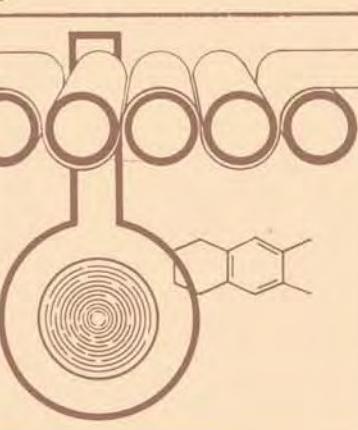
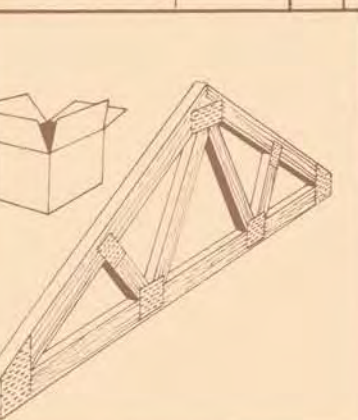
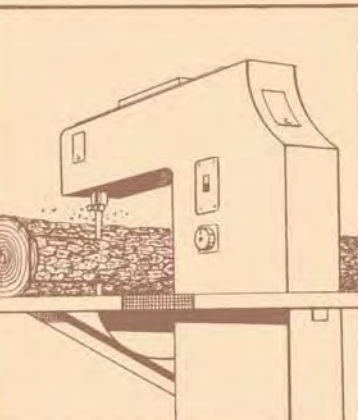
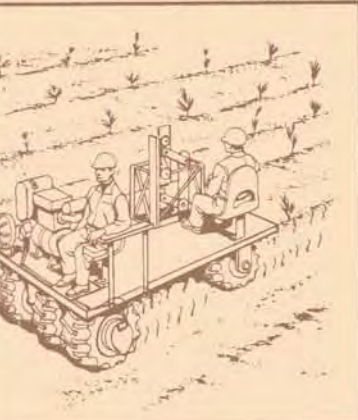


Al W. Cline

A HISTORY

School of Forest Resources

1929-1979



NORTH CAROLINA STATE UNIVERSITY



SCHOOL OF FOREST RESOURCES

1929-1979

Introduction

The occasion of the school's golden anniversary brought home to us that it was time to pause and chronicle the first half century for the record before memories of the past, which clothed the documented changes, grew dim.

The history of the school, which is the designated successor of America's first forestry school, is an exciting success story. From its humble origin of six faculty and one curriculum, the programs now encompass an annual enrollment of approximately 1,000 students, from North Carolina and from most states and many countries, 72 faculty, and six curricula—baccalaureate through graduate level.

The evolution of our programs is being further accelerated not only because of demand for graduates with more advanced knowledge in specific fields, but also because of changing national values and priorities concerning natural resources, energy, and environmental issues.

The current era is characterized by a diverse scope of programs and some increasing specialization in areas of work central to forestry and natural resources. All of these factors are causing us to expand our graduate and associated research programs.

As important as program quality and scope of operations are, however, the most important aspects of the program always have been the people involved—the faculty, the students, and the staff. We were fortunate indeed not only to have a stream of outstanding teachers and scientists who made major contributions to their professions and to helping students chart their way, but also people who were personalities in their own right. For the some 3,800 graduates of the school there is little doubt that their principal memories are of the people with whom they associated.

This condensed history is presented in four sections which represent the four departments of the School—namely forestry, wood and paper science, recreation resources, and extension. To a large extent, these sections typify significant chronological changes which occurred in the growth and development of the School. I would like to acknowledge Associate Dean LeRoy Saylor, chairman of the Anniversary Planning Committee, for his untiring efforts in organizing and editing the work, and Professor Emeritus William D. Miller, Professor Emeritus Thomas Hines, Professor Emeritus Roy Carter, Professor Robert Hitchings, and Mr. Walt Keller for their roles in preparing this history. My thanks are also due to numerous other contributors who assisted in this effort.

We hope you find this presentation, which is our platform for the future, both interesting and informative.

Eric L. Ellwood
Dean

DEPARTMENT OF FORESTRY
(1929-1979)

by William D. Miller

Introduction

North Carolina, with some nineteen million acres in forest, is a well-forested state. In the late 1920s, however, there was little public realization of the value of this resource. Aside from two national forests in the mountain section, most of the forest area was in the hands of small private owners. The North Carolina Forest Service (then known as the Division of Forestry, Department of Conservation and Development) assigned most of its personnel to fire protection. Extension Forester R. W. Graeber spread the gospel of forest management, but one man could not reach a quarter of a million forest land owners. This stimulated a small group of people, members of the North Carolina Forestry Association, to do something about the situation. Their efforts bore fruit in 1928 when the authorities of North Carolina State College approved a four-year curriculum in forestry leading to the bachelor of science degree.

J. V. Hofmann – The Beginning



Dr. J. V. Hofmann, Director of Division of Forestry, 1929-1948.

The man selected to head up this program was Dr. Julius V. Hofmann, then Associate Director of the Pennsylvania State Forestry School at Mont Alto. He had earned the first Ph.D. degree in forestry in the United States at the University of Minnesota in 1914, and had engaged in silvical and fire weather research with the United States Forest Service in the Pacific Northwest for fourteen years preceding his appointment at Mont Alto in 1924. He held the firm belief that forestry should be a business enterprise, paying its own way.

Dr. Hofmann reported on February 1, 1929, for duty as Director of the Department of Forestry in the School of Agriculture. It was planned to register students in September, and the first forestry graduating class was not expected until 1933. In April, however, Dr.

Hofmann received a call at his office in Polk Hall from Professor W. H. Horning, a former colleague at Mont Alto, and six Mont Alto students. Because of the merger of the two forestry schools in Pennsylvania, the Mont Alto school had been abolished. Professor Horning proposed that North Carolina State College expand its forestry program to accommodate the Mont Alto student body in September. The persistence of the visitors overcame all objections and the proposal finally was approved. Governor O. Max Gardner took emergency action to provide funds for additional faculty, classroom, and laboratories.

The Department of Forestry opened on September 19 with 24 freshmen, 13 sophomores, 17 juniors, 17 seniors, and one graduate student. The faculty included Dr. Hofmann, Professor R. W. Hayes, and D. Y. Lenhart, a teaching fellow. Supporting courses were offered by the Departments of Botany, Civil Engineering, Soils, and Zoology. "Temporary" quarters were provided in the north half of the third floor of Ricks Hall. The Northern and Southern students discovered each other with agreeable surprise. Seventeen forestry diplomas were granted in 1930, and the new forestry department was an undeniable reality.

Forest Acquisitions

High on Dr. Hofmann's priority list was the acquisition of school forests for the training of students and for demonstration of forestry as a business practice. A major step toward meeting this need was taken on April 15, 1929, when the North Carolina Forestry Foundation was organized with Dr. Clarence Poe, Daniel Allen, T. L. Bland, and R. H. Merritt as directors and Dr. Hofmann as secretary-

BUILDINGS AND LABORATORIES UTILIZED BY THE SCHOOL OF FOREST RESOURCES



Ricks Hall (1929-1952)



National Youth Administration Woodworking Shop
(The first Wood Products Lab, 1949-1960)



Kilgore Hall (1952-1970)



Robertson Pulp and Paper Laboratory (1956-)



Hodges Wood Products Laboratory (1960-)



Biltmore Hall (1970-)

treasurer and manager. The Foundation was a nonstock, nonprofit corporation with authority to purchase, lease, or otherwise obtain lands for the use of the Department of Forestry.

The first school forest was made possible by George Watts Hill's gift in 1930 of 378 acres of his Quail Roost Farm in Durham County. This area was immediately put in use for field exercises, and has been the site of the annual summer camp since 1936. Mr. Hill cooperated in the enlargement of the forest by advancing funds for the purchase of adjoining tracts, the money to be repaid when timber was cut. There were usually one or more pulpwood cuttings in progress at this time, the wood being loaded on railroad cars at the Quail Roost siding. The forest area was increased in this way to approximately 1,500 acres. Located on the Flat River, in an easterly extension of the Virginia pine (*Pinus virginiana*) type, the forest contained some fine stands of that species. Recent purchases have increased the area to 2,200 acres. The two-story building of Virginia pine logs which was completed in 1935 is still in sound condition, and used extensively.



Hill Forest Summer Camp Buildings—(left) Lodge-classroom, completed in 1935 of virginia pine logs; (right) New classroom completed in 1979.

Two areas acquired by the Foundation, the Poole Woods in Wake County and the MacLean Forest in Hyde County, were kept for a few years and sold, after having provided experience for the students in timber cruising, management, and research.

The largest acquisition came on August 20, 1934, when the Foundation contracted to buy, on a liquidation basis, an 83,000-acre tract of poorly-drained, tax-delinquent land in Jones and Onslow Counties. The area was then called the White Oak Pocosin but is known today as the Hofmann Forest. A Civilian Conservation Corps camp was installed for road building and for work on fire protection and drainage. A task of no mean proportions was the marking of the boundary lines, which totaled 129 miles. G. E. Jackson, after receiving his forestry diploma in 1935, became the first supervisor of the Forest.



Hofmann Forest Headquarters Buildings



Mr. G. E. Jackson, first supervisor of the Hofmann Forest, on log road (1937).

Pocosins (wet upland bogs with varying depths of black, soft muck, underlain by sand, silt or clay) are estimated to occupy nearly a million and a half acres in North Carolina alone. The characteristic tree species is pond pine (*Pinus serotina*). It was felt that the acquisition of this forest would promote research in the management of an important, though hitherto little regarded, resource.

Because of low stumpage prices in the late 1930s, a refinancing was necessary in 1939. Bonds were sold to cover the purchase price, which was reduced in consideration of a cash payment. These bonds were retired at the scheduled times, the last in 1958. This program, unique in forest school history, was carried on by Dr. Hofmann and the Foundation through the aftermath of the Great Depression and through World War II without state appropriations.

Nine of the ten blocks of the Forest were leased in 1945 to the Halifax Paper Company for pulpwood production. A 47,000-acre fire in 1950, caused by incendiarism at a time of extreme fire danger, resulted in a revision of the contract, giving the company complete responsibility for the operation of the Forest. The lease was subsequently taken over by the Albemarle Paper Company, by Hoerner & Waldorf, and recently by Champion International. The Foundation published a detailed history of the Hofmann Forest in 1970.

The Richlands Creek Forest was acquired in 1937 when the state turned over a portion of the Camp Polk Prison Farm at Raleigh to State College, and some 250 acres were made available to the Division of Forestry. Ninety-two acres, exhausted by growing of vegetable crops, were planted to loblolly pine in 1938. Two years later Dr. Hofmann was informed, "Your trees are dying," but it proved to be only a tipmoth infestation, and survival was nearly 100 percent. The forest (later renamed the Carl Alwin Schenck Memorial Forest) contains an arboretum, a picnic area, a seed orchard, a nature trail, stream gauging stations in Richlands Creek, and a set of loblolly pine spacing plots.

The Hope Valley Forest in Chatham County was acquired in 1944, when 1,750 acres of land were released by the Farm Security Administration. New Hope Creek runs through the area, and plans of the Army Corps of Engineers for the Jordan Dam call for the inundation of all but 340 acres of this area. As a result, all timber along the creek has been cut and sold. Permanent sample plots for the study of even-aged and uneven-aged management are located in the upland area which will not be affected by the flooding.

Department to Division Status

The Department of Forestry became the Division of Forestry in 1931. D. Y. Lenhart resigned in 1930 to accept industrial employment, and was succeeded by T. C. Evans. Mr. Evans resigned in 1931 to join the United States Forest Service and was succeeded by George K. Slocum. Lenthall Wyman, director of naval stores research for the United States Forest Service, came in 1934 to succeed Professor Hayes, who left to become head of the forestry school at Louisiana State University. Professor Slocum was director of the annual sophomore summer camps at the Hill Forest which started in 1936, and of the annual junior spring camps at the Hofmann Forest which were initiated in 1947. Professor Wyman was in charge of the annual senior trip to inspect forest practices and wood-using industries; this trip, which usually culminated in Florida or Louisiana, was extended in 1939 to include the California redwoods.

Dr. William D. Miller, from the forestry faculty at the University of Idaho, came in 1935 to teach silviculture. Jesse W. Chalfant came from the United States Forest Service in 1940 to teach protection and improvements. Dr. Clemens M. Kaufman, Assistant Extension Forester of Minnesota, was engaged in 1943 to take charge of research.

World War II brought the normal activities of the campus to a halt. Fifteen State College forestry alumni gave their lives in the country's service. Professor Wyman was called to the War Production Board. Professor Chalfant saw service in Italy with the Army, and Professors Kaufman, Slocum, and Miller were engaged in research on the school forests.

Full-scale activities of the College were resumed in 1945, with large numbers of veterans of the armed services entering school. In the fall of 1947, the Hulda Johnston Cox Forestry Scholarship, amounting to \$500 a year, was established by the Ralph K. Cox Paper Company of Dover, North Carolina and Wellsburg, West Virginia. The first recipients of this award were Henry C. Dellinger and John C. Barber. This was the forerunner of the hundred or more scholarships available to students in Forest Resources today.

Dr. Hofmann retired as Director of the Division of Forestry on March 1, 1948. In nineteen years he had established a vigorous forestry program with a large area of school forests for demonstration and research; he had organized the North Carolina Forestry Foundation to provide financial strength;

and he had attracted national attention by his daring venture which led to the gradual transformation of a large tax-delinquent area into the productive Hofmann Forest.

The Preston Years Begin



Dr. Richard J. Preston, Dean, School of Forest Resources, (1948-1971)

The task of choosing a successor occupied the College search committee for the better part of a year. Dr. C. M. Kaufman and Extension Forester R. W. Graeber represented forestry on this committee. After consideration of a long list of candidates the final choice fell on Dr. Richard J. Preston, head of the Department of Forest Management and Utilization at Colorado A & M College. His record included education at the University of Michigan, work with the United States Forest Service and the Florida Forest Service, and teaching at Colorado A & M since 1936 with the exception of three war years at the Forest Products Laboratory in Madison, Wisconsin. He assumed his duties as Director of the Division of Forestry on July 1, 1948.

Dr. Hofmann continued to be active, using his quick mind and tireless energy as manager of the Forestry Foundation and as a forestry consultant. Following his death in 1965, the *Raleigh News and Observer* said in an editorial: "Through his (Dr. Hofmann's) efforts a greater awareness of forest resources and the need for conservation of these resources was developed in the public consciousness, as well as in the hundreds of students who came under his influence."

Dr. Preston soon demonstrated the qualities which would make his twenty-three years of leadership outstanding in the history of forestry education. He announced at once that academic standards must be raised. He established a wood technology curriculum for which students registered in January, 1949. His ability to think and plan, his courtesy and quiet strength won the respect and confidence of faculty and students and, later, of industrial executives.

School Status and New Quarters

The long-sought elevation to school status came on July 1, 1950. The Division of Forestry became the School of Forestry, on an equal basis with the Schools of Engineering, Agriculture, Textiles, Design, and Education. The new School left its quarters in Ricks Hall in December, 1952, to occupy the west half of the new Forestry-Horticulture building, Kilgore Hall. A wood products laboratory was housed on the basement floor, with offices, classrooms, and laboratories on the two upper floors.

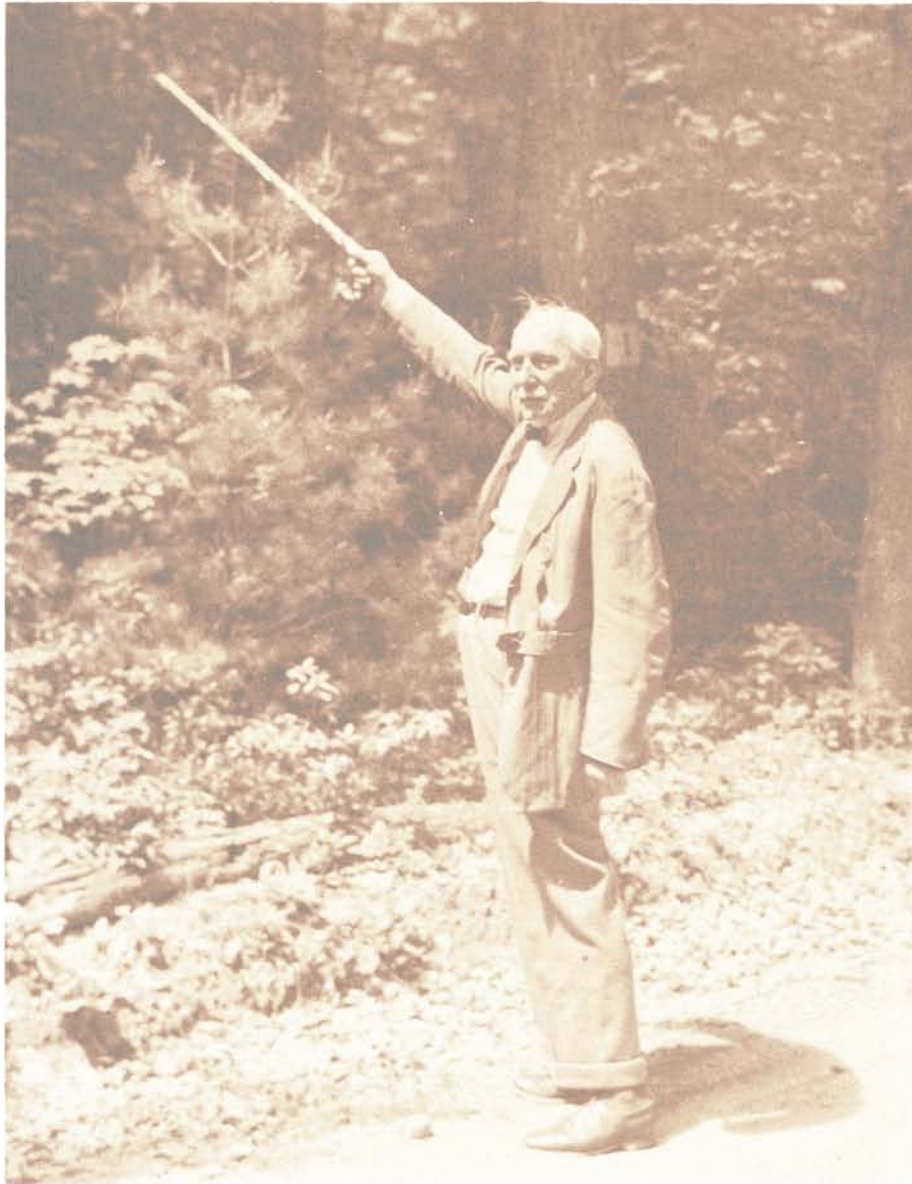
Dr. Kaufman resigned in 1951 to become director of the forestry school at the University of Florida, thus becoming the second State College forestry faculty member to become the director of another forestry school. When, in 1963, he stepped down to engage in full-time teaching and research, he was succeeded as director by another man from North Carolina State, Dr. John L. Gray. Dr. Gray had been Extension Forester of North Carolina since the retirement of R. W. Graeber in 1953.

The roster of forestry school directors also includes several alumni of the NCSU School of Forestry (or Forest Resources). Among these are Emmet F. Thompson, M.S. '60, head of the Department of Forestry, Auburn University; J. Lamar Teate, Ph.D. '68, director of the School of Forestry, Louisiana Polytechnic Institute; and J. Charles Lee, Ph.D. '73, dean of the School of Forest Resources, Mississippi State University.

Dr. T. Ewald Maki, a highly-regarded research scientist from the United States Forest Service, was engaged in 1951 to head the forest management curriculum and direct management research. Under his leadership, the research program uncovered the secrets of cutover areas, old fields, watersheds, nursery beds, drainage ditches, and burns. Working with Dr. Maki, colleagues and students found themselves reaching new levels of scientific thinking and enjoying the experience.

Dr. Ralph C. Bryant came in 1952 from the faculty of Colorado A & M College to teach forest economics. He was director of the junior spring camp at the Hofmann Forest from 1954 to 1960,

after which the camp was discontinued. In 1959 he became director of the summer camp at the Hill Forest. He made arrangements with Regional Forester Ralph Winkworth of the North Carolina Forest Service in 1964 for the summer camp students to spend a week in Kinston at the Forest Service's Fire Training School. This has been made a regular feature of the summer camp program. (Mr. Winkworth is now State Forester and an Adjunct Professor of the School of Forest Resources.) Dr. and Mrs. Bryant, because of their selfless interest in the students and the School, were affectionately nicknamed "Father" and "Mother" Bryant.



Dr. Carl Alwin Schenck, Founder and Director of the Biltmore Forest School (1898-1913).

Dr. Schenck and the Biltmore Alumni

At the 1952 Commencement exercises, an honorary doctorate of forestry was conferred on Dr. Carl Alwin Schenck, who came to this country from Germany in 1895 to be forest manager of the Vanderbilt estate near Asheville. At that time there were only two other trained foresters in the United States—Gifford Pinchot and Bernhard Fernow. In 1898 Dr. Schenck established the Biltmore Forest School, offering a twelve-month course to men desiring to fit themselves for employment by lumbermen and owners of forest land. This was the first forestry school in the New World. It was Dr. Schenck's view (radical for that time), that forestry should be a profitable business operation and that private enterprise should play the major role in the development of the profession. The school

ceased operation in 1913 after graduating about 400 students, who have been a vital factor in American forestry.

Speaking to the Biltmore alumni reunion in 1952, following the conferring of the honorary degree at State College, Dr. Schenck stated that he looked upon the School of Forestry at North Carolina State College as the continuation of his pioneer school. This kindled the interest of Biltmore alumni and friends. Through their efforts, especially those of Edwin F. Conger, the Biltmore tradition became firmly associated with the School of Forestry at North Carolina State. This resulted in actions which have greatly strengthened the programs of the School.

The Carl Alwin Schenck Distinguished Professorship in Forestry was endowed in 1955, and Dr. T. Ewald Maki was selected by the Trustees to be the first holder of this professorship. Three Biltmore scholarships were endowed. Funds were made available for furnishing a Biltmore Room in the library to house Dr. Schenck's personal library, Biltmore papers received from the Forest History Society, and other records contributed by Biltmore alumni. In 1962, Mr. Conger gave the School two-fifths of the proceeds from the sale of the Conger Woods near Aiken, South Carolina. This gift made possible the endowment of several Conger scholarships and the establishment of the Edwin F. Conger Distinguished Professorship in Forestry. The first holder of this professorship was Dr. Bruce J. Zobel.

The Trustees of the University renamed the Richlands Creek Forest the Carl Alwin Schenck Memorial Forest in 1955. The ashes of Dr. Schenck, who died in that year, were scattered in the forest. A bronze memorial plaque was mounted on a granite boulder in the picnic area. When a new forestry building was dedicated in November, 1970, it was fittingly named Biltmore Hall.

University—Industries Ties

An event of prime importance which properly belongs to the report on the pulp and paper curriculum, but which cannot be disregarded here, is the organization of the Pulp and Paper Foundation in 1955. This evidence of the interest of the forest industries in the development of the School had far-reaching effects on the School as a whole, as well as on the new pulp and paper curriculum. The first evidence of this effect in the Department of Forest Management was the organization in 1957 of the cooperative Forest Tree Improvement program, with eleven pulp and paper companies and the Agricultural Experiment Station making substantial contributions. North Carolina State College was chosen as the base for the program because of its central location, school forests, research facilities, and staff. The three primary objectives were: the location and cataloging of superior trees, the study of the heritability of various characteristics, and the training of graduate students. Dr. Bruce J. Zobel came from Texas A & M College to head the program, assisted by R. L. McElwee, formerly silviculturist for the Gaylord Container Company, as liaison geneticist. The establishment of this program has been said to be the most significant event in southern forestry since Dr. Herty discovered that southern pines can be used in the pulp and paper process. The Tree Improvement Cooperative presently is supported by over 30 private and public organizations.

The death of Professor George K. Slocum in January, 1959, stunned and saddened the School. During the Rolleo in the fall of that year, the camp at the Hill Forest was dedicated as the George K. Slocum Forestry Camp. A memorial plaque was mounted on a granite boulder in the white pine plantation overlooking the lake. Funds contributed by alumni made it possible to establish the Slocum Work Scholarships.

Dr. T. O. Perry, coming from a post-doctoral fellowship at California Institute of Technology, joined the faculty in 1960 to teach genetics and silvics. Dr. J. O. Lammi came in the same year from the Food and Agriculture Organization of the United Nations at Geneva, Switzerland, to teach forest economics. Dr. J. W. Duffield, an internationally known geneticist who for the previous nine years was in charge of research in tree improvement and nursery practice for the Industrial Forestry Association at Nisqually, Washington, came in 1963 to teach silviculture.

Further strengthening of the faculty had been made possible in 1961 when the School of Forestry joined with the School of Agriculture in a series of joint appointments in the fields of forest botany, entomology, genetics, pathology, and soils. This enabled the Department of Forest Management to obtain the services of outstanding men in these fields. The first joint appointments were Dr. Arthur W. Cooper, plant ecology; Dr. Charles B. Davey, soil science; Dr. Maurice Farrier, entomology; Dr. James W. Hardin, botany; Dr. Arthur Kelman, plant pathology; Dr. Gene Namkoong, genetics; and Dr. LeRoy C. Saylor, genetics. These initial joint appointments were so successful that others were

added when appropriate. Later appointees include: Dr. Frederick S. Barkalow, wildlife; Dr. Larry F. Grand, plant pathology; Mr. Richard R. Wilkinson, landscape architecture; Dr. Arthur G. Wollum, soil science; Dr. Fred P. Hain, entomology; Dr. Donald E. Moreland, crop science; Dr. Arthur L. Sullivan, landscape architecture; Dr. Jay D. Hair, wildlife; and Dr. Robert I. Bruck, plant pathology.

The research program received an additional stimulus in 1964 with the passage of the McIntire-Stennis Act, making federal funds available for forest research at state universities. Dean Preston, a member of the Council of the Society of American Foresters at this time, was credited by his colleagues with much of the foresight, intuition, and skill needed to draft this important measure and secure its enactment into law.

The success of the cooperative tree improvement program under Dr. Zobel resulted in a request from lumber, veneer, furniture, and pulp and paper companies for a second cooperative program, on hardwood management and utilization. The Hardwood Cooperative was established in 1963-64 with ten cooperating companies, with R. L. McElwee as director and E. M. Jones, from forestry extension, as associate director. R. C. Kellison took McElwee's place as liaison geneticist in the Tree Improvement program.

A third cooperative, for research in forest fertilization, was organized in 1969, with the School, wood-using industries, and the State of North Carolina participating. The director was L. Wayne Haines, formerly an extension forestry specialist.

An addition to the school forests was made in 1967, when the Goodwin Forest of 1,120 acres in Moore County came to the School of Forestry by a provision in the will of James L. Goodwin. Mr. Goodwin was a forestry graduate of Yale University and a friend of Colin G. Spencer, a former president of the North Carolina Forestry Foundation. This forest, in the Sandhills region, was carefully managed by Mr. Goodwin, with the assistance of the Spencer family, for 36 years before his death in 1967, and is in excellent condition. An inventory made in 1962 by J. Atwood Whitman, '38, indicated an annual rate of net growth and cut of sawtimber more than twice the current rate for all commercial forest land in North Carolina. Mr. Goodwin stipulated that income from the tract should be used for forestry scholarships.

Also in 1967, the School acquired a forest manager. Larry G. Jervis, an alumnus of the School who had been working for the United States Forest Service, returned to Raleigh to take over management of the Schenck, Hill, Hope Valley, and Goodwin Forests and ultimately to teach a farm forestry course for the School of Agriculture and Life Sciences and the silviculture course in Summer Camp.

Dr. Maki announced in 1967 that the options available in the Forest Management Department included general forestry, forest biometry, business operations, watershed management, forest biology, outdoor recreation, and wildlife management. New courses included Advanced Topics in Silviculture offered by Dr. Duffield and Advanced Topics in Quantitative Genetics by Dr. Namkoong. Members of the faculty were on assignments in Turkey, Finland, and Brazil; others were to present papers at the IUFRO Congress in Munich in the fall, causing the student publication, *The Pi-ne-tum*, to comment that "our faculty members can be found anywhere in the world."

Name Changes

To better describe the broadening programs of the School, the name of the School of Forestry was changed in 1968 to the School of Forest Resources. The Department of Forest Management was renamed the Department of Forestry, recognizing the trend toward multiple use of forests as opposed to timber production alone.

A joint degree curriculum in Conservation was announced in 1968 by the School of Forest Resources and the School of Agriculture and Life Sciences. Dual degree programs were developed between forestry and other disciplines such as soil science, entomology, economics, and wildlife biology. Students who experienced no difficulty in carrying heavy course loads could qualify for the second degree in the regular four-year period; average students would find it necessary to enroll for an extra semester.

The organization of research in the School in 1968 reflected the concept that research should be done by teams of scientists of sufficient number and backgrounds to work effectively. For example, seven scientists made up the forest genetics team, supported by a University genetics faculty of more than 40 Ph.D.s, and four scientists in the forest pathology field were supported by some thirty Ph.D.s in plant pathology. The School had initiated a program in forest biometry in 1966, when Dr. W. L. Hafley joined the faculty as a joint appointee between Forestry and Experimental Statis-

tics. Three additional scientists in the forest biometry program were supported by the Southeastern Forest Experiment Station and the Department of Experimental Statistics and were connected with the Research Triangle Computation Center's IBM 360-75 through a remote console unit in the School. In connection with computer science and applications of this technology in forestry, the School was fortunate in attracting Dr. Thomas V. Gemmer in 1970 to teach courses in this increasingly important area.

Because of the growth of the School, Dr. L. C. Saylor (joint professor of Forestry and Genetics) was made Assistant to the Dean on a half-time basis in 1966. In 1970 he became Assistant Dean and in 1974 Associate Dean with primary responsibilities in the area of Academic Affairs. On July 1, 1970, Dr. Maki stepped down as head of the Department of Forestry to resume full-time duties in teaching and research. He was replaced as department head by Dr. C. B. Davey, joint professor of Forestry and Soil Science.

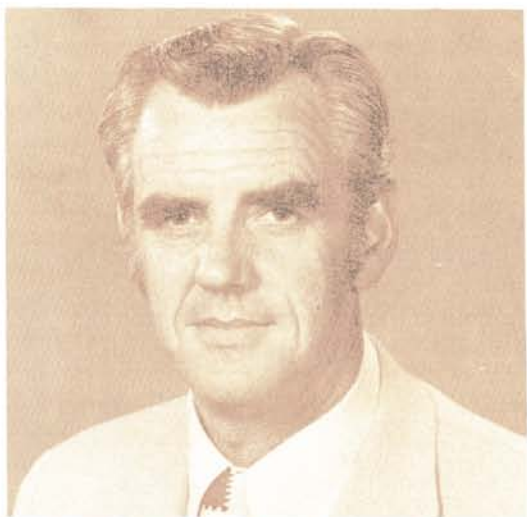
A New School Building

As early as 1954, when plans for the Robertson Pulp and Paper Laboratory on Western Boulevard were first discussed, Dean Preston had foreseen that the School would eventually need a new building adjacent to the Robertson Laboratory to meet the pressures of continued growth. The legislature of 1961 included funds in a bond issue for a new general forestry building and a third floor addition to Robertson Laboratory; this was defeated in the ensuing general election. The University continued to place this facility development in top priority in its budget request, but funds were not appropriated until 1965. Grants from the National Science Foundation and from the Department of Health, Education, and Welfare brought the total funds for the facility to \$1,705,000. The securing of grants and the preparation of plans delayed actual construction until the fall of 1968. The building was accepted in October, 1970, dedicated as Biltmore Hall on November 6, and occupied by the School of Forest Resources in December.

The new building provided 55,000 square feet of space. With the Reuben B. Robertson Pulp and Paper Laboratory, dedicated in 1957, and the Brandon P. Hodges Wood Science and Technology Laboratory, dedicated in 1960, a total of 89,000 square feet of space was available for the School of Forest Resources in the three adjacent buildings.

Dean Preston had successfully concluded his long campaign to bring the School together in one area only a short time before his retirement on July 1, 1971. Under his far-sighted direction, the School had attained new dimensions and had gained a world-wide reputation for excellence in all of its activities. He had assembled a large and distinguished group of leaders, teachers and researchers, had won the confidence and support of industry, and had initiated far-reaching research programs of high caliber.

E. L. Ellwood – The Third Dean



Dr. Eric L. Ellwood, Dean, School of Forest Resources, (1971–).

The University search committee selected Dr. Eric L. Ellwood, head of the Department of Wood and Paper Science, as the new Dean. He was educated at the University of Melbourne and Yale University. He came in 1961 from the Forest Products Laboratory at the University of California at Berkeley to take charge of the School of Forestry's undergraduate curricula in pulp and paper technology and all graduate programs in wood products. On being informed of his appointment as Dean, Dr. Ellwood stated: "I will continue to aim high, in the tradition already established, to meet the rapidly intensifying challenges of the future."

One of these challenges was that of meeting the problems caused by an increasing registration. Enrollment had reached 825 in the fall of 1971 and was already beginning to strain the accommodations of Biltmore Hall. In 1973 the

standards of admission were raised for the two curricula with largest enrollment, forestry and recreation. The immediate effect of this measure was only a slowing down of the rate of increase in registration. Enrollment has stabilized in the last two years.

Property Problems

The proposed construction of a water supply reservoir on the lower Flat River for the City of Durham in 1972-1973 threatened to cause the loss of part of the Hill Forest and was vigorously opposed by the School. The City of Raleigh also showed interest in the Flat River as a source of water. Both cities eventually found other sources of supply, leaving the Hill Forest intact.

A claim for ad valorem taxes on the Hofmann Forest was made by Jones and Onslow Counties in 1975-1976. A legal firm and tax consultant were retained by the School to combat this claim. The final result was that the taxes were paid and ownership of the Hofmann Forest was transferred to the North Carolina State University Endowment Foundation, where it will not be subject to future taxation.

The presence of women in the forestry program began to occur slowly in the late 1960's. The first two women were graduated in 1973. Twelve women enrolled in summer camp in 1976; they declined the offer to be placed in separate crews, preferring to accept crew assignments at random. Women have served as editor of *The Pi-ne-tum* and have won most of the other honors open to students. Dr. Awatif Hassan became the first woman faculty member in the Department of Forestry in



Investigators ear-tagging a beaver as a means to estimate population size.

1975. She is Associate Professor of Forestry and Biological and Agricultural Engineering and directs the department's fourth research cooperative program—Forest Engineering—which is supported currently by eleven organizations.

As part of an extensive effort to strengthen the wildlife program, the Department of Forestry was given responsibility in 1977 for administering jointly all phases of the program with the Department of Zoology where it was located previously. The University was fortunate in hiring Dr. Jay D. Hair to fill a newly established position as Coordinator of the programs. In addition, Dr. Richard A. Lancia was hired in a new departmental position in forestry to strengthen research in wildlife habitat management and to develop a Wildlife Summer Camp.

More Personnel Changes

Dr. Donald H. J. Steensen, who had joined the faculty in 1965 to teach mensuration and forest economics, replaced Dr. Bryant as director of summer camp in 1972. Dr. Zobel stepped down as director of the Tree Improvement Cooperative in 1977 and was succeeded by Dr. Robert J. Weir, formerly liaison geneticist. Dr. Zobel retained the position of E. F. Conger Distinguished Professor of Forestry and Professor of Forest Genetics. Dr. Robert C. Kellison became director of the Hardwood and Forest Fertilization programs.

The years 1977 to 1979 saw the retirement of four faculty stalwarts from the Department of Forestry—Dr. Duffield, Dr. Maki, Dr. Lammi, and Dr. Bryant. Dean Ellwood commented that these men together with seven retirees from the other School curricula could constitute a well-staffed forestry school by themselves. He listed faculty acquisitions and changes, and expressed the belief that the new and existing faculty would mount a first-class effort appropriate for the last two decades of the century.

The large number of retirements of 1977 to 1979 resulted in heavy recruitment of new faculty. Without exception, the new faculty obtained were young. Also without exception, they were energetic, enthusiastic, and able. Dr. Douglas Frederick came in 1977 from the faculty of Michigan Technological University as a teacher and researcher in silviculture and ecology, with emphasis on hard-

woods. Dr. Russell Ballard was recruited that same year from the New Zealand Forest Service in Rotorua; a forest soil scientist, Dr. Ballard heads the Forest Fertilization Cooperative in a very active research program covering the Southeast.

Faculty also were recruited in 1978 to support three other important segments of the Department's activities. These members included: Dr. J. D. Gregory, an alumnus, who had been teaching at VPI, to head up the watershed management and hydrology work of the School; Dr. Jan G. Laarman, a forest economist from the University of California, to supplement efforts in economics in research and graduate instruction; and Mr. William D. Smith, another alumnus with almost 10 years industrial forestry experience, to teach and conduct research in the general area of forest management.

A significant change announced on August 1, 1978, was the addition of an Associate Dean of Research to the administrative staff and the appointment of Dr. Ellis B. Cowling to this position. Dr. Cowling had come to North Carolina State University from Yale University in 1965 as Associate Professor of Plant Pathology and Forestry. His role as Associate Dean would be to coordinate the School's research programs, and also to act as Assistant Director of the North Carolina Agricultural Experiment Station.

Dr. Cowling also was named director of a new university-industry research venture, the Southern Forest Research Center, designed to conduct multidisciplinary research on forest productivity of the Southeastern region. The establishment of this Center in 1978 was the culmination of considerable effort by Dean Ellwood and reflects the leadership and interest he has provided continuously in strengthening the research capabilities of the Department and School. Dr. Charles B. Davey vacated his position as head of the Forestry Department at this time to accept responsibilities as lead scientist in soil management for the Center. Dr. William L. Hafley was named lead scientist in forest biometry.

Dr. Davey's replacement as department head was Dr. John W. Johnson, who had been engaged to work with the cooperative programs in 1965, left to become professor of silviculture at the SUNY College of Environmental Science and Forestry in 1970, and returned to the School of Forest Resources in 1976. He had succeeded Dr. Duffield as professor of silviculture upon the latter's retirement in 1977. When Dr. Maki retired in 1978, Dr. Davey was appointed the Carl Alwin Schenck Distinguished Professor.

Faculty Honors

Members of the faculty have received many honors. We mention a few. Dr. J. V. Hofmann and Lenthall Wyman were given plaques by the Southern Pulpwood Conservation Association in 1964 for their contributions to early forestry progress in the South. Dr. Zobel received the Barrington Moore Research Award from the Society of American Foresters in 1968 and the university system's prestigious O. Max Gardner award in 1972. Dr. Preston received the Sir William Schlich Award of the Society of American Foresters in 1972. Dr. Zobel was named the TAPPI Gold Medalist for 1975; the citation said: "The work by Dr. Zobel will have greater impact on the forest industry throughout the world . . . in the next several decades than that of any other single living individual." Dr. Ellwood in the same year, was selected as a TAPPI fellow and elected a director of TAPPI.

Dean Ellwood served in 1978 as chairman of the Governor's Advisory Task Force on Small Woodlot Management, which was asked to propose solutions for the problems of the 245,000 small woodlot owners who own 80 percent of the forest land of the state. The report of the Task Force stressed the need for expanding the markets for timber. Other major recommendations were to identify and develop efficient technology for small woodlots, to stimulate owner interest in woodlot improvement, and to meet owner needs for on-the-ground forestry assistance. Four State forestry alumni were members of the Task Force; one of this number was Dr. D. L. Holley, Associate Professor of Forest Economics, who had joined the faculty in 1971. Largely as a result of his work with the Task Force, Dr. Holley has been "borrowed" by the North Carolina Forest Service for a year to develop techniques of economic analysis for small woodlots.

Student Activities

The Forestry Club, since its organization in 1929, has been a constructive student force in school affairs. Activities include a Big Brother program, preparation for the annual Forest Resources open house, cutting pulpwood from marked trees on the Schenck Forest and, in recent years, active participation in the review of the curriculum. Faculty advisors have been G. K. Slocum, 1931-1959; Dr. R. C. Bryant, 1959-1971; and in recent years Technician W. R. McLaurin and Dr. T. V. Gemmer.



The Class of 1941



J. W. Johnson lecturing forest management class at the Schenck Forest—1976.

The Pi-ne-tum, the excellent student journal, has been published annually since 1934 with the exception of the year 1944. A complete list of alumni and an alumni news section were included in each issue through 1973, but were discontinued thereafter because of the cost. The Forest Resources Alumni Association now publishes a *Newsletter* three or four times a year, containing alumni news as well as articles on current developments in the School. This publication is edited by Professor L. G. Jervis, the manager of the school forests.

Conclusions

What are the causes behind the unprecedented development of this forestry program? Is it due to the area and diversity of the school forests? Is it due to the strong support provided by industry? These are strategic and indispensable factors. It may be said, however, that the most vital factors are the vision, integrity, and dedication of the leaders and the faculty, and the records made by the alumni in the various fields of forestry.

At the beginning of the second half-century, the past is prologue. We may be sure that Dean Ellwood and colleagues will continue to regard difficulties as opportunities and that the School of Forest Resources will maintain and improve its standards of performance in its three-fold task of education, research, and extension.

Chronological Listing of Faculty (1929-1979)

Date of Appointment	Name	Position held in 1979 or at time of resignation or retirement
1929-1948	Julius V. Hofmann	Director, Division of Forestry, and Professor of Forestry
1929-1934	Ralph W. Hayes	Professor of Forestry
1929-1930	D. Y. Lenhart	Teaching Fellow
1930-1931	Thomas C. Evans	Teaching Fellow
1931-1959	George K. Slocum	Professor of Forestry
1934-1956	Lenthall Wyman	Professor of Forestry
1935-1963	William D. Miller	Professor of Silviculture
1940-1952	Jesse W. Chalfant	Associate Professor of Forestry
1943-1951	Clemens M. Kaufman	Professor of Forestry
1948-1971	Richard J. Preston	Dean, School of Forest Resources, and Professor of Forestry
1951-1978	T. Ewald Maki	Carl Alwin Schenck Distinguished Professor of Forestry
1952-1979	Ralph C. Bryant	Professor of Forest Management
1957-	Bruce J. Zobel	Edwin F. Conger Distinguished Professor of Forestry
1957-1971	Robert L. McElwee	Associate Director, Cooperative Tree Improvement Programs
1960-1965	Peter J. Dyson	Assistant Professor of Forest Management and Wood Science and Technology
1960-1978	J. O. Lammi	Professor of Forestry
1960-	Thomas O. Perry	Professor of Forestry
1961-1975	Charles S. Hodges	Professor of Forest Pathology
1961-1965	K. O. Summerville	Staff Assistant in charge of Greenhouse and Field Work
1961-1965	Arthur Kelman	Reynolds Professor of Forest Pathology
1961-	Maurice H. Farrier	Professor of Entomology and Forestry
1962-	LeRoy C. Saylor	Associate Dean, School of Forest Resources, and Professor of Genetics and Forestry
1963-	Charles B. Davey	Carl Alwin Schenck Distinguished Professor of Forestry and Professor of Soil Science and Plant Pathology
1963-	Robert C. Kellison	Coordinator of Research Cooperatives and Associate Professor of Forestry
1963-1977	John W. Duffield	Professor of Silviculture
1963-	Gene Namkoong	Professor of Genetics and Forestry
1964-1975	James W. Hardin	Professor of Botany and Forestry
1964-1971, 1976-	Arthur W. Cooper	Associate Head, Department of Forestry, and Professor of Botany and Forestry
1965-	Ellis B. Cowling	Associate Dean, School of Forest Resources, and Professor of Plant Pathology, Forestry, and Wood and Paper Science
1965-1970, 1976-	John W. Johnson	Head, Department of Forestry, and Professor of Silviculture
1965-1966	David W. French	Visiting Professor of Plant Pathology and Forestry
1965-	Donald H. J. Steensen	Associate Professor of Forestry and Wood and Paper Science
1966-	William L. Hafley	Professor of Forestry and Statistics
1966-	James H. Roberds	Research Associate, Quantitative Forest Genetics
1966-1975	Benee F. Swindel	Associate Professor, Forest Management and Statistics
1966-1979	Hans T. Schreuder	Supervisory Mathematical Statistician and Associate Professor of Forestry
1966-1970	Samuel Mercer	Teaching Technician and Computer Programmer
1966-1968	Thomas Kent Kirk	Research Instructor in Plant Pathology and Forestry
1966-1967	John Rishbeth	Visiting Professor of Forest Pathology
1967-	L. F. Grand	Associate Professor of Plant Pathology and Forestry
1967-1979	F. S. Barkalow	Professor of Zoology and Forestry
1967-1976	L. Wayne Haines	Director, Forest Fertilization Cooperative
1967-1970	B. E. Griessman	Associate Professor of Sociology and Forestry
1967-	Larry G. Jervis	Manager of School Forests and Associate Professor of Forestry
1968-	J. B. Jett	Associate Director, Tree Improvement Program
1968-1969	Leon A. Pederick	Research Associate, Tree Improvement
1970-	Thomas V. Gemmer	Assistant Professor of Forestry
1970-	Jerry R. Sprague	Liaison Geneticist
1971-	D. Lester Holley	Associate Professor of Forestry and Economics and Business

1971–	Robert J. Weir	Director, Tree Improvement Cooperative, and Assistant Professor of Forestry
1971–	Richard F. Wilkinson	Professor of Landscape Architecture and Forestry
1971–	Arthur G. Wollum	Professor of Soils and Forestry
1973-1974	Donald E. Cole	Visiting Instructor in Forestry
1973–	Fred P. Hain	Associate Professor of Entomology and Forestry
1973–	Donald E. Moreland	Professor of Crop Science, Botany, and Forestry
1974-1974	H. Donnell Smith	Liaison Economist, Tree Improvement
1974-1978	Dennis W. Hazel	Research Assistant, Forestry
1975–	Awatif E. Hassan	Associate Professor of Forestry, Wood and Paper Science, Biological and Agricultural Engineering, and Director of Forest Engineering Cooperative
1975-1977	John Cheeseman	Research Associate
1975-1976	Edward C. Sossaman	Liaison Geneticist
1975–	A. L. Sullivan	Associate Professor of Forestry and Design
1976-1977	George G. Glass	Research Assistant
1976–	William Gardner	Liaison Silviculturist
1976-1977	Ching Kao	Visiting Professor from National Taiwan University
1977–	Douglas J. Frederick	Associate Professor of Silviculture
1977–	Russell Ballard	Director, Forest Fertilization Cooperative
1977–	Richard R. Braham	Teaching Technician
1977–	J. D. Hair	Associate Professor of Zoology and Forestry and Coordinator of Wildlife and Fisheries Programs
1977–	John T. Talbert	Liaison Geneticist
1977–	Randolph L. Zink	Research Assistant
1978–	Jan Laarman	Instructor in Forest Economics
1978–	Richard A. Lancia	Assistant Professor of Forestry
1978–	Jimmy D. Gregory	Assistant Professor of Forestry
1978–	William D. Smith	Lecturer in Forestry
1978–	F. E. Bridgewater	Associate Professor of Forestry
1978–	Michael Kane	Liaison Forest Soils Specialist



Faculty members at the Hill Forest Summer Camp in 1950. (l to r, G. K. Slocum, C. M. Kaufman, R. J. Preston, W. D. Miller.)

DEPARTMENT OF EXTENSION FOREST RESOURCES (1917-1979)

by *Walter M. Keller*

The Early Years

The Extension Forestry Department preceded the School of Forestry at N. C. State University by 12 years, being formally established on July 1, 1917. Farm Forestry Extension work in North Carolina was undertaken as an integral part of the Agricultural Extension Service program under the Smith-Lever Act of May 8, 1914, providing for cooperation between the United States Department of Agriculture and the Land Grant Colleges of the various states. After passage of the Smith-Lever Act, Indiana became the first state to initiate an Extension Forestry program when they appointed an Extension Forester on June 1, 1915. Indiana was followed by Michigan and New York in 1916. From records in the Washington, D. C. office, it appears that North Carolina was the fourth state to start an Extension Forestry program when it appointed J. S. Holmes to the position of Extension Forester on July 1, 1917. (Mr. Holmes was active in forestry work in North Carolina for many years, and was a long-time State Forester.) Holmes continued in Extension for only one year, resigning on June 30, 1918. Harry B. Krause was appointed to succeed Holmes on July 1, 1918, and he did pioneer and missionary work for three years and three months, resigning on September 30, 1921.

After a lapse of 14 months with no activity in this field, H. M. Curran was appointed as Extension Forester on December 1, 1922. His salary was paid from funds supplied by the North Carolina Department of Agriculture and travel expense was paid by the North Carolina Agricultural Extension Service. Mr. Curran was well trained in the broader fields of forestry and had wide experience with the U. S. Forest Service and many years of experience in the Philippines and South America. He had difficulty, however, in adjusting his ideas to the problems and ideas of North Carolina farmers. The farmers, and even the County Agricultural Agents never had been awakened to the possibilities present for the development of forest land as a part of the farming enterprise, and therefore gave little or no encouragement to Curran in his efforts. Discouraged, Curran resigned on June 30, 1925 to enter another field of work

Permanent Funding for Forestry Extension



Mr. Robert W. Graeber, Extension Forester (1925-1949).

with livestock farmers in this county. Graeber, however, while County Agent in Iredell County, had on his own initiative as early as 1920 started demonstrations in timber thinning with farmers of that county and he had one or more such demonstrations in each township in the county. His lack of a forestry degree was a continuing source of frustration to Graeber in his contacts with other foresters who at times would poke fun at him when he tried to talk at professional forestry meetings. This only spurred Graeber to work harder, and he became one of the strongest leaders in the effort to

The Clarke-McNary Act was passed on June 7, 1924, and under Section V of this Act funds were made available for farm forestry in cooperation with the Agricultural Extension Service. The first appropriations under this Act became available July 1, 1925. Passage of this Act permanently funded Extension Forestry work, and brought one of the most colorful characters in forestry into the position of Extension Forester.

The Director of Extension, on December 1, 1925, brought Robert W. Graeber, a County Agent with thirteen years' of county extension experience, into the State Office and assigned him the work of Extension Forester. This was an interesting appointment because Graeber had gotten his degree in dairying from N. C. State College, and had worked primarily

encourage President Brooks to establish a forestry school at North Carolina State College. With the establishment of the Forestry Department in the School of Agriculture in 1929, Graeber immediately took special work in forestry and was granted a B.S. in Forestry in June, 1930.

Up to this time, extension forestry was a one-man operation, but on September 16, 1935, Rufus H. Page, a recent forestry graduate, was hired as a second man on the staff. Page resigned in 1938 to go to Alabama, and was replaced in 1939 by William J. Barker, another recent N. C. State forestry graduate. Barker remained on the job until 1942, when he resigned to accept the position as Leader of Extension Forestry at Clemson. James E. Hobbs was hired as Barker's replacement.

Farm Forestry Report

These were the early years of World War II, and things were rapidly changing. The war effort needed vast amounts of forest products, and the government was going all out to meet these demands. Until this time the role of extension forestry was educational only, but this was to undergo a sudden and rapid change. In 1942, Congress passed the Norris-Doxey Act which established the Farm Woodland Marketing Project under the cooperative operation of the U. S. Forest Service and the States. This bill provided matching funds, and its basic purpose was: "To aid in channeling farm timber of commercial size and quality into the war effort." When these federal funds became available, the State Forest Service did not have the required matching funds, so the program was offered to N. C. State College. On December 1, 1942, a cooperative agreement was signed between the Agricultural Extension Service of N. C. State College and the Forest Service of the United States Department of Agriculture to establish the farm forestry work in the Extension Forestry Department. Extension Forestry now became a combination of education and service. Graeber moved rapidly on this effort and hired a staff of "Farm Foresters", which underwent continuous turnover because of the demands of the wartime draft. At its peak in 1946, the Farm Woodland Management Project involved two Extension Foresters and eight Farm Foresters. They served 30 counties on a regular basis and 12 other counties on an occasional basis. Eventually, the N. C. Division of Forestry was able to secure matching funds, and the Farm Woodland Management Project was discontinued at N. C. State College on June 30, 1948. Its work and most of the personnel were transferred to the Division of Forestry in the N. C. Department of Conservation and Development.

On January 1, 1943, the Agricultural Extension Service and the Department of Forestry Relations, TVA, cooperated in the employment of a forester, J. Ray Orr, to serve Jackson County as Assistant County Agent in Forestry. On July 1, 1944, this project was expanded to include Haywood and Macon Counties. This position was terminated in 1945, but a cooperative agreement still remains in effect between the two agencies.

The Postwar Years

In the postwar years, forestry continued a rapid growth and development in North Carolina. Extension broadened its programs as described in a 1947 Plan of Work: "To assist farmers in developing a systematic program of forest management, protection, and harvest of the timber crops and to aid in the marketing of forest products with the long-time goal of making the farm woods a permanent-producing part of a balanced, economic farming enterprise."

To promote interest in tree planting and take advantage of the public interest in forestry, the North Carolina Pulp Company offered 363,500 pine seedlings free to 4-H and FFA Club members during the 1947-48 season. This program was administered by the Extension Foresters through the county agents. This was the first of many such cooperative offers by the pulp and paper companies from 1947 through 1958. Sometimes the trees were offered free, and on other occasions they were on a matching basis to any landowner or club member. This program was highly effective in promoting tree planting.

After the transfer of the Farm Forestry Project to the N. C. Division of Forestry in 1948, a strange conflict arose between the two agencies. Fortunately, most of the bitterness was restricted to the two heads of the agencies—R. W. Graeber and William Beichler, State Forester. Graeber and Beichler were two strong-willed and highly capable foresters who could never agree on anything. Interestingly, they had very similar backgrounds. Both were talented, hard working men who provided outstanding leadership to their respective organizations. They both had strong German Lutheran backgrounds and belonged to the same Lutheran Church in Raleigh, but they even differed

on many questions involving their church, usually ending up on opposite sides of the issue. The transfer of the farm forestry project, and the personal differences between the heads of the two agencies grew into a sharp controversy between the Agricultural Extension Service and the N. C. Division of Forestry. The cooperative agreement detailing the responsibilities of each agency was not recognized by the State Forester. Much friction and bitterness existed at the top level and to a lesser extent at the field level between personnel of the two agencies; this situation hurt the forestry effort in the State. Working through the North Carolina Forestry Council a new memorandum of understanding was drawn between the two agencies clearly outlining areas of responsibility and function where cooperative action was desired, and this was forwarded to all personnel of both agencies, signed by the new State Forester and the Director of Extension. Joint meetings were held to discuss working relationships, and since that time the effort of these two agencies has been one of mutual support and cooperative and joint effort.

In 1949, Graeber suffered a heart attack, and on December 31, 1949 he retired after a long, colorful and highly successful career. He was succeeded by John L. Gray on January 1, 1950, who had been his assistant for five years.

Changes in Operation

Under Graeber, each of the extension foresters had a geographical assignment and lived in their respective district handling all the forestry questions that arose on a day-to-day basis. One of Gray's first efforts was to try to make specialists out of each of the district extension foresters. He accomplished this by encouraging and supporting each forester as he embarked on a graduate program in different areas of specialization. As each man completed his graduate program, he was moved to the Raleigh campus and given statewide responsibility for a specialized area, such as forest protection, tree planting, hardwood management, Christmas trees, wildlife, forest economics, etc. Under this arrangement, North Carolina developed a reputation for having not only the largest extension forestry program in the nation, but also the best and most innovative program.

In the summer of 1958, the Extension Forestry Department was divided into two sections with an individual specialist assigned as section head in each. These two sections and programs assigned to them were:

1. *Extension Forest Management*: All phases of forest management up to and including land-owner marketing of stumpage and raw forest products.
2. *Extension Wood Products*: All phases of processing from raw material procurement through and including trade promotion and consumer education.

Although the name was changed from Extension Forestry to Extension Forest Resources in 1972 to better indicate the scope of departmental activities, this remains the basic organization to this day. Walter M. Keller was named the first Head of the Forestry Section and George W. Smith the first Head of the Wood Products Section.

This branching into the area of wood products extension was the first such effort in the United States and was watched with much interest by both Washington, D. C. and other states. In the spring of 1959, the U. S. Department of Agriculture awarded a three-year contract to North Carolina State College to develop and conduct a pilot educational-demonstrational program with wood industry personnel. The basic purpose of the contract was to develop a framework of teaching materials, and contact and training procedures which were tested with industry clientele and made available as a model to other Land Grant Colleges which might wish to establish extension programs for the wood industry in their respective states. Work on this project got underway in August 1959. The Agricultural Extension Service, the Department of Agricultural Economics, and the School of Forestry were jointly involved. George Smith was employed quarter-time to supervise the project. Peter Dyson, a forest economist, was employed to provide economic guidance. William E. Keppler, a wood products specialist, was employed full-time on the project. In 1960, William T. Huxster was added to the team. This project was an outstanding success! Today, 28 other states have initiated programs in wood products extension using the model developed by this project. In addition, North Carolina provided consulting service to most of these states in establishing their programs. Keppler spent three additional years after the end of the contract serving as a consultant to other states needing help in establishing their programs.

From 1917 to 1962, Extension Forestry had administrative responsibility only to the School of Agriculture, even though it was housed with the new Department of Forestry after its establishment. In 1962, extension specialists were made a part of the School of Forestry's faculty and in 1973 the

Dean of the School of Forest Resources was established as coordinator of Extension Forest Resources. Thus, the teaching, research, and extension functions eventually were brought under one roof and one administrative head.

On September 30, 1963, John Gray resigned as Head of the Extension Forestry Department to accept the position of Dean of the Forestry School at the University of Florida. On October 1, 1963, Walter M. Keller was promoted to Head of the Extension Forestry Department, where he served for 13 years, retiring on June 30, 1976. Leon Harkins, a member of the Extension Forestry staff, was promoted to replace Keller, and is now serving as Head of the Department.

Many men have served long and well in this Department, but it is impossible to mention them all in this brief history. Their names, however, are all listed as a part of this report, along with their periods of employment with this University.

Chronological Listing of Faculty (1917-1979)

Date of Appointment	Name	Date of Appointment	Name
1917-1918	J. S. Holmes	1956-1964	John H. Gilliam
1918-1921	Harry B. Krause	1958-1967	Leonard H. Hampton
1922-1925	H. M. Curran	1958-	William M. Stanton
1925-1949	Robert W. Graeber	1959-1970	William E. Keppler
1935-1938	Rufus H. Page	1959-1963	Peter J. Dyson
1939-1942	William J. Barker	1960-	William T. Huxster
1940-1948	Virgil G. Watkins	1964-	Leon H. Harkins
1942-1949	James E. Hobbs	1964-1965	D. Lester Holley
1942-1947	E. J. Sylvester	1964-1967	William G. Stuart
1942-1945	H. E. Blanchard	1965-1967	Nicholas C. Weidhaas
1942-1946	F. J. Cook	1965-1966	Ron Thomason
1942-1947	Donald F. Traylor	1966-1967	Thomas P. Fettes
1942-1945	Mackay B. Bryan	1966-1968	Alexander G. Mullin
1943-1945	Daniel E. Collins	1967-1969	L. Wayne Haines
1944-1945	Robert E. Reed	1968-1970	Hugh M. Fields
1945-1963	John L. Gray	1968-1972	James S. Hedgecock
1945-1954	John E. Ford	1968-	Stephen J. Hanover
1945-1948	William H. Wheeler	1969-1973	Earl L. Deal
1945-1948	Albert H. Maxwell	1971-	Michael P. Levi
1946-1946	W. G. Davis	1971-	Andrew J. Weber
1946-1948	Walter W. Barnes	1971-1974	A. C. Barefoot
1948-1977	Ross S. Douglass	1972-1974	Fred J. Hill
1948-52; 1961-69	J. C. Jones	1974-	Richard C. Allison
1948-1963	George W. Smith	1974-	Donald B. McSween
1949-1950	Wade T. Jones	1975-	James R. McGraw
1949-1976	Walter M. Keller	1976-	Larry G. Jahn
1949-1950	William G. Kelley	1977-	Rickey A. Hamilton
1949-1975	Fred E. Whitfield	1977-	Delmar W. Bachert
1950-1950	Charles A. Musser	1977-	William H. Swint
1950-	Edward M. Jones	1977-	Michael J. O'Grady
1950-1955	James H. Phillips	1977-	James L. Huff
1950-1953	Grady Fuller	1977-	James B. Kea
1951-1956	William T. Ellison	1978-	William H. Lock
1954-	Charles Ernest	1978-	William G. McAbee
1954-1970	LaFloyd H. Hobbs		

