

Southern Forest Heritage Museum

LONG LEAF, LA

THE RESILIENT FOREST TRAIL GUIDE

BROCHURES ARE AVAILABLE AT THE TRAILHEADS AND IN COMMISSARY

THIS TRAIL, between the 2 trailhead signs, which includes 2 short loops and 2 short routes, is about 1/2 mile in total length of easy walking. Various signs easily show particular places on the paths, which also are shown in the brochure; and marks on trees with yellow paint also clearly identify the routing. It is the most "information-per-meter" forest or "nature" trail in existence.

YOU WILL be able to see 1) How forests are resilient; that is they have the ability to naturally (practically automatically) renew themselves from seeds after an existing forest has been cleared off, and even after the ground has been in a bare condition for a long period of time; and 2) How large differences of diameters and heights can exist among trees of similar ages, demonstrating that size is not a direct result of age!!

THE TRAIL includes:

- 8 major interpretive plots where tree measurements and ages are shown, with the plots being in 2 very different types of areas/conditions; 1) the level, bare-ground terrain of a lumber storage yard; and 2) the sloping topography, which actually was covered in part by a huge storage shed, and which also became part of a fire protection zone for the plant.
- Several informational signs related to particular circumstances of interest.
- Couple rest stops with comfortable seating.
- Identification signs for many trees and shrubs.

Note: with foliage on the trees and shrubs, you will be surprised at how close to LA #497 you are when in the vicinity of Plot #6.

THE AREA containing the trail is a "pocket" of forest on the sawmill property. This "pocket" of less than 10 acres contains many examples of forest growth, forest species, forest conditions and improvements, and the measurements of trees for comparisons across the future. Of great importance, this "forest pocket" was the scene of intense activity across the 1920's through the 1960's; and you will notice that the oldest of the trees labeled in the plots are 35 to 38 years at the end of the growing season of 2004.

TRAIL DEDICATION is to Dr. Norwin Linnartz who was a Professional Forester and long-tenured and highly-respected professor at the School of Forestry at Louisiana State University. He was extremely active and held many positions in the Society of American Foresters at State, Section, and National levels.

CROWELL LONG LEAF LUMBER COMPANY operated several mills from 1892 through 1969; with locations at Alco, Meridian, and beginning here at Long Leaf in 1892. Meridian operated from 1913 until 1928 when it was lost to a fire. Alco operated from 1928 to 1944. Concurrently, 2 logging camps functioned to supply the mills, with all facilities being served by the Red River & Gulf Railroad (a company RR), which also reached eastward to Lecompte. The railroad also provided freight and passenger service, and during peak times it operated 30 locomotives.

Generally, the mill sites were similar establishments, with combinations of mill buildings and town layouts which provided houses for rent by the workers, and services including a commissary where all necessary provisions were available, a doctor's office, dry cleaners, and a company telephone system, plus recreational facilities as a movie theater, swimming area, and sports fields for tennis and baseball.

Long Leaf has always been the corporate headquarters, and continued in operation after the others were closed, and it received the latest improvements prior to its closure in 1969. Company ownership amounted to about 140,000 acres, which has been maintained across times when many land ownerships were sold, with the same timberlands existing to this date.

MUSEUM CREATION at this site was officially undertaken as a project in late 1989 by a committee of the Louisiana Chapter of the Society of American Foresters (LA SAF). It was chaired by Henry Pearson who had originally hatched the idea about a year earlier after a happenstance visit to the site, along with the realization of the amazing potential that it offered. The initiation process evolved into the establishment of the official Museum Corporation, and the listing of the Southern Forest Heritage Museum and Research Center on the National Register of Historic Places (Feb. 1993).

THE TRAIL development has been ongoing since about 1998. The National Tree Farm Association contributed significant funds early in the project which provided the lumber for the bridges, which were constructed primarily by Scout Troop #4. In 2004, recognition occurred as to the impressive demonstration that the trail route presented about forest resiliency and tree growth, plus related forestry information and techniques, which could be developed and provided as an educational experience.

Welcome
to the
INTERPRETIVE TRAIL



TREE AILMENTS: existing condition of Fushform Rust, a fungus which weakens a tree and renders the diseased portion as unfit for manufacturing into solid wood products.



DRY KILN IS COMMON: old dry kiln was never removed, and this is an existing common point of survey reference across time.

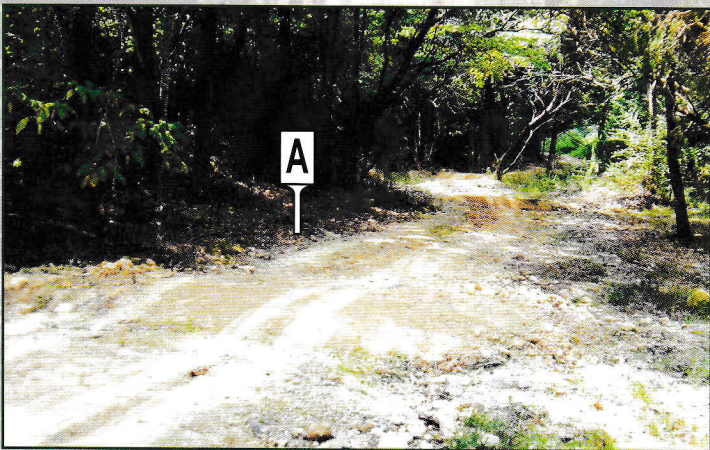


LUMBER
STORAGE
SHED
(PRESENT)

GREEN CHAIN
TRAILHEAD SIGNS
EASTER
OLD POWER LINE
NEW KILN
DRY CHAIN TAKE-DOWN SHED
--PICNIC TABLES--



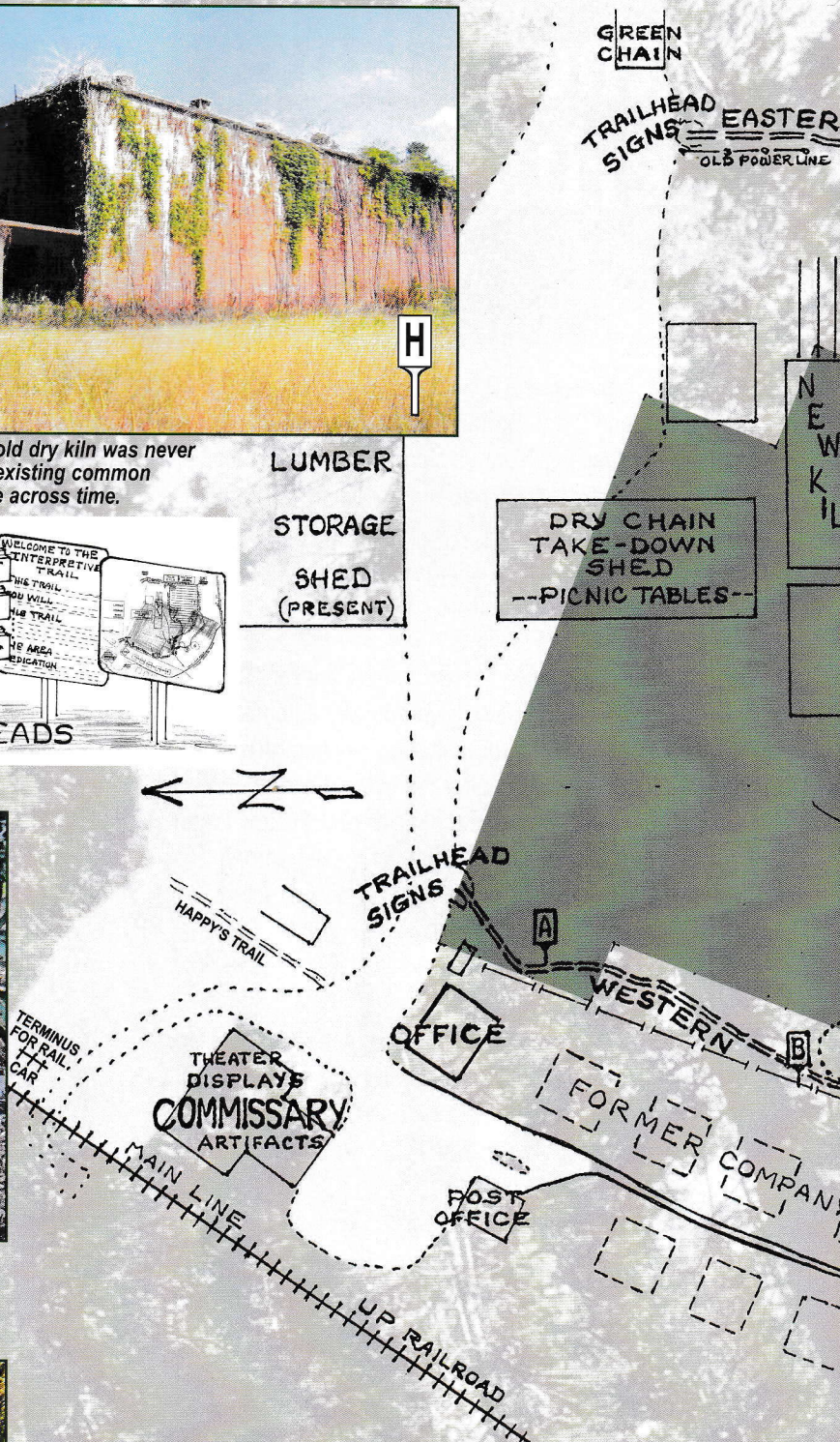
WATER QUALITY: drainage and bridging...sign describes water collection and drainage and how use of a culvert is one method to cross the water course without damage, and how consideration should be given to sizes and other types of installations.

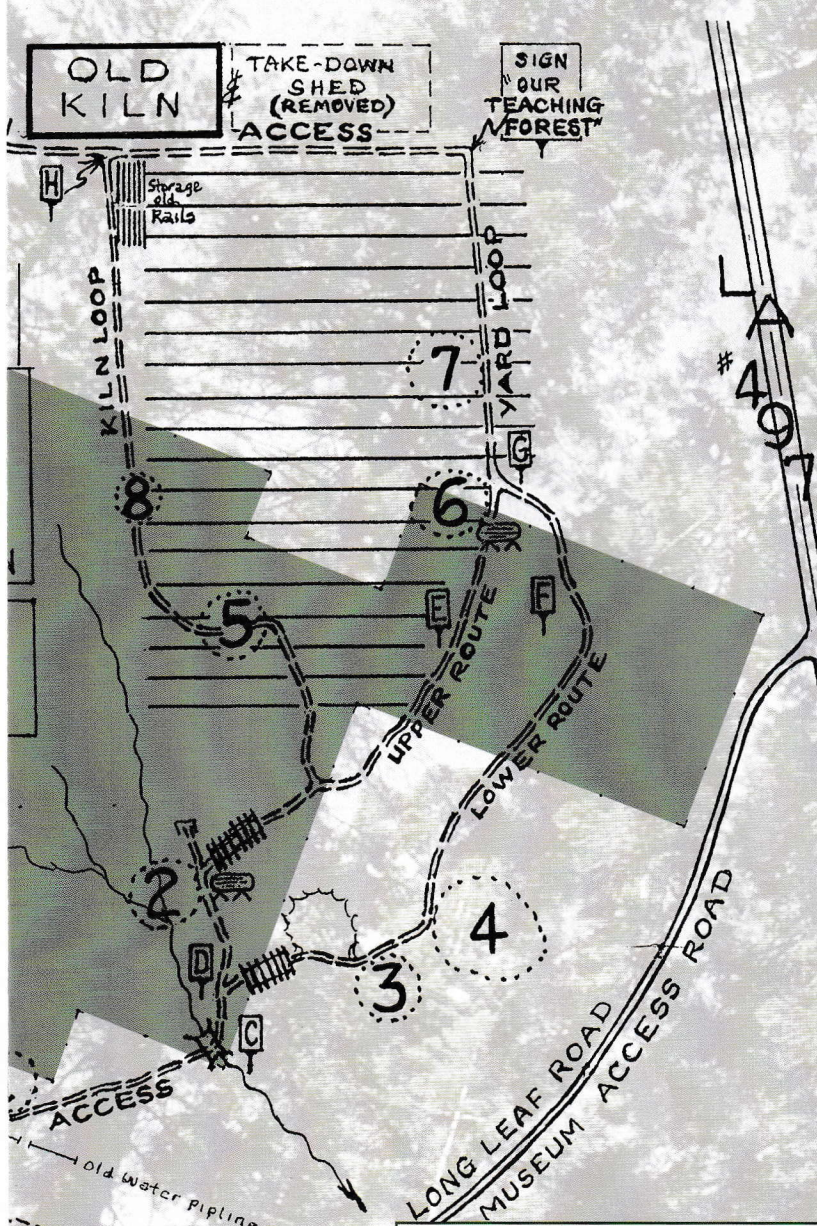


WATER CONTROL STRUCTURES: as the "rolling dips" which are installed as part of the western access leg, demonstrate how low standard woods roads and trails can be established to prevent erosion. This is especially useful for accesses that are intended to be permanent for purposes of efficient monitoring, fire control and occasional logging. Such erosion control techniques are described in the publication, "Forestry Best Management Practices for LA."



FIRE PLUG EXCAVATED: surprising amount of silt had accumulated across time to the extent that all but the top of the fire plug was covered. Also, the huge shed was close to the plug.





Hardwood Lumber storage yard for air drying - 1960

RESILIENCY OF NATURE
Plot 7 - STORAGE YARD

THIS AREA was bare dirt, used as a storage pad for air-drying of the hardwood lumber which the mill produced. NOTICE the runners made of steel rails on concrete footings, on which the loaded lumber carts were moved.

NATURAL VEGETATION generally took over everywhere after use stopped in 1969.

OBSERVE the variety of trees and shrubs that have grown from the natural seeding.

CHARACTERISTICS of the NUMBERED TREES shown below are data measured: 1) at the end of the growing season of '04, and 2) at the ends of later growing seasons as shown.

TREE SPECIES	DIAMETER		HEIGHT		AGE	-- 2009 --		-- 2014 --		-- 20 --	
	inches	centimeters	feet	meters		Dia	Ht	Dia	Ht	Dia	Ht
1 SWEETGUM	7.0	17.8	46	14.0	31						
2 AM SYCAMORE	5.7	14.5	51	15.5	19						
3 LOBLOLLY PINE	14.2	36.1	67	20.4	26						
4 LOBLOLLY PINE	8.2	20.8	58	17.7	20						
5 LOBLOLLY PINE	9.0	22.8	58	17.7	24						
6 AM SYCAMORE	5.1	13.0	46	14.0	12						
7 LOBLOLLY PINE	16.0	40.6	67	20.4	18						

Notice: age is not a basis for prediction of size. All trees are within 13 yr. age range. Largest (by far) at 16" and 67' is nearly the youngest.

Measured at "DBH" "Diameter / Breast Height" being 4.5' above ground (1m = 2.54 centimeters)

Measured to top of crown, being total height. (meter = 3.28 ft)

DYNAMICS!! Compare growth measurements across the years, to realize how trees gain in size and value. (Generally larger are worth more.)

LEGEND

- 3 PLOTS with tree data
- BENCHES
- CULVERT
- POINTS OF INTEREST
- BRIDGES
- OUTDOOR CLASSROOM
- AREA COVERED by HUGE LUMBER STORAGE SHED
- AREA USED AS HARDWOOD LUMBER STORAGE YARD
- EROSION CONTROL
- FIREPLUG EXCAVATION
- WATERCOURSE X-ing
- TREE DISEASE
- EPHEMERAL DEPRESSION
- LIGHTER PINE
- CONTEMPLATION Stop
- DRY KILNS



UPPER ROUTE: bridge and bench



General aerial view of millsite and some surrounding company housing. Extraordinary characteristic is the huge lumber storage shed which was the predominate feature in the trail area and of the entire plant site, being much larger than any other buildings then or now. It is easy to observe that the shed was built on pilings (some as high as 20') in order to create a level floor out across the sloping and irregular topography. The shed was dismantled in 1955 and no traces of it are evident. (old dry kiln in operation = ←)

USEFUL AND INTERESTING AREA TIMBER RESOURCE INFORMATION THAT YOU SHOULD KNOW:



Higgins LCVP
on the
move during
World War II.

Crowell operations, and especially at Long Leaf, played a major role in winning the 2nd World War! Crowell supplied the majority of the special, high quality lumber used to manufacture the **"HIGGINS BOATS"** at Higgins' shipyard in New Orleans.

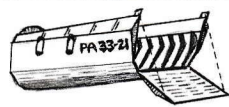
The *"Higgins Boats"* were the "landing crafts" that carried troops and equipment from the large ships off-shore to the actual off-loading onto the beaches during the latter part of the war, when Allied troops were engaged in invasions of Europe and the Far East. Prior to the availability of these boats, troops could not be landed on beaches effectively. Higgins conceived the concept for the boats based upon the principles of pirogues, which could travel the shallow waters of South Louisiana bayous.

General Eisenhower labeled the boats as critical toward winning the war. He is quoted by the noted author Stephen Ambrose as "You know he (Higgins) is the man who won the war for us. We could never have gone in over an open beach. It changed the whole strategy of the war."

The war required the accelerated consumption of resources of all types to manufacture the necessary equipment and firepower. Trees to provide the lumber were essential, and lumber production was an "essential industry."

Check out the telegram in the display case in the Commissary, in which R.D. Crowell, President, conveys his concern to President Roosevelt about cutting out all the valuable old-growth pine for the war effort... "this Company and its stockholders, motivated only through patriotism and loyalty to our country, are daily depleting their scant resources of virgin longleaf yellow pine timber, which cannot be replaced as our contribution to the cause of winning the war."

A replica of a **"HIGGINS BOAT"** can be seen, along with a great deal of interesting information about Higgins and the types of his boats, as part of the outstanding D-DAYS Museum in downtown New Orleans.



Timber in the general southwestern area of Louisiana was "cut-out" between the late 1880's to 1920, with pictures of the landscape being brushfields, and verbal descriptions whereby "you could see from Alexandria to Lake Charles;" which happened to be the main railroad route of the time serving hundreds of sawmills. So how was Crowell able to supply the preponderance of the large, high-quality lumber for the boats in the mid 1940's? Crowell's timber resources were not part of the general, intense timber harvesting protocol of

that time. The lumber for boat construction was cut at the Alco mill from Vernon Parish timber, and at Long Leaf from the lands in this area; until the Alco mill was closed, after which logs from all of the ownership were shipped to Long Leaf and processed here.

The **"Golden Age of Logging"** has described a period across the late 1800's to the 1950's when intensive logging occurred to supply the numerous mills which existed everywhere, including central Louisiana, and especially relative to the mainlines of railroads. Written accounts describe how lumber buyers could actually walk from one mill to another in some areas. This "golden era" resulted in a huge cutover landscape consisting of mostly of stumps amid bush and grasslands where cattle, hogs, and sheep predominated, and grass fires were commonplace, and even a part of normal practice for growing pasture grasses.

The **"Golden Age of Forestry"** began in the mid 1930's. The Kisatchie National Forest was established as an accumulation of mostly worn-out lands that people wanted to discard, rather than to have to pay property taxes. Most of the National Forest acreage across the South was of such "valueless land," and was assimilated in this manner at that time. Citizens questioned the wisdom of the Federal government actually paying \$3 per acre for wasteland, with the further intention to expend money to achieve reforestation.

Reforestation was one of the early, primary objectives of the Kisatchie (it did not originate as the environmental jewel that it is today), so that forest products industries could be attracted and jobs could be created, with a long term goal of perpetual timber supply for businesses that would be functioning forever. The Kisatchie reforestation was the beginning of widespread forest renewal efforts including CCC planting of seedlings from nurseries and new concepts such as sowing tree seeds from aircraft. A huge amount of accompanying work was necessary to prevent rampant seedling eradication by fires and the hogs, cattle and sheep. The abundant, rich, forested landscape of the South, which is predominantly private ownership, has become to be known as "America's woodbasket;" and is profound proof of the vision of the early forestry pioneers and the beginning of the *"golden age of forestry,"* which has in fact, been perpetual, and is continuing sustainably into the future.

Notable contributors to the TRAIL development across the years include:

- Louisiana Chapter of the Society of American Foresters (LA SAF): funds, personnel, plans
- American Tree Farm System of the American Forest Foundation: funds
- Oakdale Campus of the Louisiana Technical College System, Forest Technology Students, per direction of Finis Prendergast, Certified Forester, SAF, Instructor: personnel, equipment, measurements, dirt work
- Rapides Parish Highway Department, per direction of Eric Duck, Supervisor: all informational signs
- John Martel, Certified Forester, SAF: expeditor of several projects including trail clearing, bridge construction, and maintenance
- Bill Wieger, Certified Forester, SAF: conceptual development of Trail as multifaceted educational experience, and Chair of project
- Rapides Parish School Board: major funding via program whereby U.S. Forest Services funds are allocated ("Secure Rural Schools & Community Self Determination Act of 2000") to school boards in Parishes where National Forests are located, for purposes of forestry-related education.

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