

Dedication

James S. Bethel is both Professor Emeritus and Dean Emeritus of the College of Forest Resources at the University of Washington, Seattle. These are fitting titles for one who has devoted most of his sixty professional years to education in wood science and technology. A native of Tacoma, Jim began higher education in 1933, earning a degree in Logging Engineering in 1937 at the University of Washington with a switch, engendered by Dr. E.S. (Scotty) Harrar, to wood science. He earned a Master of Forestry degree from Duke in 1938, finally completing, after teaching stints of two years each at Pennsylvania State University and Virginia Polytechnic Institute, plus five years with the U.S. Army Air Force (as a Captain at Wright Field), his D. F. (one of the first Doctor of Forestry degrees), at Duke University in 1946.

Dr. Bethel became Plant Manager of Tidewater Plywood Co. of Brunswick, Georgia until 1949 when he went to North Carolina State University in Raleigh as Professor of Wood Technology and Acting Dean of the Graduate School until 1959. He organized a graduate program during this period. Jim, on loan, was Head of Special Projects in Science Education in the National Science Foundation for two years, concurrent with being elected to organizational President of the American Institute of Wood Engineers, and first president of its successor, the Society of Wood Science and Technology.

His contributions to SWST are numerous: Formative Chairman and President of American Institute of Wood Engineering in 1958-1960; third President of SWST in 1961-1962; he assisted in NSF funding of our Visiting Scientist Program; assisted in the NSF Funding for the Education Study; and worked with Ben Jayne in funding a grant from NSF's Office of Scholarly Journals to get *Wood and Fiber Science* started in 1968, while Acting Dean of the University of Washington's graduate school. He has served on and chaired numerous committees, and with Herb Fleischer helped draft the original Constitution. Jim received the second SWST Distinguished Service Award in 1980.

His memberships, fellowships, and consulting contracts indicate the true breadth of his professional activities and experience. As a charter member of FPS, he was also very active there. SWST has been fortunate to have Jim's dedicated service and contributions for forty years.

Thanks, Jim!

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Preface

When asked if I would do a history of the first forty years of the Society of Wood Science and Technology, I asked for time to consider. How could any one person encompass such a period and be objective in summarizing his findings, reminiscences, opinions, and experience? After about 24 hours, the old American feeling of "I can give it a try!" prevailed and here is the result of considerable effort. This is my contribution to posterity and gives me the chance to emphasize the worth and necessity of the Society being a truly professional organization.

I am deeply indebted to the active members who have contributed generously, particularly the Officers, the Executive Director, and to Dr. Herb Fleischer, who reviewed the Society's history at ten years and, with Dr. Al Foulger, at twenty-five years. I've resisted the temptation to plagiarize or copy their texts. Much of this history is a careful chronology, supplemented with statistics, recorded activities and attributes of a profession in the process of establishment and growth to maturity. My sincere hope is that the stated purposes are being achieved and that the Society of Wood Science and Technology, through the aspirations of its members, and their adherence to its Code of Ethics will achieve acceptance by the public and other professions.

Special gratitude and thanks go to Owen Reddecliffe who helped arrange the latter portion of the Chronology and laid out the tables and data in the description of functions and Appendix; my sincere appreciation for his tremendous assistance.

I Introduction and Statement of Purpose

The intention of this document is to review and examine the first forty years of the Society of Wood Science and Technology (SWST), founded in 1958. The stated purpose and objectives of the Society, as disclosed in Article II of the Constitution are:

- To develop and maintain the unique body of knowledge distinctive to wood science and technology
- To encourage communication and use of this knowledge
- To encourage policies and procedures which assure the wise use of wood and wood-based products
- To encourage high standards for professional performance of wood scientists and technologists and act as the professional organization for individuals who meet these standards
- To foster education programs at all levels of wood science and technology and further the quality of such programs

II Background

A. Definitions

Among professions, Wood Science and Technology is very young and is still undergoing change and modification as it matures. Forty years have given it a good start and it is timely to examine what it has done and where it is going.

Wood Science has been defined (1)** as that body of knowledge applicable to wood as a material, including its origin, properties and characteristics. It embraces knowledge in a number of separate disciplines, primarily the basic sciences of chemistry, physics, biology, but also includes engineering sciences and mathematics; thus, it is a materials science. Wood Technology follows as the application of knowledge in the conversion and processing of wood for use and its marketing.

B. Origin

Wood Science and Technology was derived from the general field of forestry over a number of years, at first, in the sense of specific

related academic courses, and subsequently, through the agency of forestry graduates engaged in the many facets of the use of wood and its processing, as a scientific and engineering discipline. Our knowledge of wood as a material of construction, decoration and utility, and as a source of energy and fiber has grown mightily; later, as academic programs in utilization, in forestry programs. There was general acceptance that the production of forest products and their many derivatives was an area of learning essential to foresters. This "coming alive" of Wood Science and Technology as a distinct discipline was first noted in the United States but has now spread world wide. The development of forestry as a discipline in the United States has taken only slightly longer.

Forest Utilization

Some of the public has been reluctant to accept forestry as a profession, particularly with the rising interest in recent years in the fields of environment, conservation and ecology. The first head of the U.S. Government Division of Forestry was Franklin B. Hough in 1881. In 1886, B. E. Fernow succeeded Hough; he offered the first in-department course in the characteristics of timbers. In 1891 Filibert Roth organized the first course in what became "timber physics" and published Bulletin 10 of the U.S. Division of Forestry (2). An office of Forest Products was designated under William L Hall to deal with three specialties: timber testing, wood preservation, and dendrochemistry. Shortly after, the scope was enlarged to include work on wood distillation and on other chemical problems.

Government

In the period 1903 to 1906 systematic studies were undertaken on the strength and related properties of native timbers at Washington University in St. Louis, Purdue University (West Lafayette), the University of California at Berkeley, the University of Washington (Seattle), the University of Oregon (Eugene), and especially at Yale University (New Haven). These efforts were all sponsored by the Division of Forestry and its successor, the U.S. Forest Service. The U.S. Forest Products Laboratory was dedicated on 1 October 1909 at the University of Wisconsin, Madison.

Strength Testing

Since wood science is a materials science, it is not surprising that its early development and definition were derived through botanists, physicists, chemists, foresters, and engineers. Such people have played a prominent role. However, unification of training programs in wood science was accomplished slowly, although individuals pioneering wood science were busy at separate institutions. When the U.S. Forest Products Laboratory (USFPL) began operation, occupying a new laboratory provided through the University of Wisconsin, on June 4, 1910, its staff comprised primarily the men who had conducted the testing programs at the several universities noted previously. Its first Director was McGarvey Cline, head of the new section on Wood Uses in the Bureau of Forestry since 1907.

Wood Science

The University of Michigan established the first university-level forestry course in the United States in 1882, organized by Dr. V. M. Spalding (3). The course was offered for only four years, but was the forerunner of the establishment of their School of Forestry in 1901.

The New York State College of Forestry at Cornell University offered the first full-fledged professional education program in forestry in September 1898. It was conducted by B. E. Fernow, who had emigrated to the U.S. in 1875 after earning a forestry degree in Mundane, Prussia, a four-year program – two years of basic science followed by two years of technical forestry subjects. The Cornell program was transferred to Syracuse in 1911.

** Numbers in parentheses refer to literature cited

In 1900, Yale University established its School of Forestry, with Henry S. Graves as Director. Similar graduate programs followed at Duke University, Harvard (for a few years), and at the University of Michigan (until 1916 when Michigan switched to an undergraduate degree). In 1898, Biltmore Forest School in North Carolina started an essentially one-man "masters" program under Carl A. Schenk, who was trained at Giessen University in Germany (4). Biltmore gave a Bachelor of Forestry degree after a year of practical forestry work, and the degree of Forest Engineer after two years training. Biltmore's program was dissolved in 1913.

School Growth

C. Relation to Forestry

The 1958 issue of the Society of American Forestry's *Forestry Terminology* defined Forestry as "The scientific management of forests for the continuous production of goods and services" (5). The ten years following 1905 brought into existence 16 new forestry schools, scattered from Maine to Georgia and west to California and Washington. The New York State College of Forestry at Cornell was transferred to Syracuse University. A nonprofessional training program was introduced as the New York Ranger School. A scattering of other practically oriented courses was inaugurated, frequently giving a diploma. Most of these generally two-year practical courses have disappeared. Currently, the Society of American Foresters operates a "certification" system, described later.

Practical Forestry

Forestry education circles discussed "related fields" from early days up into the 1950s (6). One such field to get early attention was that of logging engineering, a combination of civil engineering and forest management, including details of harvesting. Such a program was initiated in 1910 at the University of Washington, only three years after the start of their College of Forestry. Other "related fields" include range management, wildlife management, fisheries, and various disciplines related to forest ecology and conservation. Forest utilization (8) was considered a "related field", with the first separate degree program in 1929. R. J. Preston (7) stated that only four programs that could be considered the forerunners of Wood Science and Technology were offered prior to 1920.

Related Fields

Forest utilization dealt with the production of logs, poles, pulpwood, and sometimes their manufacture. Wood products dealt with lumber, plywood, poles and piling, and with pulp and paper (in a general way), their manufacture, distribution, and marketing. Prerequisites in the sciences for these "related fields" were usually somewhat more demanding than those for general forestry, which was concerned primarily with forest management. Your author entered a four-year curriculum in forest products at the University of Washington in 1937.

Forest Products

D. Development

The Society of Wood Science and Technology is very closely related to (is, indeed, the offspring of) the presently denoted Forest Products Society (FPS), established in 1947 as the Forest Products Research Society (FPSRS). The history of the Forest Products Society has been capably recorded by Art Brauner (Executive Vice President of FPS since 1976 and currently Chair of the SWST Publication Policy Committee). The history was prepared for the FPS 50th Anniversary meeting, June 1997 (9).

The results of two initiatives merged in 1947. The first originated in 1945 through the effort of Dr. Bror Grondal (long-time Professor of Forest Products at the University of Washington College of Forestry), Art Mottet (Research Engineer for Long-Bell Lumber Co. of Longview, Washington), and Al Herman (Director of the Western Pine Association of Portland, Oregon). Their encounter led to the formation of the Associated Forest Products Technologists. The second arose from a July 1945 meeting of the Forest Products Research Committee of the Michigan Planning Commission. It was decided that Dr. Grover Dillman, President of what is now Michigan Technological University at Houghton, Michigan, should contact the U.S. Forest Products Laboratory (USFPL) to suggest that representatives of states interested in forest products research should meet and develop a plan for exchange of information. The outcome was an agreement by George Hunt, then director of the USFPL, to convene a national conference in March 1946 in Madison, Wisconsin, of representatives from states, universities, and the U.S. Forest Service.

Hunt asked Grondal to form a committee to develop a proposal for a national forest products association, and suggested articles of incorporation and a statement of objectives. Such a conference was held in Chicago in March 1946; Grondal presented his preconference committee's findings, proposing a national organization, which would:

Objectives

1. Facilitate exchange of information
2. Abstract results of research
3. Publish and distribute information
4. Encourage cooperation among individuals and organizations

5. Promote standard test methods, and
6. Sponsor meetings.

The suggested articles of incorporation offered three classes of membership: Voting, Associate, and Supporting. Grondal also felt very strongly that such an organization should not be formed without the inclusion of the forest products industry.

The final organizational 14-man committee was constituted as follows:

INDUSTRY:

People Involved	Ken Chesley, The Crosset Co. Fred Gottschalk, American Lumber and Treating Co Jim Hamilton, Perkins Glue Co. R. N. Hammond, Weyerhaeuser Corp. W. H. Swanson, Kimberley-Clark Corp. Jac Tigelaar, Haskelite Manufacturing Corp. Charles Hemming, U.S. Plywood Corp.
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GOVERNMENT:

Bill Baker, U.S. Forest Products Laboratory
 George Hunt, U.S. Forest Products Laboratory
 L. J. Markwardt, U.S. Forest Products Laboratory

ASSOCIATIONS:

Harold Crosby, Northern Hemlock and Hardwood Association

UNIVERSITIES:

George Garratt, Yale University
 Gordon Markworth, University of Washington
 Bror Grondal, University of Washington.

The committee met on 3 January 1947 and formally approved a constitution, method of collecting dues, election of officers and the official name of the Forest Products Research Society. Fred Gottschalk was elected President, George Garratt Vice-President, Bill Baker Secretary-Treasurer and Bror L. Grondal as Past President in honor of his efforts in the organizational process. Six regions were formed, and Madison was chosen to be the site of the national office, using space donated by the U.S. Forest Products Laboratory. FPRS became a legal entity in August 1947 as a nonprofit organization in the State of Illinois. In the same year, the Associated Forest Products Technologists merged with FPRS, becoming the first Section of FPRS - the Pacific Northwest Section. The first annual meeting was held October 1947 in the Furniture Mart, Chicago.

Establishment	President, George Garratt Vice-President, Bill Baker Secretary-Treasurer and Bror L. Grondal as Past President in honor of his efforts in the organizational process. Six regions were formed, and Madison was chosen to be the site of the national office, using space donated by the U.S. Forest Products Laboratory. FPRS became a legal entity in August 1947 as a nonprofit organization in the State of Illinois. In the same year, the Associated Forest Products Technologists merged with FPRS, becoming the first Section of FPRS - the Pacific Northwest Section. The first annual meeting was held October 1947 in the Furniture Mart, Chicago.
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The formation in the spring of 1946 of the Northwest Wood Products Clinic in Spokane, Washington indicated widespread interest in the forest products field. Dwight Jeffers, Dean of the School of Forestry at the University of Idaho, and Eri Parker, Extension Specialist from Washington State University in Pullman, Washington, called the first meeting. Subsequent meetings were managed alternately by Dick Batdorf and your author as Secretary and Recorder (I published their early Proceedings, partly from wire recorder transcriptions). The spring meetings eventually became the Inland Empire Section of the Forest Products Research Society. Other similar groups were formed in this period, apparently arising from the demands of World War II for forest products. The time seemed right to do something about an apparent need for a professional organization in the forest products field (the name "wood science and technology" had not yet been suggested).

Some of the reasons behind this move toward professional recognition can be summarized as follows:

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| Issues | <ol style="list-style-type: none"> 1. The FPRS Industry-Education Committee was strongly motivated to achieve professional recognition (10). The committee had been receiving increasing support in this regard for several years. 2. Despite the feeling that FPRS as a technical society was not meeting this desire for professional recognition, the early group of dissidents did not want to do anything to harm its status. 3. At the formative meeting of American Institute of Wood Engineering (AIWE) in 1957, it was noted that a request for the formation of a fundamental research subject matter committee had been made and was being considered by FPRS. 4. The forest products industry was not one that demanded higher education and special training for industrial leaders and operators. Those members of FPRS looking for |
|--------|---|

professionalism wanted recognition appropriate to their training, function, and ambitions—a group dedicated to wood, its properties, conversion, and uses.

Organization

5. The group thought it essential to identify and safeguard growing professional interests, particularly the interests of graduates of special university curricula designed to prepare practitioners in the wood science and technology fields.

E. Establishment

At the annual meeting of the Forest Products Research Society held in Buffalo, New York, in June 1957, a call was made by the author and his colleague, Ben Jayne, to convene a group in an effort to answer the question: "Where is the 'Research' in the Forest Products Research Society?" From this meeting of interested parties, a committee was appointed to look further into the matter. The committee comprised the following individuals: James Bethel, Chairman, Fred Dickinson, Herbert Fleischer, Ben Jayne, George Marra, Steven Preston, Jack Stillinger, and Carl deZeeuw. Jim Bethel was also Chairman of the FPRS Industry-Education Committee, providing capable coordination between the two groups. Others who were also interested in establishing a professional affiliation without detracting from the FPRS prepared for a meeting to be held a year later, on Sunday, 22 June 1958, in Madison, Wisconsin, just prior to the FPRS annual meeting. It was held at the home of Robert Youngs, currently (1998) Editor of *Wood and Fiber Science*, the SWST scientific journal (11) (12).

Birth
of
SWST

Chairman Bethel pointed out the need for a professional society to identify areas of professional interest and growth, and define professional qualifications. The committee had prepared a draft constitution for a society which, temporarily, was named the American Institute of Wood Engineering. The draft of the constitution was discussed at length to avoid setting up any organization that would compete with FPRS, within which the concept had come into being. The group adopted the Constitution and By-laws (later ratified by the membership via mail ballot). The elected officers of the American Institute of Wood Engineering were Jim Bethel, President, Herb Fleischer, Vice-President, Bob Youngs, Secretary-Treasurer, and three Directors - Fred Dickinson (for three years), Alex Panshin (for two years), and Art Muschler (for one year). The acceptance of the Constitution and By-laws was limited to a life of not more than two years to assure that they would be reviewed and improved and to permit further exploration of ways to affiliate with other organizations. The group also considered the need for affiliation with FPRS or a similar organization, such as the American Society of Mechanical Engineers.

AIWE

The original constitution provided for four classes of membership: Fellow, Member, Associate, and Student. Membership would require graduation from a professional course, or an equivalent in experience. Associate membership was to be applied to those possessing appropriate experience, but lacking formal professional training. Fellows were to be elected based on widely recognized accomplishments, while the Student class was to apply to those enrolled in wood science and/or wood technology curricula. The definition of membership requirements created appreciable discussion; in subsequent years, with increasing experience, it was revised several times. Annual dues were set at three dollars for students and five dollars for others.

Membership

President Bethel sent invitations to persons believed to be qualified for membership. On November 6-7 1958, the AIWE executive board met in Chicago and approved 98 applicants for membership as professional wood scientists and wood technologists. The board also scheduled another meeting, to be held in conjunction with the annual meeting of FPRS in San Francisco on 28 June 1959. During the November 1958 meeting in Chicago, the AIWE Board met with the FPRS executive board and agreed on a cooperative arrangement for the following two years. This assured recognition of AIWE as an independent organization but allowed for integration with FPRS in three areas:

SWST

1. FPRS membership was a prerequisite for membership in AIWE, which established all other membership standards and dues.
2. AIWE would assist financially with publication in the *Forest Products Journal*, or other FPRS publications, as their capability permitted.
3. AIWE would hold a session at the FPRS annual meeting, dealing with fundamental research results at the same time as, but not in conflict with, the FPRS annual meeting. This would be an open meeting concerned with basic research matters and results, but was not to be confused with the annual business meeting, which would be limited to AIWE members.

In June 1959, Steve Preston took over the office of President at the San Francisco meeting. The members present (ratified by subsequent mail ballot), agreed to the cooperative arrangement with Forest Products Research Society (FPRS), which became Article 8 of By-laws, to come into effect in 1960. The name

of the organization was also changed to the Society of Wood Science and Technology with a Constitution and By-laws to take effect on the date noted: 1 January 1960. The society now had a permanent name, a statement of objectives and purposes, and membership requirements. The executive board consisted of President, Vice-President, Secretary-Treasurer, Past President, President-elect, and three Directors with duties defined in the By-laws. These duties included managing and maintaining the working agreement between FPRS and SWST. The Society was now very comparable to its current form.

F. Constitution and By-laws

A copy of the current Constitution and By-laws may be obtained from the Society. Briefly, Articles I through III cover: Name, Purpose and Objectives (see page one of this text), and Membership: Member, Student, and Affiliate (considerations of Fellows and certification of professional wood technologists will be found under Committees). Article IV establishes dues, while Article V, in five sections, details Officers and their duties:

- Section 1 - An executive board shall consist of president, president-elect, vice-president, secretary-treasurer, past president and four directors.
- Section 2 - Management of the society shall be the province of the executive board.
- Section 3 - The executive board is empowered to establish such standing committees as needed.
- Section 4 - The president is authorized to appoint necessary *ad hoc* committees.
- Section 5 - The secretary-treasurer has authority to collect dues as specified in the by-laws.

Article VI has twelve sections related to elections - nominations, balloting, terms of office, filling vacancies, and longevity in office. Article VII requires an annual meeting. Article VIII covers amendments in three sections, and Article IX constitutes the By-laws (reproduced verbatim in the Appendix). These regulations (four sections) are required for the orderly conduct of business, and for their own modification and ratification. Article X notes that the fiscal year runs from 1 January to 31 December. Article XI records the fourteen amendments, additions, and changes from 1 January 1960 to 23 June 1996. Finally, Article XII, with four sections, covers Chapters.

G. Code of Ethics

In June 1963, the SWST, in common with the practices of all professional organizations, adopted a Code of Ethics. This was intended to guide the professional conduct of members of SWST in their relationships with the public, their employers, and with each other. Particular attention should be drawn to this statement since it is one of the distinguishing characteristics of a profession based on educational and other special qualifications, and not on the activities of its members alone. This distinction needs to be drawn to the general attention of the public. It is one of the hallmarks of the SWST, worthy of respect and acceptance. The full text can be found in the Appendix.

III Growth

A. Chronology, 1960 through 1982

Twice before, Herb Fleischer (with the help of Al Foulger in the second case) has written histories of SWST (11) (12). These give a good indication of the vicissitudes faced in the setting up of a professional body.

From 1960, an SWST very similar to our current organization was off and running. During that year, Jim Bethel was elected President of the newly formed SWST, and constitutional changes were ratified. Noteworthy

1960

 was the removal of By-law 8 marking a formal separation of FPRS and SWST. Henry Haskell was appointed by the executive board to act as Assistant to the Secretary, to handle the Society's executive office, a resource provided by the U.S. Forest Products Laboratory.

The Society was incorporated as a nonprofit, tax-exempt organization on 5 June 1960; the Articles of Incorporation stated that its purposes were:

- To foster educational programs directed toward professional advancement
- To promote research in wood science and technology
- To provide a medium for the exchange of ideas and technical information relating to wood science and technology.

The Visiting Scientist program was initiated with six scientists visiting nine campuses during the 1960-1961 academic year.

The matter of Internal Revenue Service (IRS) status took a long period of maneuvering, including changes to the Constitution and By-laws, which was achieved with the much-appreciated help of Potlatch Forests and J Neils Lumber Co. The membership at this point stood at about 170.

Study of Education

Herb Fleischer supervised the submission of an application to the National Science Foundation (NSF) (7 April 1960) for a \$30,000 grant to finance an in-depth study entitled "Education in Wood Science and Technology". It had six objectives:

1. To establish goals for minimum curriculum requirements for professional education.
2. To make recommendations for a proper balance between:
 - (a) courses in the basic areas of biology, chemistry, physics, and engineering, as related to wood; and
 - (b) courses in the applied areas of wood processing, wood-using industries, wood utilization and forestry.
3. To recommend prerequisite pre-professional courses in basic sciences and in the humanities, social sciences and communicative skills.
4. To determine the staff requirements and staff problems in departments of colleges and universities offering professional training in wood science and technology.
5. To assist in the establishment of more uniform systems of course names and definitions, together with a more adequate definition of course content and quality in specific areas.
6. To indicate needs for additional texts, course outlines, laboratory manuals and other teaching aids.

The proposal named the following steering committee, indicating respective areas of interest:

Dean George Garratt, Yale University, School of Forestry, Chairman
Dr. Alfred Stamm, North Carolina State College, Chemical and Physical Studies
Dr. Frederick Wangaard, Yale University, Mathematics and Engineering Studies
Dr. Maxon Pillow, U.S. Forest Products Laboratory, Biological Studies
Dr. Fred Dickinson, Director, University of California Forest Products Laboratory, Applied Studies
Dean Gordon Marckworth, University of Washington, College of Forestry, Course Standards
Dr. Frank Kaufert, Director, School of Forestry, University Minnesota, Teacher Qualifications
Dr. Eric Anderson, Chair, Wood Products, State University of New York (SUNY) College of Forestry, Graduate Studies

Table I
 PROPOSED MINIMUM EDUCATIONAL REQUIREMENTS FOR THE
 PROFESSION OF WOOD SCIENCE AND TECHNOLOGY*

I General Education Requirements: 20%

English (including composition, speech, report writing)
 Social Sciences (including Economics)
 Humanities

II Basic Sciences: 40%

Mathematics, including Calculus
 Chemistry (general and inorganic, analytic, organic)
 Physics (full year of engineering-type Physics)
 Biology (primarily Botany - life processes and organic growth)

III Wood Science and Principles of Wood Processing: 20%

Wood Science
 Wood Anatomy and Structure (emphasizing fine structure)
 Wood Physics (physical and mechanical properties; rheology)
 Wood Chemistry (constituents and reactions)
 Wood-Fluid Relationships (physical chemistry of wood and wood surfaces)
 Engineering Science (statics and strength of materials)
 Principles of Processing
 Mechanical (industrial engineering approach to processing including surface generation)
 Chemical (unit process approach to processing of a chemical nature)

IV Concentration or Specialization: 20%

Technological** (specific courses chosen according to interest and desired employment) examples include Production Management, Utilization, Seasoning, Preservation, Finishing, Sales, Merchandising.
 Adhesive Technology, specific Wood Industries)
 Scientific (Specific courses allied to an underlying science; examples include Wood Anatomy, Wood Chemistry, Wood Physics, Wood Quality and Growth, Wood Industry Economics)

V Free Electives: As permissible, but not over 5 per cent of total

* Details of courses, credits, order of program, and balance are to be determined by specific institutions; percentages (of total requirements) in given areas are approximate only, but should not vary by more than 4%, preferably, in areas I, II, and III; Military Science and Physical Education credit is not included.

** Field trips, case studies, or supervised employment, to provide contact of student with industrial operations should be included.

Note that these recommendations applied to 1961, hence there is no mention of computer science, now part of education at all levels, kindergarten to Ph.D.

The NSF sent notification of a grant of \$29,900 to Herb Fleischer 30 June 1960. The Steering Committee selected and appointed Dr. Everett Ellis, your current history author, as Executive Secretary when the grant was made. I was generously supported by leave, secretarial help, and library functions from the University of Michigan, School of Natural Resources, half time from 1961 to 1964. In late 1964, the report, a 187-page hardbound book (1) was distributed widely in the North America, as well as overseas. All told, 2085 copies have been distributed in the ensuing thirty-four year period.

The study involved interviews with over 300 teachers, industrialists, administrators, students, associations, and others, as well as many thousands of miles of travel. Fifty undergraduate (for 1961-1962), six graduate, and a number of "related" programs were examined and summarized. The minimum educational requirements proposed for the Wood Science and Technology profession were as outlined above in Table 1.

Fifty programs offered by 27 institutions were analyzed in detail and broken into six categories:

1. Sixteen Wood Science and Technology (WS&T) programs conforming to stated Table I requirements.
2. Twelve WS&T curricula not conforming to Table I for reasons of inadequate mathematics, basic or engineering science, or due to too small a staff
3. Six WS&T graduate programs offered by schools with no undergraduate program
4. Eight pulp and paper, and wood and polymer chemistry programs, graduate and undergraduate, generally conforming to Table I, but with special emphasis
5. Six "related" programs in special phases of WS&T, (lumber and building materials merchandising, light construction, furniture) generally not conforming to Table I
6. Undergraduate forestry programs offering some WS&T courses, or courses on forest products or wood utilization, but without specialization in WS&T

Further details can be found in the text, which has over 16 Appendix tables, 22 detailed course outlines, curricula, plus a myriad of other detail and observations.

Subject matter in scientific fields does not change markedly from year to year, but between institutions, the depth and coverage offered do vary, particularly in the mode and capability of their teaching. Such considerations are involved in statements of course standards and in accreditation of curricula, courses, institutions, and staff, as will be considered subsequently. This detailed review is offered here to form a ready reference to stages in the historical development of the profession. This digression regarding the Education Study is slightly out of time sequence but completes the subject generally.

Referring back to 1961 - Art Muschler was president at the annual meeting held in Louisville in 1961.

1961

The meeting was arranged so that the FPRS Division I (Anatomy and Fundamental Properties) officers were also members of SWST. Two successful sessions were held. The Visiting Scientist Program, which under Steve Preston saw visits to schools increase to seventeen by nine scientists, went very smoothly and was well received. The Education Study was initiated, with two meetings of the Steering Committee and approval of procedures for interviews to campuses, industry visits, and travel by the Executive Secretary of the study.

In January, the SWST Board modified operational procedures by creating the position of Executive Secretary, part-time, with a small salary and an operating budget, which was initially filled by Henry Haskell.

1962

The President, Bob Youngs, ensured that the By-laws were amended and approved. At the June meeting in 1962 the membership increased to 214, despite 24 delinquents, who were dropped. Student membership rose from the previous year from five to twenty. Under Steve Preston, the Visiting Scientist program, supported by the National Science Foundation, saw eight scientists visit fifteen campuses, who stated unanimously that they were pleased with the program. It continued year-to-year as a regular feature of SWST operations, but NSF funding ceased in 1971. Other funding and arrangements were found, as will be noted.

A monthly publication, *Newsletter*, was started in 1962. In late 1959 the inaugural issue had covered the new Constitution and By-laws, while in April 1961 a second issue carried the President's "State of the Society" message. In total, seven issues appeared in 1961. Communications with members and a desire to have a publication specific to SWST remained a contentious issue in SWST/FPRS circles for nearly 20 years.

1963

In 1963, tax-exempt status was granted by both the IRS and the State of Wisconsin.

During Steve Preston's second Presidency, the final printing of "Education in Wood Science and Technology", was presented as a special feature to a joint session of FPRS and SWST in Chicago.

Jim Bethel saw that a request from Canadian schools was granted by the Visiting Scientist Program, which carried out 15 campus visits.

Newsletter

A general feeling among the membership that *Newsletter* was not meeting expectations prompted appointment of a committee, chaired by Dick Blomquist, which reported to the annual meeting, recommending an expansion in both coverage and size of a joint publication. Response in the form of submission of articles was disappointing, but the name of the newsletter was changed from *Newsletter* to *SWST Log* in June 1963. This name held until December 1968, *SWST Log* failing to appear monthly only once during this period. During its brief existence, there were book reviews, news of technical developments, research results, opinions, and scientific articles. However, the number of scientific articles was insufficient to satisfy those members who held out for a real professional, scientific journal. A committee comprised of Steve Preston, Walt Smith, and Charles

Berolzheimer met and discussed various possibilities for creating a suitable publication, especially if done jointly with FPRS.

In 1964, Fred Wangaard became President; Gib Comstock replaced Henry Haskell as Executive Secretary, and was in turn replaced by Al Foulger. Jack Guiher wrote an article for *SWST Log* in an effort to increase membership, but this remained an elusive goal. Dues were raised from \$5 to \$7. At the annual meeting, Herf Garland was appointed Chair of an Ethical Standards Committee. In the 1964-1965 year, Harvey Erickson oversaw the popular Visiting Scientist Program and promoted visits to 21 campuses, an achievement never topped. Interest in producing a scientific publication continued.

During Eric Ellwood's Presidency (1966-1967) and continuing through mid-year 1968, 25 scientific articles, totaling 199 pages, were published under SWST's logo in the *Forest Products Journal*. This allowed the FPRS journal to increase its technical content, while at the same time, finally providing the SWST with an appropriately oriented publication outlet.

For the 1966 annual meeting, held in Minneapolis, President Bob Hoyle inaugurated the innovation of starting the SWST sessions on Sunday morning, preceding the FPRS meetings, a practice that has held ever since. At this meeting, in an effort to recognize outstanding contributions to the Society, a resolution was passed to acknowledge the many contributions of Harry D. Tiemann. A group, including the author, met the following week at Tiemann's home in Madison and formally presented a certificate to the 92-year-old scientist.

The Ethics statement, having been circularized with a slight change in *SWST Log* in 1964, was approved by the 1966 annual meeting, and ratified by subsequent mail ballot. At the 1967 annual meeting in Vancouver, BC, a motion for a joint SWST/FPRS journal was proposed and passed. This precipitated the formation of another committee, which included Bill Nearn, the current SWST President, who met with the group in October. A subsequent long article in the *SWST Log* proposed the formation of a quarterly journal to be published by SWST alone. It was to include articles on wood science and processing, wood and wood fiber composite manufacturing, professional news, book reviews, thesis abstracts, and correspondence. A mail survey was overwhelmingly in favor of such a publication. Based on this enthusiasm, the SWST executive board told their FPRS counterpart that a joint venture should be dropped. Accordingly, SWST moved ahead on plans to publish an entirely new journal, to be inaugurated in June 1968.

Bob Hoyle had reported to the 1966 annual meeting that, in 1965, a group of University of Idaho students had formed a local SWST group. A Committee on Chapter Affairs was therefore appointed in 1967 to amend the By-laws to permit formation of chapters, with a Chapter to consist of both Members and Student Members. The first group was known as the Inland Empire Chapter, followed by Madison, Corvallis, and Northern California. Chapters became active and began to contribute materially to the functioning of SWST. Additional effort was taken to enroll qualified members, resulting in the launching of a large group of volunteers, known as SWST Representatives, who would also publicize the Society and represent SWST in local affairs.

The annual meeting for 1968 was held in June in Washington, D.C., by which time, 58 SWST representatives, fifteen from industry, were active. With their assistance, the membership had risen from 454 in 1967 to 544. Of this increase, sixty-one were Members and the balance Students, except that for the first time, SWST enrolled two Associate Members.

At the annual meeting, President Bill Nearn announced that the executive board had decided to publish the first issue of an SWST quarterly journal, *Wood and Fiber*, in the spring of 1969. Assisting in their decision was a promised grant from the University of Washington, arranged through Jim Bethel and Ben Jayne of \$6700 in the form of a donation from the Office of Scholarly Journals (funded by NSF). Bill Nearn, through a resolution of the membership, announced recognition of Al Stamm for his many contributions over forty years, two-thirds in Madison, the balance as a senior faculty member at North Carolina State at Raleigh.

Ben Jayne rose to the Presidency in 1968, just eleven years after he and I had organized the formative calling together of those who had originated AIWE, and later, SWST! He immediately tackled many of the problems of the new *Wood and Fiber* publication. Established authors were reluctant to use the new organ because it was brand-new, its standards unknown, and its future continuation somewhat uncertain. Despite hard work and good intentions, the first issue lagged behind schedule, a condemning attribute that persisted for several years. Nevertheless, when it did appear, it contained excellent articles and its appearance was attractive.

In the 1968-1969 year, the Visiting Scientist Program held 18 visits, membership increased marginally, and local Chapters held 13 seminars, divided between professional subjects and Society concerns. A full ten years of SWST had made real progress and demonstrated a high level of activity. Notwithstanding being plagued by the common difficulties of finance and a questionable level of service to its members, a feeling of accomplishment existed.

The next President, John Haygreen, faced the recurring problem of getting *Wood and Fiber* out on time. Suitable manuscripts were available, but a series of unforeseen delays kept successive executive boards working hard to close the gap. The Office of Scholarly Publications, through the University of Washington, came through with a \$4150 grant, which may have played a deciding role in keeping the Journal alive. With it came the services of Carol Ovens as Editorial Assistant. She still serves in that role more than thirty years later.

Grant to Journal

It was clear that membership was not expanding, and this naturally led to discussion of how the Society related to practicing wood scientists and wood technologists. An *ad hoc* committee convened to study the issue indicated that little service was rendered by the Society to industrial wood technologists, which explained their tendency to not join SWST. The committee's report concluded that the main concern was that the organization appeared to represent primarily the interests of researchers, and to publish a journal with only marginal bearing on the interests of industrial wood scientists and technologists. Suggested areas of inclusion that were felt could attract membership from industry included developments in wood utilization, wood science and technology, education, editorial comment and interaction of the two groups. In addition, the committee promoted the addition of career information, salary surveys and job descriptions and opportunities. The Society itself was urged to play a more active role in media expressions of the potential role of wood science and technology in the world, and to express a bit of a worldly awareness.

Industry Relations

An article by Everett Ellis in 1970 tended to confirm these observations. His report on the status of the profession included data on Pulp and Paper, Retail Merchandising and Light Construction curricula, noting that graduates of these courses outnumbered those of courses in Wood Science and Technology, and Forest Products/Utilization. This suggested that SWST was not reaching graduates of these latter fields.

During 1969-1970, the Visiting Scientist Program, still supported by National Science Foundation, provided for 18 visits which were heartily appreciated by the host institutions. The SWST/FPRS liaison Committee met to discuss items of mutual interest and the respective roles of *Wood and Fiber* (SWST) and *Wood Science* (FPRS). Additional Chapter-sponsored seminars were held by Madison (jointly with FPRS), Keystone, and Inland Empire Chapters.

In 1970, Fred Brown became President, and by 1971 was able to report an increase in full and associate members from 410 to 437. Much discussion ensued, leading to another amendment of the By-laws reinstating engineering as a membership requirement. At this time, SWST was holding its own financially, but only just - dues of \$12 for Members and \$7 for Students did not help materially. During Fred's presidency, the Editorial Board of *Wood and Fiber* was changed to four members: Chairman, Professional Editor, Technical Editor, and an executive board representative. Page charges were raised to \$40. Subscriptions were at the 150 level, 69 from overseas locations. The suggestion of combining *Wood and Fiber* and *Wood Science* was discouraged by SWST. The Visiting Scientist Program continued, still financed by the NSF. During the 1970-1971 year, 14 visits were made.

1970

For the 1971-1972 year, Gib Comstock assumed the Presidency. *Wood and Fiber* was still behind schedule, but was not retrogressing, and subscriptions were up to 181. Renewed efforts were made to increase membership, particularly from the industrial sector. One program evolved, through agreement with *Wood and Wood Products* and under the guidance of Paul Bois, to present a series of seven articles, starting in January, showing how the application of knowledge in wood science could lead to solutions of specific problems. Entitled "Wood Technologist's Corner", the series was designed to demonstrate what a wood technologist does, or has the capability of doing. An article, based on information furnished by the Society and authored by a career columnist, brought a mass of requests, especially from junior colleges, for information on Wood Technology as a career. The SWST office responded with the brochure "Wood Technology – Materials Science of the Forest Products Industry".

1971

The first showing of the SWST/FPRS photograph exhibition appeared at the 1972 annual meeting in Dallas. Erv Schaffer chaired a program that brought a variety of entries, wide-ranging and of excellent quality, more or less pertinent to the field of wood science and technology.

In this same year, the National Science Foundation advised that it would no longer finance the Visiting Scientist program. The decision was made to continue the program, seeking financial aid from other possible sources. Incoming President Bob Kellogg and program director Richard Thomas saw the standing record of 21 visits in one year as a challenge and so persevered. Due to their efforts, and with assistance of the institutions, the speakers, employers, and the Pacific Northwest and Mid-West Sections of SWST, the program continued.

In examining goals and objectives, the recurring theme – "Is SWST meeting the expectations of its members?" resulted in much thought and discussion. The common dual membership in FPRS and SWST was in all likelihood beneficial because of the small numbers of these dual members, and their high levels of participation. Both organizations were concerned with increasing the awareness and involvement of the forest products industry; both groups also sought projects to enhance this

SWST/FPRS

goal of higher collaboration, with obvious benefits to professional practice in general. This situation has changed little over the history of both organizations, and remains with us at the end of the century. Examples of SWST efforts include a professional referral service that was approved and budgeted, but never really got off the ground due to lack of a competent director. SWST also labored to answer the question: "What do I gain from membership?"

In considering education, changing curricula and their bearing on membership qualifications required some clarification of what constitutes Wood Science, and how much was needed. A general feeling among SWST members was that there were two divisions, Wood Scientists and Wood Technologists, and that identical requirements would not satisfy the educational preparation of both groups. Questions from high school students concerning accreditation of university curricula were also frequently received.

A 1973 modification of the By-laws, approved at the annual meeting, made *Wood and Fiber* the official SWST publication, and raised the status of the Editorial Committee to a Standing Committee. The *Newsletter* served the purpose of informing the membership, but did not develop into a medium for discussion of issues and problems.

After four years as Executive Secretary, Erv Schaffer resigned, and Von Byrd was named as his replacement. The SWST/FPRS Liaison Committee met 1 May 1973, submitting a proposal that the journals of the two organizations, *Wood and Fiber* of SWST and *Wood Science* of FPRS, merge. No action was taken.

In 1973, Arno Schniewind assumed the office of President and immediately confronted a pair of urgent financial problems. Membership dues were minimal, and the loss of NSF funding for Visiting Scientist programs exacerbated the situation, while at the same time *Wood and Fiber* suffered some unexpected costs made harder to address by the rumor of its pending failure. Despite the lack of explicit funding, Dick Thomas was still able to piece together six Visiting Scientist events. Meanwhile, a vigorous retaliation by *Wood and Fiber*, led by its Editor, R.J. Meyer and others, held costs at bay; this was no help in scheduling, but it did lead to an increase in acceptable manuscripts. In parallel with these efforts, President Schniewind convened a committee under the leadership of William Groah in a renewed attempt to attract more members from the forest products industry

The possibilities of cooperation with other organizations were followed up. In particular, the Society of American Foresters (SAF) expressed an increased concern with Wood Technology, and an invitation was received from the Federation of Material Societies for SWST to become a member, or at least to attend as an observer. SWST opted for the latter. Fred Taylor, meanwhile, was implementing the Society's referral services.

Two symposia cosponsored by SWST and FPRS were held at Syracuse University in November 1973. The first, held on the 12th and 13th and titled "Workshop on Fluid Penetration in Wood", was set up by Frank Beall and John Siau. The second, on the 14th and 15th, "Symposium on EPA-OSHA Impact on the Wood Preserving Industry" was arranged by Fred Brown. Both were well received and rewarding.

The FPRS/SWST Liaison Committee continued discussion concerning merger of the two journals. Consolidation was still not achieved, but an agreement was reached that SWST would provide FPRS with abstracts for all *Wood and Fiber* articles for inclusion in FPRS's new *Abstract Information Digest Service* (AIDS). This served to increase coverage of SWST's publications and worked out quite satisfactorily.

In 1974, Al Foulger became President, inheriting the standard financial problems. Dues were drastically increased to \$25 from \$10, with consequent drop in membership from 456 and 172 students, to 337 and 70 students. Ninety newly prepared membership certificates were sold by June.

On the publishing front, the journal *Wood and Fiber* continued with a broader coverage, with Frank Beall starting a book review section in January 1975. The SWST/FPRS Liaison Committee reported that the Society of American Foresters showed little interest in any cooperative publishing ventures. Myron Kelly directed a 16-visit Visiting Scientist program.

When Eric Anderson took over the Presidency in June 1975, the projected financial dip caused by the drop in membership had been offset by the increase in dues; however, *Wood and Fiber* still suffered a year's discrepancy between issue date and actual date. According to Fleischer, a long-term plan was essential to create a strong membership base in support of planned programs. It was apparent that many of the existing members would not be eligible under current membership rules. This led to a bifurcation of thought. One group felt that academic requirements in wood science should be set high to assure a small, but select, membership, while the other felt that relevant work experience should be appropriately weighed in assessing qualifications for a potentially diverse membership. Economics favored the second view.

The SWST/FPRS Liaison Committee continued pondering a possible merger of *Wood and Fiber* and *Wood Science*. The basic question seemed to be whether the two were collaborators, or competitors, at least as far as their scientific content was concerned. *Wood and Fiber* kept producing, but did not eliminate its date

discrepancy. As a new service, Hans Kubler assembled thesis abstracts nationwide for publication in the SWST journal.

Under Fred Taylor, the professional referral service began operations in 1975, using computers to store information on about 200 individuals. The main interest in the service was for recruiting, although it was also used by those looking for specific technical expertise.

Bill Lehmann was appointed Executive Secretary in 1975 – he immediately played an active part in planning two more symposia after a hiatus of two years. The symposia addressed fire security and the use of wood under extreme exposure conditions. Myron Kelly led the Visiting Scientists on twelve engagements.

1976-1977 saw Tom Maloney accept the Presidency. He oversaw the sale of membership certificates, answered calls for "Wood Technology – the Materials Science of the Forest Industry" and moved ahead with the professional referral service.

1976

Craig Shuler chaired a new committee – the Critical Matters Committee – organized to ensure timely involvement of the Society in matters of current importance to the nation. This was a move toward looking for opportunities to make the Society's opinions known in advance, instead of responding to crucial matters after they had occurred.

Frank Beall chaired a permanent Symposium Committee. Tom Maloney was Chair of the third symposium, "Trends in Fire Protection" held in Madison in April 1977. Proceedings were published in two special issues of *Wood and Fiber*, which sold well. Special efforts led by Peter Koch and Erv Schaffer, brought *Wood and Fiber* a bit nearer to its intended schedule. Volume 8 of *Wood and Fiber* was dedicated in its entirety to the report of CORRIM Panel II, a noteworthy publication.

Deliberations concerning the possible merger of *Wood Science* and *Wood and Fiber* were continued by the SWST/FPRS Liaison Committee. These would actually continue until the fall of 1981 when at last a proposal would be presented to both organizations.

Other events of that year: Bill Lehmann was succeeded by William Simpson as Executive Secretary, the present wording of the Society's Statement of Purpose was passed as an amendment to Article II and a Past President's Council was initiated to provide the executive board a sounding board for ideas and courses of action.

The 1977-1978 President was Bob Erickson. The executive board, at the annual meeting in Atlanta, moved toward a potential solution to the difficulties of *Wood and Fiber* being several issues in arrears, by finding a new Editor, E. Allen McGinnes, Jr., who agreed to a two years' appointment. By this time, membership was up to 482, of whom 100 were students.

1977

At the Atlanta meeting, Mike Barnes chaired the Education Committee with the mandate to upgrade of qualifying education for the Society. This resulted in Mike's update (13) of your current author's 1964 opus Education in Wood Science and Technology. Warren Thompson chaired a subcommittee looking into accreditation of curricula in Wood Science and Technology. A fourth major symposium, "Structural Use of Wood in Adverse Environments", was held in Vancouver, BC in May, supported by the National Science Foundation.

In 1979, John Brown succeeded to the Presidency. During his reign, recognition of outstanding service to the Society was formalized by the approval in 1980 of "Rules to Govern an Award for Distinguished Service to the Profession of Wood Science and Technology". The first in what was to be a continuous series of awards was made to Jim Bethel at the annual meeting in Boston, 1980. A previous, similar award had been made to Harry D. Tiemann in 1966.

1979

1979 also saw the successful coincidence of the cover date and receipt date by subscribers to *Wood and Fiber*, after a several-year struggle. In the same year, Al McGinnes, Assistant Editor and major participant in the aforementioned struggle, replaced the eight-year veteran, Bob Meyer, as Editor. Later in the year, Al announced that he would quit in 1981, and so Wayne Murphey was named Assistant Editor with the understanding that he would take over as Editor when the position became vacant.

A symposium on "Research Needs on Effect of the Environment on Design Properties of Lumber" was held in Madison, organized by Duane Lyon. Two additional symposia were planned – "Process Control in the Forest Products Industry" handled by Helmuth Resch, and "Residential Fires and Wood Use", under the direction of Erv Schaffer.

Efforts to increase membership, particularly to see a higher proportion of student members continuing as full members after graduation, received a push by a doubling of student members in June 1980 through the efforts of Duane Lyon and Paul Short. Financial inducement (lower fees for new graduates) was also offered to lubricate the "conversion" from student to full member.

Other noteworthy events of this period include:

Accreditation

- The Society began discussions with the Society of American Foresters regarding cooperative efforts toward accreditation of Wood Science and Technology curricula. Simultaneously the Accreditation Committee solicited the approval of these standards from the SWST membership.
- The National Forest Products Association produced 50,000 copies of the SWST Wood Technology brochure for SWST distribution to high schools.
- John Quirk replaced Bill Simpson, who resigned after two years as Executive Secretary.
- Bob Erickson replaced Don Nelson, who finally called it quits after a several-year tenure as the Editor of Newsletter.

With the accession, in 1980, of Helmuth Resch to the Presidency came his assurance that a merger of the journals *Wood and Fiber*, and *Wood Science*, would soon occur. On other publication fronts, Van Nostrand agreed to publish the "Structural Use of Wood in an Adverse Environment" symposium, while Mississippi State students collated and published, with joint assistance of SWST and FPRS, the "Directory of Graduate Programs in Wood Science and Technology".

Two symposia were held in 1980, one in Madison -"Residential Fires and Wood Products Use" – in conjunction with FPRS and Committee D-7 of ASTM. The other – "Process Control in the Forest Products Industry" – held in conjunction with the Western Forestry Center and Oregon State University took place in Portland, Oregon. Both symposia were successful.

Action increased on accreditation – the committee drafted a tentative set of minimum standards and entered into formal negotiations with the Society of American Foresters to permit SWST to join SAF in accrediting programs concurrently. Agreement was reached that SWST should participate in several reviews, where appropriate, and thus Warren Thompson accompanied the SAF team that visited the Berkeley campus of the University of California. It was appropriate that the then current issue of the SWST *Newsletter*, published "Proposed Standards for Review of Teaching Programs in Wood Science and Technology" for members' familiarity. California was a fortuitous choice as a test case since it had only a graduate program, and its staff and location were distinct from the Forestry School.

In 1982, under Dick Thomas's Presidency, both societies, SWST and FPRS, approved the merger of *Wood Science* and *Wood and Fiber*. The new name was, and continues to be, *Wood and Fiber Science*. It was inaugurated as a quarterly professional journal, with SWST responsible for publication, finance, and subscription services. FPRS members could subscribe at a 33% discount from the library rate. The Editor was appointed by SWST, with control in the hands of an Editorial Policy Committee of six - three appointed by each executive board. The Editors of FPRS *Forest Products Journal* and *Wood and Fiber Science* were accepted as *ex officio* members of the committee. Further agreement gave FPRS first option to assume control of the journal should SWST be unable to continue publication. Responding to pressure, the January 1983 issue appeared as Volume 15, No.1. After many years, an accomplishment was finalized – ONE scientific journal!

The Proceedings of four symposia also appeared in print: "Structural Use of Wood in Adverse Environments"; "Residential Fires and Wood Products Use"; "Process Control in the Forest Products Industries"; and "How the Environment Affects Lumber Design; Assessment and Recommendations".

Accreditation matters moved ahead with SWST representatives serving on review teams to evaluate wood products programs at Schools of Forestry and Natural Resources. A formal review process was very close to being applied.

In 1981, the Society had honored George Garratt with the Distinguished Service Award. In 1982, Alex Panshin was similarly honored. In 1983, celebrating its 25th year, SWST presented the award to six founding members: Fred Dickinson, Herb Fleischer, Frank Kaufert, Herb McKean, Al Stamm, and Fred Wangaard. Thus, the first 25 years marked many trials, lots of hard work, and a number of accomplishments for the Society of Wood Science and Technology's growth as a professional organization. Certificates were presented to all Past Presidents on this 25th year recognition.

In their 25-year history of SWST, summarized in part to this point, Drs. Herb Fleischer and Al Foulger added a postscript. Herewith is paraphrased a portion of it to express gratitude for their histories and the commentary associated with it.

"The Society of Wood Science and Technology arose from a group who believed in what they had chosen to do with their lives and wanted a forum in which to talk to others of like mind ... They formed a society to talk to each other and to outsiders. They just may have been too concerned with proving that a rigorous training was required of those who became members of this group. This may have been an undue emphasis of pure science in the presence of an imperfect technology. Perhaps.

The Society has come a long way—not only survived, but matured. It comments on training for the future wood scientists and technologists. It publishes a quarterly journal which has earned respect, held symposia and published information of more direct interest to industry. Along the way it has helped inform many people on how to make a better use of wood, wood scientists, and wood technologists.

We leave the record of the next 25 years to —? Probably they will do a neater job on their word processor than we with our pens and waste basket. We wish them the satisfaction from active participation in Society business, the friendships formed and occasional battles fought. So here we will end the beginning."

B. The Next Fifteen Years, 1983 through 1999

The remaining Chronology is taken from SWST *Newsletters* and occasionally from *Wood and Fiber Science* – presented as salient features and comments by year, and divided into the following set of topics where applicable:

- Major events
- Constitution/By-laws/Committees
- Officers
- Membership
- Journal/Publications/Information services
- Accreditation
- Education/Visiting Scientists
- Symposia
- Awards
- Other Items of Interest

The Early 1980s

1983 - 1984

Major Events

The unexpected death of President George Marra in August 1983, just after his inauguration, came as a blow. George was one of SWST's most distinguished members; a founding member of SWST and FPRS, he served in the Air Force in World War II, and taught at West Virginia University from 1947 to 1950. He earned B.S. and M.S. at SUNY and a Ph.D. at Duke. He spent 32 years as Head of the Wood Technology Section of the College of Engineering at Washington State University in Pullman, Washington. There he guided pioneering research in particleboard, finger joints, nondestructive testing, and wood structures. For three years, he served as Deputy Director of the Forest Products Laboratory in Madison. George received a Distinguished Faculty Award at Washington State and the Borden Chemical Co.'s award for outstanding contributions to the wood products industry. He also had a similar award by the American Society for Testing and Materials. He instituted a graduate research and degree program at Pullman in 1973. He was succeeded as President by Craig Shuler, President-elect.

The topic for the Technical Session of the annual meeting in St Louis, Missouri was "Professionalism in the Profession of Wood Science and Technology". This subject relates to the start of SWST's second 25 years. SWST asked:

1. Is there a need for a unique profession called wood science and/or wood technology?
2. How is this profession perceived by the general public and by the wood products industry?
3. What unique contribution can a society of these professions make?
4. What are the comparative costs and benefits associated with developing these professionals ?

Fred Wangaard was made Chairman of an *ad hoc* committee on Professional Concerns, charged with the re-examination of the direction and role of SWST.

The Committee chose to focus on three major items of concern:

- Concern No. 1. Our membership had remained virtually constant for the past fifteen years despite the fact that more than 1500 students graduated from programs in wood science and technology over that period. What is wrong with the image of SWST in the eyes of these young graduates? Improving our conversion from student to full membership must be one focus of our concern.
- Concern No. 2. The image of SWST as seen in the world of industry. Fleischer and Foulger's "History of SWST, 1958 - 1983" reported that a committee appointed back in the early 1970s to examine broadening the base of Society support concluded that SWST was viewed "as an organization concerned principally with the esoteric needs of researchers ... and with publishing a journal having only marginal relevance to the industrial wood technologist". More than a decade later, we must admit that this blurred image persists and remains a cause for concern.
- Concern No. 3. For 26 years, SWST remained silent and aloof while matters of great importance to the forest products industries and to the young profession of wood science and technology were being publicly debated. Surely, as a mature professional society, SWST could no longer afford to shirk its responsibility to provide professionally informed input to public debate on matters that concern us.

Much effort had been expended by SWST committees to define their objectives and operations.

Constitution/By-laws

According to Ramsay Smith, Critical Matters Committee Chairman, a revised and approved version of the Constitution and By-laws was mailed to all members, marking an increased awareness that the Society must constantly reassess its function with regard to major issues as they arise. The Critical Matters Committee was included in the By-laws and approved by vote.

All committees made or modified function and goal statements in an effort to clarify the operations and charges to the various committees

Officers

On 1 July Tom Quirk resigned as Executive Secretary (this designation was discontinued), and was replaced by Vicki Claas (now Herian), the current Executive Director. Al McGinnes took over as Chairman of the Educational Policy Committee.

Keeping finances in order called for the creation of a Budget and Finance Committee comprising Art Brauner (covering for President Craig Shuler), Kent McDonald, and Vicki Claas.

Membership

A new charge was made - \$5 for registration at annual meetings. This figure was subsequently increased to \$15. Dues for Members and Associates were increased to \$35, while those for student and retired members stayed at \$12.50.

The Membership Committee, under Arno Schniewind, renewed their recruitment efforts, including sending letters to approximately 300 Wood Science graduates who had obtained degrees during the past 10 years, but were not current members.

A reminder was expressed that Student and Associate Members do not have voting privileges.

Journal/Publications/Information Services

The FPRS's formerly named Abstract Information Data Service (AIDS) was renamed FOREST, due to the unfortunate connotations of its acronym.

Under Bob Krahmer, Chair of the Book Review Committee, ten new books were scheduled for review in *Wood and Fiber Science*.

Wood and Fiber Science showed 401 subscribers with the next two issues prepared for publishing.

Wayne Murphey arranged for Bruce Cutter to be Assistant Editor of *Wood and Fiber Science* for a year and then to replace him as Editor

A slide-tape – "Wood Science and Technology - The Materials Science of The Forest Products Industry" prepared by Mike Barnes was announced, to be available through Jim Bowyer, University of Minnesota for \$64.50.

The first issue of the year of the *Newsletter* listed 10 highly diverse programs by FPRS Chapters across the country. Copies of the Graduate Student Directory were sent out to 250 forest products/forestry university-level programs worldwide.

Accreditation

Final details of agreement and arrangements for SWST to accredit Wood Science and Technology curricula, in conjunction with the Society of American Foresters were approved by both organizations.

The Accreditation Committee received word that the Council on Post Secondary Education requires that SWST have a separate Accreditation committee. Such a committee was duly appointed by President Marra. Two new committees were appointed, Accreditation and Accreditation Policy and Procedures. In April, the first accreditation visit was made to North Carolina State at Raleigh.

Education/Visiting Scientists

Sixty invitations for the Visiting Scientist program were sent out, with eight requests – only six could be funded, however.

The Institute of Paper Chemistry announced five continuing Education courses - one of their first efforts along this line.

Jim Bowyer, Chairman of the Education Committee, reported that further attempts to gain approval of a Wood Science and Technology Merit Badge for the Boy Scouts of America had run into snags and progress seemed impossible; later the attempt was dropped.

The Universities of Minnesota and Idaho announced a cooperative student exchange procedure for sharing a year's courses in Logging Engineering (at Idaho), and Pulp and Paper (at Minnesota) for special educational objectives. Students complete three years, then spend one year away, returning home for graduation.

Symposia

Three symposia were scheduled for the year:

"Biomass Fuel Drying Conference" at the University of Maine

"North American Wood Drying Symposium" at Mississippi State University

"Innovations in Manufactured Housing" at Madison.

A new level of symposium cosponsorship was achieved in the "Biomass Fuel Drying Conference" involving SWST, FPRS, N. Central Forest Experiment Station (USFS), Council of Great Lakes Governors, Fiber Fuel Institute, and the Department of Agricultural Engineering of the University of Minnesota.

Awards

Tom Maloney received the first President's Faculty Excellence Award in Public Service at Pullman, and Jim Bowyer was awarded the Horace T. Morse-Amoco Foundation Award at the University of Minnesota.

The Distinguished Service Award was given to George Marra posthumously - accepted by his widow, Kay.

Hank Huber received a National Academy of Science travel grant to visit the Bulgarian Academy Higher Institute of Forestry for lectures, industry visits, and consultations.

SWST presented an appreciation plaque to the USDA, Forest Products Laboratory on the occasion of its 75th Anniversary

Other points of interest

Women in the field of Natural Resources were to be published by Diana Ehrenreich of the University of Idaho. This idea was picked up by SWST in early 1983. The SWST listed ten women members, including five Bachelors of Science, two Masters of Science, two doctorates, and one Associate.

At the annual meeting, Jay Johnson and John Haygreen spoke on aspects of a recent Office of Technology Assessment (OTA) report – "Current and Future Uses of Wood", to which report they themselves had contributed.

A discussion of office arrangements for SWST through the courtesy of the U.S. Forest Products Laboratory resulted in new help from FPRS on computer lists of membership and subscribers.. SWST started buying computer time from FPRS for routine tasks, mailing, billing, etc. a move to decrease dependency on the USFPL.

Bob Youngs, Director of USFPL, was selected as Coordinator of Division 5 (Forest Products) of International Union of Forest Research Organizations (IUFRO), which covers worldwide cooperative research programs in wood quality, timber engineering, wood protection, wood processing, tropical woods, bamboo, and energy from forest biomass.

The 4-H Leader's Guide incorporates a section on wood scientists, refers to SWST, and gives our mailing address.

The comment was made that Wood Science and Technology is a profession with 35% or more of its members eligible to retire within ten years.

1984 - 1985

Major Events

Previous mention and listing were made of three Concerns of the *ad hoc* Committee on "Vitality and Future of SWST". An expansion of these considerations occupies a three and a half page section of the May/June 1985 *Newsletter*. Briefly summarizing:

- CONCERN No 1 MEMBERSHIP. WST needs to grow by recruiting new members, starting in high school or junior college with help from student groups. We must get them into student membership, then induce them to continue as members upon graduation. To do this, upgrade our career brochure, develop teaching units on wood science to be used in high schools; and produce high quality videotape on career opportunities in wood science and technology.
- CONCERN No 2 IMAGE. Industry must be the target of any effort to "sell" the value of SWST. *Wood and Fiber Science* is not, perhaps, the best instrument to present the appropriate professional image. SWST needs to spark executive interest and encourage industry participation. To do this, *Wood and Fiber Science* could publish at least two "State of the Art" reviews annually - suggested examples were:
 - a. Structural particleboard
 - b. Adhesive bonding
 - c. Developments in structural lumber design
 - d. Composite wood products
 - e. Wood as a source of energy
 - f. Managing variability in wood
 - g. Solving the mystery of lignin

Reprints could be mailed to industry movers and shakers. Another suggestion was a series of case histories of some successful wood scientists and technologists and their contributions to industry. The committee also recommended preparation and separate publication of a:

- bibliography of professional writings for the period 1975-1985 of all members of SWST in any and all publication outlets
 - listing (in the same cover) of SWST members who have participated in various technical committees related to the forest products industry (FPRS, SWST, workshops, symposia, task groups, annual meetings) and others who served on advisory bodies to industry, or government. Industry personnel could also be more involved in Visiting Scientist activities.
- CONCERN No 3 PUBLIC POLICY. Article II of the Constitution states that a Purpose of SWST is to "encourage policies and procedures which assure wise use of wood and wood-based products". The establishment, in 1976, of the Critical Matters Committee was to ensure "the timely involvement of SWST in matters of importance to the nation" (12). George Marra, referring to this committee, wrote - "It is not in our best interest to remain silent when issues reflecting on our purposes in life are being debated by public bodies with legislative power". In the May/June 1961 issue of the Newsletter, one member (AFM) of the

ad hoc Task Force, wrote: "A professional society largely determines its own future in the manner of considering difficult questions of policy, with promptness and resolve. The alternative is to forfeit its rights as a professional society, and even as a profession".

Journal/Publications/Information Services

The Book Review Committee under Bob Kraemer reported five reviews in the hands of *Wood and Fiber Science*, with another four under process.

The Critical Matters Committee Chairman, Duane Lyon, surveyed education, employment, and salary status, partially updating Mike Barnes' article in *Wood and Fiber Science* of (13)(4), 1979. In midyear 1985, Bob Erickson, the *Newsletter* Editor who introduced humor, passed the job on to Al McGinnes. Obviously, most all of the readership appreciated the bit of levity – for many, it made the whole issue worth reading.

Accreditation

The Accreditation Chairman, John Haygreen, reported four cooperative visits, in company with the Society of American Foresters. Two members contributed and reported to the parent committee for: University of Washington, University of Minnesota, University of Massachusetts, and Virginia Polytechnic Institute and State University. The system was working well, and provided opportunities to sell SWST ideals and educational objectives to administrators, staff members, and students.

Education/Visiting Scientists

The Education Committee, under Jim Bowyer reported:

- Sales of ten more slide-tape sets, career brochure assistance
- Student pages in *Wood and Fiber Science*
- Improved presentation of careers in wood science and technology in a Department of Agriculture publication
- Preparation of text for the first of three slide presentations being prepared for commercial use by Educational Images Co., Elmira, NY.

The Visiting Scientist program enlisted 59 scientists. Nine visits were approved and made under a meager budget through various forms of support.

Awards

T. Kent Kirk received the prestigious Marcus Wallenberg Prize - the first time an American had been named for the Swedish award. He worked in research with Microbial Technology in Wood Utilization at the U.S. Forest Products Laboratory.

John Haygreen received the SWST Distinguished Service Award.

J. Dobbin McNatt was 1984 recipient of the ASTM L. J. Markwardt Award for a paper published by ASTM

Other Items of Interest

Bob Youngs, the only Forest Service employee to receive the USDA Presidential Rank Award for the year, retired from the Directorship of the U.S. Forest Products Lab. and moved to Virginia Tech to join the faculty there, working in international forestry and forest products research.

The Late 1980s

1985 - 1986

Major Events

Craig Shuler announced the establishment of the George G. Marra Award of Excellence for a research report appearing in one year's issues of *Wood and Fiber Science*. George had prepared a guide to writing research reports while serving as Deputy Director of the U.S. Forest Products Lab. His guidelines:

Research quality

- Complexity of problem

- Originality; Impact
- Writing quality
- Clarity and completeness of the introductory section
- Conclusion
- Recognition of others work
- Literature review
- Clarity of exposition

The award, established by George's family, through SWST, consists of \$1000, a plaque, and certificate to the author(s). This award has continued to be a hallmark of SWST's professional status.

Journal/Publications/Information Services

Bob Krahmer of the Book Review Committee reported on five reviews published in *Wood and Fiber Science* (17)(2) and (17)(3). Two additional books were out for review. This function of SWST is frequently overlooked. It serves the profession by providing insight and review of books, allowing members to evaluate them relative to their areas of interest, and to make decisions concerning purchase or borrowing in their efforts to keep themselves and their libraries up to date.

Accreditation

Warren Thompson of the Accreditation and Standards Committee made a lengthy report on suggested procedures regarding accreditation. Most of the proposed actions were approved, and are included in the published procedures of the Accreditation Committee, discussed later in this text.

Education/Visiting Scientists

In January, Bruce Hoadley, University of Massachusetts presented his Seventh Wood Identification Workshop. Two more wood identification workshops, one advanced, were offered in June. (In the author's opinion, wood anatomy and dendrology should take the place in wood science and technology that human anatomy takes in medical school programs).

Eleven Visiting Scientist visits were made during the academic year, involving eight visitors.

Other Items of Interest

John Zerbe, Chair of the Committee on Vitality and the Future, reported three meetings and continued deliberations on points raised in 1972 and 1984-1985:

- a. membership stagnation
- b. image of SWST as perceived by wood scientists and technologists as distinct from the image perceived by the forest products industry
- c. relationships between SWST and FPRS
- d. involvement in matters of public policy
- e. selling Wood Science and Technology through the media

The major activity for immediate action, to provide planning information for the future, lay in a detailed survey of SWST members and nonmembers working in the field.

1986 - 1987

Constitution/By-laws/Committees

The procedure of including a request in the *Newsletter* for committee service, brought an expressed interest in SWST's 51 committees by 19 members. These volunteers were assigned as logically as possible to appropriate committees.

Two changes in SWST annual meeting format included scheduling the general meeting as a Plenary Session on Monday, rather than Sunday, and a new direction in theme – "*Biotechnology in Forestry and Wood Products Manufacture – Recent Developments and Emerging Potential*"

Journal/Publications/Information Services

We mourned the passing of Fred Dickinson, a stalwart of the earliest group and the author's mentor during the writing of the 1964 Education Study.

The regular inclusion in the *Newsletter* of advertising academic openings continued, together with announcement of graduate programs in wood science and technology fields.

Bob Krahmer, who handled book reviews since 1981, passed this chore on to Doug Stokke, who published two reviews and noted nine in process. Doug broadened the number of reviewers through an appeal in *Wood and Fiber Science*.

Two brochures were updated – "*Wood Science and Technology Careers*" and "*Directory of Schools – 4-year and Graduate Schools in Wood Science and Technology*".

Accreditation

The Accreditation Committee reported it had completed review of programs at Mississippi State.

Education/Visiting Scientists

The Visiting Scientist program got a boost from Frank Beall on two counts – first, the inclusion of a slide-tape for the visitors to use, and second, encouragement for industrial wood scientists to participate. Nine specialists went to 12 schools.

Symposia

SWST was one of the sponsoring institutions for an International Conference on Timber Engineering held in Seattle.

Awards

Erv Schaffer received the L.J. Markwardt Award, from the U.S. Forest Products Laboratory. Erv differs in background from most wood scientists, having three degrees in engineering - Civil, Structural, and Mechanical, respectively.

Other Items of Interest

Another first was a tale of a consultant's experience (Jack Markley of Associated Engineering Services, Lewiston, Idaho) in a court case involving drying of 5"x5" ponderosa pine shipped to a turning plant for lamp bases. Internal checking (honeycombing) was prevalent; testimonies on its cause were between the kiln foreman and the wood science expert. The judge ruled that honeycombing could not be the cause of the internal checking since the kiln operator routinely dried 4"x4" stock in 2 to 3 days (the kiln charts were lost), and besides, honeycombing was a phenomenon of hardwoods, not of softwoods. Judgment was in favor of the supplier, frustration the reward of the wood scientist.

Don Nelson "tested the water" regarding how SWST could assist through volunteers with 160,000 4-H youths enrolled in 4-H Wood Science projects!

1987 - 1988

Major Events

Minutes of the annual meeting held June 1987 brought up three new points:

1. On membership, Fred Taylor proposed addressing a letter to all *Wood and Fiber Science* subscribers who were not members; also a follow-up on recent graduate student members.
2. Details of budget and an audit of accounts noted a healthy financial backing for the Society - one actually showing more income than outgo.
3. Plans to produce an annual membership directory, to include address, job classification, and telephone number, if available.

New President Jim Bowyer proposed action for the Critical Matters Committee, and, feeling that SWST should sponsor one or two symposia each year as a regular activity, also suggested several membership improvement actions. He also raised the need for a check into professional liability insurance.

John Zerbe reported results from his committee's survey with a grab bag of comments:

- Visiting Scientists should make reports that are more detailed.
- The existence of a strong feeling for separating the SWST annual meetings from those of the FPRS.
- The need to sponsor a workshop to promote SWST.

- The need for a poster session or "Theater of Wood Fundamentals" at the annual meeting.

Journal/Publications/Information Services

Bruce Cutter reported that since 1980 *Wood and Fiber Science* produced about 600 pages of text annually and was continuing apace. In the previous year, the journal received two submissions from Australia, three from Canada, and one each from Greece, Guyana, India, and Portugal. During the 1985-86 year, it received three from Japan, two from Canada, and one each from Nigeria, Sweden, Greece, England, Australia, and Argentina.

Tom Elder was acting Assistant Editor since Bruce was in the last of his three-year stint

Jim Bowyer continued his efforts to initiate a "state-of-the-arts" series of papers.

Accreditation

Answering a charge by Jim Bowyer, Ali Moslemi and the Accreditation Standards and Procedures Committee rewrote parts of the pamphlet defining their work, coordination with SAF (Greg Smith), and plans to publish.

Education/Visiting Scientists

Jim Armstrong, Chairman of Visiting Scientists, published a list of institutions and contact person: 57 universities, three companies and five Forest Service units.

Fred Kamke and his Education Committee revised the career brochure with costs and a plan to answer inquiries. They had also partially completed a high school teaching unit, to be distributed by universities to local high schools in a coordinated operation.

Ten Visiting Scientists made trips to twelve institutions, the *Newsletter* giving appreciable detail on the visits – a new feature.

Other Items of Interest

The Board approved a donation of \$1000 to FPRS to assist in their debt reduction campaign.

Jim Bowyer noted receipt of a quarter million dollar gift, matched by the University of Minnesota, to purchase teaching and research equipment for the Department of Forest Products in honor of alumnus Stanley Buckman, best known perhaps for the Buckman Laboratories in Memphis, Tennessee.

Don Nelson noted that the time may be close to inaugurating a major volunteering in the 4-H Wood Science Projects area – a daunting task due to the sheer numbers of 4-H members involved.

1988 - 1989

Constitution/By-laws/Committees

J. D. Wellons started his presidency with contact and charges statement to committees and *ad hoc* chairmen.

Bob Youngs of the Critical Matters Committee has been requested to pursue "Support of Fundamental Research", particularly the Competitive Grants Program.

The Critical Matters Committee was preparing a "white paper" to help revitalize support for fundamental research in forest products. SWST joined a number of other professional groups in this effort

In a response to expressed dissatisfaction of industry members with SWST's programs, Fred Kamke's Education Committee began a search for authors of "state-of-the art" articles for inclusion in publications, and with a monetary inducement (\$500).

Journal/Publications/Information Services

Replacing Al McGinnes as *Newsletter* Editor, Don Nelson repeated a turn at the frequently unrewarding task. A major frustration is the perennial difficulty of getting contributions from the readership - news, reviews, editorials, and other. Don offered a choice of books as incentives for authors to contribute.

In the second issue of the *Newsletter*, Don Nelson noted strong contact from four readers, with issues or comment - Jack Markley (consultant from Lewiston, Idaho), Bob Hoyle (Washington State University), Dick Jagels (University of Maine), and John Zerbe (from Madison, and earlier from Washington, DC). Apparently, Don is making his point – there should be a two-way street. Don had noted a similar

comment in the 1961 *Newsletter* by our first President, Jim Bethel, (which also reported on the applications for NSF support for the Education Study and funding for the Visiting Scientist program). In 1961, there was also reference to an exchange between President Art Muschler and Bob Youngs regarding SWST's possible expression of a position on changes in assignment of working stresses for structural design. Other opinions over the years reinforced the need for an infusion of enterprise into the *Newsletter* to act as a medium for stating a professional viewpoint on issues. Many others were of an opinion that the *Newsletter* should play a major role in the internal communication (two-way) in SWST.

Diversity was served with a brief mention of kenaf for pulp because the USDA have put so much emphasis on kenaf as a paper-making fiber, easily replacing farm crops, according to eager agriculturists.

Accreditation

Accreditation Committee representatives, John Haygreen and Norm Kutcha, will participate in an accreditation visit to West Virginia University.

The Accreditation Standards and Procedure booklet was completed and distributed. Pennsylvania State University will seek accreditation in 1990. Effusive thanks were expressed by Ali Moslemi, previous Accreditation Chairman.

Education/Visiting Scientists

The Education Committee printed 3000 copies of a brochure for sale to universities at cost (60 cents) from the Executive Office, and used to answer requests for information on Wood Science and Technology careers. The new career brochure was sent to each university with an expository letter.

Bruce Hoadley's Identification Workshop was into its tenth session.

The Visiting Scientist activity got a boost from Chairman Frank Beall who listed procedures in enlisting new scientists (must be an SWST member and serve three years). Five Visiting Scientists went to three institutions.

Symposia

The Symposium Committee, under Barry Goodell, listed four topics that had been proposed for Symposia:

- high-temperature drying of easily-dried species
- new products from small diameter timber
- reliability-based design for construction timbers
- high-tech applications for the forest products industry

Other Items of Interest

Weyerhaeuser made a substantial donation for a research dryer for the University of Idaho's wood fuel drying research.

SWST bought a computer and paid for customized programming. This saves work and time in setting records.

Professional Liability Insurance proposals were too expensive for consideration (\$140 a year with a \$35 membership fee). Consulting work could not be considered under any policy offered.

L. J. Markwardt, one of the earliest engineering-oriented scientists with 46 years at the USFPL, died at the ripe age of 98. His family funded an award in his name to both ASTM and FPRS, the latter still being awarded (1998).

An item, seldom publicized, was an announcement that OSHA (Occupational Safety and Health Administration) would set permissible exposure limits (PEL) on both hardwood and softwood dusts at 5 milligrams per cubic meter, except half that much for western red cedar. Organized unions objected to such high limits; SWST did not express an opinion.

In a similar area, Environmental Protection Administration (EPA) proposed listing several components of commercial wood preservative hazardous wastes (primarily pentachlorophenol, creosote, organic arsenic, and chromium).

The Early 1990s

1989 - 1990

Major Events

Recent media coverage of the Spotted Owl controversy prompted comments by the Editor of *Newsletter*, Don Nelson, and the opinions of some outspoken members such as Jim Bethel. To quote Jim - "*It is not important ... for SWST to take an institutional position on this and other environmental issues ... it is important for SWST to insist that facts be accurately presented and that issues be honestly portrayed when arguments fall within the domain of wood science and technology*". Jim continues - "*The Spotted Owl issue is a case in point. Land use controversies that involve decisions concerning allocations of forestland to materials supply vs. allocation of land to nonconsumptive uses are prevalent in Australia, New Zealand, and several European countries. ...There are other issues where SWST can make a good scientific input and foster sound judgment with respect to issue formulation*".

Constitution/By-laws/Committees

In response to Howard Rosen's request for Priority Critical Research Topics, the following subjects, and the number proposing them, were listed as:

Reconstituted wood products for engineered composite systems	170
Basic properties of wood and composite wood systems	139
Chemical treatments for wood	89
Bonding and gluing	70
Automated processing of solid wood	59
Structural lumber quality	53
Drying of wood	45
Markets and marketing systems	38
Mechanical fasteners	36
Wood quality and grading	36
Plus a listing of 21 more subjects	

There is a vaguely familiar sound to this listing; the surprise is the strong response from the readership.

The Critical Issues Committee, Howard Rosen, Chairman, completed an SWST position paper ("white paper") - "Gaining International Competitive Edge - A Need for Increased Research in Forest Products".

In soliciting authors for "state-of the-art" papers, the Publications Committee listed ten subjects, which unremarkably, almost repeat the previous listing of Priority Research Topics. There were no volunteers to write on any of these papers, despite the \$500 inducement offered!

Journal/Publications/Information Services

The journal was doing well; one challenge was to reduce the review time from the 6 to 9 months currently experienced.

The Book Review Chair, Doug Stokke, noted titles of seven books to be reviewed, ranging from environmental economics, to structural design, to growth rings in tropical trees.

Dr. Elisabeth Wheeler, author of a two-year-old computer-aided wood identification package covering about 5000 wood species, announced availability and costs of the program.

A brief article on the cultivation of hybrid willows and poplars producing about 10 tons of wood chips per acre per year (about 26 tonnes/ha/yr) demonstrated the wide-ranging coverage of the *Newsletter*.

Since the editor of *Wood and Fiber Science* serves for a three-year term, Tom Elder, the editor of the time, called for an assistant to "learn the ropes".

Bargain rates were offered to help clear out surplus back issues, or the whole collection, of *Wood and Fiber Science*.

Wood and Fiber Science published a listing, compiled by Tom Elder, of 120 reviewers for articles - a surprising number of contributors to our journal! In similar fashion, the names of 20 new Members and 12 Student Members were published, to acknowledge their joining and to stimulate readers to solicit new members.

The SWST Career Brochure, in its fourth printing, reached 8000 copies.

Education/Visiting Scientists

Funding was assured to help prepare teaching units for high schools, and to support, at \$5000 a year for 5 years, the 4-H Wood Science Project. *Wood Magazine* and Deft, Inc. provided donations of \$30,000 each for this project.

The Education Committee made its first high school teaching unit available - two 35 mm slide sets with scripts, a class exercise kit, wood samples, and background literature, all for \$70. Distribution was to be through universities. A second unit was planned for late 1990.

Five visiting Scientists made eight visits - the number of requests having fallen to a new low.

Symposia

John Youngquist of the Symposium Committee advertised for sponsors for symposia related to SWST interests, with the SWST to aid in facilitation and organization. Costs were too high for SWST to completely finance them.

Awards

The Wood Science and Technology faculty at Colorado State presented two awards for projects pertaining to Wood Science – conversion of biomass to alcohol, and the economics and heating value of wood used for residential fuel – entered into the State Science Fair.

Other Items of Interest

Our Secretary Treasurer, Vicki Claas, reported that the new SWST computer was operating smoothly and effectively with new programming, as well as saving money. Your author views this as a remarkable accomplishment, considering the general level of computer use at that date.

The Treasurer's report showed a healthy society, careful budgeting, and a surplus for contingencies.

1990 - 1991

Major Events

The 1990 annual meeting subject - "Product Liability as it Affects Forest Products" filled SWST members with information which is commonly ignored in professional practice.

SWST President Jim Wilson spurred action toward four goals:

- enhancing our image and profession
- improving funding for research
- influencing favorable legislation
- encouraging increased enrollment in SWST educational programs.

A number of activities to accomplish these goals were presented and discussed, including having members write or produce video material for such popular media outlets as *Better Homes and Gardens*, *Popular Mechanics*, and *Popular Science*, with huge readerships.

There was a general expression of satisfaction with the professional training that SWST requires for membership.

Suggestions regarding what SWST could render as professional service came frequently from employers who were unaware of SWST! Among industrial correspondents, SWST activities of particular interest were: publishing in *Wood and Fiber Science*, symposium sponsorship, book reviews, and the *Newsletters*.

The suggestion was made that the tremendous expenditure of energy for the Gulf Wars might renew interest in wood as an alternate, renewable, source of energy and increase research. As an indicator –

500 wood pellet stoves have been sold in Alaska, despite the fact there are no wood fuel pellet producers in the state.

Journal/Publications/Information Services

Two years' galley proofs for *Wood and Fiber Science* were completed. No Assistant Editor had been appointed; however, at the end of Tom Elder's tenure as Editor, Arno Schniewind came forward to fill Tom's position. Thanks to Tom for his three years.

The white paper prepared in the 1989-1990 year by Critical Issues Committee Chairman, Howard Rosen – "A Need for Increased Research in Forest Products" – was ready for distribution.

The offer of reward for writing "state-of-the-art" papers on the several subjects previously listed was repeated. Apparently, no-one wanted to stick his neck out in this endeavor; however, Bob Youngs of the Symposium Committee was looking for engineering-oriented collaborators for three other subjects related to long-term deformation of wood in structural use.

Accreditation

The Accreditation Committee prepared for the 5-year re-accreditation of five schools, and also took up the matter of accrediting graduate only programs.

Education/Visiting Scientists

The Education Committee noted that nine of the first unit of SWST High School Teaching Units had been sold and that unit two was nearly ready.

Eight Visiting Scientists took care of ten visits.

Awards

The George G. Marra Award added recognition of a Second Place winner.

Other Items of Interest

The 4-H Wood Science program had sufficient funding to send 35 winners (out of approximately 1200 entrants). Don Nelson received thanks for his persistent backing of 4-H involvement.

The forum on "Wood Product Demand and the Environment" held in Vancouver, B C for an international audience was well attended. Whether it reached its widely diverse audience with an impact is debatable. It is a difficult task for professional and industry-oriented groups to catch the attention of broadly defined "Environmentalists".

1991 - 1992

Major Events

Death overtook Herb Fleischer, one of the founding fathers of SWST. He helped write the Constitution and By-laws, drafted the NSF applications for the Education Study and Visiting Scientist programs. He was an early President and wrote a ten-year history, and with assistance from Al Foulger, a 25-year history of SWST; these were your author's major sources for the early portions of this 40-year history.

Announcement of the 1991 annual meeting centered on how three speakers would approach its theme – "Wood Scientists – an Endangered Species?" The current author represented "Education"; Bob Ethington, "Government"; and Bill Boehner, "Industry". Up-to-date facts and data were presented and discussed for later publication. This program was geared toward giving an update on professional education matters, but with broader coverage than some previous presentations.

Constitution/By-laws/Committees

The year started with official cogitation on how SWST should be operating to satisfy the needs of its members - hopes, questions, plans, and status? Vice-chairmen for committees are to ensure:

- progressive continuity
- an up-dated "Committee Handbook"
- documents to facilitate committee action
- the availability of a "contact person" at major institutions (academic, government, industry)

- review of the Constitution and By-laws

Other plans included:

- the appointment of a committee to assist on an update of the report from the Committee on Renewable Resources for Industrial Materials (CORRIM)
- the start of an International Visitation program, including \$4000 funding
- how to involve SWST in the political arena (issues and funding)
- liaison between FPRS and SWST
- consideration of continuing education offerings

Details concerning the investment of surplus funds, audit, and budget were presented; all finances were in very good order.

Journal/Publications/Information Services

A "white paper" was prepared to review the previous year's program – "Wood Scientists - An Endangered Species?"

Data on governmental and industrial demand for employees with Wood Science and Technology training (or equivalent, in their eyes) and experience made welcome reading, verifying the members' informal observations.

The Society's white paper "Need for Increased Research in Forest Products" was well received by the 4-H Congress in Chicago, according to Howard Rosen.

Free copies of Volumes 1 through 22 of *Wood and Fiber Science* were still available to needy institutions in third world countries and developing nations.

The *Newsletter* covered the salient features of litigation concerning responsibility for a wide number of failures of fire-retardant treated plywood roofs. Major questions were:

- Who is responsible - builder, plywood manufacturer, treater, or insurance company?
- Did they look to SWST for expertise?
- Should we have a mechanism to avert such a problem?
- McGraw-Hill brought out a new book, "Forest Products Marketing" authored by Steve Sinclair, of Virginia Tech, to replace the ancient tome on Forest Products Marketing, by Stu Rich.

Eleven books, a new record, were reviewed.

Education/Visiting Scientists

The names of the fifty-three who had offered their services as Visiting Scientists were published - a distinguished group!

The entire membership received a well-drawn-up announcement of SWST's International Professional Visitations program, detailing award, qualifications, and proposals. A new venture at that time, it subsequently proved popular, particularly to younger members.

Duane Lyon, working with FPRS, came up with a proposal for student poster competition at the annual meetings.

Symposia

Two symposia were in the works, on mechanosorptive deformation, and electrical power technology in drying wood.

Awards

A Distinguished Service Award was presented to Steve Preston, who was part of the small but exceptionally active group of original founders. Steve was an excellent teacher, having served University of Michigan for nearly 40 years. He was my department chair for nine years until the time (1965) that the then Dean dissolved the Department of Wood Science and Technology. No finer friend or compatriot to receive SWST's highest honor! Steve received a plaque and life-long membership in SWST.

The 4-H Wood Science Award included \$5000 from SWST, \$500 each from ten universities, and \$30,000 each from DEFT and WOOD Magazine. Twenty-nine winners, listed by name and state, were funded to attend the Chicago Congress, and to receive a copy of Bruce Hoadley's book "Understanding Wood"; the awards were made, with six universities contributing toward costs

Other Items of Interest

On the international front, three items became known:

- Bob Ethington told of an Oregon State project involving the potential importation of Siberian larch outlining protective measures, possible American Lumber Standards (ALS) grading, and other complications.
- John Zerbe noted some highlights of a seminar that he moderated (Denmark, Sweden, and Norway) on the response of trees to changing environmental conditions and economic considerations.
- Ed White commented on his experience in Zambia where wood supplies 99% of energy demand.

International visits broadened our view through comments by Phil Evans, lecturer in Wood Science at Australian National University (Canberra) on identifying an Australian Labour Party artifact which turned out to be of *Endrianda palmerstoni*, Queensland walnut. He also gave advice on preventing the yellowing of brushbox (*Tristania conferta*) paneling in Sydney's famous Opera House.

Barry Goodell spent six months in Japan as a NSF/JISTEC visitor, mainly in Tsukuba, with travel in Japan, China, and Korea.

Continuing the emphasis on international matters, the annual meeting session was held Sunday afternoon and featured Walter Kauman (Chile), Jung-Lei Tang and I-An Jen (Taiwan), John Butcher (New Zealand), Amantino de Freitas (Brazil), and Rolf Birkeland (Norway).

Ramsay Smith outlined features of the APEX program, centered in West Virginia, to increase the value-added opportunities for Appalachian hardwoods. This program folded later, apparently from lack of federal funding.

SAF made a Wood Technology (WT) enrollment survey in 1990 and found that, of 12,000 undergraduates in 45 accredited institutions, 1,157 were in Wood Technology. WT graduates numbered 253, including 60 Masters and 54 PhDs.

1992 - 1993

Constitution/By-laws/Committees

Incoming President, Bill Boehner, and retiring president Frank Beall developed a strategic plan to define where SWST was going and how it would get there. This reflected a maturing look at professional responsibilities - clear and measurable goals.

As part of the strategic plan, the following partial listing of SWST activities was formed in the context of how SWST was meeting its stated Purposes and Objectives. It is reproduced here to gather in one place a major compendium of how SWST had served its membership (omitting four Proposed, and two Abandoned activities). The SWST:

- Establishes standards for professional membership and ethical behavior
- Publishes a leading journal in the area of wood science and technology (*Wood and Fiber Science*).
- Produces a bimonthly *Newsletter* listing current and future events
- Reviews books published in the field
- Recognizes professional contributions to the field through the Distinguished Service Award
- Promotes and recognizes excellence in writing through the George Marra Award
- Participates in accreditation of university programs in the field
- Operates a Visiting Scientist Program to promote interaction of scientists with other institutions
- Publishes an annual directory of members

- Provides an annual business and technical program for the membership and others
- Organizes and produces symposia in areas of importance to the membership; arranges for publication of the proceedings
- Studies and publishes reports on critical issues related to the profession
- Publishes State-of-the-art papers in *Wood and Fiber Science*
- Publishes a directory of wood science and technology educational programs
- Publishes and produces promotional material for the profession (video, brochure)
- Supports the 4-H program in Wood Science to promote understanding of wood and interest in the profession
- Develops and supplies high-school level teaching modules on wood science
- Supports scientists in developing countries through contributions of publications of the Society
- Provides support for international travel for members through International Visitors Program

To execute these programs and activities we have about 20 standing and *ad hoc* committees.

The Past Presidents Council, to develop the Strategic Plan, proposed:

Organization of Strategic Planning Effort:

1. Use the SWST Board as the steering committee for the effort, with the immediate Past President as the Past President Council and Board linkage
2. Use SWST standing committee chairs and Executive Director as resource persons and *ad hoc* members of the subcommittees
3. Form subcommittees of PPC members for each of the seven "areas" (see list below) to analyze and determine strengths and weaknesses, and to develop recommendations

Areas for Analysis:

1. Budget and Finance
2. Publications: *Wood and Fiber Science* (including technical papers, SOA papers, book reviews, professional pages, editorials), newsletter, white papers, special publications, membership directory, Wood Science and Technology program directory, Code of Ethics, Constitution and By-laws, accreditation procedures)
3. Relationship with FPRS
4. Technical Programs (symposia, professional continuing education, annual technical session)
5. Professional Programs (Annual business meeting, Visiting Scientist Program, Accreditation, International Visitation Program)
6. Promotional Programs (Advocacy, 4-H, Slide-tape series, SWST videotape)
7. Recognition Programs (Distinguished Service Award, Marra Award, Student Poster Award)

Somewhat later, looking at the listed steps to implement the Strategic Plan from the standpoint of priority, we find the following:

Operation of the Society

Analysis of duties of supporting personnel

Organizational structure of Board and Committees

Financial Viability

Level of cash reserve needed

Most worthwhile programs for members

Appropriateness of dues, subscription rates, and page charges

Membership

Emphasis on student members

Emphasis on members from developing countries

Joint FPRS/SWST Student Chapters

Relationship with FPRS

Role in education, the profession, and research

Joint committees

Programs

Newsletter expansion

Collaboration with others

More symposia

The Education Committee undertook the task of looking at Continuing Professional Education.

The SWST's strategic plan has been printed in each subsequent Committee Handbook, thus receiving the attention it deserves.

The SWST Board, under President Bill Boehner finished a rewrite of SWST's Code of Ethics. It was adopted in June 1993 and appears separately in the Appendix of this History.

Officers

The post of Secretary/Treasurer was abolished, its responsibilities being subsumed in those of a new office, that of Executive Director. Vicki Claas was appointed as the first holder of the new office.

Membership

The SWST Recruitment video was sent to all university contact persons, executive board, and a few others, exhausting the supply, so an additional 100 were made, some to be sent to State 4-H leaders. Excerpts of the text were put in *Newsletter* for personal member use in recruiting.

The apparent discrepancy in numbers enrolled in Wood Science as reported by the Society of American Foresters (1,195) compared to Duane Lyon's report for SWST (543) probably reflects differences in enrollment interpretation. SAF includes students in programs commonly offered by Forestry Schools covering forest utilization and forest products, but without Wood Science orientation or specificity.

Journal/Publications/Information Services

To facilitate greater individual involvement, *Newsletter* published a full listing, plus telephone and fax numbers of 14 committees. It is interesting to note that at that point in time, no one gave an email address!

Wood and Fiber Science continued its full content under the editorship of Arno Schniewind.

Page charges in the journal were increased by \$10 to \$80, and subscription rates increased by \$25 to \$85. The SWST Board subsequently raised subscription charges to \$110, but with members receiving the journal as part of their \$40 annual membership package.

Jim Bowyer spearheaded a project to attempt an update of the CORRIM report, originally issued in the mid-70's.

Members were asked to check local and employer's libraries to ensure that they subscribed to *Wood and Fiber Science*.

Steve Shaler undertook the task of the regular publication of thesis titles in Wood Science.

There was a reminder in the *Newsletter* of the 25th Anniversary of *Wood and Fiber Science*, and the 35th Anniversary of SWST!

For the first time, the journal published lists of new wood science graduates:

Laval University	21	Louisiana Tech	4
Tennessee	3	Washington State	2 Grads
Maine	9 & 2grads	West Virginia	12 & 4
Illinois	4	Virginia Tech	6 & 16
Pennsylvania	2	California	4
Purdue	2 & 1	Mississippi	21
Michigan Tech	4 & 4	University of British Columbia	12
Iowa State	6	TOTAL	82 & 66

Since the basis of our profession is its renewable raw material, wood, with the seeming ascendancy of the "greens" (environmentalists), it is heartening to occasionally hear a bit of support for forests and wood as useful material sources. Don Nelson, Editor of *Newsletter*, came up with two salient statements. The first is attributed to Michael Coffman's book "Environmentalism":

"Environmental groups must not be allowed to continue to have free reign in using pseudoscience and propaganda as "proof" that the Earth is being destroyed.

"Instead we must begin asking environmentalists what they specifically propose to do to replace our current manufacturing and conservation practices."

The second is the Heidelberg Appeal, drafted, endorsed, and signed by 1400 scientists, including 62 Nobel Prize winners, following the Rio "Earth Summit" – addressed to Heads of State and Governments:

"We are however worried, at the dawn of the twenty-first century, at the emergence of an irrational ideology which is opposed to scientific and industrial progress and impedes economic and social development.

"The greatest evils which stalk our Earth are ignorance and oppression, and not Science, Technology, and Industry whose instruments, when adequately managed, are indispensable tools of a future shaped by humanity, by itself and for itself, overcoming major problems like overpopulation, starvation and worldwide diseases."

The full text of the Appeal appeared on the last page, in a form that could be signed and submitted. This was in 1993 – there has been very little mitigation since.

Jim Bowyer, with Art Brauner of FPS, made a major media tour in February 1993 in a tremendous effort to acquaint media sources with some facts about wood, forestry, and the exceptional role they play in U.S. life, commerce, and in people's misconceptions.

The Board reviewed a video prepared by the American Steel Institute encouraging the use of steel in residential construction, promoting it as a "green" material because of its high recyclability. To quote: "Use steel and save the environment".

Don Nelson asked to be relieved from the position of Editor of *Newsletter*, which he had held for over eight years, three in 1977 to 1980, and five from 1989 to 1993. He brought the publication to a new level and should receive a tangible expression of gratitude for a remarkable service.

Accreditation

The Accreditation Committee approved a five-year extension on the University of Minnesota, but placed the University of Washington on a two-year probation.

Accredited schools in 1992 were as follows, with the year accredited (starting in 1984):

North Carolina State University, Raleigh	1984
University of Massachusetts, Amherst	1985
University of Washington, Seattle	1985
University of Minnesota, St Paul	1985
Virginia Polytechnic Institute and State University, Blacksburg	1985
Mississippi State University, Mississippi State	1987
West Virginia State University, Morgantown	1989
Oregon State University, Corvallis	1991

Education/Visiting Scientists

Seven Visiting Scientists served on seven visitations.

Fred Kamke reported on his five month Professional Visitation to Vienna, to the Institut für Holzforschung. One gains the impression that very active wood science and technology groups are alive and well in Central Europe.

Visiting Scientist Jim Bowyer went to the Universities of Maine and Massachusetts. Altogether, two Visiting Scientists made three visits, reflecting the low level of this activity. The SWST Board expressed concern that the Visiting Scientist program was not reaching its full potential - lack of requests from universities, the private sector and government.

Duane Lyon, Chair of the Education Committee reported guidelines and definition of "state-of-the-art" papers. The offer of a \$500 honorarium continued, with the addition of newly outlined procedures.

Doug Stokke reported on his Professional Visitation to Harbin, China. The Chinese Northeast Forestry University was established in 1952; their Department of Forest Products has 530 undergraduates, eleven graduate students, and 98 faculty, fifteen of whom are studying abroad in the U.S., Japan, and England.

Awards

SWST again contributed \$5000 to the 4-H Wood Science Award; six universities also contributed.

A new award, the Professional Visitation Award, was created and given to two applicants – Fred Kamke and Douglas Stokke, \$2000 for travel expenses. The results of these visitations are mentioned above.

Robert Arsenault received the American Wood Preservers" Association Award: (the 24th in an 88-year history) for over 27 years of outstanding contributions and technical leadership.

The 4-H Wood Science Awards went to six National winners (\$1000 each and trip) plus 24 State winners.

The Distinguished Service Award went to Bob Kennedy.

Other Items of Interest

SWST was represented by a Poster Session at IUFRO's meeting in Nancy, France, emphasizing SWST as the preeminent U.S. professional society in Wood Science and Technology.

The Membership Committee posed the question: "Should SWST try to attract 'nonwood' professionals into membership?"

The Board reviewed the recruiting video, copies of which could be loaned to universities; schools could also purchase a master copy for \$2500, permitting addition of their own trailers.

Al Marra was thanked by the Board for his offer to contribute royalties from his book "Technology of Wood Bonding" to the George G. Marra Award.

FPRS, on a vote, changed its name to Forest Products Society - FPS - reminding your author of the opening meeting at the 1957 FPRS that led to SWST - "Where is the Research in Forest Products Research Society?" Changes of emphasis accompanied the name change - "application of research results" from "reporting research".

The announcement of the 48th session of the Northwest Wood Products Clinic, centered in Spokane, brought nostalgic memories to your author, who worked with the first meeting in 1946. The Clinic later joined forces with FPRS.

Boards from trees downed by Hurricane Andrew brought \$31,000. Some of the 1300 trees were planted in 1936.

Good advice from Don Nelson - "SWST leaders should train replacements and show more interest in younger members".

Louisiana State University announced the establishment of the Louisiana Forest Products Utilization and Development Laboratory at Baton Rouge, shared with the School of Forestry at Louisiana Tech, Ruston. Ramsay Smith was named Head somewhat later.

In 1992, the National Lumber Manufacturer's Association celebrated, through its successor, the National Forest Products Association (NFPA), its ninetieth anniversary. By 1993, it had merged with the American Forest and Paper Association (AFPA). A newly formed Forest Resources group took over NFPA's timber interests and forest policy support. The American Wood Council, which two years previous (1991) had merged with NFPA's Building Codes and Engineering Council, became a separate product group. Project Learning Tree and Tree Farm became associated with the American Forestry Foundation.

1993 - 1994

Major Events

Steve Sinclair, SWST Director, author of the recently published "Textbook of Forest Products Marketing" and holder of the endowed Thomas Brooks Professorship at Virginia Tech lost a six-month battle with cancer. He is sorely missed – a very promising career cut short.

Trustees of the State University of New York at Syracuse voted to name the new Chemistry Building in the College of Environmental Science and Forestry after Edwin Jahn. After earning his Doctorate at McGill University in 1920, he taught briefly at the University of Idaho and set up programs in Wood Science and Engineering that persisted for over thirty years. He transferred to SUNY in 1938 where he progressively held the positions of Professor, Associate Dean, and Dean.

Constitution/By-laws/Committees

Board business included consideration of:

- the need for Journal and *Newsletter* Editors
- possible affiliation of SWST with some other organizations with similar or common purposes
- the distribution of the Committee Handbook
- publishing the Code of Ethics in the Membership Directory
- raising annual membership dues to \$50 per year
- dropping the Symposium Committee as a standing committee due to the extreme effort and costs of symposia.

Journal/Publications/Information Services

Bill Nearn and Ben Jayne codified several features of the Editor's function – transition, recruiting, malfunction, duties of the job, contingencies, term of office, role of Editorial Assistant, and state-of-the-art papers.

Steve Shaler, of the University of Maine, made a very capable one-page introduction to the Internet for our PC users. He offered help with problems, listing his and Don Nelson's email addresses. His introduction continued on the intricacies of contact to computers through email - particularly with government and university colleagues. Wonderful to have help like this within our organization!

A great deal of information on how to access governmental Internet services was given by Doug Stokke to the dedicated SWST member with special PC interests. The Editor reported that the only recent form of communication he was receiving was email – no telephone calls or typed or hand-written letters ("snail mail")! What a change in such a short time, or is it that only those members who have mastered email are the ones who contact the Editor?

A new *Newsletter* feature, "From the Archives", was produced by Doug Stokke, the editor. In this first edition, he goes back to 1961, when SWST adopted its current name. The topic is a contemplation of some of the features differentiating Wood Science and Wood Technology, concerning which there is still a diverse opinion among members. Subsequent issues cover:

- some very astounding aspects of the volume of recycled wastepaper.
- a bit of the history of *Wood and Fiber Science*. Details will be given subsequently.

Nine book reviews, each with a bit of meat in the text, were incorporated as a redeeming feature in the "new look" of the *Newsletter*. Expanded reviews included the 1994 Standard Grading Rules for Southern Pine Lumber. Also among them was one by a former NZ colleague - "Primary Wood Processing Principles and Practice" published by Chapman and Hall, London – J.C.F. Walker, ED. A very fine adjunct text and reference with a slightly different treatment than is common in American texts.

The 4-H Wood Award winners, a program now sponsored by Deft and SWST, had their names and addresses published - 4 National and 29 State winners. Restructuring of the 4-H program is planned which will change SWST participation. There will be no National Congress in 1994 - the event dates from 1919.

Notice was given that IS units would be required in *Wood and Fiber Science* after January 1, 1995, finally closing the book on English units in our professional journal. The Editorship of *Wood and Fiber Science* passed from Arno Schniewind to John Siau, with SWST's thanks to Arno for a job very well done, including a special 25-year Anniversary issue.

Accreditation

The SWST Board accepted Accreditation's recommendation for approval of the Wood Science and Timber Utilization programs at the University of Maine.

Education/Visiting Scientists

The enrollment in 4-H Wood Science in 1992 was 113,759, including 32,633 women. This requires participation in a wood science project and implies the involvement of parents and leaders.

Educational outreach to the young involved approximately 2,000 fifth graders in urban San Jose, the renowned "Silicon Valley". Professional guides took groups of roughly fifteen youngsters on field trips that included a widespread display of forest products and at least one manufacturing plant. The visits took a week to complete, and included a weekend trip open to the public, which was attended by about 300 additional participants. This Forest Conservation Day was sponsored by the Northern California Section of the Society of American Foresters, with collaboration from University of California's Forest Products Laboratory, the Pacific SW Section of the Forest Products Society, California Department of Forestry, and a number of industrial firms in the area. It took thousands of hours of volunteer effort, substantial funding and logistic assistance for the sponsoring San Jose School District, and planning. Is this a kind of activity that SWST could profitably arrange?

Mike Hoag, Technical Director of the National Particleboard Association, reported on his International Professional Visitation. In May, 1993 he traveled in the United States, United Kingdom, Germany, and Switzerland, visiting research and testing institutions, manufacturing plants, trade fairs, and trade associations, and he presented a paper at a Technical Association of the Pulp and Paper Industry (TAPPI) European Plastic Forum.

Doug Stokke drew parallels between educational and motivational problems in Wood Science and Technology and Forestry. Attracting and motivating students by working with the students interests may require revamping programs, as exemplified by the increased enrollment in forest products business and marketing, and in many aspects of engineering.

Three Visiting Scientists made three visits - reflecting a decline in interest in this perennial activity.

Symposia

The complexity and cost of SWST sponsoring symposia indicated limited future SWST involvement, except possibly as collaborators.

Awards

Bill Galligan received ASTM's Committee D7's Award of Merit. As a former FPRS President, he instigated a retiree's function that publishes a Newsletter - *Old Growth* for about 200 retirees, now in its seventh year. The last six issues were from my word processor.

Terry Sellers received a Ph.D. from the prestigious University of Tokyo, an unusual accomplishment for an American.

Other Items of Interest

The technical session at the annual meeting featured ten speakers, mostly on environmental issues, reflecting the serious concern of SWST with the antagonistic attitudes and actions of the "green" movement.

Initial results of tests of a new adhesive for the bonding of unseasoned (green) wood, developed at New Zealand's Forest Research Institute – tests made by MacMillan Bloedel on Vancouver Island, looked promising. The bonding agent is known as *Greenweld* and depends, apparently, on its separate application to one side of say, a finger joint, with catalyst applied to the other surface (what we used to call "separate application catalysis" when I worked for Borden during WW2).

The introduction of a competition to stimulate the use of wood for timber bridges in rural areas has been developed in Mississippi. Major advantages are low cost, stimulation of local economy, and use of indigenous labor.

1994 - 1995

Major Events

The 1994 annual meeting theme will be "Sustainable Forest Products" according to Howard Rosen.

Steve Preston, our second President with a second term (1959 and 1963) died after a long battle with lung cancer. A Professor Emeritus from Ann Arbor, Steve was very active in a number of organizations, including FPRS, the Organization of Tropical Studies, and was consultant to the Food and Agriculture Organization.

SWST's 1993 application for membership in the Renewable Natural Resources Foundation (RNRF) was granted in 1994. The current President, Paul Blankenhorn, represented the SWST on the Board of Directors. By joining, SWST is associated with twenty other national organizations, including American Fisheries Society, Soil and Water Conservation Society, the Ecological Society of America, the Nature Conservancy, and the National Wildlife Society. The parent organization dates back to 1972. Copies of their "Statement on Renewable Natural Resources Public Policy and Principles" and a draft of "Long Range Plan and Priorities, 1995-1999" were available from SWST's representative.

Constitution/By-laws/Committees

The Directors, of whom we elect four, assumed the responsibility of coordinating committee activities.

The certificate-like Code of Ethics, suitable for framing, together with the latest revised Constitution and By-laws, was sent to all members.

The Board, under chair Frank Beall, approved what is now (1998) page 3 of "Standards and Procedures for Accreditation" which can be found in a later portion of this history. This is a curricular outline, reproduced in this history and compares with the table from "Education in Wood Science and Technology" circa 1964.

The Board responded to the Committee reports and authorized creation of an SWST web page.

Officers

Frank Beall was chosen to head ASTM's Committee D7 on Wood.

Journal/Publications/Information Services

Two state-of-the-art papers were published in *Wood and Fiber Science* – "Review of Wood Polymer Composite Science and Technology", by Marc Schneider of the University of New Brunswick, and "Chemical Modifications of Wood" by Satish Kumar of the Forest Research Institute of India. Both authors received the \$500 emolument.

Two book reviewed, one titled Advanced Wood Adhesive Technology, by A Pizzi, and a second one, a CD-ROM, Woods of the World for Macintosh or PC, which comprises a database for over 750 species of tropical and temperate woods.

Further suggestions on using the Internet were made by Greg Foliente of the University of California – particularly Usenet, with some illustrations. A new Internet computer network named ForestNet has an annual subscription of \$179.50.

Directions were given by Stavros Avramidis on how to join an Internet discussion group "Wood Science" – send an email to: <wood-science-request@unixg.ubc.ca>, writing in your message "subscribe wood-science <your full name>". This list, started in November 1994, within less than three weeks had 205 subscribers.

Carol Ovens, Editorial Assistant, attended the annual meeting and received some of the thanks she deserves for the more than 25 years service to *Wood and Fiber Science* – from the very first Journal!

For those partial to fine woods, "Mahogany, A Research Bibliography", available in Grand Rapids, Michigan, is of interest.

Two book reviews, "Fiber Atlas" and "The Vascular Cambium", plus three related reports, two academic with respect to research, and one dealing with "Forest Products Measurements and Conversion Factors", were detailed, the latter by Dave Briggs of the University of Washington.

Bob Youngs took over Editorship of *Wood and Fiber Science* from John Siau, who returned to his favorite home in Keene, New York, and died shortly thereafter.

Earl Kline was named Associate Editor.

It was proposed to put an article in the *Forest Products Journal* giving a brief history and summarization of similarities and differences between SWST and FPS.

Education/Visiting Scientists

Terry Amburgey and Mike Barnes of Mississippi State raised the idea of a widespread cooperatively-sponsored seminar on using "distance learning" techniques where each university would produce one lecture and pay the costs of transmission to all the cooperators.

Steve Shaler, sponsored in part by SWST, had a rather brief, but comprehensive visit to China. His observations on schools, the three main University Wood Science programs, and life in the country, are cogent and fascinating.

Fred Kamke and Manfred Manek gave keynote speeches at an IUFRO-sponsored conference in New Zealand, while a former colleague, Roger Keey of Canterbury University, led a lively tutorial on "Heat and Mass Transfer". Jim Bowyer was Visiting Scientist at Purdue.

North Carolina State at Raleigh benefited from Visiting Scientist R. C. Tang, Oregon State University from Terry Sellers, Purdue from Jim Bowyer, Virginia Tech from J. Y. Zhu, and Michigan Tech from Mike Wolcott.

Since many of our academic members stem from land grant universities – interest was expressed in a 3-year study entitled "The Future of the Colleges of Agriculture in the Land Grant University System". Requests for contributions to the study were made.

Awards

Congratulations went to Lohil Tutupalli of California Cedar Products, as winner of the contest for a new logo.

In accepting his Distinguished Service Award, Bill Nearn admonished the SWST audience "to maintain first principles" in Wood Science, to keep in touch with the biological roots of wood, and to look for a place where you can make a difference if you solve a problem".

Other Items of Interest

Audrey Zink of Virginia Tech Institute, was named chair of a new technical subdivision of "Wood and Wood-Based Composites" of the Society of Experimental Mechanics.

Retirement of three old-timers included Erv Schaffer, Gary Lindell, and John Zerbe, all of the U.S. Forest Products Lab.

A new format was announced for the annual meeting, to be held in Portland, Oregon, to accommodate changes in FPS and the interests of their "Fundamental Disciplines" (Group A).

Among foreign news was the University of British Columbia's "Wood Products" Processing" – expansion, direction, and cooperative control at an estimated cost of \$32.7 million, about half from industry and half from government. Research has shown a demand for 2,000 to 3,500 wood process engineers for the industry, to intensify its engineering to European levels. This will be a program for SWST to watch carefully.

The Student Poster Competition, currently an innovative feature of our annual meetings, was approved.

The University of Helsinki announced plans to offer a Ph.D. in Pulp and Paper Science and Technology, emphasizing "Fiber Raw Materials".

Efforts to find \$700,000 to update the CORRIM report continued under Howard Rosen, but only about \$400,000 was to be available from DOE and USDA.

Noted is the acquisition by Vicki of a Power Mac 6100 -particularly meaningful to me because this history is written on my Power Mac 7100 of about the same vintage.

The annual meeting will feature a computer orientation program coordinated by Rich Vlosky and Rado Gazo of the Louisiana Forest Products Laboratory, covering a wide range of topics from WWW to distance learning, to library and research area access.

The Late 1990s

1995 - 1996

Major Events

Death took one of our stalwarts, Charles Berolzheimer of California Cedar Products Co. in Stockton, CA. Charles was a Distinguished Service Award recipient and probably did as much as any person (possibly other than Peter Koch) to advance research in sawing technology. He was an old-world gentleman. His presence will be missed as a scientist, benefactor, and friend.

In mid-March, 1996, John Siau died. He had resigned as Editor of *Wood and Fiber Science* and had returned to his favorite state. A moving tribute was written by Geza Ifju.

Constitution/By-laws/Committees

The International Relations Committee (Howard Rosen, Frank Beall, and Ramsay Smith) outlined preliminary procedures for setting up a special membership category for wood scientists from countries where costs are prohibitive. Full consideration, plus a needed Constitutional Amendment, were given in the succeeding year.

The Critical Issues Committee was nearly finished with "Environmental Implications of the Use of Wood-Based Products" (Howard Rosen, Chair).

The Education Committee, under Audrey Zink, reported virtual completion of SWST Teaching Unit 2, new procedures for the popular Student Poster Competition, and a new compilation of Wood Science and Technology graduate students.

A long report by Doug Gardner of the Publication Policy Committee, suggested what might be included in the WWW page, how it should be updated, and by whom.

Officers

Due to the in-term resignation of Elisabeth Wheeler, President Geza Ifju appointed Susan Willits to serve out the approximate one-year term.

Journal/Publications/Information Services

Bob Youngs took over Editorship of *Wood and Fiber Science* from John Siau, who returned to his favorite home in Keene, New York and died in mid-March 1996. Earl Kline was named Associate Editor..

Interesting web sites mentioned:

- from Finland, "World Wide web Virtual Library: Forestry", at <<http://www.metla.fi.info.vlib.Forestry.html>>;
- Woodweb – "The research information for the woodworking industry", at <<http://www.woodweb.com>>; and with 3-D glasses, try – <<http://www.peo.philips.com/3d.html>>.

A brief view of the contents of five books or organizational publications ranged from "Plant Stems" to "Colleges of Agriculture at the Land Grant Universities. A Profile".

Three book reports and directions for getting four videotapes related to lumber and other forest products rounded out the 1995 *Newsletter*.

One book review published just a couple months before notice of his demise, covered John Siau's recent tome on "Wood: Influence of Moisture on Physical Properties".

Books and other publications and reports included:

- "The Chemistry and Processing of Wood and Plant Fibrous Materials" (English author and printing)
- "The Sustainable Construction Materials Project Phase III Reports", available through Forintek's Western Laboratory, Vancouver, BC
- a North Carolina Stewardship Program of 14 middle-school lectures on environmental education
- the second edition of "On Being a Scientist: Responsible Conduct in Research", published by the National Academy of Sciences, Committee on Science, Engineering, and Public Policy.

Bob Youngs indicated that incoming manuscripts were adequate and again emphasized the necessity of using SI units.

Daryle Layton suggested an article in the *National Geographic*.

Newsletter Editor, Doug Stokke, represented SWST at the Future Farmers of America Convention in Kansas City, MO, and distributed at least 300 brochures

Accreditation

Accreditation of three programs at the University of Idaho was approved – Forest Products Business Management, Wood Construction and Design, and Timber Harvesting. Later consideration canceled the Harvesting program's approval.

Education/Visiting Scientists

The December 1995 release of the National Science Education Standards for K - 12 was devoid of reference to food, agriculture, or renewable resources. The Coalition for Education about Environment, Food, Agriculture and Renewable Resources (CEEFAAR) to which SWST contributes, solicited input on the subject. Vicki and Doug Stokke were listed as resource people from whom one can obtain a condensed table identifying eight science categories, and the major concepts and processes to be developed over K –12 education. SWST is among 40 organizations that have endorsed CEEFAAR activities. It will develop, through individuals, a network for exchanging communications and information through EFAR (Environment, Food, Agriculture, and Renewable Resources).

Five requests for Visiting Scientists were approved, most with minor costs.

Barry Goodell reported on his International Professional Visitation - three months to the Swedish University of Agricultural Sciences, Department of Forest Products, and related travel and contacts.

Awards

Arno Schniewind received the SWST Distinguished Service Award.

Al McGinnes was to receive the Distinguished Service Award. The George Marra Awards were announced.

Other Items of Interest

The Student Poster Exhibit at Portland, Oregon was very popular and brought small cash rewards to first and second place winners. It appears to be a valuable addition to annual meetings.

Vicki reported that she liked her new Power Mac computer, laser printer, and software with the capabilities of running both Mac and DOS applications.

Greg Foliote transferred from Berkeley to CSIRO in Highett, Australia, and gave a very good, if brief, contribution to our understanding of the Internet: two full pages – "The World Wide web - Surfing the Internet with Ease and Style". Greg pointed out that the impact of the web is about like BC (web) and AD (web)! He then traces through email, gopher, the introduction of the web in 1992, the generalized addressing scheme using Uniform Resource Locators (URLs), Hypertext Markup Language (HTML), hypermedia operation, and the release of browsers like Mosaic and Netscape in 1993. In the following two years the WEB expanded exponentially with search engines and audio as well as video capability. Illustrations were given, a godsend for the rare individual with a computer, but no real idea of what one can find out there with a little effort and persistence

This series of articles prompted *Newsletter* editor to invent a new feature - HOT WEB SITES, published along with an invitation to contribute.

Tom Maloney was named Weyerhaeuser Distinguished Professor in Wood Materials and Engineering, an endowed chair.

The RNR (Renewable Natural Resources Foundation) held a two-day leadership summit attended by SWST representatives Jim Bowyer and Ramsay Smith. Rich Vlosky volunteered to head an electronic media task force to guide SWST's involvement in RNR.

An introduction to developments pertinent to Wood Science and Technology in Canada indicates wood products industries not only support funding, but also plan and direct a really major effort in forest products education, research, and financial backing.

An increased number and complexity of announcements of various meetings from overseas – conferences, workshops, congresses – all with subject matters appropriate to SWST, indicate a fast growing activity and possible alliances for our professional group, SWST. This seems to be a direction we wish to take, and, if so, can we collaborate effectively to further not only our North American goals, but also those of global concern.

1996 - 1997

Constitution/By-laws/Committees

Incoming President Duane Lyon made a plea for committee volunteers.

Critical Issues noted that the white paper "Environmental Implications of the Use of Wood Products" would be distributed shortly.

Support for 4-H was discontinued, and a credit was returned to the treasury.

Vice-President Fred Kamke proposed reorganizing the 4-H Wood Science Committee as the Public Liaison Committee with four areas of responsibility:

1. Maintain lines of communication with cooperating organizations, including, but not limited to: 4-H, Future Farmers of America (FFA), International Woodworking Fair (IWF), Renewable Natural Resources Foundation (RNR), Coalition for Education about Environment, Food, Agriculture, and Renewable Resources (CEEFA), Council for Agricultural Science and Technology (CAST), and Board of Agriculture (BOA);
2. Inform SWST members of meetings and events;
3. Promote public awareness of wood science, including support for youth programs; and
4. Prepare and update SWST promotional display materials.

In response to the last recommendation, your author inspected and praised a new portable SWST promotional display at the IUFRO meeting in Pullman, WA, in connection with the IUFRO Conference.

The report of the Critical Issues Committee – "Environmental Implications of the Use of Wood-base Products" was distributed to members of Congress, State Foresters, many organizations with environmental interests, and all North American Forestry and Wood Science schools.

Membership

Continued efforts to recognize new members resulted in publishing the names of two Student, and five new Members.

Howard Rosen reported on granting the first affiliate membership to Professor Valentine Shalaev, Director of the Institute for Forest Systems Research at Moscow State Forestry University. The unit has 6,000 students, 1,700 faculty and support staff, with 63 departments, including Forestry, Wood Technology, Harvesting, Applied Mathematics, Electronics, Languages, and Physics.

SWST Membership as of 1 June 1996 stood at 399, little changed over recent years.

Journal/Publications/Information Services

The SWST web site attracted attention; the Board thanked Louisiana State University for its support.

Continuing on communicating on the Internet, Doug Stokke mentioned "Eudora", the Post Office Protocol (POP) for mail servers, and the employment of File Transfer Protocol (FTP) for transferring files. WEB addresses were given for WOODPRO, a lumber database and a wood selection expert system. Similarly, IUFRO's Forestry Terminology Database, SYLAVOC, a compendium of over 100 references in 20 languages, was given as an information source through <prueller@forvie.ac.at> plus a telephone number.

Bruce Cutter came on as *Newsletter* Editor, preparing three issues, when for personal reasons, he left the following year's issues to Vicki Herian.

Editor Bob Youngs made a plea for a continuing supply of quality papers and urged reviewers to speed up that part of the process.

Subscribers to *Wood and Fiber Science* numbered 302.

Tom Skaggs added some timely caution about using care in accepting, without virus inspection, email attachments.

Doug Stokke commented further that his total correspondence has undergone computer orientation since 1986. Many others, including yours truly, add an Amen.

The SWST web site was brought to Madison under Vicki's supervision, and can be accessed at <www1.fpl.fs.fed.us/swst>.

Additional services and forms of communication are developing rapidly, two examples are in wood engineering: <<http://www.ce.wsu.edu>>, (Washington State University), and a company in Madison distributing a CD-ROM containing the full text of 29 USFPL publications. For those interested, see <<http://www.lumberquest.holowww.com>>.

Education/Visiting Scientists

Barry Goodell and Bob Tichy were Visiting Scientists to the Forest Products Department of Swedish University of Agricultural Sciences, and to Michigan Technological University, respectively. Visiting Scientist Richard Vlosky went to Berkeley, and Greg Foliente, from Highett, Australia, visited North Carolina State University at Raleigh. Bill Dost visited Forintek, Vancouver, and Steve Shaler visited Iowa State.

Other Items of Interest

The SWST Student Poster Competition went to students from Virginia Tech and Washington State for first and second places, respectively.

SWST's representative to RNR (Renewable Natural Resources Foundation), Howard Rosen, reported from a recent RNR Summit noting three areas that would affect SWST:

- a. RNR serving as a clearing house for directing inquiries to its member organizations.
- b. RNR to be aware of potential site visits to provide information on, or to demonstrate, good practices for sustainable development of our renewable natural resources.
- c. Recognition of global influences and international involvement.

Duane Lyon and Cynthia West represented SWST, among 102 delegates to the 1996 RNRFC Congress "Applications of Geographic Information Systems to the Sustainability of Renewable Natural Resources". The next Congress, in 1998, will cover a topic in the general area of "Sustainable Development and Human Population Growth", a hot international, as well as local, "green" subject.

CINTRAFOR (Center for International Trade in Forest Products) at the University of Washington noted the availability of six working papers and their cost – <rbraden@u.washington.edu>.

The annual meeting featured two Poster Sessions, one on Sunday for SWST and the second during the week for FPS. This feature was well attended and brought a wide spectrum of subjects and presenters into the meetings. The Board increased the prizes for the Poster Competitions to \$250 and \$125 for first and second places.

A trial period to pay dues by VISA has been somewhat successful so will be continued.

Bob Youngs started gathering material, including colored pictures, for a proposed to *National Geographic* article. However, *National Geographic* showed no interest in such an article.

The National Academy of Sciences, National Research Council, Board of Agriculture, was nearly through with a three-year study to evaluate the mission of "Land Grant Universities - Teaching, Research, and Service, the Mantra of Land Grant". For information, contact Carla Carlson <ccarlson@nas.edu>.

The 1997 meeting program centered on distance learning and continuing education. These timely topics may take on greater significance as part of arguments for mandatory professional registration and possibly compulsory regular maintenance of educational exposure.

1997 - 1998

Major Events

Peter Koch, a legendary figure in Wood Science and Technology, died 14 February 1998 while traveling primarily from complications of lung cancer although he did not smoke. Author of "Wood Machining Processes"; then editor of a two-volume "Utilization of the Southern Pines"; his three-volumes of "Utilization of Hardwoods Growing on Southern Pine Sites"; and finally, a 14-year effort on "Lodgepole Pines in North America", constitutes a remarkable compendium of virtually everything known about this widely-distributed western pine. The latter books comprise 1096 pages, three volumes, published by the Forest Products Society. He also had a great number of lesser publications, the last published only a couple of months before his demise. Peter was a graduate engineer, switching to high-speed photography to lay the basis for his work on wood machining, after employment with a well-known manufacturer of planing machines. He pursued his Doctorate at the University of Washington, followed by stints at Michigan State University and operating a sawmill in Massachusetts. He then set up a fabulous U.S. Forest Service Laboratory in Louisiana to carry on work with the southern pines. He was president of FPRS, introduced AIDS (Abstract Information Digest Service) for its relatively short but productive life, furnishing microfiche abstracts of the literature in the field of forest products. He left the South upon retirement and returned to his native Montana Bitterroot Valley on an extensive property valued of over a million dollars that he and his wife, Doris, later deeded in trust to FPS. He financially parlayed what could be expected in future realization to FPS at a billion dollars, and with Doris, delegated 5% to SWST! He was a remarkable man and lived a remarkable life with rafting down major rivers and other active exploits. Thanks Peter, and condolences to Doris.

Constitution/By-laws/Committees

Education reported that Teaching Unit No 1 has been replenished with wood and slides, and that Unit No. 2 has a script but no visuals. The committee would like both units to be included in the web site. Consideration of incorporating "Wood Links" and the Canadian "Wood Products Manufacturing" into our web site is under way, but should follow a statement of the purpose of these two educational units.

Public Liaison listed several organizations with which SWST should be working – Southern Forest Products Association, Western Wood Products Association, Engineered Wood Association, Canadian Wood Council, and more. The entire matter was recommended for review and redirection. The web page will carry names of officers and committees.

Membership

Membership continued to be a vexing problem - numbers held steady but failed to increase to accommodate increased activity.

Member numbers, as of March 1998, stood at 345 Full, 108 Student, 51 Retired, and 1 Affiliate, an increase of 15 over 1997.

Journal/Publications/Information Services

SWST's web site was relocated at <<http://www1.fpl.fs.fed.us/swst>>.

Bob Youngs introduced Carol Ovens, Editorial Assistant, and Earl Kline, Assistant Editor, noting completion of four issues of about 100 pages each and four book reviews, Carol deserves particular thanks for her more than 28 years assisting with *Wood and Fiber Science*.

It was announced that a new feature, "Letters to the Editor", would appear soon. Future table of content will be published on our web page with Allen Press, our current printers, who have arranged for it and the abstracts to appear on our web site by June, 1998 (see www.allenpress.com).

Allen Press also inquired about SWST's interest in offering our full-text publications via the Internet; the Board was to consider advantages with respect to widespread availability versus cost and input. Similar proposals were made by CABI and TEEAAC, both of which were rejected. The current Allen Press system, called APT Online, can also be viewed on the web site above.

Subscribers to *Wood and Fiber Science* numbered 340, 10 fewer than 1997.

Several candidates were suggested to take over from Vicki as temporary editor of *Newsletter*. She graciously filled in under difficult and stressful circumstances.

Bob Youngs noted that *Wood and Fiber Science* is going well but has had few book reviews; a new Book Review Chairman, Heath Saunders, will take over and introduce new approaches to book review coverage. Member nomination of books is to be reviewed, publishers are to be canvassed, and a note will be placed on our web page regarding new books.

The opportunity was still available for "state-of-the-art" reviews, worth a \$500 reward, plus free publication.

With an assist from <<http://www/cas/usf.edu/english/walker.mia.html>>, contact with the author, Janice Walker of the University of South Florida, resulted in permission to publish standards for referencing on-line sources in manuscripts submitted to *Wood and Fiber Science*. The Columbia Online Style model was selected for that type of citation. Examples were provided by Bob Youngs; future adoption will be carefully monitored. MLA-Style, FTP Sites, WWW Sites, Telnet Sites, Synchronous Communications (MOOs, MUDs, IRC, etc), GOPHER Sites, email, Listserv, Newsgroup Citations, and CD-ROM, Diskette, or Magnetic Tapes - were all illustrated. Recognition of a new communication paradigm has arrived.

Since the Forest Products Society was investigating costs of converting past *Forest Products Journal* articles, proceedings, etc. into electronic form to create an online system for search and retrieval of items of interest easily, and at reasonable cost, SWST decided to cooperate to see what develops and what means of joint handling might be available. These considerations will dictate our response to the Allen Press proposal.

Education/Visiting Scientists

International Visiting Scientists awards of \$2,000 each went to John Wang and Elvin Choong.

Three visits were scheduled and made – Geza Ifju to Michigan Tech, and Jean Mater to West Virginia University. Wolfgang Glasser of Virginia Tech visited Oregon State University's Forest Research Laboratory and the departments of Forest Products, Chemistry, and Chemical Engineering. A request for a grant to permit a University of British Columbia professor to visit New Zealand and Australia to confer on Distance Learning and Technology was considered; support was recommended for an International Professional Travel grant by the Visiting Scientist Committee. More publicity was suggested for this type of global activity.

Awards

The SWST Distinguished Service Award went to Warren Thompson.

Duane Lyon, Past President, was honored at a retirement party - after 28 years at Mississippi State.

Other Items of Interest

SWST expressed interest in joining an International Association of Wood Products Societies being organized by Takeshi Okano of the Japan Wood Research Society. SWST's link to the IAWPS consortium was reviewed. A letter from Norm Kutcha to President Fred Kamke, however, pointed out "SWST is not eligible as a member society because it is not financially supported by industry". Through efforts of Norm Kutcha and Art Brauner, liaison will continue in SWST's participation with international organizations .

A possible service for SWST was suggested, a "Certified Professional Wood Technologist" status, similar to SAF's "Certified Forester Program".

The American Wood Preservers' Association acquired a new address - P O Box 5690, Granburg Texas, and email <awpa@itexas.net>.

The Office of Naval Research awarded the first \$2.5 million of a three-year \$7.5 million to a multidisciplinary team to develop a new hybrid wood-based material, impervious to marine borers, water-logging, and to many other destructive elements in a marine environment. Apparently, there is a tremendous need to correct current deficiencies in the Navy's facilities - an estimated removal of as many as 8,000 tons of timber annually. No reference was given, but one cooperator is Washington State's Wood Materials Engineering Laboratory. Good luck !

Dave Barrett outlined the 1998 Annual Meeting's general topic as "Wood Products Industry in the 21st Century: Knowledge, Technology, and Workforce Training Needs". Speakers were to include representatives from the United States, Mexico, Germany, and Chile. Discussion of means to sponsor Mexicans to attend the meeting in Merida, Yucatan, came up with a few suggestions.

Audrey Zink-Sharp again volunteered to handle the Student Poster Competition on Saturday night, preceding the main SWST meeting.

Tom McLain, Vice President, completed a draft of a member handbook, which describes all that SWST does, and is a summary including all documents. Copies should be distributed in late 1998. It was suggested that updating should be the responsibility of the Vice President.

SWST's link to the IAWPS, a Japan-based consortium were reviewed to determine our membership status.

A new color printer for the office MacIntosh was authorized.

Committee reports for the year concerned some accreditation questions: SAF's new accreditation procedure, their plans for a thorough review in 1998-1999, the status of Clemson University and Michigan Technological University, and how to handle the University of British Columbia. Constitution and Bylaws Committee proposed an amendment to cover succession in cases of vacation of office (due to death, etc.).

Bob Youngs reported a good number and diversity of papers for *Wood and Fiber Science* plus an improvement in the peer review/editor/author revision process with an 8 to 9 month average period between receipt and publication. The July 1998 issue was to contain the Columbia Online Style model for referencing these types of copy sources. Nine book reviews were published in 1997-1998.

The current year - 1998 -1999

The latest reports of committees and actions taken at the annual meeting in Merida, Yucatan, Mexico, add a number of late items.

Major Events

Public Liaison, Daryle Layton, Chair: Efforts with Renewable Natural Resources Foundation (RNRF) and others, to promote the fact that the use of wood is environmentally friendly, continue. The list of cooperating organizations need expansion; several names were suggested.

Publications Policy, Art Brauner, Chair: Matters for inclusion in SWST's web page (currently accessed about 3000 times since January 1997) included: names of officers; inclusion of Tables of Content and Abstracts (Allen Press site) and other proposals for more publication via Internet sources. Allen Press

has listed our current volume 30 of *Wood and Fiber Science* (APT Online); articles can be obtained as reprints directly from the Abstract page. Vicki continues to update our web site.

Constitution and Bylaws

Perry Peralta, Chair, reported: Review of procedures for succession of executive officers in the event someone is incapable of completing his (her) term. The Board accepted the recommended amendment which has been mailed to members for ratification.

Officers

President: J. David Barrett

Vice-President: Ramsay Smith

President-Elect: Thomas E. McLain

Past President: Fred A. Kamke

Executive Director: Vicki L. Herian

Editor of *Wood and Fiber Science*: Robert L. Youngs

Directors: H. Daryle Layton

Audrey G. Zink-Sharp

Paul M. Smith

Douglas Gardner

Newsletter Editor: John E. Phelps

Editorial Assistant: Carol Ovens

Membership

Chip Frazier, Chair, summarized results of a survey of 825 mailings to all members, former members and selected nonmembers with a response of 200. Other charges to the committee included an inquiry into a suggested *Certified Professional Wood Technologist* program, and a listing of expected services. A number of challenges in educational matters will be met.

Respondent statistics:

Response level 28.4 %

96% male

24% 41-50 years

86% current members, 6% never a member

61% Ph.D., 21% M.S.

36% academic, 30% industry, 16% retired, 11% government, 7% students

What we asked:

Importance of current SWST services

What new services they would like to see

Would they approve of National Certification program in WS&T

Wood and Fiber Science

Demographics

Important SWST Services from Survey Responses

Publication of *Wood and Fiber Science*

Accreditation

Newsletter

SWST Critical Publications

Less Important SWST Services

Distinguished Service Award

SWST web page

International Visiting Scientist Award

Annual Meeting

National Certification Question

Inconclusive – 45% yes, 27% no, 28% no opinion

By Education:

Ph.D. 52 yes, 52 no, 35 no opinion
M.S. 26 yes, 8 no, 13 no opinion
B.S. 21 yes, 2 no, 14 no opinion

Wood and Fiber Science:

Topics interesting? 89% yes
Informative? 91% yes
Put Table of Contents on the web
Abstracts on the web too
No full papers on the web
Encourage more international contributions

A smaller repeat survey is to be made in three years. Based on survey results, it was recommended to discontinue a national certification program at this time. Tom McLean has prepared a new member application form which will be duplicated and sent to members university representatives, and added to the web.

The new Member Handbook (Tom McLean) will also be distributed to members and put on the web. It describes all that SWST does. including all documents. Updating will likely be the responsibility of the Vice-President.

Noting a lack of recognition of wood products programs by university deans and administrators, the Critical Issues committee suggested a link between industry and university administrations, perhaps aided by the National Planning Council, to facilitate contact. Fred Kamke will be liaison for a Workshop on "Wood Products Education – Meeting the Needs of Industry and Society", sponsored by the Wood Machinery Importers Association and the Wood Machinery Manufacturing Association. Gib Comstock presented a paper at the '98 annual meeting along these lines (19).

A discouraging aspect of membership is that of delinquent members:77 for not paying 1997 dues, and 48 for not paying 1996 dues. Similar comments apply to subscriptions: 45 unpaid for 1997, and 20 for 1996 (figures as of June first).

Journal. Publications/Information Sources

Wood and Fiber Science Editor, Bob Youngs will continue in that capacity after his three years, with the assistance of Earl Kline and Carol Ovens. Suggestions of new books to review are always welcome, as are editorial contributions. The Columbia Online Style manual will appear in 1998.

Bob Youngs suggested that a strategy be developed for increases in subscription prices to *Wood and Fiber Science* based on publication cost estimates and timing between announcement and implementation. A request to place an ad in Allen Press Buyer's Guide was denied, based on previous experience which showed no noticeable increase in subscriptions.

John Phelps has volunteered as new *Newsletter* Editor. Contact <jphelps@siu.edu> or fax 618-453-7475 (phone 618-453-7464).

The Journal of Industrial Ecology, published quarterly by MIT Press for Yale University, with headquarters at the Yale School of Forestry and Environmental Studies, recently issued a special issue entitled "The Environmental Impact of the Paper and Wood Industries, From Production Through Consumption and Recycling". This was issued in response to three very different major studies by the Environmental Defense Fund Paper Task Force (EDF PTF), the International Institute for Environment and Development (IIED, London), and Maureen Smith of the Pollution Prevention Research and Education Center of the University of California at Los Angeles. See <<http://mitpress.mit.edu/JIE>>.

Fred Wangaard, Past President 1965-66, presented some very interesting comments with respect to early research in wood science and technology. Past President Kamke (1997-1998) wrote in the *Newsletter* a couple pages of excerpts from a paper Wangaard authored for *Scientific Annals* of the Department of Forestry and Natural Environment, Aristotelian University of Thessalonica, Greece. The first of a pair of articles, it delves into the ancient history of Wood Science and Technology and credits George Tsoumis (author of *Science and Technology of Wood*, 507 p, 1991, Van Nostrand) as naming Theophrastus (372-287 B.C.) as the "Father of Forest Utilization". Here is an intriguing bit of history. Fred also goes back to some of his professional experiences starting over sixty years ago. He was the first wood scientist your author ever met (1937)!

Fred Wangaard, adds, from the Critical Issues Committee – “ *This committee should, above all else, emphasize that our society is slowly dying as a consequence of political attacks on traditional timber policy, as though trees are not renewable.*”

Accreditation

Tim Faust, Chair, reported that several tasks were acted on:

1. A list of the current status of the ten accredited institutions.
2. Simplify existing accreditation procedures in cooperation with SAF at required five- year intervals.
3. Continue liaison with University of British Columbia regarding Canadian Universities.
4. Request from West Virginia University for a visit in 1999.
5. Clarify status of Clemson University (has until 1 November 1999).
6. Since SAF has revised its guidelines for accreditation, simplify review procedures. The Board adopted this new format effective 1 July 1998.

Education/Visiting Scientists

Charges for this year were met as follows, according to Cynthia West, Chair:

1. Replenish teaching material in Unit No.1; currently there are six sets with no requests in 1997-1998.
2. Complete Unit No 2; other sources are available, but reviewers pointed out they are frequently erroneous or misleading.
3. Continue liaison with WOODLINKS and review the materials available and possibly assist where feasible.
4. Review Student Poster Competition; Audrey Zink-Sharp will handle the 1998 session.
5. Assist Paul Blankenhorn in writing criteria for a “Fellow” membership category.
6. Supervise the distribution of the separate Vanguard account to finance Student Poster Competition Awards contributed by four universities, Virginia Tech, British Columbia, Oregon State, and Mississippi State to the amount of \$3,750.
7. Renew the “North American Directory of Graduate Programs in Wood Science and Technology”, originally published in 1985 as a joint effort with Mississippi State University and the Forest Products Society..

Awards

SWST Distinguished Service Award:

Everett Ellis
Steve Sinclair, Posthumously

Significant spending for new programs will consider:

- Spend for student scholarships (add a contribution option to the dues notice)
- Spend to send students doing posters to the annual meetings
- Follow through on participating student poster competitors to see if they are still students, or, if graduated, they became members
- Incorporate these functions into the strategic plan

VI Publications

A. Jointly with Forest Products Research Society

In its Constitution, published in the *Forest Products Journal*, March 1960, SWST declared "The Forest Products Journal will serve as a medium of release of technical articles issuing from SWST and, where practical and appropriate, SWST shall provide necessary additional finances for release of longer articles than ones customarily published by the Journal." Subsequently, 25 papers totaling 197 pages, were published in the Journal in 1966-68 under 'SWST's logo.

In 1968, SWST decided to independently produce a quarterly journal to start in June 1968. Meanwhile, FPRS had brought out a *Journal of Wood Science*.

B. Wood and Fiber Science

As noted, the decision was made in 1968 to independently publish a professional journal. Articles previously written for SWST, and perhaps more professionally oriented than typical FPRS articles, appeared in the earlier period. As the publication grew and matured, the guidance of its editors and the responses of its membership moulded its character.

Both organizations approved the merger of SWST's *Wood and Fiber* with FPRS's *Wood Science*, to be known as *Wood and Fiber Science* in 1982. SWST responsibilities include publication, finance, and subscription services. FPRS members may subscribe at a 33% discount from the library rate. SWST appoints the Editor; control is vested in an Editorial Policy Committee of six, three appointed by each Executive Board. *Ex officio* members of the committee are the two respective Editors. FPRS retains first option for control of the journal in the event of SWST's inability to continue publication. This system became effective with Volume 15, Issue 1, 1983.

Currently (1998) *Wood and Fiber Science* has a fine reputation and is increasingly chosen by international authors as a professional scientific journal. Appreciation of the outstanding efforts of past editors and assistants, and of Carol Ovens, Editorial Assistant for the entire 30 year history of the journal has been expressed occasionally, but probably insufficiently. A chronological listing of editors follows:

<u>Editor</u>	<u>Years</u>	<u>Term of Service*</u>
Ben A. Jayne	3	1969-1971
Robert Meyer	7	1972-1978
E. Alan McGinnes, Jr	2	1979-1980
Wayne Murphey	4	1981-1984
Bruce Cutter	3	1985-1987
Tom Elder	3	1988-1990
Arno Schniewind	3	1991-1993
John Siau	1	1994
Bob Youngs	4	1995-1999

*Carol Ovens has served as Editorial Assistant since 1968.
Since 1995, Earl Kline has served as Assistant Editor.

C. Newsletter

As the main publication providing contact with and between members, the *Newsletter* is put out six times a year, starting in July to correspond with our operational year. It began as a communication from our first President, Jim Bethel, in 1959. By 1961 there were seven issues. Between 1963 and 1968, the organ was known as *SWST Log*. Writing the *Newsletter* became the province of the Secretary Treasurer until the Executive Secretary took over. Since 1983, the editor has been appointed, generally for three year periods. Holders of this responsible office have been as follows:

1960	Henry Haskell	1983	Bob Erickson
1965	Gib Comstock	1986	Al McGinnes
1966	Al Foulger	1989	Don Nelson
1970	Erv Schaffer	1994	Doug Stokke
1973	Von Byrd	1997	Bruce Cutter
1975	Bill Lehmann	1998	Vicki Herian
1977	Don Nelson	1999	John Phelps
1980	J.T. Quirk		

Past issues of the *Newsletter* have been the major source of information on which to base this history, coupled with issues of *Wood and Fiber Science*, and the earlier histories of Herb Fleischer (11), and Fleischer and Foulger (12).

D. World Wide Web

After much consideration, the SWST Board authorized creation of an Internet web site in 1994. Because the central office lacked adequate expertise, Louisiana State University put the first page together in 1996-1997 guided by Dick Vlosky and Rado Gazo. In 1997, the web site moved back to Madison under the supervision of Vicki Herian. Its address is <www1.fpl.fs.fed.us/swst>. Listed are the following contents:

- About the Society of Wood Science and Technology
- Accreditation
- Announcements
- Annual Meeting - 1997
- Annual Meeting -1998
- Awards
- Code of Ethics
- 1997-1998 Committee Handbook
- Constitution and Bylaws
- Directory of Schools
- Environmental Implications of the Use of Wood-Based Products" White Paper"
- Exploring a Profession in Forest Products
- A Letter to Students
- Newsletter*
- 1998- 1999 Officers
- Proceedings
- Wood and Fiber Science Journal*
- Wood Science Lecture Series

E. Reports and White Papers

A careful perusal of the *Newsletters* brings to light the following publications, some readily available, some subject to special efforts to obtain:

- 1964 – “Education in Wood Science and Technology” (out of print)
- 1973 - Workshop on Fluid Penetration in Wood
- 1973 - Symposium on EPA-OSHA Impact on the Wood Preserving Industry
- 1976 - Wood Technology - The Materials Science of the Forest Industry
- 1977 -Trends in Fire Protection
- 1978 -Structural Use of Wood in an Adverse Environment
- 1979 -Research Needs in Effect of the Environment on Design Properties of Lumber
- 1980 - Process Control in the Forest Products Industry
- 1983 - Biomass Fuel Drying Conference
- 1983 - North American Wood Drying Symposium
- 1983 - Innovations in Manufactured Housing
- 1986 -International Conference on Wood Engineering
- 1990 - International Competitive Edge: A Need for Increased Research in Forest Products
- 1992 - Wood Science and Technology: A Profession at a Critical Point in History
- 1997 -Environmental Implications of the Use of Wood-Based Products

Proceedings that can be ordered from SWST at nominal cost:

1993 - Environmental Movement and Fiscal Influence on Wood Utilization Policy and Research \$10
1992 - An International Perspective of Wood Science and Technology and Issues Affecting Wood Utilization \$10
1990 - Process Control in the Forest Products Industry \$7
1989-.Residential Fires and Wood Product Use \$7

State-of-the-Art Papers:

1994- Review of Wood Polymer Composite Science and Technology
1994- Chemical Modifications of Wood

V Current Operations

A. Strategic Plan**

Operation of the Society

1. Regularly analyze the duties of the supporting personnel of SWST for the most effective division of labor to assure efficiency and continuity at reasonable costs.
2. Develop contingency plans and/or policies for replacement of supporting personnel.
3. Keep a high level of involvement of both the *Wood and Fiber Science* and *Newsletter* Editors in the Society by covering their expenses to Board meetings.
4. Move aggressively toward full electronic integration of all principal activities of the Society.
5. Have ongoing re-examination of the Constitution and Bylaws to keep the documents relevant and useful to the operation of the Society.
6. Structure the Executive Board to have the best possible division of duties to assure continuity and excellence in decisions and programs.
7. Develop a comprehensive and retrievable database to permit analyses of membership and financial details.

Financial Viability

1. Retain the conservative approach of limiting increases in membership dues.
2. Make aggressive increases in subscription rates consistent with that of other journals.
3. Assure that increased income is directed toward improved operation of the Society and to key programs that have the maximum benefit to the membership and the field of WS&T.
4. Determine the level or range of cash reserve needed to cover contingencies that is consistent with our nonprofit status.

Membership

1. Consider a mechanism for membership to begin with Associate Membership, moving to full membership in several years after providing evidence of qualification. Use this path to stimulate transition from student membership.
2. Aggressively solicit student members using posters and contact persons in institutions. Consider "menu selection" for options of "journal" or "no journal" with student membership to reduce the cost to a nominal level for the "no journal" selection.
3. Form joint student Chapters with FPS to encourage joint membership in SWST and FPS.
4. Create a "special membership" for those from developing countries (DC). This membership would be extended on a courtesy basis (no dues) to any potential member from a DC. The membership would include all privileges except the journal. (This special membership could also be extended to student members from a DC, although the nominal dues associated with a "menu selection" might mitigate that need.)
5. Develop a special relationship with IUFRO to promote and reinforce membership from developing countries and other parts of the world.

Relationship with FPS

1. Establish a clear role of SWST in education, the profession, and research.
2. Retain the annual meeting linkage, with the continuing format of the Sunday SWST business/technical meeting. Determine what the technical session should address and who the audience should be.

** Source: The SWST web site

3. Form an inter-Society linkage through cross-Board appointments or a similar mechanism.
4. Identify joint committees that could serve both societies more effectively.

Programs

1. Recognize the influence of membership mix (university, private sector, federal) and level of education on the expectations of members.
2. Facilitate exchanges of members to promote the Society and the exchange of knowledge with scientists and students.
3. Develop a program for the enlightenment and recruitment of students to the field.
4. Form continuing education programs to provide specialized education to SWST members and others, using the resources of our higher education institutions.
5. Conduct symposia on a regular basis to address critical issues and technical subjects of interest to the membership and others.
6. Collaborate with other groups and societies to develop and provide key information on regional, national, and international forest products issues.
7. Continue the quality and expand the scope of the *Newsletter* to establish it as a major outlet for current information in the forest products area.
8. Examine *W&FS* to determine the most appropriate content of information, with a clear distinction from the *SWST Newsletter*.

B. Officers and Committees

A current listing of officers and their duties and the membership and duties of each committee is published annually in the Committee Handbook. A current copy of this handbook may be obtained by contacting the Society. The Board of the Society consists of the President, a Vice President and a President Elect, the Past President, the Executive Director, and Directors. The Committees are:

- Accreditation
- Annual Meeting Program
- Book Review
- Constitution and Bylaws
- Critical Issues
- Education
- International Relations
- Marra Award
- Membership
- Nominations
- Past Presidents Council
- Public Liaison
- Publication Policy
- Visiting Scientist

C. Membership and Chapters

The Constitution defines the various classes of membership. Tabular and graphic representations of membership numbers in each class over the lifetime of the Society are given in the Appendix.

The by-laws make provision for chapters; active chapters mentioned in this history include:

- Inland Empire
- Madison
- Corvallis
- Northern California
- Keystone.

D. Educational Institutions

Accreditation

SWST began accrediting schools for their Wood Science and Technology programs in 1984. The following is a list of schools accredited thus far:

<u>Institution</u>	<u>Init</u>	<u>Last</u>	<u>5-yr</u>	<u>Current</u>
Clemson University, Clemson, SC	1992	Suspended- Program Cutback		
North Carolina State University, Raleigh, NC	1984	1994	1999	2004
Virginia Polytechnic Institute, Blacksburg, VA	1985	1995	2000	2005
University of Maine, Orono, ME	1993	1993	1998	2003
University of Minnesota, St. Paul, MN	1985	1996	2001	2006
Mississippi State University, Miss. State, MS	1987	1997	2002	2007
West Virginia University, Morgantown, WVA	1989	1989	1994	1999
Oregon State University, Corvallis, OR	1990	1990	1995	2000
Pennsylvania State University, Univ. Park, PA	1992	1992	1997	2002
University of Idaho, Moscow, ID	1996	1996	1999	2004
University of Washington, Seattle, WA	1985	Suspended- Program Cutback		
University of Massachusetts, Amherst, MA	1985	Suspended- Program Cutback		

Current information regarding the accreditation of programs of study is typically found within the general catalogs and/or other informational materials for most universities. Prospective students may therefore expect that information regarding accreditation of various programs within a university will normally be incorporated somewhere within the standard packages of information that are mailed to prospective students upon their request for information regarding a program of study.

Institutions

A listing of current institutions offering programs in wood science and technology may be found in the separate publication entitled: Directory of North American Schools Offering Baccalaureate and Graduate Programs of Study in Wood Science and Technology. Copies may be obtained by contacting the Society office.

In passing, mention should be made of several universities which formerly offered Wood Science and Technology programs. Many of the institutions offered excellent majors and contributed graduates of the highest quality. A majority of the earlier members who founded and led SWST were their graduates. The main reasons for curtailing curricula have been financing and non-sympathetic administrations, small numbers of students and expensive programs at both undergraduate and graduate levels. These institutions are listed on page 67 following the Directory of Institutions.

VI Conclusions and Projections

Threads of maturity and growth of service course through this history of SWST. It is generally responding to various pressures and issues in a positive manner. Great appreciation must be accorded to old-timers who expended tremendous efforts in laying a solid groundwork for current and future accomplishments. However, the cadre of eager, younger, members stands ready to take over and effect needed changes.

Financially sound, SWST's operational management has been exceptional, primarily due to its officers and executive director. Its major publication, *Wood and Fiber Science*, is the outward public image, as well as being the prized professional organ for presenting results of research, ideas, and solutions to problems. The journal is well established nationally and internationally. The *Newsletter*, published bimonthly, keeps members informed internally.

Unfortunately the apparent clashes of the entire forest products/forestry professional fields with the currently strong declarations and actions of the environmentalists enshroud and hamper our efforts to move forward aggressively in promoting the profession of wood science and technology and its related field of forestry.

Beginning just a little over 100 years ago, forestry and forest products appeared as government functions and the subject of university instruction. This history reviews the genesis, growth, and awakening of a need for a professional organization to further the role that wood plays in the economy. Growing out of the Forest Products Research Society, the Society of Wood Science and Technology began in 1958, and now (1998) celebrates its first forty years.

History tends to emphasize trials and tribulations because of the intensities of combative efforts such problems demand. Occasionally, the view is turned to accomplishments and achieved goals. Under the heading of year 1992-1993, the reader will find a long list of things SWST has done.

An historian can be excused for switching his gaze from the hourglass to the crystal ball. What prognoses can be conjured up? Are there promising examples of advancement and solution to our problems? My answer in the education area is a resounding YES! Despite the loss of at least six former leading schools offering wood science and technology curricula, Virginia Tech, University of British Columbia, particularly, and the Universities of Mississippi, Louisiana, Minnesota, Oregon State, and others offer excellent courses. A special case is that of pulp and paper whose programs are generally healthy, well financed, and well attended. Industry support is widely available, and personnel needs for graduates are planned well in advance. Closely allied with engineering, pulp and paper programs strengthen that aspect of wood science and technology curricula.

Several recent articles dealing with the role of education in wood science and technology reflect the concern for this aspect of our profession (14,15,16,17,18,19).. These several articles discuss the problems, suggest some solutions, and relate trials that have increased the quality of instruction for professional students. Widespread application of these promising efforts will lead to more and better graduates, and a greater contribution to our membership.

A few suggestions to consider:

- Membership -See what has worked temporarily in the past and attack with renewed vigor and optimism. Promote policies that recognize the benefits to society to be derived from harvesting a renewable resource – timber – and build upon public support of such policies to attract students to wood science and technology who will form the core of an expanded membership.
- Environmentalism - Join forces with industry for strong backing, and collaborate with forestry and related fields of natural resources. Get with the media and put forward telling messages.
- Continue cooperation with the Forest Products Society, study areas of common interest, and work together as closely as possible in the broad areas of common interest.
- Increase efforts in continuing education and updating educational programs and curricula. Assess the role of accreditation to make the process productive, not restrictive.
- Investigate foreign involvement through global visits and possible affiliations with international organizations.
- Continue and improve our web page. Check into other electronic publication systems. Check out other information display opportunities.

- Accept the admission of qualified international wood scientists and wood technologists into membership and provide them with opportunities to effectively contribute to SWST.
- Consider the creation and benefits of a "Fellow" membership class.

VII Appendix

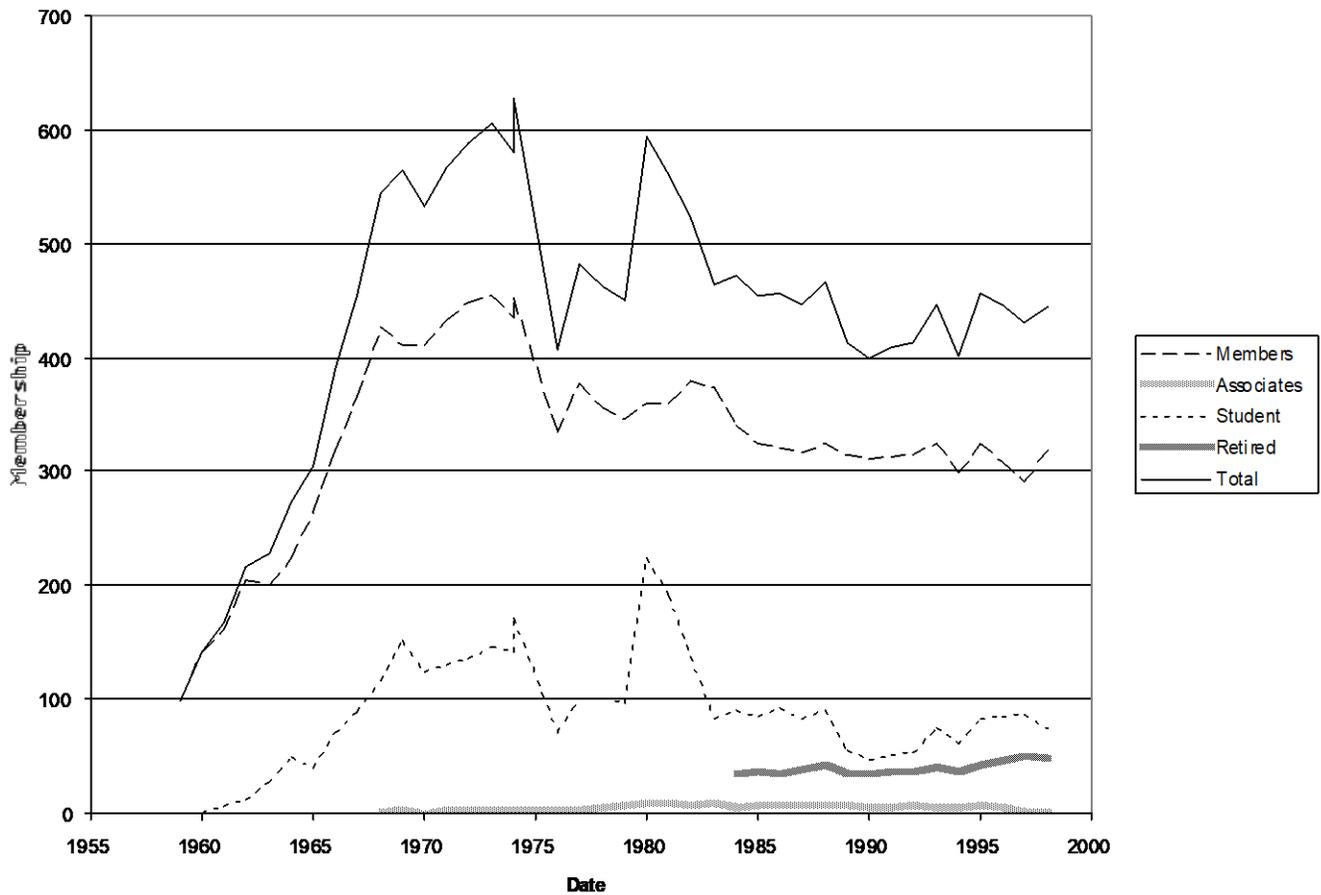
1. Membership

The following table summarizes the trends in membership since the society was formed, plus the number of subscribers to *Wood and Fiber Science*:

<u>Date</u>	<u>Members</u>	<u>Associates</u>	<u>Student</u>	<u>Retired</u>	<u>Total</u>	<u>Subscribers</u>
1959	98		0		98	
1960	142		0		142	
1961	162		5		167	
1962	205		12		217	
1963	201		28		229	
1964	225		49		274	
1965	265		39		304	
1966	319		71		390	
1967	365		89		454	
1968	426	2	116		544	
1969	411	3	151		565	
1970	410	0	123		533	
1971	433	4	130		567	
1972	448	4	136		588	
1973	455	4	146		605	
1974	434	4	142		580	
1974	452	4	172		628	
1976	334	3	70		407	
1977	378	4	100		482	
1978	356	6	100		462	
1979	347	7	96		450	
1980	360	9	224		593	
1981	359	10	191		560	
1982	379	8	137		524	
1983	373	9	83		465	401
1984	340	6	90	36	472	346
1985	325	8	85	37	455	363
1986	320	8	92	36	456	362
1987	316	8	83	40	447	359
1988	325	8	90	43	466	375
1989	315	8	55	35	413	362
1990	310	6	48	36	400	346
1991	313	6	52	38	409	352
1992	314	8	53	37	412	348
1993	325	6	75	41	447	334
1994	298	6	60	38	402	312
1995	324	7	82	43	456	322
1996	308	6	85	48	447	302
1997	291	1	87	52	431	280
1998	319	1	74	50	444	291

The following graph plainly depicts the trends in society membership.

Membership 1958 - 1998



Throughout this history, references have indicated repeated concern about membership and efforts to stimulate growth. The facts are disturbingly stark that little has been accomplished. The underlying problem is not apparent and raises the question – “Is SWST facing up to its membership crisis?” Complacency under the disguise of the pressure of environmentalism and related activities masks SWST’s inaction. It is time for the profession to take pride in its accomplishments instead of being proud of its Journal!

2. Past Officers and Annual Meeting Sites

Past Presidents

1958-59	James S. Bethel College of Forest Resources University of Washington AR-10 Seattle, WA 98195	1973-74	Arno P. Schniewind University of California Forest Products Laboratory 1301 S. 46th Street Richmond, CA 94804
1959-60	Stephen B. Preston (deceased)		
1960-61	James S. Bethel (see above address)	1974-75	Albert N. Foulger 1525 Candlewood Drive Worthington, OH 43235
1961-62	Arthur F. Muschler 55 Yorkshire Woods Oak Brook, IL 60521	1975-76	Eric A. Anderson (deceased)
1962-63	Robert L. Youngs VPI&SU Dept. of Wood Science and Forest Products: Brooks Forest Products Center 210 Cheatham Hall Blacksburg, VA 24061	1976-77	Thomas M. Maloney Washington State University Wood Materials & Eng. Lab. Pullman, WA 99164
1963-64	Stephen B. Preston (deceased)	1977-78	Erwin L. Schaffer 126443 W. Foxfire Drive Sun City West, AZ 85375
1964-65	Fred F. Wangaard 1609 Hillside Drive Fort Collins, CO 80524	1978-79	Robert W. Erickson University of Minnesota Department of Forest Products St. Paul, MN 55108
1965-66	Eric L. Ellwood 4505 Pitt Street Raleigh, NC 27609	1979-80	John H. Brown 1962 Coulter Lane Clarkston, WA 99403
1966-67	Robert J. Hoyle, Jr. 611 19th Avenue Lewiston, ID 83501	1980-81	Helmuth Resch Universitat f. Bodenkultur Holztechnologie Gregor Mendel Str. 33 Vienna, AUSTRIA
1967-68	William T. Nearn 1725 128th Street, SE Bellevue, WA 98005	1981-82	Richard J. Thomas Dept. of Wood & Paper Science North Carolina State University Raleigh, NC 27650
1968-69	Ben A. Jayne Centerwood: 13312 Muir Dr. NW, Gig Harbor, WA 98332	1982-83	Warren S. Thompson 1518 Marilyn Lane Starkville, MS 39759-8763
1969-70	John G. Haygreen 38 Dogwood Trail #3 Dadeville, AL 36853	1983	George G. Marra (deceased while in office)
1970-71	Fred L. Brown, no address	1983-84	Craig E. Shuler Colorado State University Forest Sciences Ft. Collins, CO 80523 (completed Marra's term)
1971-72	Gilbert L. Comstock 3925 Forest Beach Drive Gig Harbor, WA 98335	1984-85	Craig Shuler (see above address)
1972-73	Robert M. Kellogg 2943 Altamont Place West Vancouver, B.C. CANADA V7V 3C3	1985-86	Fred W. Taylor 1108 Friar Tuck Starkville, MS 39759

1986-87	E. Allan McGinnes, Jr. 900 Bourn Avenue Columbia, MO 65203	1993-94	Paul Blankenhorn Pennsylvania State University Forest Resources Laboratory University Park, PA 16802
1987-88	James L. Bowyer University of Minnesota Dept. of Forest Products St. Paul, MN 55108	1994-95	Howard N. Rosen 341 Soapstone Lane Silver Spring, MD 20905
1988-89	J. D. Wellons Georgia-Pacific Corp. 133 Peachtree Street, NE 22nd Floor Atlanta, GA 30303	1995-96	Geza Ifju VPI&SU Dept. of Wood Science and Forest Products 210 Cheatham Hall Blacksburg, VA 24061-0323
1989-90	Donald G. Arganbright Northern Arizona University School of Forestry P.O. Box 15018 Flagstaff, AZ 86011-5018	1996-97	Duane Lyon Mississippi State University Forest Products Lab. P.O. Drawer 9820 Mississippi State, MS 39762-9820
1990-91	James B. Wilson Dept. of Forest Products Oregon State University Corvallis, OR 97331	1997-98	Fred A. Kamke VPI&SU Brooks Forest Products Center 1650 Ramble Road Blacksburg, VA 24061-0503
1991-92	Frank C. Beall Univ. of California at Berkeley Forest Products Laboratory 1301 South 46th Street Richmond, CA 94804	1998-99	J. David Barrett University of British Columbia 2357 Main Mall Faculty of Forestry Vancouver, BC V6T1W5 CANADA
1992-93	A. William Boehner Trus Joist MacMillan P.O. Box 60 Boise, ID 83707		

Date	Past President	President	President Elect	Vice President	Secretary/ Treasurer	Director	Director	Director	Director (3)	Executive (4) Secretary
1958-1959	J.S.Bethel	J.S.Bethel	-----	H.O.Fleischer	R.L.Youngs	F.E.Dickinson	A.J.Panshin	A.F.Muschler-HI		-----
1959-1960	S.B.Preston	S.B.Preston	-----	H.B.McKean	B.A.Jayne	F.E.Dickinson	A.J.Panshin	H.O.Fleischer		H.H.Haskell
1960-1961	J.S.Bethel	J.S.Bethel	B.A.Jayne	R.L.Youngs	J.I.Zerbe	F.E.Dickinson	A.A.Marra	H.O.Fleischer		H.H.Haskell
1961-1962	A.F.Muschler	R.L.Youngs	R.L.Youngs	B.A.Jayne	A.E.Wylie	F.Wanggaard	A.A.Marra	H.O.Fleischer		H.H.Haskell
1962-1963	J.S.Bethel	R.L.Youngs	S.B.Preston	J.R.Stilinger	W.T.Nearm	F.Wanggaard	A.A.Marra	J.I.Zerbe		H.H.Haskell
1963-1964	R.L.Youngs	S.B.Preston	F.F.Wanggaard	W.T.Nearm	D.W.Benseind	W.Thompson	B.A.Jayne	J.I.Zerbe		H.H.Haskell
1964-1965	F.F.Wanggaard	F.F.Wanggaard	E.L.Ellwood	R.J.Hoyle,Jr	H.E.Troxell	F.L.Brown	B.A.Jayne	J.I.Zerbe		H.H.Haskell
1965-1966	E.L.Ellwood	E.L.Ellwood	R.J.Hoyle,Jr	C.Skaar	J.G.Haygreen	F.L.Brown	BA.Jayne	W.K.Murphey		G.L.Comstock
1966-1967	R.J.Hoyle,Jr	W.T.Nearm	W.T.Nearm	B.A.Jayne	J.G.Haygreen	F.L.Brown	H.H.Haskell	W.K.Murphey		AL.Fouler
1967-1968	W.T.Nearm	B.A.Jayne	B.A.Jayne	J.G.Haygreen	CMorschauser	A.Schniewind	H.H.Haskell	W.K.Murphey		AL.Fouler
1968-1969	B.A.Jayne	J.G.Haygreen	J.G.Haygreen	R.M.Carier	G.L.Comstock	A.Schniewind	H.H.Haskell	R.W.Kennedy		AL.Fouler
1969-1970	B.A.Jayne	J.G.Haygreen	F.L.Brown	J.H.Brown	G.L.Comstock	A.Schniewind	H.H.Haskell	R.W.Kennedy		AL.Fouler
1970-1971	J.G.Haygreen	F.L.Brown	G.L.Comstock	M.Kellogg	F.C.Beall	E.T.Choong	IB.Sachs	R.W.Kennedy		EL.Schaffer
1971-1972	F.L.Brown	G.L.Comstock	R.M.Kellogg	A.Schniewind	R.E.Martin	E.T.Choong	IB.Sachs	D.L.Crews		EL.Schaffer
1972-1973	G.L.Comstock	R.M.Kellogg	A.Schniewind	A.Schniewind	R.B.Benvenuti	E.T.Choong	IB.Sachs	D.L.Crews		EL.Schaffer
1973-1974	R.M.Kellogg	A.Schniewind	A.Schniewind	E.-A.Anderson	M.Maloney	H.Resch	D.W.Benseind	D.L.Crews		V.L.Byrd
1974-1975	A.Schniewind	A.N.Fouler	E.A.Anderson	M.Maloney	H.E.Walgren	H.Resch	D.W.Benseind	K.R.Peterson		V.L.Byrd
1975-1976	A.N.Fouler	E.A.Anderson	T.M.Maloney	E.L.Schaffer	R.W.Erickson	H.Resch	D.W.Benseind	K.R.Peterson		W.F.Lehmann
1976-1977	E.A.Anderson	T.M.Maloney	E.L.Schaffer	R.W.Erickson	J.H.Brown	H.Resch	D.W.Benseind	K.R.Peterson		W.F.Lehmann
1977-1978	T.M.Maloney	E.L.Schaffer	R.W.Erickson	J.H.Brown	H.Resch	H.Resch	D.W.Benseind	K.R.Peterson		W.T.Simpson
1978-1979	E.L.Schaffer	R.W.Erickson	J.H.Brown	H.Resch	J.A.Johnson	E.McGinnes Jr	H.D.Turner	K.R.Peterson		W.T.Simpson
1979-1980	R.W.Erickson	J.H.Brown	H.Resch	K.R.Peterson	F.W.Taylor	E.McGinnes Jr	H.D.Turner	K.R.Peterson		W.T.Simpson
1980-1981	J.H.Brown	H.Resch	R.J.Thomas	R.J.Thomas	M.O'Halloran	M.W.Kelly	H.D.Turner	K.R.Peterson		J.T.Quirk
1981-1982	H.Resch	R.J.Thomas	W.Thompson	F.C.Beall	M.W.Kelly	M.W.Kelly	H.D.Turner	K.R.Peterson		J.T.Quirk
1982-1983	R.J.Thomas	W.Thompson	G.Marra	E.McGinnes Jr	C.E.Shuler	M.W.Kelly	H.D.Turner	K.R.Peterson		J.T.Quirk
1983-1984	W.Thompson	G.G.Marra(1)	C.E.Shuler	Ramsay Smith	Ramsay Smith	A.B.Brauner	H.D.Turner	K.R.Peterson		J.T.Quirk
1984-1985	-----	C.E.Shuler	F.W.Taylor	K.McDonald	D.W.Green	A.B.Brauner	H.D.Turner	K.R.Peterson		V.L.Claas
1985-1986	C.E.Shuler	F.W.Taylor	E.McGinnes Jr	J.L.Bowyer	J.D.Wellons	W.T.Simpson	W.J.Groah	R.J.Thomas		----- (5) -
1986-1987	F.W.Taylor	E.McGinnes Jr	J.L.Bowyer	J.L.Wellons	P.Blankenhorh	D.Arganbright	W.J.Groah	R.J.Thomas		V.L.Claas
1987-1988	E.McGinnes Jr	J.L.Bowyer	J.D.Wellons	D.Arganbright	J.R.Nofsinger	J.Nofsinger	W.L.Lehman	R.F.Pellerin		V.L.Claas
1988-1989	J.L.Bowyer	J.D.Wellons	D.Arganbright	J.B.Wilson	R.L.Krahmer	R.L.Krahmer	W.L.Lehman	R.F.Pellerin		V.L.Claas
1989-1990	J.D.Wellons	D.Arganbright	J.B.Wilson	F.C.Beall	B.E.Cutter	B.E.Cutter	W.L.Lehman	R.F.Pellerin		V.L.Claas
1990-1991	Darganbright	J.B.Wilson	F.C.Beall	W.Boehner	F.A.Kamke	F.A.Kamke	W.L.Lehman	R.F.Pellerin		V.L.Claas
1991-1992	J.B.Wilson	F.C.Beall	A.W.Boehner	P.Blankenhorh	R.E.Adams	R.E.Adams	W.L.Lehman	R.F.Pellerin		V.L.Claas
1992-1993	F.C.Beall	A.W.Boehner	P.Blankenhorh	H.N.Rosen	JoyceLum	JoyceLum	W.L.Lehman	R.F.Pellerin		V.L.Claas
1993-1994	A.W.Boehner	P.Blankenhorh	H.N.Rosen	Geza Ifju	H.M.Barnes	H.M.Barnes	W.L.Lehman	R.F.Pellerin		V.L.Claas
1994-1995	P.Blankenhorh	H.N.Rosen	Geza Ifju	Duane Lyon	S.M.Shaler	S.M.Shaler	W.L.Lehman	R.F.Pellerin		V.L.Claas
1995-1996	H.N.Rosen	Geza Ifju	Duane Lyon	F.A.Kamke	Ramsay Smith	Ramsay Smith	W.L.Lehman	R.F.Pellerin		V.L.Claas
1996-1997	Geza Ifju	Duane Lyon	F.A.Kamke	J.D.Barrett	SusanWillits	SusanWillits	W.L.Lehman	R.F.Pellerin		V.L.Claas
1997-1998	Duane Lyon	F.A.Kamke	J.D.Barrett	T.F.McLain	F.G.Wagner	F.G.Wagner	W.L.Lehman	R.F.Pellerin		V.L.Claas
1998-1999	F.A.Kamke	J.D.Barrett	T.F.McLain	W. R. Smith	H.P.Layton	H.P.Layton	W.L.Lehman	R.F.Pellerin		V.L.Claas

(1) George G. Marra died in office and was succeeded by Craig Shuler.
(2) The office of Secretary Treasurer was replaced with Executive Secretary.
(3) Authorization of four Directors was made in 1985.
(4) The Executive Secretary became Executive Director in 1986.
(5) Position of Executive Director from 1985-1998 filled by V.L.Claas Herian.

Annual Meeting Sites

<u>Date</u>	<u>Location</u>	<u>Date</u>	<u>Location</u>
1958	Madison, WI	1980	Boston, MA
1959	San Francisco, CA	1981	St. Paul, MN
1960	Montreal, PQ, Canada	1982	New Orleans, LA
1961	Louisville, KY	1983	Norfolk, VA
1962	Spokane, WA	1984	St. Louis, MO
1963	New Orleans, LA	1985	Orlando, FL
1964	Chicago, IL	1986	Spokane, WA
1965	New York, NY	1987	Louisville, KY
1966	Minneapolis, MN	1988	Quebec City, PQ, Canada
1967	Vancouver, BC, Canada	1989	Reno, NV
1968	Washington, DC	1990	Salt Lake City, UT
1969	San Francisco, CA	1991	New Orleans, LA
1970	Miami Beach, FL	1992	Charleston, SC
1971	Pittsburgh, PA	1993	Clearwater Beach, FL
1972	Dallas, TX	1994	Portland, ME
1973	Anaheim, CA	1995	Portland, OR
1974	Chicago, IL	1996	Minneapolis, MN
1975	Portland, OR	1997	Vancouver, BC, Canada
1976	Toronto, Ontario, Canada	1998	Merida, Yucatan, Mexico
1977	Denver, CO	1999	Boise, ID
1978	Atlanta, GA		
1979	San Francisco, CA		

3. Directory of Institutions**

Programs in Canada

BRITISH COLUMBIA

Department of Wood Science
Forest Sciences Centre
4th Floor, 2424 Main Mall
University of British Columbia
Vancouver, British Columbia
CANADA V6T 1Z4

NEW BRUNSWICK

Faculty of Forestry and Environmental Management
University of New Brunswick
P.O. Box 44555
Fredericton
New Brunswick
CANADA E3B 6C2

ONTARIO

Faculty of Forestry/Graduate
Department of Forestry
University of Toronto
33 Willcocks Street
Toronto, Ontario
CANADA M5S 3B3

QUEBEC

Department of Wood and Forest Science
Faculty of Forestry and Geomatics
Universite Laval
Quebec, CANADA G1K 7P4

Programs in the United States

ALABAMA

School of Forestry
Auburn University
Auburn, Alabama 36849-5418

CALIFORNIA

Forest Products Laboratory
University of California
1301 South 46th Street
Richmond, California 94804

GEORGIA

D. B. Warnell School of Forest Resources
University of Georgia
Athens, Georgia 30602

** Source: The SWST web site

IDAHO

Department of Forest Products
College of Forestry, Wildlife and Range Sciences
University of Idaho
Moscow, Idaho 83844-1132

ILLINOIS

Department of Natural Resources and Environmental Sciences
W-503 Turner Hall
1102 South Goodwin Avenue
University of Illinois
Urbana, Illinois 61801

Department of Forestry
Southern Illinois University at Carbondale
Mailcode 4411
Carbondale, Illinois 62901-4411

INDIANA

Department of Forestry and Natural Resources
Purdue University
West Lafayette, Indiana 47907-1200

IOWA

Department of Forestry
Iowa State University
Ames, Iowa 50011

KENTUCKY

Department of Forestry
University of Kentucky
Lexington, Kentucky 40546-0073

LOUISIANA

School of Forestry, Wildlife, and Fisheries
Louisiana State University
Baton Rouge, Louisiana 70803

School of Forestry
Louisiana Tech University
P.O. Box 10138
Ruston, Louisiana 71272-0045

MAINE

Wood Science and Technology Program
5755 Nutting Hall
College of Natural Resources, Forestry and Agriculture
University of Maine
Orono, Maine 04469-5755

MASSACHUSETTS

Wood Science and Technology
Department of Forestry and Wildlife
Management
University of Massachusetts
Amherst, Massachusetts 01003

MICHIGAN

Institute of Wood Research
School of Forestry and Wood Products
Michigan Technological University
Houghton, Michigan 49931

Department of Forestry
Michigan State University
East Lansing, Michigan 48824-1222

MINNESOTA

Department of Forest Products
2004 Folwell Avenue
University of Minnesota
St. Paul, Minnesota 55108-1305
Accredited - SWST

MISSISSIPPI

Department of Forest Products
Mississippi State University
P.O. Box 9820
Mississippi State, Mississippi 39762 –9820
Accredited - SWST

MISSOURI

School of Natural Resources
University of Missouri - Columbia
1-30 Agriculture Building
Columbia, Missouri 65211

NEW YORK

Wood Products Engineering
SUNY College of Environmental Science and Forestry
1 Forestry Drive
Syracuse, New York 13210-2786

NORTH CAROLINA

Department of Wood and Paper Science
North Carolina State University
Box 8005
Raleigh, North Carolina 27695-8005

OREGON

Department of Forest Products
Oregon State University
Forest Research Laboratory 105
Corvallis, Oregon 97331-7402

PENNSYLVANIA

Wood Products Program Chairman
School of Forest Resources
Forest Resources Laboratory
Pennsylvania State University
University Park, Pennsylvania 16802

SOUTH CAROLINA

Faculty of Forest Products
College of Agriculture, Forestry and Life Sciences
Clemson University
261 Lehotsky Hall
Clemson, South Carolina 29634-1003

TENNESSEE

Department of Forestry, Wildlife and Fisheries
The University of Tennessee
P.O. Box 1071
Knoxville, Tennessee 37901-1071

VIRGINIA

Department of Wood Science and Forest Products
210 Cheatham Hall
Virginia Tech
Blacksburg, Virginia 24061-0323

WASHINGTON

Wood Materials and Engineering Laboratory
Washington State University
Pullman, Washington 99164-1806

College of Forest Resources AR-10
University of Washington
Seattle, Washington 98195

WEST VIRGINIA

West Virginia University
Division of Forestry
P.O. Box 6125
Morgantown, West Virginia 26506-6125

WISCONSIN

University of Wisconsin - Madison
Department of Forestry
1630 Linden Dr.
Madison, Wisconsin 53706

College of Natural Resources
University of Wisconsin-Stevens Point
Stevens Point, Wisconsin 54481-3897

Discontinued Programs

Since the mid-sixties, the following programs have ceased to function:

Colorado State University
Duke University
Florida State University
Montana State University
University of Michigan
University of Utah
University of Washington
Yale University

Most likely, several other institutions currently offering limited, special, advanced degrees in Wood Science and Technology will not continue as staffs retire and funding becomes problematical.

4. Preparatory Course Content

To qualify for membership in SWST one must take a prescribed baccalaureate degree in wood science and technology offered by one of thirty-odd universities in the U.S.. Programs are accredited when certain standards and qualifying curricula are examined and approved. Such programs must have been offered for at least five years and must meet, or exceed, minimum requirements of program objectives, curriculum, school, faculty, academic services to students, parent institution, physical resources and facilities, and faculty research.

Because all undergraduate teaching programs in wood science and technology are related administratively to academic units concerned with forestry education, the accreditation exercise is carried out in conjunction with that in forestry. Each case is considered on its own merits and judgment is based on total assessment of program and its environment for stimulating intellectual and professional development and growth. Further details are given in a publication entitled -"Standards and Procedures for Accreditation" available from the Executive Director.

Each professional curriculum must contain in semester hours, or the equivalent quarter hours, equal, or greater, coverage than the minimum set forth below:

<u>STUDY AREA</u>	<u>Hours</u>	<u>Semester Credit Hours</u>
Basic Sciences Mathematics, chemistry, physics, biological sciences		14
Basic Skills Communication, computers, statistics, engineering		12
Wood Science and Technology*		21
Basic Wood Properties Chemical, physical, mechanical, and anatomical properties of wood	6	
Wood Processing and Manufacturing** Physical and chemical production processes including harvesting, saw-milling, drying, machining, preservation, chemical processing, pulp and paper, composites, and secondary wood manufacturing	6	
Other Wood Related Courses *** Procurement, marketing, distribution and sales of wood products, wood construction and design, etc	19	
Area of Professional Emphasis		18
<u>TOTAL</u>		<u>65</u>
<p>* Of the required 21 semester hours in Wood Science and Technology, a minimum of 6 hours must be in the area of Wood Properties and 6 hours in Wood Processing and Manufacturing. Courses presenting material from more than one area will divide credit hours based on the percentage of lectures/labs hours in each area.</p> <p>** The required 6 hours in Wood Processing and Manufacturing must include courses in different subject areas.</p> <p>*** No more than 6 hours shall be in any one subject area.</p>		

In addition to the courses listed, the program must contain elements of a broad education; written and common oral communications, mathematics, computers, biological, social, and physical sciences, and the humanities. These may include university-wide education exposure in: languages, exposition, humanities, and appropriate economics. A degree of personal choice should be offered. Such programs require a full four years at normal student credit load.

5. Awards **

George G. Marra Award

Guidelines and Procedures

1. Award recognizes excellence in research and writing.
2. Papers considered are those published in the four quarterly issues of one volume of *Wood and Fiber Science*. The first place award consists of the following:
 - a. \$1000 to the author(s) (provided by the Marra family).
 - b. A plaque to the sponsoring firm or institution.
 - c. Plaque(s) to the author(s).

The second place award, if warranted, will consist of plaque(s) to the author(s) and a plaque to the sponsoring firm or institution. Up to two other papers may be selected for honorable mention, for which a certificate(s) will be awarded.

4. Presentation of the awards will take place at the annual meeting.
5. The selection committee will be appointed by the President.
6. The selection committee will consist of at least three members, one of whom will be designated the chair by the President. One member will be selected from each of the areas of the private sector, industry, government, and academia. A committee member with a paper being considered for an award, must abstain from voting on his/her paper.
7. Committee responsibilities are as follows:

- a. Individually "score" all papers in the volume using George Marra's judging criteria

30 pts Research quality
Complexity of the problem
Originality
Impact on present knowledge of the subject

30 pts Clarity and completeness of the introductory section
Objective
Introduction
General procedures

20 pts Conclusion, recognition and literature
Conclusion that speaks to objective
Recognition of important assistance received
Command of the literature

20 pts Clarity of exposition; i.e., understandable to those in other specialties)

- b. Committee chair will rank papers based on average score obtained from combining each member's scores.
 - c. Each member re-review and rank the four papers with the highest combined scores.
 - d. Combine reviews and select the first and second (if warranted) place papers and those for honorable mention (if any).
8. The chair will report the selection of the winning paper(s) to the President by 90 days prior to the SWST Annual Meeting.

** Source: The SWST web site

Recipients

1986	Kirk Nadler, Elvin Choong, David Wetzel; 17(3)
1987	Michael Thurmond, Frank Woeste, David Green; 18(1)
1988	Leslie Groom and Anton Polensek; 19(3)
1989	Terrence E. Connors and Thomas E. McLain; 20(2)
1990	Philip Humphrey and Larry Ostman; 21(3) First Place
	Irving Sachs, Gary Myers, and Gary Leatham; 21(4) Second Place
1991	M. P. Wolcott, F. A. Kamke, and D. A. Dillard; 22(4) First Place
	William T. Simpson and Yi-Fu Tan; 22(1) Second Place
1992	David W. Green and David E. Kretschmann; 23(3) First Place
	Steven E. Taylor and Donald A. Bender; 23(4) Second Place
	Michael L. Hoag and Robert L. Kraemer; 23(1) Honorable Mention
1993	David E. Kretschmann and B. Alan Bendtsen; 24(2) First Place
	Charles B. Vick and Thomas E. Kuster; 24(1) Second Place
	Kelly LaFavre and Rafik Y. Itani; 24(1) Honorable Mention
1994	Chungping Dai and Paul Steiner; 25(4) First Place
	Jerrold Winandy and Jeffrey Morrell; 25(3) Second Place
	David Ritter, Robert Kroll, and Roland Gertjensan; 25(2) Honorable Mention
1995	M.P. Wolcott, F. A. Kamke, and D. A. Dillard; 26(4) First Place
	Paul A. Cooper and Dibyendu N. Roy; 26(3) Second Place
1996	Charles B. Vick, Klaus Richter, Bryan H. River, and Albert R. Fried, Jr.; 27(1) First Place
	Stan T. Lebow and Jeffrey J. Morrell; 27(2) Honorable Mention
	Thomas D. Skaggs and Donald A. Bender; 27(3) Honorable Mention
1997	Laurence Mott, Stephen M. Shaler, and Leslie H. Groom; 28(4) First Place
	Greg C. Foliente, Mahendra P. Singh, and J. Daniel Dolan; 28(1) Second Place
	Barbara L. Gartner; 28(1) Honorable Mention
1998	John W. Stelmokas, Audrey G. Zink, and Joseph R. Lofreski; 29(3) First Place
	Stefan Zauscher and Philip E. Humphrey; 29(1) Second Place
	Ying H. Chui and Chun Ni; 29(2) Honorable Mention
	Dongjin Song and Simon Ellis; 29(4) Honorable Mention

Distinguished Service to SWST Award

Guidelines and Procedures

This award is made by the SWST in recognition of distinguished service to the profession as a whole. Such service may have been made in any educational, technological, scientific or professional area directly related to the profession of Wood Science and Technology in furtherance of the objectives of the Society as outlined in its Constitution and Bylaws.

The recipient of this award will receive an appropriate plaque to commemorate this event; life membership in the Society; and a citation in *Wood and Fiber Science*. When appropriate, he shall be asked to deliver a paper on some aspect of his/her work or interests at a time and place to be agreed upon between the Executive Board of the Society and the recipient.

A nominee for this award is not required to be a member of SWST, but must be endorsed by at least ten (10) members who are in good standing. The nomination must be made to the Executive Board of the Society through the Past Presidents' Council. It must be accompanied by a complete background of the nominee's accomplishments, contributions, and services to the profession of WS&T as outlined above. These should be broad-based and substantial in nature as to render a nominee, if finally selected to receive this honor, to be a person of recognizable stature in the minds of the membership of the Society. In general, recipients of this honor will be people who have reached high levels of attainment. However, age limits and requirements of service to the Society itself are not to be considered limitations of this award.

A committee composed of the five previous past presidents will function annually to examine the credentials of nominees worthy of this award and to make appropriate recommendations to the Executive Board

based on their judgment. This committee will also function as a search committee, nominating candidates according to the above guidelines. The committee will submit its recommendations, including the documentation to the Chairman of the Past Presidents' Council, who will then canvas the Councils' membership, either by mail or at an annual meeting of the Council for their approval. The Chairman will then transmit the recommendation of the Council to the Executive Board. The Executive Board is solely responsible for the final selection of the recipient of the Award and is not bound by the recommendation of the Council. However, the Council, being composed of past presidents of the Society, will have much historical background to offer and its recommendations should be carefully weighed by the Board.

Recipients

1966	Harry Tiemann
1980	Jim Bethel
1981	George Garratt
1982	Alexis Panshin
1983	Herbert McKean
	Alfred Stamm
	Fred Wangaard
	Herbert Fleischer
	Frank Kaufert
	Fred Dickinson
1984	George Marra
1985	John Haygreen
1986	Christen Skaar
1987	Peter Koch
1988	Stanley Suddarth
1989	Robert L. Youngs
1990	Wilfred A. Cote
1991	Charles Berolzheimer
1992	Stephen B. Preston
1993	Robert W. Kennedy
1994	William T. Nearn
1995	Arno P. Schniewind
1996	E. Allen McGinnes
1997	Warren S. Thompson
1998	Everett L. Ellis
	Steven A Sinclair (:Posthumously)

International Professional Visitations

1992	Fred Kamke	Austria
	Doug Stokke	Asia
1993	Michael Hoag	United Kingdom
		Switzerland
		Germany
1994	Stephen Shaler	Mainland China
1995	None	
1996	None	
1997	Elvin T. Choong	China
	John Wang	China
1998	John N. Saddler	New Zealand and Australia

SWST Student Poster Competition

1995	1st Place - Audimar P. Bangi, Clemson University
	2nd Place - Hung Chen, University of Minnesota
1996	1st Place - Robert G. Schmidt, Virginia Tech
	2nd Place - Laura K. Brantley, Washington State University
1997	1st Place - Stefan Zauscher, University of Wisconsin
	2nd Place - Anthony A.R. Lukindo, University of Minnesota
1998	1st Place – Milan Sernek, University of Ljubljana, Slovenia
	2nd Place – Chris K. Andrews, University of Tennessee

6. Code of Ethics**

These canons are adopted by the Society of Wood Science and Technology and are intended to guide the professional conduct of members of the Society in their relations with the public, their employers, and each other. Compliance with these canons helps to assure just and honorable professional and human relationships, mutual confidence and respect, and competent service to society.

CANONS

1. Members will strive to protect the safety, health and welfare of the public in the performance of professional assignments.
2. Members will inform the public truthfully about wood, the wood-based industries, and the profession of wood technology, and will discourage misrepresentation.
3. Members will base public statements, including those made as an expert witness, on knowledge or honest opinion and will indicate sources of information when necessary. Furthermore, the member will indicate on whose behalf the statements are made.
4. Members will support the conservative use of natural resources and will strive for increased efficiency within the industry.
5. Members must avoid conflicts of interest and will inform an employer of possible conflicts with vendors, contractors or consulting clients, and will avoid double payment for the same service.
6. Members will not disclose the business affairs or processes of present or past employers without proper consent.
7. Members will perform only those services for which they are qualified. Members will engage, or advise employers to engage, other experts and specialists in Wood Science and Technology or related fields whenever the employer's interest would be best served by such action, and members will work cooperatively with other professionals.
8. Members who become aware of activities which deviate from accepted professional standards must advise the appropriate people of the consequences of such deviation.
9. Members will support the profession by sharing information and experiences with other members through attendance at technical meetings, publication, participation in SWST affairs and cooperation with educators.
10. Members will properly assign credit for original work and will give credit for the methods, ideas or assistance obtained from others.
11. Members in competition for supplying services will encourage the prospective employer to base selection on comparison of qualifications and negotiation of fee or salary. A member will not endeavor to supplant another known to have been engaged.
12. Members will not by false statement or dishonest action injure the reputation or professional associations of another member.

Adopted June 1993

** Source: The SWST web site

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