Fund raising for scholarships begins

By Terry McGuire

With the university campaign fast approaching, there is the opportunity to back an initiative that will not only support Virginia Tech but also the educational goals of their families as well. The opportunity will present itself on the campaign’s gift card, which will list the Virginia Tech Staff and Faculty Dependent and Spouse Scholarship Program as a choice for gift designations.

The program had its genesis in the spring and summer of 1996 when the College of Agriculture and Life Sciences Staff Association brought the idea of a tuition-free waiver for faculty and staff dependents and spouses to the Commission on Classified Staff Affairs. When a tuition-free waiver was determined to be unfeasible, a task force formed by the commission turned to other faculty and staff members and the alternative of a scholarship program.

A nine-member scholarship program committee, co-chaired by John Hess, department head of biochemistry, and Tom McAvoy, senior director of administration and office manager in Risk Management, Betty Green, business manager in the College of Agriculture and Life Sciences, Jane Clauss, associate professor of food science and technology, Terry Lawrence, graphic designer in the College of Veterinary Medicine, Tom Kalospek, director of materials management in Purchasing, Dennis Eavey, human resources manager in Personnel, and Joe Boling, programmer in food science and technology, was estab-lished.

The committee has fashioned a scholarship program that will assist families of Virginia Tech full-time employees who face financial challenges enrolling their dependents and spouses full time at Virginia Tech. The program will also recognize and reward dependents and spouses who have demonstrated meritorious academic achievement. Scholarship funds will be equally divided between need- and merit-based awards for freshmen or entering transfer students.

“Over the next 12 months, we hope gifts from donors will allow us to begin awarding scholarships at the beginning of the 2000-2001 academic year,” McAvoy said. “And we anticipate the university campaign will provide us with a great jump-start toward reaching that goal.”

The committee hopes to award scholarships that will cover 25 percent of the

1999 STAFF APRECIATION DAY
Thursday, May 20
10 a.m.-3 p.m.
Rector Field House
Complete details provided in the April 29 Spectrum

Tech researcher investigates important fossil tree

By Susan Trulove

Consider the architecture of modern trees—the woody strength that builds in rings to support greater and greater heights and weight, the protective bark that shields the cells that conduct water and nutrients from the earth to the farthest leaves, and the collars of extra wood that surround the bases of each branch and the way internal layers of wood dovetail at branch junctions to prevent breakage. It must have taken millions of years to evolve such a successful structure.

If it did, it happened about 360 million years ago.

Archeopteris, an extinct tree that made up most of the forests across Earth in the Late Devonian period, had the same structure as modern trees, according to three scientists in the April 22 issue of Nature (see Archaeopteris is the earliest known modern tree, “by Stephen E. Scheilke, associate professor of biology and geological sciences at Virginia Tech, Brigitte Meyer-Berthaud, and Jobst Wende)."

After decades of operating with a model of what the tree looked like based on imprints of the leaves in fossil rocks and bits of fossilized wood, last year Meyer-Berthaud of the Laboratory of Palaeobotanique Université Montpellier in France and Scheilkner were able to examine hundreds of pieces of Archaeopteris and study the evidence that the plant was the first modern tree.

Nearly a decade ago, Wende, a paleontologist with the Geologisch-Paläontologisches Institute in Tubingen, Germany, was studying marine deposits in the Moroccan Sahara desert, where he’s been mapping marine rock formations for many years. While looking for connecting formations at a depth that would be from the Devonian period, he found logs that had been buried in ancient marine sediment that would have been hundreds of miles off the ancient coastline but were now exposed.

In 1991, Wende reported his findings in a paper published in the Journal Fossiles and included photos of a 16-foot-long, four-to-five-inch-diameter tree and a cross section of that tree.

The Paleozoic team of the Institut de l’Evolution des Mammifères collected Meyer-Berthaud of the importance of this finding, according to Meyer-Berthaud. In 1996, Wende collected the trunk and a number of other specimens and took them to Germany. Meyer-Berthaud, who has studied Archaeopteris and other ancient plants for 20 years, was allowed to borrow these fossils from the Museum of Geology and Paleontology of the University of Tubingen.

“In a preliminary analysis, I recognized at least three different species in this assemblage,” Meyer-Berthaud said. She presented her results in 1997, in a paper co-authored (see TECH on 4)
Events

Thursday, 22
STS Thursday Discussion, 7 p.m., 132 Lane: Topic: TBA. Jean Miller.

Earth Day Speaker, 8:30 p.m., Squires Colonial Hall: “Environment, Population, Sustainable Growth: Where Do We Go from Here?” by Gaylord Nelson.

Friday, 23
International Club Coffee Hour, 5 p.m., Cranwell Center: “Human Pesticide Poisoning in Three Jamaican Farming Communities,” by Tina Schlosser.

Student Recital, 8 p.m., Squires Recital Salon: Ian Lane.

Saturday, 24
YMCA Native American Program, 7 p.m., Squires Colonial Hall: Evening concert by Native American musicians Steve and Brooke Schiavi.

NRS Concert, 8 p.m., Burruss auditorium: Spring Concert.

Sunday, 25
YMCA Hike, 1:30 p.m., meet in parking lot 403 Washington St. Laurel Creek.

Student Recital, 8 p.m., Squires Recital Salon: Brian Nongy.

Monday, 26
Math Awareness Month Speaker, 7:30 p.m., DBHCC: “Mathematics in the Life Sciences: Coping With Complexity,” by John Tyson.

TAUT Workshop Production, 8 p.m., 204 Performing Arts Building: 2TA.

Tuesday, 27
Faculty Senate Meeting, 7 p.m., 32 Pamplin.

TAUT Workshop Production, 8 p.m., 204 PAB: 21A.

Wednesday, 28
History Program, 4-5:30 p.m., 302 McBryde: “Survivors of the Middle Passage: Autobiographical Accounts of Enslaved Africans in British America,” by Jerome Handler, Virginia Foundation for the Humanities.

“With Good Reason,” 7 p.m., WVTF: “Medicine for the Millions.”

Student Recital, 8 p.m., Squires Recital Salon: Amanda Meseko.

TAUT Workshop Production, 8 p.m., 204 PAB: 21A.

Thursday, 29
Presidential Forum, 8:30-11:30 a.m., Owens Banquet Hall: Presidential Forum on Campus Climate for Diversity. Faculty Recital, 8 p.m., Blackburn Presbyterian Church, Doris Ledner.

Seminars

Thursday, 22


Entomology, 4 p.m., 220 Price: Graduate-student presentations, by Jessica Metzger and Sean Malone.

Geological Sciences, 4 p.m., 2044 Derring: “Physical Properties for the Inherent Instability of the West Antarctic Ice Sheet,” by Slawomir Tulaczyk, Kentucky.

Friday, 23
Highlands in Chemistry, 11 a.m., 3 Davidson: “Group Transfer Reactions Mediated by Rhenum and Biodo-Complexes,” by Robert Toreki, Kentucky.

MCB, noon, 102 Flexner: “Identification of Sperm Specific Marker Protein for Use in Sperm Detection and Quantification,” by John Her, UVA.

Communication Studies, 3:30 p.m., Hillcrest honors conference room: “Banking and Bitcoiing: Hollywood and Nativism as Neocolonial Forces in Jean-Pierre Bekolo’s Antoine’s Pilot”, by Elizabeth McMahon.

ACTIVITIES

Publisher of Roanoke Times to speak on ethics

Walter Rugaber, president and publisher of the Roanoke Times, will give a talk, “Ethical Leadership in a Newly Competitive Media Environment,” on Wednesday April 28, at 4 p.m., in 113 McBryde. Rugaber is the featured speaker in the annual Ethics Symposium organized by the Department of Management’s Business Leadership Center. The talk is free and open to the public. A reception will follow in the atrium of Pamplin.

Rugaber, a native of Macon, Ga., graduated from Northwestern University in 1960. He was a reporter for the Atlanta Journal and the Detroit Free Press before joining the New York Times in 1965. He worked in the paper’s bureaus in Detroit, Atlanta, and Washington D.C. He covered the civil rights movement in the South, urban unrest in the North, major prison scandals, automobile safety and other consumer issues, various national campaigns, and Watergate. In Washington, Rugaber was also assistant news editor and deputy news editor.

He became executive editor of the Greensboro News and Record in 1978 and was named president and publisher of the Roanoke Times in 1982. He served as president of the Landmark Publishing Group from 1995 to 1998.

Rugaber is a member of the Pulitzer Prize Board, which makes the annual awards in journalism and letters. He is also a trustee of Hollins University.

Forum to address Standards of Learning

A panel forum consisting of four of the top state and local education authorities will address Virginia’s Standards of Learning (SOL) at WABF-ITY studios in Roanoke on Wednesday, April 28, from 6:30-8:30 p.m. The hot topic will be evaluated Cieri Penrose Yeeke, deputy secretary of education and former Allen appointee to the Virginia State Board of Education; Fred Morton, superintendent, Montgomery County Schools; Linda Fore, director of instruction, Bristol City Schools, and Lannie Cross, Virginia Tech Department of Educational Leadership and Policy Studies. Janet Johnson, dean of the College of Human Resources and Education at Tech, will be the panel moderator.

The format will consist of a five to six minute introductory statement by each panelist followed by questions and answers from the audience. The question-and-answer period will continue for another 30 minutes after the hour of taping, with a reception following.

The forum is part of a study by a faculty group in the Department of Teaching and Learning, which received a seed grant of $5,000 to determine the SOL, Simpson on Virginia public schools. Michael Bentley, associate professor, is chair of the SOL, Research Group.

The SOL, Forum will be broadcast by WBRB Blue Ridge Public Television on May 2.

President’s Forum addresses diversity

The Office of Multicultural Affairs will sponsor the President’s Forum on Campus Climate for Diversity in the Owens Banquet hall on Thursday, April 29, from 8:30-11:30 a.m.

The program for faculty members will be a technology-based interactive discussion of issues related to improving the climate for teaching and learning at Virginia Tech. Space is limited, so RSVPs are requested to the OMA at 1-1820, or e-mail multicultural@vt.edu.

Diggs Awards announced

Ron Kander of materials science and engineering, Mark Schneider of architecture, and Brenda Winkel Shufey of biology were selected to receive the 1999 Diggs Teaching Scholar award. They will be recognized for exceptional and continuing contributions at the Eighth Annual Diggs award ceremony in the Hillcrest Dining Room Apr 28, 4:30-6:30 p.m.

Each scholar will receive a plaque, and they and their departments will each receive a $500 cash award.

The Diggs Program is dedicated to promoting excellence, imagination, and commitment in teaching and student learning. This fall the newest Diggs Teaching Scholars will lead a roundtable discussion relating to their recent work.

Twenty-eight teachers from seven different colleges were nominated, and the newest Diggs Teaching Scholars hail from three different colleges—a first for this award.

Mountainair removal problems studied

Samuel R. Cook, an adjunct faculty member in the Center for Interdisciplinary Studies, will conduct a multimedia presentation on the social and environmental problems caused by the mountainair-removal method of strip mining in Appalachia.

The program will be Wednesday, April 28, 7-9 p.m. in the Black Cultural Center in Squires.

Cook works with several concerned citizens groups, including the West Virginia Highlands Conservancy, the West Virginia Organizing Project, and the Ohio Valley Environmental Coalition.

This event is sponsored by the Appalachian Studies program.

Native American concert collects canned food

On Saturday, April 24, the YMCA Native American Program will feature a concert by Native American musicians Steve and Brooke Schiavi. The event will be at 7 p.m. in


Electrical/Computer Engineering, 4 p.m., 457


STS, 4-5:30 p.m., 132 Lane: “Forms of Knowing: Why Epistemology Needs Science,” by Peter Machamer, Pitt.

Wednesday, 28

Electrical/Computer Engineering, noon, 654 Whittemore: Topic and speaker TBA.


CSES, 4 p.m., 2326hrysh: “Coping Systems Research,” by Mark Alley.

Horticulture, 4 p.m., 409 Saunders: “Nutrient Release Patterns of Three Controlled-Release Fertilizers,” by Chad Husby.


Thursday, 29


Bulleted
Virginia Tech Faculty members expect students to have Blackboard and3S C Viki Keps to full the the of students as they travel.

As interest in global travel grows, tours designed to appeal to Virginia Tech alumni are being hosted by Tech faculty members. In May,Prof. William Stephenson, dean of the College of Engineering, and his wife Sally will host the Albanian College in Great Britain. More than 60 alumni and friends will join President Paul Torgersen and his wife Dot as their hosts on the upcoming Scandinavian Capitals and 3S Cruise Peterburg in June.

“Virginia Tech has a wonderful tradition of travel experiences,” said Bob Bates, dean of the College of Arts and Sciences, describing an alumni tour last fall to Scotland. “I know, and my wife, Wendy held a tour in Austria last month.

For more information about alumni travel opportunities, call Laura Wedin at the Virginia Tech Alumni Association at 4-6295.
Faculty Senate elects new officers

By John Ashley

The Faculty Senate elected two of its three new officers for the upcoming year at its first April meeting last week.

Elected president was Richard Bambach, professor of geological sciences. Vice president for the 1999-2000 year will be Mitzi Venom, assistant professor of architecture. Senate officers expect the position of secretary to be filled at the last meeting of the semester on April 27.

Leon Geyer discussed the undergraduate honor system with senators at the meeting last week.

GRAD STUDENTS

(Continued from 1)

Tomya Thomas Ochien, a Ph.D. student in engineering science and mechanics, will do his fellowship research on “Manufacturing Distortions of Curved Composite Panels.”

Snela R. Patel, a Ph.D. candidate in engineering science and mechanics, will do her fellowship research on “Life Prediction, Durability, and Damage Tolerance of High Temperature Polymer Composite Structures In Aerospace Applications.”

Janet Cleveland-Riddick, a Ph.D. candidate in engineering science and mechanics, will do her fellowship research on “Nonlinear Dynamics of Segmented-Stiffness Circular Composite Cylinders.”

Virginia Tech undergraduate students who received Virginia Space Grant Consortium fellowships are William N. Anderson, a major in aerospace and ocean engineering; Christopher N. Bridle, an electrical-and-computer-engineering major; Shital R. Gheda, an electrical-and-computer-engineering major; Kimberly D. Greger, a major in mechanical engineering; Austin C. Smith, a mechanical-engineering major; Scott E. Wallis, a major in aerospace and ocean engineering; and Mark D. Weary, a student in electrical and computer engineering.

FUND RAISING

(Continued from 1)

By Stewart MacInnis

Energy, compassion, and high expectations are among the attributes so successfully combined by Azenegash Abaye that she has been awarded the 1999 Certificate of Teaching Excellence by the College of Agriculture and Life Sciences.

Abaye, an associate professor of crop and soil environmental sciences, will also become a member of the college’s Academy of Teaching Excellencers.

“She is obviously an aggressive ‘self-starter’ who in her lifetime of teaching will have a tremendously favorable impact on hundreds of agriculture students,” said John R. Hall III, department head. “Part of her effectiveness with students derives from the characteristics of leadership that she displays to them, such as integrity, courage, loyalty, endurance, understanding, enthusiasm, and beauty.”

Abaye has a reputation among students for setting very high standards, and for doing all she can to help students meet those standards. She strives to build rapport and mutual trust with her students. Hall said.

Abaye said a key aim of her teaching effort is to transform students into active thinkers, problem solvers, and decision makers, as well as to impart knowledge to them.

“Enjoys teaching and feels that undergraduate teaching is the foundation of a great university,” she said. “A teacher who has energy, enthusiasm, and dedication brings more than subject-matter to the classroom.”

In addition to traditional lecture classes, she involves students in decision-case discussions, field trips, and group collaborations. The result is an environment in which students combine knowledge with practical, hands-on experience. She also brings her research and Extension expertise in alternative crops to the classroom.

Abaye’s teaching efforts have supported the college’s two-year agricultural technology program as well as its undergraduate and graduate programs. She focuses on crop production and soil fertility, use of integrated crop management, and growing plant materials to clean up contaminated sites.

She has earned perfect 4.0 end-of-course student ratings in nearly half of the 27 courses she has taught and very high ratings on the other courses. She has developed two new courses, and she significantly revised three others.

In 1993 she established the Virginia Tech Crop Judging Team, and led it that year to a national first-place award for grain grading.

Abaye received her bachelor’s degree from Wilson College in 1984, her master’s degree from the Pennsylvania State University in 1986, and her Ph.D. from Virginia Tech in 1992. She joined the Virginia Tech faculty in 1992.

Abaye recognized by CALS for teaching excellence

with Wendi and Jean Galtier of Montpellier University, and at a conference of the Botanical Society of America held in Montreal. Scheckler was at that conference and proposed a collaboration on an international symposium on Archaeopteris.

The ancient tree and its relatives have been central to Scheckler’s research for more than 30 years. In 1998, with support from the National Science Foundation, Scheckler went on a research sabbatical to work with Meyer-Berthaud and other scientists at Université Montpellier and they went with Wendi to Morocco.

“Fortune days, we filled a truck,” Scheckler said. “Looking for tree pieces with points of branching, the researchers gathered more than 150 pieces from three locations in the Madr Bahn and Tafadd Platform. “It was the first time we had seen trunk branching on Archaeopteris, and we found hundreds of examples,” he said. “And we found big roots, which had previously been mostly conjecture.”

From cell details of slices of trunks, Meyer-Berthaud was able to show that these ancient trees also had lateral buds on their trunks and branches. “This was unique to Archaeopteris,” Scheckler said. “It was only the plant at that time that could bud and continue growing after the main axis tip died; although seed plants now have that ability.”

In the early Devonian, which is more than 400 million years ago, the (late) Devonian period. All plants were responsible for the transformation, but Archaeopteris was important because it made up 90 percent of the forests during the last 15 million years whereas these changes accelerated, Scheckler said.

“In its litter fell the streams and was a major factor in the evolution of freshwater fishes, whose numbers and varieties exploded in that time, and influenced the evolution of other marine ecosystems. It was the first plant to produce an extensive root system, so it had a profound impact on soil chemistry. And once these ecosystem changes happened, they were changed for all time. It was a one-time thing. Archaeopteris made the world almost a modern world in terms of ecosystems that surround us now,” Scheckler said.

Meyer-Berthaud and Scheckler are organizing a symposium on Archaeopteris for the International Botanical Congress in 1999.