W. Alfred Hayes, WU Alumnus
And Life Trustee, Dies

W. Alfred Hayes, WU alumnus, generous benefactor, and life trustee, died Thursday, Dec. 4 at St. Luke’s Hospital West. Private funeral services have been held for the 75-year-old Hayes who built a business empire that included his own insurance and pension consultant firm, W. Alfred Hayes & Co., St. Louis.

Paying tribute to his achievements and life-long devotion to WU, the University’s Board of Trustees passed a resolution which expressed sorrow for his loss and sympathy to his family. It declared that “the members of this University community will miss him as a friend and valued colleague.”

The resolution carefully enumerated significant milestones in his career and stressed his service to WU. It pointed out that Hayes “was a very successful student and one of the greatest athletes in the history of WU.” It also stated that “he was responsible for the development of Whittemore House, the major growth of the William Greenleaf Eliot Society, and was deeply concerned with improving athletic facilities.”

This eloquent resolution was underscored by Chancellor William H. Danforth who characterized Hayes “as one of this University’s most loyal and dedicated supporters. He was,” Danforth added, “a faithful friend who was deeply committed to the goals and objectives of this institution. We honor his many contributions and shall never forget his outstanding service on behalf of WU.”

Hayes himself was an outspoken advocate of WU, who once said with great sincerity, “I love Washington University, and I’d do anything for it.” On another occasion he commented, “The University gave me the start that I needed and I am grateful.”

His long association with WU began in 1923, when, after graduating from Clayton High School, he enrolled as a student intent upon becoming a lawyer. At Clayton, Hayes starred in baseball, basketball and football, and was president of his senior class. Awarded an academic scholarship to WU, he became a star quarterback here although he was the shortest man on the team. Hayes was also on the track team and set a WU record in 1927 for the broad jump.

Hayes left the University that year, after marrying Dorothy Ethel Oth, and never returned for his degree. Organizing his own insurance company, he built it into a nationally recognized company. He prospered and became a life member of the Million Dollar Round Table. At the time of his death, he was chairman of the board of his firm, W. Alfred Hayes & Co., which specializes in providing actuarial services for cities, banks, continued on p. 3

John L. Kardos, WU professor of chemical engineering, peers through a traveling microscope to check the progress of a “creep” test. The strips of plastic are biomaterials which have been stretched with weights for nearly two years.

Engineers “Speed Up” Time At Materials Research Lab

Engineers call it “achieving long-term behavior from short-term data,” but an outsider might view the equipment in Sever, Bryan and Urbauer halls almost as “time machines” into the future.

There, events which might normally take 18 months to happen can be made to occur in a mere two hours. This feat is accomplished when new plastics and other materials are fatigue-tested for strength and durability. With special machines, many custom-built by WU researchers, materials are stretched, jostled, heated, cooled and subjected to wide variations in pressure to evaluate quickly their potential for industrial and biomedical uses.

Control tests which simulate normal wear and tear on materials over much longer periods of time can be run side by side with the accelerated tests.

“It’s a booming field,” said John L. Kardos, WU professor of chemical engineering and director of the Materials Research Laboratory. He said new materials such as fiber-reinforced and special rubber-like plastics are being used in everything from cars, trucks and spacecraft to fishing rods, industrial pipes and even artificial blood vessels.

Kardos heads an investigative team which recently received a three-year, $458,000 renewal contract from the National Institutes of Health. Under the contract, WU researchers are developing and testing new biomaterials for heart and circulatory devices. The researchers will concentrate on perfecting materials for a battery-powered blood pump which could be implanted for three months or longer in patients recovering from open-heart surgery.

According to Kardos, an industrial consultant, many of the same design principles used for biomaterials are also used for industrial materials. For example, a high pressure pipe to
Female Leadership, Middle Age Are Topics for Author Coburn

For the cover of the Japanese edition of Karen L. Coburn's first book, *The New Assertive Woman*, a distant publisher chose an illustration of a woman with stark white skin, cherry-red cheeks and ebony hair piled high on her head, all on a bright pink background. Coburn, coordinator of career planning at WU, still wonders what they did to the inside.

The book was published in 1975 by Coburn and collaborators Lynn Z. Bloom, a former St. Louisan now teaching English at William and Mary College, and Joan C. Pearlman, codirector of women's programs at the University of Missouri, St. Louis. Including its German edition, the book has sold over 350,000 copies.

Recently, Coburn helped complete two very different projects, both about women. Just published last month is *Hitting Our Stride: Good News About Women in the Middle Years*, a 250-page volume of vignettes and commentary on issues confronting middle-aged women. Coburn's other opus is a teaching module on assertion, part of the four-part DICEL (Developing Interpersonal Competencies in Educational Leadership) project. Produced with a two-year U.S. Office of Education grant through the University of Cincinnati, the DICEL project is a comprehensive, interrelated collection of curricular materials to be used to prepare women for leadership roles in education.

Following the success of *The New Assertive Woman*, Coburn, Pearlman and Joan Z. Cohen, currently a St. Louis University law student, set out to write another book, *Hitting Our Stride*, to counter the “bad press” about middle-age women. Coburn's other opus is a teaching module on assertion, part of the four-part DICEL (Developing Interpersonal Competencies in Educational Leadership) project. Produced with a two-year U.S. Office of Education grant through the University of Cincinnati, the DICEL project is a comprehensive, interrelated collection of curricular materials to be used to prepare women for leadership roles in education.

While writing *Hitting Our Stride*, Coburn was also writing, *Female Leadership, Middle Age Are Topics for Author Coburn*.

One common theme the authors found was that expectations about aging were much worse than the reality. Anticipating menopause, for instance, was harder for many women than experiencing it; freedom from worry about pregnancy was a welcome benefit. The women were also overwhelmingly positive about children leaving home. They were anxious and ready to go on with the next stage of their lives.

In one particularly intriguing part of the book, three women talked extensively and candidly about their lives. One of those interviewed was Marjorie Guthrie, a dancer who was widowed twice, once by the late folk singer Woody Guthrie.

While writing *Hitting Our Stride*, Coburn was also writing, *Female Leadership, Middle Age Are Topics for Author Coburn*.

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Scholar Asks Aesthetic Question—
When Does Art Become Non-Art?

Lucian Krukowski is one of a number of scholars who have bridged traditional academic boundaries and are preoccupied with interdisciplinary issues. His concern as a professor in the philosophy department is with aesthetic values and their relationships to art.

This theme was dominant in his dissertation on The Attribution of ‘Art’ to Objects, which he completed three years ago in fulfilling his requirements for a doctoral degree in philosophy at WU, and it continues to surface in learned papers which he prepares for delivery or for professional journals.

This thesis was the subject of his article, “A Basis for Attributions of Art,” published in the Journal of Aesthetics and Art Criticism this year. It prompted the American Society for Aesthetics to recommend that Krukowski be awarded a travel grant from the American Council of Learned Societies to participate in the Ninth International Congress of Aesthetics, held last August in Dubrovnik, Yugoslavia.

This ACLS grant, one of only six awarded to American scholars, enabled him to deliver a paper there on “Can an Art-Work Cease Being Art?” This subject was the focus of a paper which he delivered to the American Society for Aesthetics in Milwaukee in October and is one issue considered in a book on which he is presently working.

Central to this discussion is Krukowski’s conviction that the status of artwork is “conventional rather than either natural or transcendental,” and that there are three conditions under which artworks can lose their status as art per se.

In his view, art can become non-art when it (1) is unfinished; (2) concludes; or (3) is redefined by other, more pressing accounts. In the first instance, Krukowski argues that if an artist revises a work after it has been exhibited, catalogued, and reviewed, “this change constitutes a termination of its original status and results in a different work.”

In discussing works of art which “conclude,” he refers to environmental artworks by Richard Serra and the late Eva Hesse. When Serra gathers up the metal-blocks which constitute one of his floor pieces, or when a construction of Hesse’s was disassembled, Krukowski contends that these works, like unscored musical improvisations, “come to an end.”

Under terms of the third category, Krukowski is concerned with instances in which “other descriptions replace the aesthetic description.” He refers to recent works “variously known as ‘performance pieces’ or ‘body art’ which test the distinction between illusion and reality.” If this boundary is overstepped, an artwork may cease being art, “because it is then more appropriately and cogently understood in other, non-aesthetic ways.”

This kind of reasoning, Krukowski observed, supports the possibility, as the eminent philosopher Nelson Goodman suggests, “that the old question, ‘What is art?’ should be replaced with a new one, ‘When is art?’”

Apply Now for Sussex

Applications are being accepted for the WU Year Abroad at Sussex, England, study program. The deadline is Feb. 1. See Abigail Tom, overseas program advisor at the International Office, Six House, for details.

Faculty Notes

Carlos A. Perez, professor of radiology at the WU School of Medicine and director of the Division of Radiation Oncology at Mallinckrodt Institute of Radiology, was recently elected President of the American Society of Therapeutic Radiologists at its annual meeting in Dallas, Tex. Perez has been director of the Division of Radiation Oncology since 1976.

Fred J. Rosenbaum, professor of electrical engineering, has been elected president of the Microwave Theory and Techniques Society of the Institute of Electrical and Electronics Engineers.

Egon Schwarz, Rosa May Distinguished Professor in the Humanities and WU professor of German, will spend the spring semester at the Center for Interdisciplinary Studies, University of Bielefeld, West Germany, where he will join a group of distinguished philosophers and historians who have been engaged since September in an extensive study of utopias. Scholars at the center hold weekly group meetings and present papers at three community-wide conferences. Schwarz will lecture on “American Utopian Communities” and “Utopia in Science Fiction.”

Donald L. Snyder, professor and chairman of electrical engineering, has been elected president of the Information Theory Group of the Institute of Electrical and Electronics Engineers.

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large corporations, and “to WU free of charge,” as he stated a few years ago.

While establishing his successful business, he also organized and played quarterback for the old St. Louis Blues semiprofessional football team. Hayes had many other interests which led him to enter the chemical business, advertising production, oil leasing and drilling, aircraft leasing and the production and marketing of a motion picture.

Together with others, he organized Old Warson Country Club and engaged the famous designer, Robert Trent Jones, to lay out its 18-hole championship course. It was the site of the 1971 Ryder Cup matches. He put the same talents to use as founder of the St. Louis Club in Clayton. Elected a member of the University’s Board of Trustees in 1966, he spearheaded the organization of the University’s Faculty Conference Center and its facilities at Whittemore House. Hayes raised $150,000 for Whittemore House by selling charter memberships. He took great pride in its establishment and was fond of pointing out that “its kitchen is one of the most efficient food service facilities in the city.”

Hayes served as chairman of a major division of the University’s Seventy by Seventy campaign and as president of its William Greenleaf Eliot Society, comprised of those who contribute at least $1000 a year to WU. He received a WU Alumni Citation in 1968. At the time of his death, Hayes was a member of a WU task force concerned with student affairs.

A generous contributor to WU, he was widely known for his philanthropy and as a noted civic and community leader.

Survivors besides his wife are a son, W. Alfred Hayes Jr., president of W. Alfred Hayes & Co., who attended WU for a year before transferring to the University of Virginia; a daughter, D. Marilyn Hayes Burchfiel of La Jolla, Calif., who earned the AB degree from WU in 1949; six grandchildren; three great-grandchildren; and a brother, Arthur H. Hayes.

Contributions in Hayes’s memory may be made to the WU athletic program.
**Calendar**

**December 12-18**

**Friday, Dec. 12**
- 4 p.m. Faculty of Arts and Sciences Meeting. 201 Crow.
- 8 p.m. School of Fine Arts Visiting Artist Illustrated Lecture by Ken Ferguson, ceramist, Kansas City Art Inst. Steinberg Hall Auditorium.

**Saturday, Dec. 13**
- 9 a.m. Neural Sciences Program Lecture, "The Schwann Cell," Richard P. Bunge, WU prof. of anatomy and neurobiology, 928 McDonnell Medical Sciences Bldg., 4570 McKinley.
- 2 p.m. Women's Society Christmas Party for International students. Six International House. 6470 Forsyth Blvd.
- 7 p.m. Kwance Festival. Sponsored by the Assoc. of Black Students. Mallinkrodt Cafe. For details, call Ex. 5989.

**Monday, Dec. 15**

**Tuesday, Dec. 16**
- 4 p.m. Division of Cellular and Molecular Biology Lecture, "Using Light to Study Nucleoprotein Assemblies," Charles Cantor, prof. of chemistry, Columbia U. Erlanger Aud., McDonnell Medical Sciences Bldg., 4570 McKinley.

**Wednesday, Dec. 17**
- 4 p.m. Department of Microbiology Seminar, "Processing of RNA," Bimal K. Ray, WU research assoc. in microbiology and immunology. 509 McDonnell Medical Sciences Bldg., 4570 McKinley.

**Thursday, Dec. 18**
- 4 p.m. Division of Neurosciences Lecture, "The Neural Control of the Menstrual Cycle," Ernst Knobil, chairman, dept. of physiology, School of Medicine. U. of Pittsburgh, Erlanger Aud., McDonnell Medical Sciences Bldg., 4570 McKinley.

**Music**

**Sunday, Dec. 14**

**Performing Arts**

**Saturday, Dec. 13**
- 11 a.m. and 2 p.m. Edison Theatre Presentation, "Do You Love Me Still (or Do You Love Me Moving?)," Metro Theatre Cirrus, a children's theatre company. Edison Theatre. General admission $2.50. $2 for groups of 10 or more. Tickets at Edison Theatre Box Office.

**Films**

**Friday, Dec. 12**
- 7:30 and 9:30 p.m. WU Filmboard Series, "Goldfinger" and "Thunderball," $1.75. Brown. (Also Sat., Dec. 13, same times, Brown.)

**Exhibitions**

"Missouri Artists: Works on Paper," Lower Gallery, WU Gallery of Art, Steinberg Hall, 10 a.m.-5 p.m., weekdays; 1-5 p.m., weekends. Through February 1.

"The Faculty Show," Upper Gallery, WU Gallery of Art, Steinberg Hall, 10 a.m.-5 p.m., weekdays; 1-5 p.m., weekends. Through January 11.

"New York Art Directors Show," Bixby Gallery, Bixby Hall 10-12 a.m. and 1-4 p.m. weekdays; 1-4 p.m. weekends. Through December 19.

"Bridges, Tunnels and Hydraulic Works," an exhibition of prints from the collections of the Smithsonian Institution's Museum of History and Technology. Rms. 103 and 107, Givens Hall. 7 a.m.-11 p.m., weekdays. Through Dec. 20.

"William Jay Smith, Man of Letters." Department of Rare Books and Special Collections, 5th level, Olin Library. 8-10 a.m. and 3-5 p.m. weekdays. Through December 30.

"American Art." Lower Gallery and Print Gallery, WU Gallery of Art, Steinberg Hall. 10 a.m.-5 p.m., weekdays; 1-5 p.m., weekends. Through February 1.

**Sports**

**Friday, Dec. 12**
- 6:30 p.m. Wrestling, WU vs. U. of Mo.-Rolla and Illinois College. Francis Field House.

**Engineers—continued from p. 1**

transport corrosive chemicals can be made to flex lengthwise while retaining a rigid circumference—the opposite property found in a human artery.

Intricate natural structural networks like this often are duplicated by weaving a variety of fine fibers into man-made materials. In fact, the ability to tailor-make these materials has generated talk of a coming "second revolution" in the plastics industry and technology through expected large-scale applications of fiber-reinforced plastics.

The trend is already evident in the transportation industries. Today, an average car is made with about 250 pounds of reinforced plastics, a figure that has been increasing every year. Eventually, Kardos said, these lightweight parts may make it possible to reduce the weight of a 4,000-pound car by one third, resulting in major fuel savings. The new plastics offer similar advantages for aircraft and even for alternative energy systems, such as the blades in huge wind-powered turbines.

Researchers at the WU Materials Research Lab have been working with reinforced plastics since 1965 when they joined with the Monsanto Co. on a large federally funded project. The University was the first academic group in the United States to venture into this area, Kardos noted. In addition to the National Institutes of Health, the lab receives funds from the National Science Foundation, the Department of Energy and the Department of Defense.

**Coburn—continued from p. 2**

videotaping and testing her assertion module assignment for DICEL in collaboration with Peggy Guest, a clinical associate with WU's Graduate Institute of Education. The package, which includes modules on androgyny, leadership and power, had to be flexible enough to be used for one-day, inservice training seminars and for semester-long graduate courses.

Coburn, who has conducted assertive training seminars for several St. Louis companies and before professional groups, believes that "as women become more effective in these interpersonal skills, they are better able to confront the obstacles that still exist for women in education as they attempt to move up the administrative ladder."

The DICEL package will be available next month.

She will use many of the materials in a course entitled "Leadership Skills for Women Administrators," offered next summer through the Graduate Institute of Education. For more information on the DICEL project, call Coburn at Ext. 5930.

**Dawson on Reagan**

Inflation, taxation, unemployment, reorganization of the federal bureaucracy and defense and foreign policy issues which will soon confront the Reagan administration will be discussed by Richard E. Dawson, chairman and professor in the WU Department of Political Science, on KMOX-TV's "The People Speak" (Channel Four), Parker Wheatley as host. The five 18-minute dialogues on the theme, "Ronald Reagan: An He Deliver?" will be broadcast Sunday, Dec. 14, at 6:30 a.m., during the program's Sunday morning edition.