

THE CLEMSON EXPERIMENTAL FOREST

CULTURAL AND HISTORIC RESOURCES

A CRONOLOGICAL SUMMARY AND

GUIDELINES FOR FURTHER PROTECTION

MAINTENANCE AND ENHANCED EDUCATIONAL USE

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Introduction

The Clemson Experimental Forest (CEF) contains an abundance and diversity of natural, cultural, and recreational resources. Many of these are worthy of special management, and are important educational items that increase the value of the CEF to Clemson University.

This document provides an overview of some of the CEF's major cultural resources and makes some recommendations regarding their educational uses. These resources relate to distinct periods of regional and US history, and are presented in chronological order based on these periods.

It is hoped that this document, with its maps, will help create further interest in these resources among university classes, regional schools, civic groups, and the general public.

While all the cultural resource sites mentioned in this document were visited during preparation, no new inventory searches were done. Existing written references, and discussions with interested and knowledgeable individuals, were the primary sources of information.

Although references utilized are cited at the end of this document, two created by Clemson faculty and students are of special value and are also mentioned here.

- 1) In The Face Of Change: An Interpretive Prospectus For The Clemson Experimental Forest. 1977. By Lynne R. Beeson. Prepared by the Dept of Recreation and Park Administration College of Forest and Recreation Resources, Clemson Univ. 88pp.
- 2) Historical and Cultural Resources Survey of the Clemson University Experimental Forest. 2006. By Claire Hammes, Katherine Holland, Ben Martin, and Stephen Pineros (Creative Inquiry Team). Will Hiott (Mentor) 37pp.

General information about various aspects of the CEF is available at the website <http://www.clemson.edu/cef>.

The Clemson Experimental Forest (CEF)

Cultural Resources

The 17,500ac CEF is adjacent to the Clemson Campus and City of Clemson. Acquired by the federal government in the 1930s and administered by Clemson University, ownership was transferred to Clemson in 1954.

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The major functions of public ownership of the tract are for it to serve as an area for demonstrating good land and water conservation practices, public outdoor recreation, education, and research. The tract has outstanding natural resources that are being protected and enhanced through effective management practices and long range planning. A recent inventory has identified the Special Natural Resource Areas of the CEF. In addition to these natural resources, the CEF also contains important cultural resources including structures and locations where notable events occurred.

This document and its associated maps provides a chronological overview of the CEF's cultural resources, their locations, and some guidelines for their continued protection and enhanced educational usage. In some instances events and/or structures on adjacent lands (some Clemson owned, some not) are included here because of their continuity.

Chronological Summary Of Major Cultural Resources On The CEF

Because of their location along upper Savannah River tributaries near the foot of the Blue Ridge Mountains, the lands of the CEF have experienced many of the major historic events common to this Foothills region of the country. Thus, the CEF has a unique place in the history of the Cherokees, early botanical exploration of the back country, settlers and plantations, the exploitation and restoration of natural resources, among other topics. In this document a chronological summary of major periods or activities is provided, followed by a discussion of related resources on the CEF. Major topics discussed, and the approximate time of related activities on the CEF, include:

- #1 The Cherokees (pre 1700)
- #2 The Cherokee War and early American Revolution (1760 – 1776)
- #3 Early Botanical Explorers (1775 – 1787)
- #4 Plantation Era (late 1700s, early 1800s)
- #5 American Civil War Era (1850 – 1865)
- #6 Cotton Farming Era (1900 – 1935)
- #7 The New Deal Conservation Era (1933 – 1940)
- #8 World War II (Early 1940s)
- #9 Large Reservoir Construction Era (1950s)
- #10 Natural Resource Restoration (1940 – present)

Brief descriptions of these eras and related activities on the CEF are provided on the following pages.

#1 THE CHEROKEES (see Map 1)

The Cherokees are an Iroquoian tribe that became established in (what would become) the upstate area of South Carolina during the 15th and/or 16th century. They also lived throughout the Blue Ridge Mountains and in adjacent areas of Georgia, North Carolina, and Tennessee. At the time of European contact in South Carolina the Cherokees inhabited the area of today's Anderson, Oconee, Pickens, and Greenville Counties. They hunted on lands extending to the east, with the area between the Broad and Catawba Rivers serving as a buffer between the Cherokee and the Catawba tribes.

Cherokee towns were largely developed along rivers where the rich bottomland and forests provided for quality farming and hunting. They developed fields around their towns for the growing of crops. Like other tribes in the eastern US the Cherokees managed forests by routine burning to open the understory and to enhance habitat for game animals.

The interactions of the Cherokees and European settlers in South Carolina and adjacent states provides a major story in American history. It involves development of a major trade for deerskins, the impact of introduced diseases, the Cherokee War (South Carolina's part in the French and Indian War), early action related to the American Revolution, cession of the Cherokee lands to South Carolina and the United States, and the ultimate removal of most of the Cherokees to the western US.

ON THE CEF: The Cherokees (Their village of Seneca Town *)

The CEF lands are located in what is referred to as the Lower Towns of the Cherokee Nation (the Middle Towns were in the Blue Ridge Mountains, while the Upper or Overhill Towns were just west of the mountains in Tennessee). Cherokee activities on what would become the CEF centered around their Seneca Town* which was situated, in part, on the edge of today's Clemson University land adjacent to the Seneca River (see Map 1).

Portions of Seneca Town were located on, and adjacent to, what today is Clemson's Calhoun Fields and on the lands currently along what is the old Seneca River Channel on the western side of the Clemson campus. Major portions of the Town's setting were inundated by Lake Hartwell which filled in 1959.

While standing on the current Lake Hartwell dike it is not difficult to visualize a late 17th century scene here. In that scene would be the habitations of Seneca Town. Adjacent to the town would be crops planted in portions of what are today the Calhoun Fields, the football practice fields, and the flat areas around the baseball stadium. The surrounding hills of the main campus would be covered by open woodlands; the result of frequent burning by the Cherokees. These woodlands, and those throughout the CEF area, would have been the source of game for Cherokee hunters who lived in Seneca Town. Especially important to the Cherokees would have been the deer and wild turkey populations. Deer served as both food and as a major trade item.

Such Cherokee scenes were to have a limited existence. By the middle decades of the 18th century Seneca Town on the future Clemson Campus and Clemson Forest would play its role in the history of the Cherokee/European interface. During this time it lost significant population to introduced small pox, was caught up in actions of two wars, and received visits by two world

famous botanical explorers (these explorers are reviewed in following sections of this document). By the end of the 18th century, following these wars, the cession of their lands, and the impacts of disease, the Cherokees would be gone from Seneca Town, from the CEF, and from South Carolina. European settlers would rapidly fill these areas.

*The spellings for this Cherokee Village include Seneca, Esseneca, and Sinica, among others.

ON MAP 1: “The Cherokees (Their Village of Seneca Town)”

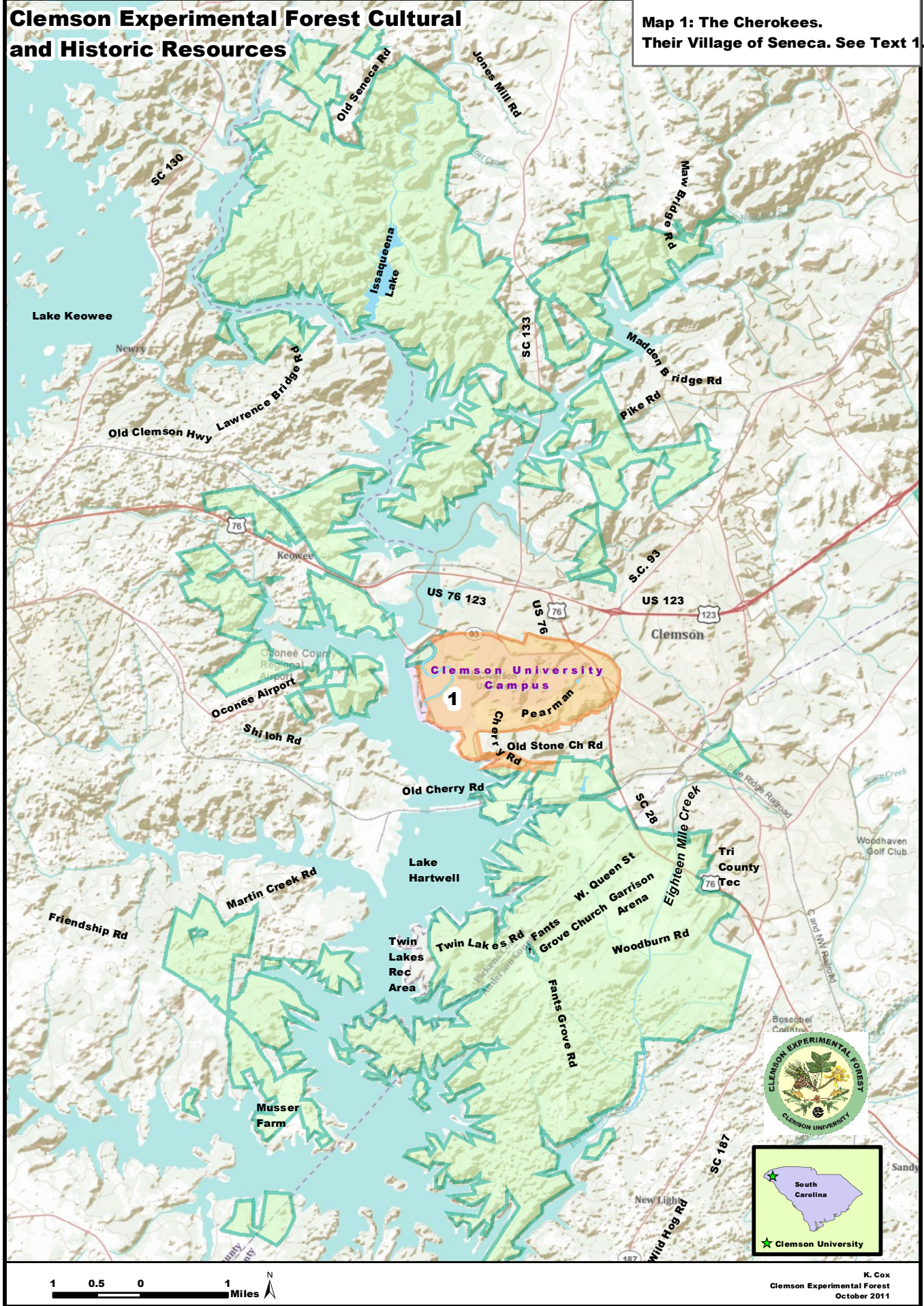
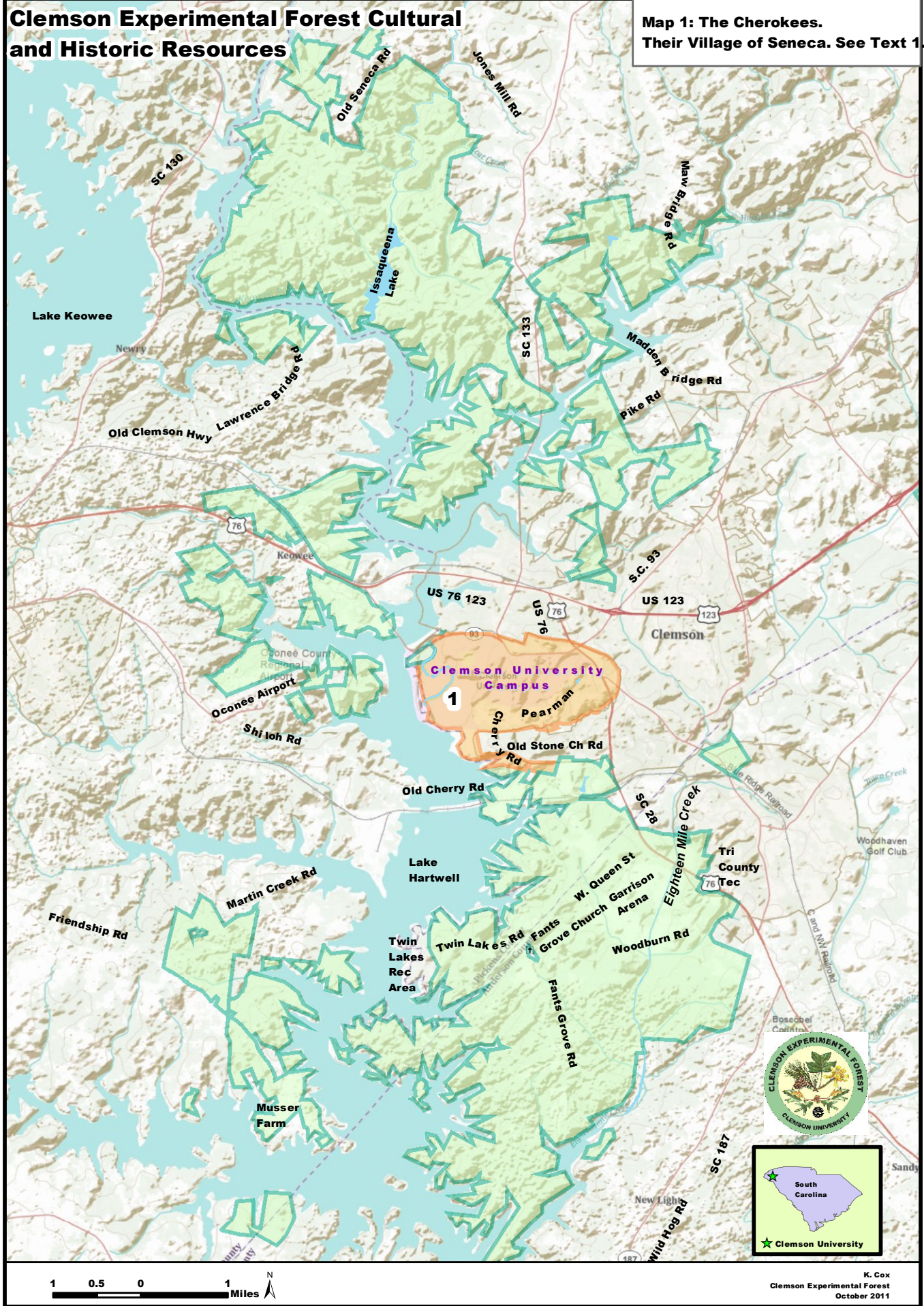
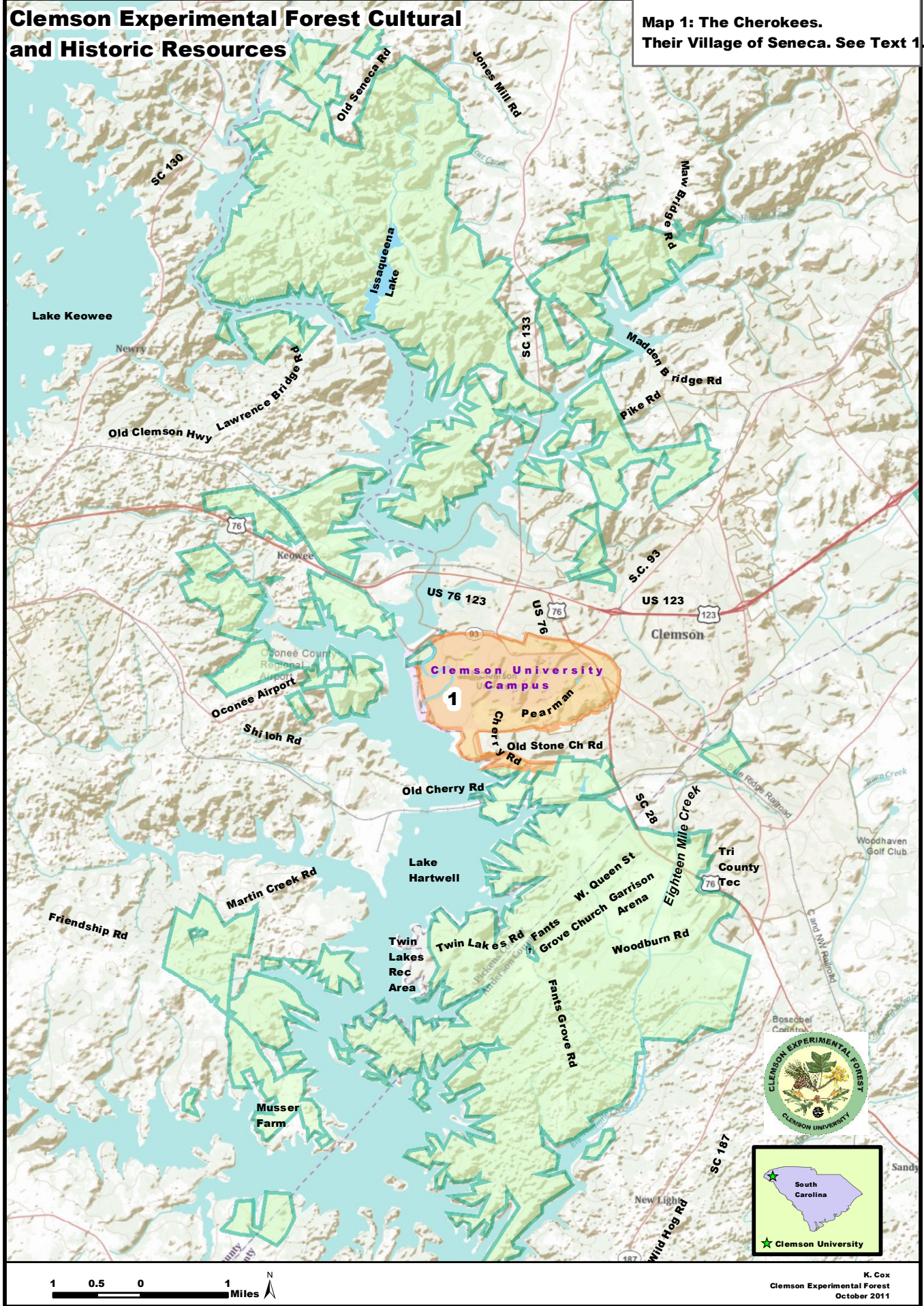
- 1 – *The general location of the Cherokee village of Seneca Town on today’s Calhoun Fields Laboratory.*

Quotes:

By William Bartram (in 1775)

“The Cherokee Town of Sinica (Seneca) is a very respectable settlement, situated on the east bank of the Keowee River _ _ _ _”

Travels Of William Bartram, Dover edition, 1955. P 269



#2 THE CHEROKEE WARS (see Map 2)

Twice within 16 years Seneca Town was attacked, burned, and destroyed first by British forces (1760) and then by South Carolina militia (1776). These two events were related to the “Cherokee War” and early portions of the “American Revolution”, respectively.

The Cherokee War (1759-1761) was the result of long term trade related tensions between the Cherokees and upstate European settlers. This was sparked by confrontational actions between these supposed allies during the French and Indian War (1754-1763). It erupted in 1759. By 1760 the SC Governor asked for British military leadership in quelling the situation. The result was the destruction and loss of the Cherokee Lower and Middle towns and their related resources.

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Fifteen years later when many of the Cherokee Towns were being reconstructed, the Cherokees sided with the Crown and the Tories at the beginning of the American Revolution. This time it was South Carolina militia (patriots) that fought the Cherokees and their British allies, again destroying Cherokee towns and farms. This was effectively the end of the Cherokees as a major presence in South Carolina.

ON THE CEF: The Cherokee Wars

In 1760, following a year of fighting between the Cherokees and backcountry settlers, and as a major step in the Cherokee War, the South Carolina governor requested assistance from the Crown. Colonel Archibald Montgomery and Lieutenant Colonel James Grant with British militia invaded the upper piedmont region and began destruction of many Cherokee Lower and Middle Towns. In July 1760 this force arrived on the future Clemson Forest and successfully attacked Seneca Town. The town and its farm crops were burned and destroyed.

Following this war, in which they were soundly defeated, the Cherokees worked to rebuild Seneca Town and some of their other settlements. By 1775, when the famous botanist William Bartram visited, he noted in his journal that “The Cherokee Town of Sinica (Seneca) is a very respectable settlement situated on the east bank of the Keowee River _ _ _”. The next major conflict there would occur the following year. It would be an early action in the American Revolution, and it would be the end of Seneca Town.

In the early phases of the Revolution the British planned to attack Charleston by water, and inspired the Cherokee to make attacks in the backcountry. As a result South Carolina organized a militia under Colonel Andrew Williamson. Mustered around the settlement at Ninety-Six, this force of over 1,000 moved against the Cherokees and their Tory allies.

Camping along Eighteen Mile Creek on today’s CEF, the militia moved against Seneca Town early in the morning of August 1, 1776. The town and all its crops and other resources were destroyed. After this destruction the Cherokees did not return, and Seneca Town, like the other Cherokee Towns in South Carolina, ceased to exist. This was the end of major Cherokee/European settler warfare in South Carolina.

Three notable items related to these events included the following. **1) Francis Salvador**, the first Jewish person to die fighting for the US was killed here in the attack on Seneca, **2) Fort Rutledge** was constructed on a hillside above the Calhoun Fields to offer protection to militia and settlers. Today, a 6 ft high stone monument to Fort Rutledge, placed by the Daughters of the American Revolution in 1908, is situated on the steep hill overlooking the Calhoun Fields, and **3) the Hopewell Treaty**, the first treaty signed between the United States government and the Cherokees was signed at today's well marked Hopewell Treaty Oak site. Andrew Pickens was a major figure in the completion of this treaty.

ON MAP 2: "The Cherokee Wars "

2A – General location of US militia camps the night of July 31, 1776 prior to the attack on Seneca Town (Location – South Forest beside Woodburn Road)

2B - General route of US Militia en route to attack Cherokees and their Tory allies at Seneca Town the morn of August 1, 1776. (Location - South Forest northeast area)

2C – August 1, 1776 attack by US Militia on Seneca Town (Location – Calhoun Fields on the "Campus" portion of the land).

2D – Location of the Fort Rutledge monument commemorating the US Fort constructed following the 1776 US attacks on the Cherokee Towns in the upstate SC area.

2E – The Treaty Oak, site of the first treaty (Hopewell Treaty) signed between the new United States and the Cherokee Nation in 1785, located on the lands of Hopewell Plantation. Additional treaties were signed here in 1786 with the Choctaws and the Chickasaws.

Quotes:

Regarding Francis Salvador, who died in the Seneca Town attack of Aug 1, 1776:

Charleston's Washington Park contains a number of historical monuments, including ones to George Washington, memorials to the Confederacy, and plaques dedicated to local and national heroes. Among these is a plaque dedicated to the memory of Francis Salvador. The plaque reads:

Commemorating
Francis Salvador
1747 – 1776
First Jew in South Carolina to hold public office
And
To Die for American Independence

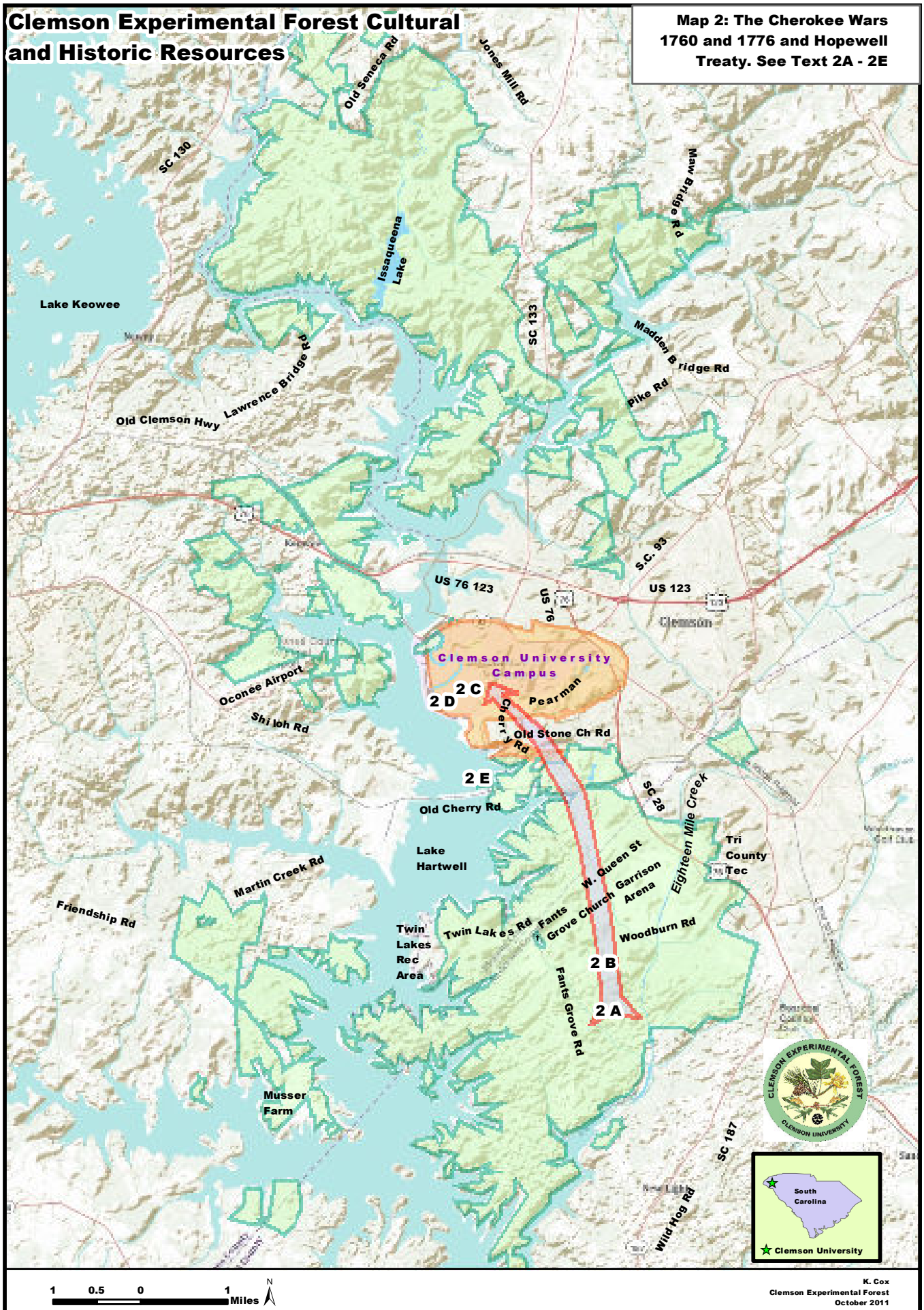
He came to Charles Town from his native London in 1773 to develop extensive family landholdings in the frontier district of Ninety Six. As a deputy to the provincial congresses of South Carolina, 1775 and 1776, he served with distinction in the creation of this state and nation, participating as a volunteer in an expedition against Indians and Tories, he was killed from ambush near the Keowee River, August 1, 1776.

Born an aristocrat, he became a democrat, an Englishman, he cast his lot with America. True to his ancient faith, he gave his life for new hopes of human liberty and understanding.

*Erected at the time of the Bicentennial Celebration of the Jewish community of Charleston.
Approved by the Historical Commission of Charleston SC*

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Map 2: The Cherokee Wars 1760 and 1776 and Hopewell Treaty. See Text 2A - 2E



K. Cox
Clemson Experimental Forest
October 2011

#3 EARLY BOTANICAL EXPLORERS (see Map 3)

The great diversity of habitats in the southern Appalachian Mountains made this area a prime destination of early botanical explorers. From the early 18th century through the end of the 19th century they arrived, traveling alone or with Indian guides, and searching this new “Garden of Eden” for botanical prizes in the form of new species of plants, and/or plants of medicinal or other practical uses. (It should be noted that this effort goes on today in the mountains, with new species of plants still being found and described by modern botanists.)

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Two of the most famous of these explorers who botanized and traversed the CEF en route to the South Carolina mountains were William Bartram and Andre Michaux.

ON THE CEF: Early Botanical Explorers

William Bartram (1739-1823) traversed the CEF on the days of May 15 and 16, 1775, spending the night of May 15 on future Clemson lands at Calhoun Fields.

William Bartram “became the greatest authority on the natural sciences during the earliest years of the American republic and even today remains a primary source on the history and manners of the Creeks, Cherokee, and Seminole people. He was a quiet force behind the development of a uniquely American school of natural sciences and was a mentor to the nation’s first true scientists. No other author had ever written about nature and science from such a personal manner as did Bartram and his writing influenced the American Transcendental and European romantic poets of the early 19th century” (Sanders, 2002).

In 1775-76 Bartram traveled through what was still the wilderness of the future southeastern US. He insured his contribution to, and influence upon, future generations by writing his book *Travels of William Bartram* (1791), describing the natural history that he observed and the customs of the Indians that he visited. In May 1775 he left Charleston to visit the Cherokee Nation and the southern Appalachian mountains. During this journey he traversed the N-S length of the future CEF. Entering CEF lands by crossing Eighteen Mile Creek, he traveled through the area of Watershed Creek, following close to the route of today’s Fants Grove Road. He then passed through the area of today’s Fant’s Grove Church and went on to the Cherokee village of Seneca Town beside the Seneca River. He spent the night of May 15, 1775 on today’s Clemson University lands adjacent to the Seneca River. On the morning of May 16 he continued to traverse CEF lands, crossing Twelve Mile Creek then Six Mile Creek in today’s Lake Issaqueena area of the CEF. He then continued on to Fort Prince George on the Keowee River.

Andre Michaux (1746-1802) traversed the CEF in June 1787. Like Bartram, Michaux spent nights on Clemson University lands in the area of the present Calhoun Fields Laboratory.

Michaux was an explorer/botanist from France. He is remembered for his contributions to botany, horticulture, and agriculture. Michaux traveled widely outside of France in search of plants to improve the agriculture and forestry of his home country. National correspondent Charles Kuralt said of Michaux in a 1994 celebration of his life – “His name was Andre Michaux and we should all remember his name, for he was one of the most remarkable human beings of the 18th century, or of any century.”

In June 1787 Michaux made the first of two botanical journeys up the Savannah River to the mountain country of South Carolina and beyond. On June 8 he entered lands of the future CEF following the same route as Bartram in 1775. And, like Bartram he stayed at the location of Seneca Town (the town having been largely destroyed in the early years of the American Revolution). Michaux spent several nights in the Seneca Town area. He then traveled further up river where on June 13 he discovered and collected the rare plant Oconee Bells (one of the most famous accomplishments of his long botanical career).

ON MAP 3: “Early Botanical Explorers”

3A – *The route of William Bartram through the South and North portions of the CEF on May 15-16, 1775. (Location – Begins in extreme South Forest, follows Fants Grove Rd to Calhoun Fields area, then traverses North Forest across today’s Lake Issaqueena).*

3B – *The location of William Bartram’s camp the night of May 15, 1775 (Location – Calhoun Fields on Campus)*

3C – *The route of Andre Michaux through the South and North portions of the CEF between June 8 and 11, 1787. (Location – follows Bartram’s route north to the Calhoun Fields, then fords the river and goes north through the CEF’s Horsehead Point).*

3D - *The location of Andre Michaux’s camp the nights of June 8-10, 1787.*

Quotes:

About William Bartram

“William Bartram, as the first observer of the Southern landscape and pioneer of American nature writing, ought to be the symbol of environmental preservation in the Southeast.”

Brad Sanders, Author: *Guide To William Bartram’s Travels*, p xii

By William Bartram (in 1775, one day’s hike from the CEF)

“My next flight was up a high peak to the top of the Oconnee mountain, where I rested; and turning about found that I was now in a very elevated situation, from whence I enjoyed a view inexpressibly magnificent and comprehensive. The mountain wilderness which I had lately traversed down to the region of Augusta, appearing regularly undulated as the great ocean after a tempest _ __. My imagination thus wholly engaged in the contemplation of this magnificent landscape, infinitely varied, and without bound_ _.” (*Travels Of William Bartram*, Dover edition, 1955. P 273 – 274)

About Andre Michaux

“His name was André Michaux and we should all remember his name, for he was one of the most remarkable human beings of the 18th century, or of any century.”

Charles Kuralt, 1994 (200th anniversary of Michaux’s visit to Grandfather Mountain, NC)

By Andre Michaux (in 1787)

“On the 8th (June, 1787) we traveled fifteen miles and came to Seneca. _ _ _ I went for a walk immediately the same evening on a riverbank near Fort Seneca, actually Fort Rutledge (Rutledge). This river is called Kiwi (Keowee) River _ _ _ _”

Andre Michaux’s diary

[illegible]

Map 3: Early Botanical Explorers
See Text 3A - 3D

Map 3: Early Botanical Explorers
See Text 3A - 3D

Map 3 shows the Clemson University area in South Carolina. Key features include:

- 3A** and **3C** are marked on the map.
- The **Clemson Experimental Forest** is highlighted in green.
- The **Clemson University** logo is visible in the bottom right corner.
- The **South Carolina** state map is shown in the bottom right corner, with a star indicating the location of **Clemson University**.



#4 THE PLANTATION ERA (see Map 4)

Following the defeat of the Cherokees in the Cherokee War and early American Revolution battles, European settlers poured into the Upstate of SC. Most of these people were looking for a place to establish rather small subsistence farms for their families. They, and/or their descendents have left many recognizable “house sites” within the CEF. Also, in the late 18th and early 19th centuries a number of prominent leaders of SC began to establish permanent summer plantation homes in the greater Pendleton area in order to escape the heat and diseases in the low country.

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ON THE CEF: The Plantations

Hopewell: This home built by General Andrew Pickens is still situated on the bluff over the Seneca River (today’s Lake Hartwell). Pickens lived on 500+ acres at Hopewell from 1785 until 1802. His sons Ezekiel (Lieutenant Gov of SC) and Andrew Jr (Gov of SC) inherited the home. Pickens was a leader in both the Cherokee War and the American Revolution. He was a recognized farmer, Presbyterian Church leader, and war time leader. His most famous war time activity was as leader of the militia under Daniel Morgan at the patriot victory at Cowpens. Although a well known fighter in the Cherokee War, he was also respected by the Indians. The Treaty Of Hopewell in 1785, the first Cherokee Treaty with the new US was signed at Hopewell. The site is marked by a SC Highway Historic Marker beside Old Cherry Road as The Treaty Oak location.

Woodburn: An excellent example of early 19th century architecture, Woodburn was built as a summer home in approx 1830 by Charles Cotesworth Pinckney. The Pinckney family carries a prominent name in South Carolina history. Charles was the son of a South Carolina governor, and nephew to one of the authors of the US Constitution. The home was on approx 600 acres. Pinckney also had major farm lands near Charleston. This home was initially on lands of the CEF, but was sold to the Pendleton Historic Foundation who now manages the home and immediate grounds. Public visitation is available.

Altamont: The ruins of Altamont are located on the most southern reaches of the CEF. Constructed in the early 1800s by Col. Thomas Pinckney, brother of Charles Cotesworth Pinckney.

Fort Hill: The restored home of John C. Calhoun and later Thomas Green Clemson. Calhoun lived in the house beginning in 1825. He inherited it and the 600 acre plantation in 1836. He lived there until his death in 1850. Clemson and his wife Anna Marie Calhoun Clemson moved into Fort Hill in 1872. In 1888 Thomas Clemson died. His will deeded the land and plantation home to the state of South Carolina for the establishment of an agricultural college. Clemson University was born.

Keowee Heights: Situated on a high hill over the confluence of the Seneca River and Twelve Mile River are the ruins of Keowee Heights, the elegant summer home of John E. Colhoun (first cousin of John C. Calhoun). Constructed in the 1790’s, this house and plantation eventually became the social locality of the upstate. John E. Colhoun served in the state legislature and was elected to the US Senate in 1800. He died in 1802, leaving his house and plantation to his son, Colonel John Colhoun. In addition to significant foundation ruins, the rock work for the Keowee Heights springhouse remains in good condition on a small stream at the bottom of the home

hillside. John E. Colhoun and some family members are buried in a rock walled cemetery on a hill adjacent to the house site.

Old House Sites: At various locations on the CEF are the obvious ruins of old house sites. Some likely date back earlier than the formation of the CEF in the 1930's, others are likely tied to that event. For the most part they seem to be the locations of small dwellings of families that either owned some farm land, or that tenant farmed on the land. Many of these sites are planted with tree species that were of some use to the people (walnuts, honey locust). In addition many planted bulbs, some of possible historic significance, still adorn these sites in springtime.

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ON MAP 4: "The Plantation Era"

4A – Ruins of Altamont

4B – Restored Woodburn

4C – Restored Hopewell House

4D- Ruins of Keowee-Hopewell Church

4E – Restored Fort Hill

4F – Ruins of Keowee Heights House

4G – Ruins of Keowee Heights springhouse

4H – Keowee Heights cemetery

4 I – Old House Site example

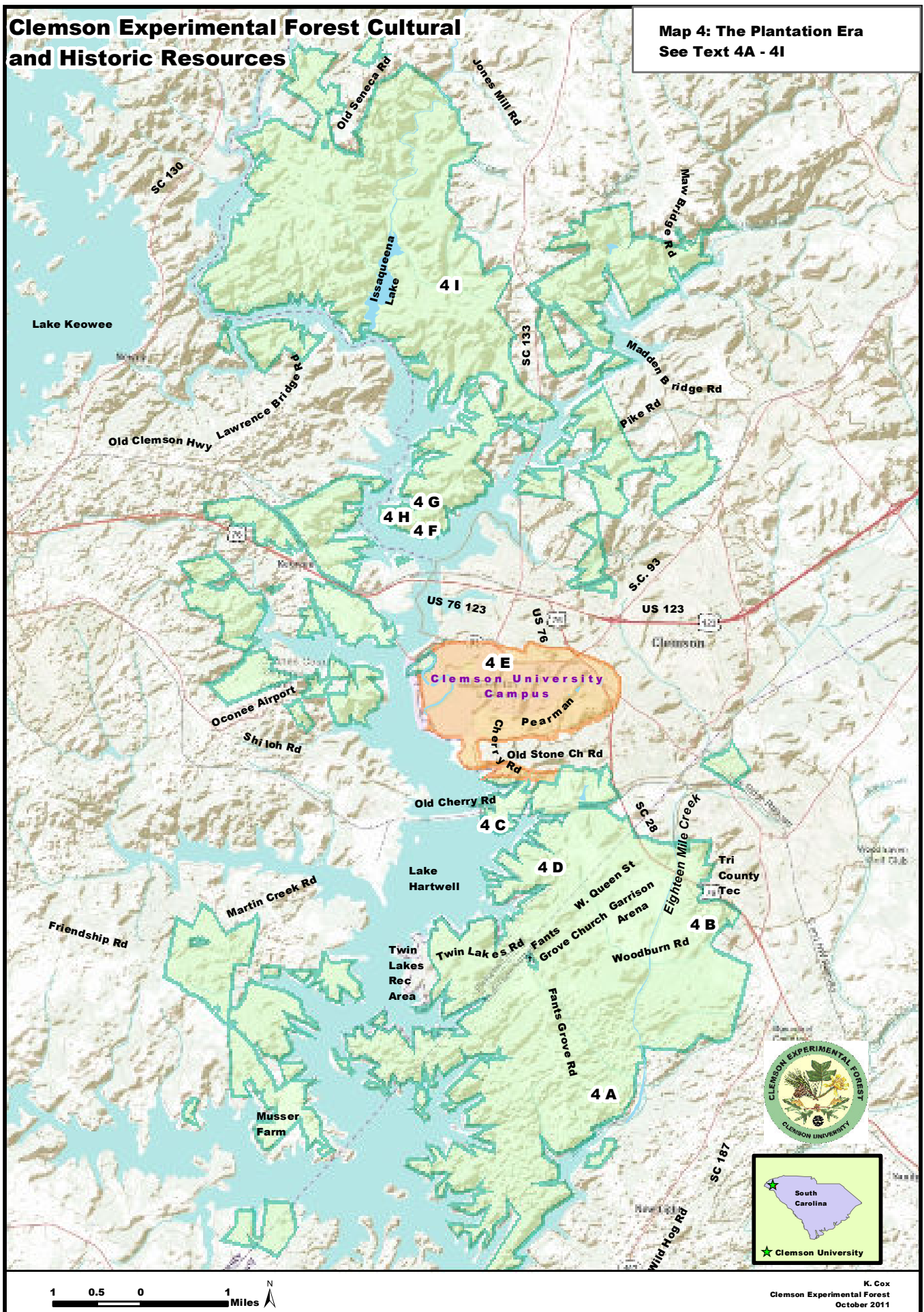
Quotes:

"The names of the homes and plantations in the early to mid-nineteenth century on and around the Clemson Experimental Forest evoke a story of grandeur. _ _ _ The homes were strikingly elegant and beautiful."

Lynne Beeson. In *The Face Of Change. An Interpretive Prospectus for the Clemson Experimental Forest.* 1977.

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Map 4: The Plantation Era
See Text 4A - 4I



#5 AMERICAN CIVIL WAR ERA (see Map 5)

South Carolina was the first of seven southern states to pass ordinances of succession and create the Confederate States of America. Following the outbreak of the Civil War in early 1861 four more states joined the Confederacy and participated in the four-year war that followed.

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ON THE CEF: While no battles or skirmishes directly related to the Civil War are known to have occurred on the CEF, the heart of the Clemson campus was established from the Fort Hill Plantation property of John C. Calhoun.

John C. Calhoun lived at Fort Hill from 1825 until his death in 1850. He served as a US Representative, US Senator, and US Vice President, and was at the front of the national debate on issues between North and South (slavery, tariffs, states' rights, nullification, etc). He is considered the moral, spiritual, and political voice for state's rights and separatism. His portrait appeared on a Confederate postage stamp.

Thomas Green Clemson inherited the Fort Hill home and lands in 1875. He served in the Confederate Army of the Trans-Mississippi. He used his mining and engineering skills in Arkansas and Texas to develop nitrate mines for sources of southern gunpowder and other explosives.

ON MAP 5: "American Civil War Era"

5A - Fort Hill, the plantation home of John C. Calhoun

5B – Calhoun Fields Laboratory. This 80ac field is the only part of the Calhoun Plantation that remains in agriculture.

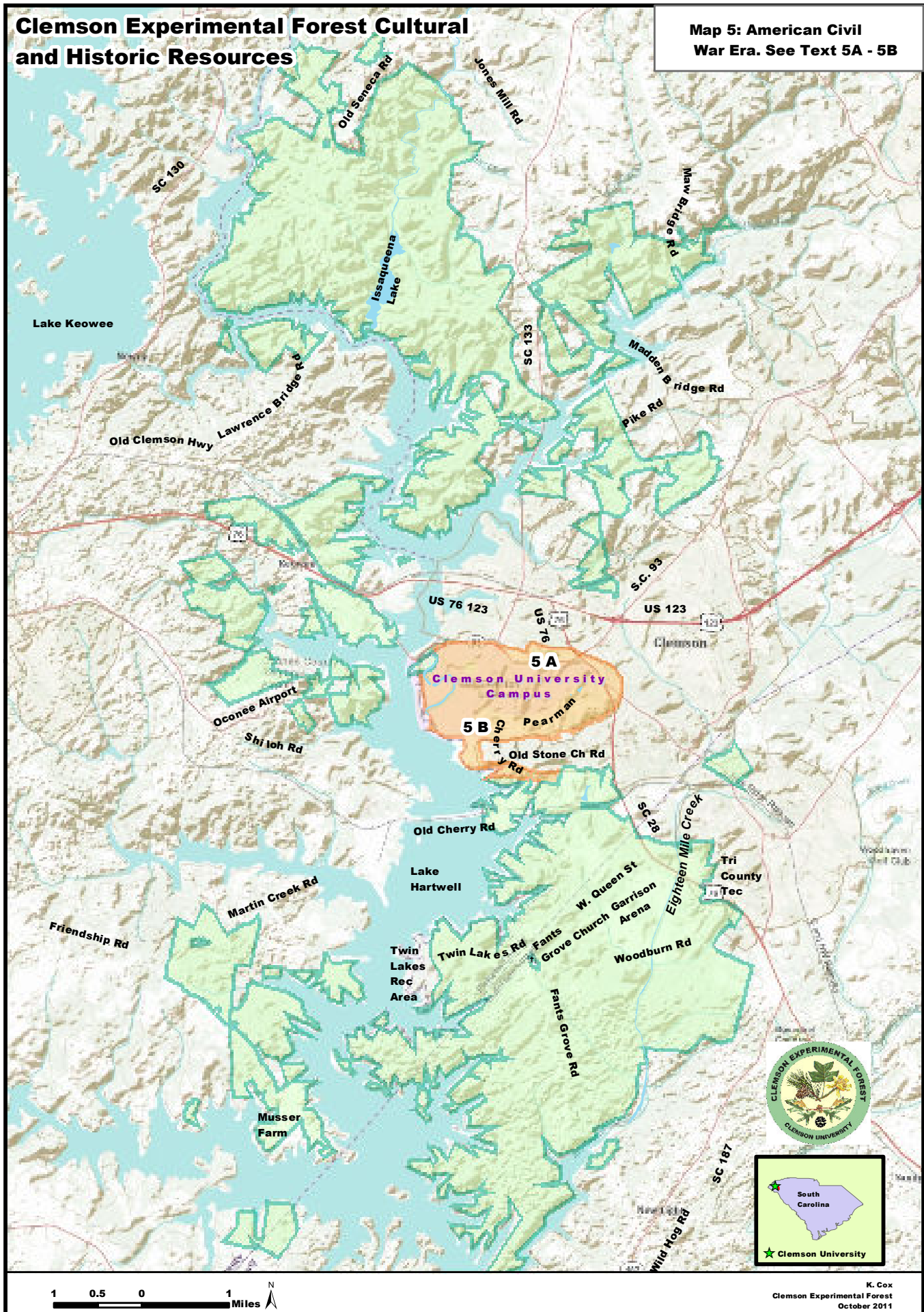
Quotes:

"HENRY CLAY of Kentucky, JOHN C. CALHOUN of South Carolina, and DANIEL WEBSTER of Massachusetts dominated national politics from the end of the War of 1812 until their deaths in the early 1850s. Although none would ever be President, the collective impact they created in Congress was far greater than any President of the era, with the exception of Andrew Jackson. There was one issue that loomed over the nation throughout their time in power — slavery. They were continuously successful in keeping peace in America by forging a series of compromises. The next generation's leaders were not."

Ushistory.org Three Senatorial Giants. US History Online.

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Map 5: American Civil War Era. See Text 5A - 5B



#6 THE COTTON ERA (see Map 6)

In the later 19th and early 20th centuries the lands of the future CEF, like much of upstate SC were under cotton cultivation. Most upstate “farms” were not the large plantations of the low country, but they were commercial ventures. As the land became worn from erosion and other improper land management practices, the soil became unable to support healthy cotton crops. Erosion, and the arrival of the boll weevil, made cotton farming a much less profitable option by the end of the 1930’s. This farming activity was so extensive that it was said that the landscape from Clemson to the foot of the mountains was largely treeless. The same applied to much of the Piedmont. The Cotton Era is a distinct cultural and ecological item in the history of upstate South Carolina.

ON THE CEF: The Cotton Era (its remnants)

No cotton is presently grown on the CEF lands, instead forest cover has been restored. However, signs of past farming activities are evident in the form of gullies (from improper farming practices) and terraces (improved farming practices), and forest stands initially planted on abandoned cotton fields are in evidence. In addition, some of the “old house sites” on the CEF are tied to this period of the CEF lands.

On Map 6: “The Cotton Era”

The notable proportion of the uplands of the CEF were in cultivation at the time of acquisition. Exceptions would be some of the steeper areas. It is difficult to visualize this today with the comprehensive cover of various forest stands that cloak the CEF. There are items on the landscape that still recall this era such as the remnants of constructed terraces (to reduce erosion) and of gullies (the result of erosion). These, though obvious to the trained eye, are widely scattered and thus none are indicated on the Map. Rather this Map shows some select photos of conditions that occurred throughout much of the CEF during this era.

Quotes:

“It is estimated that from the beginning of the ‘King Cotton Era’ in the 1800’s through the 1930’s much of the South Carolina Piedmont lost almost 10 in (25 cm) of topsoil and in some large areas more than 12 in (30 cm).”

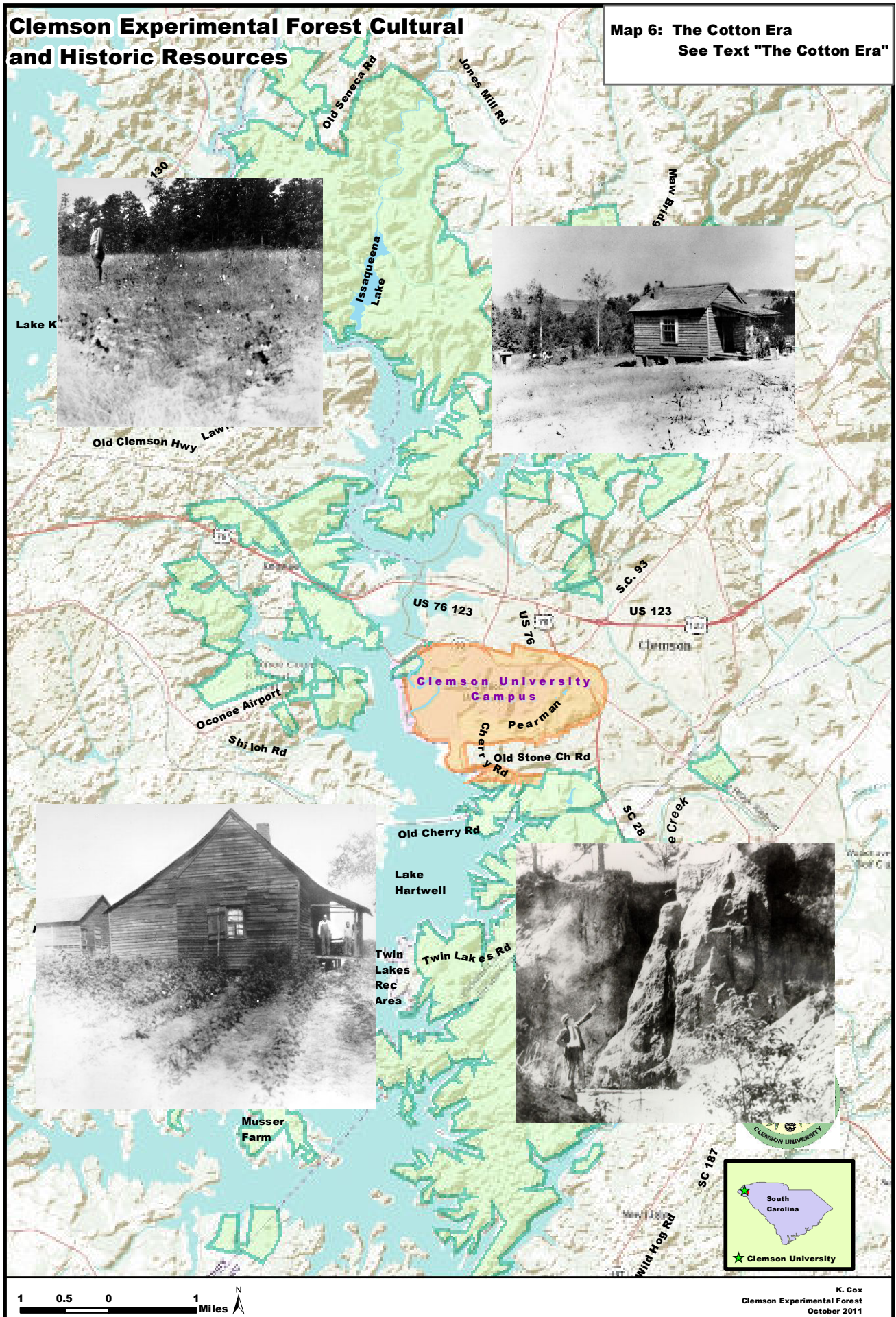
C. F. Kovacik and J. J. Winberry. South Carolina, A Geography. Westview Press. 1987.

“It is never easy for a people to give up a hundred-year old tradition – our lives and our fathers' fathers' lives have been built around cotton. We have bought our clothes with a bale of cotton; we have built our houses with cotton money; we sold a bale of cotton to pay our way through school. We have even campaigned in politics atop a cotton bale. And even our Great Aunt Narcissa stated once in public that she did not care what anybody in Washington or anywhere else in the world said about cotton, it still was the greatest crop that heaven ever gave to any country.

Ben Robertson (Grad in CU’s Class of 1923). *Red Hills And Cotton, An Upcountry Memory*. USC Press. 1942. 296pp.

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Map 6: The Cotton Era
See Text "The Cotton Era"



#7 THE NEW DEAL's CONSERVATION ERA (See Map 7)

The New Deal refers to a series of federal programs aimed at financial, social, and political matters in the early days of US President Franklin D. Roosevelt's administration. Some of these programs dealt with matters related to agriculture, water conservation, and proper land management, and are landmarks in the history of conservation in the United States.

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ON THE CEF: The New Deal

New Deal programs created the CEF (and similar land use areas throughout the US). Marginal farm lands were purchased from land owners and combined into the large tract (initially 27,000 acres, prior to losing about 10,000 to Lake Hartwell). The lands were purchased under the Bankhead/Jones Farm Tenant Act.

Initially the Federal Government owned the CEF land and CU administered it. To provide improvements a camp of the Civilian Conservation Corps and teams from the Works Progress Administration constructed numerous recreational facilities (Lake Issaqueena, swimming area, boat house, bath house, road bridges, picnic shelters, etc). Most of these are in the North Forest (improvements made in the South Forest were inundated by Lake Hartwell). Many of these North Forest improvements remain, though some only as ruins. The stone work for most of these facilities is of very high quality with exceptional aesthetic value. At the same time throughout the CEF eroding areas were stabilized, trees were planted by the hundreds of thousands, and hiking trails were constructed. These conservation efforts served as effective demonstrations for farmers and other private land owners seeking to better manage soil and forest resources on their lands.

ON MAP 7: "The New Deal's Conservation Era"

7A- 100 acre Lake Issaqueena dam and reservoir

7B- Indian Creek recreation facilities

7C- Willow Springs recreation facilities

7D- Wildcat Creek Shelter and recreation facilities

7E- Bridges over Wildcat Creek and Six Mile Creek

7F- Holly Springs Shelter and recreation facilities

7G- Lake Issaqueena Overlook and ruins of recreation facilities

7H- Lake Issaqueena Dam Shelter and recreation facilities

7I- Todd's Creek Dam

7J – Clemson CCC Camp

Quotes:

"Nearly all of the southern states responded constructively to the demonstration lessons of the Civilian Conservation Corps by enacting more effective legislation, enlarging reforestation programs, creating tree nurseries and recovering broad areas of sub marginal lands that seemed irretrievably spoiled."

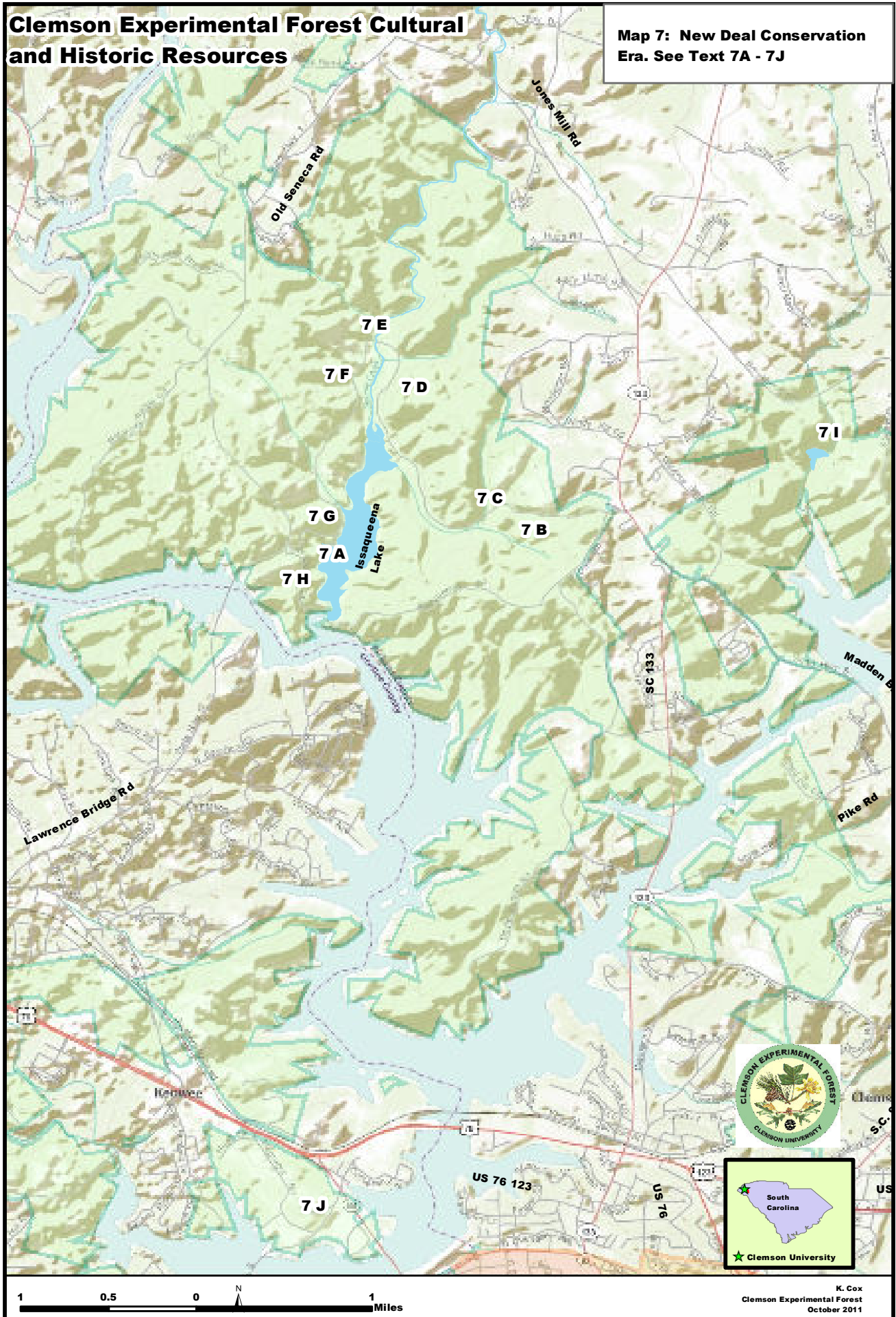
D. Clark Thomas. *The Greening of the South*. U. KY Press 1984. 168pp.

"New Deal policies also helped to reshape the conservation of forests and wildlife. Much credit deservedly went to the CCC, but much also belonged to the government's policy of acquiring cutover and badly eroded land and turning it into parks or national forests."

Albert E. Cowdrey. *This Land, This South*. Univ KY Press. 1983. p 159.

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Map 7: New Deal Conservation Era. See Text 7A - 7J



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#8 WORLD WAR II Era (see Map 8)

ON THE CEF: During the war, in 1942, northern areas of the CEF were made available to the US Army for use as bombing ranges. B-25 Mitchell Bombers from Donaldson Air Base in Greeneville used the site. Two ranges were established. A target range was established on Lake Issaqueena for use as a “skip bombing” range with low level bombers practicing “skipping” their bombs across the water at a target on the lake. Just west of Lake Issaqueena, across Lawrence Bridge Road, was a land range used by medium level bombers. A road through this forested area is named Bombing Range Road.

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The practice bombs dropped on the CEF ranges were sand filled bombs. Remnants of these bombs are still evident in select sections of the CEF.

On Map 8: “World War II Era”

8A- Bombing Range at Lake Issaqueena

8B- Bombing Range west of Lawrence Bridge Road

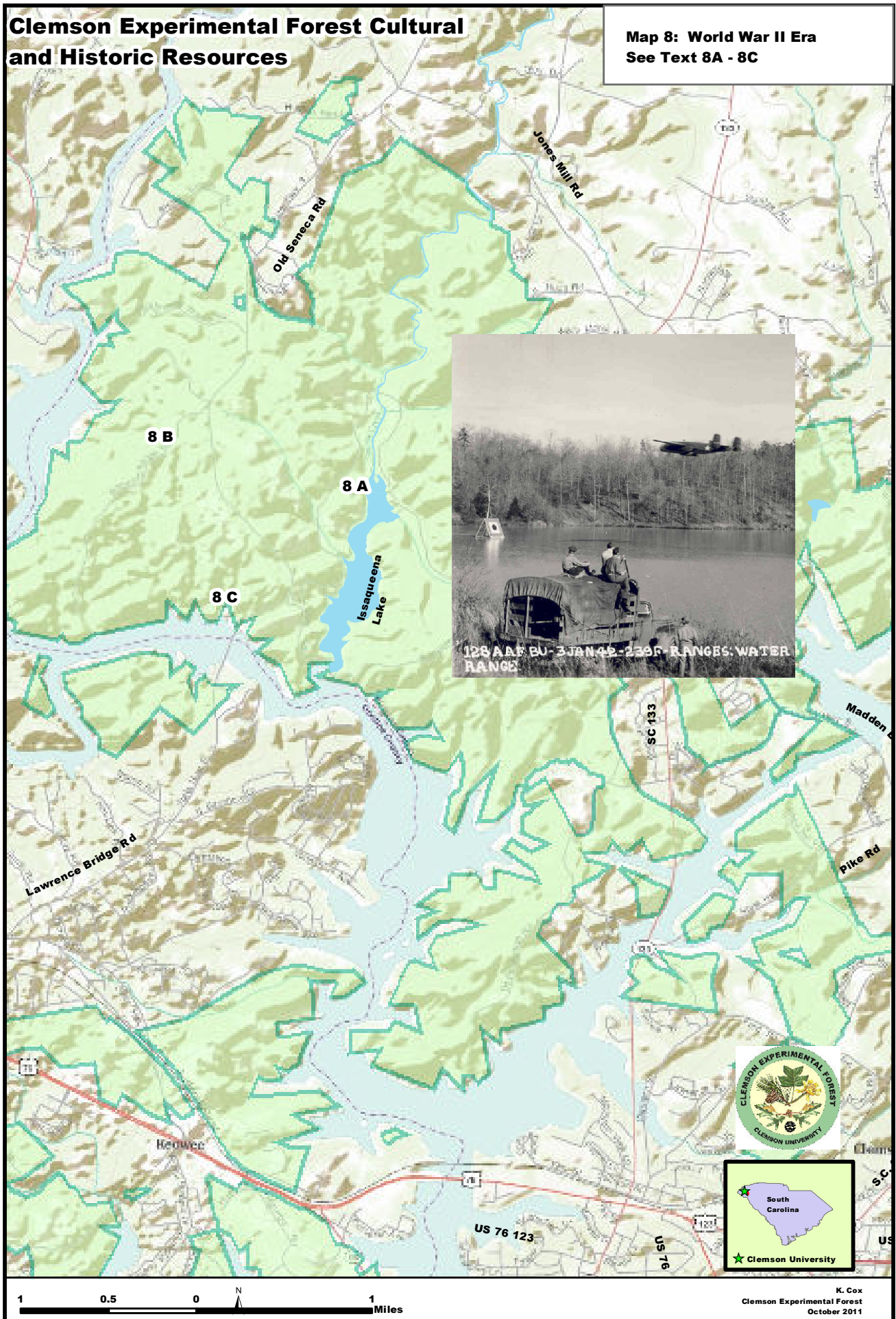
8C- Ruins of the Ramsey House which was used as a military headquarters during bombing training

CLEMSON UNIVERSITY TAKES POSSESSION OF THE CEF

In 1954 Clemson University took possession of the CEF from the federal government. Since then CU has continued work to stop erosion, reforest the abandoned farm lands, restore wildlife populations, allow public access for activities compatible with those conservation goals, and to implement a forest management plan that pays for the maintenance and management of the Forest and that allows for unique teaching and research opportunities.

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Map 8: World War II Era
See Text 8A - 8C



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#9 LARGE RESERVOIR CONSTRUCTION ERA (see Map 9)

During the decades of the 1920's through the 1980's major dams were constructed throughout much of the watered sections of the US to provide reservoirs for the generation of electricity, flood control, and as drinking water and sewage treatment sources. These water bodies have also become important recreation and economic factors.

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Because many of the effective dam sites for large reservoirs are already developed, and because modern environmental considerations generally oppose the impounding of rivers, the era of new reservoir developments in the US is now notably reduced.

ON THE CEF: Lake Hartwell

Lake Hartwell, a prominent item in today's Clemson community, is part of the comprehensive system of large reservoirs along the Savannah River constructed by the US Corps of Engineers and Duke Energy between 1950 and 1985. Lake Hartwell was constructed by the Corps between 1955 to 1963 and is providing our region the positive values of large reservoirs mentioned above.

The construction of Lake Hartwell had two other notable impacts related to CU lands.

- 1) Construction of the lake inundated approximately 10,000 acres of CEF lands, leaving today's total of 17,500ac.
- 2) The extensive dike system that was constructed adjacent to the main campus prevented flooding of the Calhoun Fields Laboratory and adjacent areas of the campus.

ON MAP 9: Large Reservoir Construction Era

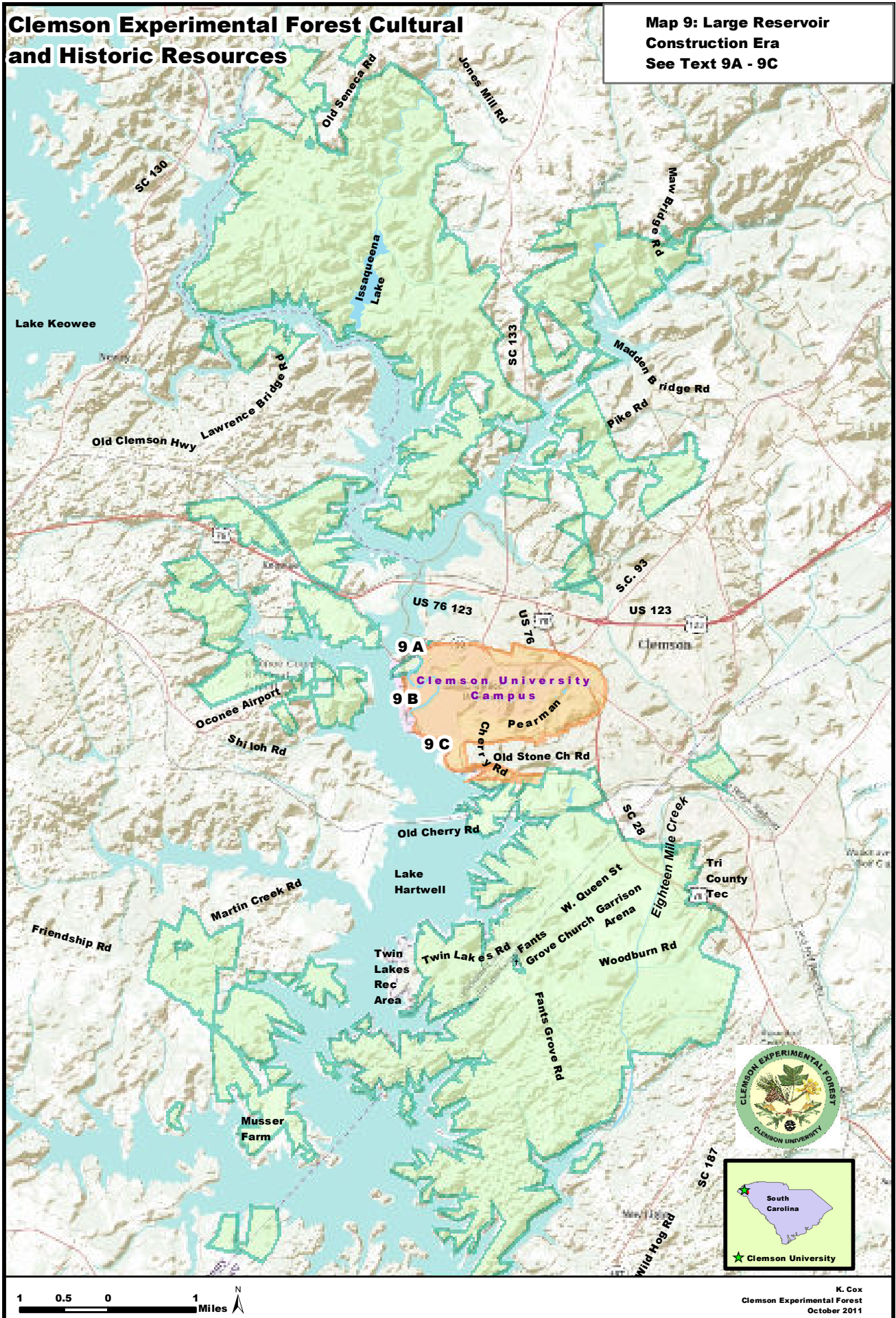
9A- *One of the Clemson University Dikes for protecting the campus from inundation by Lake Hartwell (Location – just north of Hwy 93, between the ESSO club and Hwy 93 bridge over Lake Hartwell)*

9B- *Same as above. (Location – adjacent to the Rock Norman Track & Field Complex)*

9C- *Same as above. (Location- Between the Water Treatment Plant and Madren Center.*

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Map 9: Large Reservoir
Construction Era
See Text 9A - 9C



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#10 NATURAL RESOURCE RESTORATION ERA (see Map 10)

During the latter part of the 20th century and continuing today, southeastern conservation groups, state resource agencies, and federal agencies have worked to restore forest conditions, wildlife populations, and fish populations that had been significantly impacted and reduced (extirpated in many cases) during the eras of cotton farming and wildlife exploitation. Efforts began in mid decades of the 20th century to restore bio-communities to their historic (pre-settlement) conditions. Eroded waste lands were stabilized and made useful again through the development of the new fish, game, and forestry departments that were created on university, federal, and state levels. These agencies established game, fish, and conservation laws, and began the work of scientifically based natural resource management.

ON THE CEF: Natural Resources Restoration Era

The CEF has been a model for natural resource restoration because it is a tract that has major qualities that support such efforts. These qualities include: 1) large size of the tract, 2) the diversity of major and minor habitat types, 3) the protective management of the tract by CU, and 4) the long-term effective partnerships with conservation organizations and state/federal resource agencies who have remained involved with the tract.

Some of the more notable natural resource restorations and enhancements on the CEF include:

- Whitetail Deer: This important game species was restored through restocking and subsequent enforcement of newly enacted game laws. Much of this work initially occurred during the 1960s. The Fants Grove and Keowee Wildlife Management Areas on the CEF were important locations for this successful work.
- Wild Turkey: Through restocking, habitat management, and effective game laws this grand game bird was restored. Efforts began during the 1970s. The Fants Grove and Keowee Wildlife Management Areas were important sites for this successful work.
- Beaver: The most important item in the fur trade during the 19th and early 20th centuries, the beaver was extirpated from much of the upstate area of SC. Restoration efforts of this important wetland enhancing animal occurred in the 1950s. Today the CEF has a sustainable population of beavers.
- River Otter: An important fur bearer that was extirpated through much of its range, the otter has returned to the CEF and enjoys life in many of the area's beaver ponds.
- Enhancement of overwintering waterfowl habitat: Successful efforts have occurred in an intensively managed waterfowl area in the south forest.
- Osprey: This large fish hawk became very rare throughout its range, apparently as a result of application of certain pesticides. Today, as result of legal restrictions on appropriate chemicals, the osprey is returning and is periodically seen on the CEF and adjacent Lake Hartwell.
- Bald Eagle: The eagle's story of population decline and subsequent recovery is very similar to that of the osprey. Today bald eagles are seen with some regularity around the CEF, with at least one recent report of an active nest.
- Coyote: This wild canine migrated into SC over recent decades. Sustainable populations occur on the CEF.

- Black Bear: In recent decades bear populations have significantly increased in the SC Mountains. As a result bears are now moving into the piedmont region, where most do not find habitat areas of suitable size. An exception to this is the CEF where bears occur and are seen with increasing frequency.
- Turquoise Darter: Populations of this small fish have been restored through a relocation effort in Six Mile Creek on the CEF.
- Green Treefrog and Squirrel Treefrog: Populations of these two frog species, historically associated with Coastal Plain areas of the Carolinas, have recently (in past decade) moved into some Piedmont locations. Populations have become established on the CEF where extensive areas of suitable habitat are available.
- Fire Dependent Plant Species: Through the use of controlled fires, managers of the CEF have been able to restore early successional fire dependent species of grasses and wildflowers, including one that is endangered.
- Forest Restoration: above all else, and as a pre-condition to many of the above restoration successes, forest stands (both planted and successional) were restored throughout the 17,500 acre CEF, and serve today as habitats for the above wildlife species as well as major teaching and research tools. Two major historic elements of this effort are the loblolly pine and yellow poplar seed orchards in the south forest, off Seed Orchard Road.

ON MAP 10: Some Natural Resource Restorations and Enhancements

- 10A- Restoration of whitetail deer, Keowee Wildlife Mgt Area (west of Lawrence Bridge Rd) in the North Forest, and Fants Grove Wildlife Mgt Area (much of the South Forest)
 - 10B - Restoration of the Wild Turkey, Keowee Wildlife Mgt Area in the North Forest, and Fants Grove Wildlife Mgt Area in the South Forest
 - 10C- Restoration of the beaver (Locations- North Forest, wetlands along Issaqueena Lake Road. South Forest, wetlands adjacent to Eighteen Mile Creek)
 - 10D- Restoration of the river otter in association with beaver ponds in the North and South Forests
 - 10E - Enhancement of overwintering waterfowl, Fants Grove Waterfowl Area
 - 10F - Restoration of the Turquoise Darter, a member of the perch family, in Six Mile Creek in the North Forest
 - 10G - Natural establishment of coastal plain animal species (green treefrog, squirrel treefrog) in CEF wetland habitats
 - 10H - Examples of restoration and management of Fire Dependent Species.
 - 10I - Some examples of restored mature forest stands and communities.
 - 10J - Yellow Poplar Seed Orchard, used to help restore quality poplar stands in upstate SC
 - 10K - Loblolly Pine Seed Orchard used to help restore quality pine stands in upstate SC
-

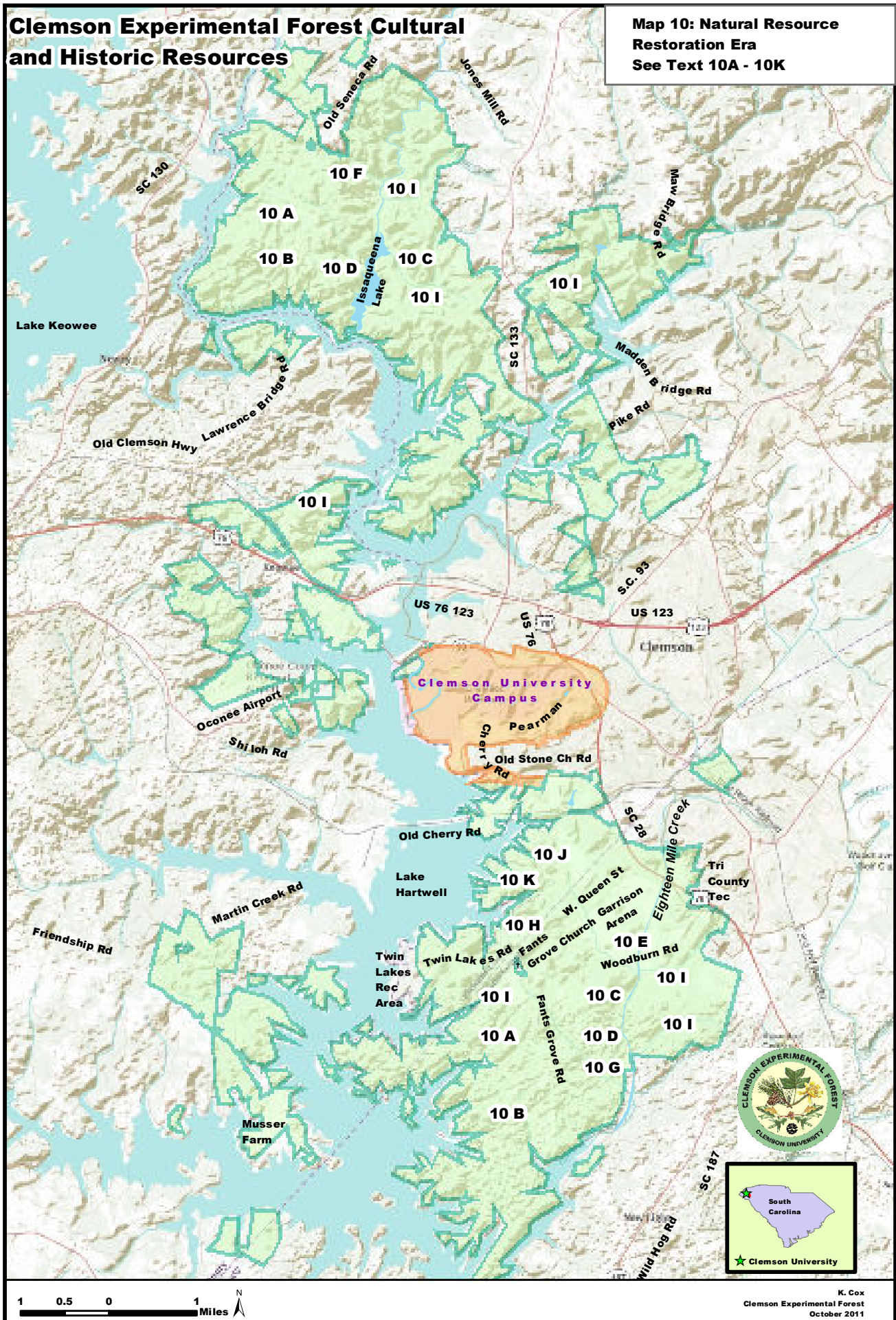
Quote:

“Over the past 50+ years a major goal of wildlife managers throughout the US has been to restore native wildlife populations. Restoration requires areas of abundant and quality habitat. No area, in all the upper Piedmont of SC, has been more important to this goal than the 17,500 acres of the Clemson Forest.”

Hugh (Skip) Still, Wildlife Biologist, SC Dept Natural Resources (retired)

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Map 10: Natural Resource Restoration Era
See Text 10A - 10K



Recommended Guidelines for Further Protection and Enhanced Educational Use

Based on the recent inventory of important cultural resources on the CEF, the following recommendations are provided for their recognition by CU, and for their further protection, maintenance, and enhanced educational function.

See Map 11 Summary. Letters A – H below refer to locations shown on the map.

A. The William Bartram and Andre Michaux travel corridor, N-S through the South Forest, and the William Bartram corridor through the North Forest.

These world famous scientists traversed the CEF in 1775 and 1787, respectively. Research, including review of their own journals leads scholars to show that their route likely followed closely the present route of Fants Grove Road and West Queen Street enroute to camp sites in the Calhoun Fields Laboratory.

Guidelines:

1. Formally recognize and maintain the corridor.
2. Layout and construct a graded foot trail through the length (or selected sections) of the corridor for use as an educational experience about Bartram and Michaux.
3. Annually conduct an official CU hike along this trail, guided by an expert, for students, faculty, and families.
4. Place official SC Hwy Historical Markers about Bartram and Michaux in appropriate locations.

B. The Colonel Andrew Williamson travel corridor through the South Forest.

Colonel Williamson and his 1000 militia camped along 18 Mile creek on the night of July 31, 1776. In the dark, early in the morning of August 1 they traversed the future South Forest and were engaged by the Cherokees and their Tory allies at Seneca Town (today's Calhoun Fields). This event was part of the actions that destroyed all the Cherokee Towns along the Upper Savannah River.

Guidelines:

1. Formally recognize and maintain the corridor.
2. Construct a graded foot trail throughout the corridor's length (or select sections) from the current fields around the Garrison Center to the area of the Calhoun Fields on campus.
3. Annually conduct an official CU hike along this trail, guided by experts, for students, faculty, and families.
4. Place an official SC Hwy Historical Marker describing this attack, and its results, in an appropriate location.

C. The Altamont Plantation Zone

This area around the early 1800s home of Thomas Pinckney contains numerous physical surface ruins and shows surviving garden plantings. It is situated within mixed upland forests and borders some extensive wetlands and small streams associated with Eighteen Mile Creek.

Guidelines:

1. Review the surface ruins at this site and determine their relationship to the historic Altamont.
2. Determine the specific limits of the Altamont Plantation Zone (to include home, road, historic vegetation, examples of forest and wetlands, any scenic views)
3. Map the site including surface ruins, historic vegetation at the site, and potential roadways around the immediate site.
4. Maintain the Altamont Plantation Zone as a CEF cultural Site.
5. Encourage its use by CU classes.
6. Explore the possibility of having an archaeological dig at the site.

D. Seed Orchard Road Historic Zone

This area contains a short segment of the Bartram/Michaux Travel Corridor (see A above) and the site of the original Keowee-Hopewell Church, forerunner to the present Old Stone Church. However, its most significant resources are those that relate to forest and wildlife restoration work that have been successfully completed “forest-wide” over the decades by Clemson and its partners. These include: The seed orchards for yellow poplar and loblolly pine, experimental plantings, stands of exotic tree species, and demonstrations of various forest stand types.

Guidelines:

1. Review the existing seed orchards and plan to maintain them as educational tools.
2. Review the stands of exotic tree species and determine a plan to maintain them as education tools.
3. Develop educational plans for these forestry resources and for the Keowee-Hopewell Church and this section of the Bartram/Michaux Trail.

E. Hopewell Plantation Zone

This area contains Hopewell House, the home of General Andrew Pickens from 1785 until 1802. In addition it contains the site of the Hopewell Treaty(s), signed between the US and the Cherokees, and other tribes. The Hopewell Plantation Zone also includes some of the fields around the house, which were part of the plantation.

Guidelines:

1. Review the existing resources and determine the specific area to function as the Hopewell Zone.
2. Map the surface resources including house, pertinent roads, any historical related vegetation, the treaty site, and the fields and woodlands.

3. Maintain the Hopewell Plantation Zone as a CEF cultural site.
4. Encourage its use by CU classes.
5. Explore possibility of having an archeological dig at the Hopewell House site.

F. Seneca Town/Fort Rutledge Zone

This area includes portions of the Cherokee Village of Seneca Town, site of Fort Rutledge, the Daughters of the American Revolution monument to Fort Rutledge, and the Calhoun Fields Laboratory. In addition to its history in the Cherokee War and early American Revolution, the site was visited by 18th century botanists William Bartram and Andre Michaux, and is the last of John C. Calhoun's farm land remaining in active agriculture.

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Guidelines:

1. Make a map of the site to include resources associated with a) Seneca Town, b) Fort Rutledge, c) Bartram and Michaux, and d) Calhoun.
2. Designate and maintain the site as a CU Cultural Site
3. Explore having an annual event at this site to discuss its significance in regional history.

G. Keowee Heights Plantation Zone

Keowee Heights was the home of US senator John E. Colhoun, and became the social center of the upstate during the early 1800s. The site consists of the house site, spring house, and family cemetery, as well as historic vegetation associated with the home, and an old road bed.

Guidelines:

1. Map the house site, historic vegetation, old road beds, spring house, and cemetery.
2. Maintain the Keowee Heights Plantation Zone as a CU cultural site.
3. Encourage its use by CU classes.
4. Explore possibility of having an archaeological dig accomplished at the house site.

H. Lake Issaqueena and the WPA/CCC Zone

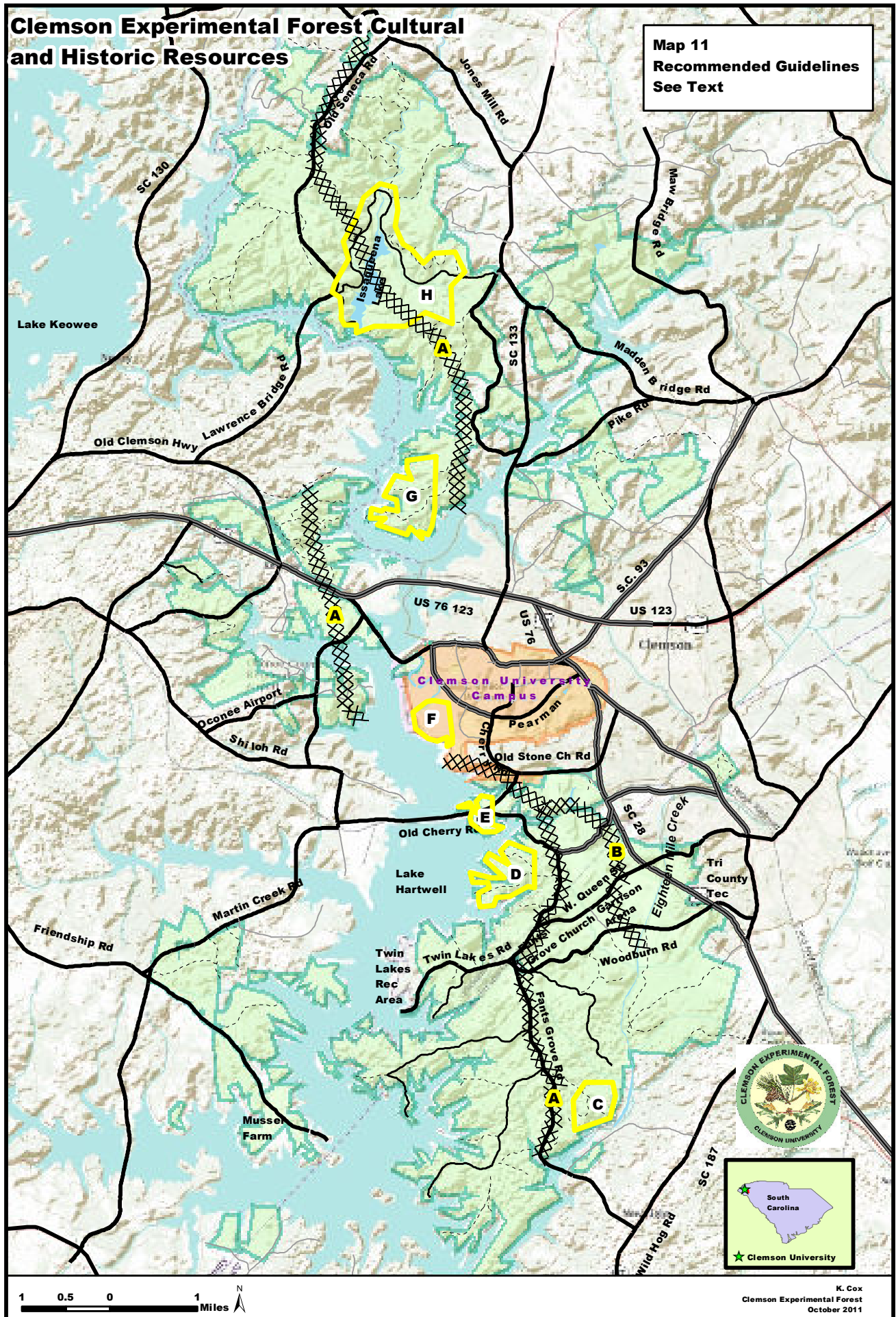
This Zone contains a number of significant structures built in the 1930s by the Works Progress Administration and the Civilian Conservation Corps, including 100 acre Lake Issaqueena, three major stone walled picnic shelters, several stone bridges, a major recreation area on Lake Issaqueena, and many picnic tables (some of these resources are in need of restoration). In addition areas used as World War II bombing ranges occur here.

Guidelines:

1. Assess the status of each WPA/CCC resource and determine restoration needs.
2. Maintain the Lake Issaqueena/CCC Zone as a CU cultural site.
3. Encourage its uses by CU classes.
4. Place an official SC Hwy Historical Marker describing these CCC resources and their significance, in an appropriate location.

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Map 11
Recommended Guidelines
See Text



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