other centers for handicraft production, combined to form the Southern Mountain Handicraft Guild, now the Southern Highland Craft Guild, for the purpose of fostering handicrafts and preserving old crafts in danger of disappearing.²⁸¹

Historic Sites in the National Park System

Developments in the national park system in the late 1920s and early 1930s contributed to the shaping of the federal government's perspective on historic preservation. Not long after the establishment of Great Smoky Mountains NP as one of three new eastern parks in 1926, the NPS expanded its purview to encompass sites considered significant primarily for their historical associations rather than their natural scenic qualities. Discussions on the expansion of the NPS's oversight to include historic properties began under the first director Stephen Mather, but it was Mather's successor, Horace Albright, who led the agency "heavily into the historical park field" with the acquisition of George Washington's Virginia birthplace in 1930.²⁸² Within the next three years, Congress authorized the creation of two more historical parks, Colonial National Monument in July 1930 (re-designated a National Historical Park in 1936) and Morristown National Historical Park in March 1933.

In developing a management framework for these new types of parks during his four years as NPS Director, Albright relied on the recommendations of a 1929 report authored by the ethnologist Clark Wissler for the NPS's Committee on Educational Problems in the National Parks. Wissler removed the distinctions between scientific and historical sites implied by the language of the Antiquities Act. His enunciation of the historical qualities of monuments in the American Southwest helped justify the establishment of historical monuments in the East and brought attention to the need for an explanatory narrative at a high level based on input from various professions.²⁸³ Guided by Wissler's ideas, Albright created a historical division within the Branch of Research and Education and hired Verne E. Chatelain in 1931 as the first NPS historian. Chatelain's pioneering efforts in research, preservation, and interpretation at the Service's first three historical sites laid the foundations for the agency's historical program. In its re-creations of historic landscapes and buildings at George Washington Birthplace National Monument, Colonial National Monument, and Morristown National Historical Park, the NPS explored the relatively new field of historical restoration during the same years as the initial phase of work at Colonial Williamsburg occurred. Albright worked closely with the leadership at Colonial Williamsburg, particularly with respect to the adjacent Colonial National Monument, and encouraged a cooperative dialogue among the

²⁸¹ Catton, A Gift for All Time, 252–253.

²⁸² Albright, December 20, 1928, quoted in Hosmer, Preservation Comes of Age, Volume 1, 475-476.

²⁸³ Meringolo, Museums, Monuments, and National Parks, 92-96.

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key figures involved in the publicly and privately funded projects.²⁸⁴ Through these relationships, the NPS benefited from the management expertise of men like W.A.R. Goodwin and Kenneth Chorley and the technical restoration experience of numerous architects, as well as the patronage of John D. Rockefeller, Jr., who strongly supported the federal government's historic preservation programs.

Director Albright resigned from the NPS in August 1933 after engineering President Franklin D. Roosevelt's transfer of all national monuments to the agency's oversight, thereby quadrupling the number of historical areas within its purview and adding urgency to the need for clear preservation and restoration guidelines. Chatelain subsequently pleaded for better-quality restoration work based on thorough research and supervised by trained personnel. The 1935 Historic Sites Act, which mandated the development of museums and educational programs for historic site interpretation, also provided for a comprehensive research program within the NPS. Once again, Colonial Williamsburg's precedent played an important role in the development of federal preservation policies, as Kenneth Chorley and his staff actively lobbied for the 1935 legislation, which was drafted by Rockefeller, Jr.'s lawyer. The NPS established its first clear restoration policy on May 19, 1937. Subsequent years saw a rapid expansion in federal historic preservation activities throughout the national park system. As discussed in Section E.4, New Deal programs such as the CCC substantially assisted the NPS with its expanded mission.²⁸⁵

The earliest outdoor museums established in national parks included a replica Indian village created in the mid-1930s in Yosemite and the Pierce Mill in Rock Creek Park restored as a working grist mill in 1936. The noted restoration architect Charles E. Peterson worked on the latter project. Peterson, a landscape architect in the Eastern Division of the Branch of Plans and Design, oversaw the design of site improvements at Yorktown and George Washington's Birthplace, as well as the planning of the Colonial Parkway between Yorktown and Williamsburg. Based on his experiences, Peterson submitted a proposal in 1933 to the NPS to develop the Historic American Buildings Survey (HABS), a significant contribution to restoration scholarship. During his 33 year tenure with the NPS, Peterson became the agency's lead restoration and reconstruction planner and a staunch advocate for careful and thorough training in architectural restoration techniques. When he toured Greenfield Village in the fall of 1936, he expressed his concern about the lack of professional assistance and detailed restoration records, elements he considered key components of any authentic historic restoration.²⁸⁶ Peterson's perspective on restoration work was also informed, however, by the Colonial Williamsburg model of a holistic tourist experience constructed by landscape architects and engineers, which can be seen in many of the scripted historic landscapes created in the national parks.²⁸⁷

²⁸⁴ Hosmer, Preservation Comes of Age, Volume 1, 493–509.

²⁸⁵ Hosmer, Preservation Comes of Age, Volume I, 66–67; Unrau and Willis, Administrative History.

²⁸⁶ Hosmer, Preservation Comes of Age, Volume 1, 75, 547, 561.

²⁸⁷ Justin Reich, "Re-Creating the Wilderness: Shaping Narratives and Landscapes in Shenandoah National Park," *Environmental History* 6, no. 1 (January 2001): 95–117.

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The beginning of World War II initiated a halt in the federal government's participation in historic preservation that continued for about 10 years. Quasi-government and private non-profit organizations formed to fill the gap left by the withdrawal of federal support. In April 1947, the National Council for Historic Sites and Buildings organized to "further the preservation, study, and interpretation—of historic sites and buildings situated in the United States and its possessions and significant for American history and culture." In May 1950, the National Trust for Historic Preservation organized to supplement on a national scale the work of the NPS in holding intact sites, buildings, and other objects of historical significance. Within the park system, management during this period focused primarily on preventing and arresting the deterioration of those historic and prehistoric structures already within their custodianship that were increasingly subjected to visitor use. Travel to all areas administered by the NPS set new records in each of the first years after World War II, exacerbating problems already faced by park management. Even in 1941, campgrounds were overcrowded, roads needed upgrading to accommodate traffic loads, and utility systems were taxed. With the 1952 numbers almost twice that of 1946, many significant structures within historical parks and historic sites—including Great Smoky Mountains, Saratoga, Salem, and others—badly needed repairs.²⁸⁸ Section E.6 discusses the next major phase of development undertaken at Great Smoky Mountains and other national parks, the Mission 66 program that began in 1956.

Historic Preservation at Great Smoky Mountains National Park, 1931-1959

The general arc of preservation activity within Great Smoky Mountains NP from its initial establishment to the close of the 1950s closely paralleled and informed that of the activities within the NPS as a whole, characterized by a heavy emphasis on the earliest, pioneer-related, historic resources and a preference for artificial groupings of restored buildings. At the time of the park's authorization in 1926, hundreds of small farmsteads dotted the lower river valleys and coves, and the scars of the intensive logging that occurred between 1900 and the middle 1920s were readily apparent. Park planning efforts from the beginning were guided by the primary assumption that the Smokies would be a "natural" park, requiring the removal or disguise of substantial traces of prior human occupation as part of the restoration of the "wilderness." The NPS moved quickly to eradicate facilities erected by the logging companies (see Section E.2). In the realm of farm buildings, NPS management decided as early as 1932 to preserve only the "best" examples of pioneer log construction and remove all other buildings that were not needed for park operations. The park conducted a survey of pioneer structures and did limited restoration work with CCC funding and manpower between 1935 and 1942. Simultaneously, NPS officials debated the related issue of preserving the "mountain culture" as a significant historic way of life. Two distinct approaches emerged: 1) allowing residents to continue to practice their accustomed way of life within the park so that visitors could observe mountain farms and mills in use or 2) preserving only a few deserted farmsteads and mills as "open-air museums." By the end of the 1930s, the latter view largely prevailed, and subsequent park development reflected this preference.

²⁸⁸ Oscar L. Chapman, Years of Progress, 1945–1952 (Washington, DC: NPS, 1953), 115–129; Hosmer, Preservation Comes of Age, Volume II, 717.

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When Superintendent Eakin arrived in the Smokies in January 1931, more than 2,000 buildings and structures, ranging from crude farm outbuildings made of unpeeled round logs to substantial frame houses, were present within the authorized park boundaries. Many had been constructed within the last fifty years and were not yet considered historically significant by contemporary benchmarks, which tended to focus on buildings constructed prior to 1870. Others had been built to serve temporary needs and were never intended to stand permanently. Concerned about the potential hazards posed by abandoned buildings, from fire to re-occupation by local residents, and lacking sufficient resources to protect all of them, Eakin directed the rangers to destroy all empty buildings in the park unless he considered them to be outstanding examples of pioneer architecture. In May 1931 alone, he reported destroying one hundred buildings and selling seven others.²⁸⁹

In the spring of 1932, NPS Director Albright and Cammerer questioned Eakin's approach. Albright wrote, "I hope you are not trying to make a hundred percent clean-up of all the lands that have come under your control." Cammerer suggested that Eakin personally inspect each log cabin before deciding whether or not to destroy it. The NPS soon decided that only the "best examples" of pioneer log structures were worthy of preservation. Frame houses and outbuildings that lacked the favored rustic features were retained only if they could be used for ranger stations or quarters.²⁹⁰ Based on figures given in the Superintendent's Monthly Reports for 1931 through 1934, park staff destroyed or removed at least 280 buildings. Those that remained standing were exposed to the elements and deteriorated rapidly; some were raided for materials, while others were burned by arsonists.²⁹¹

By the fall of 1934, local civic leaders, including members of the Southern Mountain Handicraft Guild, formed a Museum Committee with divisions in East Tennessee and Western North Carolina to collect artifacts and plan a museum of mountain culture in the park. The Committee conceived of a number of "branch museums" throughout the park, composed of clusters of historic buildings. Superintendent Eakin assigned a liaison officer to each of the Committee's two divisions: Hiram C. Wilburn to the North Carolina division, and Willis King, later replaced by Charles S. Grossman, to the Tennessee division. Although technically employed by the CCC as foremen, Wilburn and Grossman essentially served as the park's first unofficial cultural resource managers. Wilburn had a strong interest in Cherokee and North Carolina history and had worked as a land surveyor for the North Carolina Park Commission, and Grossman was an architect by training.²⁹²

Wilburn and King conducted the first systematic survey of log buildings in the park in February 1935. They targeted their

- ²⁹⁰ Superintendent's Annual Report, 1932, 5.
- ²⁹¹ Catton, A Gift for All Time, 255.

²⁸⁹ Superintendent's Annual Report, 1932, 3; Superintendent's Monthly Report, May 1931, 4; John H. Sprinkle, *Crafting Preservation Criteria: The National Register of Historic Places and American Historic Preservation* (Florence, KY: Routledge, 2014), 112.

²⁹² Catton, A Gift for All Time, 253.

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effort to the log cabins in the Cataloochee watershed, identified by the Museum Committee as a possible location for a "branch museum." After Grossman came on board, he initiated a broader survey in May 1935 of all existing buildings in the park, as directed by the Historic Sites Act, using CCC labor to inventory every structure and record the best architectural examples. By the end of the year, a total of 1,427 buildings were cataloged, 499 of which were of log construction. Grossman's final 1943 report tallied more than 1,700 buildings surveyed between 1935 and 1937. The largest concentrations of log buildings were located in Sugarlands (119), Cataloochee (101), Greenbrier (73), and Cades Cove (61). For the "best" log buildings, CCC crews did measured drawings, photographs, and brief building histories. Less important log buildings were photographed and sketched. Surveyors noted but did not record the vast majority of frame buildings. The CCC also restored two old grist mills in the park to working condition, the Mingus Mill at Mingus Creek and the Cable Mill at Cades Cove.²⁹³

Grossman produced a report on the historic buildings survey in July 1937, entitled "A Study for the Preservation of Mountain Culture in Field Museums of History." He emphasized the park's impressive collection of "pioneer structures," in particular those that survived in related groups such as farmsteads in their original settings. He then outlined a twopronged "field museum" approach to preserving the already deteriorated but extremely significant buildings. Because of the park's desire to interpret the pioneer lifestyle to visitors, Grossman proposed restoring existing farmstead groupings and "reorganizing" farmsteads and communities through the use of moved and reconstructed buildings. He recommended that the museums include a generous representation of all types of early structures found within the park, but heavily weighted toward the oldest ones. Grossman's plan stated: "Each community should include several groups of domestic buildings," including "One or two of the poorly constructed box houses" as "sufficient to illustrate the effect of the coming of the lumbering industry on the life of the mountain folk." Historically significant buildings slated for removal would be numbered and conserved for future restoration. Examples of the area's industrial history should be preserved in operating condition, like the restored Mingus and Cable mills, along with examples of community buildings like churches and schools. Grossman encouraged the maintenance of old roads, foot trails, and bridges in their original condition where possible. He also took into account factors such as convenience and accessibility, proposing that the field museums be located near the planned campgrounds in the park to facilitate protection and administration as well as access to tourists. The existing groups that he recommended for restoration, such as Cades Cove, clearly lent themselves to loop trips from accessible points but still preserved the feeling of isolation seen as characteristic of the region.²⁹⁴

Senior NPS staff in Washington who reviewed Grossman's report recommended that Director Cammerer approve a "Mountain Culture Program" to guide preservation at Great Smoky Mountains, beginning with a project at Cades Cove or Sugarlands led by Grossman, Wilburn, and Arthur Stupka (the park's naturalist). The NPS concept of the park's

²⁹³ Lix, "Short History," 111; 1937 Master Plan.

²⁹⁴ Charles S. Grossman, "A Study for the Preservation of Mountain Culture in Field Museums of History" (Typescript, January 1937, Great Smoky Mountains National Park, Gatlinburg, TN).

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historical significance, described in a memo to Cammerer as "part of a cultural island, to a great extent isolated from the outside world, where we are able to see the survival in our contemporaries of language, social customs, unique processes, that go back to the 18th century and beyond," perpetuated the contemporary stereotypes of the hearty mountain pioneers immune to change. Cammerer approved the plan on February 3, 1938, and Grossman, Wilburn, and Stupka submitted their "Report on the Proposed Mountain Culture Program for Great Smoky Mountains National Park" to Cammerer in June of that year. In this seminal document for cultural resource management, the group proposed a central museum of pioneer culture and field exhibits at four other locations that would have actual people on display. Wilburn strongly espoused the living history idea, while Grossman favored the open-air museum concept.²⁹⁵ Both variants focused attention on the earliest architectural resources and applied the high-level NPS design principles of visual and cultural harmonization, methods that ensured the resulting field museums would convey the idea that places like Cades Cove were relics of the pioneer era.

Cammerer's annual report for 1939 highlighted the plans for a mountain culture program at Great Smoky Mountains, and the 1939 Master Plan for the park included field museums for Cades Cove and Mingus Creek (Oconaluftee).²⁹⁶ However, park Superintendent Eakin continually gave the field museum projects low priority so that they did not get funded. Eakin viewed lessees and empty cabins as management problems, not opportunities for interpretation. In 1940, Cammerer wrote to Eakin to remind him, "While no one wishes to minimize the importance of the fine scenic qualities of the Great Smoky Mountains area, the Service cannot on the other hand afford to neglect the human element which in this park is of especial significance."²⁹⁷ Wilburn also tried to kickstart the program that year by addressing three lengthy memos to the superintendent, including a restatement of the mountain culture program proposal that listed the buildings, industries, and craftworks planned for Cades Cove, Cataloochee, Ravensford, Smokemont, Sugarlands, and Little Greenbrier. However, most of the park staff did not share Wilburn's assertion that funding should be divided equally between cultural history and natural history projects.²⁹⁸ A letter from Eakin to Cammerer dated May 12, 1941, summarized his general management approach: "After adequate protection force has practically been achieved, it will be possible to concentrate on pioneer culture history of the Park."²⁹⁹

Similar issues arose at other parks in the system around this time, highlighting the tensions inherent in natural parks with historic resources. At Shenandoah National Park, established by Congress the same year as Great Smoky Mountains NP, the NPS also obtained a large populated area of private land for the purpose of preserving a perceived wilderness landscape. Proponents of the park in the Blue Ridge Mountains emphasized the scenic and primeval qualities of the landscape, despite the presence of human communities. A 1930 newspaper article on the proposed park noted,

²⁹⁵ Catton, A Gift for All Time, 258.

²⁹⁶ 1939 Master Plan.

²⁹⁷ Catton, A Gift for All Time, 259.

²⁹⁸ Catton, A Gift for All Time, 260.

²⁹⁹ Brown, The Wild East, 128.

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"Attractions will be, principally, the wild scenery of a timbered area largely ravaged by lumberman and the picturesque natives...It is assumed the mountain folk will not be moved from their shacks. They are local color and proof of the untamed nature of the park—just as deer or bear might be in Michigan or Alaska."³⁰⁰ However, as the NPS refined its policies regarding leaseholders during the 1930s, the plans for Shenandoah changed. Park developers ultimately "obliterated almost all traces of human history" in favor of re-creating the natural history.³⁰¹

At the other end of the spectrum, the NPS intentionally created a "museum of the managed American countryside" along the Blue Ridge Parkway, the 469 mile scenic route begun in 1935 to connect Shenandoah and Great Smoky Mountains national parks.³⁰² In their careful orchestration of the scenic experience, the planners made no pretense of preserving the existing conditions, but at the same time they acknowledged the appeal of pioneer mountain history to visitors. Following the example of the program developed at Great Smoky Mountains, NPS historian Roy Appleman co-authored a report on the "Preservation of Mountain Culture in the Blue Ridge Parkway" in October 1940. The NPS subsequently established the Mabry Mill historic area as an outdoor museum within the parkway boundary, placing clear emphasis on the region's earliest history combined with aesthetic design. Park officials removed the kerosene engine used to power the extant grist mill, rebuilt and put into service the older overshot waterwheel, and added a pond in front of the mill to enhance its photogenic qualities. They also removed a two-story frame farmhouse built in 1914 and replaced it with a log cabin from another county, relocated the Mabry blacksmith shop to a point near the mill, and installed exhibits of "mountain industry" such as a whiskey still and sorghum press. Later developments along the Blue Ridge Parkway followed the Mabry Mill model, including a pioneer farm established in 1953 near Waynesboro, Virginia, that features several examples of log architecture. The NPS also entered into cooperative agreements with the Southern Highland Handicraft Guild, which opened a Parkway Craft Center in 1951 for the sale of pioneer goods at a ca. 1900 country estate.³⁰³

To assist Great Smoky Mountains NP with the implementation of their mountain culture program, Appleman arranged for a study of the most salient issues by Dr. Hans Huth, a German expatriate and former curator of royal palaces and parks in Prussia and Berlin who worked as a special consultant for the NPS. Huth's August 1941 report noted the growing tendency within the NPS toward at least a theoretical recognition of the importance of mountain culture but acknowledged the practical difficulties involved with its preservation. He emphasized the importance of considering the entire picture in creating an open-air museum as opposed to restoring a handful of isolated buildings or confining the museums to buffer areas on the periphery of the park. He also elaborated on the general objectives behind the program, offering a glimpse into contemporary preservation philosophy:

³⁰⁰ Quoted in Reich, "Re-Creating the Wilderness," 104–105.

³⁰¹ Reich, "Re-Creating the Wilderness," 95.

³⁰² "History and Culture," accessed July 9, 2015, http://www.nps.gov/blri/historyculture/index.htm.

³⁰³ Phil Noblitt, "The Blue Ridge Parkway and Myths of the Pioneer," Appalachian Journal 21 (1994): 394–409.

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In a strictly historically determined setting, such conditions could not be allowed to be changed, for example, at Hopewell, more recent parts of the iron master's house could not be torn down in order to purify the older part of the building. Here it is different, as it is not desired to show the development of a farm group, but rather a typical one with a conglomeration of log cabin, barn, crib, pigsty, spring house and smithy in one case, while in some other, an apple-house, a mountain barn, and perhaps an apiary would be included. If it so happens that one of these buildings is missing or is represented by a modern boxed structure, there is no reason why such a building might not be supplemented by an appropriate building taken from somewhere else; all the more if it is some isolated and inaccessible structure which could not well be preserved anyhow. This procedure is perfectly legitimate as long as all the pros and cons are considered and as long as it is kept in mind that moving buildings is not the ideal procedure for preservationists.³⁰⁴

Huth's individual recommendations for how to implement the program at Great Smoky Mountains informed Appleman's own subsequent proposal, submitted December 6, 1941, the day before Pearl Harbor. Appleman outlined the concept of a central museum and three open-air museums at Cades Cove, Oconaluftee, and Cataloochee, each with a different emphasis (mountain homes/artisan colony, mills and industrial life, and farming, respectively). He also stated two basic assumptions: the program must focus on physical remains and objects associated with the pioneer way of life rather than attempt to perpetuate that way of life; and for practical reasons the buildings worth exhibiting would have to be moved and grouped in a few central locations, with the others either demolished or allowed to decay. This proposal dovetailed in many ways with that put forward by the park's interpretive division a month earlier, which called for two museums—one focused on science at Sugarlands, the other focused on mountain culture at Mingus Creek—in addition to an outdoor exhibit of log buildings at Cades Cove modeled after the outdoor museums in Scandinavia. Appleman's proposal became the basis for future development of the Mountain Culture Program at Great Smoky Mountains NP, but external events postponed any further progress on it until after World War II.³⁰⁵

When the onset of World War II ended the CCC program and reduced NPS appropriations, the maintenance and repair of pioneer structures at Great Smoky Mountains was left to leaseholders for the duration.³⁰⁶ Grossman summarized the accomplishments of the park's rehabilitation program to date in his 1943 report that listed the inspection of over 1700 buildings, most recorded with photos; scale drawings of six buildings for HABS; restoration of 12 buildings; stabilization of approximately 24 buildings; and collection of over 1300 artifacts for the mountain culture museum.³⁰⁷

In 1945, as the end of the war seemed close to reality, NPS Chief Landscape Architect Thomas Vint attempted to jump-

³⁰⁴ Hans Huth, "Report on the Preservation of Mountain Culture in the Great Smoky Mountains National Park" (Typescript, August 1941, Great Smoky Mountains National Park, Gatlinburg, TN), 26.

³⁰⁵ Catton, A Gift for All Time, 261, 265.

³⁰⁶ Superintendent's Monthly Reports, November 1942, 2, February 1953, 3.

³⁰⁷ Catton, A Gift for All Time, 261.

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start the museum program at Great Smoky Mountains with his proposal to convert the existing park headquarters at Sugarlands into a natural history museum and build scaled-down offices behind it as a lower-cost alternative to constructing a new museum building. The park's naturalist Arthur Stupka prepared an interpretive prospectus the following spring that reiterated the pre-war plan for two museums and incorporated Vint's recommendation regarding the conversion of the Tennessee headquarters into the natural history museum. In addition to the outdoor museum at Cades Cove included in the pre-war plan, Stupka also included a "major field exhibit of mountain culture" on Mingus Creek near the proposed mountain culture museum, consisting of farm units in a natural setting, a tub mill, pounding mill, and schoolhouse, all furnished but not occupied. The prospectus also called for minor field exhibits at the Jim Carr place on the main park road and the Bales place at Roaring Fork, as well as the stabilization of other important pioneer buildings in Cataloochee, Deep Creek/Indian Creek, and Greenbrier. Despite its ambitious restoration scope, described by some regional staff as "on a par with Williamsburg," the NPS director signed Stupka's proposal on May 6, 1946.³⁰⁸

Minimal funding over the ensuing decade, however, tabled the program once more. The park was able to undertake restoration and rehabilitation work on approximately 48 historic buildings throughout the park, primarily in Cades Cove and Cataloochee. To pacify impatient North Carolina residents who lamented the lack of interpretive programs on their side of the park, the regional office opened a temporary Pioneer Museum exhibit at the Oconaluftee Ranger Station in the summer of 1948. In August 1952, Charles Grossman returned to the park from his current post at the Blue Ridge Parkway to oversee the initial phase of the mountain culture field museum at Oconaluftee, which opened to the public in June 1953. Additional buildings were added to the Pioneer Farmstead when funds allowed in 1959.³⁰⁹

After this point, park development, including management of field museums, changed its focus to visitor experience enhancements. In the 1960s, living history became the primary component of the interpretive programs, which expanded to encompass mountain culture from ca. 1890–1920 along with the earlier history. However, the field museums and other extant historic resources reflected the preservation decisions made in the 1930s and 1940s, characterized by a concentration on the settlement period. Management of these resources after 1959 consisted primarily of continued maintenance and stabilization, with no major alterations to the original compositions and landscapes.³¹⁰

Park Preservation Activity, 1933–1959

The preservation projects undertaken at Great Smoky Mountains NP during the initial park development period were concentrated primarily in three distinct areas: Mingus Creek/Oconaluftee (Swain County, North Carolina); Cades Cove (Blount County, Tennessee); and Cataloochee (Haywood County, North Carolina). Some isolated rehabilitations of

³⁰⁸ Catton, A Gift for All Time, 267.

³⁰⁹ Catton, A Gift for All Time, 267; Superintendent's Monthly Reports, August 1952–January 1953, January–July 1959.

³¹⁰ Catton, A Gift for All Time, 270–274.

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historic resources occurred in other areas of the park.

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The CCC completed repairs to the Mingus Mill in 1936 and 1937, and the NPS subsequently leased it to a local miller for demonstration purposes until 1940. In 1963, the Knoxville company that built the original turbine for the mill completely reconstructed and restored the dam, mill race, flume and turbine, although it was not connected to the shafts that turn the stones until 1968, when the NPS rehabilitated it again.³¹¹ The mill has operated seasonally since then under a cooperative agreement between the park and the Great Smoky Mountains Association. The dam, race, flume, and penstock have been repaired many times and completely rebuilt at least twice.

The re-erection of selected buildings as a pioneer culture exhibit under the supervision of NPS Architect Grossman began in September 1952. Over the next four months, nine restored buildings were arranged on a site near the ranger station/museum and the Oconaluftee River so that visitors could circulate easily through a "typical" nineteenth-century farmstead: the Joe Queen House and Corn Crib and Jim Beard Corn Crib/Gear Shed from the Thomas Divide near Deep Creek; the Conard Meat House, Caldwell Spring House, and Messer Apple House from Cataloochee; a blacksmith shop from Cades Cove; the Jenkins Chicken House from Indian Camp Creek; and the Floyd/Enloe Barn from a site only 200 yards away. Local craftsmen performed much of the work, using historic methods to produce replacement building materials as needed. After the Pioneer Farmstead officially opened in June 1953, visitation to the North Carolina side of the park reached an all-time high. As a testament to the perceived authenticity of the reconstructed farmstead, the Walt Disney Production company used the site as a stage set in the fall of 1954 for a television movie about Davy Crockett.³¹²

When funding became available in late 1958, the park completed additional field surveys at the Pioneer Farmstead and awarded a contract for the relocation of several more buildings in the spring of 1959. Park documents do not list the specific buildings included in this phase of the project, but they likely included a pig pen from Indian Camp Creek. At some point during the farmstead development in the 1950s, workers also constructed several ancillary structures intended to replicate examples found throughout the park, including a woodshed, an outhouse, and a bee gum stand.³¹³

The NPS established the first outdoor museum at Great Smoky Mountains NP in the idyllic valley of Cades Cove, which it deliberately designated as a setting for pioneer-themed exhibits. Between 1935 and 1937, CCC crews restored the overshot mill in Cades Cove while Grossman oversaw the park-wide building inventory and developed his plan for creating field museums. The operating Cable Mill opened to the public as an historical exhibit in 1936 and became the

³¹¹ Trout, "Milling in the Smokies."

³¹² Superintendent's Monthly Reports, August-September 1954.

³¹³ Superintendent's Monthly Reports, January–July 1959; Dale Ditmanson, Superintendent, Great Smoky Mountains NP, to Jeffrey J. Crow, State Historic Preservation Officer, North Carolina, August 31, 2012, on file at Great Smoky Mountains NP.

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centerpiece for a planned domestic/industrial museum grouping. Over the next two years, CCC labor moved two buildings, a corn crib and a cantilever barn, from elsewhere in the cove to the Cable Mill site and restored them.³¹⁴ The earliest master plans for the park outlined the restoration plans for other groups of buildings in the cove. The plans stipulated that the buildings on the John Oliver and Elijah (Leige) Oliver homesteads be preserved on their existing sites, rather than relocated within the park, because "much of the charm of these groups would be destroyed by moving them."315 The Elijah Oliver property, conveniently located near the proposed loop road, featured one of the most intact dispersed farmsteads in the cove, with a cabin, barn, corn crib, smokehouse, and springhouse. The Henry Whitehead and Peter Cable homesteads were also identified as containing early architecturally significant buildings. The CCC undertook initial rehabilitation work at each of these sites in 1937 and 1938. In addition, the park removed some later frame additions on log buildings in the cove, including the Carter Shields Cabin.³¹⁶ The NPS allowed three of the oldest church congregations in the cove to maintain their buildings and grounds by special use permit for many years. It is unknown how long the Methodist Church remained active, but the Missionary Baptist Church closed in 1944 and the Primitive Baptist Church continued to hold worship services through the 1960s.³¹⁷

Between 1949 and 1959, the park further developed Cades Cove with the completion of the main loop road and the establishment of the adjacent campground. Implementation of the initial restoration and rehabilitation plans for the area also resumed after the war, with continued work occurring at the John Oliver, Elijah Oliver, and Henry Whitehead places. Between 1956 and 1958, the park enlarged the historical exhibit at the Cable Mill to include a restored smokehouse and drive-through barn moved from the Cataloochee area, the rehabilitated Becky Cable House moved from its location a half mile upstream on Forge Creek Road, a reconstructed blacksmith shop, and a sorghum-making exhibit. In addition, an extensive restoration program occurred at the Tipton-Oliver Homestead, where the log cabin and smokehouse were rehabilitated. Beginning in 1959, park reconstructed the apiary, woodshed, barn, and corn crib in their original locations on the site. The blacksmith shop on this property was rehabilitated between 1966 and 1967.³¹⁸

Accessible into the 1930s only by a narrow twisting road, the Cataloochee Valley near the northeastern edge of the park saw little development during early years. Wilburn and King's initial 1935 survey of the Cataloochee area recommended

³¹⁴ Superintendent's Monthly Reports, May 1936, 3, September 1937, 6, April 1938, 5, September 1938, 5-6; NPS, Cultural Landscapes Inventory: Cable Mill (Atlanta: Southeast Regional Office, 1998).

³¹⁵ 1939 Master Plan.

³¹⁶ Superintendent's Monthly Reports April 1938, September 1938; NPS, Cultural Landscapes Inventory: Elijah Oliver Homestead; NPS, Cultural Landscapes Inventory: Henry Whitehead Homestead (Atlanta, GA: Southeast Regional Office, 1998); NPS, Cultural Landscapes Inventory: Peter Cable and Dan Lawson Homestead (Atlanta, GA: Southeast Regional Office, 1998). ³¹⁷ NPS, Cultural Landscapes Inventory: Methodist Church and Cemetery (Atlanta, GA: Southeast Regional Office, 1998); NPS,

Cultural Landscapes Inventory: Primitive Baptist Church and Cemetery (Atlanta, GA: Southeast Regional Office, 1998); NPS, Cultural Landscapes Inventory: Missionary Baptist Church and Cemetery (Atlanta, GA: Southeast Regional Office, 1998); Charles W. Maynard, Churches of the Smokies (Gatlinburg, TN: Great Smoky Mountains Association, 2004).

³¹⁸ Superintendent's Monthly Reports, July 1956-September 1959; NPS, Cultural Landscapes Inventory: Tipton-Oliver Homestead (Atlanta, GA: Southeast Regional Office, 1998); NPS, Cultural Landscapes Inventory: John and Lucretia Oliver Homestead (Atlanta, GA: Southeast Regional Office, 1998).

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that the most intact of the three farmsteads in Little Cataloochee, the Cook place, be restored as an unfurnished exhibit of a "typical isolated mountain home," while the log cabins in Big Cataloochee be dismantled, removed, and placed in storage in anticipation of future reconstruction in a more convenient location. When Grossman and Wilburn returned in 1937, they inspected and photographed 62 sets of buildings to identify those that could be removed without further study. In general, the buildings of Cataloochee were more modern than those found in Cades Cove or Oconaluftee, dating to the early decades of the twentieth century. As a consequence of the park's decision to retain only the most intact early buildings, many of Cataloochee's buildings were burned, and only 9 out of 70 sites have extant historic buildings on them now. The buildings that were spared included some that remained in use by leaseholders; former residents of the area remained in Little Cataloochee through 1945, while the last leaseholder left Big Cataloochee in 1968.³¹⁹

The park used the Hub Caldwell House in Big Cataloochee as a warden's residence from 1933 to 1938 and then the Jarvis Palmer House, also in Big Cataloochee, from 1938 through 1971. Other park personnel lived at the Hub Caldwell House between 1938 and 1971, when the building became a ranger station. In late 1940, the CCC began work on a road intended to provide access to a proposed campground site in Cataloochee near the Palmer Chapel, but the road was only partially completed when they left the park in May 1942.³²⁰ This construction effort relocated the portion of the Cataloochee Road (aka Cataloochee Valley or Cataloochee Creek Road) between the Cataloochee Turnpike and Beech Grove School. Huth's 1941 report identified Cataloochee as "probably the most important tourist center the park will have on the North Carolina side" but noted the difficulty presented by its isolated location. Consequently, he placed any park development in this area at a lower priority but stipulated that emergency preservation work should be done as soon as possible, in particular at the Upper Will Messer and Dan Cook places in Little Cataloochee. He recommended letting the farm buildings located on the higher slopes around the valley decay given their general disrepair.³²¹

Preservation work conducted in Cataloochee, among other areas, during 1948 and 1949, included the warden station at the Jarvis Palmer House in Big Cataloochee and the Jim Hannah Cabin in Little Cataloochee. In addition, the Conard smoke house and the Caldwell spring house were restored in advance of their relocation to the Pioneer Farmstead (now the Mountain Farm Museum) at Oconaluftee. The local congregation initially maintained the Big Cataloochee Methodist Church (Palmer Chapel), but the NPS took responsibility for the building at some point between 1930 and 1960. It also maintained the Little Cataloochee Baptist Church. Cataloochee residents continued to use the Beech Grove School into the early 1950s. In general, the Cataloochee area remained low on the list of park development and rehabilitation priorities during the post-World War II years, and further work did not occur until the 1970s. By the time funds were available for the restoration and interpretation of the valley's historic buildings, very few remained intact. Much of the

³¹⁹ Givens, "Cataloochee," 59–62, 68, 76–77, 93, 101, 106; Carroll and Pulley, *Historic Structures Report, Little Cataloochee*, 22; Arthur, *Western North Carolina*, 485; Flaugh, *Cataloochee Historic District*, 33.

³²⁰ Flaugh, Cataloochee Historic District, 33–41.

³²¹ Huth, "Report on the Preservation of Mountain Culture," 28–29.

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former agricultural lands in the area became reforested. Mission 66 plans for the area noted "the pioneer atmosphere of old abandoned fields and orchards, the rotting rail fences."³²²

The NPS developed ambitious plans, including road improvements, for a major tourist area in Cataloochee in the 1970s, but opposition prevented the implementation of much of the work. Preservation plans outlined at that time and eventually completed included the repair and rehabilitation of the Hiram Caldwell homestead, the Jarvis Palmer homestead, and the Steve Woody homestead. Buildings on all three sites are now open to visitors as historic exhibits, and the adjacent fields are mowed to present the cove as it looked during the settlement period. After vandals caused substantial damage to the Dan Cook Cabin, HABS documented the building thoroughly and it was then dismantled and placed in storage until its reconstruction on the original site in 1999. In 1978, the NPS relocated the Will Messer Barn from Little Cataloochee to a site adjacent to the ranger station in Big Cataloochee. Portions of the CCC's relocated Cataloochee Road were improved and paved between 1964 and 1971 (see Section E.6).³²³

Huth's 1941 report identified several possibilities for loop trails near Sugarlands and the Little Pigeon River that would offer access to interesting historic resources. The Ephraim Bales place (Sevier County, Tennessee) was included in the park's early restoration projects, with work done on the cabin in 1941. Additional work, including the restoration of the outbuildings (barn, pig pen, and corn crib), occurred during the 1949–1959 period.³²⁴ The tour road through Roaring Fork that encompasses the Bales property and the Alfred Reagan House and Tub Mill was a Mission 66-era project that built upon the park's earlier preservation work in this area.

The park undertook rehabilitation work on the group of three extant buildings at the Bud Ogle Farm (aka Junglebrook, Sevier County, Tennessee) on Cherokee Orchard Road in 1959. Plans to move other buildings, such as the Willis Baxter Cabin, to this complex to represent those that had been lost were never implemented.³²⁵

The Walker complex at Little Greenbrier (Sevier County, Tennessee) remained in the hands of the five Walker sisters until 1940, when they agreed to sell to the NPS but retained lifetime use rights. Over the next 25 years, the residence essentially functioned as a living history field museum of mountain culture. Despite its relatively remote location accessed by a rough country road, the sisters attracted much publicity in the 1940s and 1950s and received numerous

³²² Flaugh, Cataloochee Historic District, 43–44.

³²³ Flaugh, Cataloochee Historic District, 41–44, 132.

³²⁴ Huth, "Report on the Preservation of Mountain Culture," 27; Superintendent's Monthly Reports, March 1958, May–September 1958; NPS, *Historic Building Report: Ephraim Bales Group, Part I* (Typescript, May 1957, Great Smoky Mountains NP, Gatlinburg, TN).

³²⁵ Superintendent's Monthly Reports, October 1958, January–October 1959; NPS, *Historic Building Report: The Junglebrook Farm Group* (Typescript, October 1958, Great Smoky Mountains NP, Gatlinburg, TN); Dale Ditmanson, Superintendent, Great Smoky Mountains NP, to Patrick McIntyre, Jr., State Historic Preservation Officer, Tennessee, October 25, 2012, on file at Great Smoky Mountains NP.

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visitors. Soon after the death of the last sister in 1964, the NPS developed rehabilitation plans for the complex to maintain it as one of the park's outdoor museums. Huth noted the "special significance" of the Little Greenbrier School nearby and recommended its preservation by relocation to the proposed pioneer museum at Oconaluftee. The building remained on its original site but did not receive serious attention from park preservation staff until the 1970s.³²⁶

Grossman's initial building survey identified several other log buildings within the park as worthy of preservation, including the John Ownby Cabin and the Alex Cole Cabin (both in Sevier County, Tennessee). However, due to budget constraints and the fact that both buildings stood on their own without any surrounding historic structures to provide context, the park essentially ignored them for decades as low priorities. Some rehabilitation work was done on the buildings at the Tyson McCarter place (Sevier County, Tennessee) in 1948, but a proposal to remove them to a more visible location in the park was never implemented. Substantial rehabilitation work on these buildings did not occur until the 1960s and 1970s. The NPS moved the Alex Cole Cabin to a site along the Roaring Fork-Cherokee Orchard Road ca. 1978.³²⁷

6. Mission 66 Era of National Park Service Planning and Development, 1945–1972

NPS Director Conrad L. Wirth (1889–1993) created the ambitious Mission 66 program to address deferred investment in park maintenance and to improve visitor facilities for the increased number of Americans who utilized the National Park System during the 1950s. The NPS funded the decade-long program from 1956 to the agency's fiftieth anniversary in 1966. Wirth's successor, George B. Hartzog, Jr. (1920–2008), initiated an extension of the Mission 66 program, under the new name "PARKSCAPE U.S.A." (Parkscape) for publicity purposes, that ran from 1966 to 1972. At Great Smoky Mountains NP, the Mission 66 program did not represent the park's first development campaign, such as at Everglades or Big Bend national parks, or a major redevelopment campaign that drastically altered or reorganized the public experience of the park, such as at Yellowstone or Grand Canyon national parks. Rather, Mission 66 at Great Smoky Mountains NP provided the means for substantial improvements to the park infrastructure that built upon the framework of earlier planning efforts.

Origins of Mission 66, 1941-1955

The Mission 66 development program essentially redefined the role of the country's national park system for a post-World War II society. It enabled hundreds of construction projects, implemented new planning procedures and design

³²⁶ Huth, "Report on the Preservation of Mountain Culture," 26; Robert R. Madden and T. Russell Jones, *Walker Sisters Home: Historic Structures Report, Part II and Furnishing Study* (Washington, DC: NPS, Office of Archeology and Historic Preservation, March 3, 1969).

³²⁷ Grossman, "A Study for the Preservation of Mountain Culture."

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concepts, expanded the system in both size and scope, and reshaped the NPS identity in American culture. The comprehensive and top-down nature of the program, disseminated to individual parks through the regional offices, resulted in overall consistency across the park system with respect to facilities and infrastructure, even as the diversity of the parks warranted individual solutions to some issues.

As discussed in Section E.4, President Franklin D. Roosevelt's New Deal programs implemented between 1933 and 1942 focused on economic recovery after the Great Depression in part by providing work for the unemployed. Under the direction of the NPS, the CCC, a New Deal work-relief program active from 1933 to 1942, significantly contributed to the rapid development of national parks. When the United States entered World War II in 1941, federal priorities shifted to supplying the war effort. By 1942, the New Deal programs that had sustained the parks during the Great Depression were discontinued and wartime budgets for maintaining the system were slashed. A substantial number of Park Service employees joined the armed services, leaving many parks with skeleton staffs. The lack of funding and manpower forced most parks to defer maintenance and improvement projects; consequently, park infrastructure deteriorated, sometimes to dangerous extents. These conditions persisted during the decade following the war as national resources were dedicated to rebuilding Europe under the Marshall Plan and the exigencies of the Cold War.

As the NPS struggled with budgetary shortfalls during the late 1940s and early 1950s, a new problem arose. The increased wages and leisure time that resulted from the general prosperity the nation experienced during the period, combined with the wholesale adoption of the automobile, provided more Americans than ever before the opportunity for vacation travel. National parks were among the most popular destinations, and the increase in visitation was dramatic. In the decade following the war, the annual visitation to national parks more than doubled, from 21,752,000 in 1946 to a record 50 million in 1955.³²⁸ Great Smoky Mountains NP experienced a similar increase, going from 1,157,930 to 2,885,800 annual visitors during the same period. By 1956, it was the most visited national park in the system with nearly 3 million visitors.³²⁹

The demands placed on the already stressed facilities of the National Park System threatened its integrity. The NPS leadership and conservation groups worked to gain Congressional support to correct the problem but failed to gain significant headway until the media drew public attention to the plight of the national parks. One of the key events was an article by prominent historian Bernard DeVoto in the October 1953 issue of *Harper's Magazine* bearing the provocative title, "Let's Close the National Parks."³³⁰ DeVoto's article scathingly indicted the Federal Government's

³²⁸ Linda Flint McClelland, Building the National Parks (Baltimore, MD: Johns Hopkins University Press, 1998), 463.

³²⁹ NPS, "Mission 66 for Great Smoky Mountains National Park," Great Smoky Mountains National Park Archives, Gatlinburg, TN; NPS Public Use Statistics Office, NPS Stats, Annual Visitation (All Years) Park Report, Great Smoky Mountains National Park, accessed July 9, 2015, https://irma.nps.gov/Stats/SSRSReports/Park Specific Reports/Annual Park Recreation Visitation (1904 - Last Calendar Year)?Park=GRSM.

³³⁰ Bernard DeVoto, "Let's Close the National Parks," Harpers Magazine 207 (October 1953), 49-52.

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unwillingness to provide sufficient funding to operate the National Park System and struck a chord among the increasingly large number of Americans who treasured national parks and expressed their dissatisfaction to their Congressional representatives.³³¹

The inauguration of President Dwight D. Eisenhower in 1953 symbolized the first step toward change for national parks. Following the end of the Korean War, Eisenhower sought public works programs that would fuel the United States economy. With government priorities changing and increasing public pressure to address the state of the parks, NPS Director Conrad L. Wirth devised a strategy to implement "MISSION 66," a massive system-wide planning and development program to be completed by the NPS's fiftieth anniversary in 1966.

Wirth, a trained landscape architect, began his career with the NPS in 1931 as assistant director of the Branch of Lands. By 1933, he was overseeing CCC work at 560 state parks and administering the CCC in national parks. In 1951, he was appointed NPS Director and served in that capacity until 1963, when he left the NPS to serve as advisor to Laurance Rockefeller (1910–2004). In his autobiography, *Parks, Politics, and the People*, Wirth writes that he conceived the notion of Mission 66 during a weekend in February 1955 after considering it from the perspective of a congressman. Knowing that the development of the NPS would require a large sum of money, Wirth decided to request funding from Congress for a 10 year program that would begin in fiscal year 1956 in lieu of a yearly budget.³³²

Wirth established two committees (a steering committee and a working committee) to plan and execute the Mission 66 program, appointing long-time NPS employees who represented different branches of the agency and were involved in 1930s and 1940s park planning. Lemuel "Lon" Garrison (1903–1984), who left his post as chief of conservation and protection to dedicate himself to Mission 66 planning, chaired the steering committee. Other members of the steering committee were Jackson Price, Donald Lee, Harry Langley, Thomas Vint, and John Doerr. The working committee comprised Howard Stagner, Robert Coates, Jack Dodd, William G. Carnes, Harold Smith, Roy Appleman, and Ray Freeman. Wirth's instructions were to "disregard precedent, policy and present operating and management procedure" and to "remember only the fundamental purpose of national parks and in this basis develop operating and development plans that would best meet the problem of parks today and the future."³³³ In eight months, the Mission 66 working committee prepared a comprehensive proposal containing policy guidelines, cost estimates, and data analyses for national park sites. Park superintendents were asked to prepare park "prospectuses" encompassing individual park needs. Mission 66 prospectus reports and budget estimates were created for 194 national parks and historic sites (not including

³³¹ Larry M. Dilsaver, ed., America's National Park Service: The Critical Documents (New York, NY: Rowman and Littlefield Press, 1994).

 ³³² Sarah Allaback, Mission 66 Visitor Centers: The History of a Building Type (Washington, DC: NPS, Historic Structures and Cultural Landscapes program, 2000); Ethan Carr, Elaine Jackson-Retondo, and Len Warner, Draft Multiple Property Documentation Form: The Mission 66 Era of National Park Development, 1945–1972 (Oakland, CA: NPS), 2006.
 ³³³ Wirth, Parks, Politics, and the People, 238.

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Yellowstone, which had internal conflicts with a concessionaire). During this period of preparation, the specifics of the program (including the "Mission 66" name) were intentionally kept secret; however, the public was aware that a major program loomed that would affect national park properties across the country and potentially the surrounding communities.

Wirth selected Great Smoky Mountains NP to host the announcement of the plans for Mission 66. During the NPS Public Services Conference on September 20, 1955, he introduced Mission 66 in his keynote address, and the program became the main focus of discussion during the September 19–24 conference attended by approximately 200 superintendents and other officials. An illustrated, public-ready informational pamphlet, *The National Park System*, and the more extensive "MISSION 66 Report" accompanied Wirth's presentation, during which he introduced the scope of the project and emphasized its importance to the national park system.

In defense of the large budget requests required for Mission 66, Wirth stressed the economic value of the national park system as an "important factor in the national economy." He reported the American Automobile Association's (AAA) and the National Association of Travel Organizations' statistics and observations about increasing tourism in parks: "Pleasure travel is big business today." He argued that "to the extent that we preserve them … and use them for their own inherent, noncommercial, human values, to that same degree do they contribute their part to the economic life of the nation." In this way, Wirth framed the Mission 66 plan as an investment in the U.S. economy and said that he had "a realistic business plan," but he did not present any cost estimates at the meeting.³³⁴

He connected the financial investment to an emotional one: "The way we use leisure will determine the kind of Nation we are tomorrow" and the national park system sets "a national pattern for the most wholesome and beneficial kind of recreation." Wirth's presentation ended with remarks about the National Park System fostering in Americans "pride in their government, love of the land, and faith in the American tradition," that was "worth all that we need to spend."³³⁵ Chairman Lon Garrison and committee member William Carnes then presented the more technical aspects of the program and privately met with superintendents.³³⁶

The Mission 66 Program, 1956–1966

Following a personal endorsement by President Eisenhower and approval by the Bureau of the Budget, federal appropriations for Mission 66, the largest investment ever initiated for the National Park System, were distributed in early 1956, and the program launched at the beginning of fiscal year 1957. Initially, Congress approved a 10 year budget of

³³⁴ Ethan Carr, Mission 66, 68, 87, 106-110.

³³⁵ Carr, Mission 66.

³³⁶ Carr, Mission 66.

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more than \$700 million, which would be achieved by increasing the 1957 fiscal year budget to \$68 million (a significant increase from the 1955 budget of \$32 million). By 1962, yearly NPS budgets exceeded \$100 million; by 1966, the NPS had spent a total of more than \$1 billion.³³⁷

Through Mission 66, the NPS brought national parks up to modern standards by initiating construction projects; hiring new employees; encouraging the development of campgrounds outside park boundaries; improving visitor access through interpretation; purchasing land for new parks; and creating a new identity for the agency, which involved increasing the use of its "arrowhead" logo (created in 1951) and updating uniforms. The new program involved every park in the system and dramatically improved facilities at most of them. Construction efforts included new and improved roads, trails, campgrounds, comfort stations, amphitheaters, administration buildings, and employee housing. Adequate water, sewer, and electric service were installed for the first time at many sites. The creation of "training centers" improved education for NPS staff. Major projects that had languished due to lack of funding, such as the St. Louis Gateway Arch and the 469 mile Blue Ridge Parkway, were completed, and 78 new parks were added to the system.³³⁸ The Historic American Building Survey (HABS) was reinstated as part of the Mission 66 program with guidance from Thomas Vint, a member of the steering committee and a landscape architect who had shaped the landscapes of national parks during the early park development period (1926–1942) discussed in Section E.4.³³⁹

The system-wide construction of visitor centers was one of the most visible and important efforts undertaken during Mission 66. The NPS erected more than one hundred such buildings nationwide between 1956 and 1966. The term "visitor center" emerged to identify a new type of NPS building designed to provide the primary introduction point for park visitors. Exhibiting modern architectural designs, the buildings provided a variety of amenities, including interpretive exhibits, museum space, theaters, public restrooms, and administrative offices for park staff. The centers replaced those buildings usually referred to as administration and museum buildings. A visitor center's key functions were to introduce the story of the park and to orient visitors to the landscape and sites they were invited to explore. Owing to their importance to the visitor experience, considerable thought was given to their placement. The NPS usually chose prominent locations that allowed for extensive views of the park or site and that helped visitors understand the interpretive exhibits in the context of the entire site. Since most visitors arrived in automobiles, consideration was also given to placing the buildings as close as possible to the primary roadways leading to the parks and connecting them to the overall park circulation as a means to efficiently manage visitor traffic.³⁴⁰

³³⁷ Carr, Jackson-Retondo, and Warner, *The Mission 66 Era of National Park Development*.

³³⁸ C. Madrid French, "Mission 66: Modern Architecture in the National Parks," accessed July 9, 2015, http://www.mission66.com/mission.html; Olausen et al., *National Register Nomination: Saratoga National Historical Park* (Washington, DC: NPS, 2011).

³³⁹ Charles A. Birnbaum and Mary V. Hughes, *Design with Culture: Claiming America's Landscape Heritage* (Charlottesville, VA: University of Virginia Press, 2005), 168–174.

³⁴⁰ Allaback, Mission 66 Visitor Centers; Carr, Mission 66; Olausen et al., Saratoga National Historical Park.

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Mission 66 era architecture is characterized by its Modern design (termed "Park Service Modern") and use of readily available materials such as steel, concrete, aluminum, plywood, and fiberglass.³⁴¹ Design elements include low-pitched, gabled roofs, wide overhanging eaves, and irregular fenestration. Park Service Modern was adapted from existing, popular mid-twentieth-century architecture. Visitor centers "had similarities to shopping centers and urban cultural centers," since they "also sought to make centralized services accessible to large numbers of people in cars."³⁴² The newly developed interstate highway system largely dictated Mission 66 era road design, which heavily influenced the location of park developed areas.

The Mission 66 program also focused on campground development and improvement. The number of campgrounds in national parks doubled as hundreds were built, providing 17,782 new campsites nationwide. Campgrounds established in the early park development period (1927–1942) were improved to accommodate larger automobiles and Recreational Vehicles (RVs) with longer parking spurs (typically 25 ft). Campground planning continued to adhere to plant ecologist Meinecke's CCC-era modernization guidelines. The state-of-the-art campgrounds minimized impact on vegetation by keeping camping groups within tightly confined designated areas, with individual campsites organized on alternating sides of one-way loop roads. The newer campgrounds generally incorporated a greater number of sites within a single developed area to accommodate more campers, resulting in some alterations to the overall herringbone spatial arrangement. Mission 66 campsites tended to be more irregular and less dense than earlier ones. Mission 66 also provided the funds for extensive sewer and water systems that supported new comfort stations as well as electrical and water connections for trailer campers. Many Mission 66 campground designs also included covered or open amphitheaters for ranger-led interpretive programs. Landscape elements often included planting beds and signboards.³⁴³

Due to the rise in automobile tourism and day trips, 743 picnic areas were constructed as part of the Mission 66 program, thousands of existing picnic areas were expanded, and many existing campground sites were modified into picnic areas. Picnic areas (either newly built or converted campgrounds) were designed to lessen environmental impacts by reducing visitor activity to day use only. Often, these areas were built alongside new and existing campground sites, visitor centers, interpretive displays, and circulation routes. Natural barriers such as ravines or creeks often separated picnic areas from adjacent campgrounds. Mission 66 picnic areas were constructed intentionally at a lower density than earlier ones by increasing the size of the picnic area. They resembled campgrounds in their layout, with paved loop roads, parking areas, and extensive sewer and water systems. Picnic sites typically consisted of a single fireplace and three picnic tables. Landscape features were often constructed with concrete, instead of the stone used in early park development picnic areas.³⁴⁴

³⁴¹ Mission 66 era architectural descriptions in this section are adapted from Carr, Jackson-Retondo, and Warner's *The Mission 66 Era* of National Park Development.

³⁴² Carr, Jackson-Retondo, and Warner, The Mission 66 Era of National Park Development.

³⁴³ Carr, Jackson-Retondo, and Warner, The Mission 66 Era of National Park Development.

³⁴⁴ Carr, Jackson-Retondo, and Warner, The Mission 66 Era of National Park Development.

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The extensive Mission 66 visitor accommodation construction projects nationwide included 584 new comfort stations, 82 new amphitheaters or campfire circles, and 1,116 roadside or trailside interpretive exhibits. Mission 66 comfort stations employed a common form that consisted of separate sections for women and men separated by a shared, externally accessible plumbing chase. Some designs included an external privacy screen, while others contained an interior privacy panel located immediately inside the entrance. Standard comfort station designs included low-pitched gabled or hipped roofs. Fenestration typically consisted of continuous rows of jalousie, hopper, or awning windows just under the eaves. Stations were located in the most publicly accessible locations and typically surrounded by a paved apron accessed by paved pedestrian paths.³⁴⁵ Amphitheater designs typically followed the examples published in Volume II of Albert H. Good's *Park and Recreation Structures* (1938), which offered several variations on the form and overall encouraged designs "outstandingly representative of park character."³⁴⁶

Mission 66 campgrounds sometimes included ranger stations (also called camptender residences) within the developed area. Ranger stations were also built near more remote areas within parks to provide visitor contact points along with an office and/or housing for law enforcement rangers. Like other employee housing constructed within national parks, ranger stations often followed standard housing designs based on elements of an established vocabulary for modern residential architecture. The low-profile, rectangular buildings featured flat or shallow gabled rooflines, wood frame construction with wood lap or vertical board siding or concrete masonry construction, slab on grade foundations, aluminum frame windows, and low masonry retaining walls. The building was typically divided into two or three separate areas for each function. Comfort stations and maintenance areas were sometimes also located in proximity to ranger stations.³⁴⁷

To accommodate the large number of new employees at national parks (many located in rural areas) as part of the Mission 66 program, 743 new single and double housing units and 496 multiple housing units were constructed. Congress set maximum construction costs to be able to afford the new buildings, which were made using readily available materials and standard plans. Standard housing designs were issued in 1957 for one-, two-, three-, and four-bedroom buildings with low, rectangular-shaped, horizontal plans and built-up, flat and low-pitched roofs similar to residential architecture outside the park system. Many single-family units had carports or attached, enclosed garages. Aluminum-frame picture windows with sidelights were often used in the living room areas, with smaller windows in the bedrooms. Materials ranged from wood frame to fiberglass to masonry based on what was available in the area surrounding the park. Modifications to the standard housing designs occurred throughout the Mission 66 era. Residential areas were located away from public view and included curvilinear access roads and cul-de-sacs with short paved driveways or aprons leading to each residence.³⁴⁸

³⁴⁵ Carr, Jackson-Retondo, and Warner, The Mission 66 Era of National Park Development.

³⁴⁶ Good, Park and Recreation Structures, 1938, Volume II, 197–212.

³⁴⁷ Carr, Jackson-Retondo, and Warner, The Mission 66 Era of National Park Development.

³⁴⁸ Carr, Jackson-Retondo, and Warner, The Mission 66 Era of National Park Development.

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Under Mission 66, about 218 utility buildings were constructed within centralized maintenance areas that housed equipment and associated vehicles. Although constructed near employee housing areas, maintenance areas were intentionally screened from the public view by dense vegetation or natural topography. The larger maintenance buildings constructed under Mission 66 typically followed a standard rectangular form with a large equipment storage area and an attached shop, restroom, and tool room. These buildings were often constructed of concrete masonry units.

Prior to the Mission 66 era, national park roads were often congested with automobile traffic. To accommodate the steady rise in visits to national parks, existing roads were widened, parking areas were expanded, and bridges were replaced. Within the context of the environmental movement of the 1950s and 1960s, Mission 66 was a controversial program. Environmentalists were concerned that road construction would compromise the integrity of those parks that contained wilderness areas. Wirth and Vint argued that the laws that enabled the creation of national parks clearly stated that these properties were created "for the benefit and enjoyment of the people" and that public access was necessary to provide this service. Though he argued on behalf of the construction of roads for public accessibility, Wirth was adamant that Mission 66 should be viewed as a "conservation" program that preserved areas of wilderness.³⁴⁹

Despite significant road improvements, under Mission 66 policy, road construction was to be visually minimized to the public by the construction of retaining walls, tunnels, bridges, and natural-colored road surfaces. Standard Mission 66 designs for major and secondary roads were two-way and 22 ft wide, with, at maximum, a 3 ft paved shoulder. One-way roads were 12 ft wide with 2 ft shoulders, at maximum. Vegetation was used to screen ditches and shoulders from public view, and cut-and-fill slopes were rounded to look natural. Most road improvement during Mission 66 occurred on existing roadways: 1,570 miles of park roads were reconstructed. In most parks, a large portion of the budget was dedicated to road construction.³⁵⁰

George B. Hartzog, Jr.'s "PARKSCAPE, U.S.A," 1966-1972

Secretary of the Interior Stewart Udall (1920–2010) appointed George B. Hartzog, Jr., an NPS concessions lawyer and former superintendent of the Jefferson National Expansion Memorial, NPS Director in 1964 after Wirth's retirement. At the "Golden Anniversary Dinner" celebrating the fiftieth anniversary of the NPS (which coincided with the completion of Mission 66), Hartzog announced his own park development and expansion program, "PARKSCAPE, U.S.A." (Parkscape) or the "Centennial Challenge," to be completed by Yellowstone's centennial celebration in 1972. Though it had a new name, the program was essentially a continuation of the Mission 66 program to develop and expand the National Park System. Hartzog initiated the program to extend the increased funding from Mission 66 and

³⁴⁹ Carr, Jackson-Retondo, and Warner, The Mission 66 Era of National Park Development.

³⁵⁰ Carr, Jackson-Retondo, and Warner, The Mission 66 Era of National Park Development,

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restore the NPS image after environmental controversies. As outlined in Ethan Carr's book, *Mission 66*, "the [Parkscape] program had five major goals: 'completing' the park system by 1972; developing 'cooperative programs with other agencies'; 'utilizing the national park concept' to improve life in American cities; better 'communicating the values of park conservation'; and developing an international assistance program in anticipation of the second World Conference of National Parks, scheduled to be held in Yellowstone and Grand Teton in 1972."³⁵¹

Mission 66 Planning at Great Smoky Mountains National Park

Great Smoky Mountains NP, one of the most-visited parks in the system, featured prominently in Director Wirth's campaign to build support for the overall Mission 66 program, as a prime example of the need for capital investment. A June 1955 film showed footage of traffic backups at the Gatlinburg park entrance and on Newfound Gap Road, overcrowding at Smokemont Campground, and other signs of visitor congestion. Wirth unveiled his ambitious plans for tackling such problems at the NPS superintendents' annual meeting held that fall in Gatlinburg. He intended to have the entire program proposal, including draft prospectuses and budget estimates for most of the agency's parks and historic sites, completed by the end of the year to enable Congressional appropriations to begin as soon as possible. For the staff at Great Smoky, the program provided an unprecedented opportunity to request long-overdue funding for long-planned work.

Park Development, 1942–1955

Almost no development occurred at Great Smoky Mountains NP during World War II, and the park remained on essentially a wartime annual budget through 1947. In 1948, Congress allocated a modest amount of funding for rehabilitation that allowed the park to address its substantial backlog of maintenance projects. That year's work included construction of a ranger station at Twentymile and a short section of the Bryson City-Fontana Road (aka the North Shore Road or Lake View Road, never completed). Work resumed the following year on the road to Cades Cove (Laurel Creek Road), interrupted by the war but completed along with five bridges by 1951 (as discussed in Section E.4). Increased lobbying by park boosters in both North Carolina and Tennessee succeeded in obtaining larger appropriations for the 1949 fiscal year that began to affect development in 1950. The park was able to pave the Cades Cove and Fighting Creek Gap roads, begin resurfacing the Newfound Gap and Clingmans Dome roads, construct three employee residences in the Sugarlands headquarters residential area, and initiate work on the Heintooga Ridge Road (aka Heintooga Round Bottom Road). A ceremony held at Heintooga Overlook on June 22, 1953, celebrated the completion of the 12 mile road along

³⁵¹ Carr, Mission 66, 324-327, 326, 330.

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Heintooga Ridge (including the spur outside the park that connects the road to the Blue Ridge Parkway) together with the Balsam Mountain Campground and Heintooga Picnic Area.³⁵²

Additional development work completed between 1954 and 1956 (prior to the acquisition of Mission 66 funds) included the construction of ranger station residences at Greenbrier, Tremont, and Cades Cove, camptender residences at the Chimneys and Balsam Mountain campgrounds (including entrance roads, walks, and grounds at each residence), and paving of the Cades Cove Loop Road and Heintooga Ridge Road. By 1956, work was also underway on campgrounds at Cades Cove and Cosby and a maintenance area at Oconaluftee.³⁵³

Initial Planning for Mission 66

To prepare the Mission 66 prospectus for Great Smoky Mountains, Superintendent Edward A. Hummel compiled lists of development priorities for review by the regional NPS office throughout the second half of 1955. At the same time, the North Carolina and Tennessee park commissions prepared their own report on the park's most urgent needs, citing more campgrounds, increased personnel, road improvements, a museum at Oconaluftee, and an observation tower on Clingmans Dome. The final version of the Mission 66 prospectus for Great Smoky Mountains NP, completed on April 23, 1956, emphasized the park's wilderness values and proposed solutions for protecting those values while accommodating increased use. The plan treated the park area as core and periphery and located new development around the periphery to concentrate visitor use away from the wilderness core. It called for the construction of two new visitor centers within the park (at Sugarlands and Oconaluftee); the construction of four new campgrounds and eleven new picnic areas located along the park "fringes"; the expansion of two existing campgrounds (Smokemont and Cosby); numerous employee residences and ranger stations; and an extensive system of wayside exhibits and nature trails.³⁵⁴

The document resembled Mission 66 plans for other national park units in its treatment of the park infrastructure of roads, campgrounds, picnic areas, museums, and waysides as a circulatory system for cars, with developments planned to spread out use and encourage the even flow of movement throughout the park. The plan stated, "The entire journey through the park should thus become a continuous series of new pleasures." Unlike park plans that included new tour routes or thoroughfares, however, the Great Smoky Mountains NP prospectus did not propose major changes to the park's existing road system, instead focusing road construction projects on establishing new alignments to improve traffic flow and safety and short access roads into new developed areas. The park's initial draft of the prospectus included proposals for two new park roads (linking Cades Cove with Fontana Village and the Pigeon River to Cataloochee and Balsam Mountain), but the

³⁵² Catton, A Gift for All Time, 92.

³⁵³ Great Smoky Mountains National Park, *Mission 66 Prospectus* (Gatlinburg, TN: NPS, 1956), 121.

³⁵⁴ Catton, A Gift for All Time, 95–96; Great Smoky Mountains National Park, Mission 66 Prospectus.

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regional office tabled those suggestions pending the completion of the Foothills Parkway (authorized by Congress in 1944 as discussed below).³⁵⁵

The prospectus also recommended that development of suitable picnic areas and campgrounds outside the boundaries of Great Smoky Mountains NP would alleviate some of the congestion that compromised the visitor experience and infrastructure within the park. Superintendent Hummel noted the importance of such development in a speech about the Mission 66 prospectus:

In order for the Great Smokies to do what it is supposed to do we will also need additional recreational development adjacent to the park. We believe that additional campgrounds and picnic areas need to be developed in the forest areas adjacent to us. A great many people today drive to the park to picnic once or twice a week. They go there because it's the only place to go. If there were picnic areas closer by they would use those, and would come to the park probably several times a year just to enjoy the scenery and the mountains, but they would not come as often.³⁵⁶

The North Carolina State Highway and Public Works Commission, the Tennessee State Department of Highways and Public Works, and the United States Bureau of Public Roads conducted a travel study of visitors to Great Smoky Mountains NP in 1956. The study found that most visitors traveled from cities within 500 miles of the park, where half the population of the United States lived. In 1947, the park hosted approximately 1,204,017 visitors; by 1956, the number skyrocketed to 2,885,819.³⁵⁷ The highway study corroborated the park staffs' knowledge that Great Smoky Mountains NP direly needed Mission 66 funding to alleviate the damage to park infrastructure caused by increasing visitation. The problem only worsened over the next few years, with visitor demand far exceeding the plan's expectations. The 1956 prospectus anticipated about 3.5 million visitors a year by 1965, but an estimated 4.5 million entered the park in 1960. The park's master plan update in April 1960 increased the projections to 4.625 million annual visitors by 1970, shown to be still a vast underestimation when more than that number visited the park in 1961. Nonetheless, development within Great Smoky Mountains NP through 1964, occurring as Mission 66 funding allowed, generally followed the objectives originally outlined in the 1956 prospectus and updated and refined in the 1960 Master Plan.³⁵⁸

³⁵⁵ Catton, A Gift for All Time, 96-97.

³⁵⁶ Great Smoky Mountains National Park, *Mission 66 Prospectus*; Edward A. Hummel, "Mission 66," 1956. Transcript of reel-to-reel audio of practice speech prepared for meeting of the Southeast Division of the American Automobile Association in Memphis, Tennessee. On file, Great Smoky Mountains National Park Archives, GRSM 23578.

³⁵⁷ North Carolina State Highway and Public Works Commission, Tennessee State Department of Highways and Public Works, and United States Bureau of Public Roads, *The Great Smoky Mountains National Park Travel Study*, *1956* (1957). On file, Great Smoky Mountains National Park Archives, Management Files.

³⁵⁸ Catton, A Gift for All Time, 100; Great Smoky Mountains National Park, Mission 66 Prospectus, Foothills Parkway, Great Smoky Mountains National Park (Gatlinburg, TN: NPS, 1956); Great Smoky Mountains National Park, Master Plan for the Preservation and Use of Great Smoky Mountains National Park (Gatlinburg, TN: NPS, 1960).

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Development under Mission 66, 1956–1964

Major projects undertaken at Great Smoky Mountains NP during the Mission 66 period consisted of the construction of Clingmans Dome Observation Tower (Sevier County, Tennessee, and Swain County, North Carolina) and the Sugarlands Visitor Center (Sevier County, Tennessee), the expansion and improvement of visitor accommodations (campgrounds and picnic areas) and park support facilities (employee residence and maintenance areas), and some road improvement and construction. Park Superintendent Hummel oversaw the work through 1958, followed by Fred J. Overly (superintendent from 1958 to 1963) and George W. Fry (superintendent from 1963 to 1969).

NPS contractor Hubert Bebb, a Cornell-educated architect, designed the observation tower at Clingmans Dome, constructed in 1959 at the highest peak (6,643 ft) in the Great Smoky Mountains. The Park Service Modern, 45 ft tall, reinforced concrete structure has a curvilinear pedestrian ramp, cylindrical column, and circular observation platform. When first proposed, the tower received mixed reviews from conservation groups and from the National Parks Association (NPA). While conservation groups were concerned about the development of the tower within the park's wilderness area, the NPA disapproved of the Modern design and materials and publicly criticized the structure in *National Parks Magazine*, calling it "flashy and conspicuous." Despite the disapproval, local contractor W. C. Norris of Waynesville, North Carolina, constructed the tower as planned, completing it on October 23, 1959.³⁵⁹

Robert E. Smith, Chief Architect of the Division of Architecture at the NPS Eastern Office of Design and Construction in Philadelphia, designed the Sugarlands Visitor Center, originally referred to as the Natural History Visitor Center. The Williams Construction Company of Knoxville, Tennessee, constructed the building between 1958 and 1960. Dedicated on October 24, 1960, the unique building embodied many characteristics of other Mission 66 visitor centers while featuring rustic details to connect it to the adjacent 1930s headquarters building. The Sugarlands Visitor Center received a national award from the American Institute of Architects in 1963.³⁶⁰ In 1988, the NPS constructed a comfort station to the west of the Visitor Center that conforms to the architectural style of the original building while allowing for the detached restrooms characteristic of many Mission 66 visitor centers. Substantial renovations to the building in 1999 included the addition of a large auditorium in a rectangular rear ell that extends diagonally to the northeast and a corresponding reconfiguration of the interior that included the conversion of the original auditorium wing to a bookstore.

Government-managed visitor accommodations development between 1956 and 1964 consisted of the expansion of the existing campgrounds at Smokemont and Cosby and the construction of four new public use areas: a campground at

³⁵⁹ Cynthia Walton, National Register Nomination: Clingmans Dome Observation Tower (Washington, DC: NPS, 2012); Anthony Wayne Smith, "Clingmans Dome," National Parks Magazine 33, no 137 (1959).

³⁶⁰ American Institute of Architects, A.I.A. National Awards Program, 1963 (Washington, DC: American Institute of Architects, 1963).

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Elkmont, picnic areas adjacent to the campgrounds at Cades Cove and Cosby, a combined campground and picnic area at Deep Creek, and a picnic area at Metcalf Bottoms.³⁶¹ The NPS expanded Smokemont Campground (Swain County, NC) between 1958 and 1959 through the addition of forty-three campsites and a comfort station on the west side of Bradley Fork (an area designated for expansion in the 1930s plans), two comfort stations and a camp store/shelter (later removed) in the existing north section, an amphitheater shelter, and a camptender residence. The work also included some minor road reconfiguration. At Cosby Campground (Cocke County, TN), the first eighty-two sites were completed in 1956, as the Mission 66 prospectus was finalized. Over the next several years, development of the campground continued. By 1964, the campground consisted of 230 campsites, one hundred picnic sites, eight comfort stations, an amphitheater, and a camptender residence. The Cades Cove Campground/Picnic Area (Blount County, TN), developed between 1953 and 1958, included 250 campsites, approximately fifty picnic sites, eight comfort stations, and a campground store and shelter. A visitor information kiosk for the Cades Cove area was also built in 1958 along the entrance road (rebuilt 2008). At Deep Creek (Swain County, NC), a small interim picnic area with one comfort station (built 1954, rebuilt 2010) and a picnic pavilion (built 1956) existed. By 1962, the NPS had enlarged the area to accommodate camping and picnic sites and added five comfort stations. Between 1960 and 1964, 340 campsites were developed at Elkmont Campground (Sevier County, TN), along with twelve comfort stations and an amphitheater. At Metcalf Bottoms (Sevier County, TN), the NPS constructed a picnic area with five comfort stations between 1961 and 1962.

The 1956 Mission 66 prospectus also proposed that visitor accommodations managed by concessionaires—similar to those at Mt. Le Conte—be constructed at Hazel Creek, North Carolina, and Spence Field, Tennessee, as proposed in prior master plan studies. Neither of these operations was constructed.

Major road construction projects at Great Smoky Mountains NP under the Mission 66 program were limited to the improvement of existing roads, construction of the Roaring Fork Motor Nature Trail, and initial construction on the Foothills Parkway (not yet completed). Minor roads, such as entrance roads to and roads within new or improved developed areas, were also added to the park.

Mission 66 funds enabled the NPS to begin addressing its backlog of road improvement and maintenance projects within the park. These included the rehabilitation of the Cades Cove Loop Road (1956; Blount County, TN); the installation of a concrete lining and portals in the upper tunnel on the Tennessee side of Newfound Gap Road (Morton Tunnel) and repair of two of the road's bridges across the West Prong of the Little Pigeon River (1958; Sevier County, TN); and the rebuild of the Parsons Branch Road bridges at Anthony Creek and Forge Creek (1963; Blount County, TN).³⁶² More substantial

³⁶¹ Great Smoky Mountains National Park, Mission 66 Prospectus, Great Smoky Mountains National Park, Foothills Parkway (Gatlinburg, TN: NPS, 1956); Catton, A Gift for All Time, 98.

³⁶² Great Smoky Mountains National Park, Cultural Landscape Assessment: Newfound Gap Road, Milepost 0.0 to Milepost 14.5, Sevier County, TN (NPS, March 2008); Cornelius Maher and Michael Kelleher, "Great Smoky Mountains National Park Roads and Bridges, Newfound Gap Road, HAER No. TN-35-A," 1996, 72–77.

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roadwork occurred on the North Carolina side of Newfound Gap Road (Swain County). Between 1958 and 1961, the park completed a reconstruction of the southernmost section of the road near Oconaluftee, with a short spur road built to connect to the Blue Ridge Parkway. At the opposite end, directly south of the gap, the NPS realigned the road beginning in 1961 to eliminate numerous tight turns and provide many new vistas for motorists. Standards of alignment and road bank naturalization for the new road section were similar to those in effect in the 1930s. The NPS used stone-faced road structures very similar in design to those erected during the initial period of park development before 1942.³⁶³

In February 1963, funds and labor provided by the Kennedy Administration's Accelerated Public Works Program allowed work to begin on the connection of two existing roads in Sevier County, Tennessee—Roaring Fork and Cherokee Orchard—to create the unique Roaring Fork Motor Nature Trail (also known as the Roaring Fork-Cherokee Orchard Road). The resulting single scenic motor loop road overlaid on the existing roads afforded automobile tourists close views of the area's natural resources, including tumbling streams, wildflowers, and hemlock groves. The NPS developed plans for a second motor nature trail at Great Smoky Mountains NP near Indian Creek but never implemented them, making the Roaring Fork road an almost unique example of the type. The Joppa Ridge Motor Nature Trail at Mammoth Cave National Park in Kentucky is possibly the only other example still extant in the national park system.³⁶⁴

Plans for a scenic parkway through Tennessee to facilitate visitor access to the Great Smoky Mountains started as early as the 1930s, following the Congressional designation of the Blue Ridge Parkway in North Carolina and Virginia. In 1944, Congress approved a legislative boundary change that allowed the park to accept donations of land from the state of Tennessee for the Foothills Parkway (Blount, Sevier, and Cocke counties, Tennessee), a projected 70 mile road to be built roughly parallel to the park's north boundary with an average right-of-way of 125 acres per mile. Although the right-of-way was discontiguous to the majority of the park, it would connect to the park at the western end. Plans also included improved access to Gatlinburg and Pigeon Forge via a reconstruction of a portion of US 441 (the Gatlinburg Spur) and the construction of a 3 mile limited-access bypass around Gatlinburg into the park, both of which would be treated administratively as part of the Foothills Parkway. Right-of-way purchase began in 1947 and took 20 years to complete.³⁶⁵

The Mission 66 program incorporated plans for the Foothills Parkway into its prospectus, dividing its construction into eight sections. A project to construct part of the Gatlinburg Spur began in 1957 and expanded from 1958 to 1960 to include the Bypass. Construction of the parkway itself began in February 1960 at Walland. By 1966, approximately one-third of the route was completed, including Section 8A, a 5.6 mile route from US Route 321 to Cosby; part of Section 8F,

³⁶³ Memorandum, R. A. Wilhelm, Landscape Architect, to Superintendent, Great Smoky Mountains National Park, June 7, 1957; Notice of Final Inspection, Realignment of Newfound Gap Road, October 5, 1964; "Cherokee-Newfound Link Completed," *Waynesville Mountaineer*, July 5, 1965; Cornelius Maher and Michael Kelleher, "Great Smoky Mountains National Park Roads and Bridges, Newfound Gap Road, HAER No. TN-35-A," 1996, 72–77.

³⁶⁴ Catton, A Gift for All Time, 119–120.

³⁶⁵ Catton, A Gift for All Time, 118–119.

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a 6.1 mile route from Carr Creek to Walland (not open to traffic); Section 8G, a 10.1 mile route from Walland to Look Rock; and Section 8H, an 11.1 mile route from Look Rock to Chilhowee Lake. Work on the project slowed after 1968. The State of Tennessee offered to construct part of the roadway and worked on Sections 8E and 8F from 1982 to 1989. Since 1989, the NPS and the Federal Highway Administration have directed further work on Sections 8E and 8F. Work is currently (2015) underway on several bridges in Section 8E.³⁶⁶

To address the need for additional housing for park law enforcement, maintenance, and a limited group of seasonal staff, the 1956 prospectus proposed forty-five new single-family and nine to ten multiple-unit dwellings (forty units). Funding allowed the NPS to build about half the desired number of new residences between 1956 and 1964, including the following:

- three single-family houses near the Cades Cove Campground (Blount County, TN);
- one single-family house (a ranger station) near the Elkmont Campground (Sevier County, TN) and a duplex (seasonal quarters) inside the campground;
- four single-family houses and three multi-unit buildings (eight units total) in the residential area northwest of the Sugarlands administrative complex (Sevier County, TN) where three houses had been built in 1950;
- three single-family houses and a duplex around a cul-de-sac near the Cosby Campground (Cocke County, TN);
- seven single-family houses and three multi-unit buildings (eight units total) in a new residential area at Oconaluftee (Swain County, NC); and
- two single-family houses (a ranger station and a seasonal bunkhouse) near the Deep Creek Campground (Swain County, NC).

Almost all the single-family houses are standard Mission 66 ranches, typically 1,200 square feet with three bedrooms and an attached carport. The multi-unit dwellings resemble the single-family ranches in form and style, with the interiors divided into two to four one-bedroom apartments. The majority are wood frame construction with vertical board-andbatten or horizontal plank siding. Decorative split stone cladding is used on portions of the houses at Cades Cove and Oconaluftee. Several of the carports were later enclosed and converted to garages or additional rooms; shallow gabled roofs have replaced the original flat roofs on the carports at Oconaluftee. The siding on the residences at Cades Cove has been replaced with vinyl, and many of the windows on the residences at Oconaluftee are replacements. The four singlefamily houses at Sugarlands are concrete masonry construction and larger, built into gradually sloping sites that allowed for partially above-ground basements. They also deviate from the standard ranch-style form, featuring asymmetric endgabled rooflines and floor-to-ceiling multi-light picture windows.

³⁶⁶ Great Smoky Mountains National Park, *Mission 66 Prospectus*.

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Mission 66 also funded the construction of additional buildings in the existing maintenance area at Sugarlands; permanent maintenance buildings to replace temporary ones at Oconaluftee and Cades Cove; and new maintenance facilities at Cosby. Like most Mission 66 maintenance buildings, these are masonry construction on concrete slabs, rectangular in form, with asphalt gabled roofs, steel doors, and aluminum windows. All have been altered since their construction.

Revisions to Park Planning and Development, 1964–1972

Annual visitation to Great Smoky Mountains NP grew by 263 percent between 1955 and 1970, when it reached 6,778,500, well over most park planner's expectations. By the mid-1960s, the NPS began to view the negative impacts of this increased usage as outweighing the benefits. At the same time, wilderness conservation advocates focused their efforts on limiting development within the country's largest eastern national park. The passage of the Wilderness Act in 1964, a landmark piece of legislation aimed at protecting wilderness lands in perpetuity, greatly aided conservationists and directly affected the future development of national parks. In addition to its other components, the act signed into law on September 3, 1964, gave the NPS ten years to recommend boundaries for wilderness area designations within all existing national parks. With respect to the Great Smoky Mountains in particular, Superintendent Fry assured local conservationist Harvey Broome in 1964, "We are operating under the philosophy that we need to preserve the wilderness aspects of the park, preserve the historical traditions, and define the limits beyond which we will not develop." Consequently, the 1964 version of the park's master plan presented a shift in the overall development approach, away from the initial Mission 66 paradigm based on visitor circulation through the park and toward a new one based on managing different zones within the park for different purposes.³⁶⁷

In March 1964, newly appointed NPS Director George Hartzog created a Master Plan Study Committee for Great Smoky Mountains NP, with the goal of incorporating the wilderness review component of the pending Wilderness Act into the NPS master plan process for the first time. Superintendent Fry encouraged the committee to incorporate regional planning concerns in its recommendations. In particular, he advised the members to consider the potential for coordination with the US Forest Service, the agency that managed three national forests in the park's vicinity, and with several major highway developments underway nearby: the Gatlinburg Bypass, programmed but not yet completed; the Foothills Parkway, in the early stages of construction; and Interstate 40 between Knoxville and Asheville, nearing completion. The committee's preliminary study report pointed toward a new development planning synthesis based on management zones but included a listing of development projects that addressed park usage requirements consistent with earlier Mission 66 planning documents. The final report submitted to Hartzog in September 1964, after the committee received input from various community groups, instead organized its development proposals around the core concept of management zones focused on preservation and conservation rather than use. It also classified park lands according to the system recommended in a

³⁶⁷ Catton, A Gift for All Time, 99–101.

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1962 report published by the Bureau of Outdoor Recreation, beginning with Class V wilderness lands. Other zones identified in the report included Class VI historic areas, Class III recreation areas, and Class IV unique natural areas. The 1964 master plan differed most strikingly from the Mission 66-era development paradigm in its emphasis on limiting the most intensive use areas to the edges of the park rather than facilitating visitor circulation through the entire park. It included the following park-wide objectives, presented in language that made the overarching preservation goals clear:

- Develop visitor facilities and services in continuity and with caution, thus making it possible for people to see and enjoy, yet not destroy.
- Provide visitors with motor access to a representative cross section of the park's attractions [and] enable them to reach vantage points.
- Develop additional picnic areas to relieve scenic roadsides from the adverse impact of picnickers and return the roadways to their intended purpose of providing free-flowing traffic to promote scenic enjoyment.
- Perpetuate a part of the park as road-less wild lands of pristine nature for those visitors seeking an experience on nature's own terms.³⁶⁸

Although the plan included proposals for several large public use areas, including campground/picnic areas at Greenbrier and Cataloochee, funding ultimately allowed for only minimal development at Great Smoky Mountains NP between 1964 and 1972 (the end of Hartzog's Parkscape program). Completed projects included the conversion of the Chimneys Campground to a Picnic Area (essentially removing the stone fireplaces and campfire circle and relocating the camptender residence to the Sugarlands headquarters area) and the construction of the Collins Creek Picnic Area (Swain County, NC), a comfort station at the Cades Cove Riding Stables (Blount County, TN), a duplex seasonal quarters near Elkmont Campground, and a large ranger station at the Oconaluftee maintenance area. Between 1964 and 1966, the NPS also widened and paved approximately 5 miles of the Cataloochee Road (aka Cataloochee Valley Road, located in Haywood County, NC) in anticipation of a proposed new access road connecting I-40 to Cataloochee, a project later abandoned as a result of local opposition.³⁶⁹

As programmed earlier, the NPS expanded and reconfigured the Newfound Gap Parking Plaza between September 1965 and November 1967 to accommodate the larger size of postwar automobiles and increased visitation. By blasting away part of the mountainside on the west edge of the parking area (where a blasting scar remains), the NPS obtained an additional row of parking. The reconfiguration of the parking plaza eliminated the landscaped islands of the original design and resulted in the construction of some new stone walls and curbing that is of noticeably poorer quality than the

³⁶⁸ Catton, A Gift for All Time, 106-111; Great Smoky Mountains National Park, Great Smoky Mountains National Park Master Plan (Gatlinburg, TN: NPS, 1964).

³⁶⁹ Cornelius Maher and Michael Kelleher, "Great Smoky Mountains National Park Roads and Bridges, Cataloochee Valley Road, HAER No. TN-35-F," 1996, 3, 10.

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CCC-period work. The substantial buttressed stone wall along the southeast edge of the plaza remains unaltered, however.³⁷⁰

The most substantial development during this period occurred along one of the completed sections of the Foothills Parkway, where the Look Rock Campground/Picnic Area (Blount County, TN) and a nearby maintenance area were built between 1965 and 1967. The area includes 120 picnic sites and 250 campsites arranged around the standard park one-way loop road, a kiosk at the entrance, four comfort stations, and an outdoor amphitheater. The dominant feature at the site is the Look Rock Observation Tower, a reinforced concrete structure based on the 1959 tower at Clingmans Dome and one of three towers built at national parks in the Park Service Modern style. Sited atop the highest peak in the Chilhowee Mountain range (elevation 2,843 ft), the tower at Look Rock meets one of the stated goals for the Foothills Parkway project by providing "an appropriate view of the Great Smoky Mountains from the west." NPS architect Ben Biderman prepared the drawings for the structure, which features a switchback ramp rather than the spiral one at Clingmans Dome and a cylindrical fire watch cab above the viewing platform. The overall proportions and construction materials of the Look Rock Tower clearly reference the design introduced at Clingmans Dome.³⁷¹

³⁷⁰ Cornelius Maher and Michael Kelleher, "Great Smoky Mountains National Park Roads and Bridges, Newfound Gap Road, HAER No. TN-35-A," 1996, 77–78.

³⁷¹ Riley Hollenbaugh and Dale A. Ditmanson, Look Rock Observation Tower and Campground, Determination of Eligibility (Gatlinburg, TN: NPS, 2012); Walton, National Register Nomination: Clingmans Dome Observation Tower, 2012.

F. ASSOCIATED PROPERTY TYPES

The historic resources of Great Smoky Mountains NP associated with the contexts discussed in this Multiple Property

Documentation Form (MPDF) are organized into the following property types:

- 1. Farmsteads
- 2. Churches and Schools
- 3. Mills
- 4. Lumber and Mining Resources
- 5. Tourist Developments
- 6. Administrative and Public Contact Facilities
- 7. Campgrounds and Picnic Areas
- 8. Road Systems
- 9. Bridges and Culverts
- 10. Fire and Lookout Towers
- 11. Outdoor Field Museums

Some resources within Great Smoky Mountains NP may be categorized under more than one property type and be eligible for listing in the National Register under multiple areas of significance. For example, Farmsteads significant for their architecture may also be part of an Outdoor Field Museum that is significant within the history of the NPS development of the park. Accordingly, preparers of National Register nominations under this MPDF should consider the entire history of each resource and its potential significance to ensure that all aspects of significance are covered in the documentation.

Only the Lumber and Mining Resources property type, associated with the context Extractive Industries in the Great Smoky Mountains, 1820–1944, includes historic archeological resources. Additional property types for historic archeological resources within the park (such as the remains of roads, buildings, or structures) that are associated with the other contexts discussed in this MPDF should be defined using National Register Bulletins 30 and 36.

Resources that lie outside the boundaries of Great Smoky Mountains NP are not eligible for National Register consideration under these property types.

1. Farmsteads

This property type includes resources constructed individually or in groupings to support European-American habitation and agricultural activities prior to the establishment of Great Smoky Mountains NP. The following property subtypes are

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identified: Main House, Barns and Other Outbuildings, and Landscape Features. Sited in coves, valleys, or gaps, the geographic location and spatial organization of these resources demonstrates the historical sequence and arrangement of the founding and expansion of farmsteads and kinship-linked dispersed hamlets within the five counties making up the park. The locations of the properties also illustrate the relationship between human occupancy and regional geography and natural resources. Through their design, the resources included in this property type clearly evidence their intended purpose and, thus, are associated with the traditional and/or evolving economic organization and lifeways of residents and/or their community. Groupings of such resources may form a district that incorporates the typical spatial arrangements and/or functional resource types of an Upland South community or farmstead. Log buildings and structures represent an important regional vernacular construction technique synthesized from the architectural heritage of Mid-Atlantic immigrant groups and transmitted into the Upland South by English and Celtic immigrants. The technique was uniquely suited to the rich timber resources of the Appalachian chain. Farmstead resources incorporating traditional architectural forms or various architectural styles popular in the nineteenth and early twentieth centuries demonstrate the cultural transmission and interpretation of these styles and forms or represent rare or unique examples of their respective form or style in the region. Evaluated individually, Barns and Other Outbuildings may express the importance of and means of agricultural production within southern Appalachian communities.

Main Houses may be of log or frame construction and may utilize the following vernacular forms: the log cabin, I-house, T-plan, gable-front-and-wing, and hipped pyramidal. Architectural styles that may be exhibited under this property type may include the Greek Revival, Italianate, Eastlake, Queen Anne, and Colonial Revival. Log cabins that exemplify the characteristics of typical vernacular forms would fall within this property subtype. Log cabins in the Smokies are typically side-gabled, one-and-one-half stories in height, and constructed of logs hand hewn into rectangular timber and joined at the corners with notches. Cabin types include the single-pen, saddlebag, dogtrot, and Cumberland. The John Oliver House in Cades Cove, built early in the nineteenth century, is an excellent example of the single-pen Smokies log cabin. The cabin measures 19 feet by 17 feet and has front and rear shed porches. The wide, hewn logs have half-dovetail notches. The house has doors on three sides and a stone endwall chimney. It is founded on isolated fieldstone piers and has narrow horizontal boards in the gable ends. The Noah Ogle House in the Junglebrook Historic District, Sevier County, Tennessee, is a good example of an expanded log cabin. Built 1875–1890, the building was enlarged with a second pen on the opposite side of the end-wall chimney to form a saddlebag-type cabin. A good example of a frame dwelling employing a typical vernacular form is the John P. and Becky Cable House in Cades Cove, built 1875–1879, which is in the I-house form.

Barns and Other Outbuildings represent farmstead buildings and structures designed for specialized purposes and will typically demonstrate the characteristics essential to their function. Resources that fall within this subtype include barns, corn cribs, smokehouses, springhouses, apple houses, chicken houses, and pig pens. These resources may employ log,

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frame, or stone construction, or a combination thereof. Barns are designed to house livestock, agricultural products, and tools. Whether frame or log, barn types are defined by their forms and include the single-crib, double-crib, cantilever, and four-crib. The John P. Cable Barn in Cades Cove, built 1875–1900, is a good example of a barn, in this instance of double-crib log construction employing two log cribs attached via a covered central passage runway and sheltered under a gable roof. Other outbuildings within farmsteads are typically constructed of a single log crib, with logs left in the round and unchinked. The single-crib, shed-roofed Elijah Oliver Corn Crib in Cades Cove is a good example of such a structure. The Walker Sisters' Springhouse in Greenbrier and the Peter Cable Smokehouse in Cades Cove are also well-preserved outbuildings.

Landscape Features provide important evidence of the cycle of daily, seasonal, and yearly activities that took place at Farmsteads. Cleared acreage is perhaps the most fundamental feature of any Farmstead, whose buildings and work areas were placed to accommodate site topography and soils but often lacked any preconceived plan. Adjacent to the Main House, front and rear yards served as important ceremonial and functional open areas. Bare or filled with native grasses, a variety of trees and plants may be found in and around yards: Eastern red cedar, black walnut, and various apples; grapes on trellises or arbors; shrubs such as lilac; and numerous flowers. Besides yards, orchards, animal pens, and tilled fields for vegetables and corn are some of the most common cleared areas found on a Farmstead. Many of these areas needed protection or were enclosed for other reasons. Fences are therefore an important Landscape Feature. Split rail fences employ hand-split logs laid in a zigzag fashion and sometimes stabilized with angled stakes to create a stake-and-rider (aka post-and-rider) fence. Stacked rock walls were also used as fencing, along boundary lines, or to create terraces. In addition to the major outbuildings described above, smaller structures may be important components of a Farmstead, particularly bee gums and ash hoppers. Walking paths and wagon tracks connecting intensively used buildings and areas are also important features. Examples of Farmsteads within Great Smoky Mountains NP that retain their full array of Landscape Features, especially field patterns and fences, are rare. The Ephraim Bales place (developed 1870–1920) in Roaring Fork, Sevier County, Tennessee, exemplifies an intact farmstead that retains its Main House, Barn, and some Landscape Features, including paths and stone walls.

Farmsteads and the associated property subtypes may be significant at the local level under Criteria A and/or C in areas that may include Exploration/Settlement, Community Planning and Development, Agriculture, and Architecture. Resources significant under Criterion A possess associations with historical trends or development patterns in Tennessee's Cades Cove, Cosby, Greenbrier, the West Prong of the Little Pigeon River; North Carolina's Cataloochee, Deep Creek, Hazel Creek, and Oconaluftee Valley; or a smaller settlement cluster; or demonstrate the farm-and-forest agriculture of the Upland South. Resources significant under Criterion C embody the distinctive characteristics of a type, period, or method of construction common to the Upland South region.

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The resources of the Farmstead property type may also meet the qualifications of other property types and/or subtypes. In particular, Farmstead resources may have been relocated or modified to serve in an educational capacity for NPS programming and, in these instances, should also be evaluated for National Register eligibility as an example of the Outdoor Field Museum property type.

Registration Requirements

In general, to qualify for National Register listing under the Farmsteads property type and/or subtypes, resources must be associated with the settlement or occupancy of their respective community (prior to NPS acquisitions in 1928 or 1944) and should convey their historical function as a residence, agricultural building, or landscape feature.

To qualify under Criterion A in the areas of Exploration/Settlement and/or Community Planning and Development, Farmstead resources should retain the design, location, setting, feeling, and association required to convey their historicperiod functions and their important association(s) with a given community. Resources that have been altered within the period of significance can be eligible for listing if they still convey this function, particularly in a grouping of related buildings. Single Farmsteads that are the sole survivor of a no longer extant grouping will not be able to convey their significance under Criterion A in these areas, due to a loss of the requisite setting, feeling, and association required to convey this aspect of their significance. Single Farmsteads that retain resources such as barns, outbuildings, and landscape features such that their agricultural associations are apparent may be eligible under Criterion A in the area of Agriculture.

Farmstead resources eligible under Criterion C for Architecture must incorporate the principles of log construction or demonstrate the typical physical attributes (location, design, form, materials, construction, and workmanship) of architectural styles or functional or vernacular forms and types common in the Upland South region. They should retain the design, materials, workmanship, and feeling that are necessary to express their architectural significance. Log buildings or structures should utilize one of the typical forms (single pen, dogtrot, cantilever, etc.) and related floor plans that are emblematic of log construction. Materials should be largely limited to wood and stone; and wood materials should show evidence of hand workmanship in their shaping and joinery, with minimal utilization of machine-processing. Houses of regionally or locally prevalent forms (such as the I-house) should retain that form intact without alterations that obscure the massing of the original form. Where houses are to be nominated based on the use of high-style architectural tradition, or a vernacular interpretation thereof, that stylistic vocabulary should be prevalent and clearly articulated on multiple components of the building. Only resources that are exemplars of or embody all the attributes of their resource class (e.g., log cabin, I-house, cantilever barn, Queen Anne Style home, etc.) in a given community will be eligible for listing in the National Register. Farmstead resources that are to be considered as a district may lack architectural distinction but may still qualify for listing in the National Register if the design and functional associations of each resource are discernible

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such that the grouping can still be distinguished as a settlement or agricultural complex. However, lesser individual examples of Farmstead subtypes, such as a fence or pigpen, are unlikely to be individually eligible for listing in the National Register.

Preparers of National Register documentation for properties under the Farmstead property type should identify the appropriate geographical context for the resource, which may extend outside Great Smoky Mountains NP boundaries. Appropriate data such as State Historic Preservation Office surveys, local contexts, and secondary literature should be consulted to provide a comparative evaluation of the significance of the property relative to those that may lie outside the park.

Resources within this property type that have been moved from their original location after the period of significance would not be eligible for listing under Criterion A as relocation destroys associations with historic events and may create a false sense of historical development. However, moved properties that retain sufficient integrity to demonstrate their architectural significance may still qualify for listing under Criterion C by applying Criteria Consideration B: Moved Properties.

Buildings that have been reconstructed or otherwise altered following NPS acquisitions in 1928 or 1944 can be eligible for listing if they still convey their historical function. Reconstructed properties must meet the requirements of Criteria Consideration E: Reconstructed Properties: specifically, the reconstruction should be accurately executed in a suitable environment, it should be presented in a dignified manner as part of a restoration master plan, and there should be no other surviving buildings or structures with the same associations.³⁷²

2. Churches and Schools

This property type includes churches and schools constructed prior to the establishment of Great Smoky Mountains NP within the various kinship-linked hamlets dispersed throughout the region. Like Farmsteads, the resources included in this

³⁷² According to National Register Federal Program Regulations (36 CFR Part 60), a property listed in the National Register prior to December 13, 1980, may be removed from the National Register <u>only</u> if "the property has ceased to meet the criteria for listing in the National Register because the qualities which caused it to be originally listed have been lost or destroyed, or such qualities were lost subsequent to nomination and prior to listing." The following legislated grounds for removal of properties from the National Register <u>do not</u> apply for properties listed prior to December 13, 1980:

additional information shows that the property does not meet the National Register criteria for evaluation;

[•] error in professional judgment as to whether the property meets the criteria for evaluation; or

[•] prejudicial procedural error in the nomination or listing process.

If properties listed in the National Register before December 13, 1980, are re-evaluated under this MPDF and their nominations amended, the National Register status of the properties should be interpreted within this regulatory framework. For example, if a property moved or reconstructed prior to its listing is found not to meet Criteria Consideration B or E, respectively, the property could not be removed from the National Register on this basis (National Register Federal Program Regulations, Title 36, Chapter 1, Part 60, Sec.60.15).

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property type clearly evidence their intended purpose through their design and, thus, are associated with the traditional and/or evolving lifeways of residents and/or their community. They may express the importance of and means of religious worship or education within southern Appalachian communities.

Churches in Great Smoky Mountains NP are sited near settlements or along important circulation routes and often accompanied by cemeteries or outbuildings that are significant components of their site. In rare instances, an early church will utilize log pen construction with few or none of the architectural details that speak to a liturgical function. More commonly, the buildings have a tall, single-story, end-gable configuration and are usually of frame construction clad in weatherboard or clapboard. Several components of the exterior will indicate a Church's religious purpose and will often be the focus of any minimal architectural detail (often in a subdued Gothic Revival or Italianate mode) that is provided to these buildings. At the entrance, a prominent single door or pair of doors, sometimes placed in a projecting vestibule (aka narthex) or steeple tower, will be centered on the end wall. These doors may be fitted with surrounds incorporating pilasters, pediments, or transom lights in various configurations. A steeple and belfry may rise above the roof line near the entrance and be fitted with openings to allow the sound of the bell to carry. Along the side walls, ranks of evenly spaced windows will indicate the location of the nave. In keeping with Baptist and Methodist emphasis on preaching and singing rather than liturgical ritual. Church interiors are simple in plan and most commonly divided into a vestibule or narthex, nave, and apse area, with the apse area incorporating some or all of the following: an altar, the pulpit and lectern, and choir. Their interiors are plain in design and employ extensive amounts of wood plank construction for floors, walls, ceilings, and fixtures. Benches often serve in lieu of pews. The Big Cataloochee Methodist Church (Palmer Chapel, built ca. 1902) is a good example of a typical frame Church; while the Little Greenbrier School/Church (built 1882) in Sevier County, Tennessee, is a good example of the less common Church employing log construction.

Like Churches, Schools in Great Smoky Mountains NP are often sited near settlements or along important circulation routes. Older schools or schools in more isolated areas may utilize log pen construction. Other schools are of wood frame construction, using a high end-gable design similar to that of Churches, but less ornate and without a belfry. School interiors are a single large room of austere wood construction, with desks and blackboards being the chief fixtures. The Beech Grove School (Cataloochee/Indian Creek School, built 1907) in Haywood County, North Carolina, is the only example of a frame School in Great Smoky Mountains NP; while the Little Greenbrier School/Church (built 1882) in Sevier County, Tennessee, is the only example of a log pen school.

Churches and Schools may be significant at the local level under Criteria A and/or C in areas that may include Exploration/Settlement, Community Planning and Development, and Architecture. Resources significant under Criterion A possess associations with historical trends or development patterns in Tennessee's Cades Cove, Cosby, Greenbrier, the West Prong of the Little Pigeon River; North Carolina's Cataloochee, Deep Creek, Hazel Creek, and

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Oconaluftee Valley; or a smaller settlement cluster. Schools may also be significant under Criterion A at the local level as resources that demonstrate the process of inculcating knowledge and skills to young people in Upland South communities. Resources significant under Criterion C demonstrate the particular forms and stylistic attributes of churches and schools in the Upland South.

Resources falling within the Churches and Schools property type may also qualify for National Register listing individually or in historic districts as examples of the Outdoor Field Museum property type.

Registration Requirements

In general, to qualify for National Register listing under the Churches and Schools property type, resources must be associated with the settlement or occupancy of their respective community (prior to NPS acquisitions in 1928 or 1944) and should convey their historical function as a church or school.

To qualify under Criterion A in the areas of Exploration/Settlement and/or Community Planning and Development, Churches and Schools should retain the design, location, feeling, and association required to convey their historic-period functions and thus their important association(s) with a given community. Resources that have been altered within the period of significance can be eligible for listing if they still convey this function, particularly in a grouping of related buildings. In some instances, resources may have limited importance within a specific hamlet or poor integrity but, because of later NPS activities, may be the last or one of a few remaining resources from the community. Such resources may qualify for listing even if their integrity is compromised. As with Farmsteads, preparers of National Register documentation for Churches or Schools should identify the appropriate geographical context and relevant data sources to justify the significance of a specific resource.

Churches and Schools eligible under Criterion C for Architecture must incorporate the principles of log construction or demonstrate the typical physical attributes (location, design, form, materials, construction, and workmanship) of architectural styles or functional or vernacular forms and types common in the Upland South region. They should retain the design, materials, workmanship, and feeling that are necessary to express their architectural significance.

Religious properties that are to be nominated to the National Register individually would be subject to Criteria Consideration A: Religious Properties. Individual religious properties must be significant for their role in the lives of mountain residents and community development, not for a particular religious affiliation. Religious properties are exempt from this Criteria Consideration if they contribute to a district primarily composed of non-religious properties.

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Resources within this property type that have been moved from their original location after the period of significance would not be eligible for listing under Criterion A as relocation destroys associations with historic events and may create a false sense of historical development. However, moved properties that retain sufficient integrity to demonstrate their architectural significance may still qualify for listing under Criterion C by applying Criteria Consideration B: Moved Properties.

Buildings that have been reconstructed or otherwise altered prior to NPS acquisitions in 1928 or 1944 can be eligible for listing if they still convey their historical function. Reconstructed properties must meet the requirements of Criteria Consideration E: Reconstructed Properties: specifically, the reconstruction should be accurately executed in a suitable environment, it should be presented in a dignified manner as part of a restoration master plan, and there should be no other surviving buildings or structures with the same associations.³⁷³

3. Mills

This property type encompasses saw- and gristmills constructed prior to the establishment of Great Smoky Mountains NP. The resources are specialized buildings incorporating water-powered machinery for the processing of raw natural materials. Mills will be located adjacent to streams or rivers, and their functional systems extend outside the building footprint to incorporate water control and power generation systems such as dams, gates, penstocks (aka flumes), and turbines or waterwheels. Internally, the buildings house machinery for materials handling and processing. The buildings will exhibit those characteristics necessary for their function: multi-level construction with exposed basement levels or open pier supports for housing or access to power generation machinery near water level; open interior plans to house machinery and related activities; robust framing or bracing for heavy machinery; and large door openings for movement of raw and finished materials in and out of the building. The Mingus Mill, Swain County, North Carolina (built 1886), is an excellent example of a frame mill that retains its power generation infrastructure and milling machinery.

Mills may be significant at the local level under Criterion A in the areas of Agriculture, Commerce, and/or Industry and

³⁷³ According to National Register Federal Program Regulations (36 CFR Part 60), a property listed in the National Register prior to December 13, 1980, may be removed from the National Register <u>only</u> if "the property has ceased to meet the criteria for listing in the National Register because the qualities which caused it to be originally listed have been lost or destroyed, or such qualities were lost subsequent to nomination and prior to listing." The following legislated grounds for removal of properties from the National Register <u>do not</u> apply for properties listed prior to December 13, 1980:

additional information shows that the property does not meet the National Register criteria for evaluation;

[•] error in professional judgment as to whether the property meets the criteria for evaluation; or

prejudicial procedural error in the nomination or listing process.

If properties listed in the National Register before December 13, 1980, are re-evaluated under this MPDF and their nominations amended, the National Register status of the properties should be interpreted within this regulatory framework. For example, if a property moved or reconstructed prior to its listing is found not to meet Criteria Consideration B or E, respectively, the property could not be removed from the National Register on this basis (National Register Federal Program Regulations, Title 36, Chapter 1, Part 60, Sec.60.15).

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Criterion C in the areas of Architecture and/or Engineering. Grist mills of the tub mill and custom mill types that historically were intimately linked to the agricultural production of a specific farmer or farming community will possess significance under Criterion A in the area of Agriculture. In the area of Commerce, the production and sale of lumber, grain, and meal produced at mills often represented one of the earliest economic activities in Smoky Mountains communities during their evolution from a self-sufficient, or subsistence, pattern of lifeways to a farm-and-forest economy that incorporated the trade or sale of agricultural and forestry products. Within communities where farm-andforest economies had matured, saw- or gristmills could substantially contribute to the local economy, and the hard currency generated in mill-related transactions in turn could promote commerce across a community. Mills that provided an early or substantial economic or material contribution to the development of a community or field of production will be eligible under Criterion A in the area of Commerce. The design and construction of mills incorporated specialized skills, knowledge, management practices, and equipment for the collection and distribution of water, generation and transmission of mechanical power, and processing of specific materials. Knowledge of milling practices was transmitted via word-of-mouth (e.g., apprenticeships) and via early technical publications. Mills that demonstrate or have strong associations with a particular phase in or the evolution or dissemination of manufacturing processes, technology, and management will be significant under Criterion A in the area of Industry. Now relatively scarce, intact water-powered mills provide important examples of water-powered technology and its regional application. Mills that demonstrate or exemplify the design or evolution of power generation and milling technology to harness water power, as well as the design of structural systems to support and house such technology, will also possess significance under Criterion C in the area of Engineering. Mills lacking their machinery are significant under Criterion C in the area of Architecture if they incorporate or exemplify the particular attributes of mill building design, as identified above. Mills may also possess significance under Criterion C in the area of Architecture if they embody the distinctive characteristics of a type, period, or method of construction common to the Upland South region, as described above for the Farmsteads property type.

Mills may also qualify for National Register listing individually or in historic districts as examples of the Outdoor Field Museum property type.

Registration Requirements

To qualify for National Register listing as a Mill, resources must have been designed or substantially adapted for a milling activity and convey this function through the design characteristics discussed above. They should be constructed prior to NPS land acquisition of their site for Great Smoky Mountains NP in 1928 or 1944. National Register documentation for mills should justify their eligibility using an appropriate geographical context and related data.

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Mills must retain integrity of design, materials, workmanship, feeling, and, preferably, location. Preferably, mills nominated for their agricultural associations should retain any aspects of their historical setting that convey their relationship to farming. Mills nominated for National Register listing for their significance in the areas of Industry and/or Engineering should retain substantial amounts of their power generation, transmission, or milling machinery and equipment. At minimum, a Mill's location adjacent to a stream should be retained, the Mill's structural design should be evident, and vestiges of water collection and power transmission infrastructure should be visible. Where present, water collection and conveyance structures such as dams, ponds, mill races, and penstocks or flumes should be included in National Register boundaries. Where mills have significance in the area of Commerce, such elements will have less importance than the general design, feeling, setting, and association of the building. Mills nominated for their architectural significance should at minimum retain integrity of design, workmanship, and materials such that the important type, period, or method of construction that the property represents is conveyed. Buildings that have been moved after the period of construction would not be eligible for listing unless they meet the requirements of Criteria Consideration B: Moved Properties. Relocated mills must still be able to convey their engineering values: they should have an appropriate position on a watercourse and incorporate at least some original technical features such as turbines, and power transmission infrastructure.

4. Lumber and Mining Resources

The Lumber and Mining Resources property type encompasses resources, archeological sites, and districts associated with logging, mining, or stone quarrying within the period 1820 to 1944. By their nature, modern-period extractive industries occurred in short-lived campaigns whose implementation and duration were predicated on a complex economic and technological calculus or on the removal of the entirety of the natural resource within a given geographic locus. The facilities associated with these activities were therefore highly transient and often ephemeral. Buildings and structures not requiring substantial construction from an engineering perspective were erected with cost-effective materials and techniques and abandoned or reused elsewhere at the cessation of an extractive campaign. Likewise, equipment was moved to new locations whenever possible or abandoned in situ and typically subject thereafter to salvage efforts. In the instance of logging activities within the future Great Smoky Mountains NP, the NPS policy of wholesale removal further limited the survival rate of associated resources. Thus, few inactive resources of this property type survive intact and in good condition in the park and instead are primarily archeological sites.

The Lumber and Mining Resources property type may include (but is not limited to) processing buildings and sites such as sawmills, kilns, forges, and colliers' mounds; excavation sites such as mines and quarries; transportation elements such as railroads and hoists; power generation infrastructure (steam or water); outdoor work and storage areas; residential buildings or camps; and earthworks and landscape features such as dams, retaining walls, terraces, berms, and waste piles.

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These resources are rarely found in isolation and often as industrial-archeological landscapes in multi-acre complexes that include a combination of visible site features and archeological deposits and are therefore more appropriately evaluated as districts. The former company town of Proctor in Swain County, North Carolina, provides a good example of a former logging site. Here, multiple ruinous buildings and structures of brick and concrete are organized around a former railroad grade (now a park trail). These include a Pump House, Valve House, and ruins of the Drying Kiln. The remnants of a log pond are visible on the landscape, and archeological testing has identified remains of a railroad switchyard. The Fontana Copper Mine landscape includes the visible remains of mining and company camp structures and buildings, including concrete foundation or machinery footings, stone retaining walls, machinery, open shafts/adits, and brick features. The concentrations of features at the mining and camp complexes are connected by fragments of a railway incline structure.

Lumber and Mining Resources may be significant under Criteria A and/or D at the local and/or state level in areas that may include Archeology (Historic Non-aboriginal), Industry, and Commerce. Resources significant under Criterion A played an important role or made an important contribution within a given industry at the local (county) or state level or represented an important economic activity within a community. Under Criterion D, resources within this property type either have yielded or have the potential to yield important information (i.e., data sets) concerning human history, typically (but not restricted to) the temporal periods of activity and inactivity across a significant industry, production techniques and technologies (especially for poorly understood or scarce site types), regional exchange networks, and labor relations. A resource could qualify under Criterion C in the area of Engineering as a site that conveys a particular type, period, or method of construction or as a district that conveys the design and engineering of a particular type of extractive industry plant or complex if individual site components (for example, buildings, structures, or ruins/sites) remain with sufficient integrity to convey their design and function. Resources related only tangentially to extractive industries—such as residences, bridges, or ancillary structures—that no longer have any logging and mining-related infrastructure associated with them are not individually eligible for National Register listing under this property type, as their historical association with logging and mining is diminished.

Registration Requirements

To qualify for National Register listing under this property type, Lumber and Mining Resources should have been established during the period 1820 to 1944 by non-NPS personnel or corporations. Resources must retain sufficient integrity such that the important information for a data set is present or likely present; i.e., there must be no serious disturbance to a property's archeological deposits. The locations and hence the spatial patterning (a component of design) of the important work or residential activities and connecting infrastructure should be identifiable. Architectural, technological, and functional aspects of the site should be retained such that the design, materials, and workmanship can be understood. Landscape elements such as streams, hillsides, and small-scale features that contribute to the setting of the

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property should be retained. All of these elements would contribute to the significant feeling and association of a resource. To qualify under Criteria A and/or C, a resource must have demonstrated ability to convey its significance: a sufficient quantity of buildings, structures, or visible ruins and features should be visible and interpretable and/or sufficient archeological investigations should have occurred to establish significance. To qualify under Criterion D, Lumber and Mining Resources need only have the potential to yield important information, as ascertained through archeological investigations (not necessarily sub-surface). Archeological properties have different integrity standards than buildings, structures, and objects; and an evaluation of their integrity is contingent on their applicable research design. Archeological investigations should establish the specific research questions, data potential, and integrity for each property to be nominated.³⁷⁴

5. Tourist Developments

This property type includes those resources associated with recreational development in the Great Smoky Mountains from 1900 to 1942. The following property subtypes are identified: Cabins, Hotels, and Summer Homes.

- Cabins are accommodations built or rehabilitated by outdoor recreational clubs for use by their members. This subtype includes associated outbuildings or ancillary structures. The Smoky Mountains Hiking Club Cabin in the Greenbrier section of the park (Tennessee) along Porters Creek, built between 1934 and 1936 by members of a conservation and recreation group and used for overnight hikes by special permit with the NPS until 1976, is a good example of a rustic vernacular Cabin. The site also includes a Springhouse built by the club in 1934–1936 and the 1850–1870 John Messer Barn used by the club.
- Hotels correspond to accommodations built or rehabilitated to cater to tourists. This subtype includes individual cabins, multi-room lodges, associated outbuildings or ancillary structures, and landscape features. The ca. 1917 Palmer Tourist Cabin within the Cataloochee area in North Carolina is an example of a small tourist cabin Hotel built by local mountain residents to cater to the increased number of recreational visitors in the 1920s.
- Summer Homes are properties developed privately as individual seasonal residences. This subtype includes
 vacation cottages and cabins in areas developed as seasonal resort communities by members of recreational clubs,
 primary and secondary buildings associated with private estates, and associated designed landscape features and
 infrastructure. The Appalachian Club clubhouse/hotel at Elkmont and about fifty-five cottages built by club
 members beginning in 1910 are good examples of early twentieth-century vacation cottages used as Summer
 Homes. The Voorheis Estate, developed by philanthropist Louis E. Voorheis beginning in 1928, is the only
 surviving private estate Summer Home within the park boundary.

³⁷⁴ The scope of this MPDF generally excludes archeological properties.

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Tourist Developments may be eligible for listing in the National Register at the local and/or state level under Criterion A in the area of Entertainment/Recreation for their associations with early twentieth-century recreational activity and tourist development in the Great Smoky Mountains. The popularity of outdoor recreation and summer tourism in the Southern Appalachians during the period just before and after the establishment of Great Smoky Mountains NP led to the construction of many resort hotels, private summer estates, and recreational facilities in the region. Very few resources from this era remain extant, particularly within the park lands. Resources within this property type may also be eligible at the local and/or state level under Criterion C in the area of Architecture as representative or unusual examples of particular types of vernacular resort architecture (such as the modified set-off cabins at Elkmont) or under Criterion B if they possess associations with significant individuals (for example, the estate of local philanthropist Louis E. Voorheis).

Registration Requirements

To qualify for National Register listing under this property type, resources must be associated with the historical context for recreational development in the Great Smoky Mountains from 1900 to 1942 and have been constructed or rehabilitated for recreational purposes between 1900 and 1942. Most of these resources were built prior to the establishment of Great Smoky Mountains NP in 1926, but in some cases development continued beyond that point. Tourist Developments can be listed as a historic district (such as Elkmont) or as a contributing resource within a larger historic district (such as the Palmer Tourist Cabin within a Cataloochee district). To be eligible for listing under Criterion A, resources should retain their location, design, feeling, and association to clearly convey their historic recreational functions and associations. Resources eligible under Criterion C for Architecture should retain sufficient integrity of design, materials, and workmanship to express their architectural significance.

6. Administrative and Public Contact Facilities

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This property type corresponds to those areas within the park designed to provide essential administrative and visitor facilities and associated with either the initial development of Great Smoky Mountains NP from 1926 to 1942 or the development of the park under the Mission 66 program from 1945 to 1972. It includes headquarters and administration buildings; visitor centers; ranger stations; circulatory roads and associated features; parking areas, including curbing; sidewalks; garages; and associated landscape features. Resources built during the initial development period reflect the principles of 1930s NPS park design, guided by the master planning process and harmonized with the landscape through the use of local materials and rustic and vernacular architectural styles. Those built during the Mission 66 development period reflect the Park Service Modern aesthetic adapted from popular mid-twentieth-century architecture and aimed at improving the visitor experience of the park. The Sugarlands headquarters area in Tennessee with its two primary buildings, the 1938–1940 Headquarters Building and the 1958–1960 Visitor Center, is associated with both significant periods of development at Great Smoky Mountains NP. The 1938–1940 Oconaluftee Administration Building in North Carolina is a carefully designed and sited administrative building that fully exemplifies NPS naturalistic design principles from the 1926–1942 period and represents the New Deal conservation, public recreation, and public works emphases.

Administrative and Public Contact Facilities may be significant under Criteria A and/or C in areas that may include Conservation, Community Planning and Development, Architecture, and Landscape Architecture. Resources within this property type associated with the initial park development period (1926–1942) and significant under Criterion A represent the efforts of conservationists, state officials, Congress, and the Roosevelt Administration to revive the economy through public works while also conserving natural resources and providing recreational opportunities to the American people. Those associated with the Mission 66 development period (1945–1972) may possess significance under Criterion A as examples of the evolution of national park planning and development that occurred as the NPS attempted to revive national park infrastructure and improve visitor services and recreational opportunities. Administrative and Public Contact Facilities that are significant under Criterion C embody the distinctive design philosophy and qualities of craftsmanship perfected by the NPS in the New Deal period or the distinctive mid-twentieth-century modern design principles and construction techniques (Park Service Modern) practiced by NPS architects, landscape architects, planners, and historians during the Mission 66 era.

Registration Requirements

To qualify for National Register listing under this property type, resources typically must be associated with the initial development campaign at the park and have been constructed during the 1933 to 1942 period in accordance with the park's master plan -OR- have been constructed between 1945 and 1972 and possess strong associations with Mission 66

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era development at the park. Resources that are less than fifty years old must meet Criteria Consideration G to be considered eligible for listing. Resources programmed and begun under Mission 66 but only partially completed will not be eligible for listing under this property type. Administrative and Public Contact Facilities can be listed either individually or as a historic district.

To qualify under Criterion A, Administrative and Public Contact Facilities should retain most, if not all, aspects of integrity (particularly location, design, feeling, and association) and clearly convey their historic functions and associations. If constructed after 1942 but not as part of Mission 66 development, the resource must be a logical extension of the original park development campaign. If constructed during the Mission 66 era, the resource must represent a substantial completed development project included in the park's 1956 prospectus for Mission 66 (or subsequent planning documents prepared during the Mission 66 period) that addressed the Mission 66 program goals such as improved visitor facilities or park infrastructure. If constructed after 1972, the resource must be a logical extension of the original Mission 66 development program.

To qualify under Criterion C, resources within this property type should retain sufficient integrity of design, materials, and workmanship to express architectural significance. Particular consideration should be given to the character-defining elements of spatial organization, circulation, and vegetation. The resource must adhere to the prevalent NPS design philosophy for either the 1933 to 1942 period (emphasizing visual and cultural harmonization) or the 1945 to 1972 period (emphasizing low-pitched gable roofs and readily available materials such as steel, plywood, fiberglass, and concrete). If constructed after 1942 but not as part of Mission 66 development, the resource must be congruent in design and execution with work from the 1933 to 1942 period. If constructed after 1972, the resource must be congruent in design and execution with work from the Mission 66 period.

7. Campgrounds and Picnic Areas

Campgrounds and Picnic Areas are major developed areas within the park intended for public use and associated with either the initial development of Great Smoky Mountains NP from 1926 to 1942 or the development of the park under the Mission 66 program from 1945 to 1972. They contain a range of representative facilities developed by NPS designers according to nationally recognized principles of campground planning. This property type may include campgrounds, picnic areas, loop roads, campsites with parking spurs, comfort stations, drinking fountains, amphitheaters, stores, ranger stations (also called camptender residences), seasonal quarters, and landscape features. Campgrounds and Picnic Areas built during the initial development period reflect the principles of 1930s NPS park design, guided by the master planning process and harmonized with the landscape through the use of local materials and rustic and vernacular architectural styles. They incorporate elements of approved NPS design policy such as one-way gravel-surfaced loop roads, gravel-

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surfaced parking spurs for each camp/picnic site, stone fireplaces to control the location of fires, and sanitary facilities in the form of running water and comfort stations. Comfort stations and other buildings typify NPS rustic architecture characterized by low massing and the use of local stone. Campgrounds and Picnic Areas built during the Mission 66 development period reflect the Park Service Modern aesthetic adapted from popular mid-twentieth-century architecture and aimed at managing growth while improving the visitor experience of the park. The campgrounds feature one-way loop roads, larger parking spurs to accommodate recreational vehicles, campsites arranged on alternating sides of the road, improved water and electrical lines, and standardized comfort stations. The picnic areas are sited at scenic overlooks or along creeks to take advantage of natural resources and incorporate wide loop roads and parking spurs, shade structures, fire pits, and comfort stations. Comfort stations and other buildings feature standard Mission 66 design elements, including moderately pitched gable roofs, deep roof overhangs, exterior privacy walls, bands of horizontal windows placed just other the roofline, and split stone or decorative concrete block construction.

The Chimneys Picnic Area (Tennessee) and Smokemont Campground (North Carolina) are good examples of this property type from the initial period of NPS development at Great Smoky Mountains NP that also have improvements associated with the NPS Mission 66 program. The Campgrounds at Cades Cove, Cosby, Elkmont, and Look Rock in Tennessee and Deep Creek in North Carolina and the Picnic Area at Metcalf Bottoms in Tennessee are all well-preserved, representative examples of this property type from the Mission 66 development period.

Resources within this property type may be significant under Criteria A and/or C in areas that may include Conservation, Community Planning and Development, Architecture, and Landscape Architecture. Campgrounds and Picnic Areas associated with the initial park development period (1926–1942) and significant under Criterion A represent the efforts of conservationists, state officials, Congress, and the Roosevelt Administration to revive the economy through public works while also conserving natural resources and providing recreational opportunities to the American people. Those associated with the Mission 66 development period (1945–1972) may possess significance under Criterion A as examples of the evolution of national park planning and development that occurred as the NPS attempted to revive national park infrastructure and improve visitor services and recreational opportunities. Campgrounds and Picnic Areas that are significant under Criterion C embody the distinctive design philosophy and qualities of craftsmanship perfected by the NPS in the New Deal period or the distinctive mid-twentieth-century modern design principles and construction techniques (Park Service Modern) practiced by NPS architects, landscape architects, planners, and historians during the Mission 66 era.

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To qualify for National Register listing under this property type, resources typically must be associated with the initial development campaign at the park and have been constructed during the 1933 to 1942 period in accordance with the park's master plan –OR– have been constructed between 1945 and 1972 and possess strong associations with Mission 66 era development at the park. Resources that are less than fifty years old must meet Criteria Consideration G to be considered eligible for listing. Resources programmed and begun under Mission 66 but only partially completed will not be eligible for listing under this property type. Campgrounds and Picnic Areas can be listed as individual sites with associated features or as historic districts, depending on the size and scale of associated resources.

To qualify under Criterion A, Campgrounds and Picnic Areas should retain most, if not all, aspects of integrity (particularly location, design, feeling, and association) and clearly convey their historic functions and associations. Those constructed during the 1933 to 1942 period must have been funded and constructed by the New Deal public works programs as part of the park's master plan. They should feature one-way loop roads with individual parking spurs at each camp or picnic site and rustic stone comfort stations. If constructed after 1942 but not as part of Mission 66 development, the resource must be a logical extension of the original park development campaign. If constructed during the Mission 66 era, the resource must represent a substantial completed development project included in the park's 1956 prospectus for Mission 66 (or subsequent planning documents prepared during the Mission 66 period) that addressed the Mission 66 program goals such as improved visitor facilities or park infrastructure. It should feature one-way loop roads with longer parking spurs, less dense camp or picnic site arrangements, and concrete or split stone comfort stations. Many will also include covered or open amphitheaters. If constructed after 1972, the resource must be a logical extension of the original Mission 66 development program.

To qualify under Criterion C, resources within this property type should retain sufficient integrity of design, materials, and workmanship to express their design significance. The resource must adhere to the prevalent NPS design philosophy for either the 1933 to 1942 period (emphasizing visual and cultural harmonization) or the 1945 to 1972 period (emphasizing low-pitched gable roofs and readily available materials such as steel, plywood, fiberglass, and concrete). Particular consideration should be given to the character-defining elements of spatial organization, circulation, and vegetation. If constructed after 1942 but not as part of Mission 66 development, the resource must be congruent in design and execution with work from the 1933 to 1942 period. If constructed after 1972, the resource must be congruent in design and execution with work from the Mission 66 period. Buildings and structures should remain on their original sites and largely unaltered. Replacement picnic tables or other fixtures would not likely disqualify Campgrounds and Picnic Areas from eligibility. Substantially altered or more recently constructed buildings or structures would not contribute to a Campground or Picnic Area site or district but would also not necessarily disqualify it from eligibility, provided they do not detract from the overall integrity of the site or district.

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8. Road Systems

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Road Systems are public transportation ways constructed of earth, stone, asphalt, or concrete that are intended for use by horses, wagons or other animal-powered conveyances, motor vehicles, and pedestrians. Road Systems in Great Smoky Mountains NP conform to one of two property subtypes: Pre-NPS Community Roads, or Great Smoky Mountains NP Roads.

- Pre-NPS Community Roads were established prior to NPS acquisitions in 1928 or 1944 and are the major transportation corridors that provided access through and between villages and hamlets. The earliest of these roads were built with human and animal power, while later examples may have been constructed with early motorized earth-moving machines. Because of these practical limitations, these road systems follow winding, circuitous routes to thread their way through the difficult terrain of the Smokies. Many roads followed Native American trails, and all take advantage of natural features such as stream valleys, ridgelines, and gaps. The roadways are typically narrow to minimize the amount of construction effort and because of the lower vehicle speeds that needed to be accommodated. Roadway surfaces were usually dirt and gravel, or a packed Macadam gravel, though some may later have been improved with asphalt in the early twentieth century. Switchbacks and stream fords without bridges may be employed. Parsons Branch Road, initially built 1861 into Cades Cove, Tennessee, though now improved with bridges and gravel roadway surface by the NPS, provides a good example of a major connecting road for an important Tennessee community. The Cataloochee Road (aka Cataloochee Valley Road) originated through the 1850s and 1860s as a circulation route within settlements of the Cataloochee Valley, North Carolina. Sections of this road survive along the valley floor in original condition, often in conjunction with stone walls or other landscape features.
- Great Smoky Mountains NP Roads correspond to the motor roads that form the park's vehicular circulation system. This property type includes the major park roads designed to provide entry to the park and access to the park's scenic features and recreational areas, as well as to connect other components of the park such as campgrounds and administrative/public contact areas. In addition to the roads and road banks, this property type encompasses such associated features as bridges; culverts and drains; tunnels; guardrail and barriers; tree wells; and pull-offs, including curbing, retaining walls, and sidewalks. It also includes overlooks consisting of minor roads, parking areas, trails, paths, bridges, benches, and other facilities developed for the purpose of presenting scenic views to visitors. Overlooks encompass any related parking plazas, comfort stations, retaining walls, sidewalks, memorials, and landscape features. Road Systems constructed during the initial park development period unobtrusively follow the topography of river valleys and ridge sides; provide access to trailheads, scenic overlooks, campgrounds, and administrative and visitor contact areas; and offer striking vistas of mountains and river valleys to the traveling motorist. The consistent use of stone and stone-faced road structures—bridges,

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culverts, retaining walls, guardrail, and tunnel portals—aesthetically unifies the road systems. The three major park roads entirely or substantially developed before 1942—Newfound Gap Road, Clingmans Dome Road, and Little River/Laurel Creek Road (including the Townsend Entrance Road and the Elkmont Spur)—exhibit all facets of the 1930s NPS design philosophy. Other park roads constructed during the early park development period, such as the Cades Cove Loop Road, also possess some characteristic features of New Deal era NPS design. Mission 66 park road design and construction policy continued to emphasize the principles established during the 1930s, while adhering to updated engineering standards and accommodating increased amounts of traffic. During the Mission 66 period of park development, the NPS also introduced the concept of motor nature trails in some parks, or roads that replicated the rural character of narrow historic roadways while providing improved visitor access to significant park resources. The Roaring Fork-Cherokee Orchard Road (aka the Roaring Fork Motor Nature Trail), constructed in 1963, is an intact example of this relatively rare type of Road System.

Road Systems may be significant under Criteria A and/or C in areas that may include Exploration/Settlement, Community Planning and Development, Conservation, Landscape Architecture, and Engineering. Resources significant under Criterion A possess associations with historical trends or development patterns in one of the settlement clusters that existed in the region prior to the establishment of Great Smoky Mountains NP; the initial development of the park from 1926 to 1942; or the development of the park under the Mission 66 program from 1945 to 1972. Major settlement-era roads demonstrate patterns of exploration and settlement, as well the linkages of communication and trade that these communities maintained (and any attendant difficulties in this regard). Park development roads represent substantial efforts by the federal government to improve national park infrastructure. Road Systems significant under Criterion C reflect the distinctive characteristics of a type, period, or method of road construction common to the Upland South region; principles of naturalistic design developed by NPS landscape architects and engineers during the New Deal period; or the influence of Mission 66 road design and construction policies.

Registration Requirements

To qualify for National Register listing under this property type, Pre-NPS Community Roads must be associated with the settlement or occupancy of their respective community (prior to NPS acquisitions in 1928 or 1944), while Great Smoky Mountains NP Roads should be associated with the initial development campaign at the park between 1933 and 1942 or with Mission 66 era development at the park between 1945 and 1972. Resources that are less than fifty years old must meet Criteria Consideration G to be considered eligible for listing. Resources programmed and begun under Mission 66 but only partially completed will not be eligible for listing under this property type. In general, Road Systems should be nominated as a linear district composed of the roadbeds and the associated ancillary or integrated resources. Pre-NPS Community Roads may be accompanied by small-scale landscape features such as stone walls, culverts, small bridges or

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bridge remains such as abutments and cemeteries or archeological features such as building ruins. Historic contributing landscape elements identified through CLIs and CLRs would also be included in the National Register documentation. Great Smoky Mountains NP Roads may have historic-period overlooks and comfort stations, major structures (bridges and tunnels), and small-scale features (culverts, curbing, guardrail and retaining walls, tree wells, and pull-offs) that provide evidence of the stone design aesthetic. As with Pre-NPS Community Roads, landscape elements identified through CLIs and CLRs would also be included. Some individual roads of either subtype could be eligible as contributing resources within a larger district.

To qualify under Criterion A, Road Systems should retain most, if not all, aspects of integrity (particularly location, design, feeling, and association) and clearly convey their historic functions and associations. Integrity of location, setting, feeling, and association are all particularly important in demonstrating the importance of a given route to the historical development of a community. Pre-NPS Community Roads should have served as an important connecting route between communities or as a major thoroughfare within a community. Great Smoky Mountains NP Roads should have been constructed between 1933 and 1942 as part of the original park development campaign or between 1945 and 1972 as part of the Mission 66 development campaign. If constructed after 1942 but not as part of Mission 66 development, the resource must be a logical extension of the original park development project included in the park's 1956 prospectus for Mission 66 (or subsequent planning documents prepared during the Mission 66 period) that addressed the Mission 66 program goals such as improved visitor facilities or park infrastructure. If constructed after 1972, the resource must be a logical extension of 66 development program.

To be significant under Criterion C as a work of nineteenth- or early twentieth-century engineering, Road Systems would need to retain integrity of design, materials, workmanship, and feeling such that their period of construction is conveyed. Roads built as part of the initial park development will exhibit characteristics of 1930s NPS naturalistic design, including alignments that follow the topography, provide scenic views, avoid steep grades and sharp turns, and minimize cut and fill; grade separations, wye intersections, or loop developments; naturally vegetated banks; and stone or stone-faced guardrail, culverts, bridges, and curbing. They must also retain integrity of location, unless the road alignment was moved prior to NPS acquisition of the property. Settlement-period roadways improved by the NPS with new surfaces, drainage features (i.e., culverts), and increased widths on curves may still be eligible so long as the original route alignment (or the majority thereof) is maintained. Most roads currently maintained for motor vehicle traffic by the NPS have been resurfaced from their original packed dirt and/or gravel to packed gravel (or in some cases asphalt), and sharp curves widened. However, these changes in materials and workmanship do not disqualify a roadway from National Register eligibility, particularly as contributing resources within a historic district, if the other aspects of integrity as referenced above are retained. Park development roads that have been widened and resurfaced may be eligible if they maintain their

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original alignments and bank treatment and provide the same sequence of visual experiences as when first constructed. If constructed after 1942 but not as part of Mission 66 development, the resource must be congruent in design and execution with work from the 1933 to 1942 period. If constructed after 1972, the resource must be congruent in design and execution with work from the Mission 66 period.

9. Bridges and Culverts

This property type corresponds to individual bridges and culverts within the park that are not components of a larger significant Road System that is more appropriately evaluated as a historic district. It includes bridges of the Pratt and Warren truss or Luten reinforced concrete arch types. These bridges represent significant developments in bridge construction ca. 1880–1920 that improved on early wood beam and truss designs in their durability and load capacity. Luten bridges also represent an important transitional era in the refinement of the reinforced concrete bridge. These bridge types were typically built ca. 1880–1930, a period when the engineering profession made substantial advances in bridge design, counties began taking more responsibility for road work, and the automobile made improvements to bridges necessary. The Bradley Fork Bridge (built 1921) exemplifies a bridge of the Luten reinforced concrete arch type. This single-span structure with decorative parapets is located in Smokemont, Swain County, North Carolina. Although it is no longer associated with a Road System, it conveys its significance as an example of a Luten-type structure. The Lower Cataloochee Creek Bridge (built 1920) demonstrates the typical characteristics of a Warren truss type. This three-span steel structure incorporates a pin-connected Warren-type main span and is on a road alignment still used for vehicle traffic.

Bridges and Culverts may possess significance under Criterion C in the area of Engineering as surviving examples of nineteenth- or early-twentieth-century design for their respective resource types. Bridges and Culverts may also be significant under Criterion A in the area(s) of Transportation, Exploration/Settlement, Community Planning and ⁵ Development, or Conservation when associated with a significant road, even if the bridge pre-dates the road system, provided that the road meets the registration requirements for the Road Systems property type. Bridges or Culverts constructed by the NPS in Great Smoky Mountains NP are excluded from this property type and should be evaluated as a component of the Road Systems property type.³⁷⁵

Registration Requirements

To be significant under Criterion C as a work of nineteenth- or early twentieth-century engineering, bridges would need to retain integrity of design, materials, workmanship, and feeling such that their period of construction is conveyed. They

³⁷⁵ This MPDF document may be amended at a later date to expand the Bridges and Culverts property type to include structures built by the NPS.

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must evidence the original and important aspects of their truss or concrete arch type. Bridges that have been moved to span another waterway or are no longer connected to a roadway but that retain these aspects of integrity may still be eligible, assuming they meet Criteria Consideration B: Moved Properties. Where bridges have been modified for safety or structural considerations, the essential characteristics of the structural type (truss or arch) must still be evident, substantially unaltered, and still functioning as a load-bearing element.³⁷⁶

To be eligible under Criterion A in the area(s) of Transportation, Exploration/Settlement, Community Planning and Development, or Conservation, a bridge must retain its visual and functional connection with its historical road network. If the roadway has been rerouted or the historical roadway demolished, this would likely impinge on the setting, feeling, and association of the structure such that it could no longer convey its importance relative to these areas of significance. To qualify for National Register listing under this property type, resources typically must predate NPS land acquisitions in 1928 or 1944.

10. Fire and Lookout Towers

Fire and Lookout Towers correspond to structures erected for the purpose of monitoring fire activity within the park or presenting scenic views to visitors. This property type includes lookout towers as well as living quarters constructed for fire lookouts. Fire Towers built during the initial park development period and associated with the CCC and New Deal conservation efforts, in particular the fire control program in use at national parks throughout the country, typically employed standard designs for the towers and adjacent lookout cabins. Three nearly identical steel Fire Towers built in 1935—Shuckstack and Mount Sterling in North Carolina and Cove Mountain in Tennessee—remain extant at Great Smoky Mountains NP, along with the 1935–1936 fire lookout cabin associated with the removed High Rocks Fire Tower in North Carolina. The Mount Cammerer Fire Tower in Tennessee, constructed 1937–1939, is one of only two known stone fire towers in the eastern United States. Extant Lookout Towers built for visitor observation purposes during the Mission 66 development period are a comparatively rare resource type and reflect the distinctive aesthetic of Park Service Modern architecture, characterized by modern materials like concrete and streamlined geometric designs. Great Smoky Mountains NP has two Mission 66 Lookout Towers, the Clingmans Dome Observation Tower constructed in 1959 on the North Carolina/Tennessee line at the highest peak in the Smokies and the Look Rock Observation Tower constructed in 1967 at the Look Rock Campground/Picnic Area along the partially completed Foothills Parkway.

Resources within this property type may be significant under Criteria A and/or C in areas that may include Conservation, Community Planning and Development, Architecture, Landscape Architecture, and Engineering. Fire and Lookout Towers associated with the initial park development period (1926–1942) and significant under Criterion A represent the

³⁷⁶ Bridges with new structural systems added atop or within the historic load-bearing system (for example, a historic concrete arch with a modern concrete slab added on top) are not eligible for listing in the National Register.

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efforts of conservationists, state officials, Congress, and the Roosevelt Administration to revive the economy through public works while also conserving natural resources and providing recreational opportunities to the American people. Those associated with the Mission 66 development period (1945–1972) may possess significance under Criterion A as examples of the evolution of national park planning and development that occurred as the NPS attempted to revive national park infrastructure and improve visitor services and recreational opportunities. Fire and Lookout Towers that are significant under Criterion C embody the distinctive design philosophy and qualities of craftsmanship perfected by the NPS in the New Deal period or the distinctive mid-twentieth-century modern design principles and construction techniques (Park Service Modern) practiced by NPS architects, landscape architects, planners, and historians during the Mission 66 era.

Registration Requirements

To qualify for National Register listing under this property type, resources typically must be associated with the initial development campaign at the park and have been constructed during the 1933 to 1942 period in accordance with the park's master plan –OR– have been constructed between 1945 and 1972 and possess strong associations with Mission 66 era development at the park. Resources that are less than fifty years old must meet Criteria Consideration G to be considered eligible for listing. Resources programmed and begun under Mission 66 but only partially completed will not be eligible for listing under this property type. Fire and Lookout Towers will typically be listed as individual resources, although the Look Rock Observation Tower could be listed as a contributing resource within a Look Rock Campground/Picnic Area historic district.

To qualify under Criterion A, Fire and Lookout Towers should retain most, if not all, aspects of integrity (particularly location, design, feeling, and association) and clearly convey their historic functions and associations. If constructed after 1942 but not as part of Mission 66 development, the resource must be a logical extension of the original park development campaign. If constructed during the Mission 66 era, the resource must represent a substantial completed development project included in the park's 1956 prospectus for Mission 66 (or subsequent planning documents prepared during the Mission 66 program goals such as improved visitor facilities or park infrastructure. If constructed after 1972, the resource must be a logical extension of the original Mission 66 development program.

To qualify under Criterion C, resources within this property type should retain sufficient integrity of design, materials, and workmanship to express their design significance. The resource must adhere to the prevalent NPS design philosophy for either the 1933 to 1942 period (emphasizing visual and cultural harmonization) or the 1945 to 1972 period (emphasizing low-pitched gable roofs and readily available materials such as steel, plywood, fiberglass, and concrete). If constructed after 1942 but not as part of Mission 66 development, the resource must be congruent in design and execution with work

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from the 1933 to 1942 period. If constructed after 1972, the resource must be congruent in design and execution with work from the Mission 66 period.

11. Outdoor Field Museums

An Outdoor Field Museum is a distinct area set aside within the park as a cultural resource for the purpose of interpreting the history of the park lands to visitors using historic buildings and structures. The property type can include one or more of the following resources:

- buildings or structures constructed prior to the park's establishment in 1926 and restored on their original site;
- buildings or structures constructed prior to the park's establishment in 1926 and restored in a new location within the park; and
- reconstructions and replicas of buildings or structures that existed on park lands prior to the park's establishment in 1926.

Outdoor Field Museums typically include restored, rehabilitated, or reconstructed examples of settlement-period buildings and structures with visitor access such as loop roads and pedestrian paths. The choice of buildings and structures designated for the purpose of an outdoor museum reflects the NPS preservation philosophy during the initial park development period and the conscious manipulation of the landscape within the park according to the prevailing master planning guidelines. Examples of Outdoor Field Museums at Great Smoky Mountains NP range from the larger groupings at Cades Cove in Tennessee and the Oconaluftee Mountain Farm Museum in North Carolina to the smaller cluster of buildings at the King-Walker Place to single restored buildings such as the Little Greenbrier School or Mingus Mill.

Outdoor Field Museums may be eligible for listing in the National Register under Criterion A in areas that may include Conservation, Community Planning and Development, and Education if they exemplify the NPS policies and practices developed during the New Deal to manage cultural resources within natural and historical parks. As key components of the unified master plans created by architects, landscape architects, historians, and engineers, Outdoor Field Museums enabled parks to preserve representative examples of historic buildings and provide visitors with scenic and cultural points of interest. The sites also reflect national trends in historic preservation and contemporary perspectives on the early history of Southern Appalachia along with the preservation decisions made in the 1930s and 1940s, characterized by a concentration on the settlement period. Outdoor Field Museums comprising artificially created groupings meet Criteria Consideration B for moved properties since their significance as an Outdoor Field Museum was acquired after they were moved for NPS planning purposes.

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This property type may also be eligible for listing in the National Register under Criterion C in the area of Landscape Architecture. Qualified historical landscape architects should study and evaluate resources with respect to this area of significance to determine the overall site design characteristics that would meet the criteria. Particular consideration should be paid to how the NPS has consciously manipulated the landscape to achieve a desired visual and spatial effect.

Buildings and structures within Outdoor Field Museums that also fall within other property types and/or subtypes, such as Farmsteads or Mills, should be evaluated as such. For example, a relocated or reconstructed log cabin may be eligible for listing as an Outdoor Field Museum property type under Criterion A for Conservation, Community Planning and Development, and/or Education –AND– as a Main House property subtype under Criterion C for Architecture, provided it meets Criteria Consideration B: Moved Properties or Criteria Consideration E: Reconstructed Properties and retains sufficient integrity on its current site. A careful analysis of how the original setting, feeling, and association contributed to the resource's significance will be necessary to determine if integrity is retained.

Registration Requirements

To qualify for National Register listing under this property type, resources must have been restored or reconstructed as part of the initial historic preservation program established at the park during the period from 1926 to 1959. After 1959, park development, including management of outdoor field museums, changed its focus to visitor experience enhancements. Living history became the primary component of the interpretive programs in the 1960s, as they expanded to encompass mountain culture from ca. 1890–1920 along with the earlier history. Management of the park's outdoor field museums after 1959 consisted primarily of continued maintenance and stabilization, with no major alterations to the original compositions and landscapes. The period of significance for Outdoor Field Museums in the area of Education can extend beyond 1959 if the use of the resource as an educational facility continues past that date, provided the resource retains integrity as discussed below.

Outdoor Field Museums must conform to the NPS standards of historic preservation prevalent during the early park development period, in particular those related to the design standards of visual and cultural harmonization. They should retain sufficient aspects of integrity—namely, location, design, feeling, and association—to convey their associations with the creation of an Outdoor Field Museum during that period. Outdoor Field Museums will typically be listed as historic districts, although in some cases an individual building such as the Mingus Mill or the John Ownby Cabin can be eligible under this property type. In-kind replacement of materials does not disqualify a restored or reconstructed resource from contributing to a district's significance as an Outdoor Field Museum.

G. GEOGRAPHICAL DATA

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The geographical area for the Historic Resources of Great Smoky Mountains National Park MPDF encompasses 522,426.88 acres of land straddling the ridgeline of the Southern Appalachian Mountains that forms the border between Tennessee and North Carolina.³⁷⁷ It includes land in portions of Blount, Sevier, and Cocke counties in Tennessee and Swain and Haywood counties in North Carolina. This area corresponds to the current authorized boundaries of Great Smoky Mountains National Park, first established by legislation passed by the United States Congress and signed into law by President Calvin Coolidge on May 22, 1926; officially dedicated as a national park by President Franklin D. Roosevelt on September 2, 1940; and revised through subsequent legislated boundary changes.

H. SUMMARY OF IDENTIFICATION AND EVALUATION METHODS

The Historic Resources of Great Smoky Mountains National Park MPDF is based on a variety of information sources, most notably those from the NPS. The primary source of information for historic resources within the park is the HRS prepared by PAL in 2015.³⁷⁸ The HRS identified and evaluated for National Register eligibility more than 400 cultural resources over 50 years of age within the park. The scope of the HRS encompassed resources built prior to the establishment of the park, such as residences, religious buildings, and bridges; as well as resources constructed by the NPS, including campgrounds, viewpoints, new and improved roads, bridges, buildings, and observation towers. Contexts for archeological resources relating to extractive industries that operated within the park's boundaries were also provided.

The historic contexts included in this MPDF were identified in consultation with NPS staff and the State Historic Preservation Offices of North Carolina and Tennessee during the preparation of the HRS. They encompass the major themes and historical periods of development that influenced the evolution of the region encompassed by the park, particularly the construction of the majority of extant resources within that region. The contexts were developed through a review of information about the development of Blount, Sevier, and Cocke counties in Tennessee and Swain and Haywood counties in North Carolina and the establishment, design, and development of the park. Such information included primary historical documents and secondary reports, journals, monographs, and other published histories that documented local and regional history; specific resources within the park; and national themes and events that shaped the park, such as community and regional planning, the wilderness and conservation movements, naturalistic landscape and architecture design, and outdoor recreation. Repositories consulted for information pertaining to extractive industries

³⁷⁷ According to the Listing of Acreage (Summary) for the year 2014 prepared by the Land Resources Division of the National Park Service and made available by the Public Use Statistics Office through the IRMA Data System at https://irma.nps.gov/Stats/Reports/National.

³⁷⁸ Daly and Kline, Great Smoky Mountains National Park Historic Resource Study.

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consisted of the Geological Survey files of the North Carolina Department of Environmental Resources – Division of Energy, Mineral, and Land Resources; the Forest History Society, Durham, North Carolina; and the Little River Railroad and Lumber Company Museum, Townsend, Tennessee.

NPS research sources provided the majority of information concerning identified historic properties and related contexts within the park. Copies of nominations for properties within the park that are listed or determined eligible for listing in the National Register were obtained, as well as surveys and eligibility evaluations of resources within the park. The NPS Geographic Information Systems (GIS) data for the park provided some information on historic resources within the park. Additional information on historic resources was collected from the archives of the Great Smoky Mountains NP Library and the National Park Service's Technical Information Center (E-TIC) system. A variety of published secondary sources including books, journal articles, and websites provided information about the park. Information on the historical context for fire prevention at Great Smoky Mountains NP during the early park development period was taken from the 2011 thesis study "Every Day is Fire Day: A Study of Historic Fire Towers and Lookout Life in the Great Smoky Mountains National Park."³⁷⁹ A 2006 draft MPDF prepared by Ethan Carr, Elaine Jackson-Retondo, and Len Warner for National Park Service Mission 66 Resources provided information on the overarching historical context for the Mission 66 program.³⁸⁰

These materials were also used to guide the identification of historic associated property types for this MPDF based on their functional, associative, or design characteristics. As discussed in Section F, these property types include but are not limited to: Farmsteads (with subtypes Main House, Barns and Other Outbuildings, and Landscape Features), Churches and Schools, Mills, Lumber and Mining Resources, Tourist Developments (with subtypes Cabins, Hotels, and Summer Homes), Administrative and Public Contact Facilities, Campgrounds and Picnic Areas, Road Systems, Bridges and Culverts, Fire and Lookout Towers, and Outdoor Field Museums. The requirements for integrity for listing of resources under this MPDF were determined based on original design characteristics and intent, in consideration of changes and modifications that have occurred.

Additional cultural resource management efforts may identify other significant historic contexts that should be added via an amendment to this documentation. This MPDF does not address the approximately 800-mile trail system within Great Smoky Mountains NP that includes 71 miles of the Appalachian Trail. A National Register MPDF for the entire Appalachian Trail was reviewed and approved by the Federal Preservation Officer in June 2015 and is pending signatures from State Historic Preservation Offices. Individual nominations for each state's segment of the Appalachian Trail will address the portion located within Great Smoky Mountains NP as well as the existing trail shelters within the park. Future

³⁷⁹ Ingle, "Every Day is Fire Day."

³⁸⁰ Carr, Jackson-Retondo, and Warner, The Mission 66 Era of National Park Development.

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study of the historic significance of the remainder of the Great Smoky Mountains NP trail system may result in an amendment to this MPDF.

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Appalachian Photographic Archives Collection Lumber Records Collection Parsons Pulp and Lumber Company Collection

Little River Railroad and Lumber Company Museum, Townsend, TN

National Park Service

Denver Service Center, Denver CO Technical Information Center (TIC)
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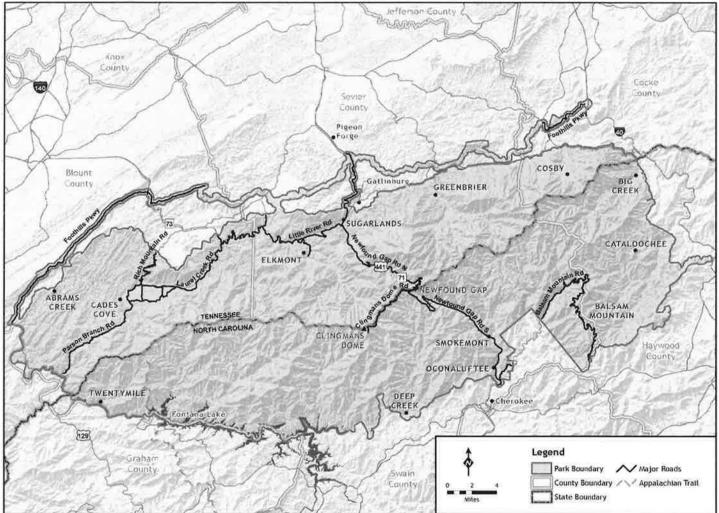
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Library of Congress, Washington, DC

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Historic Resources of Great Smoky Mountains National Park Name of Multiple Property Listing OMB No. 1024-0018

North Carolina and Tennessee State



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Map of Great Smoky Mountains NP. All areas within the park boundary are covered by this MPDF.

UNITED STATED DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION/RETURN SHEET

REQUESTED ACTION: COVER DOCUMENTATION Great Smoky Mountains National Park MPS MULTIPLE NAME: STATE & COUNTY: NORTH CAROLINA, TENNESSEE, Multiple Counties DATE RECEIVED: 10/14/16 DATE OF PENDING LIST: DATE OF 45th DAY: 11/29/16 DATE OF 16th DAY: REFERENCE NUMBER: 64501273 REASONS FOR REVIEW: APPEAL: N DATA PROBLEM: N LANDSCAPE: N LESS THAN 50 YEARS: N N PERIOD: N PROGRAM UNAPPROVED: N OTHER: N PDIL REQUEST: Y SAMPLE: N SLR DRAFT: N NATIONAL: Ν COMMENT WAIVER: N VACCEPT RETURN REJECT 11.2.8-2016 DATE ABSRACT/SUMMARY COMMENTS: The North Carlolina SHPO submitted a letter of Concursence INStead of a signature page.

RECOM./CRITEREA Accept Cover	
REVIEWER J: Gabbart	DISCIPLINE
TELEPHONE	DATE
	4

DOCUMENTATION see attsched comments Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.



North Carolina Department of Natural and Cultural Resources State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Pat McCrory Secretary Susan Kluttz Office of Archives and History Deputy Secretary Kevin Cherry

August 24, 2016

Cassius M. Cash, Superintendent Great Smoky Mountains National Park 107 Park Headquarters Road Gatlinburg, TN 37738

Re: North Carolina SHPO Comment on the Historic Resources of Great Smoky Mountains National Park Multiple Property Documentation Form, Mingus Mill National Register nomination, and the Oconaluftee Ranger Station National Register nomination, both in Swain County

Dear Superintendent Cash:

The National Register of Historic Places documentation referenced above dated July 15, 2016 was received shortly thereafter. We very much appreciate this opportunity to officially comment below on the Multiple Property Documentation Form and to sign and comment on the Mingus Mill and Oconaluftee Ranger Station nominations. The staff of the Historic Preservation Office has reviewed the three documents and the accompanying graphics, and the documentation is thorough and well researched.

Oconaluftee Ranger Station

The Oconaluftee Ranger Station is significant in the history of the development of the Great Smoky Mountains National Park. The building meets Criterion A in the area of conservation for its role in conserving natural resources and providing recreational opportunities as an administrative and public contact facility erected in the formative years of the Great Smoky Mountains National Park. It is also eligible under Criterion C in the area of architecture as an excellent and intact example of National Park Service Rustic architecture with Colonial Revival-style elements. The Period of Significance is 1938, the date of construction, to 1942, which is the end of the initial park development.

Mingus Mill

Constructed in 1886 Mingus Mill is historically important for its industrial role in the late nineteenth and early twentieth centuries as a grist mill in rural Swain County and for its later significance in the development of educational programs in the Great Smoky Mountains National Park. The building is significant under Criterion A in the areas of agriculture and industry as a grist mill and in the areas of conservation and education following its acquisition and restoration by the National Park Service in the 1930s. It is significant under Criterion C in the areas of architecture and engineering as an excellent and intact example of a grist mill in rural

Cassius M. Cash August 24, 2016 Page 2

Swain County. The period of significance is from 1886, the date of construction, to 1966, the fifty-year cut-off date for the National Register historic time period.

Historic Resources of Great Smoky Mountains National Park Multiple Property Documentation Form

The multiple property documentation form identifies and categorizes the different historic contexts and resource types found within the Great Smoky Mountains National Park. Like many national parks, the resources include those that relate to themes that relate to activities before acquisition by the National Park Service as well as those erected or installed by the National Park Service for the purpose of conservation and education for the public. The document is clear and well-organized and provides a good framework for understanding these two very distinct time periods and associated historic contexts. The document also will facilitate historic resource eligibility evaluations, particularly through the Section 106 review process.

Thank you again for this opportunity to comment on these very important historic resources that had an extraordinary impact on American history.

Sincerely,

Kevin Cherry State Historic Preservation Officer

Encl.



IN REPLY REFER TO

1.A.2

SEP 0 1 2016

Ms. Joy Beasley Federal Preservation Officer Deputy Associate Director Park Programs and National Heritage Areas Washington Office 1201 Eye St., NW, Room 804 Washington, DC 20005

Dear Ms. Beasley:

Enclosed for your review and submission to the Keeper of the National Register is the *Historic Resources of Great Smoky Mountains National Park* Multiple Property Documentation Form (MPDF) and two National Register of Historic Places (NRHP) nominations for individual properties in North Carolina. These properties are the Oconaluftee Ranger Station and Mingus Mill, both located inside Great Smoky Mountains National Park (Park) in Swain County. Together with the MPDF, these nominations compose a multiple property submission.

In July of this year, these documents were provided to the Tennessee State Historic Preservation Officer (SHPO) and to the North Carolina SHPO. Both of these offices have agreed that the MPDF provides a sound basis for evaluating properties in the Park and the North Carolina SHPO has agreed that both the Mingus Mill and Oconaluftee Ranger Station properties meet National Register criteria. Enclosed are the signed registration form pages for both properties along with documentation to indicate the SHPOs review of the MPDF.

The MPDF and two nominations were also provided in July to local elected officials of the five counties which include Park lands and to the Eastern Band of Cherokee Indians Tribal Historic Preservation Officer (EBCI THPO). No comments were received from the elected officials or the EBCI THPO.

In accordance with National Park Service Director's Order 28: Cultural Resource Management Guideline, Appendix Q: Preparing National Register Forms, this MPDF has been prepared for the Park to serve as the basis for evaluating the National Register eligibility of related properties within the boundaries of the Park. In this document, the shared themes, trends, and patterns of history associated with the Park have been organized into six historic contexts and eleven property types that represent these contexts.

The five historic contexts are:

- 1. Settlement and Community Development in the Great Smoky Mountains, 1790–1933
- 2. Extractive Industries in the Great Smoky Mountains, 1820–1944

United States Department of the Interior

NATIONAL PARK SERVICE Great Smoky Mountains National Park 107 Park Headquarters Road Gatlinburg, Tennessee 37738



- 3. Recreation and Tourism in the Great Smoky Mountains, 1900–1942
- 4. The Initial Development of Great Smoky Mountains National Park, 1926–1942
- 5. Early National Park Service Preservation Philosophy, ca. 1930–1960
- 6. Mission 66 Era of National Park Service Planning and Development, 1945–1972

The eleven property types are:

- 1. Farmsteads
- 2. Churches and Schools
- 3. Mills
- 4. Lumber and Mining Resources
- 5. Tourist Developments
- 6. Administrative and Public Contact Facilities
- 7. Campgrounds and Picnic Areas
- 8. Road Systems
- 9. Bridges and Culverts
- 10. Fire and Lookout Towers
- 11. Outdoor Field Museums

At this time, individual nominations have been prepared for two properties that meet the registration requirements spelled out in the MPDF.

The enclosed National Register nomination for Mingus Mill argues that the mill is eligible for listing in the NRHP under Criteria A and C at the local level as an example of the Mill and the Outdoor Field Museum property types. Mingus Mill possesses significance under Criterion A in the areas of Agriculture and Industry within the MPDF context Settlement and Community Development in the Great Smoky Mountains, 1790-1933 for its role as a "custom mill" that supported the agricultural "farm and forest" economy of the Oconaluftee River Valley in the Smoky Mountains. It also possesses significance under Criterion A in the areas of Conservation and Education within the MPDF context Early National Park Service Preservation Philosophy, ca. 1930-1960 as an outdoor field museum that exemplifies NPS policies for managing cultural resources in national parks between 1926 and 1959 and as a reflection of national trends in interpreting the history of Southern Appalachia. The property is significant under Criterion C in the areas of Architecture and Engineering within the MPDF context Settlement and Community Development in the Great Smoky Mountains, 1790-1933 because it exemplifies the vernacular timber construction typically employed in water-powered mills of the late nineteenth century and retains its water power and grist milling infrastructure that demonstrates the specialized skills and equipment of the millwright and milling profession.

The period of significance for the Mingus Mill extends from 1886, when the property was completed and began grinding grain for Oconaluftee Valley residents, through 1966. 1959, which is the end of the initial historic preservation program at the park, marks the end of the property's period of significance in the area of Conservation. However, the property's significance as a museum in the area of Education is continual, but not exceptional. Therefore, the overall period of significance for the property terminates at 1966, the current 50-year cut-off date.

The enclosed National Register nomination for the Oconaluftee Ranger Station argues that the Oconaluftee Ranger Station is eligible for listing in the NRHP under Criteria A and C at the state level as a resource that meets the registration requirements established for the Administrative and Public Contact Facility property type. The property possesses significance under Criterion A in the

area of Conservation within the MPDF context The Initial Development of Great Smoky Mountains National Park, 1926–1942 because it represents efforts of conservationists, state officials, Congress, and the Roosevelt Administration to revive the economy through public works while also conserving natural resources and providing recreational opportunities to the American people. The property is significant under Criterion C in the area of Architecture within the MPDF context The Initial Development of Great Smoky Mountains National Park, 1926–1942 because it embodies the distinctive design philosophy and qualities of craftsmanship perfected by the NPS in the New Deal period. It is a carefully designed and sited administrative building that fully exemplifies NPS naturalistic design principles.

The period of significance for the Oconaluftee Ranger Station extends from 1938, the beginning of construction on the building, through 1942, the end of the initial park development period as defined in the MPDF.

Concerns or questions about the MPDF or these two nominations should be directed to Dianne Flaugh, Cultural Resource Program Manager, Great Smoky Mountains National Park at (865) 430-0339 or to Cynthia Walton, National Historic Landmarks Program Manager, National Park Service, Southeast Region at (404) 507-5792.

Sincerely,

Cassius M. Cash Superintendent

Enclosures



United States Department of the Interior

NATIONAL PARK SERVICE 1849 C Street, N.W. Washington, DC 20240



October 17, 2016

Memorandum

To:	Acting Keeper of the National Register of Historic Places
From:	Federal Preservation Officer, National Park Service Day, Round
Subject:	Historic Resources of Great Smoky Mountains National Park Multiple Property Listing; and individual nominations for Mingus Mill and Oconaluftee Ranger Station, Swain County, NC

I am forwarding an MPS cover document for Historic Resources of Great Smoky Mountains National Park, in North Carolina and Tennessee, and two individual resource nominations under the MPS. The individual nominations are for the Mingus Mill, and for the Oconaluftee Ranger Station, both in Swain County, North Carolina. The Park History Program has reviewed the cover document and the individual nominations. We have found the cover document to establish a framework for evaluation of individual properties. The Mingus Mill is eligible at the local level of significance under Criteria A and C, with areas of significance of Agriculture, Architecture, Conservation, Industry, Engineering, and Recreation. The Oconaluftee Ranger Station is eligible at the state level of significance under Criteria A and C, with areas of significance of Architecture and Conservation. Please note that only one photo CD is provided, containing digital photos for both properties. If you have any questions, please contact Kelly Spradley-Kurowski at 202-354-2266 or kelly_spradley-kurowski@nps.gov