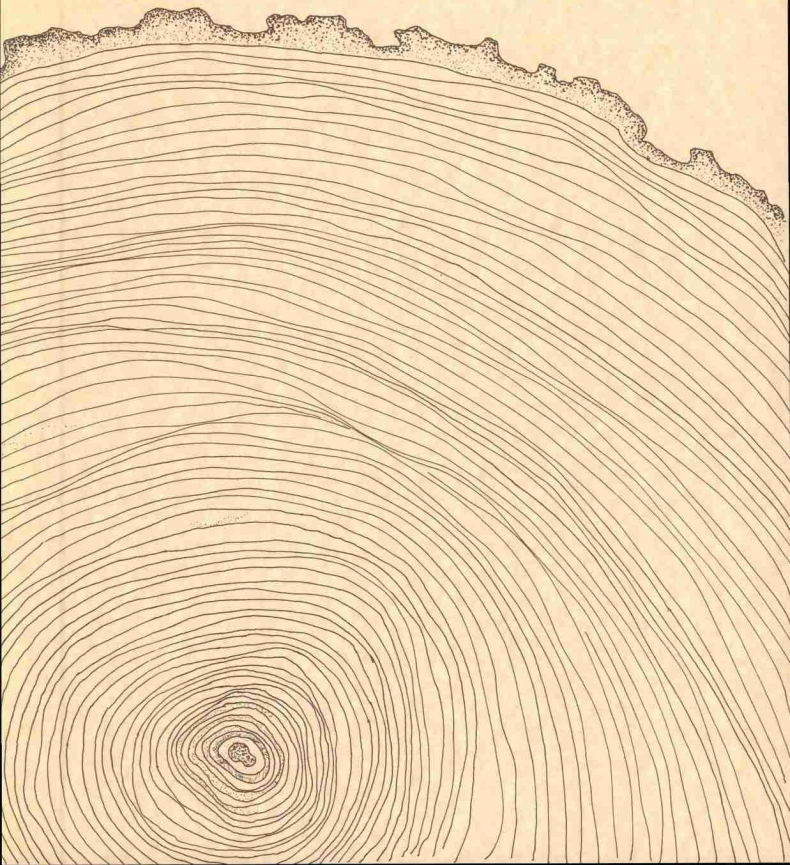
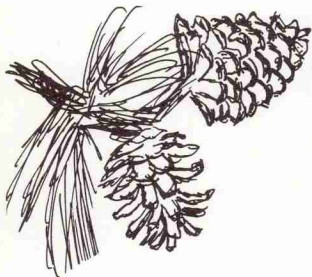


Pi-ne-tum 1987

School of Forest Resources





Pi-ne-tum

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North Carolina State University

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Volume LIII

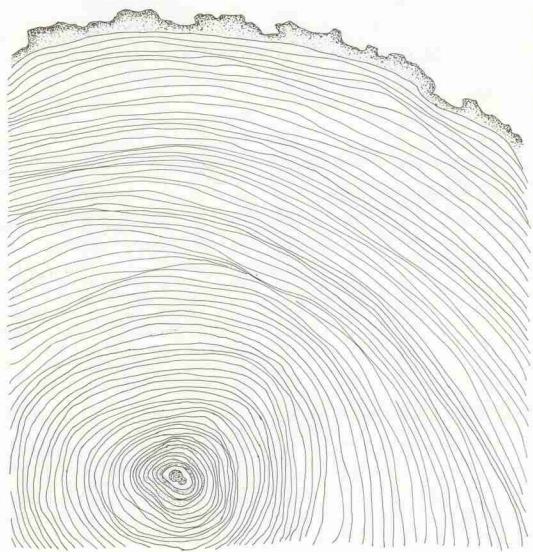
1987

Shelley Peterson

The Pi-ne-tum... a traditional symbol of pride for the School of Forest Resources and North Carolina State University.

Within the past 50 years, many dedicated students and staff within the school have put forth long and enduring hours working on the Pi-ne-tum. In this, the centennial year of our university, we have tried to capture and reveal the true spirit of the School of Forest Resources. It has not been an easy job. Just as our university has expanded to reach new heights, so has our school.

The Pi-ne-tum is the journal of each student, faculty, and staff. Its pages reflect the history, people, ideas, and activities that represent the school and its many lifestyles. We, the 1987 Pi-ne-tum staff, are very proud to present to you this the 53rd edition of the Pi-ne-tum. We hope you will enjoy it for many, many years.



DEDICATION



The Churchillian quote, "never have so many owed so much to so few," aptly describes the outstanding contributions made by Robert G. Hitchings to teaching, service and development of program excellence which have influenced the lives of more than 620 pulp and paper students.

For 33 years Professor Hitchings has dedicated essentially all of his unstinting working hours to the maintenance and development of the quality of the school's undergraduate Pulp and Paper Science and Technology program with particular emphasis on ensuring, firsthand, that the students received high quality education and guidance.

He is a superb and dedicated teacher as evidenced by: being named by alumni more times than any other teacher in the school as being the person who contributed most to their education at NCSU; being selected several times by the students as Distinguished Classroom Teacher; being a member of the Academy of Outstanding Teachers; being appointed as the Reuben B. Robertson Professor of Pulp and Paper Science and Technology; and being honored by an endowed scholarship established in his name by grateful alumni. His personal impact on the careers of all of the hundreds of students who have graduated since the beginning of the program has also resulted in a major contribution to the growth and development of the pulp and paper industry, not only in our region but throughout the nation and abroad.

Professor Hitchings' legendary endless class lectures, not only on the technology of the industry, but also on its intrinsic nature is fed from his voracious technical reading and keeping up with a variety of publications that even remotely relate to the industry. Simply put, there are few who have the overall perspective of pulp and paper making that he has.

A "hands on" person by preference, his ability at the controls of the forklift truck and the pilot paper machine, or fixing a piece of equipment with a wrench is without peer. His style lends emphasis to the lesson that to be a good technical manager there are times when one must get dirty.

His personal philosophy exemplifies the service oriented professional who gives completely of himself to a cause he believes in—not only the teaching of students without compromise, in level of excellence—but also to the many university major academic committees and to working committees of the Technical Association of the Pulp and Paper Industry.

We the students want you to know, Professor Hitchings, that on your retirement in July 1987, you will leave a void and will be missed. And it is with thanks and pride, we dedicate this year's PINETUM to you.

THE DEAN'S MESSAGE TO THE STUDENTS

NEW INITIATIVES TO MAINTAIN THE CUTTING EDGE

by Eric L. Ellwood

There is an old saying that "if it ain't broke then don't fix it." Given the rapid changes in technology, in social attitudes, and in the restructuring of the nation's and world's economic ebb and flow, there is probably no more dangerous mind set in adhering to this old saw by institutions concerned with change, i.e., universities and schools.

Or put another way, unless one can read the knowledge, trends and opportunities of the contemporary and immediate future scene, and adapt operations to take advantage of this insight, then somehow the operation falls out of the mainstream and eventually is left behind.

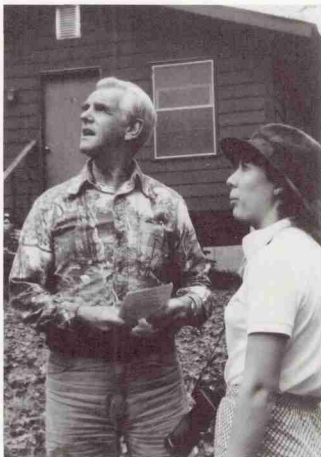
Put most simply, it does little good to make major efforts to build the finest buggy whips in the world if the mode of transportation is by automobile. Nor in espousing this position of change am I promoting revolution rather than carefully considered evolution, nor am I recommending following the herd rather than using insight to find the cutting edge ahead of the crowd — to show leadership in finding the right way.

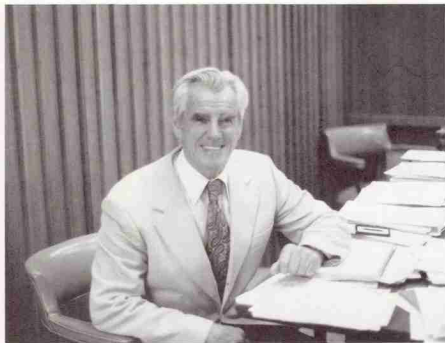
To demonstrate this philosophy of undertaking new initiatives, which are necessary to maintain a cutting edge position in a changing scene, I would like to highlight some examples in our own school — both at the school level and in each department. First, at the school level there are two current examples, one of which is very visible, adjacent to Biltmore Hall, and was preceded by the deepest foundation excavation ever made on the North Carolina State University campus — that is the construction of the Natural Resources Research Center. This is a multi-school initiative in which the School of Forest Resources undertook a major role in bringing to fruition a concept which would provide a mechanism for North Carolina to better develop policies on, and manage, its natural resources through research and service. This is a bold new endeavor which will take a number of years to fully develop and which entirely fits the evolution of the school in its overarching concern with wise natural resource management. As this Center is described elsewhere in the "Pinetum," I will not elaborate further.

Another initiative is the launching early this year of the new Atmospheric Impacts Research Program (A.I.R.). This is a major change from its predecessor unit, the Acid Deposition Program, which was essentially a program management operation for other agencies relating to effects on forests. The

new A.I.R. program expands activities to the impact of any type of atmospheric pollutant or changing atmospheric composition on terrestrial ecology and will also develop a research capability. The increasing concerns about the impact of changing CO₂ and ozone levels in the atmosphere would be included in the mandate of this new unit which will work collaboratively with the U.S. Forest Service and the U.S. Agricultural Research Service.

With respect to new initiatives in the departments, in the Department of Forestry a major restudy of our research posture is now nearing completion. The objective of this study is to establish a new organizational structure and set of research objectives which will better posture us to substantially strengthen our basic research as well as strengthen our cooperative research programs with industry. There is little question that for major technological changes to develop in forest management we need a much better understanding of cause and effect mechanisms in basic biology applied to the tree and forest system. Concurrently, our work in biotechnology has been strengthened with the recent appointment of research faculty in biotechnology and in ecology. We propose to firmly take hold of this more basic approach.





Eric L. Ellwood
Dean
B.S., M.S., Univ. of Melbourne
Ph.D., Yale University

In the Department of Wood and Paper Science, the major new initiative is to construct an expanded and modernized pulp and paper laboratory for undergraduate and graduate instruction as soon as possible. Funds have been provided from the state legislature for planning of a \$5.4 million building and that planning will be completed by June of this year. Our remaining challenge is to raise more than \$1 million from industry by July 1 to meet the agreement made with the state legislature that the state will provide 80 percent of the cost of the project if the industry raises 20 percent. We are confident that this will be accomplished and that the new facility will bring us back closer to the cutting edge.

In the Department of Recreation Resources Administration, which is a department noted for its fine effectiveness in providing service to its constituents, a new major initiative is the establishment of a contract with the State Division of Parks and Recreation to provide consulting services for the State of North Carolina in recreational matters. In essence, the Department of Recreation Resources Administration will take over and expand a number of activities statewide which were formerly undertaken by the Division in house. The activities include technical service, applied research and continuing education. Although this new enterprise will place a heavy load on the department, its overall impact, besides serving the state, will provide opportunities for strengthening the department's graduate program as well as building a stronger relationship between the department and its professional constituents in the state.

In the Department of Extension Forest Resources, among the several new initiatives being undertaken perhaps the most noteworthy has been the recent establishment of a correspondence course on forestry designed for the nontechnical landowners. The underlying concept is not to make trained foresters of the subscribers but rather to substantially raise the level of knowledge and awareness of forest landowners about the nature of forestry and the options available to them. Unfortunately, the current level of ignorance about forestry by forest landowners is relatively high even though there are numerous situations where the actual and potential economic returns per acre per year from forest land are higher than that obtained from most agricultural crops. This new initiative should do much to increase the level of management undertaken on nonindustrial private lands which indeed constitute the bulk of forest land in the South. The quality of the course and its appeal has resulted in several other southern states utilizing it on a trial basis.

While the above examples are by no means a complete listing of new initiatives, they are indicative of the school's philosophy and efforts to stay at the cutting edge. History will judge just how effective we were.

NATURAL RESOURCES RESEARCH CENTER

by Ellis B. Cowling

The School of Forest Resources celebrated the 50th anniversary of its founding in 1979. In June 1986, ground was broken for the construction of a new building—the Natural Resources Research Center of North Carolina (NRRC). This event, which was climaxed with the detonation of a seismic charge on the building site, signaled the beginning of the most important change in our School during the second fifty years of our life as an institution.

The NRRC is not only a new building, it is also a new organizational concept. A concept which brings together in a single unit much of the competence of North Carolina State University and the University of North Carolina in the field of natural resources.

The NRRC be will be a multi-disciplinary and multi-institutional organization with the following members:

North Carolina State University:

- Natural Resources Research Center Library
- Computer Graphics Center
- Center for Environmental Studies

School of Physical and Mathematical Sciences:

- Department of Marine, Earth, and Atmospheric Sciences

School of Forest Resources:

- Atmospheric Impacts Research Program
- Department of Forestry
- Department of Forest Resources Extension
- Department of Recreation Resources Administration
- Department of Wood and Paper Science

The University of North Carolina:

- Water Resources Research Institute
- Sea Grant College

and affiliated organizations at NCSU including:

- School of Agriculture and Life Sciences
- School of Design
- School of Engineering

The NRRC has been designed and organized to provide a focal point for the discovery, accumulation, packaging, and dissemination of information about natural resources in North Carolina. The NRRC has four major functions:

- Maintaining data bases. In cooperation with North Carolina's Land Resources Information Service and other organizations, the NRRC will collect, manage, store, and retrieve historical and current data in forms useful and accessible to



Ellis B. Cowling

B.S., M.S., State Univ. College of Forestry of Syracuse

Ph.D., Univ. of Wisconsin; Ph.D., Univ. of Uppsala (Sweden)

The Associate Dean for Research and Graduate Education in the School of Forest Resources 1985-1990

research scientists and natural resources managers throughout North Carolina.

— Packaging available information. Both public and private sector clients need reliable information for decision making about natural resource issues in North Carolina. The NRRC will provide a central location for the assembly, analysis, and presentation of information that is useful for various groups and organizations in North Carolina.

— Discovering new knowledge through research. Better understanding of natural resource problems and their solutions often requires more facts and understanding than already exists. Interdisciplinary research and analyses are called for more than ever before. As a contract research organization, the NRRC will be able to respond to various clientele needs.

— Assessing management alternatives. In some cases, a series of options may need to be considered in making the best decisions about complex natural resource issues. When requested to do so, assessments will be made by multidisciplinary groups of NRRC faculty and staff of the advantages and disadvantages of various management alternatives so as to provide a rational basis for public and/or private decision making.

The NRRC will produce holistic analyses of complex natural resource issues. As such, it will serve many different clients throughout North Carolina. These groups include:

State Government:

- Department of Natural Resources and Community Development
- General Assembly of North Carolina
- Department of Agriculture
- Department of Human Resources

Local Government:

- County Governments
- County Planning Boards
- City and Town Governments
- Regional Councils of Governments

Federal Agencies:

- Environmental Protection Agency
- United States Forest Service
- Department of Energy
- United States Fish and Wildlife Service
- United States Corps of Engineers
- National Park Service
- United States Geological Survey
- United States Soil Conservation Service

Business and Industry:

- Mining Industries
- Agriculture
- Manufacturing Industries

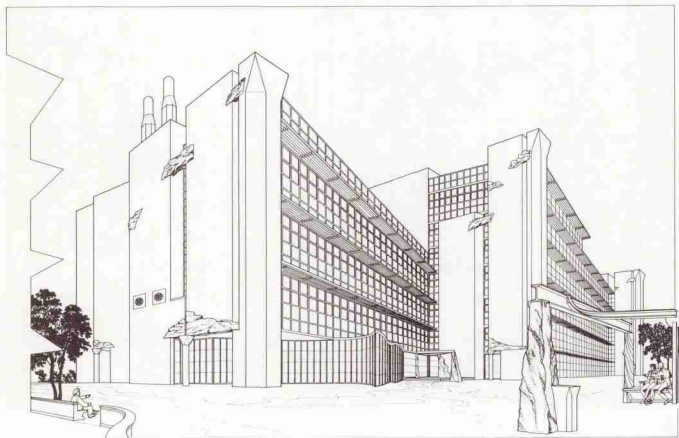
- Commercial and Sport-Fishing Industries
- Forest Products Industries
- Public and Private Utilities

Public Interest and Trade Associations:

- Consumer Groups
- Trade Associations
- Environmental Groups
- Public Service Organizations
- Recreation Groups
- Wildlife Groups

Construction of the NRRC began in October 1986 and will continue through the summer of 1988. The total cost of the building and its specialized facilities and equipment will be about \$12,000,000. A total of nearly 87,000 square feet of critically needed space will be provided for the various organizational units listed above. Between 15 and 20 percent of this new space will be occupied by personnel of our School.

All of us in the School of Forest Resources are excited about the possibilities and challenges that this new building and new organizational concept will provide for us, and, more importantly, for the people of North Carolina.



RICH RED CLAY, BATON AND SILENCE: NCSU'S SECOND 100 YEARS

by *Floyd Whitley*

A bronzed laurel oak leaf fluttered down out of the bright blue February sky and was engulfed by the winter-swollen, red water Neuse River. The silence of vast broad expanses of the Carolina coastal plain's bottomland hardwoods was broken occasionally by the thumping of oars in flat bottom boats, the chugging of an outboard motor, the cries of the small group of students, and the voice of the professor. Above the group with the white, sharp-lighted winter sun at their backs, a pair of

red-tailed hawks kept silent, wary eyes on the intruders.

A stand of river birch, cypress and tupelo in a remote slough of a red water river is the result of a century of growth, of many centuries of life. Investigating the secrets of these bottomland hardwoods, the professor afforded his proteges a view of nature of which few are privy. He dipped a net into the slurry of organic matter that had accumulated, as if magnetized, around a limb that was in the river's slack water. Seeds of water tupelo, overcup oak, cottonwood. Embryos of next



Floyd Whitley's story was submitted to Phi
Kappa Phi Essay Contest.

century's forest, the beginning of many centuries of life. Rich fertile red clays silently laid down. Downstream, the future rolled up into the vision of the students. Blood red maples, among Carolina's first flowers of the year, were soothsayers of seasons to come. Further ahead, beyond the silent expanses of the coastal plain, past the sounds and banks, was the roaring of eternity, the ocean wellspring.

Only in the mind of humankind is there a past, present, and future. The bronzed leaf left no monument to mark its brief existence in time. The hawks did not gouge cuneiform into the bright blue ethereal air. The very river into which the leaf was swallowed played no Requiem mass. Only the descendants of humankind are naming nature, defining its vastness, specifying its forms, writing poetry about its stark beauty.

At once a curse, and yet also a treasure, the mind of humankind is that fathoming measure which studies the past, observes the present, and looks into the future, separating the silence from the roaring. It is this ability to discern harmony and discord that is called education. Education tunes the multifarious instruments in this mysterious symphony of life. The moment is the music.

But the song of humankind (in spite of the sound of many of its sonatas) is no perpetual improvisation left entirely to happenstance. If such were true, its music would be unbearable, and there would be little to differentiate humankind from any number of primates. There are rhythms underlying humankind's song—red river waters that swell and recede, planting rich fertile organic mats of life-to-be in the silence, dragging off senescent debris to the roaring, and laying down, beneath it all, rich red clays much like the bricks beneath the seasonal floods of footfalls of the students here at NCSU.

An education is a series of silences and roarings, of growing seeds of thought from sediments of study into ideas that form in the future. It is doubtful that, in the century of human time which has passed since NCSU first opened its doors for the education of North Carolina's citizenry, this basic precept has changed. And it is doubtful that, as another century passes, principles which guide the growth of ideas will much change.

These professors, these relics of the past, are that insist that periods be properly placed, that proper Latin be properly used, that attendance is indeed required, and that a grade is a hard fastball, not a sliding curve. They cast the credibility of an education at NCSU.

These professors, these relics of past, are primeval. Men and women like them were present at the dawn of human time, when the Earth was roamed by tribal assemblages of humankind. Stout, stern, gnarled, shouting, storm-tested, oak-hearted maestros of education. A hundred years has not changed that, nor will a hundred years hence.

This song of humankind has been passed forward across earth-encompassing glacial ice. It has

whispered up out from dark ages. Through revolutions and tranquility, despair and jubilation, this melody has been passed until it is now sounding notes beyond the confines of bright blue ethereal air. And so long as there are inquiring minds beneath the cowlicks and bobby pins of young North Carolinians, so long as there are discerning ears and stout strong hearts, red river waters will still swell and recede bringing new seed from the old. Humankind's song will play yet unheard melodies upon the staff. A hundred years forward will not change that.

In the red brick tower of D. H. Hill Library, one may walk by volumes of periodicals, texts, and congressional records from a century ago and hear the silence. Reach up and pull a book from a shelf. Hear it ripple its friction against its neighboring volumes and finally pop free of the confines of the shelf. There is a rhythm here, and music.

Start at the bottom floor of the tower and walk up to the top to survey the horizons, to imagine a hundred years hence. Imagine each stairstep to be a millstone and questions to be kernels of raw grain. There are answers here, and from here can be taken the meal, the flour, the manna whose roots are nourished in silence. These answers gotten from education are priceless. Some of them are saving graces. Some of them are just plain fun.

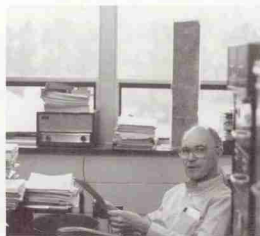
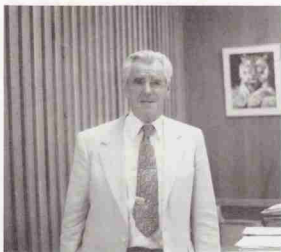
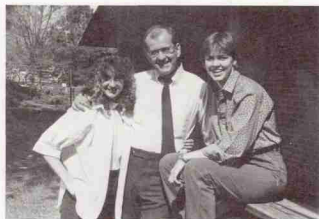
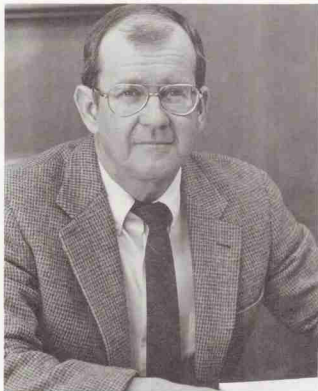
A century has gone into acquiring this tower's treasury of education. It is full of rich dusty volumes with their Latin footnotes, or of glossy colored photographs in the most recent periodicals with their Latin footnotes. And there is shelf space still.

From the silent sanctuary of the library's stacks, one can easily hear the rapping, rumbling, roaring birth of yet another tower to be filled with yet another century of music. It is the beginning of the second century, NCSU time. From the foundation being hammered into rich red clay to the bright blue ethereal air into which the tower will stretch, the seeds of thought are beginning to form into the future.

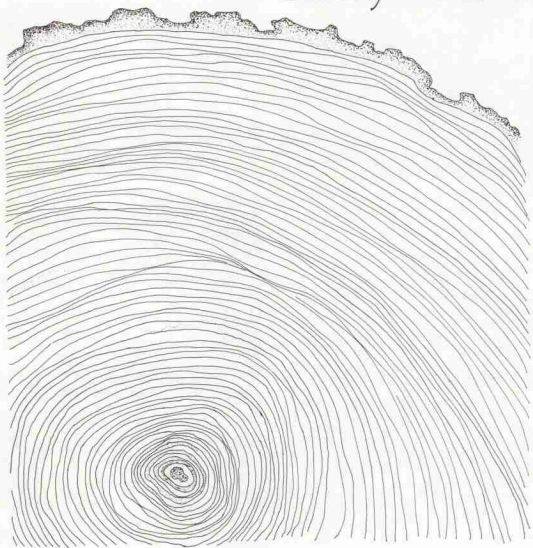
Still, new challenges lurk in uncharted red waters, and new Theban sphinxes still demand taming. New treasures will still be acquired. The campus groundskeeper will still be hard pressed to keep up with students' shortcuts. Young discerning ears will still turn red as the maestro's baton wood hammers a clanging correction upon the podium. And NCSU will build up and nurture, as it always has, brick by rich red brick, the young minds that will play the song of humankind, in key, in tune, in time, silently roaring: there, ever cherished, N.C. State, firmly, strong and true.

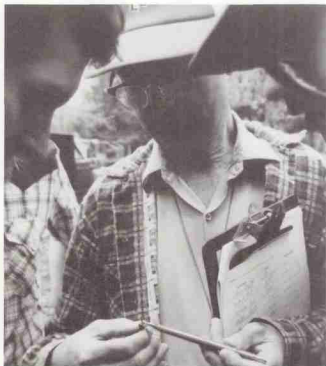
A century passes, rich red clays are laid down. In a remote slough of a winter swollen red water river in the silence of vast, broad expanses of Carolina's coastal plain hardwoods, the professor asks a challenging question as his hand points up toward a cottonwood. The maestro lifts the baton. The music is waiting.

L.C. Saylor
Associate Dean of Academic Affairs
M.S., Ph.D., Genetics, NCSU



Faculty and Staff





FORESTRY FACULTY

First Row: Robert Sanford, Ph.D., Univ. of Calif. at Berkeley; J. B. Jett, Ph.D., UNSU; Joseph P. Roise, Ph.D., Univ. of Wash.; Second Row: William Hafley, Ph.D., NCSU; Siamak Khorram, Ph.D., Univ. of Calif. at Davis. Third Row: Carlyle Franklin, Ph.D., NCSU; Richard Braham, Ph.D., NCSU; James Gregory, Ph.D., NCSU. Fourth Row: Jerry Bettis, M.S., NCSU; Robert Kellison, Ph.D., NCSU; William Smith, M.S., NCSU. Fifth Row: Donald Steensen, Ph.D., Duke Univ.; Gary Blank, M.A., Univ. of Idaho; Dennis Mengel, M.S., Univ. of Idaho; Bill Dvorack, M.S., NCSU. Sixth Row: Richard Lancia, Ph.D., Univ. of Mass.; David Adams, Ph.D., NCSU; Jan Laarman, Ph.D., Univ. of Calif. at Berkeley; James Woodman, Ph.D., Univ. of Wash.; Douglas Frederick, Ph.D., Univ. of Idaho. Seventh Row: Arthur W. Cooper, Dept. Head, Ph.D., Univ. of Michigan; Thomas Perry, Ph.D., Harvard Univ.; Larry Jervis, M.F., NCSU; Robert Weir, Ph.D., NCSU.



FORESTRY DEPARTMENT HIGHLIGHTS

by Arthur W. Cooper

Change is the order of the day in forestry and forestry education, just as it was last year. The industry continues to undergo restructuring and the role of professional foresters is being re-defined. Today's graduates will enter an exciting professional world, one very different from that of just a few years ago but one nonetheless full of opportunity.

The revisions in the undergraduate curriculum developed last year were refined and presented to the University for approval this year. In order to meet the opportunities and demands of careers in industry and research more fully, two options are being established, one in Forest Management and one in Forest Science. Although there will be a common block of courses in both options, the Management option will stress knowledge necessary to the practice of industrial forestry, whereas the Science option will provide more flexibility and a stronger science background.

After revising the undergraduate curriculum several times in the last six years, one thing is absolutely clear. We cannot give the NCSU undergraduate all the education and every requisite skill needed by today's forester. The graduates of the Class of 1987, even more than their predecessors, will have to recognize the need to continue their education throughout their career. The Society of American Foresters recognizes this need in its Continuing Forestry Education program. Tomorrow's professional will have to seek continued education throughout an entire career if professional competence is to be maintained.

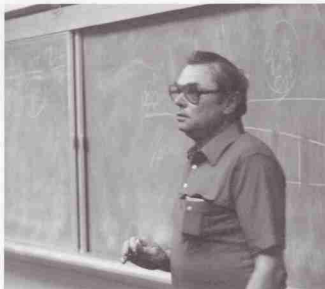
The winds of change are blowing through University curriculum requirements also. Debate and thought are being devoted to strengthening general education requirements, raising the grade point average required to remain in the university, and improving undergraduate advising. Many changes being considered in these areas are long overdue and, if made, will result in programs stronger than those we now have.

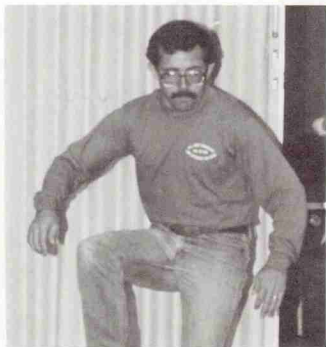
Even graduate programs are not free from introspection and change. Our graduate program passed its 10-year review last year with flying colors. Nonetheless, the faculty undertook a thorough review of all graduate course offerings this year with the result that several courses have been revised, others eliminated, and several new offerings developed. For the first time in a number of years our graduate courses are current and represent the interests and full range of expertise of the faculty.

Another important, and highly desirable, trend is the rapid internationalization of our program, particularly at the graduate and research level. This trend has brought us highly qualified graduate students from countries from which we never have had students, such as the People's Republic of China. It has also brought us a number of United States students who have served overseas in the Peace Corps or who have had international experience and who wish to continue that work for a career. Several of our faculty have had recent overseas assignments that represent new contacts in areas of the world where we have previously been little involved. It is clear that forestry, like all major United States' industries, is becoming internationalized. The future will undoubtedly belong to those who recognize and capitalize on this trend.

This year's seniors have been an active and productive group of students who have made important contributions to the Forestry program. Nowhere is this more evident than in the annual Conclave of Southeastern Forestry Schools. In the last two years, NCSU has placed second and third and this year we are hosting the event. A number of students have put a great deal of time into planning for the event and practicing to compete. At this writing the outcome is unknown. We do know, however, that the 1987 Conclave will be as good as any ever held and that our students will acquit themselves well.

Several faculty have won honors in the past year. Mr. Larry Jervis was elected Vice-Chairman of the North Carolina Division of the Society of American Foresters and will be Chairman in 1988. Dr. Lester Holley received an Outstanding Service Award from the Southeastern Forest Economics Workers and Mr. Jerry Bettis was elected an Outstanding Young American. Dr. Joe Roise was made Chairman-elect of the SAF Systems Analysis Working Group. Dr. Doug Frederick spent the summer of 1986 in Finland on a Fulbright Fellowship.





RECREATION

Front Row: Richard Perdue, Ph.D., Texas A&M; Hugh A. Devine, Ph.D., Penn. St. Univ.; Robert Sternloff, Ph.D., Wisconsin; Second Row: Carol Love, Ph.D., NCSU; Phillip S. Rea, Re.D., Indiana Univ.; Beth Wilson, Ph.D., NCSU; Back Row:

Chrystos D. Siderelis, Ph.D., Univ. of New Mexico; M. Roger Warren, Dept. Head, Re.D., Indiana Univ.; Not Pictured: Dave Culkin, Ph.D., Univ. Of Oregon; Sondra L. Kirsch, M.S., UNC-Chapel Hill.

RECREATION DEPARTMENT HIGHLIGHTS

by Dr. Roger Warren

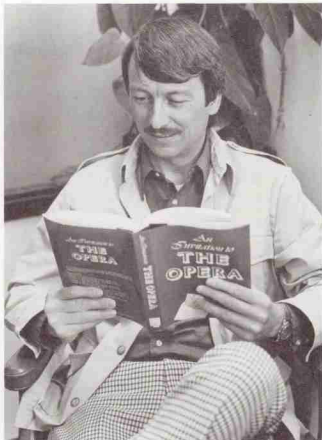
One of the most significant developments in the Department of Recreation Resources Administration was the adoption of a major undergraduate curriculum revision. Changes in the curriculum were proposed as a result of a faculty self-study in conjunction with the National Recreation and Park Association-American Association for Leisure and Recreation accreditation review.

The major changes were in the general education component of the curriculum. Courses in human growth and development, fine arts, and environmental ethics are now required. In order to preserve as much flexibility as possible in the curriculum, the number of free elective hours was increased from nine to fifteen.

No changes were made in the core RRA courses; however, a number of modifications have taken place in the concentrations. In the previous curriculum the department offered seven concentrations and required 24 hours of concentration course work. The new program reduces the number of concentrations to four (Commercial, Natural Resource Management, Park Management, and Program Management) and decreases the hour requirement to 18.

The net effect of the changes will be to reduce graduation requirements by one hour (to 135); it will broaden the emphasis in the social science/humanities requirements, and provide students with the opportunity to take courses from the broad range of offerings at N.C. State University. The changes will also focus more attention on the core RRA courses by reducing the emphasis on specialization in the concentration areas.

During the course of the year, the departmental graduate program was extensively reviewed by The Graduate School. The review team was chaired by Dr. Duncan Holthausen from the NCSU Department of Economics and Business, and included Dr. Tony Mobley, Dean, School of Health, Physical Education and Recreation Resources, Indiana University as the outside review person. The report by the committee indicated the program in Recreation Resources Administration is a strong one and pointed out a number of specific strengths in the existing program. The committee recommended that the department seek to strengthen its scholarly activity that would lead to more published research and consider several specific changes that should further strengthen the program. The report concluded that the potential for the Department of Recreation Resources Administration is bright.





WOOD AND PAPER SCIENCE

Left to Right, back row: Robert G. Hitchings, M.F., Duke Univ.; Bjarne Holmbom, Visiting Prof., Finland; Josef S. Gratzl, Ph.D., Univ of Vienna, Austria; Heinz G. Olf, Ph.D., Technical Univ. of Munich; Irving S. Goldstein, Ph.D., Harvard Univ.; Richard H. Cornell, Ph.D., Institute of Paper Chemistry; C. Arthur Hart, Ph.D., NCSU; Myron W. Kelly, Ph.D., NCSU; Front Row: Chen-Loung Chen, Ph.D., Univ. of Heidelberg; Hou-Min Chang, Ph.D., Univ. of Wash.; Adrianna G. Kirkman, M.S.,

NCSU; Ronald G. Pearson, B.C.E., B.A., Univ. of Melbourne; Richard J. Thomas, Dept. Head, Ph.D., Duke Univ.

Not Pictured: Thomas W. Joyce, Ph.D., Purdue Univ.; Elizabeth Wheeler, Ph.D., Southern Ill. Univ.; Robert C. Gilmore, M.W.T., NCSU; William S. Bryan, M.W.P.S., NCSU; Nicholas Wheidhaas, M.S., Univ. of Mass.

WPS DEPARTMENT HIGHLIGHTS

Dr. Richard J. Thomas

Presently the department consists of 14 faculty, 2 research associates, 6 technicians and 3 secretaries. Undergraduate enrollment remained essentially the same as last year, with 158 PPT and 71 WST students, for a total of 229. Graduate enrollment remained at 26. For graduates of the PPT curriculum starting salaries (\$29,500 average) and employment opportunities increased over last year. The WST graduates also found many employment opportunities with an average starting salary of \$21,000.

The department has the nation's largest undergraduate enrollment of students studying for careers in the wood-based industry. This is appropriate, considering the economic importance of the wood-based industry to the region. The department has over 1000 graduates, 87 percent of whom are employed by the wood-based industry or associated suppliers. In addition, the department's research program has gained an international reputation for excellence. Thus, the Department of Wood and Paper Science, through its teaching and research programs, continues to play an important role in support of the wood-based industry.

As of July 1, 1987 a rather significant event will occur in the Pulp and Paper program. Two professors, R. G. Hitchings and R. H. Cornell, will retire. With the extensive involvement of these two faculty in the undergraduate program, and their outstanding ability in the classroom, locating replacements will require a substantial effort. This effort has already commenced and should be completed by June 1987.



The departure of Professor Hitchings will mark the end of an era, as he joined the program in its early stage. Upon his arrival in the fall of 1955, he found two students comprised the undergraduate enrollment. The first graduating class in 1957 contained five students. Thus, all of the 600 or more graduates of the program were taught by Professor Hitchings. He can, with a great deal of satisfaction and pride, take some credit for the accomplishments of these graduates.

Dr. Cornell joined the department in 1979 and immediately became an essential part of the teaching program. His relaxed but demanding style brought forth the best from students. His use of the term "relatively simplistic" was such that the Class of 1980 awarded him a plaque which said "A Relatively Simplistic Thank-You." His interest in the welfare of the students stimulated him to put together and offer on his own personal time, for those interested, an evening course devoted to personal finances. The content of this course has been of significant value to graduates beginning their careers.

Present students, alumni, and colleagues will remember Professors Hitchings and Cornell for the very deep and personal concern they expressed for them on a daily basis. They will be missed.



EXTENSION FOREST RESOURCES

Front Row: Jim McGraw, Ph.D., Univ. of Florida; Bill Swint, M.F., NCSU; Joe Denig, Ph.D., Virginia Tech., Bill Huxster, M.W.T., NCSU; Second Row: Steve Hanover, M.F., Yale; Dick Allison, M.F., Penn. St. Univ.; Bill Gardner, M.S., NCSU; Third Row: Mike Levi, Dept. Head, Ph.D., Leeds Univ.,

England; Earl Deal, Ph.D., NCSU; Leon Harkins, M.S., Colorado St. Univ.; Back Row: Rick Hamilton, M.F., Duke Univ.; Not Pictured: Larry Jahn, M.B.A., Penn. St. Univ.; Bob Hazel, M.S., Penn. St. Univ.



EXTENSION FOREST RESOURCES

by Rick Hamilton

The challenges to the Extension Forest Resources Department remain clear. First is to enhance the income and multiple-use opportunities of clientele including non-industrial private woodlot owners, timber industry and even municipal, county, state and federal ownerships. Income is directly linked to marketable products and these include timber but also some surprisingly lucrative alternatives for innovative managers. Firewood, for example, can be sold or used personally to save money and improve woodlots. Over 10 million dollars worth of pine straw was raked, baled, and sold in 1986—an amount equal to 1/3 of the landowner pulpwood stumpage income for North Carolina. Shiitake mushrooms cultured on our native hardwoods hold income potential for some landowners and Christmas trees yielded over \$40 million income to landowners. Hunting is an American tradition, but the days of wandering out the back door over thousands of open acres are all but gone. Leasing land for hunting is now a big and growing business with hunters willing to pay for quality hunting opportunities. Educational programs on timber production, multiple-use management, business and marketing skills, and environ-

mental quality are conducted continually by the forest management specialists to meet the challenge above.

The second challenge is to maintain a profitable forest industry and to expand markets, particularly for low grade, small diameter timber. Improving the public's image of the forest industry, particularly timber harvesting, is critical if we are to avoid strict regulation in the near future. Wood products specialists conducted recent workshops to improve utilization, drying, and quality control in southern pine mills. A major effort to increase the use of yellow-poplar as a framing material is now paying dividends and an industry feasibility study became the basis for location of a reconstituted wood products mill in Person County in 1986. Major emphasis continues on the impacts of timber harvesting on aesthetics, the environment, wildlife and water quality. A program on Logging and Water Quality emphasizes best management practices to prevent erosion and has been presented to loggers, procurement foresters and consultant foresters across the state. A companion effort to educate landowners emphasizing logging contracts and the impacts of harvesting practices on regeneration has also been offered.

The future of forestry rests in the hands of those producing multiple-use benefits including timber, and also in a healthy forest industry. Extension carries technology to both groups for the benefit of the people of North Carolina.



SECRETARIES

First Row: Peggy Arnold, Sec. FOR; Mary Walker, Acct. Tech., SFR; Ruth Allen, Sec. SFR; Gail Fox, Ext. For.Res.; Second Row: Penny Handlin, Sec. PPT; Ann Valentine, Sec., SFR; Millie Sullivan, Sec., WPS; Judy Rogers, Sec., FOR; Bhavana

Ajmera, Sec., WST.; Third Row: Pat Lineback, Sec., RRA; Nancy Roberts, Admin. Asst., SFR; Reggi Powell, Sec., RRA.; Fourth Row: Laura Tarry, Sec., Ext. For. Res.; Rachel Dupree, Sec., For. Nut.; Lorene Nicado, Sec., Ext. For. Res.

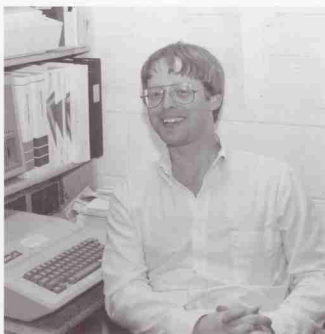
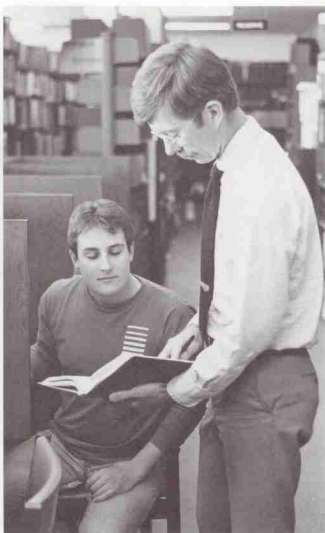
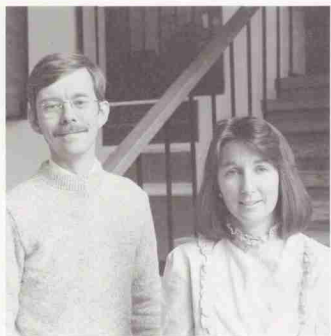


TECHNICIANS

*Yoshiko Cheu, Wood and Paper Science;
Cheryl Giles, Forestry;
Shanthi Chandran, Wood and Paper Science;
Willard Dudley Hodges, Wood Products Lab.;
William Wyatt Hodges, Wood Products Lab.;
Tony LaPasha, Wood and Paper Science.*

LIBRARIANS

John Abbott, Librarian; Pam Rowland, Library Assistant.



Tom Zack, Computer Coordinator

COOPERATIVES

CAMCORE

Central American and Mexico Coniferous Resources

William Dvorak, M.S., NCSU; Mike Kane, M.S., NCSU; Melissa Salazar, Admin. Sec.; Ralph Raymond.



HARDWOOD

Carmen Thomas, Admin. Sec.; Russ Lea, Ph.D., SUNY; Doug Frederick, Ph.D., Univ. of Idaho; Thomas Tew, Research Technician; Dennis Mengel, M.S., Univ. of Idaho; Robert Chu, Computer Programmer.

COOPERATIVES

INFORDE

Dr. MacKinnon, Project Administrator, Adjunct Professor of Forestry; Martha Bricio, Admin. Assistant; Jan Laarman, Principal Investigator; Mystie Wilson, Research Collaborator.



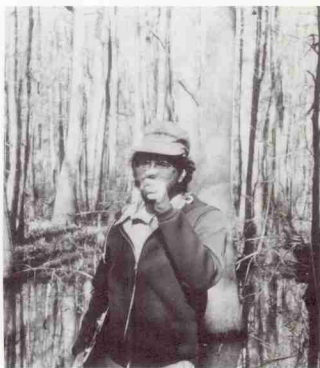
First Row: Beth Haines, Research Technician; Lee Allen, Ph.D., NCSU. Second Row: Joseph Hockman, M.S., VPI; Pat Bean, M.S., NCSU; Bob Maimone, Research Specialist; Jonathan Anderson, Research Technician.

NUTRITION

COOPERATIVES

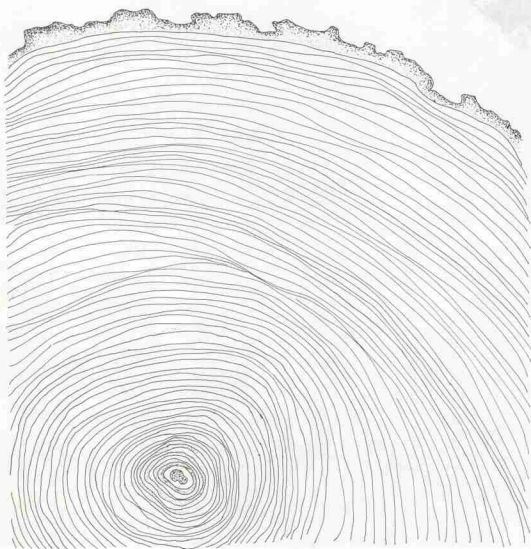
TREE IMPROVEMENT

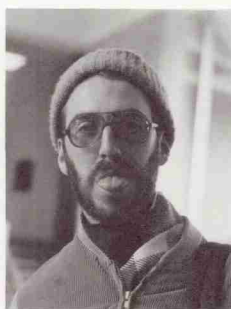
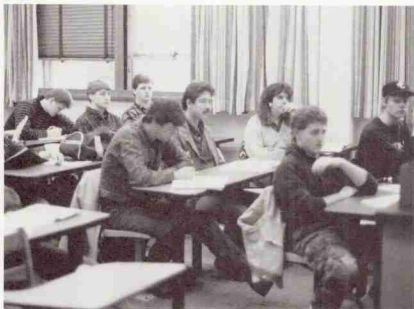
Front Row: Tyson Dublin, Ag. Res. Assistant; Robert Weir, Director, Ph.D., NCSU; Second Row: Vernon Johnson, Ag. Res. Tech.; Floyd Bridgwater, Ph.D., Oklahoma State Univ.; Back Row: Charles Echerd, Ag. Res. Tech.; J.B. Jett, Ph.D., NCSU; Steve McKeand, Ph.D., NCSU.

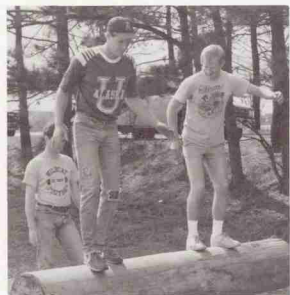
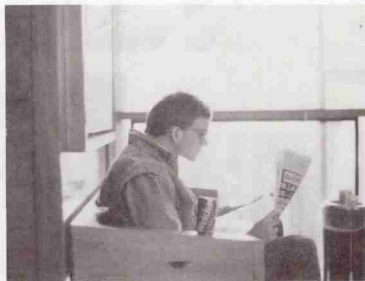
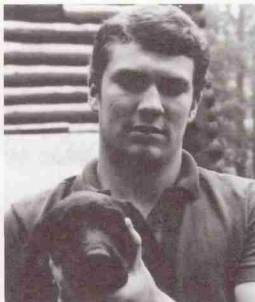




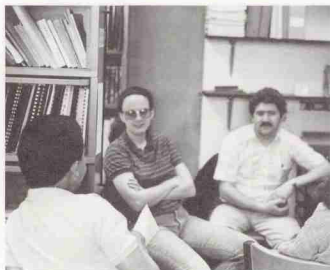
Clubs and Organizations







F.R.A.G.S.



Todd Fredericksen, Lilia Barrientos, Laura Valerius, Keith Reed, Anne Margaret Hughes, Jean S. Brouard, Mary Frances Mahalovich, Ruy Lima, John Welker, Christopher Davidovich, Ian McCormick, Ariyadasa, K. P., Charlie Bolton, Pancha Pakesan, Ed Lunk, Jeff Prestemon, Jeff Murray, Milton Kanashiro, Bailian Li, Namhee Shin, Mike Kane, Claudio Balocchi,

FOREST RESOURCES COUNCIL

by Jimmy Stuber

The Forestry Council is a group of representatives from the 16 different clubs and organizations in the School of Forest Resources. The Council discusses important student affairs and problems. The Council also acts as the communication link between the students and the faculty as well as among the student organizations within the school. The Council has traditionally worked toward accomplishing the goal of better school unity and student-faculty relations.

Another function of the Council is to receive and allocate funds from the university to the student organizations for various events. All of the sponsored events are beneficial to the student in his or her educational journey. Finally, the Council coordinates a staff for the production of the Pi-ne-tum.

A major objective for the Council this year was to establish a student advisory group in which juniors and seniors work in conjunction with the faculty to improve the advising of freshmen and sophomores. The Council believes that this system is not only beneficial to the incoming student, but it also establishes a progressive interaction with the faculty at an early point in the student's college career.

Another objective of the Council was to bring all of the students and faculty together with an event to celebrate another successful year and to strengthen school unity.



First Row: Paul Eriksson, Jim Stuber. Second Row: Scott Mabry, Mark Winter, Dawn Bodenheimer. Third Row: Larry Ridenhour, Bryan Kay, Robert Fitzgerald. Fourth Row: Clare Dellwo, David Chestnut.



Xi Sigma Pi

The Mu Chapter of Xi Sigma Pi, a national forestry fraternity, was founded at North Carolina State University on April 17, 1940. The objectives of the fraternity are to maintain a high standard of scholastic achievement in the forestry curriculum.

The fall semester would not have been complete without partaking of Doc Steenson's famous chili. Seventeen new members were inducted into Xi. The year ended with the annual steak dinner and the senior picnic.

In addition the fraternity continued to sponsor and coordinate the tutoring service made available to all students in the School of Forest Resources.

The officers for the 1986-87 year are:

Forester: Roy Cloninger
Assistant Forester: Clare Dellwo
Fiscal-Sec. Agent: Scott Detar
Ranger: Larry Ridenhour

Xi Sigma Pi would like to offer a special thanks to Doc and Charlotte, and the rest of the faculty for their support of our organization.

FORESTRY CLUB

by Austin Wright

This year's Forestry Club-SAF was full of enthusiasm and support. Many club members started the new year by helping with Freshman Orientation and talking to freshmen about the Forestry Club.

For a little fun and competition, some club members went to West Point, Virginia, to participate in the annual Crabfest which consisted of a parade, logging events, and the main events-crabs and beverage. For a more serious note, club members helped man the School of Forest Resources booth at the State Fair for N.C. State's Centennial Exhibit.

November got underway with the 50th Annual Rollee competition and pig-pickin'. The interclass competition proved to be the usual fierce and mud-slinging rivalry, especially when it came down to who was first in line for pig. The fall semester ended with the "Wood for Warmth" project, which provides wood for needy families in the county.

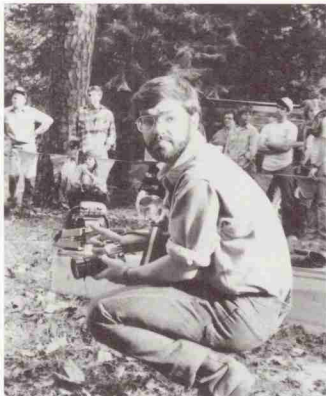
Throughout both semesters, the club prepared for the 30th Annual A.S.F.C. Conclave, which we had the pleasure of hosting this year. Although the preparation was a tough job, competition was tougher, yet we were still able to make a good showing. Then the Woodsmen Team traveled to Virginia to compete in the Prince George Festival.

The year long events came to an end with the Logger's Brawl at Hill Forest. Everybody partied to music, etc. before the worst event of the year-final exams.

Although the club did have a lot of fun traveling to competitions and helping out with community services, it did its share of work to fund these events. This year the club had two very productive semesters doing tree jobs. Tree jobs are not only a good community service, but give club members a chance to work as a team, learn from one another, and to work for the public. The club also helped plant trees to earn money.

Finally, the club would like to congratulate a long-time member and advisor to the Forestry Club, Moreland Gueth. Moreland has helped the club with his time and expertise in tree jobs, competition, and club activities in general. He is now a Service Forester with the N.C. Forest Service in Whiteville. Best of luck and thanks for everything!

Front Row: Scott Mabry, Paul Eriksson, Jill Power, Brad McGuire, Tom Berg. Second Row: Frank West, Rob Polk, Shelley Peterson, Richard Braham, David Powell, Mark Pearson, John McMinn. Third Row: Barbara Boothroyd, Austin Wright, Tim Tabak. In Tree: Larry Ridenhour, Clare Dellwo, Wyatt Latimer.





TREE JOBS

by William B. Rudd

Tree jobs are to the forestry club what telethons are to Jerry Lewis. It is a chance for the forestry major to help raise funds for club functions. These functions range from trips to the occasional party. Participation in these jobs will also allow you to intermingle with your peers, while learning to apply forestry to an urban situation. The upperclassmen are always willing to share their experience and knowledge to help you grow as a forester. The more the merrier on a job, so please participate and learn. Possibly one day you could use this experience as a future employment opportunity. Come, work, play, and above all, learn new urban forestry techniques.



PRINCE GEORGE LOGGING COMPETITION

by Tim McCracken

The Prince George County Heritage Fair at Hopewell, Virginia, hosted its first logging competition April 20, 1986. The competition between forestry schools of four different states was such a success it has been scheduled as an annual event at the fair. N.C. State's Woodsmen's team was joined by Penn State, University of Tennessee, and Virginia Tech in what turned out to be a tough battle for first place.

Team captain Tim McCracken put State in the lead with a win in men's bow sawing. Virginia Tech managed to tie the score once, but two wins in pole climbing by Geri Klisiewicz and Eddie Williams put State ahead of Tech to win with 39 points. Virginia Tech was second with 35 and Tennessee third with 29.

It was the first victory for the Seniors on the team, who four years ago placed 10th in the

Annual Conclave. All thirteen members got to participate, although it was only the Seniors who scored for the Wolfpack Woodsmen. The victory was sweetened because the Pack beat powerhouse Virginia Tech in their strongest events.

Amy Klutz and Audrey Hockaday scored all the other points in women's events. Together they placed second in women's crosscut. Individually, Amy placed second in bow saw and third in chopping. Audrey easily won the women's axe throw, and she and Tim McCracken placed second in Jack-in-Jill crosscut. Rod Krutulis and Alex Smith tied for second in axe throw, and Rod sawed one-handed with Tim for a strong second in men's crosscut. Tim also won a close chopping contest. Charles McRae finished the scoring with third place in pole felling.

The Woodsmen's Team looks forward to defending their title this year on May 2nd.



CONCLAVE

by John McMinn

N.C. State's trip to Tyler, Texas was a fun filled, action-packed, and at times tedious adventure. The 24 hour bus ride was the only tedious part, and it was just the same only backwards for the trip home. Once we recovered from the bus lag, our team placed a strong third. Ten points was all that separated the top three teams. Stephen F. Austin did a remarkable job to withstand the relentless charges by N.C. State and second-place Arkansas.

Brad McConnell and Dave Markowski won the men's crosscut event and Tim McCracken won the bow-saw competition. The rest of the team was consistent and placed well throughout the events. We suffered through a torrential downpour on Friday night and Saturday morning. The rains ceased in the early part of Saturday's competition and conditions improved quite remarkably.

The N.C. State team will return several competitors from last year's team, and with some drive and desire the upcoming competitors should have a strong team for the 1987 Conclave.



CRABFEST

by Felicia Roland

The Forestry Club was invited to the Annual Crabfest by the Chesapeake Corporation in West Point, Virginia. Weeks of practice with strong encouragement from Tim McCracken led the woodsmen's team to a third place finish.

The woodsmen team, chaperoned by Bill Smith boarded the school van for a somewhat uneventful trip. Country music and light conversation kept the team content until hunger pains caused individuals to plead with Bill to stop anywhere. After an appealing steak dinner, the team was content and the rest of the trip was uneventful.

Upon arrival at West Point the team was welcomed by the hosts. The order of events for the competition and the rules were discussed before the social hour. After a few hours of good music, refreshment, and conversation the teams retired for the night.

The day of the festival started with a very early breakfast provided by the local church. Breakfast was followed by some last minute practice. The festival started with a parade through town. Then came the competition.

The events in the competition were men's and women's cross-cut, bowsaw, axe throw, and log rolling; Jack and Jill cross-cut, speed chopping, pole felling, and pole climbing. David Markowski and Brad McConnell had an impressive first place finish in the men's cross-cut, as did Clare Dellwo in the women's axe throw. The team did well and was presented with a throwing axe for a third place finish.

Following the competition the team was invited to the home of Tom Davidson a N.C.S.U. graduate, for a crab dinner. Amy Klutz, a former student, and members of the other teams were also invited. After a fun and relaxing evening the team again boarded the van to head home.



A ROLLICKING ROLLEO

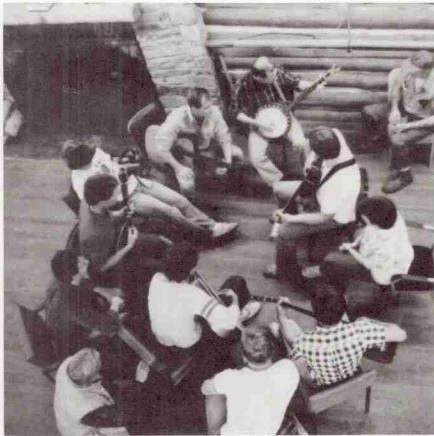
by *Gwen Amick*

The 50th Annual Rolleo celebration got under way this year with a Friday night dinner and symposium on people management. The speakers were highly informative, the food was very good, and we all got to see John McMinn dressed up for the first and last time.

The real fun came, however, the next day when students, faculty, alumni, families, and friends all gathered at the Hill Forest for the competitions.

Juniors Alex Smith and Shelley Peterson won Jack and Jill cross-cut, and women's cross-cut was won by Marietta Singleton and Shelley Peterson. Brad McGuire won the axe throw, and Wyatt Latimer won the pole climb. Although the underclassmen gave winning Rolleo a good shot, they could not out-do the determined and ever growing senior class. Tim McCracken won speed chopping, Austin Wright won the knife throw, and Dave Markowski and Brad McConnell won the men's cross-cut, pulling their team to victory.

The day ended with a pig pickin' and an awards ceremony. For those who stayed later on into the night, you know of the singing, guitar playing, and fun we had. And for Dave Markowski, who was chairman of Rolleo, the refreshments were the best part of the day.





SUMMER CAMP

by David B. "John" Johnson

Remember when you were in high school? You go back to school from summer vacation and every teacher says, "I want you to tell me, in essay form, what you did on your summer vacation." Well, I'm not sure that the good teachers could bear to hear the stories and language used in the essay I, and nearly all of the summer camp population, would write to inform them of our "summer vacation." Probably more horror stories come from this class of individuals than from any previous classes.

To begin with, we arrived at G.K. Slocum Camp with great expectations of fun, pleasure, and the adventure of another class with Doc. Everyone went to bed that night only to be awakened the next morning by a flashback of the Gong Show. Soon we were eating All-Bran and the usual breakfast condiments, lukewarm milk and juice. Then the day began with chores such as scrubbing urinals, picking up trash, and cleaning the classroom. Well, not all of our time was spent having fun; we also had classes to attend and various assignments to complete: bug collections, maps, and those dendro quizzes.

The evenings were then spent playing hacky sack and other non-productive games.



Many hours were spent shooting the bull, and many quotes and words of wisdom were learned at camp. You have a chance to get to know your classmates and your professors much better. All in all, it is a good experience (that you never should have to repeat). Here are some quotable quotes and memorable events from the Camp of '86:

- "The bus is turning over!"
- "But Dr. Farrier, where's the bulletin board?"
- "Some people just cannot cohabitate."
- "Let's have soup, nice hot soup to warm us up on this day of 100 degree temperatures."
- "Kinston and the decoration of the DC3 with Marietta's under garments."
- "You are the worst summer camp G.K. Slocum has ever seen."
- "It's a stonefly."
- "But Doc, how did I get the answer?"
- "You astound me!!!"
- "I'll save you all."
- "Maaannnn!"
- "Man, have you no sense???"



Front Row: Rick Perdue; Second Row: Wendy Young, Chuck Crockford, Wendy Parker, Mark Franklin, Marty Miller, Steve White, Cyndi Evans, Laura Kennaugh; Back Row: Dianne Edris, William Morris, Jr., Leslie Armstrong, Joe Nesbitt, Elissa Gulley, Nate Whitelaw, III, Cindy Summer, Dwayne Jones, Dianna Ganote, Danny Stamm, Charlynn Todd, Kieran O'Malley, Carol Love.

LBL

by Charlynn Todd

Just what is Land Between the Lakes? Every spring you hear about it. Fellow students begin talking about LBL and wearing funny t-shirts. Do you really get to miss a week of classes and get two credit hours for it? Yes, you do, and those two hours are earned. The LBL trip is a fun and unique learning experience. Not only do you learn how to sleep in a rather cramped position on the big green forestry bus (LBL is only about a 17-hour drive from Biltmore Hall), but you meet lots of interesting people as well.

Land Between the Lakes is a 170,000 acre peninsula located between Kentucky Lake and Lake Barkley in western Kentucky and Tennessee. The area was acquired in 1964 by the Tennessee Valley Authority. It was developed into a natural demonstration area for outdoor recreation, environmental education, and resource management. In 1976, it was opened to universities so they could use the facilities at LBL for outdoor recreation consortiums. Students attending the consortiums are exposed to new management techniques in recreation planning and development.

For the week of March 23-29, 1986, students left civilization behind (except for the 4-inch television smuggled in by State students to watch the Wolfpack in the NCAA playoffs) to get hands-on experience in outdoor recreation planning. Other schools represented were Indiana University, University of Missouri, and Western Illinois University. The main goal of the week was education; students got to know university faculty members, LBL staff, as well as each other. Everyone left Land Between the Lakes with more knowledge of their field, a greater understanding of the environment and professional contacts for the future.

The trip is a truly rewarding experience, whether you are designing trails, visiting area facilities, talking to professionals in the field, eating buffalo steak for dinner (yes, buffalo) or having so called "free time." You are always busy, always learning, and always enjoying the time spent at Land Between the Lakes.





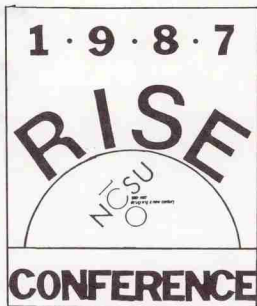
RISE Conference

by Charlynnne Todd

The Recreation Internship and Summer Employment Conference, better known as RISE, is sponsored each year by the North Carolina State Recreation Club. The objective of the conference is to allow students the opportunity to interview with recreation-oriented agencies for internships, summer employment, and other part-time positions. Agency representatives gather in the Student Center Ballroom to meet with students and "sell" their organization. After a morning of interviews, students, faculty and agency representatives attend a luncheon. This informal setting allows students the chance to talk with the agency in which they are most interested.

A lot of hard work goes into making the conference a success. Each spring, chairpersons for the RISE Conference the following year are recruited. Applicants are interviewed and then selected for a tremendous task. The co-chairs are responsible for getting agencies to attend the conference. Agencies representing all areas of concentration, including commercial, program management, institutional, and natural resources are asked to attend. The co-chairs organize the entire event as well as keep the program running smoothly during the event.

This year's RISE Conference was no exception to the past successes. Co-chairs, Lee Howell and Bobby Harris, did an excellent job planning and running the program. Some 50 organizations, including the Raleigh Parks and Recreation Department, U.S. Army Corps of Engineers, National Park Service, Lake Royale, Myrtle Beach Air Force Base and Kitty Hawk Kites came to campus to interview students.



In an effort to bring more students to the event, students from the University of North Carolina at Chapel Hill and the University of North Carolina at Wilmington were invited.

The keynote speaker at the luncheon was Dr. Phil McKnelly, former N.C. State faculty member and the present Deputy Director, Division of Parks and Recreation with North Carolina NRCD. Dean Ellwood also provided some words of wisdom.

As the chairs for next year's RISE Conference are being selected, we hope that the conference will be an even better success. This event is for the students, and the students are what make it a success. However, we can not forget to give credit to Dr. Beth Wilson, Pat Lineback and Reggi Powell for all the time and effort they contributed to the 1987 RISE Conference.





RHO PHI LAMBDA

by Phil Campbell

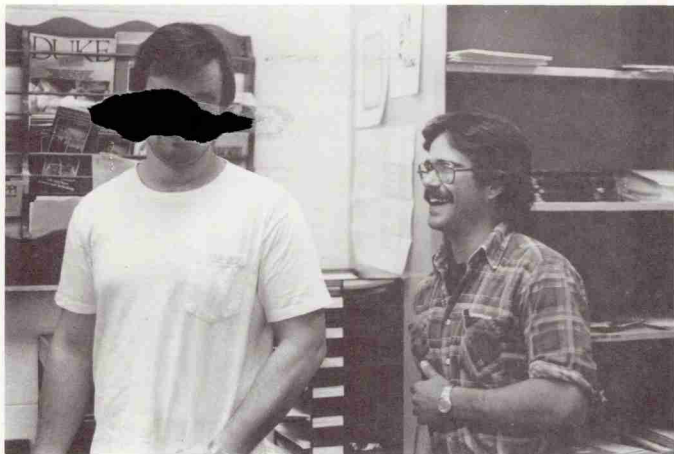
The Rho Phi Lambda Honorary Fraternity has been active at North Carolina State University since 1958. It was established under a different name at that time and just last year was changed from Rho Phi Alpha to Rho Phi Lambda.

Rho Phi Lambda welcomed 4 new members in the fall and honored them with a banquet at which induction into the fraternity was held. Our year began with Open House, which offers curriculum information to incoming freshmen as well as currently enrolled undergraduate students.

The annual Recreation Resources Department Picnic was April 4, 1987, and we were privileged to have as our guest speaker, Mr. Denis P. Galvin, Deputy Director of the National Park Service. The Thomas I. Hines Award was presented to the most outstanding senior student selected by the students. A plaque was presented by the students to Dr. Roger Warren in recognition of his guidance and support.

Rho Phi Lambda ended the 1986-87 year with our annual picnic. Everyone had a great time eating and recreating. BEST WISHES TO THE GRADUATING SENIORS!!





TAPPI

by Laurie Schilling

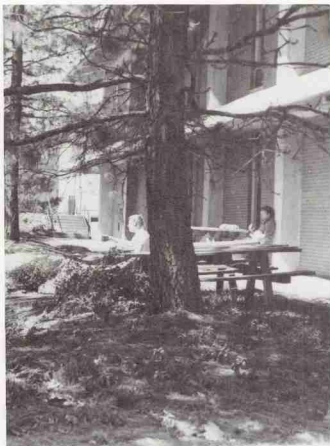
This semester has gotten off to a slow start for TAPPI. We started the semester with a pizza party at our first meeting. February 6th we had a group go midnight ice skating at the new Ice House in Cary. February 7th-11th, three students attended the National Annual Convention of TAPPI in San Francisco, California. These students attended panel discussions and mixed with and met various individuals in the paper industry.

The new officers for next year were elected at our March 12th meeting. A date was also set for our spring picnic, where we will have the final chug off between Professor Hitchings and Dr. Cornell. We hope to participate in the Miss Moo U pageant for Easter Seals and have a group go midnight bowling. On April 4th, a small dinner will honor Professor Hitchings as he is retiring this semester. We hate to see both professors Hitchings and Cornell go!



TAPPI

First Row: Kai Simonsen, Anne Callender, Keith Williams. Second Row: David Hall, Richard Venditti, Chris Mastro, Angela James, Wade Harris, Laurie Schilling. Third Row: Wayne Marks, Alan Watters, Kim LeSueur, Paul Martin. Fourth Row: Alan Sumrell, Stacy Lee, George Joncas, Barbara Gilmore. Fifth Row: Dana Wintzer, Jim Bradbury, Jimmy Stuber. Sixth Row: Professor Robert G. Hitchings, Joe Johnson, Jeff Thornton.



First Row: Glen Baker, Shawn Mullen, Bruce Hafley, Jon Cantliffe. Second Row: Craig Forbes, Roy Cloninger, Chip Adams.

F.P.R.S.

*by Jon M. Cantliffe
and Shawn P. Mullen*

The NCSU Chapter of the Forest Products Research Society is interested in the forest products industry seen in the classroom and the many aspects of the wood industry.

The Forest Product Research Society is a worldwide organization that provides continuously updated technical information relevant to growers and manufacturers of wood products. Our student chapter meets bimonthly and features speakers associated with major wood industries, consulting firms, technical writing agencies, and employment services.

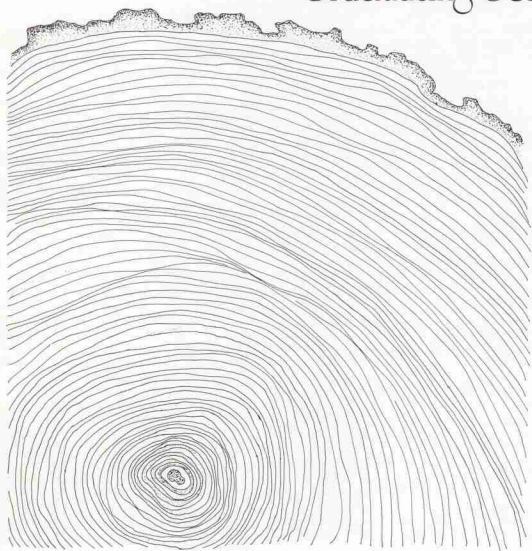
At Reynolds Coliseum this year our club set up and manned the Open House display for the Wood Science and Technology Department. At our booth incoming freshmen interested in the WST curriculum could pick up information pertaining to the field of study.

Later in the Spring our club will be traveling to Blacksburg, VA. to participate in the first annual Virginia Tech FPRS chapter boat race. We have already begun building our boat that must be made from scratch using only wood products.

Current officers for 1986-87 are President, Glenn Baker; Vice President, Jonathan M. Cantliffe; Secretary, Shawn P. Mullen; Treasurer, Kevin Griffin; Project Director, Bruce Hafley; and Advisors Dr. Wheeler and Mr. Gilmore.



Graduating Seniors



THE FUTURE OF FORESTRY STUDENTS EVENTS OF THE NEXT 25 YEARS

by Steve Booher and Tom Harraghy

First there is ANDREW CASEY, who stayed on working at the school and quickly worked his way up to Mr. Jervis' right hand man. But then he got mixed up with drugs and alcohol and wound up in a drug rehabilitation center run by.....JOHN McMINN who had turned himself into a well respected citizen and was also President of the UNC Baby Blue Booster Club, UNTIL, John was caught giving money to several top UNC football and basketball players by.....GUS PURCELL who after serving as an assistant coach at NCSU for several years, is now employed by the NCAA to investigate foul play in college athletics.

Then there is DAVID FOGARTY who after narrowly escaping death when caught by cannibals while working for the Peace Corps, now drives a truck delivering produce to Kroger's. He frequently runs into.....STEVE BOOHER who after being named Kroger's bagboy of the month, nine months straight, was promoted to produce manager. He was doing fine UNTIL he started using drugs and selling them to the bagboys. But one night after trying to rip-off THE MAN he was killed by Hit Man..... FRANK FLOYD a professional killer for hire who frequently works for THE MAN..... LEWIS LAWRENCE, Godfather of Sanford, head mob man on the East Coast, feared by everyone, including the President of the USA.....GWEN AMICK who was head of the ERA movement and united the women of America and they voted her in along with Vice President..... JILL POWERS who baffles members of the press by asking them more questions than they ask her at press conferences.

And then there is BRAD McCONNELL who after graduating quickly worked his way up to President of Chesapeake Corp., still driving his trusty S-10. However, he is now referred to as a jailbird, after being charged with tax evasion and breaking antitrust laws by fixing prices with fellow inmate..... WARREN CUMMINGS, former President of Weyerhaeuser, who was also charged with sexual discrimination by..... DEBORAH MUROSKY, his former personal secretary.

THOMAS HARRAGHY had a fine military career and was a 3-Star General until he was caught exchanging weapons and national secrets to Russia and Cuba for vodka and cigars by..... DAVE MARKOWSKI head of the CIA.

Then there is CLARE DELLWO who took over T.O. Perry's class after receiving her PHD. She frequently runs into..... JODY BRADY, Head Librarian at Biltmore, who was rumored to be working for Lewis Lawrence and running an illegal gambling operation in the library. Jody was very good friends with.....

TIM TABAK, who took over Moreland's job for several years, until he was tragically killed by a Forestry Club member who sawed down the tree Tim had climbed while doing a tree job.

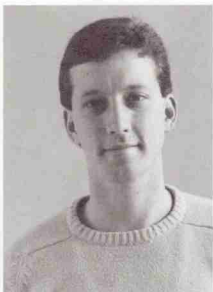
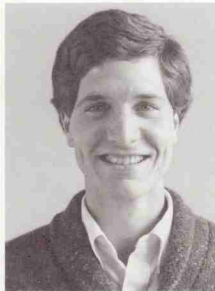
DANIEL RICH took over his Dad's business of site destruction and ripping off little old ladies, and along with.....DAN BRANDON and DAVE URGO founded the SAP, the Society of American Pinhookers. They frequently clash with the leaders of the SAF and AFA.....CLARK BEAVANS, SCOTT DETAR, FELICIA ROLAND, and KIM DILLS. They frequently have conflicts with.....DAVID GLADDEN, a part-time stand-up comedian and founder of the Logsters, a nationwide union for loggers.

JOHN PARKER, who after appearing on local TV several times, decided to head for Hollywood and pursue a career in acting. On the way he stopped by and saw.....AUSTIN WRIGHT, a Country and Western singer, working the clubs in Nashville. Whenever Austin is in Raleigh, he goes to Central Prison and visits.....MARK PEARSON, who after missing a 16-point buck one morning, became so angry he took a needle and match and blew-up Bertie County including David Jeanette.

Then there is BUZZ CHENOWETH, leading salesman for Grecian Formula. He sells most of it to himself because he worried himself to an early gray head of hair. He frequently drops by for a beer at Mitch's where he sees.....CHARLES MCRAE, who became a bartender to support his beer drinking habit. Charles had to throw out.....ED SONTAG who was then thrown out of Raleigh, then NC, then out of the USA for his unruly behavior. He now resides in Siberia.

And finally there is BILLY NETHERLY, who is in charge of all the Wetlands of the USA and when he has a problem he calls.....E.F. SPICER, and when E.F. Spicer talks people listen. He helped.....LARRY RIDENHOUR make a million dollars in the stock market, enabling him to quit his job and go on an expedition to climb Mt. Everest. He has never been heard from since.





Forestry

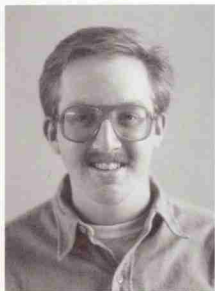
CLARK BEAVANS
Enfield, N.C.
Forestry Club/S.A.F.
Forest Farmers Association
Phi Kappa Phi
Xi Sigma Pi
Co-op, Brunswick Pulp and Paper

STEVE I. BOOHER
Farmville, N.C.
Forestry Club
S.A.F.



JODY BRADY
Trinity, N.C.
S.A.F.
American Forestry Assoc.
Library Assistant, Forest
Resources Library
Co-op, Chesapeake Corp.

DAN BRANDON
Gastonia, N.C.



ANDREW CASEY
North Wilkesboro, N.C.

WARREN F. CUMMINGS
Charlotte, N.C.
Xi Sigma Pi
Co-op, Weyerhaeuser Corp.

CLARE M. DELLWO
Lynchburg, Va.
Forestry Club (Treas., Sgt of Arms)
Forestry Council
Xi Sigma Pi (Assistant Forester)
Work Crew
Woodsmen Team



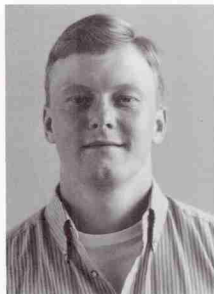
SCOTT DETAR
Concord, N.C.
Xi Sigma Pi
Phi Kappa Phi
Forestry Club
S.A.F.
A.F.A.

KIM DILLS
Durham, N.C.
Forestry Club
S.A.F.
Phi Kappa Phi
Xi Sigma Pi
Co-op, N.C.F.S.

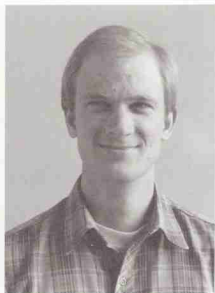


THOMAS HARRAGHY
Cary, N.C.
S.A.F.
Forestry Club
Xi Sigma Pi
ROTC

DAVID MARKOWSKI
Havelock, N.C.
Forestry Club
Woodmen's Team
Forestry Council
S.A.F.
ROTC
Work Crew
Hill Forest Caretaker
Merit Scholarship



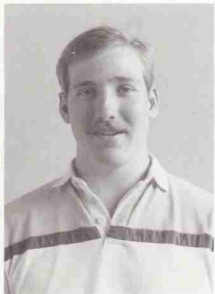
BRAD MCCONNELL
Greensboro, N.C.
Forestry Club
Woodmen's Team Captain
S.A.F.
Forestry Work Crew
Xi Sigma Pi
Hill Forest Caretaker
Biltmore Scholarship



TIM MCCRACKEN
Siler City, N.C.
Forestry Club (Vice Pres.)
Conclave Chairman
ASFC President
S.A.F.
National Student Exchange,
Univ. of Montana



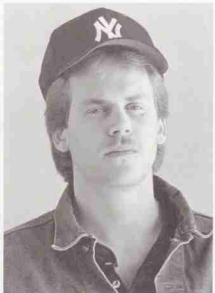
JOHN MCMINN
Brevard, N.C.
S.A.F.
Forestry Club
Academic Survival



CHARLES MCRAE
Kenly, N.C.
Forestry Club
S.A.F.
Conclave Chairman



DEBORAH MUROSKY
Raleigh, N.C.
S.A.F.
Forestry Club
Co-op, Weyerhaeuser Corp.

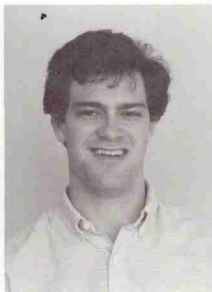


MARK PEARSON
Morganton, N.C.
Forestry Club
Xi Sigma Pi

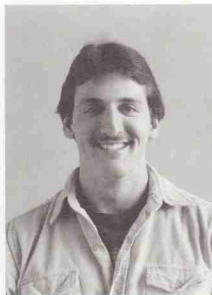


JILL POWER
Little Silver, N.J.
Forestry Club (Secretary)
S.A.F.

DANIEL H. RICH
Garland, N.C.
Forestry Club
(Equipment Chairman)



MICHAEL L. SPICER
Durham, N.C.
S.A.F.
Xi Sigma Pi
Co-op



TIM TABAK
Stratford, CT.
Forestry Club (President,
Tree Job Chairman)
S.A.F.
Farmhouse Fraternity

AUSTIN WRIGHT
Morganton, N.C.
Forestry Club (Vice President,
Tree Job Chairman)
S.A.F.

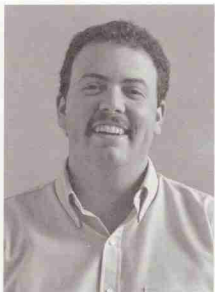
Pulp and Paper Technology

MOHAMAD JAMIL ABUHASAN
Malaysia
TAPPI

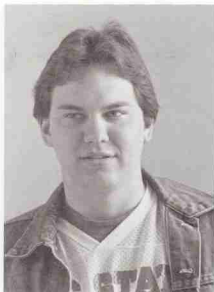


BARBARA GILMORE
Raleigh, N.C.
TAPPI (Secretary, Program
Director)
NCSU Flag Corp.





JACK A. HAMMOND II
Covington, Va.
TAPPI (Publicity Chairman)
AICHE
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PIMA Endowed Scholar



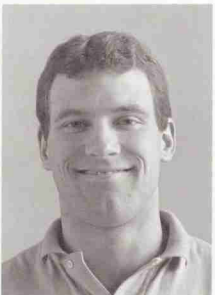
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Seven Valleys, Pa.
Tau Beta Pi
AICHE
TAPPI
Phi Kappa Phi
Xi Sigma Pi
Pulp and Paper Foundation
Scholarship
Dietrich Asten Endowed
Scholarship



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Panama City, Fla.
TAPPI (President)
Senior Class Committee
AICHE
Theta Tau English Fraternity
(Little Sister)
Knight of St. Patrick



G. ALAN SUMRELL
Grifton, N.C.
TAPPI (Treasurer)
AICHE
UAB Entertainment Committee
PPT Foundation Scholarship



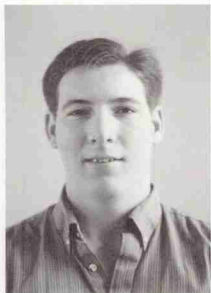
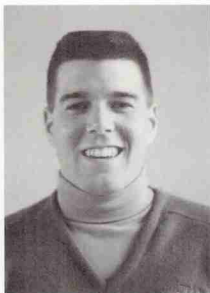
ALAN WATERS
Chesterfield, Va.
TAPPI
AICHE
UAB Entertainment Committee
Gamma Beta Phi
Pulp and Paper Foundation
Scholarship
Alonzo Aldrich Scholarship
Stone Container Scholarship
Larry H. Camp Scholarship



*Recreation Resources
Administration*

TINA FORBES
Kings Mtn., NC
RRA

ROBERT J. HARRIS III
Raleigh, NC
Recreation Club (Treasurer)
Pi Kappa Alpha
RISE Conference Co-Chairperson



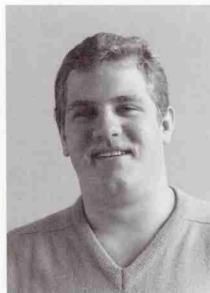
MARK HOLLEY
Spring Hope, NC
Recreation Club
Forestry Council Representative
Rho Phi Lambda

LEE HOWELL
Raleigh, NC
Recreation Club



CYNTHIA LEE
Norwood, NC
Recreation Club (Vice President)
Rho Phi Lambda (Secretary)
Raleigh Wesley Foundation

EUGENE D. MYERS
Willow Springs, NC



KIERAN O'MALLEY
Pittsburgh, PA

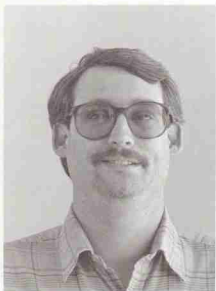




SARAH POMERANZ
Sanford, NC
Recreation Club
Farmhouse Fraternity-Little Sister



TERRI STROUPE
Raleigh, NC
NRPA



MIKE WETZEL
Havelock, NC
Rho Phi Lambda
Recreation Club
NCRPS

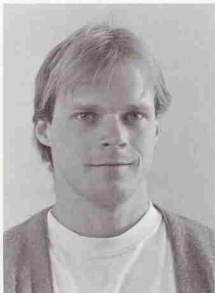


CHRISTY L. WOODINGS
Burlington, NC
Recreation Club (Secretary)
Intern, Chapel Hill Parks
& Recreation Dept.



Wood Science Technology

PIERRE BLUTEAU
Wickham Quebec Canada
FPRS

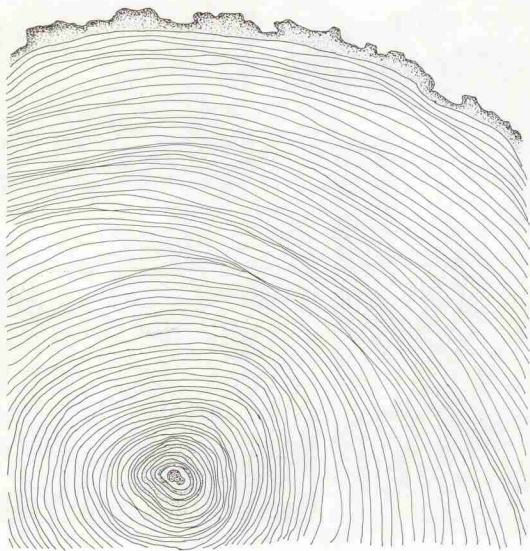


SERGE FORTIN
Montreal Quebec Canada
FPRS

BRUCE HAFLEY
Raleigh, NC
FPRS
Xi Sigma Pi

MARK WINTER
Sandston, VA
Forestry Council
FPRS

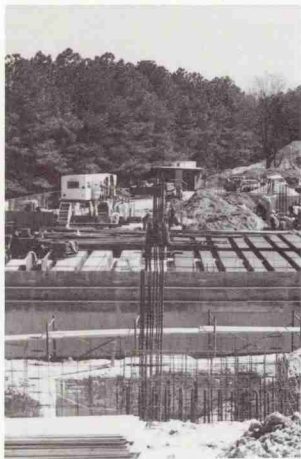
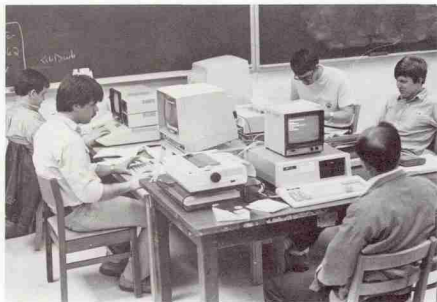






"Breaking with the past . . .





Means bending toward the future."

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Shelley Peterson

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Charlynn Todd

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Charlynn Todd



The Pi-ne-tum staff would like to thank the following people for all their support, help, and patience.

Dr. L. C. Saylor
Charlotte Swart
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Nancy Roberts
The Forestry Council
Ms. Cummings and Contemporary Lithographers
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Susan Saunders
Barbara Peterson*
Charlynn Todd
Clare Dellwo
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Tom Harraghy
Penny Handlin
Forestry Club
John McMinn
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Ruth Allen

**Cover and divider pages were designed by Barbara Peterson*

EDITOR'S NOTE

I cannot thank the people who helped me enough. The production of this journal took a tremendous amount of hard work and quite a few miracles. We had a rough start, but I believe the outcome will be remembered for many years.

There are some special people who deserve a lot of credit for, at the very least, keeping me sane through the making of this journal. They are my friends in the Forestry Club. Thank you for all your support.

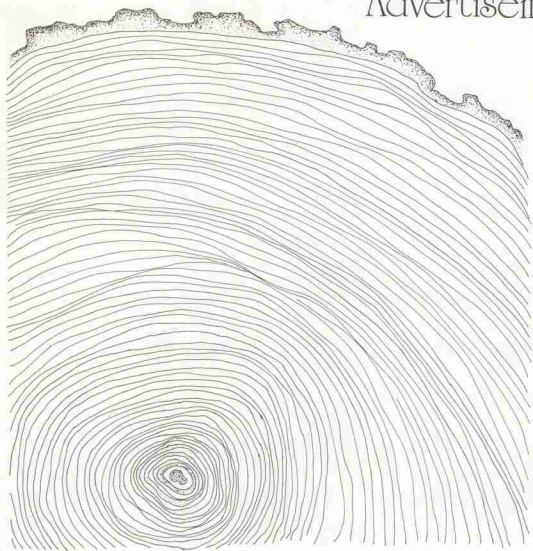
I especially want to thank Charlotte Swart for all her time and help, and most of all, for crying with me when things just "could not get any worse."

I hope you enjoy the 1987 Pi-ne-tum.

Love,

Shelley

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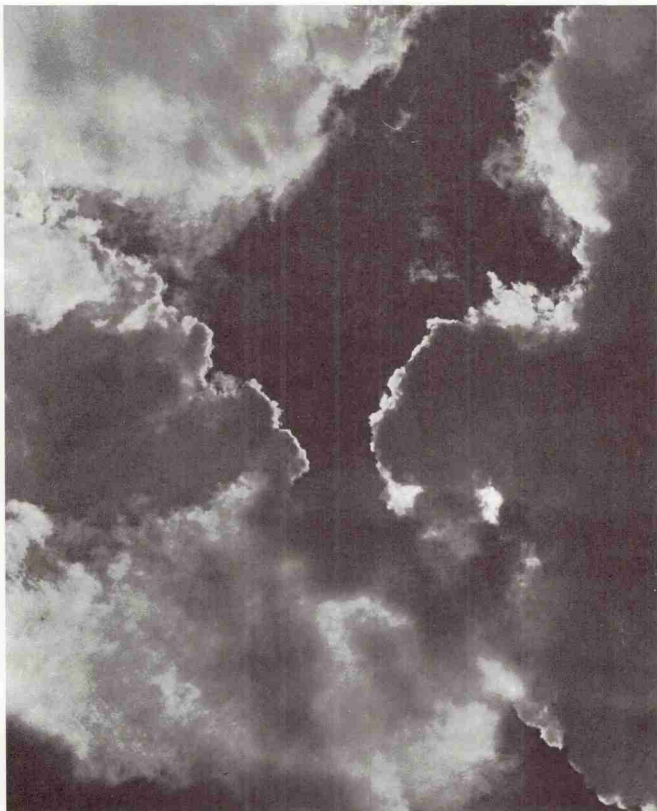


<i>Alexander, Tyrus C.</i>	1950	<i>Comfort, C. W.</i>	1935
<i>Allen, Michael L.</i>	1982	<i>Cordell, Barbara</i>	1983
<i>Altman, James A.</i>	1949	<i>Cordell, H. Ken</i>	1974
<i>Arnold, Thurston</i>	1954	<i>Craft, Archie C.</i>	1949
<i>Artman, J. O.</i>	1931	<i>Crandall, Houston M.</i>	1936
<i>Ashcraft, David</i>	1968	<i>Cullom, Ralph M.</i>	1967
<i>Baker, Jr., Junius O.</i>	1961	<i>Cunningham, Jr., H. C.</i>	1961
<i>Barker, Jr., J. S.</i>	1939	<i>Dayvaut, N. E.</i>	1948
<i>Barton, W. J.</i>	1947	<i>Del Castillo, R. A.</i>	1968
<i>Blanchard, Harold C.</i>	1963	<i>Duckworth, Charles J.</i>	1965
<i>Bost, Ronald M.</i>	1960	<i>Duncan, Douglas V.</i>	1977
<i>Boyce, Stephen</i>	1949	<i>Eakes, James C.</i>	1963
<i>Brinson, Jr., Roy L.</i>	1982	<i>Edwards, A. C.</i>	1950
<i>Brumbaugh, Wayne D.</i>	1979	<i>Eliades, George K.</i>	1960
<i>Chamblee, Graham V.</i>	1941	<i>Epps, Philip O.</i>	1973
<i>Chesney, Clyde</i>	1972	<i>Epstein, Herbert L.</i>	1943
<i>Ciliberti, Vito A.</i>	1957	<i>Evans, Joe T.</i>	1950
<i>Colwell, Jr., Wilmer L.</i>	1938	<i>Foothills, For. & Surveying</i>	

<i>Freeman, Harold B.</i>	1961	<i>Hatley, Jr., Clyde W.</i>	1982
<i>Freeman, Michael H.</i>	1982	<i>Herlevick, V. W.</i>	1948
<i>Gaertner, Jerome G.</i>	1982	<i>Hodul, Norman P.</i>	1947
<i>Gardiner, Thomas B.</i>	1935	<i>Holcombe, Robert A.</i>	1944
<i>Gibbs, George S.</i>	1957	<i>Holland, Jack C.</i>	1950
<i>Gilbert and Company</i>		<i>Hudson, Seaman K.</i>	1936
<i>Gilbert, Richard O.</i>	1959	<i>Hughes, Joseph H.</i>	1967
<i>Graham, JoAnne E.</i>	1952	<i>Hughes, Samuel M.</i>	1952
<i>Graves, John B.</i>	1935	<i>Hunter, Jeffrey Neal</i>	1978
<i>Green, Carolyn F.</i>		<i>Jackson, G. E.</i>	1935
<i>Green, H. J.</i>	1950	<i>Jackson, John V.</i>	1952
<i>Gueth, III., Charles M.</i>	1981	<i>James, Jr., Robert D.</i>	1972
<i>Haines, Sharon G.</i>	1978	<i>Jenkins, Robert G.</i>	1953
<i>Haines, L. Wayne</i>	1977	<i>Katz, Hyman S.</i>	1942
<i>Hardin, Janette S.</i>		<i>Kelley, Jack Stewart</i>	1957
<i>Harris, Jr., T. G.</i>	1965	<i>Kelly, Myron W.</i>	1969
<i>Hartsfield, Marshall B.</i>	1982	<i>Kluttz, Amy K.</i>	1986
<i>Hasell, Jr., T. M.</i>	1949	<i>Lee, Walter T.</i>	1984

<i>Long, Samuel H.</i>	1949	<i>Pridgen, Jim P.</i>	1960
<i>Mace, Samuel V.</i>	1961	<i>Raper, Charles F.</i>	1954
<i>Maxwell, Albert H.</i>	1932	<i>Rappa, Darlene H.</i>	1979
<i>McDonald, Virgil D.</i>	1950	<i>Raymond, Jr., Arthur</i>	1969
<i>McEachern, George H.</i>	1959	<i>Reynolds, William A.</i>	1967
<i>McNatt, Dobbin</i>	1960	<i>Salzman, Franklin</i>	1949
<i>Mitchell, Barre R.</i>	1963	<i>Saunders, Suzanne G.</i>	1985
<i>Morriss, Donald J.</i>	1930	<i>Schultz, Gary C.</i>	1965
<i>Naylor, Jr., James F.</i>	1971	<i>Seltzer, Edward N.</i>	1948
<i>Palmer, John G.</i>	1973	<i>Shafer, Charles H.</i>	1931
<i>Pardue, Jeff L.</i>	1978	<i>Sherrill, Jack</i>	1972
<i>Pendasula, Anthony D.</i>	1980	<i>Sherwood, Frank V.</i>	1970
<i>Pickett, William C.</i>	1941	<i>Shotwell, Jr., James F.</i>	1965
<i>Plaster, Allen L.</i>	1968	<i>Slocum, Jr., Robert W.</i>	1973
<i>Plaster, Jr., Donald C.</i>	1934	<i>Smith, Lervis J.</i>	1948
<i>Pollock, Kenneth Allen</i>	1978	<i>Smith, Walton R.</i>	1934
<i>Pomeroy, Edward E.</i>	1981	<i>Solow, Robert I.</i>	1948
<i>Price, Dock H.</i>	1950	<i>Starnes, Richard L.</i>	1970

<i>Steele, Joe J.</i>	1939
<i>Summer, T. Larry</i>	1959
<i>Tayloe, Ralph P.</i>	1957
<i>Taylor, Warren E.</i>	1965
<i>Tennyson, Roger P.</i>	1979
<i>Turner, John H.</i>	1962
<i>Utle, William H.</i>	1936
<i>Vass, Sr., John S.</i>	1936
<i>Wallinger, R. Scott</i>	1960
<i>Warren, Lynn C.</i>	1985
<i>Watts, N. B.</i>	1985
<i>Welch, R. V.</i>	1959
<i>White, Bennett B.</i>	1954
<i>Williams, Edward J.</i>	1986
<i>Willits, Susan</i>	1979
<i>Wilson, Alvin Dwight</i>	1949
<i>Wood, Thomas B.</i>	1958
<i>Wright, Harry R.</i>	1935



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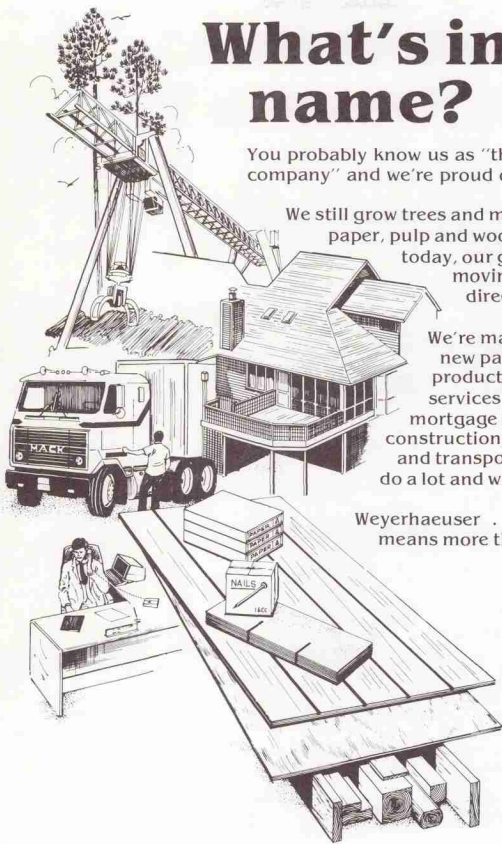
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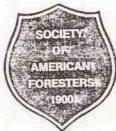
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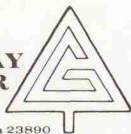
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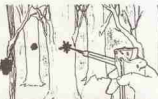
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