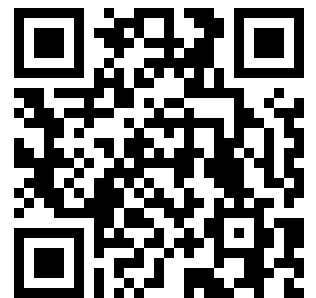

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FOR THE TREES

An Illustrated History of the Ozark-St. Francis National Forests 1908-1978

By SHARON M.W. BASS

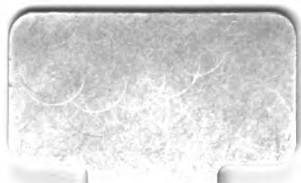
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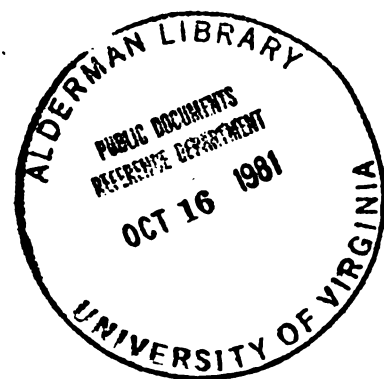


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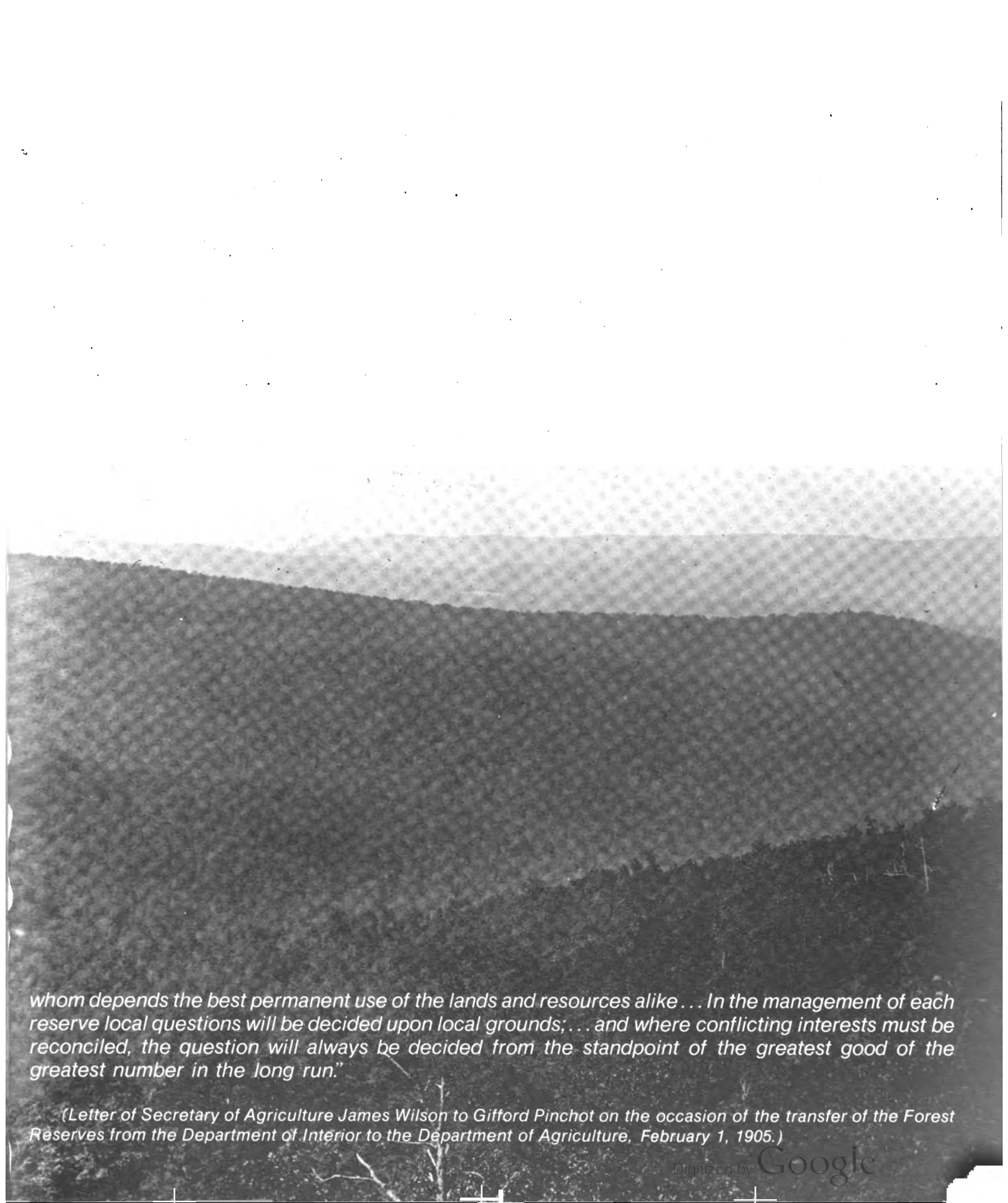




*Southeast from Turnpike Tower. Photo Nos. 18891A, 18895A,
by Ralph Huey, 1914.*



"In the administration of the forest reserves, it must be clearly borne in mind that all land is to be devoted to its most productive use for the permanent good of the whole people and not for the temporary benefit of individuals or companies. All the resources of forest reserves are for use, and this use must be brought about in a thoroughly prompt and businesslike manner, under such restrictions only as will insure the permanence of these resources. . . You will see to it that the water, wood, and forage of the reserves are conserved and wisely used for the benefit of the home-builder first of all; upon



whom depends the best permanent use of the lands and resources alike . . . In the management of each reserve local questions will be decided upon local grounds; . . . and where conflicting interests must be reconciled, the question will always be decided from the standpoint of the greatest good of the greatest number in the long run."

(Letter of Secretary of Agriculture James Wilson to Gifford Pinchot on the occasion of the transfer of the Forest Reserves from the Department of Interior to the Department of Agriculture, February 1, 1905.)

Cover Photo:
Young stand of white oak along Page Road. Photo No. 481544,
by Daniel O. Todd, 1956.

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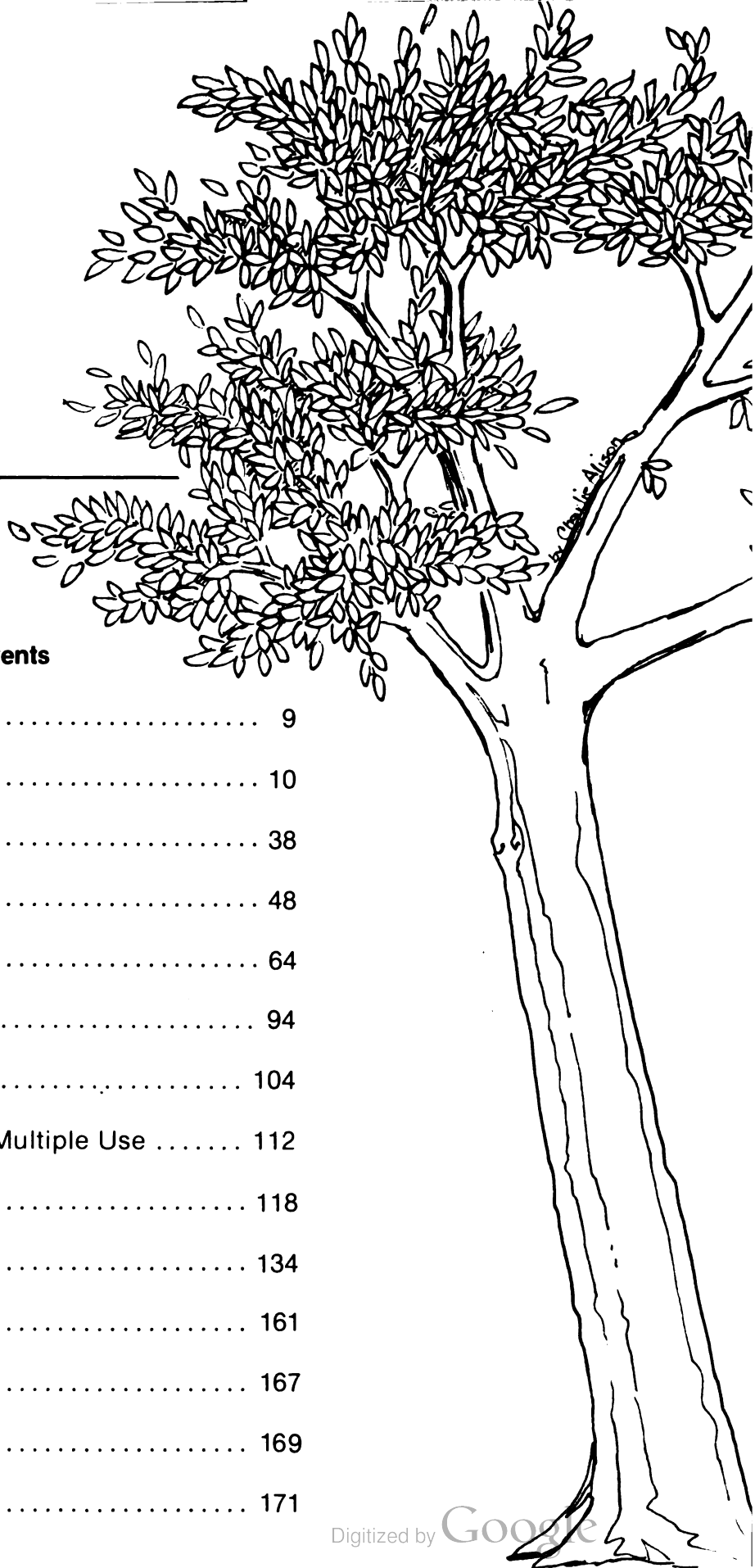
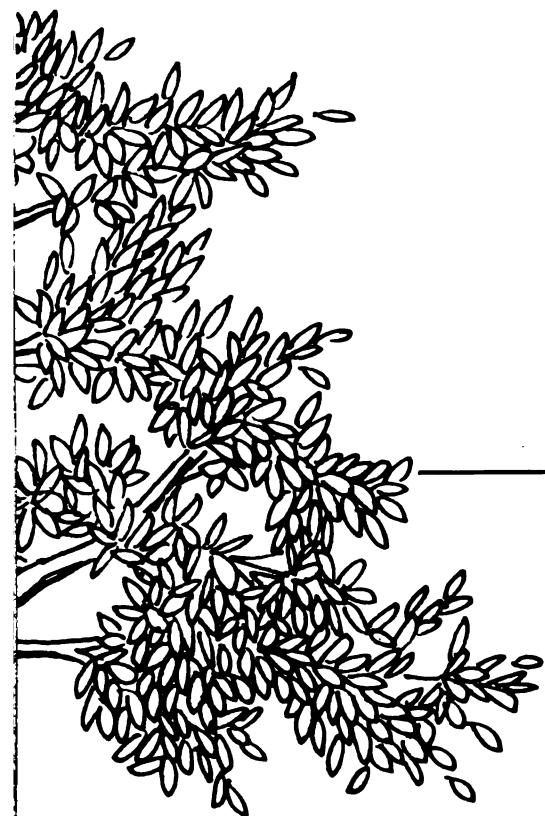
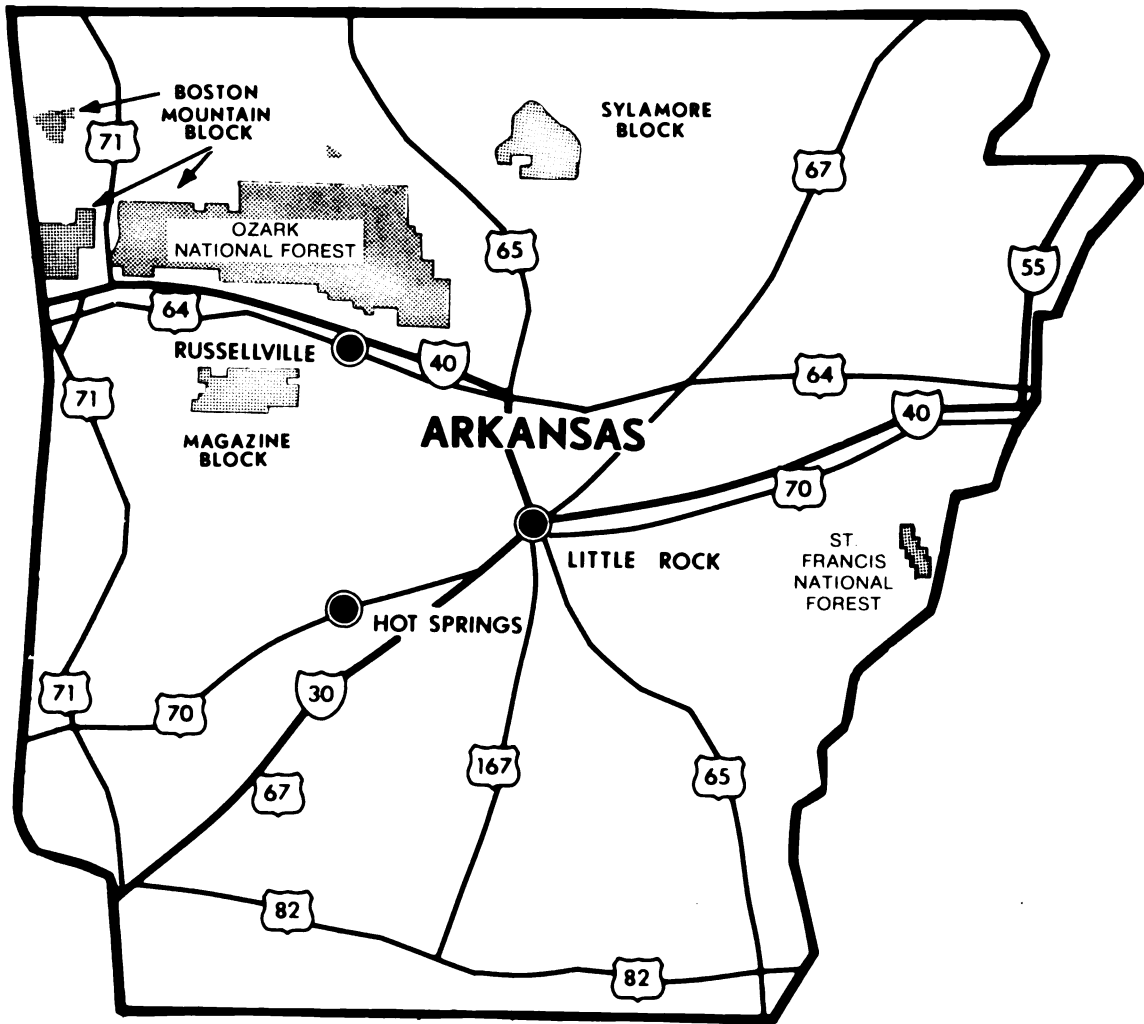


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FOR THE TREES



OZARK-ST. FRANCIS *National Forests*

INTRODUCTION

The Ozark-St. Francis National Forests cover more than one million acres, hopping and skipping across the state, looking like an Arkansas crazy-quilt. The southernmost portion of the Ozark National Forest runs along the Arkansas River Valley south to the Ouachita Mountains. The northern boundary extends beyond Lone Rock to Matney Mountain in Stone County; on the west, the forest patchwork touches Oklahoma; and, on the east, the St. Francis National Forest falls down Crowley's Ridge to reach the Mississippi River near Helena. Both these National Forests are administered as a single unit from the headquarters in Russellville, Arkansas.

Over the years the forest boundaries have changed—first because of the elimination of agricultural lands from within the proclaimed boundaries, and later because of land acquisitions made possible through the Weeks Law of 1911.

The National Forests of Arkansas have become a highly valued resource by the Citizens of the state. The forests, and their managers, have progressed through a succession of stages—some of them encompassing a growing pain or two.

The Wild Woods/1

The news came out on Sunday. The Arkansas Gazette, then in its 89th year, reviewed the current trivia and trauma in its skinny news columns.

Advertisements on the lower half of the front page offered banking reports and sundry goods, including, for men only, fine negligee shirts with detachable cuffs, white or colored. Sale price, one dollar. Inside the newspaper, the Gus Blass Dry Goods Company announced the arrival of "new flashy Red Knickerbocker" coats for girls eight to sixteen years of age. A nine-room house was available on easy terms for \$6,250, including barn, fences, and servants' quarters.

Politically that Sunday, John H. Hinemon had just been endorsed as the prohibition candidate for governor, while the Anti-Saloon League of Arkansas had not come out with a candidate. The United States stood ready to mediate the Sino-Japanese crisis as Japan prepared for war. Theodore Roosevelt sat in the Oval Office of the White House.

It is he who is important to this story and to the Arkansans reading their newspapers on that mild Sunday, March 8, 1908.

Under a Washington dateline came the announcement of a new National Forest in the state of Arkansas.¹ Roosevelt, a president committed to conservation and to protecting the resources of America's timberlands, had on March 6, 1908 set aside by proclamation 917,944 acres of land that had been a part of the public domain lands in

A second proclamation was made on February 25, 1909, adding another 608,537 acres to this original proclamation.³

NOTE Small superior numbers throughout the text refer to the section titled "Notes" starting on page 167

Arkansas. This forest, the Ozark National Forest, covered the rugged, mountainous lands north of the Arkansas River, and was made up of hardwood timber estimated to have a standing value of \$1.5 million at the time of proclamation. This forest was the first protected stand of hardwoods in the country. With proper management the value of this timber might increase to \$5 million.² It would take some of the citizens who read the announcement on March 8, 1908, many years to realize the ultimate value this National Forest would come to have—this forest which then spread over five counties in the Arkansas Ozarks.

The Ozarks.

Hand tools and other artifacts provide evidence that bluff dwellers once made their home in the Ozarks. No written accounts describe these people, but museum displays at the University of Arkansas in Fayetteville tell a history of sorts.

Later tribes inhabiting Arkansas were the Caddo people in the south and in parts of the Ouachita Mountains, the Osage in the Ozarks and also in the Ouachitas, the Quapaws along the eastern plains, and the Cherokee who received reservation land between the Arkansas and White Rivers in exchange for land given up in Tennessee.

The first white explorers came to the region in 1541 when Hernando DeSoto and his force of 400 men arrived near Helena, establishing Spanish influence in this part of the New World.⁴ More than 100 years later, in May 1682, René Robert Cavelier Sieur de la Salle claimed all lands west of the Mississippi River for France. La Salle granted to one of his lieutenants, Henri de Tonti, land near the mouth of the Arkansas River, and here de Tonti established the settlement of Arkansas Post in 1686. During the next 75 years, further exploration of the Arkansas River continued, but there was not much in the way of land development or settlement. One French explorer of this period was



Old Indian hieroglyphics, supposedly near a Spanish gold deposit. According to legend, Indians are supposed to have ambushed a group of Spaniards and hid the gold in the side of the mountain near this spot. Photo No. 371130, by Bluford Muir, 1938.

Bernard de la Harpe, who is often credited for naming the site of the future state capital—Little Rock, la petite roche, referring to a small outcropping of green schist and sandstone.⁵

Until 1803, France and Spain alternately advanced claims on the lands of the Mississippi River Valley. In that year, however, the United States acquired all this land through the Louisiana Purchase at a cost of \$15 million, or slightly over two and one-half cents an acre.⁶

Arkansas was first a part of the Louisiana Territory and after Louisiana achieved statehood in 1812, Arkansas became part of the Missouri Territory. By 1819, Arkansas itself achieved territorial status.

The state's population prior to territorial days had remained small. One reason the Ozark's population remained so small was the danger presented by the Osage Indians, in spite of various treaties. Following the New Madrid earthquakes in 1811 and 1812, however, people began moving into the northern portion of Arkansas. In addition, population figures rose when the soldiers who had received grants of land following the War of 1812 moved into the state. By 1819 land speculators were busy buying rights for \$3 to \$10 per acre and the population had reached 14,000.⁷

Early Settlement.

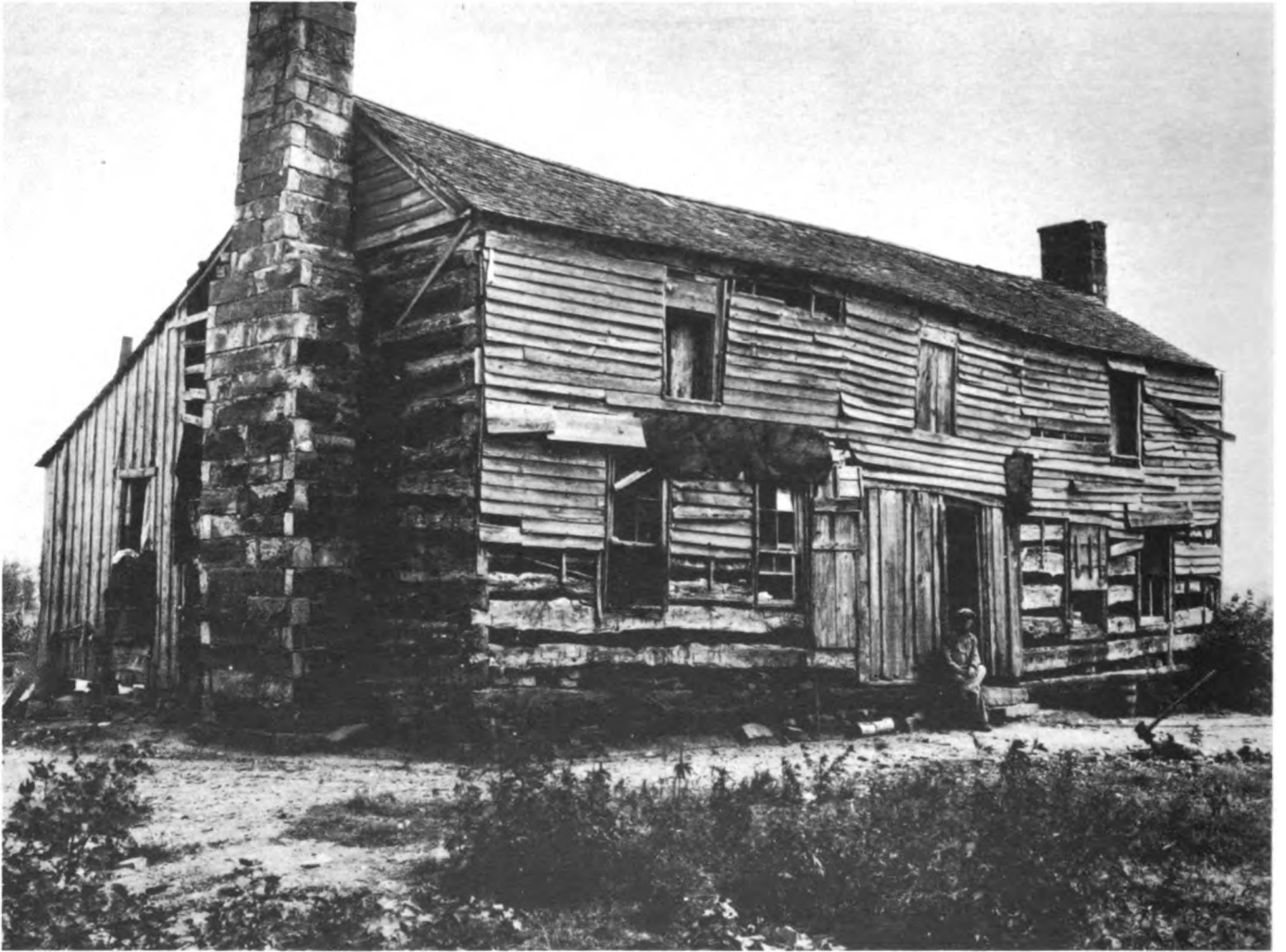
Jacob Wolf, the appointed Indian Agent, moved inside Indian Territory in 1810. He built a log house near Norfolk, Arkansas, and established what is considered the first white settlement in Indian Territory. The White River at that time served as the dividing line: The Territory of Missouri lay east of the river, and Indian lands to the west.

In July 1820, a group of missionaries under the leadership of the Reverend Cephas Washburn, reached the Illinois Bayou, two miles west of the city of Russellville. Washburn and his group built their mission in a wilderness, naming it "Dwight Mission" to honor Timothy Dwight, then president of Yale College. The first tree was felled August 25, 1820, and a mission report to the Secretary of War described the first clearings and structures. A schoolhouse, planned to accommodate up to 100 children, began its first term January 1, 1822.⁸



The Wolf Museum and memorial at Norfolk, Arkansas. Photo No. 371081, by Bluford Muir, 1938.





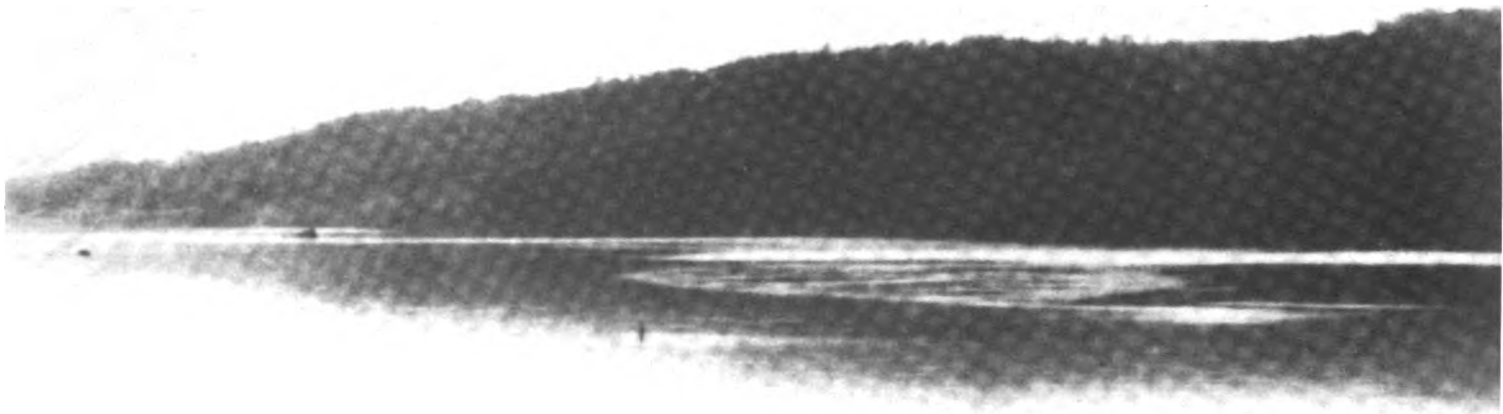
The old home of Cephas Washburn, founder of Dwight Mission and the state's first school. Photo No. 250506, by J.M. Wait, 1930.



*Placing a marker on site of Arkansas's first school, Dwight Mission.
The school opened in January, 1822. Photo No. 250506, by J.M. Wait,
1930.*



Dardanelle Rock on Arkansas river... takes its name from Dardanelle, chief of one of the tribes occupying the river banks. Photo No. 230763, by J.M. Wait, 1928.



Following the removal of the Cherokee in 1828, the country opened for white settlement.⁹ Norristown was established east of Dwight. Situated on the north bank of the Arkansas River, just opposite Dardanelle Rock, Norristown, at one time reached a population of 400. One story has it that the town just missed being named the territorial capital by two votes when the capital was moved from Arkansas Post.¹⁰ Little Rock became the capital in 1820. As for Norristown, crops now grow on what remains of the townsite, leaving few traces of the original streets or buildings.

By 1828, Arkansas essentially attained its present-day size and shape. The land along the western border became known as the Indian Territory and a land beyond order, a refuge for outlaws. By the time Arkansas became the 25th state of the Union in 1836, the population was well over 30,000, and by 1840 had more than trebled, reaching 97,574. Small isolated settlements developed first along the principal streams. In the Ozarks these were the productive lands of the Illinois Bayou, Richland Creek, Big Piney Creek, and along the Mulberry and White Rivers. By 1844, however, settlement extended to the higher plateau lands where the soil was thin and poor.

Transportation.

Except for De Soto's marches, early explorers came by waterway, using dugouts and keel boats.¹¹ Steamboats later brought immigrants. Trails connected even the earliest of settlements, and wagons and ox-carts marked the beginning of vehicular travel in the Arkansas Territory. The earlier settlers followed Indian trails and creekbeds. A journey to the nearest trading post for supplies was a task of no small proportion. Little could be grown on the remote Ozark farms that would pay the cost of hauling to market. Consequently, agricultural development was slow and industrial development was non-existent.



View of famous Council Oaks under which Acting Governor Robert Crittendon made treaty with Chief Black Fox in April 1820 deeding the Cherokee land south of the Arkansas River to the State of Arkansas. Photo No. 426774, by Clint Davis, 1943.



Public road in a creekbed on the mail road to Mt. Levi. Photo No. 18924A, by Ralph Huey, 1914.





The Forest.

Life in the Ozarks had its disadvantages, but the early settlers found the forest rich with the raw materials for living. Most of Arkansas' 34 million acres were heavily forested when the first explorers came.¹² Thomas Nuttall kept a botanical journal of his travels through Arkansas in 1819, describing "one vast trackless wilderness of trees," where "all is rude nature as it sprang into existence, still preserving its primeval type, its unreclaimed exuberance."¹³

Sylamore Road—most expensive road in County prior to 1913. Photo No. 19496A, by Ralph Huey, 1914.

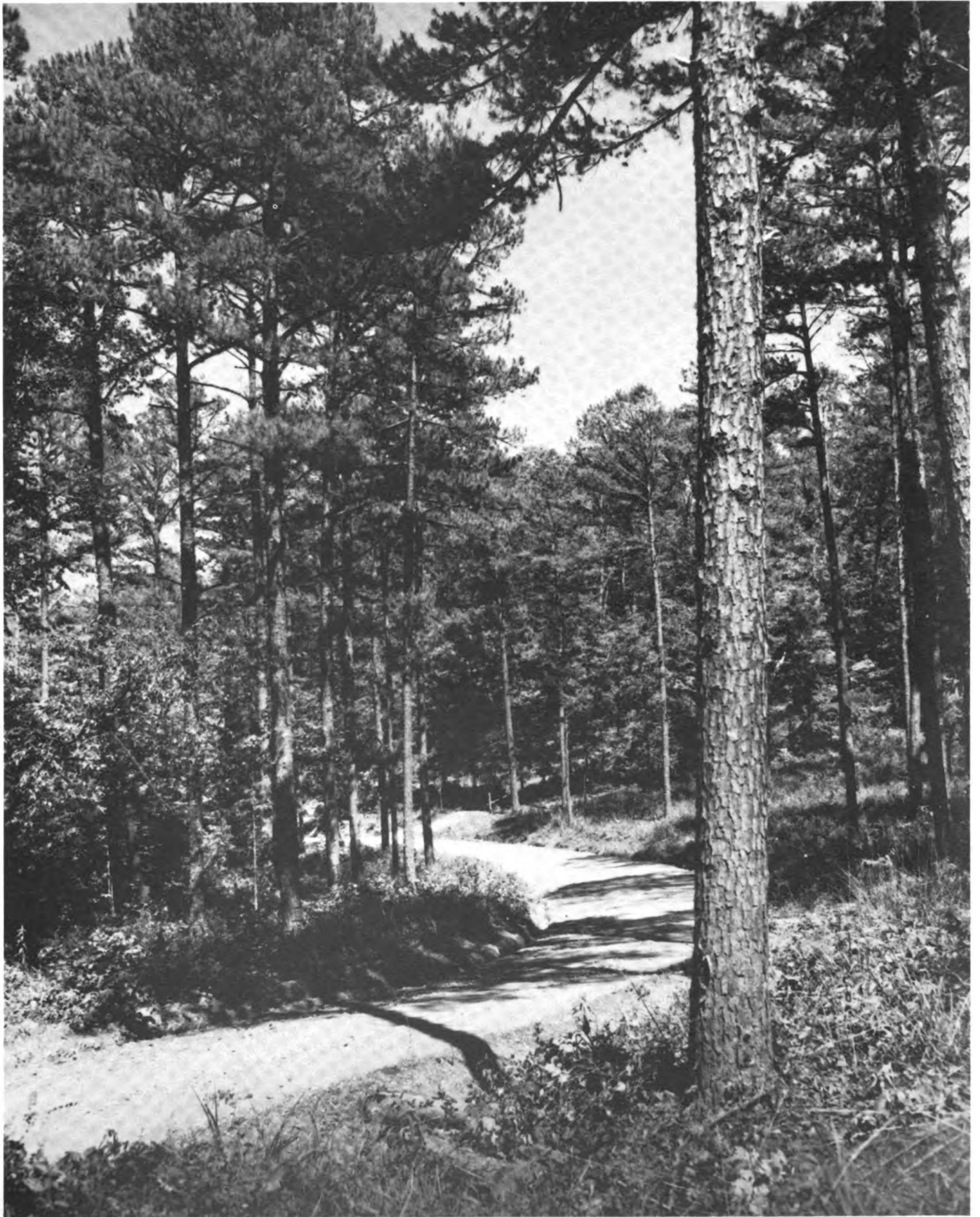
Frederick Gerstaecker, another Arkansas traveler who came to the state 20 years after Nuttall, noted jungle-like vegetation. Such travelers wrote about howling wolves and the roaring panther, about bear and the deer. Nuttall described the favorite food of the flocks of "screaming parrots" as the seed of the cocklebur, *Xanthium strumarium*. When Nuttall reached the mouth of the St. Francis River, he walked into the woods for two or three miles and listed the species found—black ash, elm, hickory, walnut, maple, hackberry, honey locust, coffeebean on the higher grounds; and in the riverlands, the platanu or buttonwood, the enormous cottonwood called yellow poplar, and holly.¹⁴

The richness of the forests provided the settler with the necessities of life. He hewed logs for his home and farm buildings. Trees furnished the material for furniture, wagons, and tools. Game provided meat for the table. Gerstaecker described one rough-cut home. It consisted of "two ordinary houses under one roof, with a passage between them open to the north and south, a nice cool place to eat or sleep in during summer. Like all block houses of this sort, it was roofed with rough four-foot planks; there were no windows, but in each house a good fireplace of clay."¹⁵

Logging in the Ozarks had begun by 1879 although fewer than ten steam sawmills then operated within the Cherokee Reservation. Following construction of the railroads this number increased, and by 1890, the lumber industry was established.

Few persons in the 19th century thought the timber wealth of the United States, or the Ozarks, could be exhausted. But by the end of that century, cutting had progressed at a rapid rate with little thought given to future supply. In Arkansas, the timberlands at first were "high-graded." High-grading is a logging practice which takes only the biggest, the best, and the most accessible hardwood timber. Later, some areas were practically stripped;

Newton County Arkansas. Koen
Experimental Forest. Photo No.
497027 by R.W. Neelands, 1960.



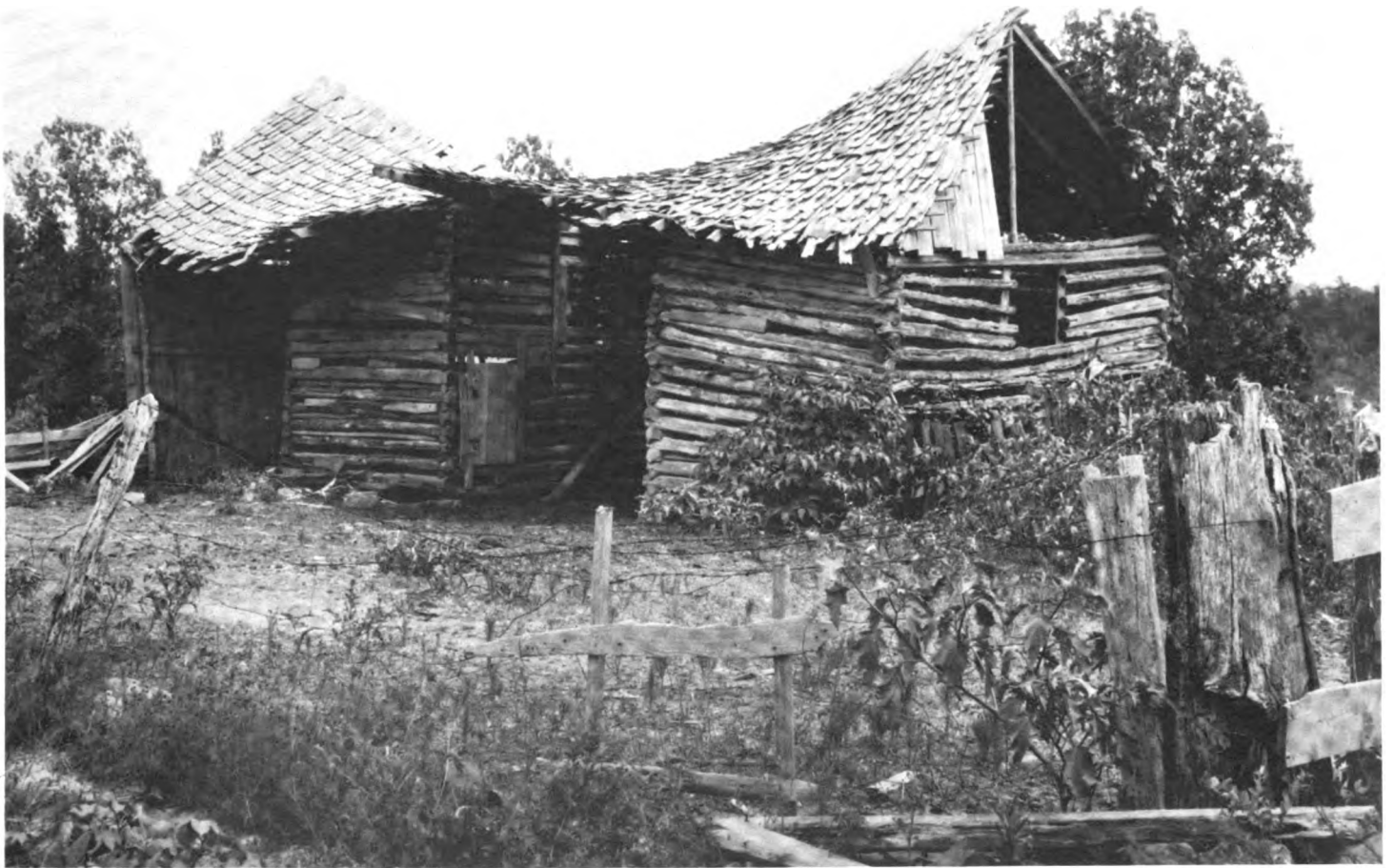
entire watersheds almost denuded. By the end of the 19th century, choice timber species, such as cherry and walnut, had become hard to find. Virgin white oak and pine were found only in the more inaccessible locations.

When fire followed logging operations, young timber was destroyed, delaying renewal of the timber resource. The settler and mountain farmer considered fire a necessary tool, a time-honored farming practice. Nuttall observed this practice in his 1819 travels. He mentioned walking into the prairie near Fort Smith, finding it as "undulating as the nearby woodlands," but Nuttall could find no reason for the absence of trees, except "the annual conflagration."¹⁶ Homesteaders used fire to clear land, to kill insects, and to open the woods for grazing and hunting. In the process, fire damaged many trees as it burned uncontrolled over large areas of timberland each year.

Rains then washed away the exposed topsoil, leaving the eroded land poorer and silting the downstream waters. Floods became more frequent. One-crop farming also contributed to the breakdown both of the land and the homesteader. When one place played out, the farmer just moved to a new one and began the same unproductive cycle. By 1930 and the Depression years, sub-marginal farms and abandoned homesteads had become the rule, not the exception. The thin mountain soils had become depleted. Game was less plentiful; life, more difficult.



No, this home was not destroyed by a tornado. It was wrecked by poverty induced by an attempt to wrest from nature lands never designed by her for agriculture. Photo No. 224573, by J.M. Wait, 1928. The photograph on page 25 shows a barn typical of many in the region. Photo No. 371075, by Bluford Muir, 1938.

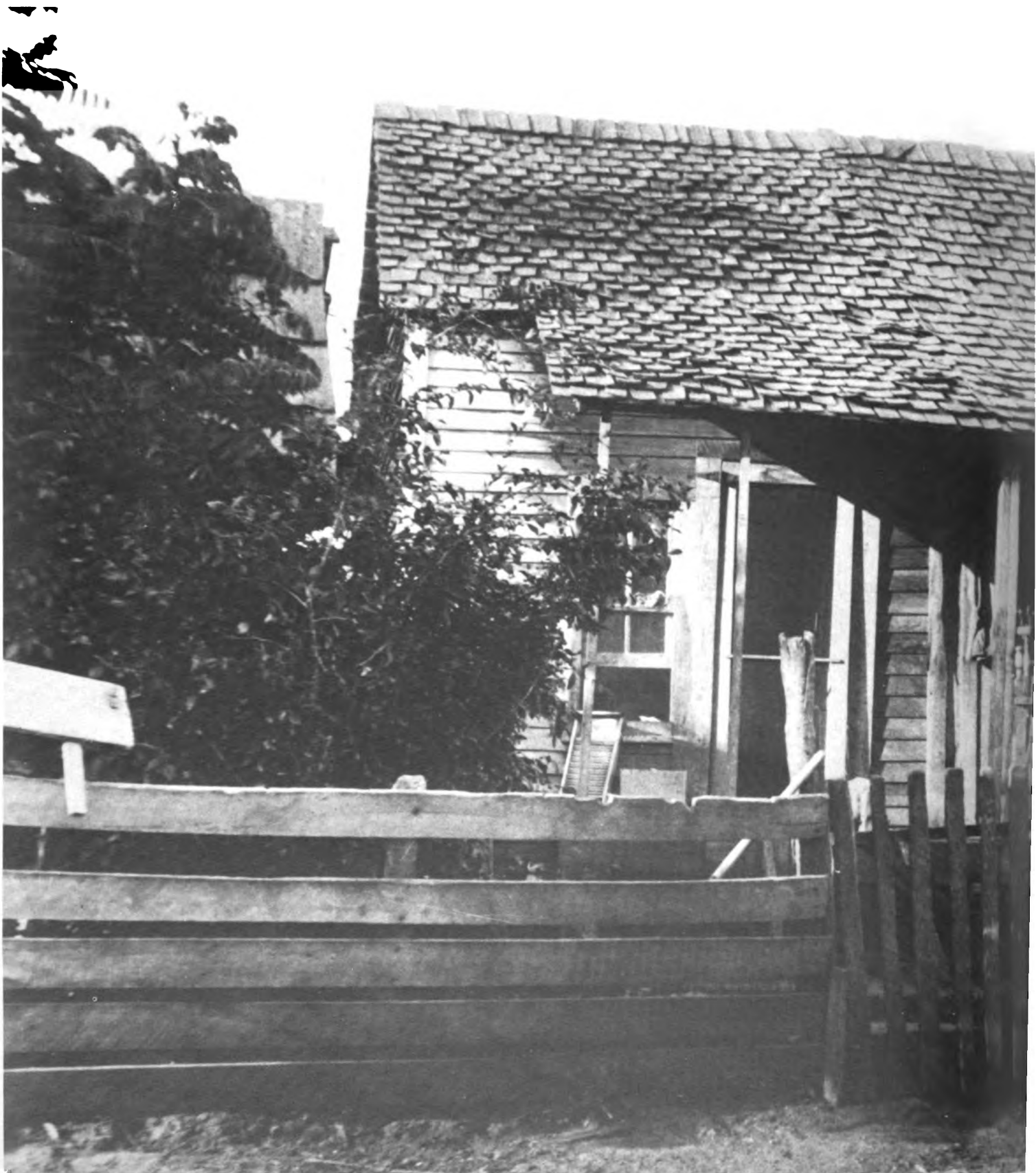


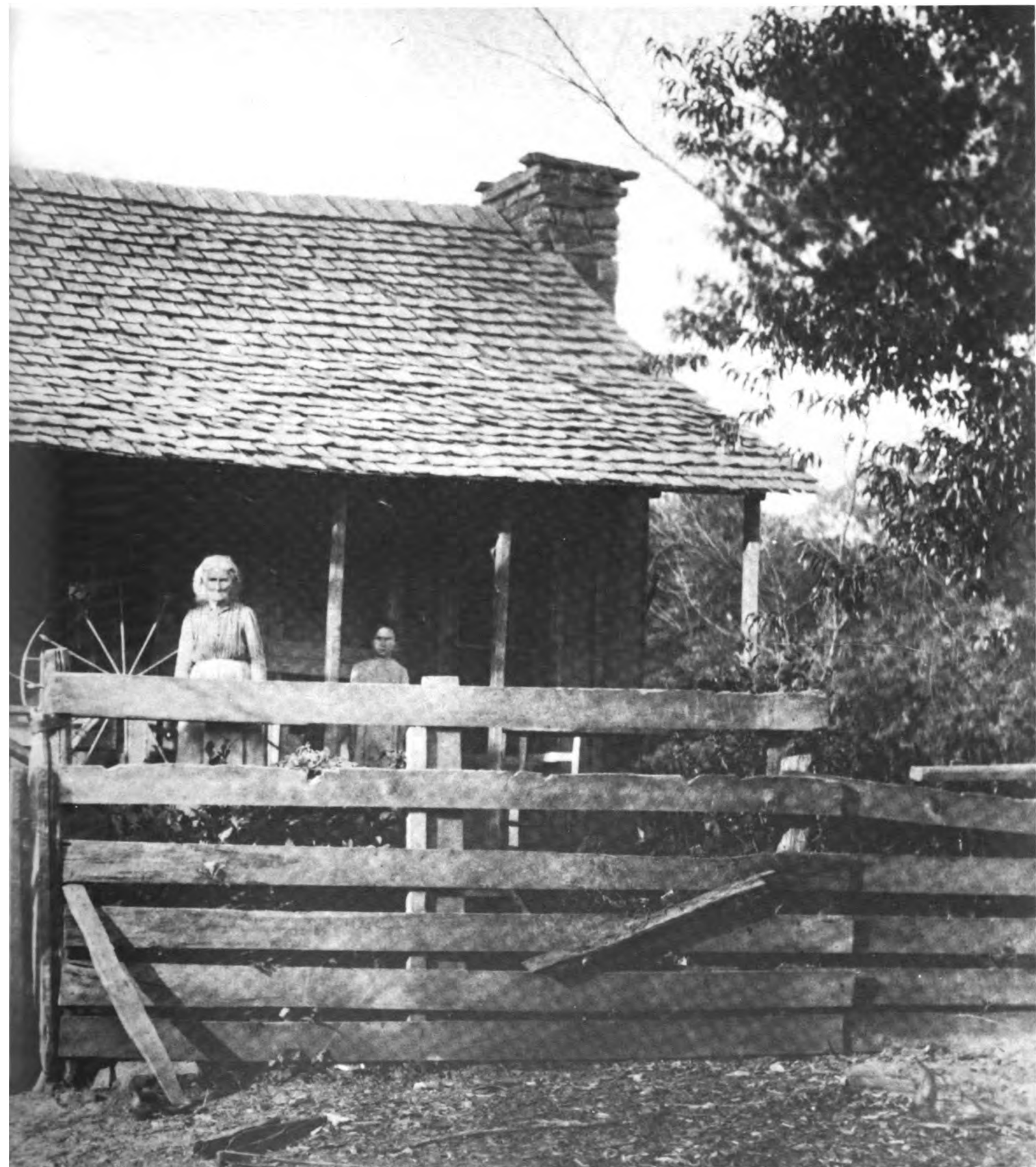
Harvesting oats with homemade cradle along Big Piney Creek. Photo No. 18903A, by Ralph Huey, 1914. Lower photo: A bona fide homestead. Photo No. 96910. Photographer unknown. Date unknown. Right: Typical scene along many streams in the narrow valleys of the Boston Mountains. Photo No. 18922A, by Ralph Huey, 1914.





Old lady and spinning wheel on porch of first class typical cabin. Both essential factors in the mountain communities. Photo No. 18910A, by Ralph Huey, 1914.





Residence of John M. Sparks, Murray, Arkansas. Photo No. 19522A, probably by Ralph Huey, 1914.





George Gillian's farm with mountain orchard in foreground. Photo No. 18930A, by Ralph Huey, 1914.







Residence of George Gillian. Photo No. 19519A, by Ralph Huey, 1914.



Typical mountaineer family. Photo No. 18909A, by Ralph Huey, 1914.

Early settlers, W.B. Malden and wife. Photo No. 195340, by J.A. Mason, 1925. Lower: Making Sorghum. Photo No. 527512. Photographer and date unknown. Right: Guard Elliot examines homestead entry of Allen Haley of Searcy County. Photo No. 57660, probably by C.L. Castle, ca 1904.





The Roots of Forest Conservation/2

By the mid-1800's a few pioneers had begun to be heard in the field of forest conservation—Franklin Hough, the first man appointed to investigate the forest situation in the United States; Bernard E. Fernow, the first chief of the Division of Forestry; John Muir, one of the early voices for wilderness and for conservation; and Gifford Pinchot, the first chief of the United States Forest Service. Pinchot was just beginning his significant career in federal forestry at that time. Such people, and others, initiated a series of actions which eventually led to the establishment of the National Forest System. In 1891, President Benjamin Harrison withdrew 13 million acres of Western land from the public domain. These areas became the first Forest Reserves, the nucleus of today's National Forests. (In 1907 the name Forest Reserves was changed to National Forests to more accurately reflect that the forests belonged to the nation and were to be managed to use the many forest resources.)¹

Following the establishment of the Forest Reserves in the West, demands for similar reserves were made for the East and South. Arkansas, at the turn of the century, was one of the few Eastern and Southern states with extensive areas of public domain. President Theodore Roosevelt withdrew large areas of the mountainous portions of the state from further homestead entry in the summer of 1907. Roosevelt, on December 8, 1907, signed a proclamation establishing the Arkansas National Forest in the mountainous lands south of the Arkansas River.

(In April 1926, this forest was renamed the Ouachita National Forest because some of the forest land extended beyond Arkansas into Oklahoma.)

The Ozark National Forest became Arkansas' second National Forest. This forest constituted the only protected body of hardwood timber in the country at that time. An early supporter of the National Forests in Arkansas was Harry E. Kelley of Fort Smith. Kelley saw the beginnings of a furniture industry in Fort Smith and knew this industry would depend on a perpetual supply of wood. The management and protection of the nation's forests was to Kelley one way to insure this supply.²

The National Forests of Arkansas

At first the two National Forests in Arkansas were administered from offices in Fort Smith. Samuel J. Record served as the first Forest Supervisor. Record went on to become a professor of forestry at Yale University. David Fitton succeeded Record and by the end of December, 1908, set up his headquarters office in Harrison, Arkansas. Fitton had just received a severe reprimand for the conduct of his personal affairs. Residents of the community in which Fitton had been living had complained and had Fitton not been posted already to Arkansas, he undoubtedly would have had to leave the Forest Service.⁸ In those years, when the public was at best skeptical about the Forest Service, and at worst openly hostile to the National Forests, the Service demanded their officers be professionally competent, physically fit, and morally above reproach.

The selection of Harrison as the new headquarters proved to have many disadvantages for the Rangers and forest users of the Ozarks. It took more than half a day ride from most sites within the forest to reach Harrison. Some locations required a day or more of travel. Even telegraphic communication to the Sylamore Ranger District, east of Harrison required routing through Kansas City, Missouri.

Samuel J. Record, Supervisor for Arkansas National Forests in his office at Mena, Arkansas, September 10, 1908. Record was also the Forest Supervisor of the Ozark National Forest (established March 6, 1908). Photo No. 76568, by D.P. Johnson.





Showing proposed Rex Ranger Station. Supervisor Fitton and Ranger Vaughan mounted. Photo No. 74509, possibly by Fitton, 1908.

The decision to move to Harrison was based most likely on the availability of space there in the General Land Office rather than on considerations of convenience. An inspection report in 1909 recommended a more central location for the headquarters, but it was 1918 before the relocation to Russellville, Arkansas occurred.⁴

When Roosevelt added 600,000 acres to the Ozark National Forest, in February 1909, his action was less popularly received than the original proclamation. Homesteaders had become aggravated by forest officers who came to check the legitimacy of claims, or by those who examined boundaries, or those who prosecuted timber trespassers, or by those who used bloodhounds to track down woodburners. A news article in the Waldron, Arkansas Advance Reporter, dated July 3, 1908, called the National Forests "a curse to the good citizens of Scott County" and expressed the hope that the forest would soon be abolished. Abolition of the forest became a part of every political candidate's platform, no matter what the public office.

A memorial resolution introduced concurrently in the Arkansas Senate and House of Representatives expressed the legislature's sentiments on abolishing the National Forests. In the Senate 16 Senators voted against the resolution, favoring instead retaining the National Forests. This vote, however, was reconsidered and the Senate voted in favor of the resolution—21 to 11— on April 15, 1909.⁵ The House vote, taken on May 6, adopted the Senate Concurrent Resolution 57 to 20.⁶ Such activity led to a series of land eliminations from the forest, beginning with a proclamation by President William Howard Taft on December 28, 1910. Taft withdrew 562,981 acres within the Ozark National Forest boundaries. Most of this land, however, was unperfected homestead claims; only ten per cent of this acreage had been vacant government land.

The basic administrative unit of the Ozark National Forest, as in all National Forests, is the ranger district.

Gifford Pinchot, from the first, envisioned the Forest Service as a decentralized federal agency with forest supervisors and their rangers having authority to plan and implement policy for a given National Forest. Each National Forest is divided into geographic districts with a district ranger responsible for all activities and conditions within his district. These rangers report to the forest supervisor, and so on up the organizational ladder. Inspections have served over the years to authenticate, test, and measure field reports.

During the Ozark National Forest's first years, the district boundaries changed frequently because of acreage fluctuations resulting from land eliminations. Maps indicate how the district organization has changed, and present the current district organization. Even today, each district reflects the idiosyncrasies of its own history. (A profile of each ranger district appears in the appendix.)

National Forest supervisors report to regional, or as they were first called, district foresters. At first, the Ozark National Forest received its administrative direction from District 3, headquartered in Albuquerque, New Mexico. In 1914, the Ozark National Forest came under the direction of District 7 in Washington, D.C. Finally, in 1934, the Ozark National Forest became part of Region 8, the Southern Region, with headquarters located in Atlanta, Georgia.⁷

The work of the Ozark forest personnel at first centered around determining boundary lines, examining homestead claims, and protecting the forest from fire. Little land in the Ozarks had been surveyed and most claims not officially described. Additionally, some timber was sold and improvements begun. Building roads, installing telephone line, and locating and establishing fire lookouts got first attention. The first road built in the new forest was the Big Flat-Sylamore Road. H.R. Koen was the district ranger and work began under "Uncle Ben" Vaughan in 1913.⁸ Ralph Huey served as superintendent on this project, photo-

Top left: Interior of sleeping and office tent. Ranger Vaughan on cot. Photo No. 19391A, by Ralph Huey, 1914. Top right: Wildcat Ranger Station cowshed constructed June 1914. Assistant Ranger Koen with his bay mare, Topsy, and Francis Kiefer's horse, Jim. No serial number. Photo by Francis Kiefer, 1914. Bottom: Finishing Big Flat-Sylamore road project at Culvert No. 1. Photo No. 19755A, by Ralph Huey, 1914.

graphing many stages of the construction. Later, land acquisition added another duty to the foresters' growing responsibilities. The first lands purchased for the Ozark National Forest were bought from the Missouri Pacific Railroad in 1919, under the authority of the Weeks Law, passed in 1911. This acquisition brought 42,198 acres into the National Forest. In all, land acquisitions amounted to 647,934 acres by 1978.⁹

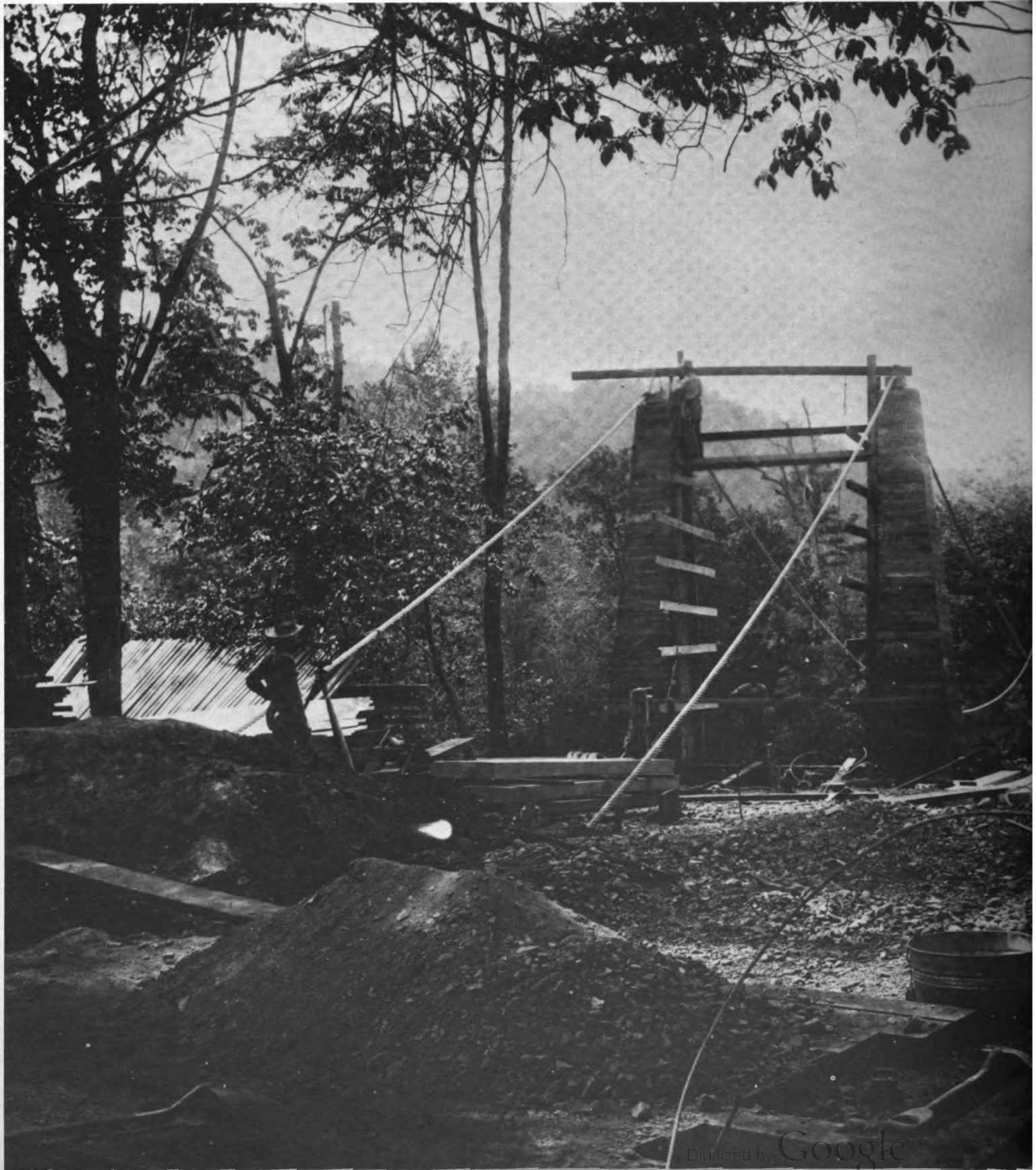


*Part of south tower of Sylamore bridge. Mechanic F.A. Huey on wall.
Photo No. 19509A, by Ralph Huey, 1914.*



Getting over sandstone ledge with bridge cable, 4100 lbs. at stake 78, Big Flat-Sylamore Road. Front bloster and reach broken letting front end (oak railroad ties) to ground. Raising with Jack screws to put wheels under again. Photo No. 19510A, by Ralph Huey, 1914.







Placing cables on Sylamore bridge-concrete materials in foreground for south anchors. Photo No. 19512A, by Ralph Huey, 1914. Below: Workman on the Sylamore bridge. From an unnumbered photograph in the history files of the Ozark National Forest. Bottom photo: Sylamore Bridge. Constructed by the Forest Service and settlers. Photo No. 19756A, by Ralph Huey, 1914.



The Annual Conflagration/3

Fire. Fire prevention and fire fighting occupied the major portion of the forest officers' time and energy. Beginning in 1910, special efforts were made to detect and suppress all fires, forest wide. Fire guards, lookout men, and supplemental firefighters were employed. Blanket protection remained in effect until 1913. Each year, however, a greater percentage of the forest burned.

The Forest Service came to the conclusion that the increase in fire stemmed from the practice of hiring local firefighters. The local people, with few sources of ready cash, turned this situation to advantage, setting "job fires"—fires deliberately started so that one might be hired to put the fire out. In addition to those people looking for a supplementary income, there were other folk who hoped the National Forests would be abolished altogether if the land could not be protected effectively from fire. This notion may have been more believable after 1910, when more than a half million acres of National Forest land were eliminated as a result of public and political pressure. Grudge fires, too, accounted for part of the growing number of fires. Grudge fires were set against neighbors, against the Forest Service, in general, or even against a particular forest officer, to retaliate for any sort of offense. In 1913, the fire condition reached its worst. In one small district more than 144 fires destroyed 50,000 acres.¹ And with the end of that fire season, the supervisor, Francis Kiefer, stopped forest-wide protection.

Francis Kiefer had replaced Fitton as forest supervisor.

Forest officer using tree as observation point. Telephone box attached to tree trunk to report if any fires are discovered. Photo No. 224561, by J.M. Wait, 1928.



Kiefer, described in the records as a brilliant young man, had studied forestry in Michigan.² He came to the Arkansas National Forest as a forest assistant in July 1908, distinguishing himself by his executive talents and his ability to get along with the local people. Soon, Kiefer was recommended for the position of forest supervisor of the Ozark National Forest. Samuel Record, however, opposed the promotion because of Kiefer's age. Kiefer was 21. In October 1909 Kiefer received his promotion to supervisor, although he received no salary increase.³

Frequent field trips kept Kiefer close to his rangers and also to the people who lived in and around the forest boundaries. On one of these trips in March, 1911, Kiefer ran into a series of fires. Frank C. W. Pooler, an assistant district forester, had accompanied Kiefer and described the fire situation, which might have been typical of that period. Their tour began the night of March 15. By Sunday, March 19, Kiefer and Pooler had reached the lookout tower at Pine Top Mountain. They saw several fires in one forest district and proceeded on horseback to the worst of the fires, located near Little Brushy Creek.

Kiefer and Pooler joined other firefighters. Together they worked through a terrain unpredictably cut by bluffs and ledges. They worked from 6 p.m. Sunday until just after one o'clock Monday morning. Pooler left the fire crew about midnight to search for water. He encountered high bluffs and returned empty-handed. When he reached the fire site, he found himself several hundred yards ahead of the fire crew. Pooler had reached a ledge, no wider than ten steps. He tried to establish a fire line at this point, beating out a fire in a long log. He walked along this burning log several times, stepping cautiously across and walking along the coals because he knew the edge of the bluff was not far from the fire, although not visible in the dark.

Shortly, Kiefer and the other crew members joined Pooler and helped him put out the fire. Kiefer and Pooler

then stood alone at one end of the log. Kiefer, unaware of danger, took a step backwards. He fell, sliding on his belly, feet down, and went over the cliff.

To reach Kiefer the fire crew had to work around the bluffs. The round-about route covered almost a quarter of a mile. They found Kiefer alive, but seriously wounded, with compound fractures of both bones of his lower leg. Ranger Ben Vaughan and Pooler stayed with Kiefer while two other men went to one of their homes for a cot and quilts. It took two hours to carry Kiefer out. By the time they reached the house, a doctor who lived eight miles away had arrived. The doctor gave Kiefer morphine and requested additional medical assistance. A second doctor arrived at 9 a.m. the next day. Kiefer's leg was then set and put in a plaster cast. The next day, one of the doctors and Pooler loaded Kiefer in his spring cot onto a wagon for the 35-mile drive to Morrilton, Arkansas, the nearest rail station. Kiefer was to go on to a hospital in Fort Smith. Seventeen hours later, the men arrived at Morrilton, only minutes before the train departed. Pooler had Kiefer and his cot placed in the baggage car for the trip. An ambulance met them in Fort Smith. The next morning, Kiefer's leg was re-set. Besides the broken bones of his compound fracture, he had badly wrenched his back, but fortunately, had sustained no internal injuries. Kiefer spent almost eight weeks in the hospital. In those days, Forest Service employees received no compensation for injuries incurred in the line of duty. Moreover, Kiefer did not even receive sick leave to cover his lengthy period of confinement.⁴

Kiefer, like many young foresters, had come to the Forest Service just after college. Such men came with idealism and dedication, and they needed it. Forest Service work was demanding, especially in the newly established forests of Arkansas. The conditions were harsh, the pay poor, and, as Kiefer learned, the fringe benefits almost non-existent.⁵ Kiefer's first appointment paid \$83 a month, and, as in most cases, the ranger had to furnish his own



Francis Kiefer, looking at Black Oak timber at Mars Ranger Station, Searcy County, Arkansas, May 1910. Photo No. 91867.

horse and saddle.⁶ Even as late as 1920, rangers received, at best, inadequate accommodations. Only 45 of 210 ranger stations in the country had running water, and just three could boast of a bathtub.⁷ To compound the difficulties, the work force in Arkansas was extremely small—a few men who faced an almost insurmountable amount of work to be accomplished on a pitifully meager budget.⁸

To compensate, there existed in those early years of federal forestry a recognizable sense of excitement, of importance in the work to be done. High standards of expectations had been established. Foresters closed ranks to prove practical forestry could and would work in this country. They worked to convert the skeptical citizen, as well as hostile vested interests. Farmers, ranchers, sheepmen, lumbermen, and politicians often saw no immediate value in long-range forest management practices. The Forest Service faced formidable opposition, nationally and locally.

In the Ozarks lived descendants of men once described by Davy Crockett as “the real half-horse, half-alligator breed such as grow nowhere else on the face of the universal earth but just around the backbone of North America.”⁹ Ozark attitudes about land use ran deep, particularly the annual practice of burning the woods. An inspection report prepared in 1909 noted that the Forest Service did have many friends in Arkansas—people who were law-abiding and who respected the rangers as men with a job to perform. These people wanted the law to be enforced equally and to see everyone treated alike. H. B. Jamison, in this report, also noted that there seemed to be many misunderstandings about Forest Service policy and practice. He recommended public circulars as one means of clearing the air; however, Jamison recommended that the circulars should not be written using long sentences and “words of whose existence the Arkansaser never dreamed.”¹⁰

The forest ranger had to work with all the mountain people, and many rangers encountered less than law-



Top photo: Showing improvements upon proposed Dennard Ranger Station near Dennard. Photo No. 74516, by D.P. Johnston, 1908. Fox Ranger Station—purchased by the Forest Service in the summer of 1909. Unnumbered photo by Francis Kiefer, 1915.

abiding folk. For years, for generations, the Ozark people had used public lands without restraint. Stock ran at large; timber was cut with no regard for ownership; the woods were burned at will and whim; timber speculators acted with little regard for legal land titles. The establishment of the National Forest had brought regulation and control: a situation that did not always agree with the mountaineer way of life.

This was the organization and field situation Francis Kiefer and the early officers of the Ozark National Forest faced. The first two years of the Forest Service administration passed relatively peacefully though, with no increase in the number of forest fires. Forest officers travelled through their districts, working to advise people of the forest regulations and working to persuade the mountain people that it would be to their advantage to protect and manage the forests. Meanwhile other interests and politicians worked to have the forest abolished. Many residents seemed unsure about how many followers the Forest Service was winning to the side of conservation, and the calm of 1908 and 1909 might have reflected a wait-and-see attitude.

Wiley Hughes of Retta, Arkansas, near the Bayou Bluff Recreation Area, was an early convert. He admitted that he had burned the woods, but in March 1908, Ben Vaughan had been working his way up the bayou to Oak Mountain. Vaughan talked to Hughes about woods burning. Hughes said he never again burned the woods or used his influence to have the woods burned. "I told the boys woods burning must stop, for Vaughan would run down the guilty parties with his dogs."¹¹ Vaughan's dogs actually had limited success in tracking down fire starters, but by using his dogs Vaughan quickly convinced the public that the Forest Service at least meant business.

After the bad year in 1913 and after Kiefer discontinued forest-wide fire protection, one fire guard was assigned to each of two towers—McGowan Tower in the Sylamore





Far left top: Using blood hounds as an aid in apprehending incendiary woodburners. Photo No. 246332, by J.M. Wait, 1930. Lower left: Just as the trail was picked up. The smoke of the fire can be seen in background. Photo No. 246334, by J.M. Wait, 1930. Middle photo: Distant view of Civilian Conservation Corps enrollees fighting fire. Photo No. 371166, by Bluford Muir, 1938. Below: Lookout at telephone at Devil's Knob Tower. Photo No. 18918A, by Ralph Huey, 1914.





*Forest officer extinguishing fires
with water bag equipment. Photo
No. 527509. Photographer un-
known. ca. 1911.*

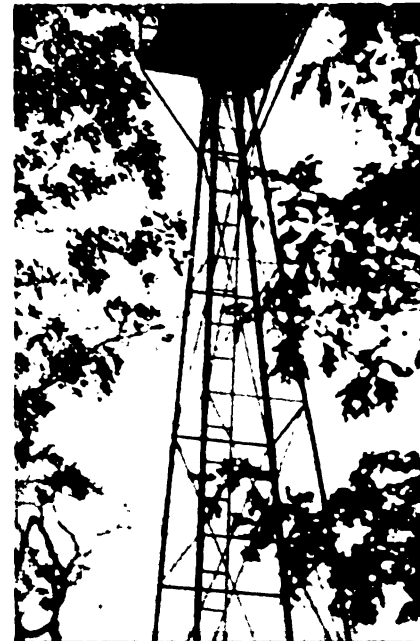


Ranger District, and Turnpike Tower in the Bayou Ranger District. The guards received instructions in 1914 to use their best efforts, singlehandedly, to protect the eight to ten thousand acres surrounding each tower. From January until March 12 not a single fire burned in the McGowan area, but on that day, winds and low moisture contributed to three fires set in that district and burned almost 90 percent of the area. After that, the fire guard was removed and no further efforts were made at protection. The Turnpike Tower area also lost heavily to fire that year, although protection in that area was continued. The rest of the forest received no protection.

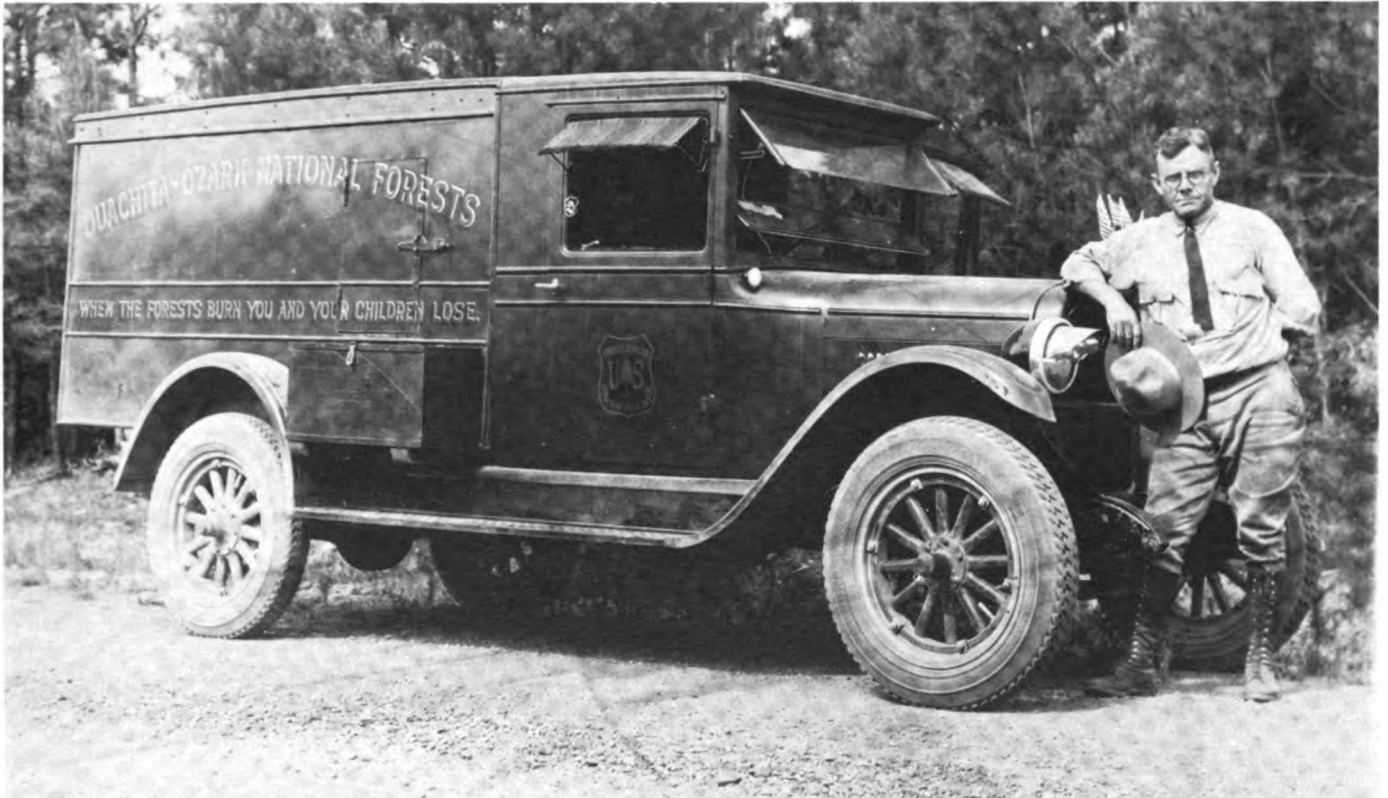
By way of comparison, in 1913, when protection forces were larger, 52,452 acres burned. In 1914, when only two areas received token protection, the total acreage burned was not proportionally greater—approximately 12,500 acres more than in 1913.¹² Such figures might support the opinion that most of the fires from 1910 to 1913 had been job fires. Such statistics, however, might also reflect improvements in record keeping rather than revealing a cause and effect relationship or indicating levels of performance.

Beginning in January 1915, fire protection efforts became concentrated on areas where satisfactory reproduction of trees had become established. Each year the amount of land in these protective areas increased. By June 1922 the Forest Service began to believe they were winning the people over, and the next year plans were made once again for forest-wide fire surveillance.

Efforts at public education began in July 1925. James Maurice Wait, a ranger, began traveling as Fire Prevention Lecturer throughout Arkansas, conducting programs about the destructiveness of fire and the benefits of the National Forests. Wait used pictures to back his arguments. At community gatherings within the Ozark and the Ouachita National Forests, he showed glass lantern slides and moving pictures. Wait's programs drew audiences of varying



*McGowan Point Lookout Tower.
No serial number. Photographer
unknown.*



sizes—sometimes a dozen, sometimes 500 persons. The movies which Wait took to the Ozarks were, in many instances, the first moving pictures seen by the mountain people. He recounted in a report an amusing incident in connection with one evening program.

I had arrived at a small school-house rather early in order to have time before my program began, to do some much needed work on my projector. I had just begun the work, about 4 o'clock in the afternoon, fully four hours before time for the program, when a lady with a large flock of young Americans 'bringing up the rear,' made her appearance and selected a position on a seat just in front of the projector. There they seemed to be immovably fixed. My work was

Self-portrait of J.M. Wait. Photograph through courtesy of Mrs. Lola Ross, Dover, Arkansas. Mrs. Ross is Wait's sister.

completed and along about 7:00 P.M. the audience began to arrive. The lady and her children, the latter no doubt having been previously instructed as to how to proceed on this occasion, retained their position, but evidently were, about 30 minutes before the time for starting and as the house was by this time filling rapidly, ill at ease. Seemingly they experienced some anxiety about something. About this time Mrs. Hartman sat down in a seat just behind the lady and then the cause of her anxiety was learned. She wanted to know if it was not about time to turn the seats around. The lady was of the opinion that everyone in the audience would have to look through the small opening in the front of the projector, and for that reason that it would be necessary to turn the seats around. When Mrs. Hartman pointed to the screen on the wall and explained that the pictures would be seen there she exclaimed, 'Well, well. I've got a back seat ain't I.'¹³

Wait photographed the forests, the communities, and the activities within them as he travelled. Many of his slides were made from these photographs. Wait's photographs form a large part of the documentary collection of the Ozark-St. Francis National Forests, one of the few such collections still in existence today.

Wait travelled in a specially rigged van. In the first year on the road, the rig proved too heavy for the truck frame. Maximum speed on a good road—and in Arkansas there were not many—was 15 miles an hour. He camped along the way, sometimes taking his wife Mollie and foster child with him. On some days in the field Wait spent many hours slogging through mud and trying to get the van loose from the mire. He crossed creeks even though the water was high enough to run through the cab. Occasionally he had to find mules to tow him across streams. Once, at Gravelly, Arkansas, an electrical storm frightened half of the audience away, yet more than 200 remained for the end of the program. And in 1928, an epidemic of mumps, measles, and



An open air forests fire prevention program. Photo No. 211778, by J.M. Wait, 1926. The bottom photograph might possibly be one of Wait, as he worked in the Ozarks.

influenza reached such proportions in the Ouachita National Forest districts that public meetings had to be cancelled. During his first full year on the road, Wait spent 288 days in the field. He travelled more than 5,000 miles, spoke at 216 engagements, and talked to more than 42,000 persons.¹⁴

Wait spoke eloquently for the trees and earned the respect of the mountaineer especially. Over the years these lectures brought about new attitudes, and today, few people would deliberately set fire to the National Forests.



At last! A Ford in society... at first this creature was unwelcome, but the steepness of this road required the society of this creature to get the Ford out of difficulty. On road between Mt. Judea and Bass. Photo No. 205003, by J.M. Wait, ca. 1925. Wait, in his journals, often reports difficulty on roads like the one shown in Photo No. 205006. J.M. Wait, 1926.

High bluff on Little Piney Creek near Murry's Chappell. Photo No. 205002, by J.M. Wait, ca. 1925. Bottom photo: Big Lick School, Indian Creek. The fire prevention truck arrived about 10:00 a.m. At that time there was a total attendance of two children at this school. The arrival created quite an interest which swelled the attendance to a total of six in the afternoon. Photo No. 205661 by J.M. Wait, ca. 1926. Right: In camp on Little Piney Creek at Murry's Chappell. Photo No. 205001, by J.M. Wait, 1925.





New Directions and Hard Times/4

The changing attitudes and growing acceptance of the National Forests resulted in a directional shift—efforts which had formerly been channelled into custodial duties and into the defense of the woods from fire and trespass, began to go into resource development and improvement.

The country sat back and enjoyed a period of stability following World War I, then got to its feet to experience the heady exuberance of the last days of the “roaring 20's.” It was a time for big plans and action, before the economy crashed and people became dazed by the desperation of the Depression.

In the Ozarks this period got underway with the establishment of four federal game refuges by the proclamation of President Calvin Coolidge. This action underscored the permanence of the Ozark National Forest, but this action, unlike other governmental pronouncements, had great popular appeal, especially to local hunters and sportsmen.

Hunting and fishing to the Ozark mountaineer, or would-be mountaineer, is more than sport. It is survival and it is ritual. Hunting might rate as the 11th article in an Ozark bill of rights. Hunting in Arkansas is perceived as a God-given right, a joy, a perennial call to the wild, with which neither man nor government dare interfere. Schools close—did then, and still do today. Hunting in Arkansas has drawn both the celebrated and the spectacular.

Frederick Gerstaecker, a German immigrant and one of the first men to come hunting in Arkansas, described his

adventures in his 1859 book, *Wild Sport in the Far West*. The far west at that time was Arkansas. Gerstaecker wrote about the bear, elk, deer, mountain lion, wolf, fox, turkey, and the streams of fish. And as the word went out, the people moved in. By the 1920's the woods had taken on a peculiar silence. Few deer could be seen. Wild turkey and bear had become the stuff of mountain dreams and campfire stories. Legend became the final habitat of the wolf, so thoroughly had parts of the state been hunted and trapped.

The game refuges were the first steps taken to restore the balance of the local fauna. In the late 1920's and early 1930's the sighting of a single deer was enough to generate considerable local comment. The refuges succeeded and led to the eventual establishment of state and federal wildlife management areas within the National Forest lands of Arkansas. By the fall deer season of 1940, the Sylamore Ranger District alone counted 3,600 hunters. The deer herd in Stone and Baxter Counties had increased under intensive wildlife management from 24 deer in 1924 to more than 3,000 deer in 1942.¹

During this time Henry R. Koen served as the forest supervisor. He assumed this position in 1922 and held it until 1939, the longest period of administration by a single supervisor in the forest's history. Koen had grown up in Arkansas. He received his first Forest Service appointment in July 1913 as forest ranger in the Sylamore Ranger District.² He was there when they built the first forest road. To many men who worked for the Forest Service Koen was "Uncle Henry." To others, he was an exacting taskmaster, a rigid, almost humorless man, yet one to be respected. There can be little doubt of Koen's influence on the forest administration and on the people of the area. Hundreds of newspaper articles over the years of his employment and well into his retirement detail his activities and kept his name in the news. Most of Koen's forest career was spent in Arkansas. Only briefly did he work in Virginia, North Carolina,

H.R. Koen. From the files of the Ozark-St. Francis National Forest. Photographer and date unknown.



Right: Green Motorway through game refuge. Photo No. 385889, by W.C. Hadley, 1938. Middle: First day's kill of two bucks by one hunting party. Photo No. 385890, by W.C. Hadley, 1939. Far right: Planting fingerlings in stream. Photo No. 218559, by J.M. Wait, 1927. Bottom Right: The start to the Moccasin Gap Game Refuge with turkeys to be released. Photo No. 218548, J.M Wait, 1927.





and in the regional office in Atlanta, Georgia.³ He retired in 1943. Five years later an experimental forest north of Jasper was named in his honor.

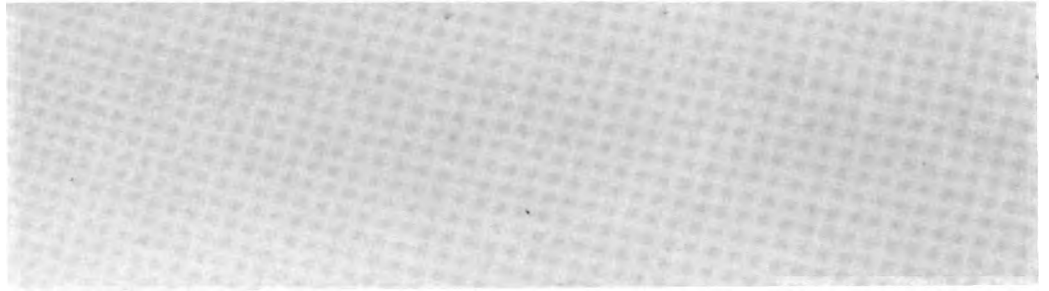
Beginning also in the 1920's, forest employment and timber operator payrolls began increasing. The next thing, petitions began circulating asking for the forest to be enlarged. In 1928, a Presidential proclamation by Coolidge added 122,489 acres to the forest.⁵ President Franklin D. Roosevelt increased the gross acreage by 389,935 acres in 1936; and, in 1940, Roosevelt transferred the Boston Mountain Land Utilization Project to the Ozark National Forest, adding another 31,681 acres.⁶ One of the final land actions of this period came in 1941 when Roosevelt by executive order transferred the Magazine Mountain District from the Ouachita National Forest to the Ozark National Forest. This order added 131,697 acres to the Ozark National Forest.⁷ Most of the land in the Magazine Mountain Ranger District had been acquired during the years of the Depression under the programs of the Rural Resettlement Administration.

The land acquisition program, which had begun as early as 1919, had brought large numbers of old fields into the forest. Most of these fields were not restocking themselves, and in the fall of 1928, plans were made to establish a small pine nursery to furnish plantings for some of these fields and marginal lands. A small nursery was started at Fairview in the Pleasant Hill Ranger District in the spring of 1929. Seed was sown for 100 million seedlings, but difficulties in securing an adequate source of water caused this site to be abandoned.

After investigating several sites within forest boundaries, the Forest Service leased land from Arkansas Polytechnic College (now Arkansas Tech University) in Russellville. An equipment building was completed and the first seed sown in March 1930. The late sowing, however, resulted in seedlings insufficiently developed for first year planting.

The nursery at Russellville. Photo No. 276762, by J.M. Wait, 1933.





first year planting.

A survey conducted in 1930 showed more than 12,000 acres in need of planting. The capacity of the nursery was increased, a new water system installed, and the nursery was sown to capacity by the spring of 1932. It remained in operation into the 1940's at which time the buildings and other improvements were turned over to the college.⁸

Photograph of nursery made from a negative found in the files of the Ozark National Forest.



Since the first settlement, the Arkansas River presented a formidable barrier to travel. Dandanelle became an important steamboat landing and crossing, but the ferry soon became inadequate. It was displaced by a pontoon bridge said to be the longest pontoon bridge in the world. This structure (shown at right) rendered a somewhat interrupted but important service for a period of 35 years. The floods of 1927 and 1928 frequently rendered the old bridge useless. *Photo No. 230786 by J.M. Wait, 1928. Left: Lake Village, Arkansas during flood of 1927. Lower left: Flood waters over west end of the Dover, Arkansas bridge. Photo No. 230754, by J.M. Wait, 1928. Lower right: Overflowing streams on the skirts of Waldron in Scott County. Photo No. 218532, by J.M. Wait, 1927.*





Dardanelle Bridge. The first span after being raised is turned in midstream. Once in place between piers, (photo page 73) the span is lowered to proper position. Both photographs by J.M. Wait, ca. 1928. Page 72: Photo No. 230799. Page 73: Photo No. 230800.



The Civilian Conservation Corps

The creation of the Civilian Conservation Corps in 1933 as an emergency relief measure was, at first, considered a temporary measure, but one which the Forest Service hoped to use to advantage. Rangers, in fact, received instructions to get as much work done in the forest as possible during the six months the program was supposed to last.⁹ The first camps were temporary affairs, but when it became apparent that the program would continue, permanent camps were constructed. In all, nine camps were located in the Ozark National Forest. The Magazine and Boston Mountain Ranger Districts had not yet come into the Ozark National Forest, but each of these units had a Civilian Conservation Corps camp. The Boston Mountain Camp was located at Devils Den State Park, and the Magazine Mountain camp was set up at Corley. At one time there were 37 camps established in Arkansas. In addition, some of the Ozark National Forest Ranger Districts had one or more Works Progress Administration projects.¹⁰

The large contributions of money and manpower provided by these programs made possible for the first time an adequate transportation and communication system for fire control and administration of the forest. These manpower programs also provided administrative improvements such as equipment depots, lookout towers, and ranger stations. Most forest recreational facilities were planned and constructed during this period.

Moreover, men, both local and from all over the country, found work to do while earning money for them-







selves and their families. More than 75,000 Arkansans enrolled in the Civilian Conservation Corps. The cost to maintain a junior enrollee for six months came to \$500. Of this amount \$90 went to the family or dependents, \$48 went into savings, and \$48 went to the enrollee in cash. The remaining \$320 went to house and feed the enrollees and to operate the camps.¹¹ An additional benefit to the Forest Service came from having enrollees living and working in



Top, opposite page: The District Ranger, if necessary to suppress the fire, calls the road crew into action. Photo No. 224566, by J.M. Wait, 1928. Bottom: Office tent at planting camp. Photo No. 266111, by J.M. Wait, 1932. This page left: Lookout tower at Fairview. Interior view of cabin showing CCC enrollee on lookout duty. Photo No. 335365, by J.M. Wait, 1936.

Below: Photo No. 371347, Sam Horne in the fire dispatch office, Ouachita National Forest, August 1938. Photo No. 371347.





Timber stand improvement took place over large areas of the National Forests, releasing commercial growing stock from the competition of cull or weed trees. Manpower and money reduced fire loss dramatically, while an expanded prevention program aided in fire reduction efforts. The photograph to the left shows trees being planted. Photo No. 266114. The Fairview planting site is shown below as seen looking north from the lookout tower cabin in 1936. In Arkansas, more than 19 million trees were planted. Both photographs by J.M. Wait.



The Civilian Conservation Corps in Arkansas built 5,177 bridges of all kinds, strung 6,270 miles of telephone lines, and built 5,356 miles of truck trails and roads. The work began in April 1933 and ended in July 1942.¹²

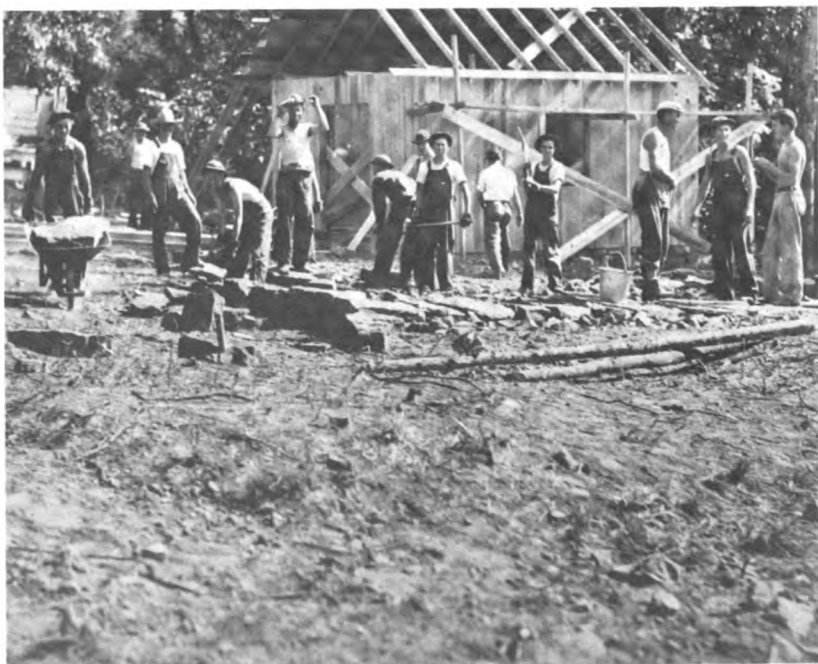
Right: Enrollees with back pumps putting out burning embers. Photo No. 371158, by Bluford Muir, 1938.

Below: Civilian Conservation Corps boys going to work. Camp Moore. Photo No. 335346, by J.M. Wait, 1936.

Middle: Foot trail, Bayou Bluff Camp. Photo No. 357004, by J.M. Wait, 1937.

Far right top: Blanchard Springs Dam under construction. Photo No. 365693, by J.M. Wait, 1938. Far right lower: Civilian Conservation Corps constructing first building at Camp Victor, a side camp for Camp Pelsor. Photo No. 335345, by J.M. Wait, 1933.







The Ozarks as seen in the 1930's. Scene along south boundary of the Ozark National Forest on Grape Vine Mountain Road. Photo No. 335367, by J.M. Wait, 1936.

Right: Sam's Throne, famous through local legend as being the spot where a vast horde of gold has been deposited. Photo No. 371060, by Bluford Muir, 1938.





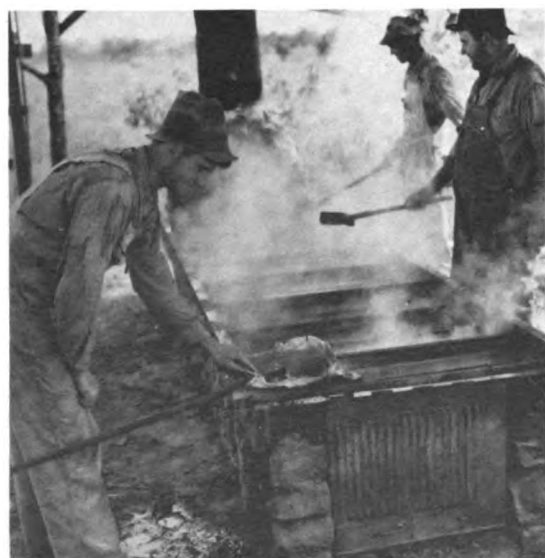


Left: Arkansas mountaineers seated on the porch of their log cabin. Sylamore District. Photo No. 371218, by Bluford Muir, 1938. This page: Old stage changing station and tavern. Old Wire Road between Fort Smith and Little Rock. Built prior to Civil War. Photo No. 371107, by Bluford Muir, 1938.





Left: The drug store in Pettigrew, Arkansas. Favorite meeting place for Saturday night politicians. Photo No. 371253, by Bluford Muir, 1938. This page: Dick Huddleston's store at Pine Ridge, Arkansas, which was made famous by the Lum and Abner radio show. Photo No. 371476, by Bluford Muir, 1938.



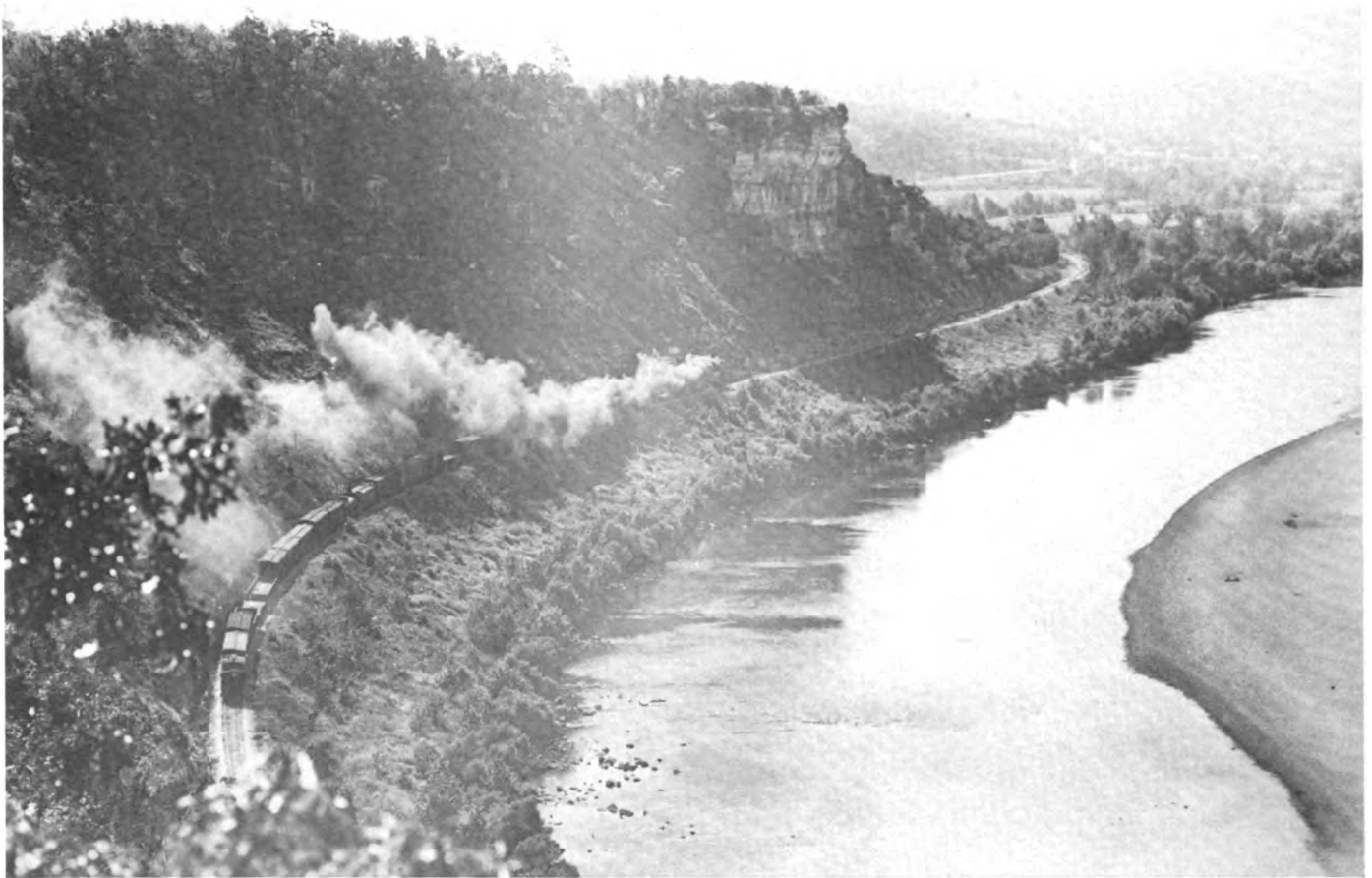
*Top: Homemade shower. Bottom:
Making sorghum. No serial num-
bers. Photographer unknown.
1938.*





Center photograph: General View of ferry on White River near Calico Rock. Photo No. 371243, by Bluford Muir, 1938. Left: School at Corley. No serial number. Photographer unknown. 1938. Below: The Cold Springs schoolhouse with the school children and teacher. Photo No. 371079, by Bluford Muir, 1938.





Scene on White River. Town of Norfolk in distance. Photo No. 356978, by J.M. Wait, 1937. Opposite: Big Springs on Livingston Creek in Sylamore District, Photo No. 371230, by Bluford Muir, 1938.



the forests, where they received, firsthand, an appreciation of the benefits of the forests and an understanding of the damage caused by uncontrolled fire.

This period came to a close with the construction of a new headquarters facility in Russellville. The building, a departure from standard federal construction, won for the architect an award. The two-story building of native stone and timber contained 23 rooms and was one of the few buildings constructed by the Treasury Department for Forest Service use primarily. The money to pay for construction came from a special Congressional act. Congressman D. D. Terry helped secure passage of this legislation and was present for the dedication ceremonies on May 2, 1939. The region took pride in this new building and recognized Henry R. Koen as the man most responsible for seeing the project through.¹³ The May issue of "The Dixie Ranger," the regional newsletter, commented:

...one couldn't see the town for the people. The whole state of Arkansas rejoiced with Mr. Koen and considered the new building a symbol of the dedication of Mr. Koen's services to a program to rebuild and promote the . . . resources of his native State.

This building housed the administrative staff of the Ozark National Forest, with the forest supervisor having charge of the building as well as the forest. During the remainder of the Civilian Conservation Corps program, the supervisor's staff filled the entire building. Later, when this program ended and the staff reduced considerably, the Forest Service shared the building with several other government agencies. In 1942, the custodial responsibility for the building was turned over to the Public Buildings Administration, which in 1948 became the General Services Administration.

This new headquarters building was the fourth home of the Russellville headquarters. Following the move from Harrison in 1918, the Forest Service opened offices in the Harkey Building on West Main Street. The headquarters



The dedication of the new federal building in Russellville, May 2, 1939. (L to R) Ferdinand A. Silcox, chief, U.S. Forest Service; Henry R. Koen, supervisor, Ozark National Forest; J.W. Hull, president, Arkansas Technological College; Congressman D.D. Terry. No. photo number. By J.M. Wait, 1939.

then moved to the second floor of the Courier-Democrat Building on South Boulder, and later, moved to the second floor of the Elko Building on South Commerce. The Elko Building has been demolished to make way for a new bank.

In 1939, the construction plans did not include air conditioning, although the architect thought it wise to at least install the ducts so that future air conditioning could be added at considerable savings. Koen, reportedly, ruled against any possible air conditioning, ducts or whatever, fearing this might make the staff less inclined to get out in the field. The cost to install air conditioning in 1960 came to almost \$150,000, just about the cost of the original construction.

The headquarters became known as the Henry R. Koen Building in April 1979, officially honoring the former forest supervisor. Koen family members and citizens of Russellville had petitioned the Forest Service to rededicate the building. Senator Dale Bumpers helped secure the legislation necessary to name a government building in honor of an individual, and 40 years after construction, the crowd gathered once more to pay tribute to Henry Koen.



The Ozark National Forest's new headquarters. Construction completed in 1939. A departure from standard federal construction. No serial number. Photograph by J.M. Wait, 1939.

World War II and Recovery/5

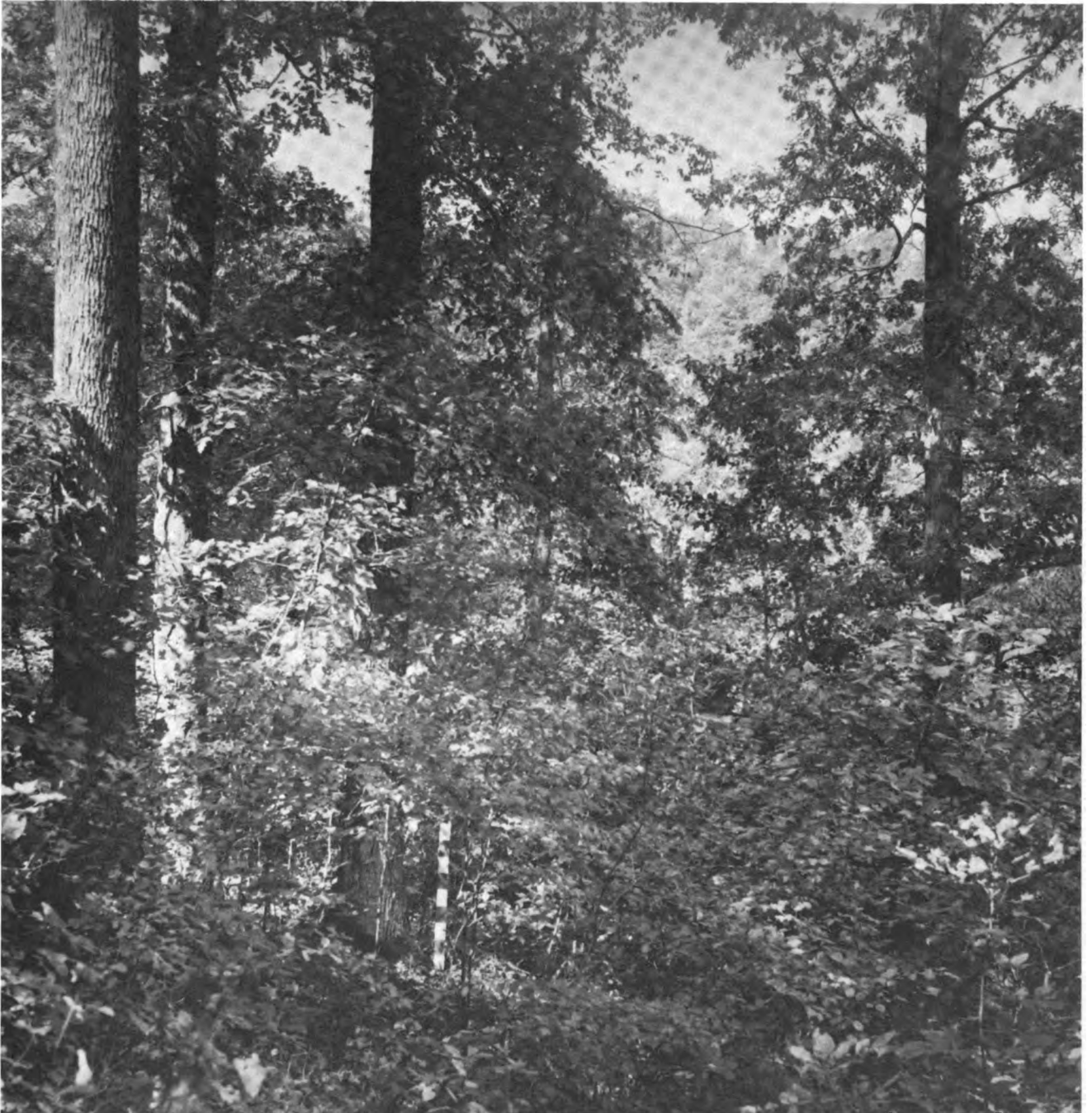
During the autumn of 1941 locations had been mapped and camera points established in the Ozark National Forest. These points would be used to compile a photographic record for scientific studies. Photographers—local and those assigned from the regional office—would make pictures from these stations on schedule each two years.¹ The comparative record of growth and land changes would be available to the public and would provide documentary evidence for forest planning and forest management, still a young science in this country.

Deer season had been looked forward to all that fall. It was to open the next day. Already more than 2,000 hunters had been out in the woods in the Sylamore Ranger District, and hundreds more throughout the rest of the National Forest.² The season, the last one of the year, promised to be a good one.

The next day Japan attacked Pearl Harbor, and deer season became lost in the shock and immediacy of a national call to arms.

During the war only food was in greater demand than wood.³ The United States Army used more than two billion board feet of timber in 1941 to build new camps. This amount of timber would have filled a 500-mile freight train, according to the Arkansas Gazette.⁴ By 1943 when the war effort required 100 million tons of steel, the country needed 120 million tons of wood.⁵ The Army and Navy used lumber, plywood, and wood pulp products to construct patrol boats, decks for battleships, shipyards,

Stand of white oak photographed at Camera Station #3, one of the established camera points to regularly document forest conditions. Photo No. 426418, by Clint Davis, 1941.



laundries, recreation centers, hospitals, shipping crates, rifle stocks, and portable bridges.⁶ It took wood to make the bobbins and shuttles in the textile mills to make clothing and parachutes. It took wood to make farm implements and machinery to feed the military forces. It took railway ties and timber for rolling stock to transport men and supplies.⁷ And, to conserve aluminum and steel, war products that were once shipped in metal containers were shipped in wooden barrels. Oil, meat, beer, and chemicals were stored and shipped in white oak barrels.⁸

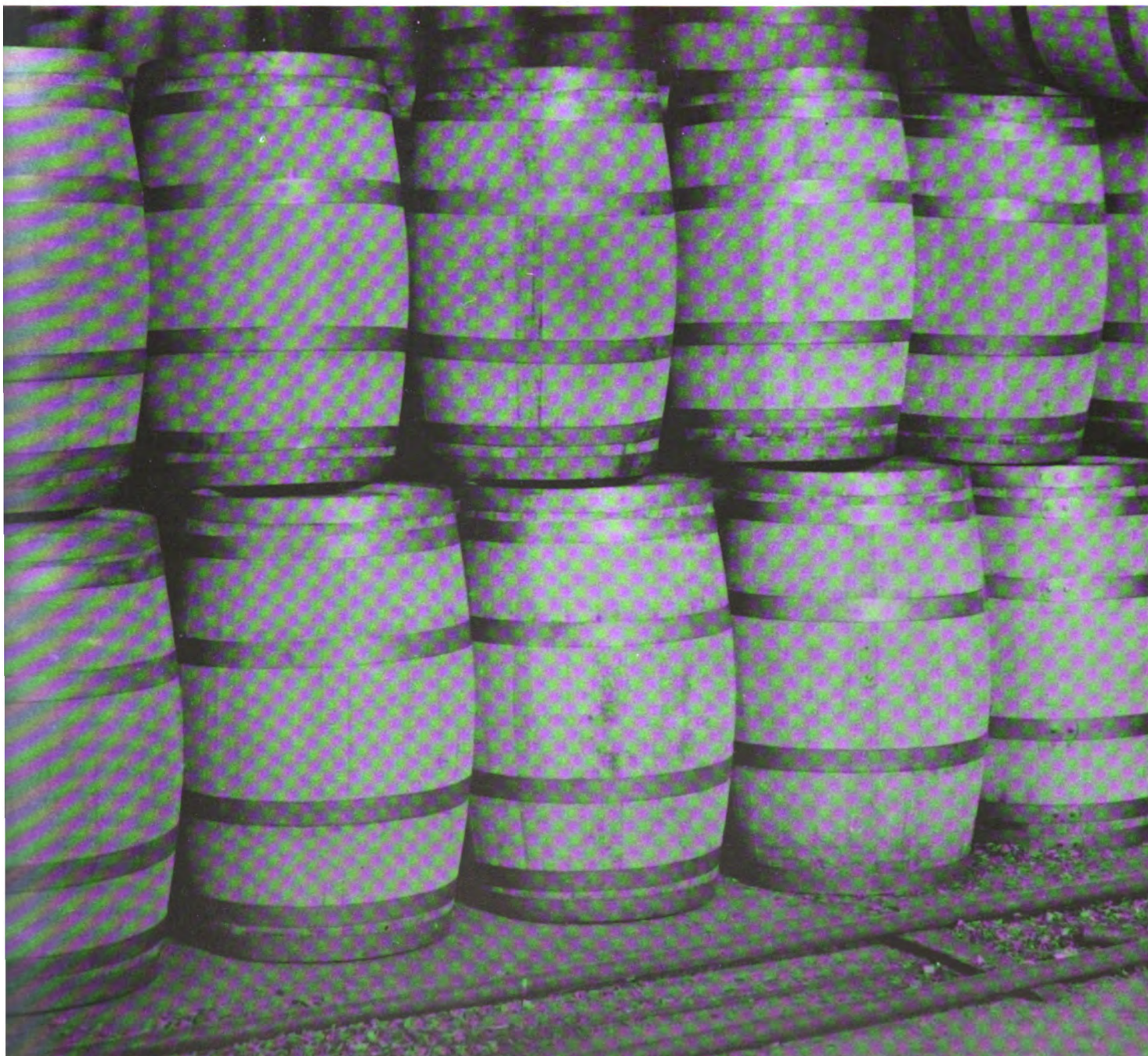
Hickory sales in the Ozark National Forest in 1943 provided the skis for American and Allied alpine troops.⁹ Oaks for great ship beams came from the Arkansas white oak. White oak became an important war resource because salt water would not penetrate white oak as much as other wood species. To provide the needs for each soldier took an average of five trees each year. It also took labor, and labor became a problem in Arkansas where there was plenty of the raw material, but few people. To meet the timber demands, the War Manpower Commission ordered the lumber industry to a 48-hour week.¹⁰

The Ozark National Forest was one of 12 National Forests in the Southern Region. The forests of the south had produced 40 per cent of the nation's timber between 1910 and 1942.¹¹ In that year the total stand of marketable timber in Arkansas was estimated to be 40 billion board feet, plus more than 150 million cords of younger growth with commercial value.¹² The war effort relied heavily on the nation's timber resource and on the National Forests.

Some of the needed manpower to get the timber from the forests came from German prisoners of war. Prisoners of war went to Fort Chaffee, just east of Fort Smith, Arkansas. Side camps, established in other locations, put the POW's to work. The Chickasaw Wood Products Company was one lumber outfit who used German prisoners at a camp set up in the Ozark National Forest. The camp



Barrels constructed from white oak cooperage stock. Shipping in wooden barrels helped conserve aluminum and steel for the war effort. Photo No. 426743, by Clint Davis, 1941.





The photographs in this series depicting the cooperage industry were made by Clint Davis in 1941. 1. Crew cutting a mature white oak. Photo No. 426716. 2. Logging crew sawing 38" bolts from white oak tree. Photo No. 426746. 3. Splitting timber into stave bolts. Photo No. 426747. 4. White oak bolts ready for sawing into rough bourbon staves at a small portable mill, called peckerwood mills. Photo No. 426719.



5. Edging cooperage staves from white oak bolts. Photo No. 426721. 6. Stacking the edged oak staves at a portable mill. Photo No. 426722. 7. Unloading white oak staves at the Chickasaw Wood Products Company in Memphis, Tennessee. Photo No. 426724, 8. Heading stock, stacked for air seasoning. Photo No. 426726.



9. Hauling heading stock to the barrel plant. Photo No. 426728. 10. Heading blanks from the Ozark National Forest. Photo No. 426728. 11. Barrel construction. Photo No. 426732. 12. First finishing operation for barrels at the Chickasaw plant. Photo No. 426733.

was located on the West Fork of the Illinois Bayou, 38 miles north of Russellville. Chickasaw Wood Products Company paid for the prisoner labor, but the money went into the United States Treasury.

The camps allowed no visitors and all POW's wore the initials "PW" on all outer clothing. Area residents were notified when the Pelsor camp opened.¹³ For the most part, the German POW's had been small shop or store-keepers, not at all familiar with or trained for woods work. Few attempts at escape were reported at Fort Chaffee, but one Friday night, just after the camp had been established Erich Weimamnn disappeared. The Russellville Courier-Democrat reported on March 3, 1945, that the missing POW was a 30 year old blond, weighing 174 pounds and was 5 feet 8½ inches tall. The prisoner was wearing the khaki uniform that had been issued. A uniform having no buttons or insignia, only "PW" stamped on the cloth.¹⁴ The Army designated Wiemamnn as an escapee. The forest officers, however, believed he wandered off and simply lost his way back.

War priorities placed an intense demand on the Ozark National Forest for the timber resource. At the same time, the war had taken many of the men needed to manage the resource. As a result, everything took a back seat to logging activities. After the war, the men returning to work in the National Forest faced a backlog of work that had had to wait. Housing demands and the needs of the country as it recovered from war placed new pressures on the forest.

Three years after the war the Forest Service established an experimental forest for research purposes just north of Jasper, Arkansas on Highway 7. The Forest Service acquired 747 acres for the Koen Experimental Forest. In July 1950, the experimental forest was added to the Ozark National Forest.¹⁵

Other lands were transferred to the forest during this period. In 1954, five land utilization projects were transferred from the Soil Conservation Service. These projects had been Resettlement Administration projects under the New Deal originally. The land had been purchased under the authority granted by Title III of the Bankhead-Jones Farm Tenant Act, legislation intended to correct "maladjustments in land use." The five projects transferred were the Lake Wedington and Lake Leatherwood projects in northwest Arkansas, the Marianna-Helena project, the Pine Tree project, and the Wattensaw project, all in east Arkansas.

The Bankhead-Jones Farm Tenant act, authorized the Secretary of Agriculture to dispose of such lands, and the Forest Service adopted this same practice. Accordingly, all federal agencies were notified to determine if any of these lands could be used by any government agency. No federal agency made a request. Then the state of Arkansas was advised these lands were available for purchase by state agencies. One of the conditions of sale, however, was that these lands had to remain open for public use. Another condition was that the federal government retained mineral rights. Because of these restrictions, the price of the land was reduced by 30 percent of appraised value. State agencies were to be allowed to spread payment over 25 years. All five projects were applied for. The University of Arkansas applied for the Pine Tree and the Lake Wedington projects. The University eventually bought the Pine Tree project but failed to carry through on the purchase of the Lake Wedington project. The Arkansas Game and Fish Commission applied for both the Marianna-Helena and the Wattensaw projects. The Commission bought the Wattensaw project, and dropped negotiations on the Marianna-Helena project when local opposition developed. The city of Eureka Springs was granted the Lake Leatherwood project.

During the time of appraisal and negotiation, these projects were administered on a custodial basis by the Ozark National Forest. Special uses, such as grazing, recreation and the gravel operation, continued. After appraisal began, timber was not cut, except possibly in the Marianna-Helena project. The three units in east Arkansas were too far removed from the main part of the National Forest to be managed by regular forest personnel. Instead, Soil Conservation Service managers administered these lands.

In November 1960, President Dwight Eisenhower added the Lake Wedington Land Utilization Project, covering 14,395 acres, to the Ozark National Forest. At the same time, the Marianna-Helena project, covering 20,611 acres, received National Forest status and was designated the St. Francis National Forest.¹⁶

The St. Francis National Forest/6

This National Forest takes its name from the St. Francis River, one of the rivers forming its eastern boundary. Back in 1819, when Thomas Nuttall reached the mouth of this river he walked several miles into the woods. He found there a deserted settlement and came away disappointed that the vegetation had been so similar to that of the middle and northern states. Nuttall noted with eerie drama that the lack of habitation surrounded the place with “irksome silence and gloomy solitude, such as to inspire the mind with horror.”¹

Toward the end of the 19th century Gifford Pinchot himself came to this part of Arkansas. He accompanied Dr. Bernard Fernow who was then head of the Forestry Division of the Department of Agriculture. Pinchot wrote about this trip.

At Memphis I had my first glimpse of the Father of Waters, and in the Arkansas bottoms, which were then a refuge for criminals, my first contact with an outlaw community, my first look at the hardwoods of the Mississippi Valley, and my first taste of sowbelly and saleratus biscuit. The emblem of this civilization was the frying pan.

For miles on end Fernow and I rode our horses through the great flatwoods of superb Oak timber—miles of the richest alluvial soil, where there wasn't a stone to throw at a dog, and the cotton in the little clearings grew higher than I could reach from the saddle. Everything was new and strange. Every fence in the scanty

District Ranger Bill Jackson checks tree diameter in a fine young stand of hardwood saw-timber in the new St. Francis National Forest in eastern Arkansas. Photo No. 498335, by Daniel O. Todd, 1960.



settlements was plastered with signs of Ague Buster, and the people looked as if they needed it.

The Arkansas lumberjacks were tough, but very willing to talk. I got a new light on logging and sawing, learned some of the mysteries of whiskey staves and quartered Oak, collected a fine specimen of Hackberry (I have it yet), ate my first possum and found it good . . . ²

And when this land became a National Forest on November 8, 1960, there still was not a stone for miles to throw at a dog.

The St. Francis National Forest is located in Lee and Phillips Counties, between the towns of Marianna to the north and Helena-West Helena on the Mississippi River to the south. Three rivers—the L'Anguille, the St. Francis, and the Mississippi—form the eastern boundary of the forest.

Most of the forest is situated in the hilly Crowley's Ridge section of Arkansas, with some low and flat lands occurring along the rivers. Crowley's Ridge begins near Thebes, Illinois. At that point, the ridge section rises steeply 250 feet above the alluvial plain and is almost 12 miles wide. The ridge extends southward through Missouri and into Arkansas, a distance of almost 150 miles. Near Helena, the ridge rises approximately 100 feet above the delta lands and is only two or three miles wide. The sedimentary rock of the ridge is capped with loess, a wind-blown material.³ The forest is, as Nuttall noted, more similar to the Tulip-tree-Oak forest of the Tennessee hills than to the Oak-Hickory forest of the Ozarks.⁴

The river bottomlands owe their existence and their richness to the deposits made by the river waters over thousands of years. The depth of this alluvial cover varies, but in places reaches depths of more than 200 feet.

The early Indians who lived in this area became known primarily as Mound Builders. The first mounds were used to bury the dead. Later, as the Indians became more technologically accomplished and more highly organized, the

mounds became sites for worship.⁵

DeSoto is supposed to have crossed the Mississippi River at Sunflower Landing, near Helena, in June 1541.⁶ Father Jacques Marquette, a Jesuit priest, and Louis Jolliet, a geographer and fur trader, visited Indian tribes at this place in 1673.⁷ The first white settlement, near the mouth of the St. Francis River, was established in 1797. Sylvanus Phillips, for whom Phillips County is named, was born here, although his birthplace has since been taken by the changing route of the Mississippi River. Phillips Bayou was also named in his honor, and Helena was named for his daughter, Helen.⁸

Phillips Bayou, on the St. Francis River, was founded several years after the town of Sterling and became an important steamboat landing—even as late as the early 1900's. The town of Phillips Bayou had three large stores, three saloons, and two large sawmills. A tram road extended west into the hills for hauling logs on cars pulled by mules. Logging in the woods was done with the help of oxen. Until Helena became a river port, Phillips Bayou was the most important town and landing.

Small boats could go upriver from Phillips Bayou to other landings, but large boats could only do so if the waters were abnormally high. Today, the rivers have become silted to the degree that even small boats could not reach the town except at high water.⁹

As the hills became settled, small areas were cleared and cultivated—at least for a few years. Once the land became too gullied for use the area was abandoned. New areas were cleared for cultivation and farmed in the same manner. The hillsides that were too steep for a plow were left in timber. The merchantable trees, however, were cut and sold. The trees of small diameter, yet of desirable species, such as yellow poplar, were cut and used or sold for firewood. The cull trees were left standing. Wooded areas were used year round for grazing cattle, horses, hogs, and goats. Settlers brought their cattle to the hills for

wintering on the native switch cane. Like their counterparts in the Ozarks, these settlers burned the woods in early spring to eliminate the undergrowth, the debris and the insects. The cumulative effect of these farming practices began to show in erosion and in the sedimentation of the streams. It showed in the lack of wildlife, wildlife that had once been abundant in this area. And it showed in the settlers themselves who became poorer and poorer.

Down in the bottomlands the situation was not much better. Considerable damage had occurred from overcropping and from flooding. Before levees were built, flooding was an annual occurrence, though damage to the soil was slight. The levees reduced flood occurrence to some extent, but when an overflow did occur, the resulting damage was greater. Not only did the topsoil wash away, buildings were also lost. After the major flood of 1927 few buildings remained, and by 1929, virtually all the land had been abandoned—left to go back to trees.

In an attempt to purchase and restore sub-marginal lands, the government began purchasing some of this land in 1935. The average annual income from farming, sale of livestock and timber, outside employment and pensions for people living in the area at that time came to \$210 per family. Of the 74 families still living on the land, 30 percent owned land, 50 percent rented, and remainder were squatters. One-third of the lands were tax-delinquent and a considerable amount of land had gone back to the state for non-payment of taxes.¹⁰

In addition to purchasing and developing these lands, the Resettlement Administration had the responsibility for relocating the families affected by the land purchases. The Resettlement Administration also cooperated with other agencies to provide employment for almost 2,000 emergency relief workers in Lee and Phillips Counties.

Employment on these projects was limited to a specified number of hours in an effort to make the work go





*Forest road through the St.
Francis National Forest. Photo No.
498331, by Daniel O. Todd, 1960.*

around. This part-time restriction generally required staggering work days, and necessitated a constant training program. Some of the work accomplished under the Resettlement Administration included planning and developing Bear Creek and Storm Creek Lakes; the excavation and construction of 22 miles of gravel road, winding from the northern end to the south and including the construction of five large wooden bridges. Emergency relief workers fenced 50 miles, built two fire lookout towers, strung 23 miles of telephone line and constructed almost 20 buildings for administration and recreational purposes.

The Storm Creek Lake dam was started in late 1936 and was well under way when a flood in the early months of 1937 backed the water from the Mississippi River and forced a shutdown in construction. The equipment was moved to the Bear Creek Lake site and construction began on that dam. This work was completed in 1938 and work then resumed on the Storm Creek dam.

During this period, 1935 to 1939, four agencies administered this area: The Resettlement Administration, from 1935 to September 1937; the Farm Security Administration, from September 1937 to July 1938; the Bureau of Agricultural Economics from July to November 1938; and, finally, the Soil Conservation Service.¹¹ On January 1, 1954 the administration of the project was transferred to the United States Forest Service. Soon after the transfer, the Arkansas Game and Fish Commission applied to purchase the project. Several hundred citizens of Lee and Phillips Counties signed petitions protesting sale to the Game and Fish Commission, requesting instead that the land be given National Forest status.¹² This request was granted on November 8, 1960.

A Digression on Resources and Multiple Use/7

Back in 1876 when Dr. Franklin Hough first began gathering information about the nation's forests,¹ the interrelationship of resources—soils, water, timber, wildlife, range—had only begun to be understood. The post Civil War years had seen the sunset hours of the American frontier. A frontier possessing great wealth. The developers and speculators wasted no time taking advantage of the lucrative conditions of the late 1800's. Only a few persons in that century seemed aware or concerned that the exploitation of resources could not go on forever. What, for example, was to happen when all the western timber was gone? No one had replanted after harvesting; nor had many seed trees been left standing so that nature might recover.

It was not until 1875 that the American Forestry Association organized to build public support of forest conservation. And although there was no professional forestry as such in the United States, the forest conservation movement sounded one of the earliest calls to save some of the many resources then being gobbled up. Congress, in 1891, finally authorized setting aside certain lands from the public domain as Forest Reserves. On March 30, Congress reserved 1.2 million acres in Wyoming and it became the Yellowstone Timberland Reserve.²

Reserved areas were first set aside because of the timber holdings and because of the watershed that the timber protected. Everything related: The trees held the soil, preventing erosion and allowing the soil to build and replenish itself, recycling the nutrients broken down in the

process of decay. By holding the soil, the trees kept streams clear and free of sedimentation. Trees slowed rainwater runoff so that flooding was less severe. Watershed protection became an integral part of timber protection. Wildlife found more food and shelter in the Forest Reserves. And people—even in the last years of the 19th century when the population of the United States was less than 75 million—even then, did people seek out wild places. When the frontier reached the Pacific Ocean, this need only grew, and it continues to exert an appreciable force on land use and resource planning.

The question of resource management became more important, more compelling to those persons committed to forest conservation. In 1898 Gifford Pinchot was appointed the head of the Forestry Division of the Department of Agriculture. Pinchot believed in resource use; that the nation's forests were to be used, not just set aside. But Pinchot believed in a far-sighted and fair use, and use which would "provide the greatest good for the greatest number of people." Pinchot believed that the homesteader and the lumber giant could both benefit from the Forest Reserves.

In 1905, Pinchot succeeded in his efforts to have the Forest Reserves transferred from the Department of the Interior to the Department of Agriculture—bringing the forests and the foresters together for the first time.³ The Forestry Division was renamed the United States Forest Service, and two years later, in 1907, the Forest Reserves were renamed the National Forests, a name that Pinchot believed reflected a forest management concept of use.

Most of the first two years of the Forest Service's existence were spent in protective efforts—just as these first years were spent in Arkansas. Boundaries had to be established. Much of the National Forest land had not been surveyed or mapped. Roads and trails were needed to provide access to the forests. Fire protection occupied most of the ranger's time and attention. The trees had to be protected from fire to hold the soil, to stabilize the water-

shed, to provide wildlife habitat, and to provide a growing population a place for recreational pleasure. Householders and cattlemen depended on the rangelands for grazing. Everything related. All these multiple resources had to be protected and managed so that they could be used.

Not until June 12, 1960, however, did multiple use achieve official status and find a name for itself. The Multiple Use-Sustained Yield Act (Public Law 86-517) did not lay down new principles for forestry or for the Forest Service. It provided Congressional confirmation of an already established policy and practice. Multiple use became the management concept under which the increasingly complicated resource juggling act could operate. Furthermore, this act stipulated that all forest resources—the timber, water, range, recreation, and wildlife—would be managed equally; that no single resource was inherently more important than any other resource. Sustained yield provided the insurance policy for the future, mandating an on-going maintenance and high-level productivity without damage to the land.⁴ About this same time Arkansans began reevaluating their own state's resources.

Arkansas's population in 1960 passed the one and one-half million mark. The median family income was \$3,184 and half the adult population had less than a 9th grade education.⁵ Arkansas, in 1959, had produced 64.1 million bushels of soybeans, 1.5 million bales of cotton, and 40.8 million bushels of rice. The dollar value on these crops came to more than \$500 million.⁶ And ranking second only to agriculture in the state's economy was the timber, or wood products, industry. Still, the state continued to decline in population—another 6.5 percent decline since the 1950 census.⁷ Arkansas's most valuable export seemed to be her people, especially her young graduates.⁸

Arkansans, however, took pride in the state's vast acres of woodland and farmland. They could boast of clear, free-flowing streams and rivers. The woods and rangelands had room for wildlife—deer, turkey, bear, and quail.



"You will see to it that the water, wood, and forage of the reserves are conserved and wisely used for the benefit of the homebuilder first of all; upon whom depends the best permanent use of the lands and resources alike." James Wilson's letter to Gifford Pinchot, February 1, 1905. Photo No. 18903A, by Ralph Huey, 1914.

The air was clean. Underground, there was barite and lead and natural gas.⁹ An interstate transportation network was under construction. The Arkansas River was being made navigable from the Mississippi River to the port of Catoosa, near Tulsa. Beginning in the 1960's, people within and outside the state, looked more seriously at the many resources Arkansas possessed.

The Ozark National Forest had entered a period of more intensive resource management: The reforestation projects undertaken by the Civilian Conservation Corps in the 1930's had provided experience in replanting; timber sales during the war years and following had brought business to the forestlands; and, wildfire—the major threat to the forest for so many years—had decreased.

Moreover, the 1960's became significant years in conservation history. The 89th Congress became known as the "Conservation Congress" because of its work in this area and in environmental affairs. The Multiple Use-Sustained Yield Act was followed by the Forest Service Omnibus Act of 1962. The National Forest Roads and Trails Systems Act was passed in 1964, as well as the Wilderness Act. And there was more environmental legislation. The Land and Water Conservation Fund Act in 1964, the Wild and Scenic Rivers Act in 1968, and the culmination of the decade's work in the National Environmental Policy Act of 1969. The purposes of this act: "to declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality."⁹

Such legislation was not only significant for what it meant in terms of future Forest Service policy and planning, but also as an indication of the effectiveness of the con-

servation movement in the United States. The environmental legislation of the 1960's appears to have been a measure of the shift in attitudes which had taken place over one hundred years. From the attitudes of 19th century exploitation, through the years when rugged individualists did not regard any lands as public, nor pay more than lip service to the idea of any greater public good. There were periods, too, of apathetic indifference; but, the 1960's for all the unsettling turmoil they brought to the nation, did stir up an appreciation for the country's resources. Ecology became a best seller. The man in the street became informed about the biological systems and food chains. He read about the *Silent Spring* and *The Outermost House* and came to understand *The Quiet Crisis*.* Aldo Leopold, who wrote *A Sand County Almanac*, was a forester and ecologist. He became not only an authority to cite, but also an inspiration to what had become a cause. By the arrival of the 1970's this new awareness had become honed to a fine edge of concern—concern shaped further by recurrent energy problems and disturbing world developments. All these changes—the attitudes, the legislation, the problems of world energy and world resources—have affected the National Forests and the resources which they contain.

These changes in attitudes occurred in the Ozarks as well. The settlers in the first 20 years of the forest's history had resented public lands being set aside, protected and regulated. Today, however, people in the Ozarks, and in many parts of the nation, want to have more than glib reassurance of the permanence of their National Forests. They want a voice in determining the management policies and directions of this national resource.

**Silent Spring* was written by Rachel Carson; *The Outermost House* by Henry Beston; *The Quiet Crisis* by Stewart L. Udall.

Years of Challenge/8

Earth Day, April 22, 1970, may have served as the catalytic ingredient, providing the public a stronger voice in matters concerning ecology and world environment. This event became the occasion that brought many people to the point of demanding a wider role in resource planning. Eventually these demands trickled through the levels of governmental process and began to have an impact on many federal agencies, including the U.S. Forest Service. In fact, the workload of the forest ranger today perceptibly reflects the impact made by the concept of public involvement.

Because of the environmental legislation of the 1960's, and because of the focus brought to these concerns by Earth Day, the Forest Service found itself no longer operating unobserved in the backwoods corners of the country. Policies and practices came under scrutiny like never before. The public was different now too—better educated, more scientifically oriented, and more politically sophisticated. As the events of the 1970's unfolded in this country, the American public began to demand not only greater government responsiveness, but also more accountability. At the same time, resources and energy were no longer the unspoken causes of politics and power gambits. The unrelenting attention now focused on resource use and development placed additional pressures on the federal government and its agencies, especially an agency charged with the management of so vast and valuable a resource as the National Forests.

Resource use in White Rock Ranger District. Man peeling pine posts. Photo No. 469347, by Dan Todd, 1951.



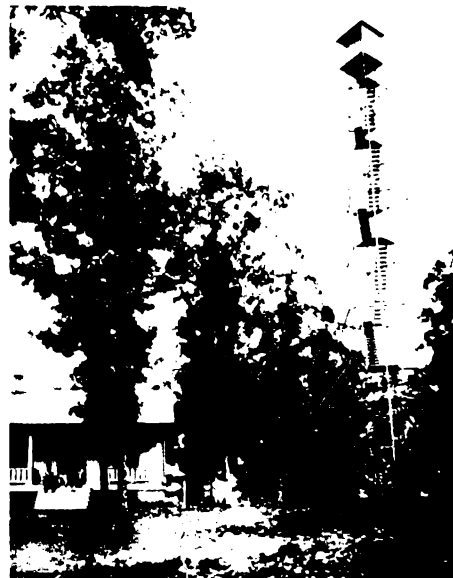
Meanwhile the Ozark hills had begun to change visibly by Earth Day. An in-migration had begun, and Arkansas with her many isolated counties became the final outpost of the American frontier. People came to the state to enjoy retirement, to move back to the land, to get away from cities and traffic and pollution. Some people moved back home or to the home of their ancestors. They came in such numbers that a conference was held in Eureka Springs in 1976 to discuss the impact population growth would have on the state and region.¹ More people, more homes, more pressure on the state's and forest's resources.

Hundreds of acres of private woodland were converted to pastureland, altering the Ozark landscape. Even the steep slopes and hollows were put to pasture. Another smaller change altered the skyline of some Ozarks knobs and hills as the fire towers disappeared.

Until 1967 these fire towers had served as the first line of defense.² Fire wardens had recruited their own fire-fighting crews, and in the early days the fight depended on these men and their hand tools. Beginning late in the 1950's, however, firefighting came to rely more on mechanized equipment. In the spring of 1964 an air tanker operation began at Fort Smith. Two aircraft—B-26's—were modified, each to carry a thousand gallons of fire retardant. These planes, and others that came later, served both National Forests in Arkansas. Aerial detection of fires in the Ozark National Forest began on December 1, 1970. Howard Graves, acting as observer and flying with a contracted pilot from Van Brooks Flying Service of Russellville, spotted the first fire from the air.

The people—newcomers and residents—had changed too. Still part isolationist and part individualist—a great part—there had been some significant first efforts at group action and organization. When the Corps of Engineers in 1964 designed a dam to go on the Buffalo River, a grass-roots opposition formed to block any such con-

Air tankers carry fire retardant to suppress forest fire. Other airplanes serve as lookouts, replacing the forest tower lookout. No serial number. Photo No. 335394, by J.M. Wait, 1936.



struction. For the most part, this group supported a proposal to establish the Buffalo as a National River. The river rises in the mountains of the Ozark National Forest near Boxley, in Newton County, and runs 124 river miles through four counties before it joins the White River.³ Some of the state's most spectacular scenery occurs along the alternating stretches of white and calm waters of the Buffalo River.

The group, the Ozark Society, organized in 1962 and pressed a six-year battle which left the river undammed. In 1968 Congress established the Buffalo National River.⁴ More significant to this history, the Ozark Society did not close shop after achieving their immediate goal. The organization grew, extending into surrounding states, and served as a model, sometimes even a support group, for other environmentally concerned Arkansans. While the fight to save the Buffalo River did not involve the Ozark National Forest, the action stirred up many people who later became involved in issues more directly relating to the National Forest.

At this same time, nationally, forest practices seemed to be under fire. While the heat did not immediately affect the Ozark National Forest, the impact did appear later, in the mid-1970's. The controversy began over the forest practice of even-aged management—a practice adopted in the early 1960's, and a plan that provided for the growing of timber in stands of similar age and of similar general characteristics. Such trees were to be grown and managed together, from the time of planting (regeneration) to the time of final harvest. Such a silvicultural practice (whether in private or federal forestry) was considered by some to be more economical and efficient than managing timber stands of mixed age classifications and mixed species. Criticisms leveled by various interests groups, primarily the Sierra Club, focused mainly on the size of these stands. The problem presented itself awesomely when large areas were harvested and prepared for regeneration. One method used



View of Buffalo River on Highway 7 near Jasper. Photo No. 394633, by J.M. Wait, 1940.

to implement even-aged management was clearcutting. While the debate and discussions occurred mostly in the far west and had less to do with the hills of Arkansas, the headlines did not go unnoticed in these parts. The size and scale of the timber stands left graphic, haunting impressions on many minds. Perhaps some of the newcomers to Arkansas brought these impressions with them.

Both these events—the organized effort to save the Buffalo River and the heat and fear stirred by the California clearcutting—had a significant impact on the degree and kind of public involvement the Forest Service began to witness in the Ozarks. Even as Earth Day was observed to a far greater degree outside the state of Arkansas, it took root and developed here as the years passed. Public involvement was becoming more than giving talks to school children. Public involvement was becoming more than an outlet for disgruntled citizens or a forum for special interest groups. Public involvement in the 1970's began to directly influence administrative planning at all levels—within the district, the forest, the region, and at national levels.

Admittedly the process has produced moments of conflict and discomfort. When the horseback riders asked one district ranger to ban motorcycles and jeeps from the forest, they created a frustrating situation. Hikers have, on their part, often complained about the horses, and have asked for their removal from forest trails and roads. To thicken the stew, the pro-wilderness contingent began pressing their case to have certain areas set aside and closed to any non-wilderness use. Meanwhile, nearby residents were all too ready to raise the roof at any proposed restriction of the land or the closure of any road. The hunters kept watchful lookout on the forest, considering it their private domain and sanctuary. As the wildlife populations became re-established in various parts of the National Forest, so did the number of hunters grow. At

certain times of the year, the Ozark National Forest began to appear as a huge, well-armed camp. Increasingly, any forest practice or proposal affected larger segments of the public and often became the occasion to choose up sides.

One of the most heated periods occurred in 1965 when the Forest Service decided forest lands could no longer tolerate unrestricted grazing by livestock, especially hogs. Grazing permits had been issued in the forest since the early 1920's. Most livestock, however, grazed without permission. In 1965, more than 1,500 head of livestock, belonging to 79 permit holders, used the Ozark National Forest. In contrast, more than 8,000 head of cattle and 6,000 hogs grazed in trespass. A decision was reached to remove the hogs and limit the number of cattle then using forest lands to a number compatible with the carrying capacity of the land. Notice went out to local residents, and the following year, 1966, Forest Service personnel began trapping hogs grazing in trespass.

Both hog owners and cattlemen were angry. Tempers flared and so did the fires. The number of incendiary fires increased and it seems reasonable to assume some relationship between the two events. But it was more complicated. Neighbors also turned on one another, and fires set by one man or group were often blamed on another. Sometimes the Forest Service had prime suspects, but rarely did they have incontrovertible evidence.

In the Boston Mountain Ranger District, one unfortunate fellow got caught between factions. The man was one who had given no trouble. He had always kept his own hogs fenced, and had carefully not sided with the Forest Service or with some of his aroused neighbors. In spite of his neutrality and his own farming practices, his hogs happened to be the first trapped by the Forest Service. Some say he was set up and that his neighbors had torn

down his fence to loose his hogs. He was outraged and somehow managed to get a Justice of the Peace to issue a personal summons for District Ranger Gene Jackson, citing Jackson for hog stealing. Although the case went through several courts, Jackson was never found guilty of the charge.⁶

Hog farming was a main source of income for many Ozarkers. Most people had no other jobs or source of income. When the trespass hogs were trapped they were impounded and the owners could only get their animals back by claiming them and paying the costs incurred in the trapping, hauling, and feeding of the animals. Sometimes this cost amounted to more than the sale price of the animal. When owners would not or could not claim their hogs they were sold at auction.

Auctioneers did not much like handling such animals. It was not unusual for a man to put the word out warning off anyone who might be tempted to bid on his impounded hogs. In other instances people claimed animals not their own, taking advantage of an owner's reluctance to come forward and admit the impounded hogs were his in the first place. People were ill-tempered with one another and almost everyone was angry with the Forest Service. Little children thumbed their noses at the men whose job it was to trap the hogs. Many persons were ready to provide a sound cursing to Forest Service workers. Threats came by phone and by mail. Traps were tied down and sometimes shot-up—just to remind trappers of what could happen. One trapper, Ray Tackett, said it became impossible to get anyone to work with him, and that finally he gave it up and went about his job alone, even though Forest Service policy was to have a minimum of two men out in the woods trapping.⁷

There seemed no end to the threats and wild statements. One officer was warned that his truck tires would be shot out and then he too would be shot. An angered resident threatened darkly that a certain cove would "run red with government blood." Most of the passion was

unleashed in such acrimonious statements: unpleasant to sustain, but not nearly as damaging as buckshot. Eventually the range came under control, and one of the most harrowing times receded into the dispassionate objectivity of history.

The hog removal program plumbed the residual depths of Ozark antipathy to government regulation of land. Friendly and seemingly law-abiding people became fierce in their opposition. Compared to the tradition of doing as they pleased with the land, the law-abiding nature of these people was just a veneer covering the mountain way of taking matters into one's own hands. This sort of public involvement, however, was just the sort the Forest Service had experienced in Arkansas ever since the earliest years.

Ten years later, in 1975, the people, now with a new environmental awareness managed to issue a different, but substantial, challenge to the administrative direction then being taken by the Ozark-St. Francis National Forests. The challenge issued by this new, educated, and politically smart citizenry brought about a sort of public involvement not common then to the Ozarks and which was to a large degree outside the experience of many foresters. This time the issue centered on the trees themselves, the core resource of the Nation Forests—the trees, how they were grown, harvested, regenerated, and just what sort of trees would be grown and harvested.

The trees of the Ozark National Forest can be grouped broadly by two types: the oak-hickory type and the short-leaf pine type. The oak-hickory forest dominates the upland regions, and develops best on the north and east facing slopes. This forest is made up of a variety of species which include the white, northern red, black, bur, and chinkapin oaks; the shagbark, mockernut, and bitternut hickories; sugar and red maples; American and slippery elms; white ash, black gum, basswood, hackberry, chinkapin, black walnut, black cherry, and beech. In the drier parts of this forest, usually the south and west slopes and along the ridgetops, another mixture of species appears: southern



The photographer J.M. Wait saw the many uses of wood products in many everyday activities. He captioned this photograph, "Day-dreams of young America expressed in wood." Photo No. 238963, 1929.



Pine post yard of the H.C. Ormond Supply Company, near Clinton, Arkansas: Much of the raw material for these posts comes from pine thinnings in the Ozark National Forest. Photo No. 505690, Daniel O. Todd, 1963.

red oak, black oak, post oak, pin oak, and blackjack oak; along with hickory, maple, persimmon, and sassafras. The shortleaf pine is also found in this drier habitat. Pine is found, additionally, in areas that have formerly been farmed or disturbed in some way by man or nature.⁸

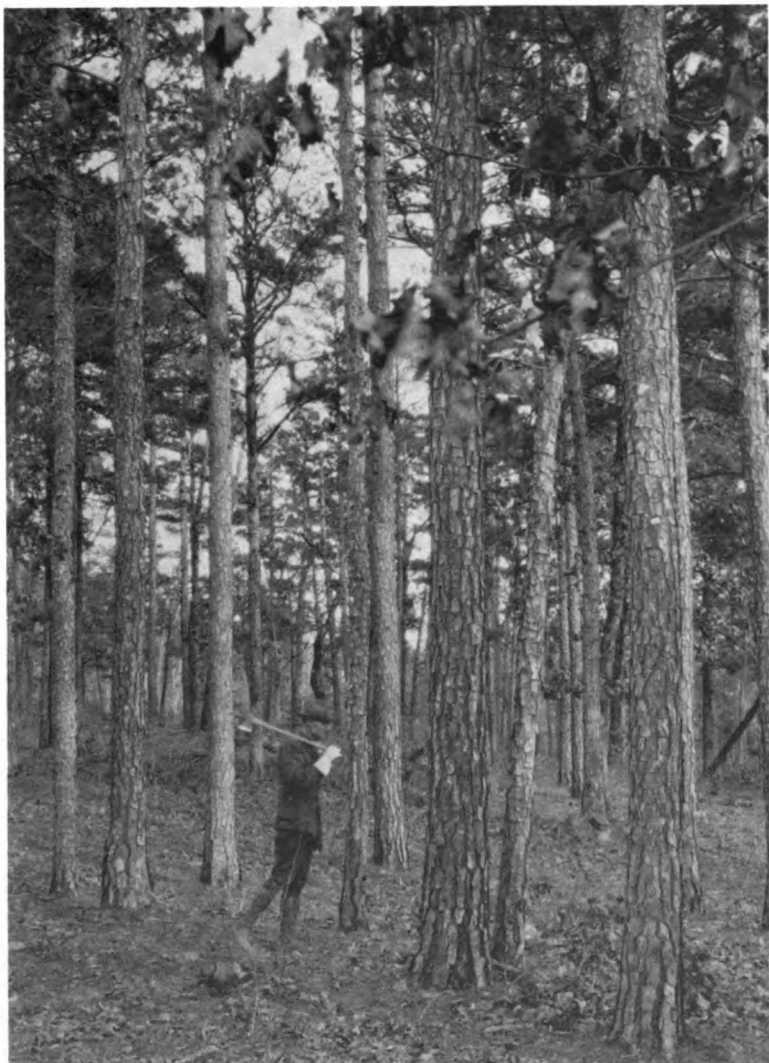
Plans for managing the complicated mixture of a forest must take into consideration the demand for the timber resource—nationally and locally. At the same time this demand must be balanced against other forest resource needs. The demand for timber from the Ozark-St. Francis National Forests has varied during much of the period between 1961 and 1978. At first only a weak, sporadic market existed for pine pulpwood, and this was primarily confined to the Bayou and Magazine Ranger Districts. Frequently no one even bid for advertised sales of this forest product. In addition, those sales which did include pine pulpwood were often amended to grant more time in which to dispose of this product. Today, however, the demand for pine pulpwood is strong.

A limited market existed for hardwood poletimber, such as would be suitable for pulpwood or charcoal wood, and this is a situation which remains the same, Red and White oaks are the principal hardwood sawtimber species harvested in the forest. The demand for these and other hardwood species has increased steadily. The primary products coming from the forest today continue to be boards and railroad crossties. Recently, a demand for pallet material has provided a market for low-grade hardwood lumber. The white oak stave bolt market, once an important part of the forest's timber sales, had become drastically reduced in importance by 1967, when white oak barrels were no longer needed for the aging of whiskey. The demand for pine sawtimber, considered good in 1960, increased steadily and competition for sales of this product has become keen.

Bid prices for timber sales statistically bear out the market trends. Timber is sold by board feet. A board foot is a

This photograph is taken from an old postcard photo found in the Forest Service files and shows the Lurton Furniture Factory. The photographer and date are not known. Bottom: Scene near Dover, Arkansas. In the cultivation and marketing of Elberta peaches wood plays an important part. Photo No. 230830, by J.M. Wait, 1928.





Left: Marking Timber. Photo No. 527511. Photographer and date unknown. Top: Felling white oak for bourbon staves. Bayou Ranger District. Photo No. 469355, by Daniel O. Todd, 1951. Bottom: Bolts for whiskey staves. White River at Sylamore. Photo No. 23608. Photographer, unknown. Date of photo is probably between 1911 and 1914.



Left: Sledding white oak stave bolts out to haul road. Bayou District. Photo No. 469358, by Daniel O. Todd, 1951. Below: A walnut tree loaded on motor truck and delivered on the railroad truck. Photo No. 238947, by J.M. Wait, 1929.



unit of measure. It indicates a quantity of lumber equal to the volume of one 12" x 12" x 1" board. A modest three-bedroom home would take approximately 11,000 board feet to build.

The average price bid in 1963 for one thousand board feet of mixed red oak saw timber was \$16.90; for white oak, \$30 per thousand board feet; and, for pine sawtimber, \$23.22. The average bid prices in 1977 came to \$57.82 for mixed red oak, \$58.37 for white oak, and \$108.96 for pine sawtimber.

As the demand for timber products changes, so do the logging practices. As recently as 20 years ago practically all logging operations were carried out by mules, farm tractors, inefficient loading equipment, and trucks with load capacities of less than 2,000 board feet. Log lengths were normally less than 16 feet. Today, most logging operations use articulated skidders, better loading equipment, and trucks that haul up to 3,500 board feet. Pine timber is now logged tree length. Another change has been the phasing out of the peckerwood sawmills—the small portable mills that cut about 5,000 board feet a day.⁹ Up until 1965 the peckerwood mill was common to the Ozark-St. Francis National Forests. Now, only a few remain in operation.

The increased mechanization of logging has required more careful administration of timber sales to adequately protect the watershed. Today's logging trucks require wider haul roads and these roads must be developed to higher standards. Articulated skidders can operate on steeper slopes and under wetter soil conditions, but when they do so there is more root damage and soil erosion.

In 1962 even-aged management began in the Magazine Ranger District, and by amending then current management plans in 1965, the rest of the Ozark National Forest was placed under this plan. The St. Francis National Forest amended its plan in 1968 when it was decided that the native hardwood species, most of which were intolerant of shade, would develop and reproduce best in even-aged stands, just as the southern pine did.

Timber stand improvement became concentrated on

sites with designated high priority. A system of record-keeping regulated regeneration to achieve a forest-wide balance of age classes, both in the pine and in the hardwood stands. At first, however, the size of regeneration areas was not restricted. Then, a 200-acre limit was applied in the late 1960's as an attempt to reduce the adverse effects caused by large regeneration areas. The size of these areas has been subsequently reduced. Current timber management plans limit regeneration areas to a size ranging from ten to seventy acres.¹⁰

Forest management in this country is still a relatively new practice. While forestry has been practiced for hundreds of years in Europe and Asia, the variations in climate and socio-economic factors make it impossible to manage the National Forests of the United States in the same manner. Recording forest practices is a relatively modern practice, and it takes generations to accumulate necessary data for management. In terms of trees, generations take a long time. Some of the trials and errors have become incorporated in the history of the Ozark-St. Francis National Forests.

The current timber management plan reflects recent adjustments—the fine tuning of technology. One adjustment made under this plan is the implementation of a ten-year stand selection process. Regeneration stands, under this plan, are selected by an interdisciplinary team of foresters, wildlife biologists, landscape architects and other resource specialists. Stand selection takes into account the age, condition class, the need to break up over-sized stands, and the need to develop a dispersed pattern of age classes favorable for wildlife and other resources. Even the shape of the regeneration areas has been altered from the square or rectangle to irregularly shaped areas that blend into the landscape and that use natural features as boundaries as much as possible.¹¹

Silvicultural practices in recent years have generated criticism and uneasiness. One practice in particular, the

aerial spraying of an herbicide, landed in the courtroom.

Herbicides had been used particularly in areas selected for conversion (changing from one major type of timber to another). In the Ozark National Forest some areas stocked with low-quality and slow-growing hardwoods were converted to pine trees, which the site, as determined by the soil index, could better support, and for which there was a market. While this use of herbicides had some advantages—economics mostly—these areas created dramatically alarming scenes. Scenes of browned over acres of dying trees bothered local residents. Scenes of wild, jungle-thick vegetation during the first years when the full sunlight brought on a surge of new growth stimulated speculation about what exactly was going on in these areas.

But the main objection was not the unsightliness or even the issue of conversion. Objections were raised because of the nature of the herbicides themselves, especially the defoliant 2,4,5-T (2,4,5-Trichlorophenoxyacetic acid). The problem with this herbicide was a small but toxic impurity in the chemistry: 2,3,7,8-Tetrachlorodibenz-p-dioxin, sometimes called TCDD or simply dioxin.

The Ozark National Forest, complying with the Forest Service manual and with the National Environmental Policy Act, on April 18, 1975, filed a draft statement outlining the use of herbicides as a means of vegetation management. The statement served as a basis for public comment and described the herbicides 2,4,5-T, Silvex, and Picloram.

On June 9, 1975, a civil action suit was filed by the Newton County Wildlife Association. (This group was later joined by the Sierra Club who petitioned to intervene on behalf of the Newton County group.) The association sought a temporary restraining order and a preliminary injunction against the use of herbicides in the forest. A temporary restraining order was entered June 10, 1975, pending a hearing on the request for an injunction. A hearing was set for June 20. Following that hearing, the Forest Service was enjoined from the use of chemical herbicides

until a legally sufficient environmental statement was filed. Following the period of public comment, which was extended until July 23, 1975, a final statement was prepared and filed on October 31, 1975.

The case remained in court awaiting a decision on the sufficiency of the environmental statement. Meanwhile all use of chemical herbicides stopped. Timber stand improvement was carried out by mechanical means or not at all. Before any ruling came from the court on the adequacy or inadequacy of the environmental statement, the Forest Service issued its timber management plan in September 1978. In this ten-year management plan the aerial use of herbicides was abandoned, as was the use of any herbicide containing the contaminant dioxin TCDD. This plan altered the situation to such degree that the case was dismissed by Judge Thomas Eisele on February 26, 1979.

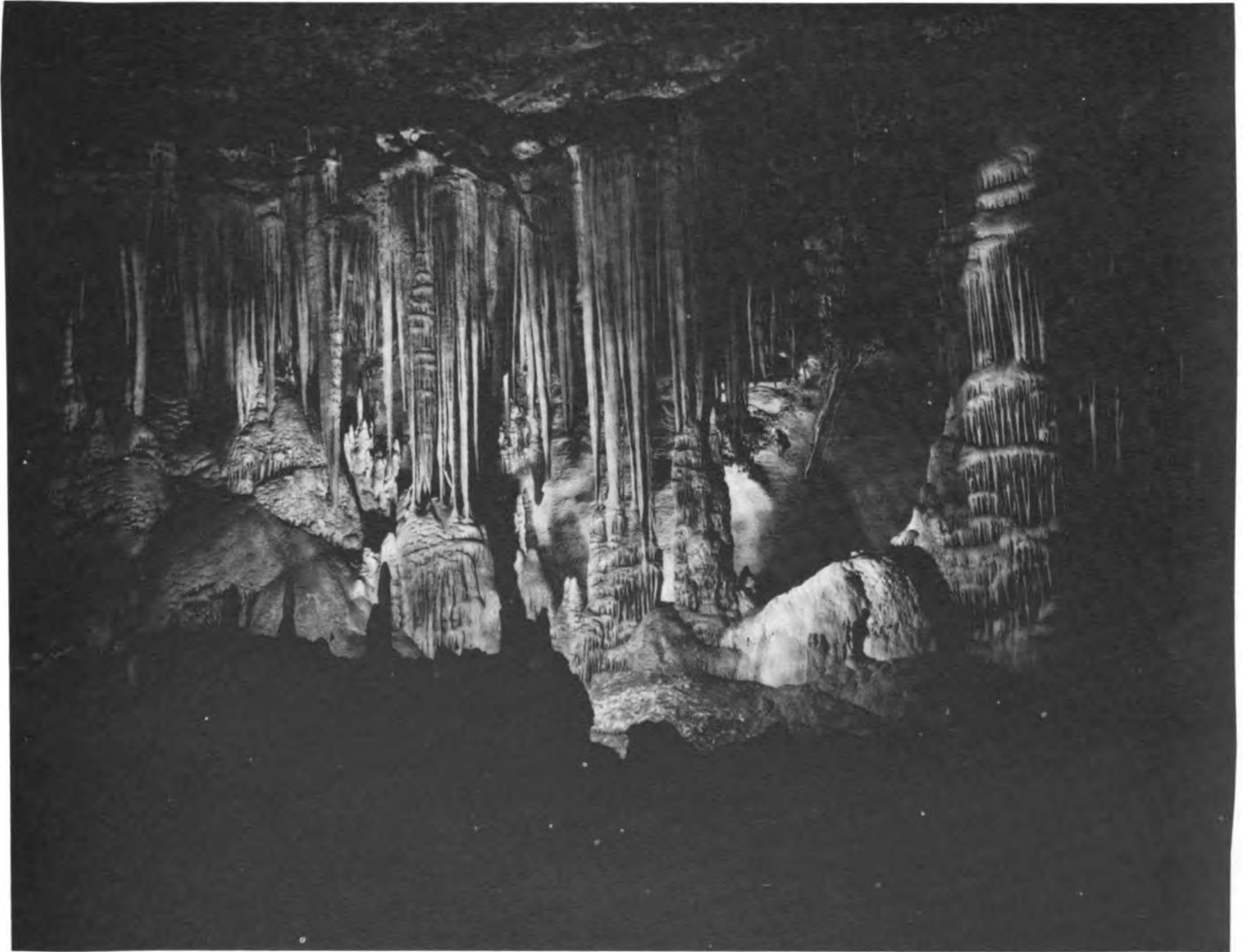
More Than Trees/9

The last twenty years of the forest's history may have been punctuated with periods of controversy and challenge and frustration—most of which has worked to strengthen and improve the forest and the relations of the National Forest with local residents. There was, however, one event in those years which generated both pride and excitement, and that was the development of Blanchard Springs Caverns.

Blanchard Springs has interested area spelunkers for years and local people and specialists had long known about Half-Mile Cave, as it has been called. The cave got this name because the natural entrance to the cave occurred one-half mile from Blanchard Springs.¹

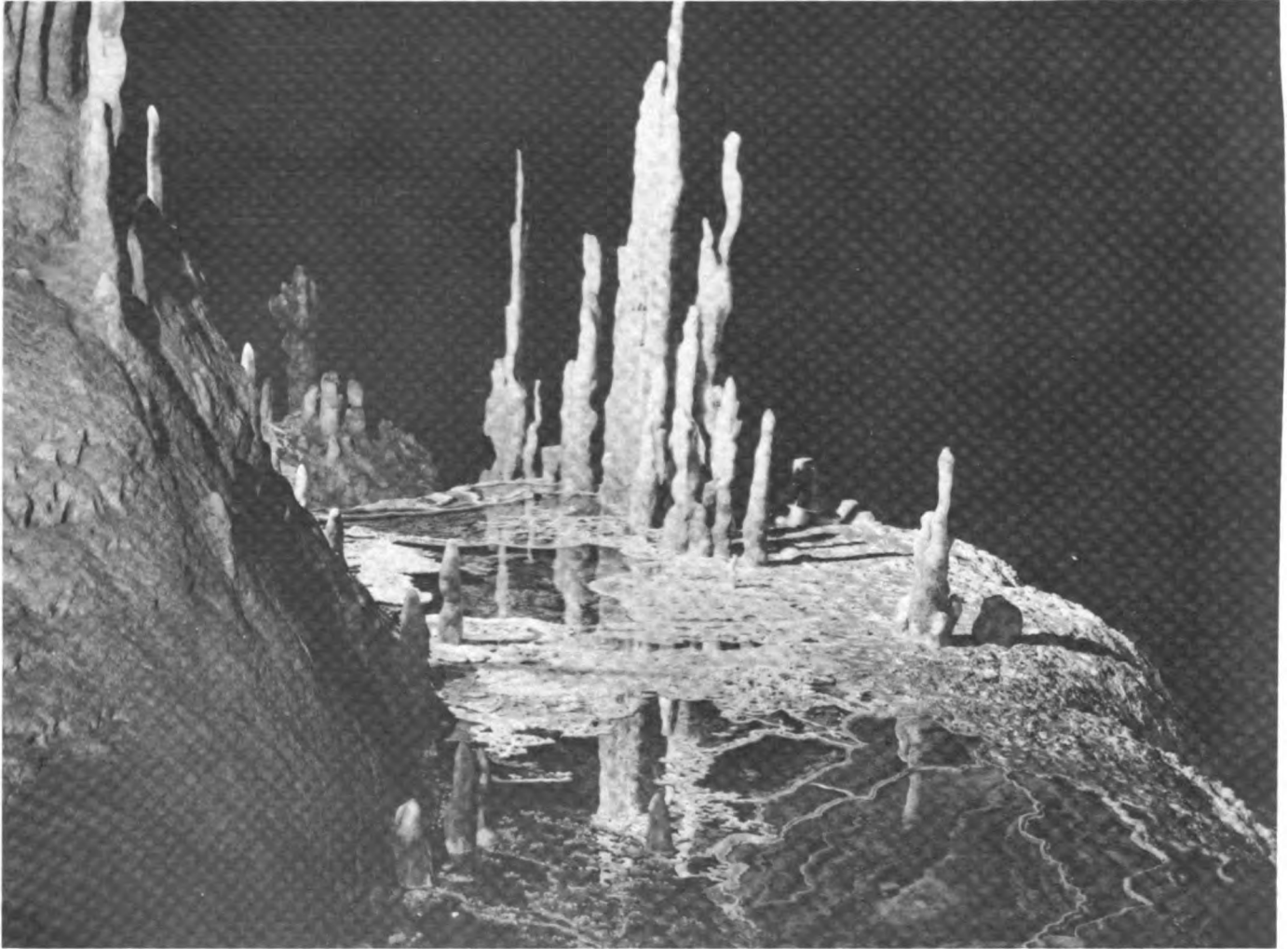
Forest Service recreation planner Willard Hadley had entered the cave in 1934 with the help of some Civilian Conservation Corps workers. The first recorded explorations of the Caverns, however, began late in 1955 by Roger Bottoms of West Helena, Arkansas. Bottoms was accompanied by Louis and Jimmy Grobmyer and by John Blake.² Over the next six years, this group explored the caverns many times, spending as long as 38 hours on a single visit. They were not the only visitors. By 1960 the cave had begun to show more and more the incriminating signs of human traffic—candy and gum wrappers, tin cans, used flash bulbs, and graffiti.

About this time, two spelunkers from Batesville, Arkansas, Hugh Shell and Hail Bryant, entered the caverns for the first time. They began the first of their many ex-



Blanchard Springs Caverns. Photo No. 512984, by Robert E. Hintz, 1965.





Above: Salamander pool with lace-like rock formations floating on top in Blanchard Springs Caverns. Photo No. 512983, by Robert E. Hintz, 1965.

Left: Blanchard Spring, Sylamore District. Scene on Falling Water Creek. Photo No. 356991, by J.M. Wait, 1937.

plorations. Shell and Bryant shared the knowledge they acquired in their 27 excursions into the caverns with the Forest Service, providing the Service with color slides, photographs, and maps. On February 11, 1963, Shell and Bryant took seven employees of the Forest Service into the caverns, including Alvis Owen, then the forest supervisor.³ Later that year, on July 1, the cave was classified as a unique natural area and was set aside for recreational use. A Forest Service allocation of \$5,000 in 1964 went for preliminary exploration and planning. The first appropriation for construction came in 1966, and since that time more than \$12 million has gone into the development of the caverns and recreation area.⁴

To develop the caverns as a tourist attraction and to protect the living ecological system underground, the Forest Service determined it would be necessary to acquire some of the land around the caverns. Part of the peculiar quality of Blanchard Springs Caverns was that the cave, unlike some other large caves in the nation, was still living, and therefore vulnerable. In the end, the Forest Service acquired 48 tracts of land amounting to just over 1,771 acres. Part of this land came from willing sellers, but unhappily, some acquisitions came by means of condemnation proceedings.

What the Forest Service lacked in experience in underground construction, they made up for in enthusiasm over the project. When the caverns were dedicated on July 7, 1973, many Arkansans were on hand, having awaited eagerly this event. More than a million persons have marveled at the wonders of what in many ways seems to be an underground fantasyland, now accessible on two guided trails. (The second trail was completed and opened on July 7, 1977.)

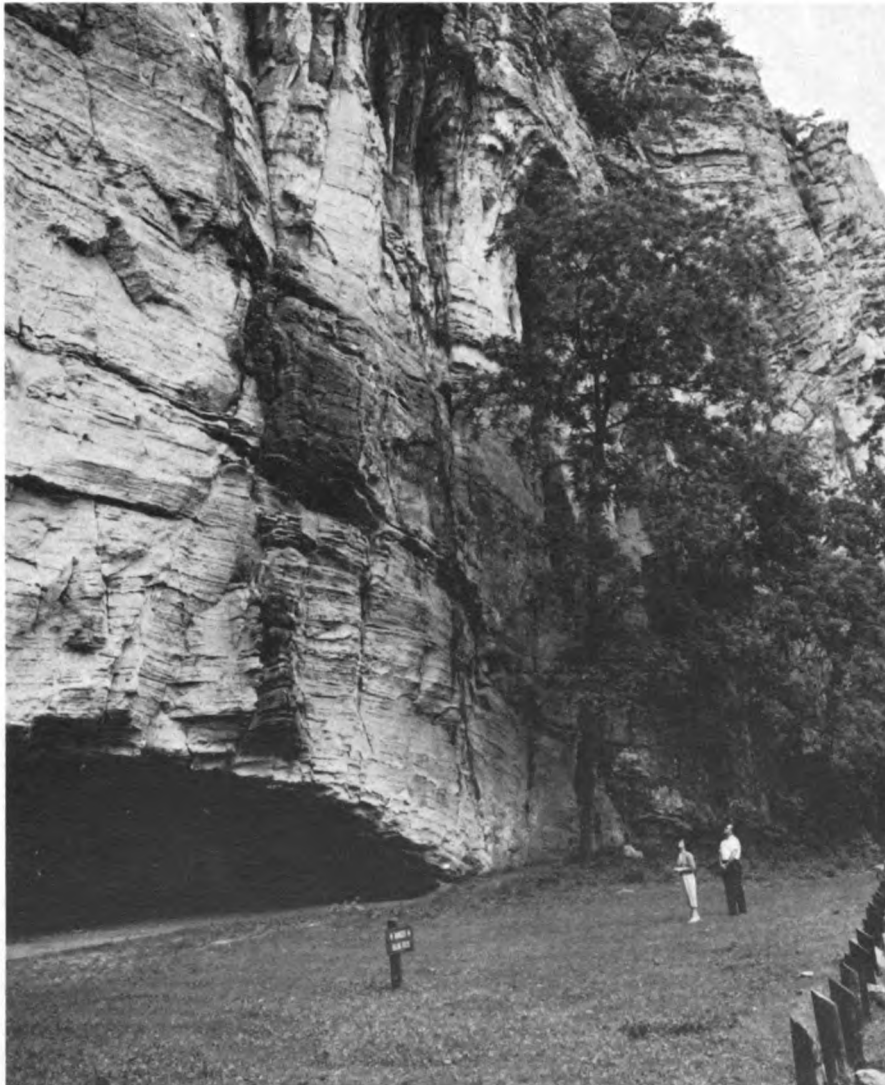
Shortly after the Caverns opened, Mountain View, the nearby community, became an active center for native crafts and arts. It had long been known for its brand of

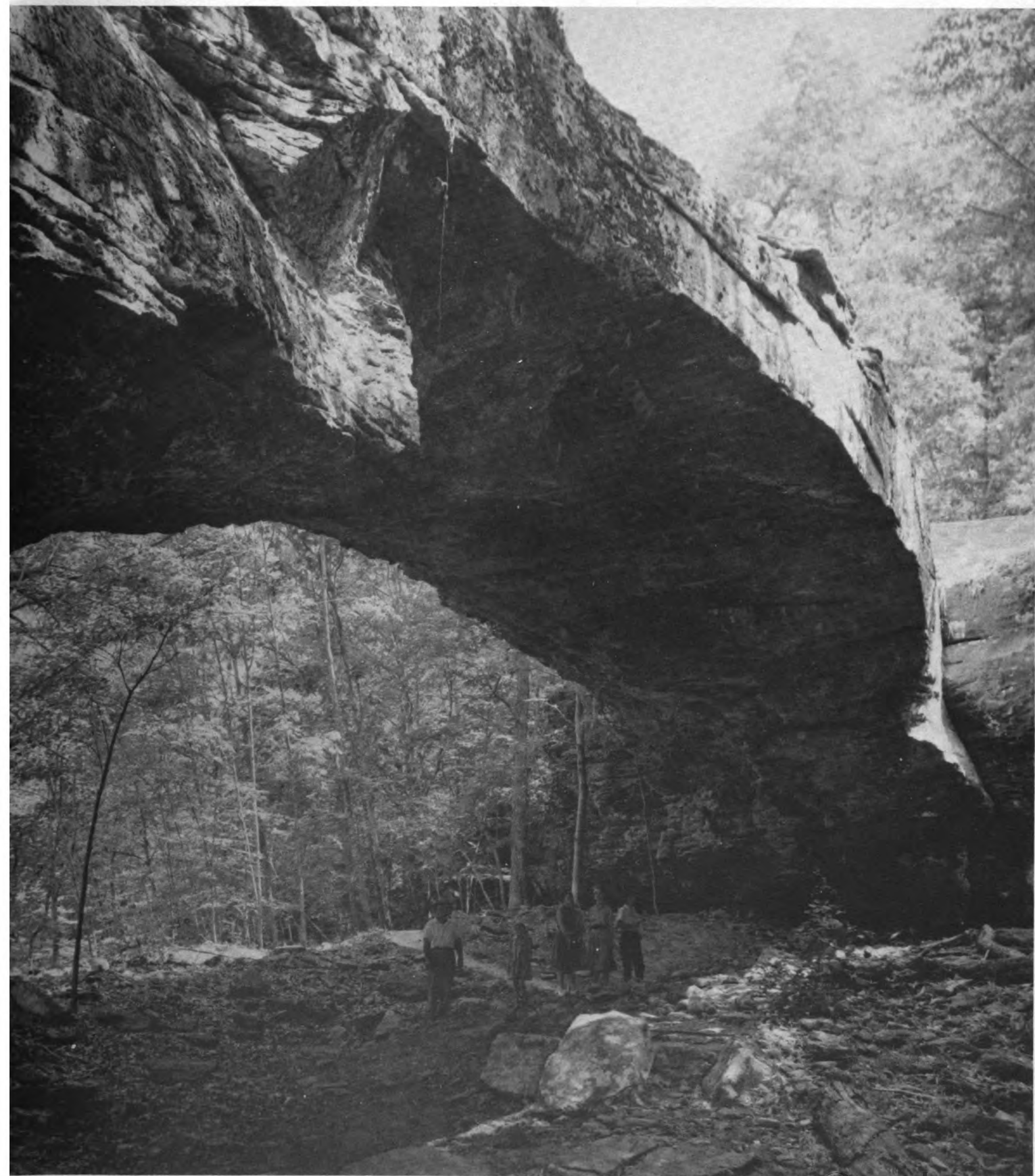
music. The annual Mountain View Folk Festival began to draw unexpectedly large crowds. Many people came and camped on National Forest lands in the Sylamore Ranger District and at the Blanchard Springs Caverns recreation area. The large numbers, and in some instances the disruptive behavior of the participants, especially the use of drugs, made many county residents anxious. The numbers alone created problems for the limited commercial and recreational facilities. In the first years confrontations between those who attended the festival and the law enforcement community were commonplace, and sometimes hostile. Later, efforts were made to coordinate the event and to schedule the folk festival over consecutive weekends to reduce crowd levels to a more manageable size.⁵ By 1976 the folk festival became an organized community endeavor and one with less adverse impact on the National Forest.

Blanchard Springs Caverns and its recreation area, is, however, only one of twenty-six such facilities in the Ozark-St. Francis National Forests. Recreational use of the forest doubled in the years 1968 to 1974, and it is predicted that recreational use will quadruple by 1990.⁶ Recreational areas are either developed sites or areas used for diverse activities with developed facilities. Another part of the recreational resource of the forest is its wilderness areas. Public Law 93-622 designated 10,542 acres as the Upper Buffalo Wilderness in January 1975. This area was one of sixteen areas in the eastern United States given wilderness status. The Upper Buffalo Wilderness Area generally included the headwaters of the Buffalo River, and it is joined on the north side by the Buffalo National River, a recreational resource administered by the National Park Service.

This same law, moreover, designated 17 other areas in the eastern United States as Wilderness Study Areas. One of these was the Richland Creek Study Area. Such areas were to be reviewed and examined to determine their

Recreational use of the forest. The lower left photo depicts a 1924 picnic gathering at Freeman Springs. Photo No. 196850, by J.M. Wait. The beginnings of a 4-H club campout appear to be under way, lower right photo. No. 230805, by J.M. Wait, 1928. Below, visitors at the Blanchard Springs Recreation Area limestone cliffs. Photo No. 505702, by Daniel O. Todd, 1963. Other forest visitors examine the limestone arch in Alum Cove National Arch Recreation Area. Photo No. 504890, by Leland J. Prater, 1963.





suitability for wilderness designation. During the study period, the areas were to be managed to preserve the wilderness character and potential for inclusion in the National Wilderness Preservation System. The Richland Creek Study Area is completely forested with scattered pockets of mature hardwood trees. Small clear streams bisect the area, while the rugged terrain is punctuated by steep bluffs.

In the mid 1970's an inventory and review of roadless areas within the country's National Forests got underway. The purpose of the review (called RARE II—Roadless Area Review & Evaluation) was to recommend areas to Congress for inclusion in the wilderness system. The public was invited to nominate areas for evaluation and to participate in developing criteria and possible alternatives regarding the nominated areas. By 1978, the proposed areas within the Ozark-St. Francis National Forests numbered 13 and covered more than 125,000 acres. Following this nation-wide evaluation, the U.S. Forest Service submitted recommendations to the Secretary of Agriculture. The Forest Service recommendations for the Ozark National Forest included an addition of 1,504 acres to the Upper Buffalo Wilderness Area and the establishment of the Hurricane Creek Wilderness Area, covering 15,057 acres. The Forest Service also recommended an addition of 10,000 acres to the Richland Creek Study Area, an area with 2,100 acres already under examination.

The roadless area review generated its share of local reaction—both pro and con. As a result possibly of the recent land acquisitions through condemnation proceedings in the Blanchard Springs Caverns area and by the National Park Service along the Buffalo River, many people living in proposed wilderness areas felt uneasy, fearing the future status of their homes and land. Some of these people banded together opposing wilderness designation and appealed to their legislators. Others vented their anxiety by painting signs, such as the one on the back of a highway sign proclaiming, "RARE II Stinks."⁷

When Gifford Pinchot developed a public policy based on the notion that the water, wood, and forage of the National Forests would be conserved and used wisely for the homebuilder first of all, the concept probably seemed possible, straightforward, and simple. As the country grew, as the resources of the world became appreciably dearer in their diminishing quantities, the resources of the forests came under closer surveillance; the use of these resources had to be accounted for accurately, to all the people. And many people in the United States began to take a harder and longer look, especially at the bottom line.

The forest resources are significant—to the nation and to the counties in which National Forest land is situated. The National Forests contribute places for recreation; they feed and shelter large populations of wildlife, providing sport for some and food on the table for others. The National Forests protect watersheds and monitor streams to insure water quality for many communities. From the timber come jobs and raw materials that become digits in the country's gross national product. From the lands come other resources—shale, gravel, sand, minerals, oil and natural gas.

Minerals on public lands have remained a part of the public domain, and the Mineral Leasing Act of 1920 governs the leasing and extraction of oil and gas on public lands. Roy J. Anderson drilled the first well in the Ozark National Forest in 1954. It was dry. Between 1954 and 1970 eleven different companies drilled twenty-two wells. Only two produced. Many of these wells reported as dry were located in what is now the Batson field.

Drilling activity resumed in this area in 1973. One well, after treatment, produced four million cubic feet of gas daily, open flow. Encouraged, Arkansas Western Gas Company drilled another well just one mile north of the first. This well produced twenty million cubic feet daily. The company then began plans for a pipeline to serve the wells, and by September 1977, twenty-two wells were

drilled on National Forest lands, with applications made for five more. Drilling activity has taken place in the Bayou, Buffalo, Pleasant Hill, Boston Mountain, and Magazine Ranger Districts, although more than ninety percent of the wells drilled since 1973 have been in the Pleasant Hill Ranger District.

Other mineral uses include permits for common variety minerals—surface rock, usually fieldstone for building material, and common shale, sand, and gravel for road surfacing. During 1977 the forest issued 105 common variety mineral materials permits. The Ozark-St. Francis National Forests rank second only to Mississippi in mineral collections in the Southern Region.

Each year a percentage of all National Forest collections—the receipts from timber, minerals, recreation, and grazing—is returned to counties in lieu of taxes. Each county receives its portion based on the number of National Forest acres inside the county. In 1906 this return was set at ten percent. The money was to be used for the benefit of public roads and schools.⁸ Legislation changed this percentage two years later, on May 23, 1908, from ten to twenty-five percent of all moneys received during the fiscal year.⁹

Federal land ownership generates even more local heat when the issue is taxation. The question of taxation has been especially vexing for forestry. Should National Forest lands be taxed? Should they be taxed at the same rate as private lands? In the case of forestry, when the product is harvested so rarely and when the resource serves a national need, should there be other arrangements? Section 3 of the Clarke-McNary Act of 1924 authorized the first study of tax laws, methods, and practices with regard to their effect on forest perpetuation. This Act further authorized a cooperative effort to devise tax laws designed to encourage the conservation and growing of timber. This legislation and the resultant study contri-

buted significantly to the resolution of tax problems in forestry, both private and federal forestry.¹⁰

The Ozark-St. Francis National Forests reach into 18 Arkansas counties. In some of these counties the high percentage of federal land ownership affects the county tax base. As Ozark land values have increased in the last ten years, and as the budgetary pressures and demands on local government have increased, county residents became concerned about the federal return in lieu of taxes. Until 1976, the twenty-five percent return to the counties had been calculated on the basis of revenues received, less the expenses incurred—as, for example, the construction of a road necessary to haul timber from the sale site. Costs for timber stand improvement and for timber planting were also subtracted before figuring the county return. This system, based as it was on percentage returns, is subject to market fluctuations and conceivably results in periodic inequities felt keenly by local governments. To alleviate such situations, Public Law 94-565, the Payment In Lieu of Taxes Act, passed October 20, 1976, guaranteed a minimum payment of seventy-five cents per acre to counties in which public lands are situated. This minimum payment guarantee is administered by the Bureau of Land Management in the Department of Interior rather than by the U.S. Forest Service. The way the guarantee works is that when the 25 percent return from forest receipts does not equal the minimum guarantee, the difference is made up in a separate check that goes to the state. Furthermore the National Forest Management Act of October 22, 1976 changed the formula from which payments were made to the states. Beginning in 1977, the returns were computed on the basis of gross National Forest receipts. The return in lieu of taxes payment does not go directly to the county, but goes to the state. The state legislature prescribes the allocation or formula by which the funds are used for public schools and for roads. In Arkansas, 80

percent of the county return goes to the schools and 20 percent is used for roads.

In addition to these returns to the state and counties, a 50 percent return is made on moneys received from mineral resources on public domain lands. The return from these receipts is managed also by the Bureau of Land Management and is for such uses as the state legislature may direct.

There are indirect benefits accruing to county residents and federal land users as well. Forest roads and trails provide access to public lands while also serving the transportation needs of residents living within the forest boundaries. Each year ten percent of the National Forest receipts is plowed back into road construction and maintenance appropriations. Moreover, some roads constructed during timber sales become a permanent part of the National Forest road system, again serving county residents and forest users.

The Federal Aid Highway Act of 1958 provided funds to states for highway construction and maintenance. Arkansas has received \$430,000 a year recently from this fund. While the fund is administered by the Federal Highway Administration, decisions about the allocations in Arkansas are determined by a tripartite group: The Arkansas Highway and Transportation Department, the Federal Highway Administration, and the U.S. Forest Service. Most recently, the work on Highway 309, at Mount Magazine, was completed with these funds.

Another indirect benefit of Arkansas's National Forests comes from their contribution to the wood products industry, one of the state's biggest businesses. The forest products industry employs more than 49,000 Arkansans.¹¹ The demand for timber, as for other forest resources, is expected to increase. The Ozark National Forest is not now a large timber producer, primarily because markets do not yet exist for small poletimber and for the tree tops. Con-



A mountain school. Photographer unknown. Date, between 1912 and 1914. Photo No. 15525A.





School children. Photo No. 85954, by Francis Kiefer, 1910.



Cass school. White Rock District. Photo No. 195338, by J.A. Mason, 1925.



Bidville School. White Rock District. Photo No. 195337. Probably by J.A. Mason, about 1925.



School children from Dover, Arkansas. Photo No. 242654, by J.M. Wait, 1930.

tinued pressure on the nation's forest produce, however, may alter this situation. Nationally, the major thrust in forest management will be to employ methods and approaches that will get more out of the available resource. The goals and procedures for this sort of management have been outlined in the National Forest Management Act of 1976. The job of the forest ranger will continue to be one of juggling the multiple resources to insure long term yields for both local and national needs. The perspective of the forest ranger seems substantially more complicated than that faced by those first rangers surveying the forest from the vantage of the saddle.

Still, it's people who keep a forest productive; who protect it. The first foresters and the first rangers in the Ozarks, like their federal counterparts, were pioneers in forestry and many of them could have been described as both hard-headed pragmatists and crusading idealists. To a man, they were convinced sound management of the nation's forests would pay for itself and would insure forests for the future. Those pioneers worked, almost with a passion. The pay was poor. The eight-hour day had not yet been invented. Many foresters throughout the past seventy years in the Ozarks worked six and seven days a week, sometimes 12 and 16 hours a day. Most often they filed no claims for overtime. It was part of the work to be done. Carl Benson, former timber staff officer and forest ranger, filed a report in 1964 which stated, "Overtime? None claimed—it was all contributed for the good of the Forest Service."¹²

The Ozark-St. Francis National Forests have had many men like Benson—Francis Kiefer, Ben Vaughan, H.R. Koen Jim Wait, Daniel Todd, Ralph Hunter, Dexter Curtis, Fred Emory, Von Ward, Dixie Carter. There were men like Ranger William Dale, who, to his men, seemed capable of performing both great and small miracles. So many men and women—the wives of rangers and forest workers have probably been grievously overlooked as to their considerable contributions here in the Ozarks—who believed in the Forest Service and gave of themselves generously. From the earliest days, the Forest Service was an outfit with a cause. This cause was the driving force that Pinchot described as permeating the fabric of the organization and



Foresters in the field. Photo No. 92182. Photographer and date unknown.

that gave the Service its pride; that manifested itself as a belief in one's work and in the end accounted for the dedication and high morale of its men and women.¹³ Personalities may have rubbed wrong from time to time; friction and factions developed. Yet, over the years, the sense of purpose and the sense of serving remained.

Of course there have been changes. The demands on the forest resources were not the only changes taking place. The Forest Service itself, like any organism, had been changing as well. Partially the changes came about because of the concept of multiple use, and partially because of the mandates laid down by the environmental legislation, and because resource management had simply become too critical and too complicated. As more was learned about ecological systems and the ways in which they inter-related, the knowledge was put to use. The Forest Service soon became more than a group of timber experts.

The first soil scientist came to work in the Ozark National Forest in 1961. Before that time the forest relied on the Soil Conservation Service and other soil scientists. Information compiled by these specialists is used in land management planning and in most project planning and design. Soil surveys have now been completed on 80 percent of the Ozark-St. Francis National Forests.

Likewise, before 1963 the forest had no fulltime hydrologist to manage the water and watersheds of the forest. Hydrologists analyze watersheds and inventory restoration needs of eroded areas. They also provide treatment for such places. The Watershed Protection and Flood Prevention Act of 1954 authorized the Department of Agriculture and consequently the Forest Service to cooperate with states, counties, and local public agencies to prevent watershed damage and to further the conservation, development, use, and disposal of water. One of the pilot projects carried out under this legislation was the work done on the Six-Mile Creek Watershed in Logan and Franklin counties. This project provided flood prevention, municipal water, and recreational opportunities for the community of Charleston, Arkansas. Similar projects have since been accomplished. Additionally, the forest hydrologists have completed or are in the process of completing river basin studies for the forest.

Other specialists now an integral part of the Forest Service include wildlife biologists who work with the Arkansas Game and Fish Commission to develop, maintain, and manage the wildlife resources. More than 700,000 acres of the Ozark-St. Francis National Forests are designated as wildlife management areas. Recreation specialists, engineers, landscape architects, archaeologists, even writers and photographers, fill the roster of today's Forest Service. Resource management and public involvement have placed new demands on the whole forest, and on every Forest Service worker.

The organization also changed because of a number of federal manpower programs. One especially has had a considerable impact on the Forest Service and on the Ozark-St. Francis National Forests. This particular program was the Job Corps. But first, to begin at the beginning.

The first manpower program in the Ozark-St. Francis National Forests was called the Accelerated Public Works program. It began in November 1962 and averaged 161 employees on its payroll. This program and other manpower programs served the forest in much the same way as had the Civilian Conservation Corps back in the 1930's. The manpower programs provided money and people to accomplish many tasks that the Forest Service alone could not perform. The Accelerated Public Works program built new work centers at Cass, Clarksville, Mountainburg, and in the St. Francis National Forest. They also constructed offices for three ranger districts and worked on forest recreation areas before the program ended in 1964.

The next year, the Job Corps Center opened at Cass, Arkansas, on the site of the former Cass Civilian Conservation Corps camp. Job Corps is an intensive program of education, vocational training, work experience, and counseling. The purpose is to provide disadvantaged youth an opportunity to become responsible, employable, and productive citizens. Corpsmen came to Cass from many towns and cities of the region and nation. They live in



Water cooling basin at city power plant, Paris, Arkansas. This water is from the watershed in the Ozark National Forest. Photo No. 381543, by Daniel O. Todd, 1956.

dormitories, which, in some cases, have been constructed by the corpsmen themselves. By 1978, almost 5,000 young men had been enrolled at the Cass Job Corps Center.

The center is staffed primarily by Forest Service personnel. In fact, the only staff not part of the Forest Service are the teachers in trade union training programs—carpentry, heavy equipment operation, painting, and brick and stone work. The Forest Service, in agreement with the U.S. Department of Labor, operates 18 of the approximately 100 Job Corps centers in the country.

When the Forest Service began hiring people to staff these centers, they began hiring people with educational backgrounds and experiences different from those of the traditional forest ranger and forest technician. The Forest Service began hiring teachers, guidance counselors, and management specialists. Later, the President, Richard Nixon, cut Job Corps funding and many centers closed. Rather than discharging so many people, the Forest Service absorbed many Job Corps personnel and began developing career possibilities for them within the Service. This action in one manner broadened the Service, bringing in new men and women with different talents and areas of specialization. The legacy of the Job Corps has been not only one of significant work accomplishments and service to the young and often disadvantaged, but also one which altered the personnel profile of the Forest Service as a whole.

A forest needs people to protect it, to manage it, to appreciate it. A forest needs people to walk its trails, to fish its streams, to stop and admire the dogwood and hickory, the oak and the pine.

The decisions that have to be made today and in the future will require a broadened perspective and an interdisciplinary approach. The decisions will also require an informed and educated public. As the pressure on resources increases, the trade-offs will become more critical, less clean-cut, more difficult, possibly, to accept.

Corpsman from Dendron, Virginia, sharpening axe at the Cass Job Corps Conservation Center. Photo No. 512578, by Robert E. Hintz, 1965.





Scene in Mountain View, Arkansas, about the time the first automobile made an appearance in that town. Photo No. 230807, by J.M. Wait, 1914. The first attempt to use tractors in road construction in the Ozark region. Photo No. 230773, by J.M. Wait, 1928.

The noticeable changes in the Ozark-St. Francis National Forests can be seen in the people and in the Forest Service itself. Yet, even these changes retain so much tradition, the roots of their history. There is still within the Forest Service evidence of the idealism and dedication brought to that organization by Gifford Pinchot. And there is still within the Ozarks ineradicable strains of the mountain character—self-sufficient, suspicious of government, conservative by nature, and bound almost chemically, like molecules, to the land.

The changes in the woods have, in general, been subtle ones. To describe the forest today would not result in a radically different description than those made in 1908. The trees, for the most part, look the same. Indeed, many of them are—the same trees that shaded the ranger as he rode through his district on horseback; the same trees protected by the men of the Civilian Conservation Corps; the same trees cherished and delighted in each spring and fall by the tourists who gather at the ranger station in Jasper.

For the trees, change comes slowly, and history runs deep.

*Virgin stand of hardwoods near
Sandy Flats Firebreak. Taken
by B. W. Muir — 1938.*



APPENDIX/1

Counties within Ozark National Forest Boundaries:

Baxter
Benton
Conway
Crawford
Franklin
Johnson

Logan
Madison
Marion
Newton
Pope

Searcy
Stone
Van Buren
Washington
Yell

Counties within St. Francis National Forest:

Lee
Phillips

APPENDIX/2

Forest Supervisors

Samuel J. Record 1908
David E. Fitton 1909
Francis J. Kiefer 1909-1916
Edward V. Clark 1916-1917
Charles J. Heller 1917-1919
Ben F. Vaughan 1919-1922

Kenneth E. Kimball 1922
Henry R. Koen 1922-1939
Philip H. Bryan 1939-1941
W.C. Branch 1941-1945
Paul H. Gerrard 1945-1954
Paul A. Swarthout 1954-1956

J.B. Dahl 1956-1962
A.Z. Owen 1962-1968
James S. Sabin, Jr. 1968-1971
Larry Henson 1971-1978
James R. Crouch 1978-

APPENDIX/3

Ranger Districts of Ozark National Forest, and the St. Francis National Forest.

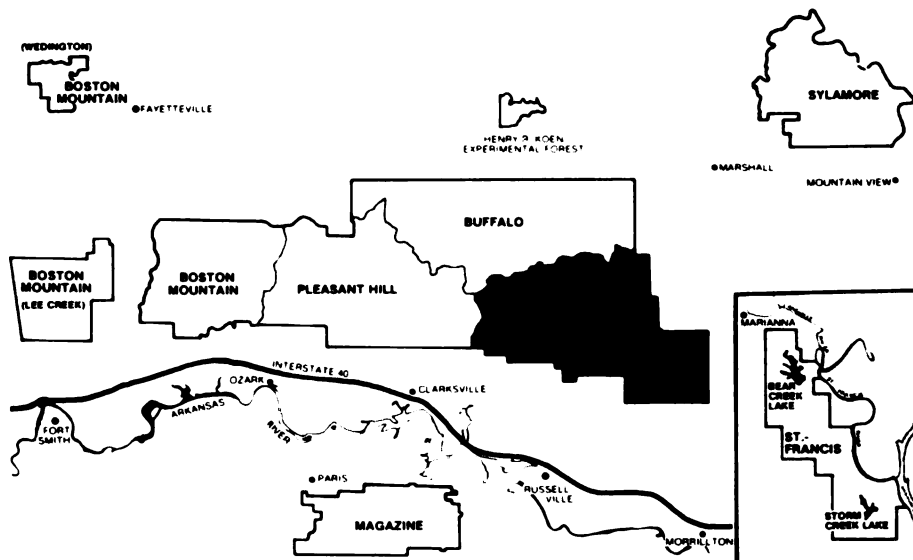
Bayou Ranger District

Gross acreage: 167,442

Net acreage: 140,028

District Rangers:

Ben F. Vaughan, 1908-1913
 James M. Wait, 1909-1911
 Hugh R. Moore, 1912-1913
 William P. Dale, 1913-1919
 George D. Russell, 1919
 Will A. Garner, 1914-1915
 Robert M. Evans, 1914-1918
 James D. Prior, 1916-1917
 James A. Mason, 1918-1920
 William P. Dale, 1921-1923
 James M. Wait, 1924-1928
 Knoxie M. Kunze, 1925-1937
 Fayette M. Meade, 1937-1943
 James S. Long, 1943
 Carl E. Benson, 1943-1947
 Norman B. Alter, 1947-1952
 Berkeley J. Spilsbury, 1952-1956
 Paul A. Timko, 1956-1957
 William J. Bryan, 1957-1961
 Bobby J. Larkey, 1961-1965
 Rufus D. Launius, 1965-



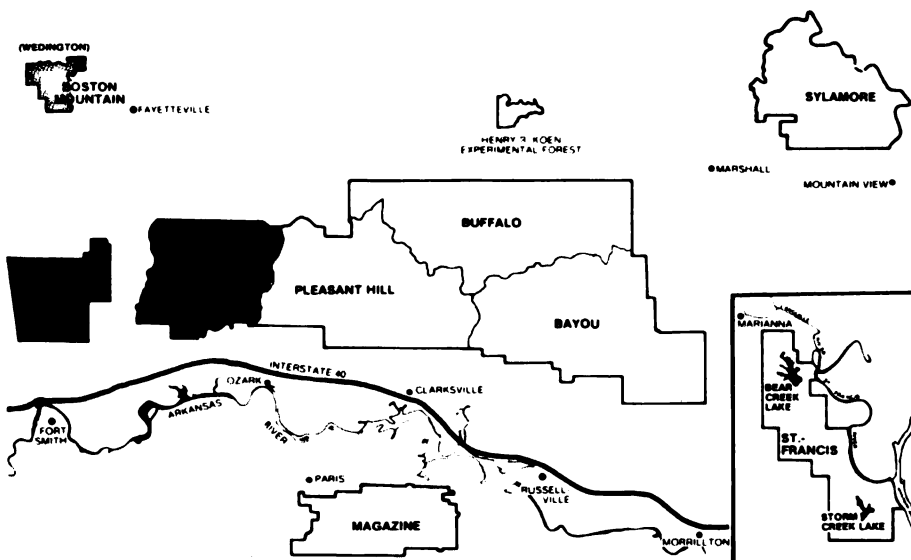
Boston Mountain Ranger District

Gross acreage: 230,342

Net acreage: 125,578

District Rangers

Elbert E. Turner, 1908-1917
 Wesley B. Harrison, 1917-1918
 Henry R. Koen, 1918-1919
 Charles W. Fritts, 1919-1922
 James A. Mason, 1922-1926
 Ralph J. Bell, 1926-1928
 Troy D. Curtis, 1928-1929
 Daniel O. Todd, 1929-1930
 Troy D. Curtis, 1930-1962
 Burdette F. Seizert, 1958-1962
 Thomas Q. Dix, 1962-1964
 Duane C. Routh, 1962-1966
 Jack Swisher, 1964-1969
 Gene S. Jackson, 1969-1970
 William D. Walker, 1970-1974
 Bobby G. Young, 1974-



Buffalo Ranger District

Gross acreage: 227,012

Net acreage: 167,529

District Rangers:

Mark Hopson, 1952-1956

C.R. Brooks, 1956-1958

J.L. Connell, 1958-1961

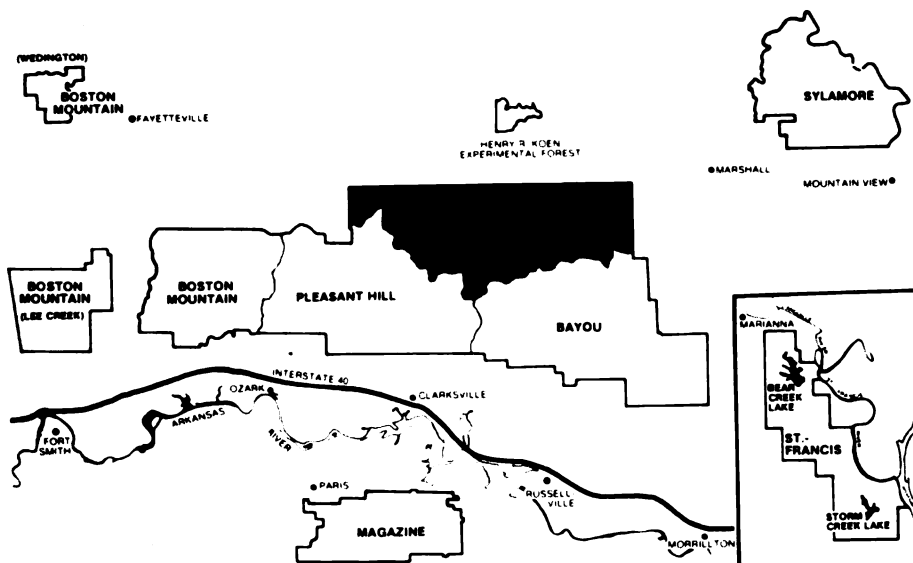
J.F. Welsh, 1961-1965

Mack L. Little, 1965-1970

Jack S. Kelley, 1970-1971

Timothy M. Smith, 1971-1979

George Leighton, 1979-



Magazine Ranger District

Gross acreage: 131,699

Net acreage: 97,350

District Rangers:

William P. Dale, 1938-1946

Fayette M. Meade, 1946

Norman B. Alter, 1946-1947

John I. Christensen, 1947-1954

Donald E. Bylsma, 1954-1956

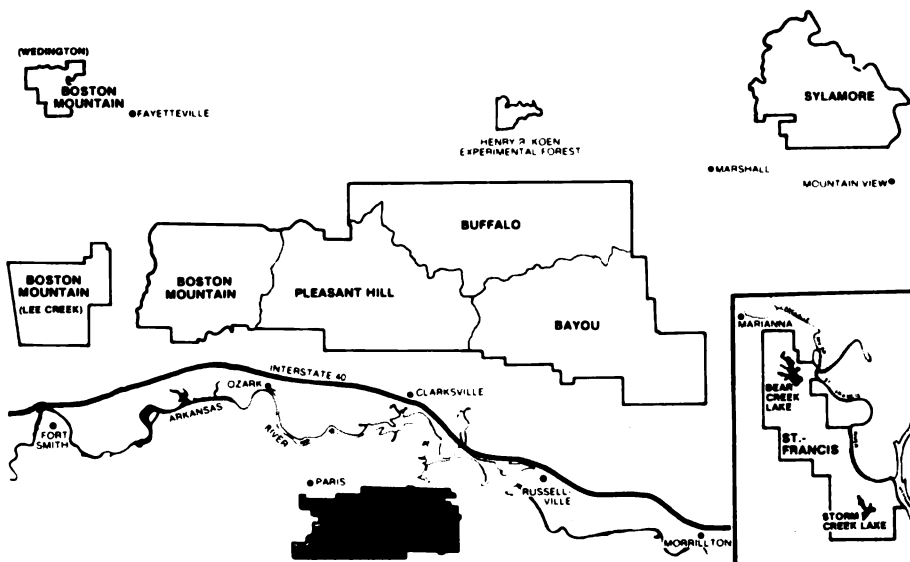
Robert B. Emery, 1956-1957

James R. Padgett, 1957-1960

Edward A. Edgette, 1960-1965

John A. Derks, 1965-1969

Bobby Roberson, 1969-



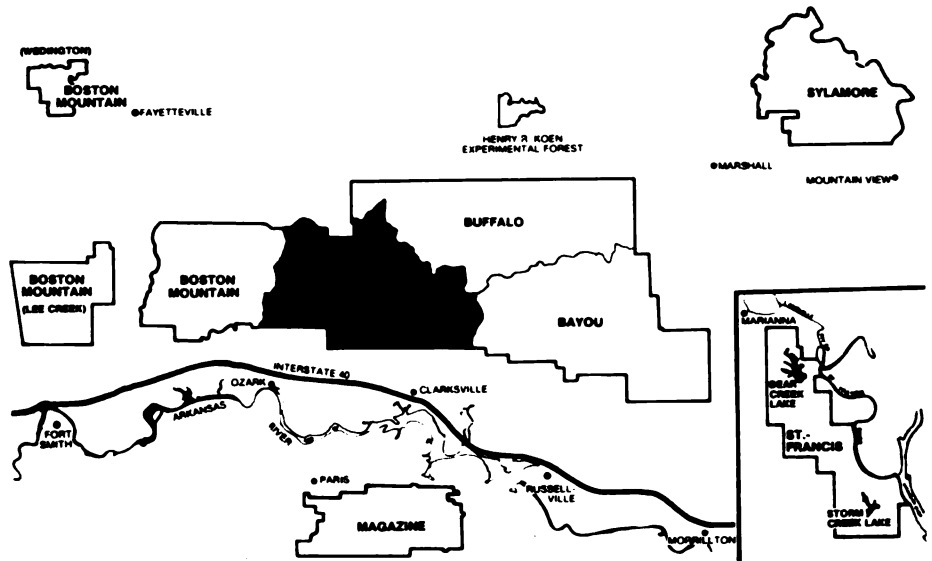
Pleasant Hill Ranger District

Gross acreage: 224, 435

Net acreage: 149,184

District Rangers:

Wesley B. Harrison, 1906-1917
 Robert M. Evans, 1917-1919
 Hugh R. Moore, 1919-1920
 Grover C. Page, 1919-1920
 James W. McPherson, 1921-1925
 Guy Cox, 1926-1929
 Frank W. Rasor, 1929-1931
 Fred J. Jones, 1931-1934
 Ralph G. Brown, 1934-1935
 Lawrence O. Barrett, 1936-1941
 Fred S. Harris, 1941-1942
 Norman B. Alter, 1942-1943
 Harley W. Janelle, 1944-1951
 Burdette F. Seizert, 1951-
 Cecil R. Brooks, 1958-1959
 Ralph H. Kunz, 1959-1964
 James R. Hughes, 1965-1971
 Edward H. Harris, 1971-



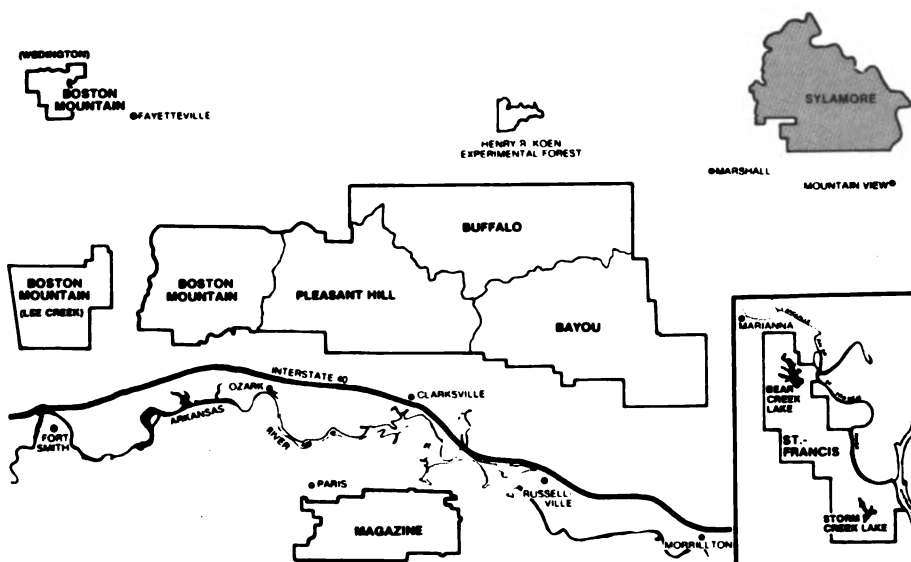
Sylamore Ranger District

Gross acreage: 170,419

Net acreage: 122,968

District Rangers:

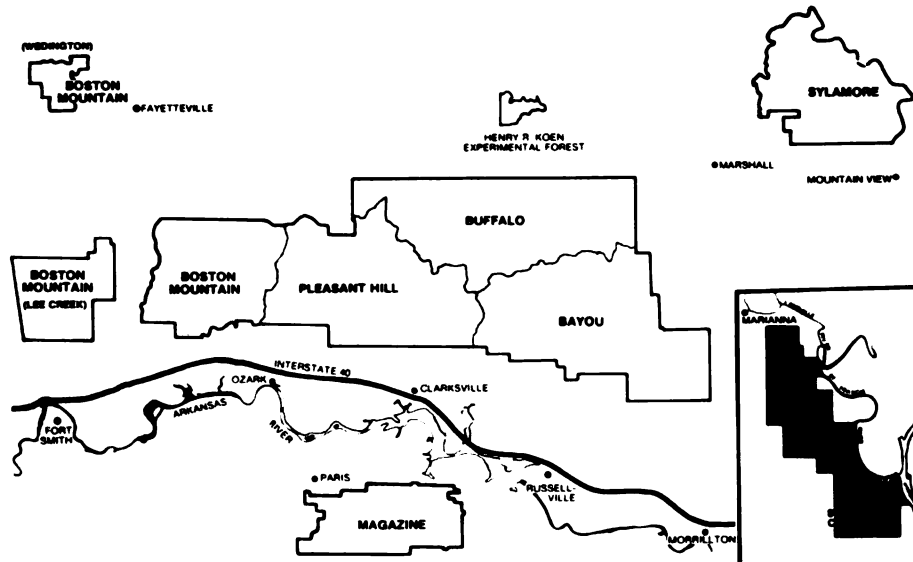
Boone Hinkle, 1907-1910
 Ralph C. Huey, 1907-1910
 Jennings D. McLeod, 1911-1912
 James D. Ruble, 1911-1912
 Charles Christian, 1913-1914
 Thomas A. Wilson, 1914-1916
 Henry R. Koen, 1916-1918
 Hugh A. Moore, 1916-1928
 Guy Cox, 1929-1937
 E.D. Potter, 1937-1938
 Fred Ames, 1939-1942
 P.A. Newton, 1942
 Fayette M. Meade, 1943-1946
 Philip A. Newton, 1946-1951
 Mark C. Hopson, 1951-1952
 William V. Cranston, 1952-1956
 Ivan J. Nicholas, 1956-1957
 Lewis J. Smith, 1957-1963
 Wayne Shuttleworth, 1963-



St. Francis National Forest

Gross acreage: 29,727
Net acreage: 20,946

District Rangers:
W.A. Jackson, 1960-1966
Bill Bustin, 1966-1968
Roger Dennington, 1968-1972
Tom Fair, 1972-1975
Lynn Young, 1976-1978
Jim Watson, 1978-



APPENDIX/4

Civilian Conservation Corps Camps Located in Ozark National Forest

Bayou Ranger District

Camp Moore
Camp Pelsor

Pleasant Hill Ranger District

Camp Ozark
Camp Ozone

Sylamore Ranger District

Camp Big Flat
Camp Hedges

White Rock Ranger District

Camp Cass
Camp Frasier
Camp Mulberry

Boston Mountain Unit

Devils Den Camp

Magazine Mountain Unit

Camp Corley

APPENDIX/5

Manpower Programs

Accelerated Public Works. 1962-1964.

Accomplishments: Work Center Construction at Cass, Clarksville, Mountainburg, and the St. Francis National Forest. Office construction for the Bayou and Sylamore Ranger Districts and the St. Francis National Forest. Recreation areas: Shores Lake, Horsehead Lake, Storm Creek Lake, and White Rock.

Green Thumb and Senior Community Service Employment Program. Begun, 1966.

Accomplishments: Recreation area construction, maintenance, and clean-up; trail construction and maintenance, road brushing and maintenance.

Job Corps. Cass Center opened June 15, 1965.

Work Accomplishments: Redding and Wedington recreation areas, new administrative offices at Paris and Ozark, new residences for Boston Mountain Ranger District and for Cass Center Director, new dining hall and kitchen at Cass Center, new education building for center, road construction, storage buildings in ranger districts, construction of cattle guards, picnic grills and metal gates for ranger districts. Assistance in fire fighting and traffic control.

Youth Conservation Corps. Begun 1973.

Residential camp established at Mt. Magazine. A non-residential

camp was established in the Boston Mountain Ranger District in 1976 and in 1977 additional camps opened in the Pleasant Hill and Buffalo Ranger Districts. Accomplishments: trail construction and maintenance, recreation area maintenance, rehabilitation and construction, construction at scenic overlooks, recreation roadside clean-ups.

In addition to these manpower programs there have been such programs as the Older American Programs, the Neighborhood Youth Corps, Work-Study Programs, and programs falling under the Comprehensive Employment Training Act.

APPENDIX/6

Major Legislation Relating To Forest Activities

Creative Act of 1891
Organic Administration Act of 1897
Transfer Act of 1905
Act of March 4, 1907
Act of May 23, 1908
Weeks Law, 1911
Clarke-McNary Act of 1924
Knutson-Vandenberg Act, June 9, 1930

The Bankhead-Jones Farm Tenant Act, 1937
Mineral Leasing Act for Acquired Lands, 1947
Multiple Use-Sustained Yield Act, 1960
Wilderness Act, 1964
Land and Water Conservation Fund Act, 1964
National Environmental Policy Act of 1969

The Endangered Species Act of 1973
Forest and Rangeland Renewable Resources Planning Act, 1974
The Sikes Act of 1974
The Eastern Wilderness Act
National Forest Management Act, 1976
Federal Land Management Policy Act, 1976
Payment in Lieu of Taxes Act, 1976

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10. Guy Wilkinson. *History of the Ozark and St. Francis National Forest, 1908-1961*. p. 4.

11. The Arkansas Gazette, February 9, 1911. p. 2 Article by J.R. Fordyce.
12. Murray E. Bruner. "Summary of the Forestry Situation in Arkansas." November 1924. History File.
13. Nuttall. pp. 67-68.
14. Nuttall. pp. 57-58.
15. Frederick Gerstaecker. *Wild Sports in the Far West*, translated from German (Boston: Crosby, Nichols and Company, 1859). pp. 136-137.
16. Nuttall. p. 143.

Chapter 2

1. The Arkansas Gazette, May 2, 1948.
2. The Southwest American, Fort Smith, Arkansas, May 3, 1948.
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5. The Arkansas Gazette, April 16, 1909. p. 3. Journal of the Senate of Arkansas, April 15, 1909. pp. 286-287.
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6. The Arkansas Gazette, May 6, 1909. Shows the resolution passed by a vote of 56-22. Repeated in Gazette of May 7, 1909.
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2. File record of Francis Kiefer.
3. Inspection Reports 1909 by H. B. Jamison, Law Officer, RG-95.
4. File record of Francis Kiefer.
5. Gifford Pinchot. *Breaking New Ground* (New York: Harcourt, Brace and Company, 1947). p. 279.
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12. Wilkinson. p. 13.
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6. Wilkinson. p. 18.
7. Paxton. p. 21.
8. Wilkinson. pp. 22-23.
9. Wilkinson. p. 23.
10. The Arkansas Gazette, December 13, 1942.
11. *ibid.*
12. *ibid.*
13. Wilkinson. pp. 25-26.

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3. Courier Democrat, March 27, 1943.
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9. Courier Democrat, May 12, 1943.
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16. Wilkinson. p. 28, 30, and 31.

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12. Wilkinson. p. 40.

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2. *ibid.*
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Wait, James Maurice. Unpublished diaries, 1912 to 1969, intermittently. Letters and correspondence for some of these years. His books, magazines and photographs. Through the courtesy of Lola Ross, his sister, of Dover, Arkansas.

File Records from the St. Louis Federal Records Center; Ralph Huey, Francis Kiefer, H.R. Koen, and J.M. Wait.

Personal Interviews conducted in the years 1977, 1978, and 1979 with the following individuals, listed alphabetically, along with the place of interview.

Name	Place of Interview:
Benson, Carl	Russellville
Boles, Charlie	White Rock Mountain
Cabiness, George	Russellville
Carter, Dixie	Marianna
Curtis, Dexter	Jasper
Daniels, Ernest	Jasper
Dodson, Solon L.	Paris
Emory, Fred	Hector
Edgette, Ed	Russellville
Freeman, Osburn	Clarksville
Hamilton, Oxford	Jasper
Harmon, Frank	Washington, D.C.
Harris, Ed	Clarksville
Hartsook, Norton	Cass
Henson, Larry	Russellville, Washington, D.C.
Hopper, O.D.	Ozark
Horne, Sam	Paris
Hotard, Frank	Russellville
Hunter, Irene	Clarksville
Hunter, Ralph	Ozark
Johnson, Harry	Jasper
Norman, Opal	Fifty-Six
Page, Tate C.	Russellville
Phillips, George	Clarksville
Roberson, Bobby	Paris
Smith, Mary	Cass
Smith, Tim	Jasper
Todd, Daniel	Green Valley, Arizona (corr.)
Ward, Carl	Mountain View
Ward, Von	Mountain View
Warren, Wenola	Clarksville
Watkins, John	Ozark
Wells, Frank	Ozark
Williams, Don	Washington, D.C.
Young, Ford	Jasper
Young, Lynn	Marianna
Zeiler, John M.	Paris

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AUTHOR'S NOTE AND ACKNOWLEDGEMENTS

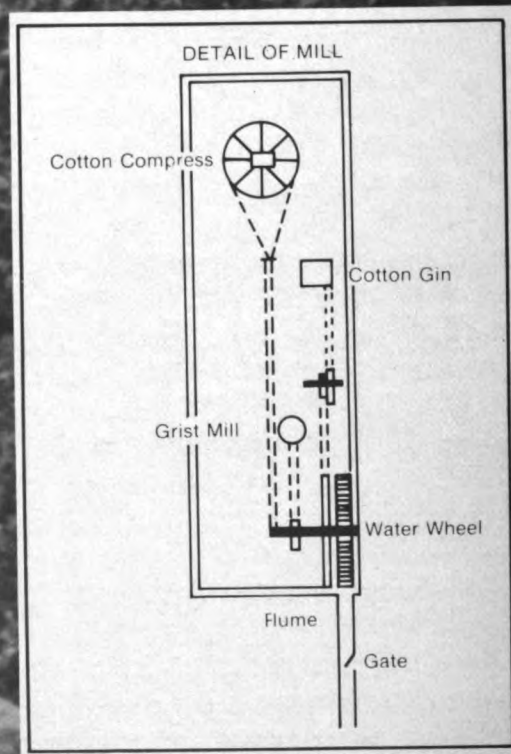
This book came about because of the photographs and because over the past seventy years, some wise, anonymous soul refused to throw them out.

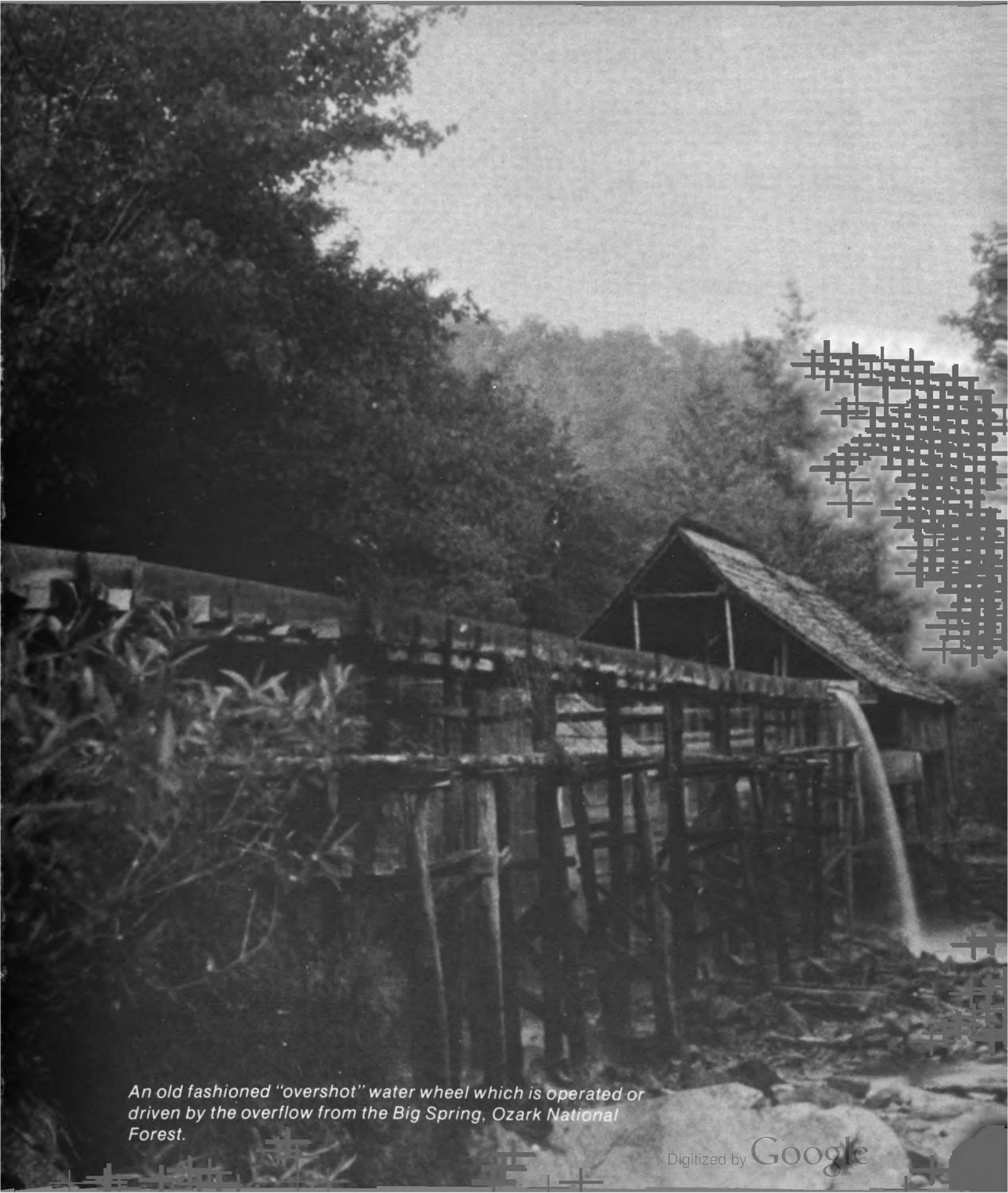
This book also happened because to some persons the photographs seemed as wonderful and valuable as any endangered specie. These people went to work and found ways and money so that a little-known resource of this forest might be shared. Chief among those persons has been Larry Henson, who got much of the project started. Bill Page, Quinten Cole, Bob Neelands, and Bob Atchison lent their support. So did Jim Crouch. Everyone asked to help gave more than necessary. But no one pushed and shoved harder or longer than Bud Corbett. Neither did anyone dig up more statistics and track down more obscure items. That the book exists is to his credit.

The photographs are part of a small collection, approximately 1,200 mounted pictures. Most of these photographs date from 1908 to the years of World War II. There are some photographs from the late 1940's and beyond, but the systematic and routine use of photography seems to have ended with the war years.

These photographs were filed both locally and in the Washington office where they were assigned the serial numbers seen in the accompanying captions of this book. In recent years the negatives for the entire U.S. Forest Service photographic collection have been turned over to the National Archives. This national collection numbers more than 500,000 black and white photographs, and it is possible to order reprints by writing the National Archives and mentioning the photo serial number.

The photographers of the Forest Service were not always professional photographers; but some of them became accomplished amateurs. James Maurice Wait of Dover, Arkansas was one. Others mastered the mechanics, and a few brought to the work a more subtle perception. The notes accompanying each photograph and the supporting information which date and identify the work significantly increases the value of this collection. The captions in this book have been taken, where possible, from these notes.





An old fashioned "overshot" water wheel which is operated or driven by the overflow from the Big Spring, Ozark National Forest.

