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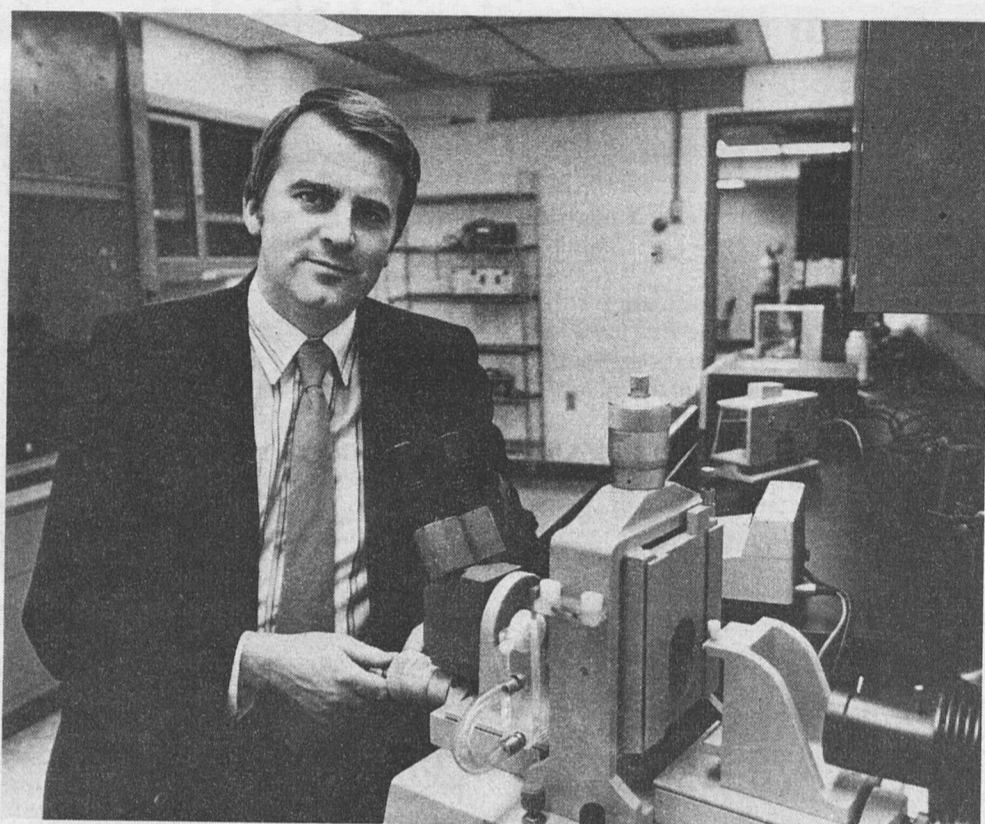
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# Washington University Record

Vol. 8, No. 14

Dec. 9, 1982



Eric H. Dunlop, professor of chemical engineering, is organizing courses on biotechnological issues that will eventually lead to a master's level degree program in biotechnology. The new Center for Biotechnology will coordinate campus research and training in this field.

## Center to coordinate "biotech" work on campus, with industry

A Center for Biotechnology has been established at WU to coordinate research and training in the field, including collaboration with industry.

The Monsanto Co., recognizing the desirability of an academic biotechnological effort in the St. Louis area, has been particularly helpful in the start-up phase of the Center for Biotechnology and in providing seed money and funds for a public seminar series and student fellowships. The center also has received laboratory equipment donated by the Ralston Purina Co. These and other local and regional firms have indicated interest in joint projects with the University on biotechnology — the use of biological processes to produce simple and complex chemicals.

Organized as an interdisciplinary

operation, the center embraces three major academic areas: College of Arts and Sciences, School of Engineering and Applied Science, and Division of Biology and Biomedical Sciences. William D. Phillips, Charles Allen Thomas Professor of Chemistry and chairman of the chemistry department, is acting director.

"What we've planned is a center in the true sense of the word," said Phillips, who noted that the center exemplifies the Regional Commerce and Growth Association's recent proposal for a "hi-tech" research park linking industry and academia in the St. Louis area. "There's enormous interest here in biotechnology," he added.

An introductory course offered this fall on the subject and involving such aspects as bioreactor design, genetic engineering of microbes, and patents and regulations, attracted not only students, but faculty, administrators and industrial leaders, including representatives from Monsanto Co., Ralston Purina Co. and Mallinckrodt, Inc. Additional courses leading to a master's degree, and eventually, a PhD degree in biotechnology are being developed. The new degree will be offered through such traditional departments as biology, chemistry and chemical engineering.

A laboratory in Urbauer Hall has been converted for use by the Center for Biotechnology. A proposal for an additional facility in the Department of Biology is under consideration by the National Institutes of Health.

*continued on p. 3*



William D. Phillips

## Ultrasound experiments aimed at refining images of cardiac tissue

To turn a shadowy, impressionistic image of the human heart into a clearly defined, "paint-by-number" representation — that is one way to describe the goal of ultrasound researchers at WU who are engaged in a new field called tissue characterization.

The researchers recently received a five-year, \$944,000 grant from the National Institutes of Health to pursue their study of ultrasound — a radar-like imaging technique in which high-pitched sound waves (inaudible to the human ear) are bounced off an object and the echoes displayed on an oscilloscope screen. In industry, ultrasound is used to detect flaws in structural materials. In medicine, it is used to detect changes in the body such as cirrhosis of the liver, breast tumors, fetal growth and position, and heart disease.

The latter is the concern of Lewis J. Thomas Jr., director of the Biomedical Computer Laboratory (BCL) and principal investigator for the grant, who is working with R. Martin Arthur, associate professor of engineering, and James G. Miller, professor of physics. Together with colleagues in the School of Medicine's Cardiovascular Division, they are trying to add a new dimension to ultrasound imaging — an achievement that would literally show a "change of heart" in cardiac patients.

"Conventional ultrasound already is a spectacular success," said Miller. "Right now you can get a good picture of organs such as the heart. We're trying to make the interpretation of these pictures less subjective by tacking a quantitative measurement to small amounts of

tissue in the image."

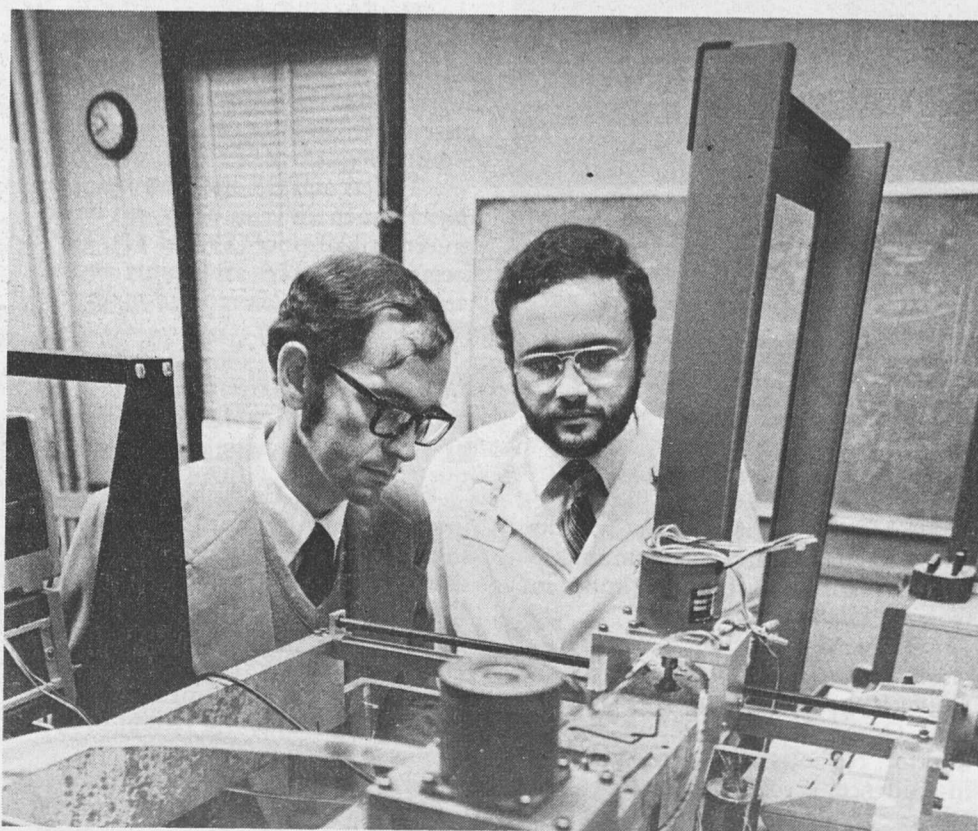
Ideally, these measurements would make up an ultrasonic index that could be linked to already established indices of heart disease. Doctors could determine not only the composition of the tissue in question (proteins, fats, water), but also the amount of new and old scar tissue, and even the minute-by-minute effects of drug treatment.

Experts agree that the ability to identify positively the state of tissues with ultrasound would be a revolution in medical diagnosis. Explained Arthur, "A new tool doesn't just do old things better. It opens up whole new horizons in treatment." If ultrasonic tissue characterization becomes a working reality, he said, it may rank alongside X-rays as a common, non-surgical method for detecting body injuries and abnormalities. What's more, ultrasound appears to be harmless and can be used for repeated studies.

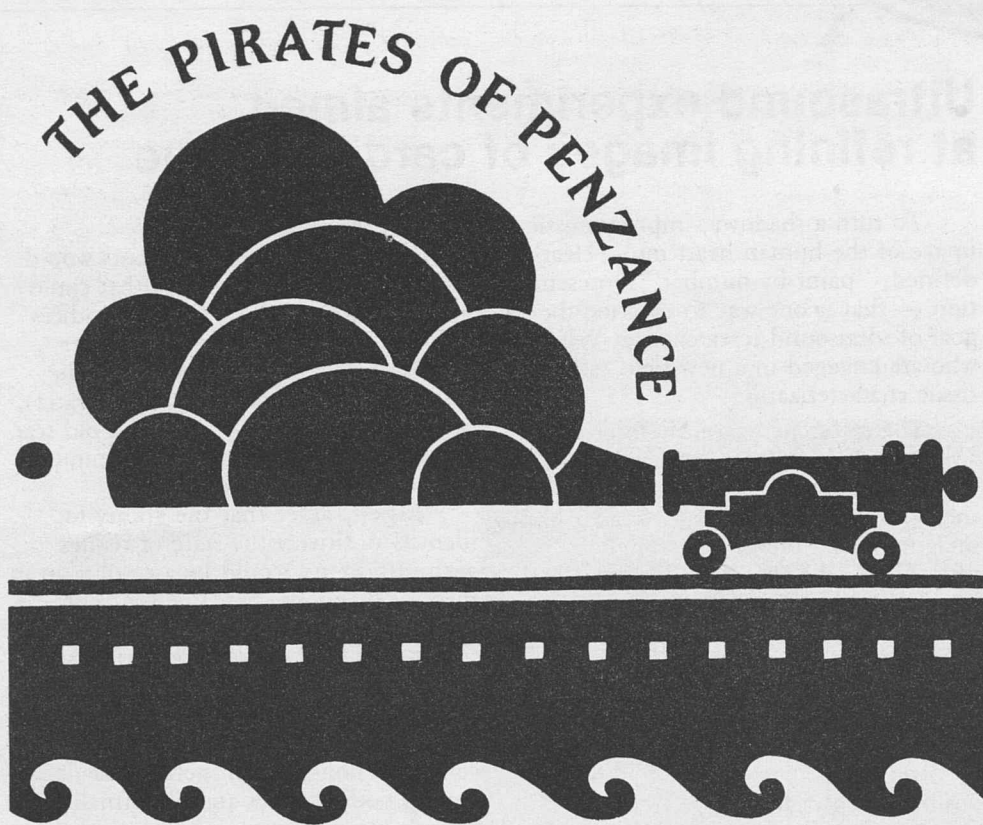
Arthur and Miller are designing equipment to improve the generation and reception of sound waves, and to measure more accurately how different types of tissue absorb, scatter, and otherwise interact with sound. In collaboration with Thomas and colleagues at BCL, they are devising computer-based models for those interactions.

Thomas, who has worked on other state-of-the-art imaging systems, points out that each system provides unique information about the body. He says ultrasound has the potential to show the orientation of structures within organs, such as scars and the direction of muscle fibers.

*continued on p. 2*



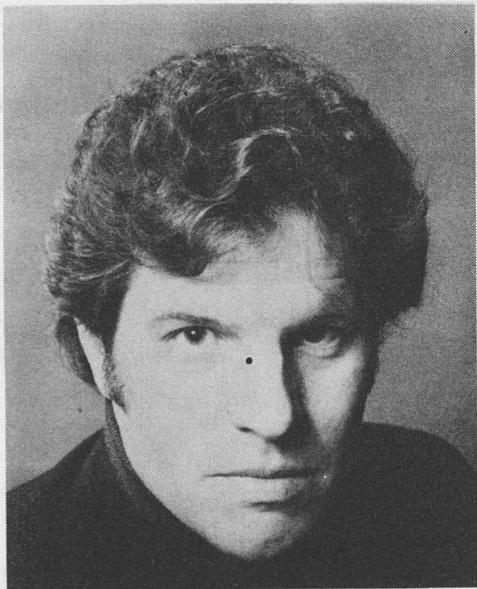
James G. Miller (left), professor of physics, and Julio E. Perez, assistant professor of medicine, examine ultrasound equipment being designed for the study of heart disease. The machinery is in a laboratory at Comptom Hall.



## Salts from Opera Theatre drop anchor at Edison with G&S's *Pirates*

"Why not do it again?" asked a St. Louis *Post-Dispatch* editorial following last year's sell-out Opera Theatre of St. Louis production of Gilbert and Sullivan's *H.M.S. Pinafore* at Edison Theatre.

Starting Dec. 15, Edison will present another new Gilbert and Sullivan production by Opera Theatre. *The Pir-*



John Stephens

*ates of Penzance*, which runs for 17 performances ending Jan. 2, is under the general direction of Opera Theatre's Richard Gaddes. The operetta, with its tender-hearted pirates and bumbling policemen, satirizes Victorian attitudes in typically hilarious G&S style.

The new production marks the return of several of the *Pinafore* crew. On deck again as director is Colin Graham, Opera Theatre's associate artistic director. Nicholas McGegan, WU artist-in-residence, is conductor and orchestrator. Sets are by Jay Ferger, who designed *Pinafore*'s toy theatre set, with costumes by Steven Feldman.

John Stephens, who appeared last year as Sir Joseph Porter, K.C.B., returns

as the Pirate King. Tenor Glenn Siebert, *Pinafore*'s lovestruck Ralph Rackstraw, is Frederic, the "slave of duty" who finds himself apprenticed to the pirates.

Gordon Holleman and Laurence Albert return to play the Police Sergeant and Samuel, aide to the King of the Pirates, respectively.

Carolyn James, who has appeared three times with Opera Theatre, most recently as Mistress Quickly in the 1980 *Falstaff*, plays Ruth, the pirate maid-of-all-work. Soprano Lisbeth Lloyd makes her St. Louis debut as the *Pirates* heroine, Mabel. Another newcomer is Joseph Warner, who will sing the part of her father, Major-General Stanley.

Matinee performances at 2 p.m. on Dec. 18, 19, 26 and Jan. 1 and 2 feature half-price tickets for children under 12 accompanied by a purchaser of a full-price ticket. Evening performances are at 8 p.m. Dec. 15-18, 21-23 and 28-31.

Tickets are \$18 and \$14. On Thursday, Dec. 16, WU students will be admitted at half-price (\$9 and \$7). For information on ticket availability and to charge tickets to MasterCard or Visa, call 889-6543.

## Fellowship offered in international affairs at Swiss university

The Albert Gallating Fellowship in International Affairs at the Graduate Institute of International Studies, University of Geneva, Switzerland, is offering a \$7450 fellowship for the academic year October 1983 to July 1984.

Application forms may be obtained from the Office of International Studies, Box 1088. Deadline for receipt of applications is March 9, 1983.

For more information, including the catalogue of the Graduate Institute of International Studies, contact William D. Carter, FERIS Foundation of America, 5 Harvard Court, Huntington, N.Y. 11743.

## Hyman Meltzer dies; developed PhD program in organizational behavior

Hyman Meltzer, professor of psychology and co-director of WU's Interdisciplinary PhD Program in Organizational Behavior, died Nov. 27 after a series of heart attacks.

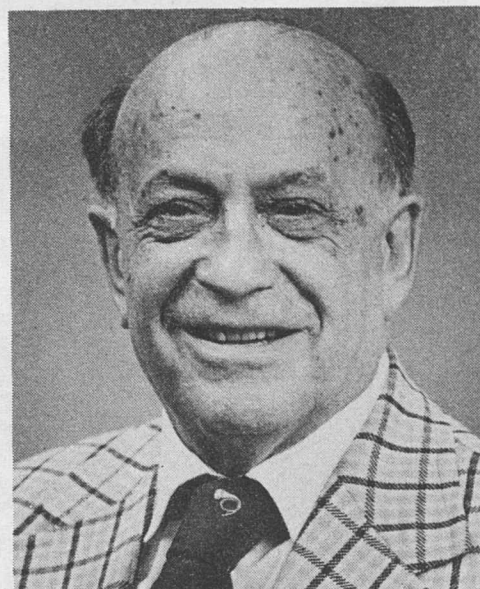
Memorial services were conducted Dec. 3 in Graham Chapel by Chancellor William H. Danforth.

Meltzer had been associated with WU since 1928, when he first came to St. Louis to serve as a psychologist for the Psychiatric Child Guidance Clinic. From 1934 to 1952 he was in private clinical practice, followed by service with the Orchard Paper Company of St. Louis as vice president and director of human relations. From 1948 to 1966 he was president of the Human Relations Research Foundation.

A long-time lecturer in WU's evening and summer schools, Meltzer became professor of psychology in 1962. He was responsible for introducing courses in clinical psychology applicable to managerial and organizational problems in industry. In 1969 he introduced courses in humanistic psychology and in 1977 he developed the doctoral program in organizational behavior whose directorship he shared with Walter Nord, professor of organizational psychology in the School of Business and Public Administration.

Meltzer was born in Russia and reared in New Jersey. He received a BS degree in chemistry from the University of Illinois in 1921, and MA and PhD degrees in psychology from Columbia University a few years later. At Columbia, Meltzer studied with such pioneers in psychology as Dewey, Thorndike and Woodworth.

He was a past president of the con-



Hyman Meltzer

sulting division of the American Psychological Association and the Missouri Psychological Association and a past vice president of the American Orthopsychiatric Society. He was a Diplomat of the American Board of Examiners of Professional Psychology.

Meltzer was a Fellow of the American Psychological Association, the American Orthopsychiatric Association and the American Association for the Advancement of Science.

The Department of Psychology has established an annual student prize in his honor as a "lasting tribute to this outstanding individual and teacher who had a warm and loving approach to people and life." Donations may be sent to the Department of Psychology, Box 1125, addressed to the Hyman Meltzer Award Fund.

## Four scholarships established for area students

Chancellor William H. Danforth has announced the establishment of four scholarships for area high school seniors interested in attending WU next fall.

The four George W. F. and Martha Russell Myers Scholarships, two with full-tuition and two with half-tuition, will be awarded to seniors nominated by their high school principals on the basis of academic achievement. The scholarships are available to students residing in the city of St. Louis; the Missouri counties of Franklin, Jefferson, St. Charles and St. Louis, and the Illinois counties of Madison and St. Clair.

The scholarship fund was estab-

lished by a \$345,000 gift from the late George W. F. Myers. Myers was founder and owner of the Myers Engineering and Equipment Co., of St. Louis.

One of the full-tuition scholarships will be awarded to a candidate for admission to the School of Engineering and Applied Science. One full-tuition and two half-tuition scholarships will be awarded to three students applying to the College of Arts and Sciences, the School of Architecture or the School of Fine Arts. The awards will cover all four years of undergraduate study.

Nominations are complete for next year's awards.

## Ultrasound—continued from p. 1

The researchers are using ultrasound to study animals with heart disease in collaboration with Burton E. Sobel, professor of medicine and director of the Cardiovascular Division, School of Medicine.

Although ultrasound has been used to depict the size of heart chambers, valve abnormalities and beating motions for nearly two decades, it is not yet a frontline attack in diagnosing and treating diseases affecting the heart muscle itself. "With steady progress," Thomas said, "we ought to get clinically useful images by the end of five years."

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## Campus Notes

**Ronald L. Carlson**, professor of law, is the author of a volume titled *Trial Proof*, part of a six-volume work, *Criminal Law Advocacy*, published in October by Matthew Bender & Co., Inc., New York City. *Criminal Law Advocacy* covers all aspects of a criminal case from beginning to end. The core volume, volume three, written by Carlson, discusses the criminal trial itself, including making objections to evidence and cross-examining hostile witnesses. Other volumes in the set include: *Trial Investigation and Preparation*, *Guilty Pleas*, *Witness Examination* and *Argument to the Jury*.

**Timothy L. Cmun**, assistant professor of production and operations management in the School of Business and Public Administration, was awarded one of two honorable mentions in the American Institute for Decision Sciences' 1982 Doctoral Dissertation Competition. Cmun's dissertation was titled "The Effect of Learning Curve Analysis in Capacity Planning Decisions." Formal announcement of the winner of the competition, plus the two honorable mentions, was made at the institute's national meeting in San Francisco Nov. 22-24. Cmun received his PhD from Indiana University in 1981.

**Brian L. Clevinger**, assistant professor of biomedical science at the School of Dental Medicine, is the principal investigator for a \$70,000 grant from the Council for Tobacco Research. Clevinger is studying the immune response and how it might be controlled in the body.

**Suzanne Grace**, part-time lecturer in dance, has been chosen by Young Audiences to participate in its "Artists in Education" program in Missouri schools. Grace, who is a solo dance artist, will conduct two-week residencies that will focus on the language of movement through dance and will culminate in a solo concert. She has also been asked to choreograph a new group piece for Thomas McKenney, professor of music at the University of Missouri, Columbia. The work will be performed in February at the conference of the American Society of University Composers in Baton Rouge, La.

**Edward J. Imwinkelried**, professor of law, spoke recently at a meeting of District Attorneys seminar titled "Trial Advocacy for Prosecutors." The seminar was held Nov. 14 in Orlando, Fla. More than 120 prosecutors from across the United States attended the seminar. He addressed a similar seminar in Colorado Springs on Oct. 31.

**Edgar H. Lehrman**, professor of Russian, spoke recently at a meeting of the Missouri Chapter of the American Association of Teachers of Slavic and East European Languages (AATSEEL) on "Techniques of Annotating Russian Literature: What and How."

**Edward L. MacCordy**, associate vice chancellor for research, has been elected an officer of the National Council of University Research Administrators. He will serve as vice president for 1983 and president-elect for 1984. The council was founded in 1959 to promote sponsored programs at colleges and universities and more effective ways to administer them.

The St. Louis Ragtime Ensemble presented a full evening's concert of its dance and music Nov. 11 in Hannibal, Mo. Directed by **Annelise Mertz**, director of the dance division, and **Steven Radecke**, pianist and artist-in-residence, the ragtime performers played to a capacity audience in a program sponsored by the Hannibal Concert Association. Edison Theatre's technical director **Jack Brown** supervised technical aspects of the performance.

Two faculty members delivered papers recently at the 21st Annual Central Slavic Conference at the University of Kansas, Lawrence. **Renata Rotkowicz**, director of public services and collection development at Olin Library, participated in a discussion on "Polish Solidarity and Martial Law in Soviet and American News Media." She read a paper on "Pravda on Solidarity and Martial Law." **Robert C. Williams**, professor of history and dean, University College, took part in a session on "Censorship in Russia and the U.S.S.R." Williams's paper was entitled "Lenin and Censorship, 1900-1914." Earlier, he inaugurated the new Distinguished Lecturer Series at Wittenberg University in Springfield, Ohio, on Sept. 25 with a talk on "The Manhattan Project Reconsidered." On Nov. 7 he lectured on "Selling the Romanov Treasure" at the opening of the George Costakis exhibit of Russian avant-garde art at the Indianapolis Art Museum.

**Robert C. Smith**, professor of art and acting chairman of the Department of Design, School of Fine Arts, and **Jim Dutton** (BFA 1982), St. Louis freelance graphics designer, have received "Awards of Excellence" in a competition sponsored by the University and College Designers Association (UCDA). Smith's entry, a catalogue, *The Architectural Heritage of St. Louis*, which he designed for the WU Gallery of Art in 1982, and Dutton's poster, prepared for the WU Performing Arts Area's production of *Company* last spring, were both hung in the "Designers Show '82," sponsored by UCDA. Their entries were among 139 exhibited from among 1,000 submitted.

**Luther S. Williams**, dean of the Graduate School of Arts and Sciences and professor of biology, has been elected to a three-year term on the board of directors of the Council of Graduate Schools in the United States, beginning Jan. 1.

## Rosen to serve for year as director of Israeli school of social work

Aaron Rosen, professor of social work and psychology at WU's George Warren Brown School of Social Work, has been granted a one-year leave of absence to become director of the Paul Baerwald School of Social Work at The Hebrew University of Jerusalem in Israel beginning in January.

From 1969 to 1978, Rosen was a consultant to the Baerwald School of Social Work to design their advanced social work degree program and to help in faculty recruitment and development. As director, Rosen will continue to improve the school's curriculum and also work to integrate the social work graduate research program with the university's social science disciplines. In addition, Rosen will work with Enola E. Proctor, WU assistant professor of social work, on a study of treatment planning and case management techniques at WU's School of Social Work and the Baerwald School of Social Work.

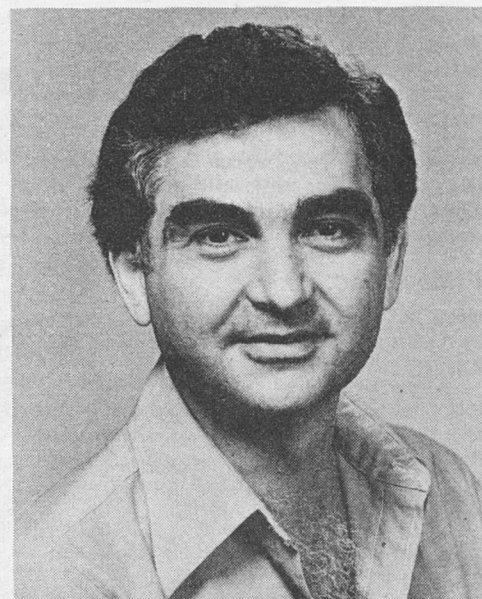
Rosen joined the faculty of the George Warren Brown School of Social Work in 1965. In 1970, he developed and chaired the first interdisciplinary PhD program in social work at WU. His current research includes: a five-year study with Arthur D. Shulman, WU associate professor of psychology, of the experiences and interpersonal coping strategies of widows in the St. Louis metropolitan area; an evaluation of doctoral education in social work in the United States; and several studies on psychotherapy and social work intervention.

## WU students described as hardworking, preprofessional in colleges survey

An article in the November issue of *Seventeen Magazine* by Edward B. Fiske, education editor of *The New York Times* and author of *Selective Guide to Colleges 1981-82*, published by Times Books, lists 16 colleges, including WU, selected from among 1700, each of which offers "something unique," according to the author.

Excerpts from his comments on WU state:

"(It) is a quality regional university, traditionally known for its sciences. But in recent years, WU has built itself into a solid all-around institution, and students from all over the country are clamoring to get in . . . (The students) are hardworking and overwhelmingly preprofessional. Faculty members are supportive but demanding. 'Professors act as if their course is the only one you're taking,' one student said."



Aaron Rosen

Before coming to WU, Rosen was a lecturer in social work and psychology at the Baerwald School of Social Work from 1963 to 1965. He was also a visiting professor at The University of Haifa School of Social Work and Tel Aviv University School of Social Work, both in Israel.

Rosen received a BA in psychology from Brooklyn College in 1958, an MSW from Columbia University in 1960, and an MA in psychology and a PhD in social work and psychology from the University of Michigan, Ann Arbor, in 1962 and 1963, respectively.

## Center— continued from p. 1

Among the new courses being organized for the center by Eric H. Dunlop, professor of chemical engineering, are industrial biotechnology, bioreactor design and bioseparation or isolation of biological products. Dunlop, who joined WU in June, worked for Imperial Chemical Industries in the United Kingdom as a biotechnology specialist.

The board of directors for the Center for Biotechnology includes Ralph E. Morrow, dean of the Faculty of Arts and Sciences; James M. McKelvey, dean of the School of Engineering and Applied Science; and Luis Glaser, head of the Department of Biological Chemistry.

The center was established at the request of deans James M. McKelvey and Ralph E. Morrow. Opportunities for responding to the proposal to create the center were provided to the Faculty Senate Council and the Educational Policy Committee of the Board of Trustees.

# Calendar

Dec. 9-18

## Lectures

### Thursday, Dec. 9

4 p.m. School of Architecture Lecture, "Chicago Women's Technological Achievements," Kristine Fallon, architect, Skidmore, Owings and Merrill, Chicago; and Carol Jeffers, architect, The Image Factory, Chicago. 116 Givens.

4 p.m. Plant Biology Program Lecture, "Genetics of Interactions Between Plant Hosts and Parasites," Albert H. Ellingboe, Plant Pathology Division, International Plant Research Inst. 322 Rebstock.

### Friday, Dec. 10

Noon. WU Woman's Club Luncheon. Presentation by the Fashion Dept. of the WU School of Fine Arts. St. Louis Club, 7701 Forsyth.

4:45 p.m. Society of Professors Emeriti Fifth Annual Buffet and Cabaret. "Professors Emeriti Play Broadway," with Virginia Settle, soprano; Harry Weber, baritone; and Marjorie Drozda, pianist. Whittemore House, 6440 Forsyth.

7:30 p.m. Inter-Varsity Christian Fellowship Meeting. Vespers. Lower level, Ann Whitney Olin Women's Bldg.

### Saturday, Dec. 11

9 a.m. Neural Sciences Seminar, "Theories of Learning and Memory," Jeff Lichtman, WU post-doctoral fellow in physiology and biophysics. 928 McDonnell Medical Sciences Bldg., 4565 McKinley.

### Monday, Dec. 13

2:30 p.m. Department of Chemical Engineering Seminar, "Design of Resilient Processing Plants," Manfred Morari, assoc. prof. of chemical engineering, U. of Wis. — Madison. 100 Cupples II.

### Tuesday, Dec. 14

9 a.m. Center for the Study of Data Processing Colloquium, "High Level Application Languages," Richard E. Dooley, president of Richard E. Dooley and Assoc., Inc., a management consulting firm. 30 January.

Noon. Department of Education Lecture, "A Blueprint for Reform of Public Secondary Education: A Preview of the Carnegie Report on the American High School," Marilyn Cohn, dir., Teacher Education, WU Dept. of Education. 217 McMillan.

### Thursday, Dec. 16

Noon. Division of Orthopedic Surgery Lecture, "The Initiation and Progression of Articular Cartilage Destruction," Eric L. Radin, prof. and chair., Dept. of Orthopedic Surgery, W. Va. U. Wohl Aud., Wohl Hospital, 4960 Audubon.

### Friday, Dec. 17

10 a.m. Center for the Study of American Business and Department of Economics Workshop, "Shocks, Inflation and Monetary Policy," Stan Fischer, prof. of economics, M.I.T. 300 Eliot.

## Music

### Friday, Dec. 10

8 p.m. WU Choir Christmas Concert. Graham Chapel.

### Saturday, Dec. 11

10 a.m. Department of Music Private Film Showing, Ingmar Bergman's film of "The Magic Flute." With English subtitles. Tivoli Theatre, 6350 Delmar Blvd. Admission \$1.50. Open to the WU community.

4 p.m. Department of Music Undergraduate Piano Recital, Mark Bernhardt, soloist. Graham Chapel.

### Sunday, Dec. 12

1 p.m. WU Orchestra Concert. Graham Chapel.

8 p.m. Percussion Ensemble Concert. Works of Paul, Korf, Cage/Harrison and Ross. Graham Chapel.

### Tuesday, Dec. 14

8 p.m. Hillel House Chanukah Concert, with the Diaspora Yeshiva Band. The band won the Chasidic Song Festival in 1977, 1978 and 1980. Hillel House, 6300 Forsyth. General admission \$5; \$3 for students, senior citizens and groups. For more information, call 726-6177.

## Exhibitions

"The Faculty Show." Works in all media by WU faculty artists. Through Jan. 9. Upper Gallery, Gallery of Art, Steinberg Hall. 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends.

"Speaking a New Classicism: American Architecture Now." Projects by 20 prominent American architectural firms depicted in 133 models, drawings and photographs. Through Dec. 19. Lower Gallery, Gallery of Art. 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends.

"The Art of the Portrait." Paintings, sculptures and prints from the University collection demonstrate the variety and appeal of the portrait. Through Jan. 9. Print Gallery, Gallery of Art. 10 a.m.-5 p.m. weekdays; 1-5 weekends.

"Recent Acquisitions." Books from the Modern Literature, Semeiology, History of Printing collections and other materials. Through Dec. 29. Special Collections, Level 5. Olin Library. 8:30 a.m.-5 p.m. weekdays.

"MFA Thesis I," an exhibition of projects by Fine Arts graduate students. Through Dec. 12. Bixby Gallery. 10 a.m.-4 p.m. weekdays; 1-5 weekends.

"Masterworks of Ophthalmology, 1851-1900," works by famous 19th-century European ophthalmologists. Through Feb. 15. Rare Books and Archives Annex, WU School of Medicine, 615 S. Taylor Ave. Open 8:30 a.m.-5 p.m. weekdays.

## Performing Arts

### Friday, Dec. 10

8 p.m. Performing Arts Area "Studio Series" presents the Student Dance Concert "Fleeting Moments." New works by student choreographers. Admission \$1. Mallinckrodt Dance Studio. (Also 8 p.m., Sat., Dec. 11, and 5 p.m. Sunday, Dec. 12, Dance Studio.)

### Wednesday, Dec. 15

8 p.m. WU and Opera Theatre of St. Louis present *The Pirates of Penzance* Gilbert & Sullivan's nautical operetta. Edison Theatre. Tickets are \$18 and \$14. Children 12 and under half-price to all matinees; limit one ticket with each full-price ticket. WU students admitted half-price on Thursday, Dec. 16. Tickets available at Edison Theatre box office, 889-6543. (Also 8 p.m. Dec. 16-18, 21-23, 26 and 28, 29-31. Matinees are at 2 p.m. on: Dec. 18, 19, 26, Jan. 1 and 2, Edison.)

## Films

### Thursday, Dec. 9

7 and 9:30 p.m. WU Filmboard Series, "The Passenger." \$2. Brown Hall Aud.

### Friday, Dec. 10

7 and 9:45 p.m. WU Filmboard Series, "Taps." \$2. Brown Hall Aud. (Also Sat., Dec. 11, and Sun., Dec. 12, same times, Brown.)

12:30 a.m. WU Filmboard Series, "Richard Pryor Live in Concert." \$1. Brown Hall Aud. (Also Sat., Dec. 11, same time, Brown.)

### Friday, Dec. 17

7:30 p.m. WU Filmboard Double Feature, "Butch Cassidy and the Sundance Kid" and "The Sting." Brown Hall Aud. \$2. (Also Sat. Dec. 18 and Sun. Dec. 19, same time, Brown.)

## Sports

### Thursday, Dec. 9

7:30 p.m. Women's Basketball, WU vs. Lindenwood College. Field House.

### Saturday, Dec. 11

Noon. Women's Swimming, WU vs. Stephens College. Wilson Pool.

### Tuesday, Dec. 14

7:30 p.m. Men's Basketball, WU vs. Principia College. Gen. admission, \$2; other students, \$1, WU students free. Field House.

## Calendar Deadline

The deadline to submit items for the Jan. 20-29 calendar of the *WU Record* is Jan. 6. Items must be typed and state time, date, place, nature of event, sponsor and admission cost. Incomplete items will not be printed. If available, include speaker name and identification and the title of the event. Those submitting items, please include your name and telephone number. Address items to King McElroy, calendar editor, Box 1142.



Students of WU's dance division will present their semi-annual concert at 8 p.m. Dec. 10 and 11 and at 5 p.m. Dec. 12 at the Dance Studio in Mallinckrodt Center. The concert, sponsored by Student Union and Thyrsus, is titled "Fleeting Moments." It will feature original studies and choreography resulting from composition classes taught by Annelise Mertz, director of the dance division, and works choreographed by students as independent studies. In addition to student works, the program also will include a duet called "Summer" from the repertory of Satoru Shimazaki, artist-in-residence. The title of the concert was selected by Martin Gould, student producer, from a statement by modern dance choreographer Merce Cunningham. Cunningham said, "You have to love dancing to stick with it. It gives you nothing back. . . nothing but that single fleeting moment when you feel alive." Tickets, which are \$1, will be sold at the door. For more information, call 889-6543.

Indexed