

vt mag

On a Mission

Veterans find a niche at
Virginia Tech

Maximizing Potential

A microencapsulation company
leverages the region's resources

Energizer

The power plant that
powers Tech



HOME, SWEET HOME

BUY OR RENT? BROWNSTONE OR RANCH? THE NOTION
OF HOW TO MAKE A HOUSE A HOME IS CHANGING.

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Above: How do you make a house your home? Options abound. Derek Hyra, an associate professor of urban affairs and planning whose perspective is shared in the cover story beginning on page 22, has studied the revitalization of the Shaw/U Street neighborhood in Washington, D.C. Photo by Jim Stroup.

On the cover: Photo by Anne Wernikoff.

contents features

Energizer: The power plant that powers Tech

At Virginia Tech's Central Steam Power Plant, steam generation tops 943 million BTUs annually. The plant produces heat, hot water, and electricity, delivered through a network of underground tunnels and piping to about 90 percent of campus buildings.

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Maximizing Potential: A microencapsulation company leverages the region's resources

After emigration from Jamaica, a Virginia Tech education, and stints at major agricultural biotechnology companies, Winston Samuels (M.S. animal and poultry sciences '80, Ph.D. '83) turned entrepreneur—eventually returning to the Roanoke-Blacksburg region with his company, Maxx Performance. Find out why a return to the region has proved to be a business-savvy move.

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On a mission: Veterans find a niche at Virginia Tech

The transition from military service to the classroom isn't always easy, a fact to which many of the nearly 200 student veterans attending Virginia Tech might attest. A number of campus-wide efforts are under way to ensure that veterans thrive in a supportive academic environment.

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Home, Sweet Home: The changing shape of housing in America

Is homeownership still a cornerstone of the American Dream? Is renting or buying better? (If you're on the fence, check out our rent vs. buy flow chart on page 28.) Virginia Tech experts and alumni weigh in on the many questions facing a still-struggling U.S. housing market.

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Celebrating the 150th Anniversary of the Morrill Land-Grant Act

by CHARLES W. STEGER '69



In this day of more than 4,000 American colleges and universities of all stripes and seemingly universal access to a college education, it might be hard to sense the revolutionary nature of the land-grant college concept. Emerging from a 19th-century American culture dependent on agriculture and industry, land-grant schools were the first higher-education institutions focused on research and improving the economy.

Notably, for the first time in history, higher education was made available to the working class.

The Morrill Land-Grant Act, which established land-grant schools, became law 150 years ago in 1862, during the darkest days of the nation's Civil War. We have come a long way since.

The social mobility afforded everyone surely has helped strengthen American democratic principles. Indeed, some have dubbed the legislation the democratization of education.

Initially emphasizing agriculture and the "mechanic arts" (engineering) because of the importance these disciplines held for that era's economy, Virginia Tech has remained committed to national competitiveness and growing jobs. Through our many professional advisory boards, extensive economic development programs, ever-evolving academic programs responsive to the business sector and national trends, and faculty research catalyzed into business opportunities, we have evolved the land-grant concept to meet 21st-century needs.

True to the Morrill directive to "expose students to scientific and classical studies," Virginia Tech's broad and diverse curriculum educates students for entry into all aspects of modern life.

True to the Cooperative Extension concept that took university findings from the campus into homes, students and faculty are engaged with the needs and problems of communities here and abroad.

Knowing that the 21st-century economy means a global marketplace, we prepare students for a lifetime of learning and a worldwide perspective. No longer optional, international competencies are imperative. It is the future and we must help students succeed in the global marketplace.

We are still committed to improving agricultural production. However, the agricultural and life-science disciplines now extend into myriad scientific applications that literally grow jobs or establish new industries.

Built on the notion that higher education should take new knowledge and apply it to critical needs of the times, land-grant colleges developed curricula responsive to the needs of industry, agriculture, and society. That principle is now embedded in the land-grant college ethos. Disciplines and fields of study continue to evolve, grow, and emerge.

Today, your alma mater is engaged in disciplines and programs too numerous to catalog here. Consider just a few: the study of high-performance manufacturing, neuroscience, robotics, cybersecurity, safe water, land management, urban planning, or high-performance computing. When coupled with the classics and humanities essential to any well-rounded education, these programs provide immediate job competencies and prepare today's Virginia Tech graduate for a lifetime of learning.

Finally, one little-known vestige of the Morrill Act remains strong in Blacksburg—the act called for all students to receive military training. Virginia Agricultural and Mechanical College took the mandate many steps further, creating a military lifestyle that lives on today in our vibrant Virginia Tech Corps of Cadets.

We know from experience that students learn best by engaging with the world around them. When they grasp our hands-on/minds-on perspective; when they undertake internships, service-learning jobs, and cooperative work/study positions; or when they engage in real-world projects, such as building a solar house or a blind-driver car or creating an inner-city soup kitchen, Virginia Tech students live the reality of the 21st-century land-grant university. □

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Reactions to a new look

I am both pleased and impressed with what the Virginia Tech Magazine team has achieved. We also receive alumni magazines from the University of Pittsburgh, Syracuse University, and Earlham College. You have produced an outstanding issue that measures up more than favorably with those other publications. Keep up the good work. I look forward to the future of sharing what Virginia Tech is all about.

Mary Anna Minogue Feitler '65,
Auburn, Ind.

It's always a pleasure to hear from Virginia Tech. I enjoy the articles and especially the look forward to the Class Notes.

Nonetheless, please strongly consider changing the Class Notes back to the way they used to be—separate sections for deaths, notes, marriage, and births. It is really disconcerting to see a familiar name and then quickly look to see if [the person] had a baby, did something noteworthy, or passed on, etc., by checking to see what code happens to be above the group of names.

Harry Edward Wise Jr. (animal science '84),
Dillwyn, Va.

I really like the new format and read the magazine cover to cover. The breadth of articles—and of research at Tech—is impressive. Virginia Tech was an excellent school when I was there in the 1950s, but the growth and development since then have made Tech a great school. While I was especially interested in the article on space exploration, the whole magazine was good reading.

Richard Leary (geological sciences '59),
Springfield, Ill.

The new magazine format is a fine improvement—it flows better and is more readable. I found myself reading the entire magazine instead of just picking and choosing as before.

However, it does continue to irritate me to read the disclaimer [seen at lower left of page three], where Virginia Tech vows not to do the things it never did in the first place, except for race, which was adjusted (corrected) decades ago.

C.T. Lucy Jr. (electrical engineering '47),
Midlothian, Va.

On April 16

I received the spring 2012 issue from my son, Stephen Cacciola (mechanical engineering '05, M.S. '07). I was so impressed by the information presented and the layout of the magazine. It is a class publication. You should be proud of your team.

I read with teary eyes the information on the memorial of the tragedy in 2007. The loss of these young people and their brilliant mentors will always bring a certain sadness to my heart. I still ache for their families and can't imagine the horror the victims faced. My son was in lockdown in the next building over.

It was encouraging to read about the Center for Peace Studies and Violence Prevention. The work being done there is so vital to heighten awareness about the causes of and potential solutions to the violence that seems to be so prevalent in our world today. I am encouraged that the center will be a catalyst for peaceful resolutions so that my grandchildren never have to be witness to or victims of this type of tragedy in their lifetime.

Thank you for a very insightful article and the entire publication.

Linda Cacciola, Wakefield, R.I.

letters, continued

Another lost class ring

I read with interest your notice of John Wright's recovery of his lost class ring. I suffered the loss of my 1972 class ring in approximately the mid-1980s. I believe this occurred when movers were packing my household goods when I was reassigned from Washington, D.C., to Little Creek, Va., while serving in the Navy. The inscription inside my ring stated my name and "Aspen, Colorado."

Should you come by information on my ring, I would be very appreciative.

Kevin T. Gross (metallurgical engineering '72), Bremerton, Wash.

A parking garage's power

[Spending] \$1.2 million for a little over one-tenth of the power annually for a parking garage? What a waste of taxpayer money. What's the annual cost of power for the parking garage, and when's the break-even point on this "investment"?

Andrew Esposito (communication '94), Phoenix, Ariz.

Correction

On page 55 of the spring edition, a photo of the Boudhanath stupa in Katmandu, Nepal, was incorrectly labeled as a location in India. Thanks to Reena Thapa, of Blacksburg, for bringing the matter to our attention.



ANNE WERNIKOFF

First lady Michelle Obama, Sen. Mark Warner address Hokie Nation

On May 11, Virginia Tech's newest alumni were treated to commencement addresses from Sen. Mark Warner, D-Va. (left) and first lady Michelle Obama (middle).

Among other key points, Obama highlighted the importance of service, and Warner reminded students to call their mothers and other loved ones to show their appreciation. Virginia Tech President Charles W. Steger (right) described the commencement addresses as "a unique opportunity to welcome two dynamic leaders who are outstanding role models for today's young men and women." More than 5,000 students were honored at the ceremony.

web extras

Watch the videos and learn more at www.vt.edu/commencement/index.html.

Virginia Tech's "return on investment" ranks in top 5 percent

Do you remember when you decided to become a Hokie? Chances are you made a good choice.

Virginia Tech is ranked 67th of 1,248 schools nationally for "return on investment" (ROI) for in-state students, according to Bloomberg Businessweek, which developed a methodology to rank colleges and universities based on pay reports of alumni, net cost of attendance, and graduation rates.

The computations start with calculating the "return": self-reported median pay for alumni over a 30-year period, with the income of a typical high school graduate deducted from the

earnings. The "investment" is the net cost—tuition and fees, room and board, and books and supplies, minus grants. Lastly, ROI figures are adjusted according to a school's graduation rates.

Public schools appear twice on the list, once for in-state student costs and once for out-of-state costs. Virginia Tech's out-of-state ROI ranks 82nd. Three other Virginia schools fare well in the report, including the University of Virginia (51st in-state, 63rd out-of-state), the College of William and Mary (64th in-state, 86th out-of-state), and Washington and Lee University, a private school, at 43rd.

Get your icon on

Preparing to celebrate its 50th anniversary in 2014, the College of Architecture and Urban Studies is hosting a design competition for an icon and poster to commemorate the occasion. Register by Sept. 1 to put your design skills to the test! Visit www.50years.caus.vt.edu/ to learn more.

Computer science paper among best in symposium's history

A paper titled "MOON: MapReduce on Opportunistic Environments," authored by research scientist Heshan Lin

and Associate Professor Wu Feng, both of the College of Engineering's computer science department, and Mark Gardner in information technology, is included in the list of the best 20 papers in the 20-year history of the Association of Computing Machinery's International Symposium on High-Performance Parallel and Distributed Computing.

Research expenditures rise to \$450 million

Virginia Tech research expenditures for the fiscal year that ended June 30, 2011, rose to \$450 million, a 13.03 percent increase from the \$398 million reported in fiscal year 2010. The increase represents the largest dollar growth and the second-largest percentage rise during the past nine years,

according to Ken Miller, university controller.

The largest growth in the 2011 figures—\$26.6 million—came from federal sources, which was partly due to stimulus funding that will be fully expended by the end of 2013. University support rose 16 percent, while other commonwealth funding dropped dramatically. Industry and business support rose 7.1 percent to almost \$22.8 million.

"The increase in research funding that's so vital to Virginia Tech's efforts to improve the lives of people around the world is a testament to the dedication of the entire university community," said Robert Walters, vice president of research. "It was an excellent year in expenditure growth."



ANNE WERNIKOFF

An offer he couldn't refuse

A aficionados of Mario Puzo's "The Godfather" now owe a debt to Virginia Tech Professor of English Ed Falco (above), who has written a prequel to Puzo's epic tale.

Published in June, Falco's "The Family Corleone" is based on an unproduced screenplay by Puzo. Set in New York in 1933-34, the novel explores Vito Corleone's rise to power, reveals the re-

Students swap semester of classes for Capitol Hill

Eight undergraduates traded the familiar setting of campus life in Blacksburg for a fast-paced job experience in Washington, D.C., through the Virginia Tech Hokies on the Hill program. While studying and interning on Capitol Hill during the spring semester, they attended congressional briefings, conversed with constituents, contributed analysis, drafted memos, and more. Chris Yianilos, Tech's director of federal relations, said the program isn't restricted to political science majors. "We really encourage applicants from across the board. Federal law directly impacts agricultural policy, engineering and science research opportunities, defense strategies ... really, every subject area one can think of."



Colors called to me, shouting their names from every object and scene I looked at. They whispered the secrets of beauty in everything when, otherwise, darkness ... true, impenetrable darkness would have snuffed everything out."

— Nicole Faut, who graduated with honors as an interdisciplinary studies major in the Department of Religion and Culture, received a 2012-13 Fulbright scholarship to study art and culture in India.

web extras

Read more about Faut's story and her work by searching for her name at www.vt.edu.

lationship between Corleone and Luca Brasi, describes Sonny's entry into the family business, and introduces two important female characters: Carmella Corleone (Mama Corleone) and Kelly O'Rourke, Brasi's girlfriend.

After five years as director of Virginia Tech's creative writing program, Falco will soon step down. His guidance has been superb: Among 640 M.F.A. programs nationally, Virginia Tech's was ranked 23rd—in the top 4 percent—in 2012, according to Poets & Writers Magazine.

Perhaps it's no coincidence that the agent who represented Puzo tapped Falco for the job. Matters of the (fictional) mob are not unfamiliar to Falco's family—his niece is three-time Emmy-winner Edie Falco, who portrayed Carmela Soprano on the HBO series "The Sopranos."

web extras

To hear an interview with Falco, visit www.vtmag.vt.edu.



JIM STROUP

Patricia Dove elected to National Academy of Sciences

Patricia M. Dove, the C.P. Miles Professor of Science in the Department of Geosciences in the College of Science, has been elected a member of the National Academy of Sciences (NAS) for her sustained excellence in original scientific research. Membership in the NAS is one of the highest honors given to a scientist in the United States.

One of today's pre-eminent geochemists, Dove has made major contributions to research in the biogeochemistry of Earth processes, the physical basis of biomineralization, and geochemical controls on geophysical properties.

"Having this world-class scholar in our midst is a tremendous asset for the entire community, and we are thrilled that Dr. Dove's work has been recognized with this rare honor," said President Charles W. Steger.

Students dig into national title

In March, the Virginia Tech Soil Judging Team finished first out of 21 teams at the National Collegiate Soil Judging Championship in Morgantown, W.Va., marking the fourth time that Virginia Tech has taken home the prestigious trophy.

Over a four-day period, the students spent hours in practice pits and slogged sampling equipment through forests and across fields to perform a number of tests for the competi-

tion, including measuring soil color and shape; estimating the texture, rock fragments, and structure; recording color patterns that indicate water table height; and classifying each soil.

A taste of history at The Grove

Imagine replicating a dinner served at The Grove, Virginia Tech's home for its president, or wandering the halls of the historic, elegant house, which welcomed its first resident in 1902. An upcoming book will take you there.

"The Grove: Recipes and History of Virginia Tech's Presidential Residence" will feature

recipes from executive chefs and first ladies, a history of the house, biographical sketches of the 10 presidents who called The Grove home, and sample menus from events held there.

The book will be available for purchase at Virginia Tech bookstores in August, and proceeds will support an endowment for the Employees' Spouse and Dependent Scholarship. For more information, visit www.bookstore.vt.edu.

Engineers' council named best in nation, most philanthropic

Virginia Tech's Student Engineers' Council earned the Most Philanthropic and Best Council Awards in an an-



It's very exciting when everything comes together, and we can create experimental models that can surpass millions of years of evolution. Nature has done a great job in designing propulsion systems, but it is [a] slow and tedious process. On the other hand, the current status of technology allows us to create high-performance systems in matter of few months."

— Associate Professor Shashank Priva, on a project to build robotic jellyfish for such uses as conducting military surveillance, cleaning oil spills, and monitoring the environment.

web extras

To see a video and read more about the project, visit www.vtnews.vt.edu/articles/2012/05/052912-engineering-robojelly.html.

nual competition hosted by the National Association of Engineering Student Councils.

Among the various accolades, the Tech council was cited for its allocation of more than \$100,000 to the College of Engineering in the past year and more than \$1 million in the past 10 years. The money was used for various engineering projects, including partially funding more than 30 engineering organizations. To support these and other programs, the council sponsors and organizes one of the largest career fairs in the nation, attracting some 250 companies to campus each year.



VIRGINIA TECH ATHLETICS

James Johnson named men's basketball coach

About a week after Seth Greenberg was released from his position as head coach of the Virginia Tech men's basketball team this spring, associate head coach James Johnson (right) was named to the top post.

"[Johnson] is an individual with 19 years of coaching experience, who has spent the last five years here at Virginia Tech," said Director of Athletics Jim Weaver. "He knows and has recruited most of our current players. We believe that he is the right person at this moment in time."

Johnson, who was an assistant coach from 2007-11 and an associate coach last season, has coached as an assistant at George Mason University, Penn State, the College of Charleston, and

Elon University. A three-year starter at Ferrum College, Johnson was named his team's Most Valuable Player in 1993.

Greenberg, a two-time ACC Coach of the Year, tallied a 170-123 record and six postseason appearances in his nine seasons at Virginia Tech.

"I want to thank Coach Greenberg for his dedication and effort in leading Virginia Tech in the early years of [the university's] ACC membership," Weaver said.

Better treatment for tuberculosis possible with biochemist's findings

Recent discoveries by a Virginia Tech biochemist could lead to a more effective drug designed to combat the bacteria responsible for tuberculosis infection. Spread through the air from one person to another, tuberculosis is responsible for approximately 2 million deaths per year worldwide; and the

emergence of drug-resistant forms, specifically MDR- and XDR-TB, is an escalating challenge. Marcy Hernick, an assistant professor of biochemistry and affiliated faculty member with the Fralin Life Science Institute, discovered that the amino acid tyrosine plays several key roles in one enzyme involved in the pathogenesis of mycobacteria, the bacteria that causes tuberculosis.

Nuclear program secures grant for laboratory

The U.S. Department of Energy awarded Virginia Tech approximately \$250,000 to establish a laboratory for research and education in the area of radiation measurement, simulation, and visualization to benefit the university's growing nuclear engineering program. Pending final approval from the State Council of Higher Education for Virginia, course work in Tech's master's and doctoral degree programs will begin in the spring 2013 semester.

Virginia Tech makes national service honor roll

The Corporation for National and Community Service honored Virginia Tech in the 2012 President's Higher Education Community Service Honor Roll as one of the nation's leading colleges in service. The honor roll is the highest federal honor a university or college can receive for dedication to service-learning and civic engagement. The 2012 Honor Roll recognizes service completed during the 2010-11 academic year when more than 20,000 Virginia Tech students participated in community service projects that totaled 210,554 hours.



ANNE WERNIKOFF

Apparel program ranked 15th worldwide

Virginia Tech's apparel program has been ranked 15th in the world by Fashion-Schools.org, a status based on the quality of programs offered, job and internship placements, industry reputation, teaching facilities, and tuition costs. Here, Kelsy Elena Dominick, a junior majoring in apparel product development and merchandising management, adjusts a garment.



COURTESY PHOTO

Ooops!

What Hokie artifacts do you hold dear? In the case of Paul (industrial arts secondary education '80) and Diana Jenkins (economics '80), it's a "Hoakies" artifact. "For two years running, while we were students (1976-80), the cup vendor misspelled Hokies. The cups were such a novelty to us, we kept a few—for over 30 years," the Jenkins wrote. To upload your own artifacts and see what others have shared, go to www.vtmag.vt.edu/mementos.

Tech named a Tree Campus USA site for fourth consecutive year

For the fourth consecutive year, Virginia Tech has been named a Tree Campus USA by the Arbor Day Foundation in recognition of the university's commitment to effective community forestry management. Virginia Tech achieved the designation by meeting five core standards for sustainable campus forestry:

a tree advisory committee, a campus tree-care plan, dedicated annual expenditures for its campus tree program, an Arbor Day observance, and the sponsorship of student service-learning projects. Virginia Tech is the only institution of higher education in Virginia so recognized. The Arbor Day Foundation also recognizes the Town of Blacksburg as a Tree City USA.

In all seriousness

Silly hats aside, there's some serious thinking under way.

Originating centuries ago at Oxford and Cambridge universities, the High Table tradition was introduced at Virginia Tech in 1986 by the College of Architecture and Urban Studies' Center for Public Administration and Policy, which added its own humorous twist to the tradition. Designed to reflect on the special nature of scholarly thought, the annual ceremony examines ideas in the fields of public administration and policy. Phu V. Ho (Ph.D. public administration and public affairs '11) (left) and Professor Emeritus Gary Wamsley enjoyed the festivities on March 31.



ANNE WERNIKOFF

web extras

To see a video and story on the High Table, visit www.vtmag.vt.edu.

web extras

For more stories like these, check out VT News at www.vtnews.edu. For a regular dose of news, sign up for the Virginia Tech Daily Email at the site.

Pamplin students help Sudanese women sell hand-made goods

Women in Roanoke's Sudanese refugee community will soon have their own website to sell their handmade goods, thanks to a team of Pamplin College of Business students who undertook the website development as their senior class project.

The students—Elon Daghigh, Daniel Booth, and Michelle Ching—are all business information technology majors in Professor Alan Abrahams' Business Analysis Seminar in IT class. The class projects, Abrahams said, allow students to apply software discussed in the course, which provides a comprehensive study of decision-support systems as managerial tools, particularly in an e-commerce environment.

"It is certainly very rewarding for us to be able use our talents and skills developed over our years at [Virginia] Tech to help the Sudanese women's group," Daghigh said. Being able to work with an actual client gave him and his teammates valuable experience, he added.

Bustling Blacksburg summer

- More than 8,900 students were enrolled in both summer sessions as of May 16, up from 8,750 last summer.
- More than 180 incoming first-year students applied to participate in the first-ever Virginia Tech Summer Academy, an optional program designed to ease the transition into the college experience.

The Dream Team

Female duo among corps' top leaders

By ROCK ROSZAK '71



ROCK ROSZAK '71

Hope Mills (left) and Amanda McGrath

Women were first allowed to join the Virginia Tech Corps of Cadets three years before the federal service academies opened their doors to females. This past spring, nearly 40 years later, the highest junior and senior leadership positions a Tech cadet can attain were both held by professional, focused females. Cadet Amanda McGrath, regimental commander and a senior in Air Force ROTC, joined the corps for the senior military college experience and to prepare herself for an Air Force commission. Cadet Hope Mills, command sergeant major and a junior in Air Force ROTC, spent a year at a small college, came to Virginia Tech as a civilian student for another year, and then joined the corps to pursue what she felt would be a more challenging and fulfilling college experience.

In order to hold a leadership position in the corps, cadets must undergo preliminary screening and interviews with the senior officers on the commandant's staff. Both McGrath and Mills went through this process multiple times. As members of the regimental staff, they regularly

worked together to ensure smooth operation of the cadet regiment. The rare opportunity to lead 900-plus cadets allowed them to develop their confidence in leading peers and interacting with officers on the commandant's staff, as well as officers and non-commissioned officers in their ROTC detachment.

"[The Corps of Cadets] has given me the chance to be in an environment where I can take risks, make mistakes, and learn from them while developing into the leader I want to be," said Mills. "I don't feel like I would be the kind of Air Force officer I want to be without my experiences here."

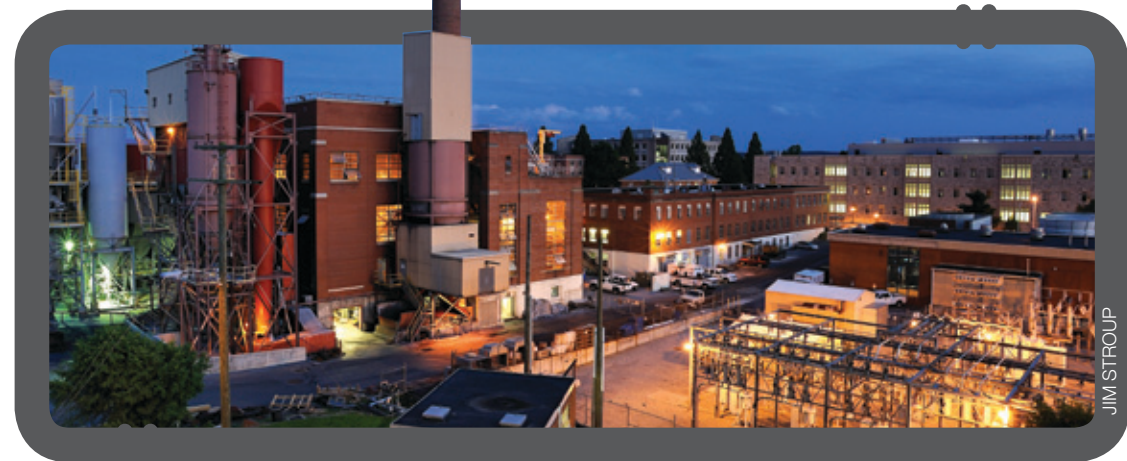
Said McGrath, "I was always a quiet and withdrawn kid. Being in the Corps of Cadets has made me more outgoing and given me the opportunity to build professional and lifelong relationships." In April, McGrath was named the university's Outstanding Undergraduate Leader of the Year for 2012. Her achievement puts her in good company: For nine consecutive years, a cadet has been

recognized as either the Outstanding Undergraduate Leader or the Undergraduate Man or Woman of the Year, or both.

Mills and McGrath agreed that being on the regimental staff was not always an easy task, but their professional relationship and personal friendship helped them overcome the difficulties of their jobs. Coincidentally, Mills will become 2nd Battalion commander, a position previously held by McGrath in fall 2011.

"I loved being 2nd Battalion commander, and I am excited to see such a great teammate and servant-leader take on that role. It's a real honor. I know she will do bigger and better things than I was able to," said McGrath, who graduated and commissioned into the Air Force in May and will attend flight training to pursue a career as a pilot. □

This summer, Col. Rock Roszak '71, U.S. Air Force (retired), retired as the Corps of Cadets alumni director.



Energizer

The power plant that powers Tech

by ROMMELYN CONDE '07, M.A. '12

Distinguished by a towering 180-foot-high radial brick smokestack, one of the least-known and seldomly visited places on campus plays an integral role in the university's infrastructure. The Central Steam Power Plant generates an annual steam output greater than 943 billion BTUs (British thermal units, one of which is approximately the heat produced by burning a single wooden match) and provides campus buildings with a portion of their heat, hot water, and electricity needs.



Steam turbine

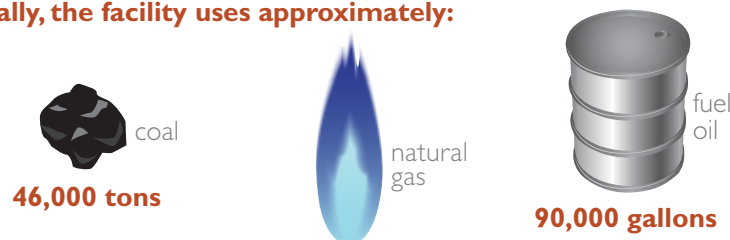
Commissioned in 1975, the **6,250-kilowatt, 12,470-volt** steam-turbine-powered generator expends generated steam through an underground tunnel network. The turbine produces **nearly 27 million kilowatt-hours** of electricity annually.

Boilers

At the heart of the plant are **five boilers**, each outfitted with superheaters rated at **80,000** or **100,000 pounds** of steam per hour. Four of the current boilers were installed prior to 1970, and a fifth was added in 1997 to meet growing demand.

The boilers produce steam at **600 pounds per square inch** and up to **825 degrees**.

Annually, the facility uses approximately:



40,000 Dth (decatherms, a measurement of the heat equivalent to 1 million BTUs)



Inaccessible tunnel: **2.76 miles** of tunnel, **11.07 miles** of piping • Direct-bury piping (in the ground): **3.78 miles**

Accessible tunnel: **2.2 miles** of tunnel, **12.27 miles** of piping

Steam tunnels

Nearly **90 percent** of campus buildings are connected to the plant through an extensive network of underground tunnels. More than **six miles** of steam lines and piping provide heat to more than **6.8 million square feet** of campus buildings. Only personnel with confined-spaces training are permitted to enter the tunnel system.



Recycled feedwater

85-90% of the water

used in the combined heat and power plant can be retrieved and reused. But before the water can be used in the boilers, it must run through de-aerators (to remove oxygen and other dissolved gasses) and de-mineralizers (for purification). To guarantee purity, the water is tested **every four hours** in the plant's water lab. "The water has to be very pure before using it in the boilers. If not, it's like plaque in an artery," said Byron Nichols, associate director of utility systems.

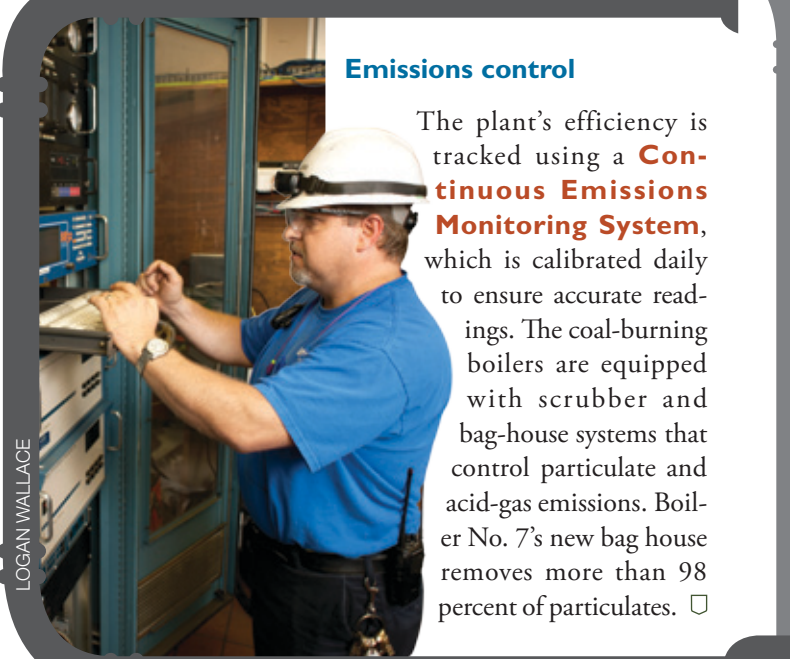
Upgraded controls

Needless to say, today's plant has undergone **several upgrades** since opening in 1901. Most noticeable is the switch to **electronic control systems**. The control room features monitors that oversee various plant features.



Emissions control

The plant's efficiency is tracked using a **Continuous Emissions Monitoring System**, which is calibrated daily to ensure accurate readings. The coal-burning boilers are equipped with scrubber and bag-house systems that control particulate and acid-gas emissions. Boiler No. 7's new bag house removes more than 98 percent of particulates. □



Rommelyn Conde (communication '07, M.A. '12) was a graduate assistant for University Relations.

Leo Piilonen: Instructional Velocity

by SARAH FITZGERALD

In physics, many of the concepts can be formidable for students to grasp.

In Leo Piilonen's classroom, however, the subject matter tends to leap off the pages of the textbooks—more literally than you might imagine.

Piilonen brings challenging material to life with Flash animations of his own creation—one approach to interactive learning employed by the university's 2011 William E. Wine Award winner.

"Just seeing the images in static form in the pages of a textbook doesn't even begin to convey all of the interesting and fun dynamics within the material," said Piilonen, who was recently appointed the chair of the Department of Physics and the William E. Hassinger Jr. Senior Faculty Fellow in Physics. "[Students are] not just watching an animation; they're able to tweak and change it to see what happens as a result of the change they made."

Changing the nature of physics education itself—through his superb teaching, an advocacy of instructional technology, and effective leadership of curriculum-related governance—earned Piilonen the Wine award.

According to his teaching assistant, Chris Martin, Piilonen's flexible teaching style engenders a broader scope of understanding. "All too often, professors stand in front of a crowded classroom and lecture in front

of a chalkboard or PowerPoint, leaving the students to take notes and attempt to stay awake," said Martin. "By using a multifaceted lecture approach, Piilonen reaches out to more students with various learning styles."

An early adopter of instructional technology, Piilonen often uses iClickers, handheld devices that allow him to collect and react to immediate student feedback. The practice also leads to peer instruction, allowing students to discuss complicated topics in a language they understand: their own.

"If they're hearing it from me, there's a distance between the student and the professor that, for better or worse, I can't remove," said Piilonen. "If they hear the same information from a classmate, that distance dissolves, and the students are much more easily able to connect wholly with the material."

In a related fashion, Piilonen initiates discussion and then lets the students make their own mistakes. "Instead of telling students how to complete a problem, I say, 'Think about this,'" he said. "[The process lets] them go a little way into the wrong approach, lets them fall onto the wrong trail, and they'll figure out they made a mistake just by going through the process of explaining why they took that route. Just by explaining it, they'll realize where they made a wrong turn."

Piilonen is interested not so much in hearing students repeat the "right" answers but in seeing that the students comprehend the underlying concepts—which is why he remains flexible.

"To some extent [that comprehension is] a challenge for me as well as the students," he said. "You have to learn what is the most effective way to connect with one's students, and that effective way truly varies from course to course depending on its level of difficulty. I'm constantly finding new ways to communicate with my students, and I find that very refreshing."

"[Piilonen] is always asking for our input and tweaking his teaching style in response," said Julia Zukowski, who recently completed Piilonen's Foundations of Physics I course as a freshman. "My table was asked to chat with him about the value of homework and in-class activities during recitation, and he took notes on our responses."

In his 25 years at Virginia Tech, Piilonen has constantly integrated new technology. As the physics department's first webmaster, he helped the department develop one of the university's first websites. He was quick to realize the potential of Scholar, an online learning-management system, posting Flash animations and in-class videos for students to view at their own convenience.

Physics instructor Alma Robinson admires Piilonen's determination and adaptability. "[He] has a reputation among his students [as] someone who is extremely patient and helpful both in his classroom and during office hours, a key reason he has had so much success as a teacher," she said. "He constantly pushes himself to be a better teacher."

— continued on page 32

About Piilonen

- William E. Hassinger Jr. Senior Faculty Fellow in Physics in the College of Science
- Recently appointed Department of Physics chair
- 2011 William E. Wine Award recipient
- Early adopter of technology, such as audience-response systems, in teaching and learning
- Member of the American Physical Society
- Conducted significant research on the Belle experiment, which validated research that won the 2008 Nobel Prize in physics



Firsthand physics: When sharing the secrets of physics with students, Leo Piilonen often turns to tangible examples.

ANNE WERNIKOFF



Winning recipe: Winston Samuels '80, '83 founded Maxx Performance, which specializes in microencapsulation technologies that extend the capabilities of ingredients in a variety of products.

LOGAN WALLACE

Maximizing Potential

A microencapsulation company leverages the region's resources

by RICHARD LOVEGROVE

Borrowing money from the Jamaican government in the 1970s, Winston Samuels left his homeland to pursue an education in the U.S., earning a bachelor's degree at Tuskegee University. Despite being nearly penniless, he continued to Virginia Tech, where he cleaned sheep pens at Smithfield Plantation to pay for his master's degree and then earned a separate stipend for his doctoral studies.

During a highly successful career in development and sales with agricultural biotechnology company Monsanto, Samuels (M.S. animal and poultry sciences '80, Ph.D. '83) traveled incessantly to promote the then-controversial bovine growth hormone, battling in some states and foreign countries to keep legislatures from banning the product, and fighting to get it accepted among veterinarians. After learning how to build and run a company at Monsanto, he later served as vice president and executive officer at Balchem Corp.

By 2003, starting Maxx Performance with his wife, Marilyn (psychology '82), didn't seem so daunting. The company, originally based in Wisconsin, microencapsulates food ingredients to extend their useful life. "I traveled across an ocean with \$6,000 to my name and to a new country, so starting a business was nothing unusual," Samuels said. "With Marilyn and my family as supporters, anything was possible."

Partly because Samuels considers Virginia Tech, with its vast human and technical resources, to be a member of his "family"—Professor Emeritus Joseph Fontenot and his wife, Eula, even served as Samuels' parents at his wedding to Marilyn—the couple moved manufacturing and research and development for their company to Roanoke in 2010. It's in the old Valley Rich Dairy building, a vast edifice that they plan to fill one day.

"Virginia Tech has been good to my family," said Samuels, whose two sons—Courtney (marketing management '07), currently in sales and marketing for Maxx, and Joel, a senior agricultural and applied economics major—are also Hokies. "We wanted to give back what was given to us."

The entrepreneur was also drawn to the region because of easy access to major highways and because he saw an area moving from its reliance on the railroad

about the series

If you have not been back to Southwest Virginia in recent years, the impressive growth of your alma mater and the region might surprise you. In the second installment of a series on the region's tech sector, Virginia Tech Magazine continues to explore the vibrant drivers of the area's recent economic growth: entrepreneurs, university spin-offs, the technology-business community, and the link between a research university and job creation. We invite you to read on, share your thoughts about job creation, and consider how you might be part of this special community.

to something more technical and requiring more education. "Virginia Tech is creating a technology base. Tech is perfectly positioned to narrow the [knowledge] gap," Samuels said.

Samuels' comments confirm what Derrick Maggard, executive director of the Roanoke-Blacksburg Technology Council (RBTC), believes. "The region offers a compelling case for entrepreneurs who are looking for great talent and a quality of life that is second to none," said Maggard, citing the impact of area colleges and universities and organizations committed to economic growth. The RBTC interacts with alumni



Hokies first: Winston Samuels '80, '83, pictured with sons Courtney '07 (left) and Joel, a senior at Tech, and his wife, Marilyn '82, was named the Department of Animal and Poultry Sciences' 2007-08 Outstanding Alumnus.

LORI GREINER

web extras

In a podcast with Winston Samuels, we explore what motivates the entrepreneur. Check it out at www.vtmag.vt.edu.

said Bennett. "He would be open-minded about implementing any new practices to make his factory better. Winston gave me the confidence to elaborate and expand on my own ideas."

The Samuels, who plan to expand the business internationally, have established the Samuels Study Abroad Scholarship at Virginia Tech to allow students to travel to such places as South Korea and South Africa. "We see ourselves as globalists, as internationalists at heart," partly because of stints with Monsanto in Toronto, Canada, and Sao Paulo, Brazil, Winston said. "There's a bigger universe out there."

As part of that global mission, the Samuels are actively hiring refugees who wish to work in the Roanoke area. "They are tremendous workers," Winston said. "We want for them to feel welcome, we want for them to come to America, as I came to America. ... We want to work jointly with Virginia Tech ... to give them a new life." □

Richard Lovegrove is an editor with University Relations' marketing and publications unit.

who have returned and rediscovered the area, coming away "astonished at the redevelopment of Roanoke, the growth of the [Virginia Tech Corporate Research Center, and more], and they are so ecstatic to be part of the action," Maggard said. "These individuals are so energized by the progress, growth, and culture."

The growth is making headlines. In 2011, according to the Bureau of Labor Statistics, employment in Blacksburg, Christiansburg, and Radford—considered linked as one Metropolitan Statistical Area (MSA)—grew by 5.32 percent, ranking No. 3 nationally among 363 MSAs. "The general feel is that [the region has] been very fortunate ... to have weathered the recession better than most," said Aric Bopp, executive director of the New River Valley Economic Development Alliance. "But it isn't until you start looking at some of the statistics do you realize just how fortunate we have been."

Pointing to analysts' predictions that microencapsulation technologies have an annual market potential of \$39 billion by 2015, the Samuels plan to add to that employment base. Microencapsulation inside a sphere as tiny as half the thickness of a human hair has numerous uses, including protecting lifesaving probiotics from degradation during processing and storage; extending the shelf life of bakery products; and masking the bitterness of ingredients such as caffeine in weight-loss supplements. According to Samuels, Maxx was the first company, using his proprietary process, to successfully disguise the bitterness of green tea extract, which allows it to be used in products for its health benefits.

The Samuels also create opportunities for students. Josh Bennett (biological sciences '12) benefitted from an internship, gaining experience in quality control. "[Winston] was always willing to listen to my own ideas that I had learned in food-science classes,"



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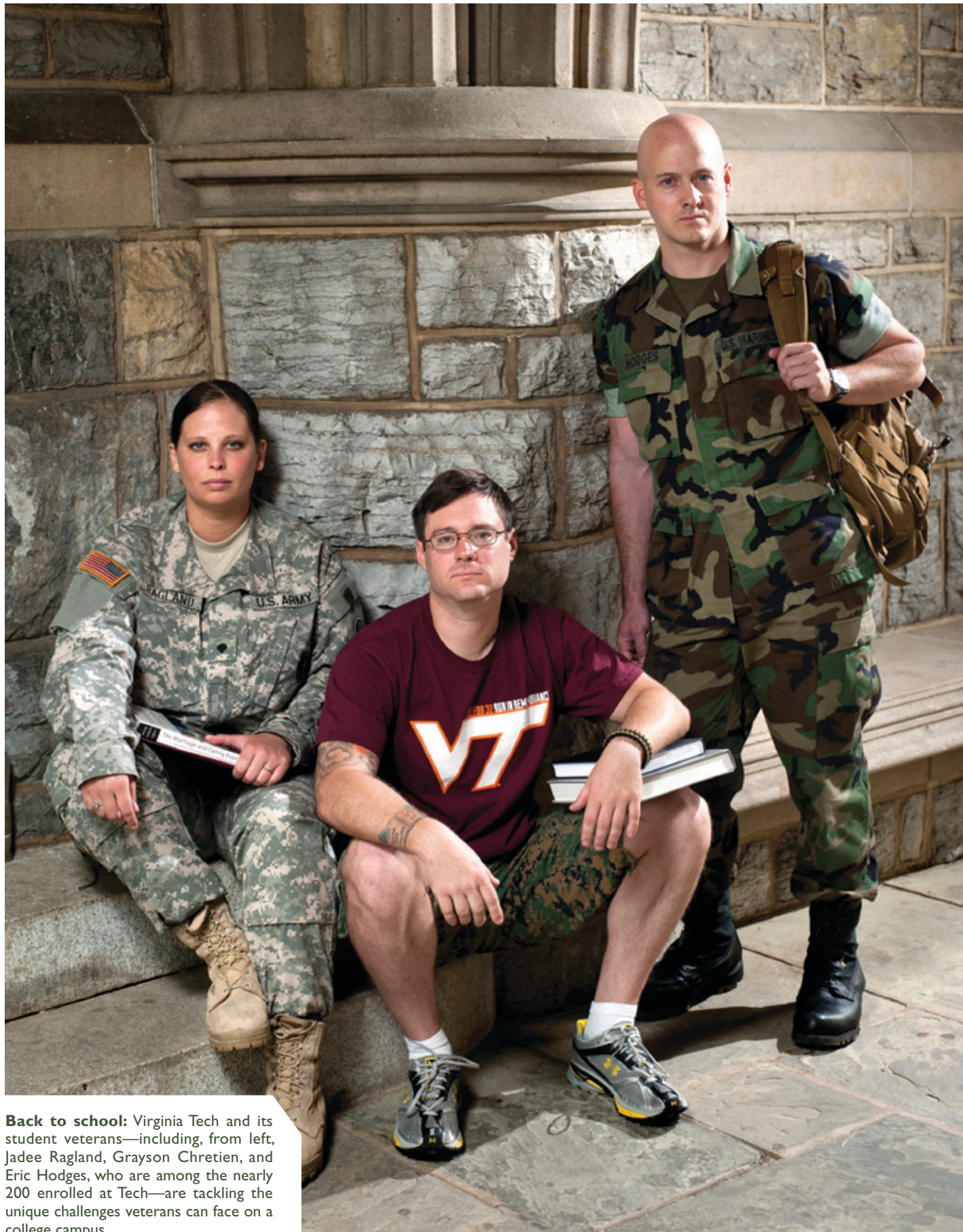
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Back to school: Virginia Tech and its student veterans—including, from left, Jadee Ragland, Grayson Chretien, and Eric Hodges, who are among the nearly 200 enrolled at Tech—are tackling the unique challenges veterans can face on a college campus.

LOGAN WALLACE

On a Mission

Veterans find a niche at Virginia Tech

by ROMMELYN CONDE '07, M.A.'12

For some students, large lecture classes may offer a comforting sense of anonymity. For some, however, including Grayson Chretien, the setting can produce anxiety. Chretien, a 29-year-old senior majoring in aerospace engineering, was deployed to Iraq twice as a heavy-equipment operator in the U.S. Marine Corps. “I didn’t realize it right away coming back from overseas, but I don’t do well in crowded areas. I was failing because I was so uncomfortable in large classes,” Chretien said.

Military service personnel and veterans like Chretien are returning in full force to pursue educational opportunities made possible largely by the Post-9/11 GI Bill. According to a report from Virginia Tech’s Veteran and Military Student Support Services—multiple efforts that focus on the higher education needs of veterans and their families at Tech and in Southwest Virginia—there are more than 130,000 veterans in the region alone. Of that population, nearly 200 are students at Virginia Tech, and approximately 600 Tech students—veterans, reservists, Virginia Army National Guard members, and dependents—reported receiving U.S. Department of Veteran Affairs education benefits in fall 2011.

The transition from military service to civilian college life can produce a host of challenges. Eric Hodges, a 33-year-old pursuing a doctorate in political science,

served in the Marine Corps as an infantry squad leader based in Guantanamo Bay and as a detachment commander at the American Embassies in Beijing, China, and Oslo, Norway. “There’s sort of a culture shock that happens during the transition because essentially the military is your way of life ... and that’s very different from the civilian way of life. And on top of that, there’s the adjustment of being at college, so [there are] several big adjustments that you’re trying to go through at the same time,” said Hodges.

Obvious differences exist between veterans and traditional college students. Though the characteristics of student veterans vary, they are generally older than the average college student and carry experience marked by military service. “When I was in classes, I noticed that I was different from the other students. To some extent, I looked different with short hair and a clean

shave, but I also carried myself differently. I don’t know if any of them noticed, but I definitely felt isolated. In my mind, I stood out,” said Chretien.

Even in his small cohort of graduate students, Hodges attracted attention. “Being in a lot of the same classes in graduate school, you get to know people, and eventually the military topic comes up. Maybe it was my shaved head that gave me away as being a veteran,” he said. In his classes, Hodges came to be known as the “guy who could kill you with his pinky finger.” “It was funny at first, but after awhile it gets a little old being stereotyped into that role,” Hodges said.

Jadee Ragland, a senior majoring in human development, also found herself having little in common with most students. “I am 24 and married. ... My husband and I both work two jobs and are full-time students,” Ragland said. She served six years in the Virginia Army National Guard and was deployed to Camp Bondsteel in Kosovo in support of Operation Enduring Freedom. Additionally, “there aren’t many female veteran students [on campus], so it is hard to make any connections,” Ragland said.

Camaraderie runs deep in military culture, and overcoming the absence of such bonds at a large university is one of the biggest

hurdles for student veterans. Veterans @ VT, a registered chapter of Student Veterans of America, was founded to provide veterans support during the transition. Barbara Weimerskirch, assistant director for Learning Assistance Programs with the Center of Academic Enrichment and Excellence, serves as a co-advisor for the group. “Having that sense of camaraderie is important for veterans, so the group has been very helpful in providing that,” Weimerskirch said.

“[Veterans @ VT] has made a ton of difference for me,” said Chretien. “The group is here to assist with the transition, but the biggest thing is that we’ve created a social network. ... It lets veterans know that they have people to turn to.” While Chretien is pleased with the progress the veterans group has achieved to date, he hopes to see stronger collaboration among the university, Veterans Affairs, and student veterans. Navigating through the various entities can delay veterans receiving necessary resources, he said.

Veterans @ VT is currently working on a proposal for an on-campus veterans center that would serve as a comprehensive liaison to all of the university’s resources for veterans. Along with social challenges, student veterans may also face questions pertaining to education and health benefits, transfer credits, and services for dependents. “With thousands of troops coming home with educational benefits that can be used by the service members or their spouses or children, there needs to be ... a place where veterans could get all the information they need,” said Ragland. Veterans could also use the center as a gathering place. Added Chretien, “Having a veterans center is critical. It would make Virginia Tech more veteran-friendly and would help inspire a lot of other veterans to come here.”

In January 2012, Gov. Bob McDonnell announced legislative and administrative initiatives to further his campaign to make Virginia the most veteran-friendly state

in the nation. Institutions like Virginia Tech are also working to address such issues. Karen Eley Sanders, associate vice president for academic support services, and others in the university community formed Veteran and Military Student Support Services. Additionally, an executive steering committee and eight working groups were created. Comprised of student and faculty and staff veterans and members from academic affairs, the working groups are examining veteran support and outreach issues in the areas of academic credit transfer; research and data analysis; education and advocacy; coordination of internal and external resources; women veterans, spouses, and dependents; veteran mentors; website maintenance; and legislative issues.

“The good news is [that] Virginia Tech is ahead of many institutions as it relates to entry support services for veterans. We have identified a point person in many offices, including financial aid, the registrar’s office, and counseling services, who can address veteran issues,” said Sanders.

“

There’s sort of a culture shock that happens during the transition [to college] because essentially the military is your way of life.”

— Eric Hodges, a Marine Corps veteran pursuing a doctorate in political science

Additionally, www.veterans.vt.edu was launched to provide information on university and community resources to veterans. The Office of Veterans Services helps students obtain U.S. Department of Veterans Affairs educational benefits. “There’s definitely still a lot more to do, but we’ve started the conversation and are making progress in addressing our student veterans’ needs,” said Sanders.

In the summer 2012 new student orientation program, a supplementary transition seminar will be offered to veterans. Chretien is proud of the initiative. “The transition seminar will offer veterans the information they’ll need. We’ll introduce pertinent people in the university [who] can help and also give veterans a chance to get answers to any questions they might have,” he said.

There’s a big-picture view that Chretien and others are working to ensure isn’t forgotten. In the fall, an academic conference focused on research about veterans’ issues will be held at The Inn at Virginia Tech. Said Hodges, “With the conference, we’re trying to make Virginia Tech a leader in veteran issues. A lot of the research you hear about veterans now is [post-traumatic stress disorder]-related; we want to shift that focus to the broader picture, to the good things that veterans can bring to communities.” □

Rommelyn Conde (communication '07, M.A. '12) was a graduate assistant with University Relations. Juliet Crichton, an editor with University Relations’ marketing and publications unit, contributed to this story.

Corps prepares cadets for military and civilian careers

While student veterans are readjusting to life back home and in the classroom, members of another group on campus are honing their leadership skills and preparing for careers in the military and in the public and private sectors.

The Virginia Tech Corps of Cadets boasts an 80 percent commissioning rate. While a majority of cadets join the military after graduation, approximately 20 percent of cadets—a growing percentage—join the corps to hone their skills before entering the civilian workforce.

“The corps provides a leadership development environment. We prepare students for service in the military or private sectors, developing the leaders who will defend the nation and change the world,” said Maj. Gen. Randal Fullhart, commandant of the Corps of Cadets.

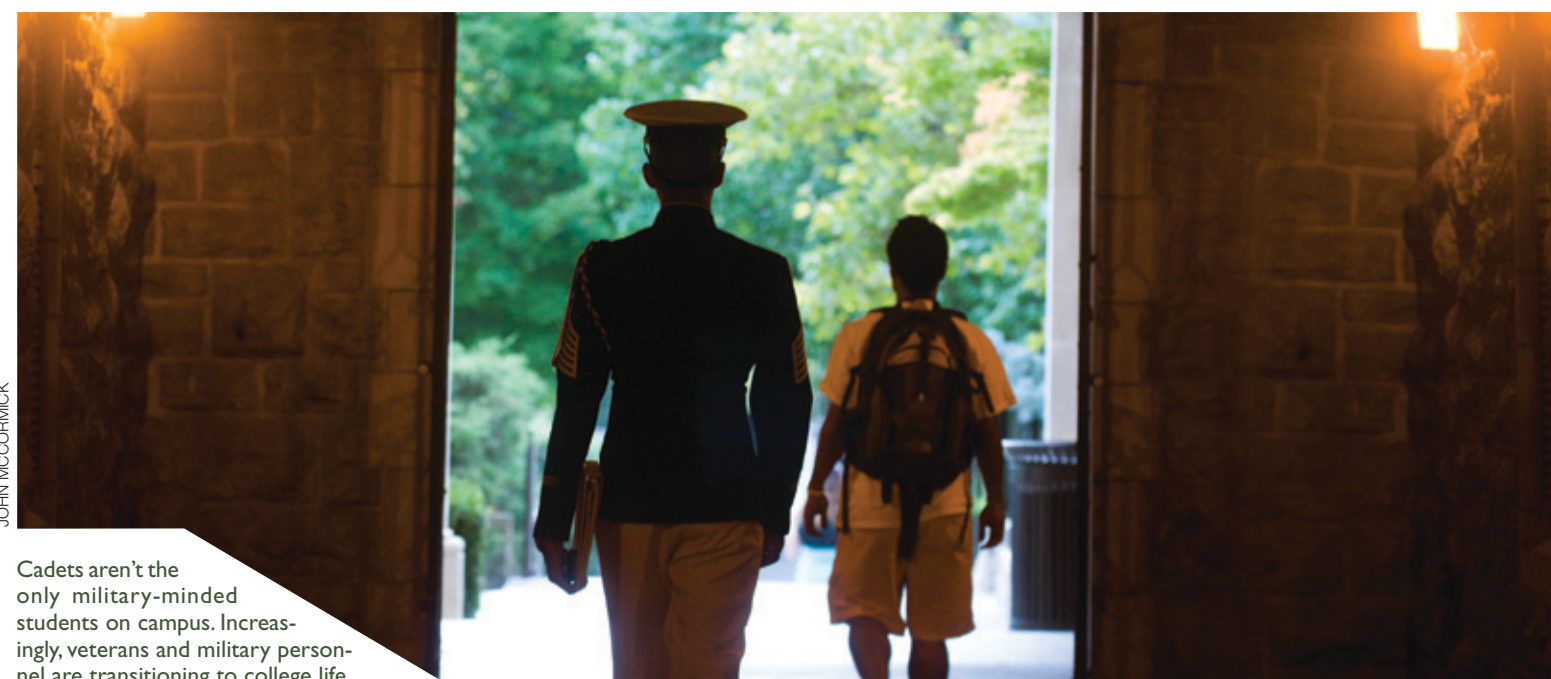
“The advantage here [with the corps] is that you are living the military lifestyle every day of the week, 24 hours a day. You’re wearing your uniform in all classes. Living in that environment will prepare you better for active-duty life,” said Lt. Col. Gary Jackson. Jackson (business management '78), who was a member of the corps and the regimental band, currently serves as the corps’ assistant director of admissions. “When I was assigned to my first Army position, I wondered if I was prepared, but after going through assignments, I realized I was, because of my experience in the corps,” Jackson said.

For cadets on the military track, three ROTC programs are offered: Army, Navy/Marine Corps, and Air Force. “ROTC is designed to get cadets ready to be officers in the military. Like the corps, we have the similar mission of developing leaders, but ROTC specifically develops future officers,” said Cmdr. Rich Fraenkel, executive officer of Naval ROTC at Virginia Tech.

The partnership between the corps and ROTC places students in what the military refers to as a “joint environment.” “There’s a phenomenal relationship among the three ROTC programs and the corps,” said Fraenkel. “Students get the experience of rooming and working with [people] from different branches. The walls that can come up between the services [aren’t] as high. It’s a strength of our program that will prepare our students for military service.”



LOGAN WALLACE



JOHN MCCORMICK

Cadets aren’t the only military-minded students on campus. Increasingly, veterans and military personnel are transitioning to college life.

HOME, SWEET HOME

Buy or rent? Brownstone or ranch? The notion of how to make a house a home is changing.

by DENISE YOUNG
photos by JIM STROUP



PHOTO ILLUSTRATION BY JIM STROUP

If there's anything as American as apple pie, it's a white picket fence and a house in the 'burbs. But when the housing bubble burst in 2008, sending millions of homes across the nation into foreclosure and leaving some homeowners owing more on their mortgages than their homes were worth, that dream came under serious scrutiny.

"Achieving the American Dream, buying a home, is uniquely American," said Joe Sirgy, a professor of marketing in the Pamplin College of Business. "That's part of our culture, part of what defines you as a successful person."

In a nation still reeling from the Great Recession and still working toward a housing recovery, has the American Dream survived intact? Has "home, sweet home" become more bittersweet than sweet?

Living the dream

"We've had the idea that homeownership was an important part of the American Dream since after World War II, but in the late '80s, '90s, and early 2000s, homeownership started becoming a problem when we started giving out riskier loans," said Derek Hyra, associate professor of urban affairs and planning at Virginia Tech and a housing policy expert. "It's not necessarily the idea of homeownership that got us into trouble; it was the deployment of unsustainable loans."

Bill Kingsbury (M.S. urban planning '67), director of the Gwinnett County (Ga.) Neighborhood Stabilization Program (NSP) in the metropolitan Atlanta area, traces the roots of that dream to the 1934 creation of the Federal Housing Administration—established to deal with a housing crisis at the time—and to the GI Bill in 1944. "We've sort of gone full circle," he said. However, he added that the dream is a uniting force: "It's just been the American Dream, and you can't pin it on one party, one president, or anything."

Not long ago, housing markets were booming, property values were soaring, and even novices were flipping houses. When the

foreclosures started and housing prices took a nosedive, many across the country found themselves stuck in underwater homes, unemployed but unable to relocate for work.

"[The year] 2000 was the start of 'anything goes,'" said Kingsbury, who, via the NSP, directs the purchase, rehabilitation, and sale of homes to income-eligible buyers. Since 2009, the program has rehabilitated 101 houses and 92 apartments. "It's a drop in the bucket," he said, compared to the State of Georgia's foreclosure rate: One of every 361 houses in the state has received a foreclosure notice. (By contrast, in a hot market like Washington, D.C., that number is one in every 24,727.) "It is a true crisis that does not know any income limits, except maybe the ultra-rich. But even upper-income communities are seeing foreclosures."

Kingsbury shared an example of a program participant—a retired teacher recovering from an abusive relationship. The woman could afford monthly payments but needed help with a down payment. "The combination of down-payment assistance with the 'soft second mortgage' in a completely

renovated house was perfect for her, saving her from the stress involved in renovating a foreclosure or short-sale property," said Kingsbury. "[She] is happily re-establishing her life and her home, starting anew with the help of the NSP program."

The American Dream may have fallen on hard times, but the link between homeownership and perceived quality of life persists. Sirgy says the numbers are in: Data show that ownership, when compared to renting, correlates to a higher sense of wellbeing. "When you buy a home, it becomes part of you, part of your heart and soul. It becomes a salient part of your life. ... Because it's intertwined with standard of living and definition of success, owning a home reflects on your status in life. Status is emotionally and psychologically important in life." In other words, because people view homeownership as a pillar of success, achieving that milestone brings a level of satisfaction.

Because the housing industry is entangled with so many others—from construction to banking to manufacturing—it commands special attention. "The housing market isn't like any other bubble," said Hyra. "When it bursts, it affects everything. It has a rippling effect throughout our entire economy." The trouble may have begun with subprime mortgages, but it soon spread to impact other industries and borrowers—even those homeowners with 30-year fixed-rate loans.

"I've never been through a period like this—and I've lived through five recessions," said Bob Boynton (architecture '69), an architect based in Richmond, Va., and a member of the governor-appointed Virginia Fair Housing Board. He explained



Home base: The concept of housing can take on a variety of forms, like these slices of Americana from around the Roanoke and New River valleys.



I think the American Dream needs to be about not benchmarking yourself against whether you own a house, but whether or not you're giving back to society and living a good life. That should be the American Dream."

— Kimberly Mitchell '93, Ph.D. '08

that an influx of foreclosures to the market could dampen need for new houses, slowing recovery in an already weak construction industry.

Is 'rent' the new 'buy'?

Kimberly Mitchell (housing, interior design, and resource management '93, Ph.D. environmental design and planning '08), an assistant professor of residential property management at Virginia Tech, encourages people to rethink their definition of success. "I think the American Dream needs to be about not benchmarking yourself against whether you own a house, but whether or not you're giving back to society and living a good life. That should be the American Dream."

As foreclosures increased and lending criteria severely tightened, homeownership rates declined, and the number of renters increased. Homeownership rates fell 1.1 percent between 2000 and 2010, from 66.2 to 65.1 percent, according to the U.S. Census Bureau. While the drop sounds small, it represents the steepest decline since the 1930s.

Despite the decrease, some experts doubt that the shift will be permanent. "There is a counter-movement [that renting is better]," said Sirgy, "but it hasn't picked up the way I thought it would. A lot of academics, scholars, and professionals have made this argument, but it's not very convincing to generations who have been brought up to believe that buying is the ultimate sign of success." Sirgy noted that in countries outside the U.S., renting is much more common, even in countries with high standards of living, such as Canada and parts of Europe.

For Blacksburg-based real estate agent Jeremy Hart, renting was a lifestyle choice that he and his wife eagerly embraced.

"We're a family of two. We had a nice house in Blacksburg and were finding we weren't using the space. We also wanted to walk more places and ride our bikes more." Since selling their home and moving into the downtown area, the couple spends more time downtown, utilizing the farmers market and living a lifestyle in line with their values. "The right reason to buy is when buying meets your goals," Hart said.

Some cite a different reason that renting might be a better option. Employment trends have shifted over the decades, and younger generations especially are often prepared to be more mobile in order to follow new job opportunities.

Tina Merritt (economics arts and sciences '91), a Blacksburg-based real estate agent specializing in working with real estate investors, sees a different reason young people might be holding off on one of life's major purchases. "They're thinking about it more. They don't want to get stuck like their parents did. [Generation] Y also has to meet tougher credit standards. They're very, very smart about making decisions and are being cautious. They're saving and making sure they're ready."

Mitchell fervently dismissed the idea that homeownership, as opposed to renting, should be a cornerstone of success. "To think that you're more of a person or you're contributing more to society because you've bought a house has never made sense to me. No one should build [his or her] self-worth on what [they] buy." Renting may simply be a better option for some people, whether because it is more economical, because they lack the down payment, because they need the freedom

of moving easily for work, or because they simply value the convenience and services that accompany being a renter.

Goodbye, McMansion. Hello, sustainable living.

For many, the aftermath of the housing crisis has led to a new way of looking at what may be the biggest purchase they make in their lifetime. "People's mindsets have changed," according to Carrie Schmidt (animal science '84), a Richmond-based Virginia field office director for the U.S. Department of Housing and Urban Development. Schmidt's role covers a wide range of issues, from single family, multifamily, or public housing to fair housing and equal-opportunity housing—even community development and planning. "[People are] not just looking to buy a house or rent a home. They're looking at everything that goes into it. ... People are looking at schools, transportation costs, community services. More than ever, folks [put] a great deal of thought into where they choose to live."

The types of homes people want are also changing. "The trend toward big homes is reducing. You're seeing the market not wanting a master bedroom closet that's the size of a 1950s bedroom," said Andrew McCoy, assistant professor of housing construction and director of the Virginia Center for Housing Research, based in Tech's College of Architecture and Urban Studies. He cited rising energy costs as a major concern for potential homebuyers. "You're starting to see more attached/multi-family housing. That's the fastest-growing side."



At play: Frank Thomas Jr. (environmental science '86) and his wife, Bronwyn, enjoy their Roanoke home with their children (from left) Emmalyn, Anne Craig, and Kemper.

"The trend is toward energy efficiency," McCoy said. "And if that means a smaller footprint, that's one way. If part of that equation is performance or new technology, then you're seeing people who want homes that perform better. Mobile technology is changing the way we interface with our house." For example, the Virginia Tech Lumenhaus, an internationally acclaimed solar house, employed a chip that would detect if everyone left the building. The house would then automatically adapt to conserve energy. "Smart' housing isn't going away," he added.

The way people think about sustainability is also changing. "You're seeing less and less of 'green' as a marketing tool. It's becoming the new normal," McCoy said. Even older houses are undergoing energy audits to measure efficiency and performance. The homes are then retrofitted to improve that score, saving the homeowner money on energy costs. In the future, McCoy said, "The consumer will have more options in how technology is integrated into the home, and that's a good thing. It's always a good thing to have a robust market."

In his research, urban affairs and planning Professor Ted Koebel hopes to address how to produce housing that consumers want, in places they want it, at price points they can afford. Koebel, former director of the Virginia Housing Research Center, said a movement away from large houses in the suburbs toward smaller, more-efficient housing closer to urban centers may be the way of the future. With many boomers approaching retirement, there may be a need for housing that accommodates retirees living on tighter budgets. And many younger generations, concerned about transportation costs, may push into the cities, a sort of "re-urbanization."

Beyond contemplating the pros and cons of an individual property, Schmidt said potential homebuyers have an even bigger question on their minds: whether to buy at all. "I think a lot of people of all ages are taking another look as to whether homeownership is the right move for them at the time—no matter if it's young folks starting out or older people questioning what's going to [occur] five or 10 years down the road."

Despite record-low interest rates, many prospective buyers are understandably skittish. "We are still working ourselves out of the housing-market crisis," said Schmidt. "And, slowly but surely, we will eventually get to where the market needs to be. It is not there yet."

"What people need to keep in mind is that the problem started with the bubble—the 25 to 35 percent overvaluation," said Koebel. Don't expect housing values to suddenly soar back to 2007 prices, he warned, because those were bubble prices. "We're now running on 10 years of being in abnormal housing market conditions. It's unclear how we come out of that and what the new normal is."

For now, the heyday of flipping real estate seems to be behind us, and many Americans appear to have changed their pre-recession tune. As Merritt noted, "People aren't buying houses; they're buying homes now." □

rent or buy? Should you rent or buy? See the flow chart on page 28.

Do you foresee any life changes that would cause you to move in the next six or seven years?

- downsizing or upgrading your living space
- marriage or divorce
- birth of a child
- change in employment status

yes
Buying and selling a home cost money that won't necessarily be recouped in equity. If you're unable to stay put for more than six years, you may be better off renting.

no
Now may be the time to buy.

Do you know the cost of and can you afford ...

- the mortgage payment
- maintenance
- taxes, insurance, homeowners association dues, and/or private mortgage insurance

yes
You're savvy; you know that homeownership costs more than just the mortgage payment.

no
Take some time to familiarize yourself with all of the extra expenses associated with owning and maintaining a home.

Do you have ...

- a good credit score
- stable employment
- money for down payment, closing costs, and more

yes
Your chances of securing financing are higher—and it appears that you're financially ready to buy a home.

no
Take some time to improve your financial situation.

Do you think of a house primarily as a place to live and not as an investment?

yes
You wisely realize that a home isn't a guaranteed cash cow.

no
The housing bubble proved that real estate isn't the sure thing many once thought. A home can still be a great asset, but building a nest—not a nest egg—should be your main concern.

Should you **Rent** or **Buy**?

SOURCES: Derek Hyra, Tina Merritt, Kimberly Mitchell

If you answered "yes" to all four, you're in the market to ...

Buy

You've done your homework and established a solid foundation. It sounds like you might be ready to take the plunge into homeownership.

If you answered "no" to one or more, you're in the market to ...

Rent

For the time being, consider enjoying the many perks and amenities of being a renter: calling someone else for maintenance, moving or relocating easily, and not worrying about property taxes.

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Brad Casper:

On Point with the NBA's Phoenix Suns

by JESSE TUEL

Training camp

After earning McDonald's All-American honorable mention status as a high school basketball player in Cincinnati, Casper applied to multiple universities, including Virginia Tech because his girlfriend's father was an alumnus. Accepted based on academics, the 6-foot-5-inch incoming freshman also arrived with word from the basketball coaches that they thought he could play.

Even so, he was burned out on basketball—and he was concerned about reserving time to woo his girlfriend and future wife, Kay (animal science '82). So he took his skills to intramurals, becoming the university's 1-on-1 champion and leading Alpha Tau Omega to fraternity basketball and university flag-football championships. He also seized leadership opportunities: as president of his fraternity, as an ambassador with Student Alumni Associates, and as a 19-year-old pulled in to work with town and university officials to envision what would become fraternity row.

In Blacksburg, Casper sharpened a zeal for being out in front. Upon leaving, he quickened the pace. He started at General Electric as a financial analyst, leaving in 1985 to join P&G's vaunted brand management department, where his performance on a hockey sponsorship established his reputation for out-of-the-

Soap, shampoo, and dryer sheets—household items that consumers always need—are products that can earn a customer's loyalty and, therefore, consistent sales, based on quality and reputation.

Brad Casper (finance '82) knows this. But in his new job as president of the NBA's Phoenix Suns, the product has a degree of fallibility: wins and losses. Building upon an international career in global marketing and general management that has included such positions as vice president and general manager of Procter & Gamble (P&G), president of Church & Dwight, and CEO and president of the Dial Corp., Casper now oversees all business and non-basketball operations for the franchise.

Think of the US Airways Center, where the Suns play, as a large entertainment venue. Casper is in charge of tickets, community relations, charities, in-game entertainment, food and beverages, and events such as concerts—in short, the entire fan experience—along with a staff of about 250 full-time employees and, indirectly, hundreds more part-timers. What's not in his control is the basketball itself—those wins and losses that we most associate with sports. “You don't control the quality of the output, but you're expected to manage what surrounds it,” Casper said.

Fortunately, managing the Suns' business and brand is as automatic for Casper as assists are for the Suns' star point guard, Steve Nash. Soon after starting with the Suns, Casper happened across a quadrant analysis that plotted consumer activities on a needs-wants axis and a functional-emotional axis. “Wants” included activities such as eating at a restaurant or visiting a salon. Sports? An “emotional need.”

With Casper's guidance, the franchise is exploring how to “market a solution to that need,” he said, by offering fans experiences they don't anticipate, such as locker-room tours after the third quarter.

box thinking. He soon became a brand manager in Japan at the age of 28, one of the firm's youngest professionals to earn an international posting. The self-described “cultural chameleon” discovered a capacity for cultural sensitivity and interpersonal skills that allowed him to thrive. He spent nine and a half years in Asia, launching items such as Pantene hair products and rising to the position of P&G's vice president and general manager. All told, he has on-the-ground experience in more than 35 countries.

Casper's global acumen plays well with students and faculty in the Pamplin College of Business, where he has been a speaker and guest lecturer, and where currently he serves on the Pamplin Advisory Council. College Dean Richard Sorensen has witnessed Casper, whom he has known for about 15 years, effectively counter the perception that an international assignment is a path toward being forgotten. Via his meticulously detailed presentations and personable demeanor, Casper emphasizes

the independence and responsibilities of overseas posts—and he always wins over his audience, Sorensen said. “He's very focused in his interactions, and he's also very thorough.”

Craig Bahner, who serves today as the chief marketing officer of Wendy's and was once a P&G marketing director under Casper, is a beneficiary of his mentor's detailed advice. When Bahner was asked to be the general manager for fabric care in Northeast Asia, Casper carefully outlined how to succeed and even offered him a list of books to read. Additionally, Bahner said that emotional intelligence is a key reason Casper has excelled. As a leader, “his inspiring vision isn't a fairy tale,” but rather, he knows how to build a team and implement a vision, Bahner said.

All-star

In 2002, Casper left P&G to become the president of New Jersey-based Church & Dwight, the manufacturer of Arm & Hammer products. In 2005, he moved to Arizona to become the Dial CEO and



Q: “How's your jump shot?”

A: “It's not as good as when I played intramurals at Virginia Tech. [But I do have two boys, and] I still have to demonstrate my skills now and then.”

— Brad Casper '82

president, leading the corporation's integration into the Germany-based Henkel Group as Henkel Consumer Goods and overseeing such initiatives as the acquisition of Right Guard deodorants and the launch of Dial body washes and Renuzit air fresheners.

Casper became intertwined with the Phoenix region's civic and business organizations and was named by the Phoenix Business Journal in 2008 and 2009 as one of the region's most-admired CEOs. Ready for a change, Casper stepped down from Dial in October 2010, remaining in the area in part because his children—Colton, 19, Carly, 16, and Brody, 15—were still in school.



Outreach: As president of the NBA's Phoenix Suns, Brad Casper '82 (left) knows that community service events enhance the franchise's image.

COURTESY OF BARRY GOSSAGE, NBA PHOTOS

And then the Phoenix Suns came knocking. Under Casper, Henkel had become a corporate sponsor for the Suns, and franchise leaders knew him not as industry outsider but as someone with rich experience in managing brands. For instance, Casper noted that the NBA is great at selling tickets, but the purchase is transactional—and marketing isn't about selling. Emphasizing the many ways the franchise connects with fans, Casper channeled the perspective of a child in the stands: "I like the gorilla [the Suns' mascot] because he dunks off a trampoline—and oh, there's a game, too."

Casper started with the Suns in October 2011—right in the middle of a lockout—as NBA owners and players negotiated an



Brad Casper '82 (right), pictured with Alvin Gentry, the Phoenix Sun's head coach (second from right), and others, oversees business and non-basketball operations for the franchise.

COURTESY OF BARRY GOSSAGE, NBA PHOTOS

agreement that would let the season begin. He was immersed in the unknown, postponing games and reassuring employees. Then, suddenly, the season was back on, and the organization had to schedule a season in a compressed timeframe, hold training camp, sell tickets, market the team, and more. "The first six weeks were incredibly intense—and exhausting," Casper said. "I don't think I took 12 or 14 hours off in that entire time span."

Although the Suns missed the playoffs this season, Casper measures success by more than ticket revenue and wins: The franchise prides itself on high-character players and a reputation as a good corporate citizen. Earlier this spring, Casper was preparing for the Suns' annual charity event, at which \$1 million would be distributed to 175 charitable organizations.

Wins and losses aside, the Suns' identity is a bankable product—much like the well-seasoned veteran leading the way. □



continued from page 13

Piilonen's influence at Virginia Tech is sizeable. During his tenure as chair of the physics department's undergraduate committee, he managed the development of the Physics ViEWS policy, designed to emphasize communication and a broader scope of learning. Demonstrating research excellence, Piilonen investigated the behavior of matter versus antimatter as one of the founding members of the Belle experiment, an internationally known research program in high-energy particle physics that measured and conclusively validated the predictions of physicists who earned the 2008 Nobel Prize in physics.

"Beyond the superficial exposure of including examples of our own research to illustrate concepts in our teachings, we try to encourage every student to work with faculty during the semester or summer on a project," said Piilonen. "[The collaboration] gives them a chance to get their hands dirty, puts their ideas into practice, and gives them a chance to have their research published."

As technology continues to evolve, so do Piilonen's teaching methods. By the fall semester, he hopes to begin utilizing the touch-sensitive technology of smartphones and tablets. "With animations, there isn't any touch feedback," he explained. "If

you could make alterations using hand gestures or a swipe of the finger, it would be fantastic. It would be great to get that extra connection to the student and to give them the ability to manipulate animations and see how they evolve over time."

Martin praised Piilonen's willingness to take risks in order to teach students. "This open approach, with the understanding that no single instructional technique is perfect, shows his compassion and continuous efforts to ensure the success of his students," he said. □

Sarah Fitzgerald, a junior majoring in communication and English, was an intern with Virginia Tech Magazine.

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JIM STROUP

Championing the Environment

24/7

by STUART V. PRICE '86

Both in my work as an environmental communicator and at home, surrounded by the beauties of nature that I have strived to protect throughout my career, a complex set of questions inspires me. Should we feel obligated to serve as environmental stewards of the world around us, or are existing systems capable of protecting us over the long term? Does the value of service reflected in the Virginia Tech Pylons encourage us to reach out and promote environmental stewardship?

At work

Living in the beautiful surroundings of Blacksburg taught me great respect for the local lands. Engaging in classes on environmental history, environmental law, and pollution as an English major fostered my professional pursuits as an environmental communicator.

One of my proudest memories is of Anthony Colaianne, associate professor and associate chair of the English department, recommending me for my first writing assignment just down the road at the Radford Army Ammunition Plant (RAAP). He encouraged me to become RAAP's first environmental training representative, and I was able to write the plant's first hazardous-waste training programs for closed-incineration and open-burning operations.

After being hired full-time at RAAP, my added duties included instructing classes, writing plant-wide environmental training lessons, and editing pollution-abatement management plans. My role was to instruct workers about conducting their daily jobs with environmental respect, minimizing hazardous-waste disposal, air emissions, and discharges into the New River. One of my biggest accomplishments was writing an environmental-management training program for all of RAAP's 5,000 employees—including the general manager.

I was especially excited because these were new programs. Knowing that my role was to help build environmental standards at a major military installation let me begin every morning with vigor and self-certainty. I felt I was serving a purpose and making a difference.

After my days at the RAAP, I shifted to radioactive-waste management at two major federal sites out West and other sites in the Northeast. My job entailed maintaining close relations with lawmakers, associations, and lobbyists in Washington, D.C.

Today, one key challenge for Washington policymakers is to encourage innovative, environmentally sound energy-management technologies. To help meet this need, the Department of Energy founded the Solar Decathlon in 2002 to promote renewable-energy solutions for tomorrow, and I wrote about the event for the Solar Today publication and the American Solar Energy Society. Virginia Tech students have played a leading role in making this event a success and introducing renewable-energy solutions for the world to review. The students demonstrated their role as global leaders when, at the 2010 Solar Decathlon in Madrid, Spain, they constructed a championship house powered entirely by the sun.

At home

While environmental management dominates my work life, environmental appreciation informs my home life. My wife and I live in a rural, wetland area near Richmond. Our property, Price Gardens, includes six fielded acres, 10 wooded acres, and several hiking trails along two creeks.

Before we moved here, Angus beef cattle grazed the land. Now, the National Wildlife Federation (based in Reston, Va.) has recognized our property as a certified wildlife habitat. Our land hosts everything from wild turkeys to coyotes, from eagles to hummingbirds to herons, from frogs to mussels.

Our forest includes a strong, mature collection of oak, sycamore, cedar, birch, maple, holly, and ash trees. In fact, the most significant tree is a willow oak that stands 145 feet tall; Virginia Tech's Jeff Kirwan, professor emeritus in the College of Natural Resources and Environment, encouraged me to nominate the tree for the "Remarkable Trees of Virginia" book he co-authored.

Forestry harvest is a considerable business in Amelia County, and many of our neighbors have chosen to harvest and market their trees. However, our management priorities rank wildlife maintenance and outdoor recreation—including my daily walk in the woods, which I cherish—above timber sales.

Does the Virginia Tech service pylon encourage us to reach out and promote environmental stewardship?

I think so. My career has focused on stewardship—recognizing energy and environmental challenges and doing what I can to reach out and explain how our leaders and scientists are tackling far-reaching problems. My role has proven to be challenging and rewarding.

Over the course of 25 years in environmental communications, I've learned many lessons. I recognize the value of and need for regulations. I also recognize that good public relations encourages companies by allowing them to share their positive actions—even those done merely to comply with regulations. I've discovered the vital role that local officials and environmental organizations—and yes, even lobbyists—play in facilitating change.

Perhaps the greatest lesson of all is this: Make sure that you love your work. It really makes a difference. □

As an environmental communicator, Stuart V. Price (English '86) has worked with federal agencies, federal contractors, and engineering corporations in Washington, D.C., New Mexico, and New York City, as well as Radford and Lynchburg, Va.



MELISSA PRICE

Stuart Price '86 and his wife, Melissa, live on a 16-acre spread—Price Gardens—in rural Amelia County, just southwest of Richmond. This July, Stuart expects to harvest 1,000 blackberries from this patch.

Call for submissions

In a series of alumni-penned essays, we want to share with readers the stories from your diverse academic, personal, and professional backgrounds that express how you live out the Pylon values. To be considered, select a Pylon value, and send a 100-word abstract to vtmag@vt.edu.

Students Hone Business Skills in Donor-Supported Course

by ALBERT RABOTEAU

The business plan seemed sound, the product appealing. The students in Professor Earl Kline's entrepreneurial wood-design and innovation course were confident they could manufacture and sell enough units to make a profit.

Then came the unexpected challenges that inevitably arise when launching a new business. The students' table saw kept tearing out more wood from their product than intended. Online sales could not be conducted as planned. The students had to adjust their strategies with an eye toward keeping their operation in the black.

All the while during their two-semester course, they had to work as a team to delegate, to identify roles and responsibilities, and to follow through on tasks—practices that are essential in industry, but are not always taught in classrooms.

"It's not that the product is complex or even that the business is complex, but you have to get things done through people," Kline, a faculty member in the College of Natural Resources and Environment's Department of Sustainable Biomaterials, said while describing his motivation for starting the course in 2007. "It's about communication. How do you motivate? How do you keep people accountable? How do you give them the tools to do their job successfully? That's what I hope they pick up in this class. And these tend to be the things I hear them say they learned at the end."

As part of the class, students run a business called the Wood Enterprise Institute, for which Kline is faculty advisor. In 2010-11, the institute produced coasters bearing the Virginia Tech logo. Sales were strong, so for 2011-12 the idea was to extend that product by adding salt and pepper shakers and a container to hold all the items, said Kyle Simmons, a senior who expects to complete his wood science and forest products degree in December 2012.

By the time he and his classmates gave their final presentation for class, they had spent numerous hours developing their product, securing approval from the university's licensing and trademark office, writing a business plan, and setting up their team structure. Thanks to support from donors, the students also were able to go on a group retreat, visit company sites, purchase new equipment as needed, and hear presentations from people who work in the wood-products industry.



LOGAN WALLACE

Running a business called the Wood Enterprise Institute, Virginia Tech students are developing, manufacturing, and selling products—and gaining valuable experience.



Professor Earl Kline and student Josh Hertzler talk inside the Thomas M. Brooks Forest Products Center.

Simmons, who plans to work in sales, was in charge of marketing the product he and his classmates had developed, and he said that the collaboration on such a detailed group project was eye-opening.

"We were all used to being in the same classes together but were not all used to being in the same business together," he said, adding that the class was "definitely one of the most valuable experiences I've had in my college career."

Brooks Whitehurst (chemical engineering '51) said he donated to the institute because it helps students learn to be creative problem-solvers.

"Traditionally, in school, you take a test at the end of your semester, with multiple-choice questions, and one of the answers is the correct one, but that's not the real world," said Whitehurst, who lives in New Bern, N.C., and is president of a company that conducts research and develops products and processes for its clients. "In the real world, you have to come up with the best solution possible given the circumstances that exist."

John Rocovich Jr. (general business '66) is trustee for the Nettleton Foundation Charitable Trust, which has supported Kline's class via the institute as well. Rocovich, an attorney based in Roanoke, Va., who serves on the Virginia Tech Board of Visitors, said the institute is an attractive program to fund because of the type of hands-on business experience it offers students.

"When the students have that real experience, it dramatically enhances their employability and job prospects, and it gives them a fast start [in the working world]," he said. "And when you have a program as fantastic as we have in the College of Natural Resources and Environment, you want to be on the cutting edge, and this program fits right into that."

Josh Hertzler, a rising senior who is majoring in wood science and forest products, said the program allows its students to have a well-rounded set of skills by the time they enter the workforce. "This is something that

employers can look at and see that we've run a real business with real money," he said. "It shows that we're experienced, which is just a really good thing, and not everyone gets that opportunity in school."

"I actually have this on my résumé already," Hertzler added, "and it's definitely something that I'll try and bring up in job interviews." □

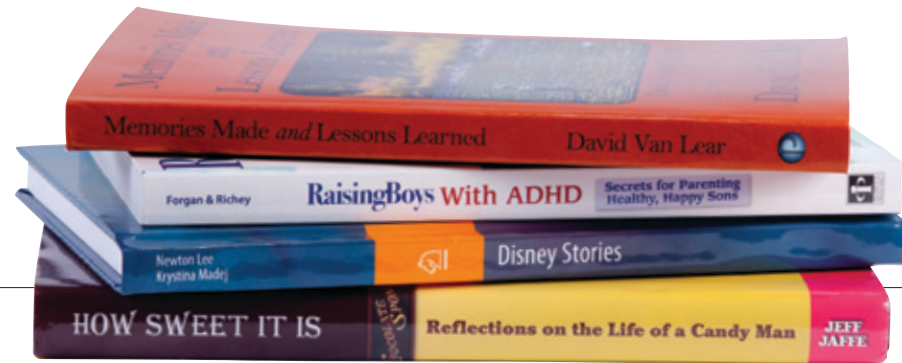
Albert Raboteau is the director of development communications.

web extras

To learn more about the Wood Enterprise Institute and its students, visit http://cnre.vt.edu/cnr_pdf/2012_WEI_Program.pdf.

Submission guidelines are available online at www.vtmag.vt.edu/bookreview.html. To submit a book, mail it to Book Notes, Virginia Tech Magazine, 205 Media Building, Blacksburg, VA 24061. You can also email a high-resolution cover image, along with your name, the name of the publisher, the genre, and a brief description of the book, to vtmag@vt.edu. We must receive the book within one year of its publication date.

Photos by Anne Wernikoff (right) and Logan Wallace.



BOOKS BY FACULTY/STAFF

nonfiction

critical/reference

Klaus Hinkelmann, professor emeritus of statistics, editor, “Design and Analysis of Experiments, Vol. 3: Special Designs and Applications,” John Wiley & Sons.

Rock Roszak (management ’71), “Hokie High: Combat Aircraft and Aviators of the Virginia Tech Corps of Cadets Alumni,” article compilation, aviation, self-published.

BOOKS BY ALUMNI

nonfiction

critical/reference

Roger Amato (geological sciences ’66, M.S. ’68), “Classic Vintage Crawlers and Dozers, Vol. 2,” machinery, Heimburger House.

Deb Cheslow (aerospace and ocean engineering ’87) and **Angie Flynn** (finance ’93, M.B.A. ’97), “The Simple Success Solution for Real and Permanent Weight Loss,”

holistic approach to weight control and fitness, TAG Publishing.

Bill Franks (statistics ’90), “Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with Advanced Analytics,” business, John Wiley & Sons.

Newton Lee (computer science ’83, M.S. ’85), et al., “Disney Stories: Getting to Digital,” technological innovation, media, Springer.

Christine Mason Miller (studio art ’90), “Desire to Inspire: Using Creative Passion to Transform the World,” personal growth, inspiration, North Light Books.

James L. Moore III (M.A.Ed. counselor education ’97, Ph.D. ’00), co-editor, “African American Students in Urban Schools: Critical Issues and Solutions for Achievement,” Peter Lang Publishing.

Dwight Polk (secondary education, history, and social science ’81), “Law Enforcement Responder: Principles of Emergency

Medicine, Rescue, and Force Protection,” textbook, Jones & Bartlett Publishers.

Richard G. Rice (chemical engineering ’61), et al., “Applied Mathematics and Modeling for Chemical Engineers,” second edition, John Wiley & Sons.

Mary Anne Richey (clothing, textiles, and related art ’69, M.A.Ed. educational supervision ’70), “Raising Boys with ADHD: Secrets for Parenting Healthy, Happy Sons,” Prufrock Press Inc.

Katherine Ziff (M.U.A. urban affairs ’84), “Asylum on the Heal: History of a Healing Landscape,” psychiatry, Ohio University Press.

memoir

Herbert Lawrence Duff Jr. (mechanical engineering ’49), “Recollections and Reflections: The Years Go By,” memoir, self-published.

Jeff Jaffe (architecture engineering ’43), “How Sweet

It Is: Reflections on the Life of a Candy Man,” autobiography, business, Professional Press.

David Van Lear (forestry and wildlife ’63, M.S. ’63), “Memories Made and Lessons Learned: During a Lifetime of Angling,” Outskirts Press Inc.

fiction

Domingo Rocha (physics ’78), “Redemption Island,” novel, survival, Old Line Publishing.

Everett Stephenson Jr. (M.S. industrial forestry operations ’77), “Innovation,” reflections on creativity, short stories, iUniverse.

Neil J. Swanson (history ’97, M.A.Ed. education ’99), “Prae Omega-Primus,” science fiction, apocalyptic, CreateSpace.

Vernon Wildly Jr. (industrial systems engineering ’94), “Nice Guys Finish Last,” romantic comedy, Lulu Publishing.

featured author:

Sarah McCoy (communication ’02) is the author of the novels “The Baker’s Daughter” (Crown) and “The Time It Snowed in Puerto Rico” (Random House).

McCoy has taught writing at Old Dominion University and the University of Texas at El Paso. She lives with her husband and dog in El Paso, where she is working on her next novel. You can learn more about McCoy and her work at www.sarahmccoy.com.

A 2012 Doubleday/Literary Guild Book Club selection, “The Baker’s Daughter,” has been praised as “a beautiful, heartbreaking gem of a novel” by Tatiana de Rosnay (“Sarah’s Key”) and “a thoughtful reading experience indeed” by Chris Bohjalian (“Skeletons at the Feast”).

Set in El Paso, “The Baker’s Daughter” follows the intertwining tales of Elsie Schmidt, a bakery owner who lives with the memories of Germany during the last year of World War II; journalist Reba Adams, who gets far more than the feel-good Christmas piece she was looking for when she walked into Elsie’s bakery; and Reba’s fiancé, by-the-book border patrol agent Riki Chavez. An excerpt, reprinted with the author’s permission, follows.



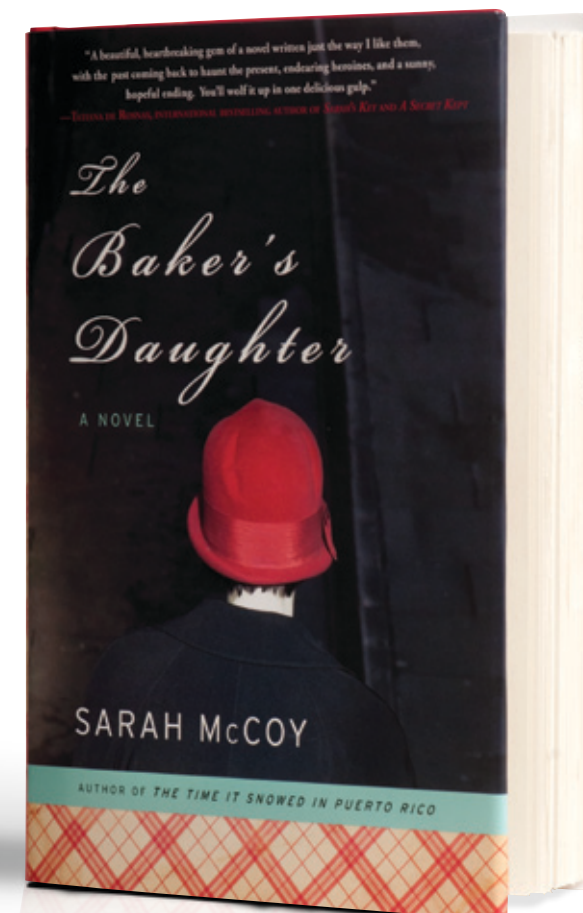
EMILY MARTIN

Garmisch, Germany, July 1945

Long after the downstairs oven had cooled to the touch and the upstairs had grown warm with bodies cocooned in cotton sheets, she slipped her feet from beneath the thin coverlet and quietly made her way through the darkness, neglecting her slippers for fear that their clip might wake her sleeping husband. She paused momentarily at the girl’s room, hand on the knob, and leaned an ear against the door. A light snore trembled through the wood, and she matched her breath to it. If only she could halt the seasons, forget the past and present, turn the handle and climb in beside her like old times. But she could not forget. Her secret pulled her away, down the narrow steps that creaked under weight, so she walked on tiptoe, one hand balancing against the wall.

In the kitchen, bundled dough mounds as white and round as babies lined the countertop and filled the space with the smell of milk and honey, and promises of a full tomorrow. She lit a match. Its black head flamed and licked the candlewick before fuming to nothing. She preferred the candle’s burning ribbons to the electric bulb, buzzing bright and incriminating high above. Armed soldiers patrolled outside their doors; she couldn’t risk inciting curiosity or waking her family.

She bent to her knees beneath the rising bread, pushed aside a blackened pot, and groped in the darkness for the split in the floorboard where she’d hidden the new letter. Her palms, callused from the rolling pin, snagged on the timber planks. Shallow splinters embedded in her skin, but she did not take notice. Her heart pounded in her ears and radiated heat through her arm and fingertips until she heard and felt the crackle of the paper she’d bunched into the crevice earlier.



departments

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contributors

Tom Tillar '69 Vice President for Alumni Relations
Dave Hunt Communications Director
Shirley Fleet Class Notes Editor

Applauding the Service of Colleagues



alumni association

Commentary

by TOM TILLAR '69

A great strength of Virginia Tech is its people, including those who devote years of leadership and dedication to help shape and expand the university's programs, which lead to its high rankings. Four individuals who have served the university for many years in leadership roles are retiring this year. It has been a true privilege to know and work with each of them as colleagues. I have seen firsthand how their special talents have made a lasting impact on Virginia Tech. Some 137 collective years of service to Tech can be attributed to Ray Smoot (English '69, M.S. educational administration '71), CEO of the Virginia Tech Foundation and treasurer; Erv Blythe (English '68, M.U.A. urban affairs '83), vice president for information technology and chief information officer; Jim Bohland, vice president and executive director of the National Capital Region; and Ed Spencer, vice president for student affairs. Each leaves his signature on our university, indelibly etched in Hokie Stone as a symbol of loyal service and enduring legacy.

Two are alumni, and two are alumni purely by osmosis. They each have possessed and shared an identical Hokie spirit and passion for Tech. I am pleased to share my perspectives on their significant service to the university and will do so in the order of each one's length of tenure.

Ray Smoot entered the university in the mid-1960s. In a short period of time, he emerged as a leader in student life and student governance and served as Student Government Association president in his senior year. He completed graduate degrees in the early '70s at Virginia Tech and Ohio State University and, in 1975, he returned to Tech to become a valued as-

sistant to then-Vice President for Administration Stuart Cassell, a long-standing chief business officer of the university. Early on, Smoot followed in Cassell's role and assumed responsibilities in general administration and services, business affairs, and oversight of the Virginia Tech Foundation. His titles have varied over 40 years, even including a short stint as interim athletic director. Smoot stepped out of his vice presidency role a few years ago and remained at the helm of the Virginia Tech Foundation as CEO and treasurer. During his years of stewarding the Foundation and its diversified portfolio, its assets grew from \$11 million to more than \$1.3 billion, a figure that includes high-profile regional real estate, strategic partnerships for economic and civic development, and significant scholarship aid for students.

The physical campus has grown both in numbers of buildings and in total acreage under Smoot's careful watch. A closer relationship with the Roanoke community was established by the restoration and expansion of the Hotel Roanoke, a gift to the foundation. Smoot was integral in forging many partnerships with our Roanoke neighbors. The Virginia Tech Corporate Research Center broke ground in 1988; the initial acreage holds 22 buildings, and expansion is under way to accommodate continued growth. Other exciting additions to advance Virginia Tech through the foundation's portfolio include the Pete Dye River Course, the Virginia Tech Research Center – Arlington, and a new parking and commercial-space facility currently under construction along Turner Street. Thanks to Smoot's thoughtful and visionary leadership, these real estate initiatives and strategic partnerships for economic and civic development have been integral to the university's growth and advancement.

Pillars: Longtime vice presidents (from left) Ray Smoot, Ed Spencer, Jim Bohland, and Erv Blythe are retiring this summer.



JIM STROUP

Living history: (From left) Erv Blythe, Ed Spencer, Ray Smoot, and Jim Bohland in the Holtzman Alumni Center's museum.

Erv Blythe entered Virginia Tech as a member of the Corps of Cadets in 1963. He joined the university's administration in the late '70s. Since the early '90s, he has served as an information-technology leader and pioneer in his vice presidency. Blythe's responsibility has been policy development and strategic planning related to information technology and services at a university whose students and faculty are increasingly dependent on evolving technology in software and hardware. His early career with the U.S. Department of Defense led to his wise and efficient use of resources over many years, keeping capacity ahead of rapidly advancing demand.

Partnering with the College of Engineering, Blythe's team developed the revolutionary System X supercomputer, which, with a 2004 update, was the fastest university supercomputer in the world. Also under Blythe's leadership, the Faculty Development Institute was created and became a cornerstone in the institutional information-technology field. The institute became a model, widely adopted by other universities, for expanding faculty members' use of technology for instruction. Elsewhere, Blythe has been the catalyst for Tech's world-wide reputation as a leader in computer and network security and the highly acclaimed Blacksburg Electronic Village, and he has devoted considerable attention to the eCorridors program, a statewide program to help regions and communities develop the economic potential of broadband-infrastructure technology. These are merely a few examples of Blythe's creative and strategic direction of programs that have benefited students, faculty, and alumni and have served as valuable economic engines.

Jim Bohland joined the faculty in 1980 as professor and chair of the urban affairs and planning program and later served as founding director of the School of Public and International Affairs. In the early 2000s, he served as interim provost, playing a pivotal role in the development of the university's strategic plan. During that period, he approved the initial concept for the Institute for Critical Technology and Applied Science, an idea that has extended across the university to engage multidisciplinary research and facilities designed specifically for such collaboration. Bohland also helped establish Virginia Tech's partnership with Wake Forest for the joint School of Biomedical Engineering and Sciences.

In 2002, Bohland was named vice president and executive director of National Capital Region Operations. He and his team in Northern Virginia were responsible for the development and implementation of new strategic directions in resilience, security, sustainability, health, and technology, and the coordination of services and program initiatives for the university's six sites in the region. Perhaps his most important accomplishment in the region was the preparation for and recent opening of the Virginia Tech Research Center – Arlington. Clearly, Bohland has influenced many facets of the university's academic enterprise and has broadened the university's research and instructional reach in the National Capital Region.

Ed Spencer joined the university in 1983 and most recently served as vice president for the Division of Student Affairs, which has 15 departments and a staff of 2,600 employees. He has served as director of residential and dining programs and as both an assistant and an associate vice president for student affairs. Possessing a passion for teaching, he served as an associate professor in the School of Education's graduate program in higher education. By providing services and student-life activities that improve the quality and enrichment of the student experience, he has focused his career on the welfare of students.

Significant among Spencer's accomplishments was his leadership in building a dining program that is consistently ranked among the top in the nation. The Oak Lane Community for fraternity and sorority housing was developed under his planning and guidance during the past 30 years, and a fourth phase is currently under construction. Another innovation in student affairs under his leadership was the introduction of living-learning communities and co-ed residence halls to the residence life program. The university's first residential college opened a year ago and, like

many other innovations at Virginia Tech, is a model for other universities. Because of Spencer's encouragement, student-volunteer programming has soared, resulting in thousands of students participating in campus programs, such as the Big Event service day and Relay For Life. The annual relay has raised more than \$500,000 for cancer research in each of the last four years. During his years at Virginia Tech, Spencer's warm and engaging personality has inspired thousands of students.

Another alumnus who has given years of service, first as a student and later as the first vice president for development and university relations, is **Charles Forbes** (industrial engineering and operations research '49). Forbes died March 7 in Wilmington, Del. In the 1980s, he served as leader of the university's first major campaign, a hugely successful effort that paved the way for additional campaigns in later decades. He will be remembered for his passionate love for his alma mater and the impeccable style with which he launched a comprehensive and coordinated fundraising program. His obituary and photo are included on page 50.

All five individuals leave marks on Virginia Tech that surely will be long lasting. Their commitment to creative leadership and professional service has benefited Tech and meaningfully touched the lives of thousands of students, faculty, staff, alumni, and friends.

Tan Tiller '69



JOHN MCCORMICK

Alumni board nominations for 2013-16

The Alumni Association is seeking nominations for its board of directors for the three-year term that begins July 2013. Due by Sept. 1, nominations should be mailed to Alumni Board Nominations, Virginia Tech Alumni Association, Holtzman Alumni Center (0102), 901 Prices Fork Rd., Blacksburg, VA 24061. Please include each nominee's full name, class year, address, and specific qualifications for service on the board.

Call for Outstanding Recent Alumni Award nominations

The Alumni Association invites nominations for the 2012-13 Outstanding Recent Alumni Awards, which recognize professional achievement and leadership by alumni who have graduated in the past 10 years (2003-12). Due by Sept. 1, nominations should be mailed to Outstanding Recent Alumni Awards, Virginia Tech Alumni Association, Holtzman Alumni Center (0102), 901 Prices Fork Rd., Blacksburg, VA 24061. Please include each candidate's biographical information and qualifications.



Lance L. Smith '68



Matthew M. Winston Jr. '90

COURTESY PHOTOS

Alumni board elects officers and members

President Lance L. Smith (business administration '68) and board Vice President Matthew M. Winston Jr. (marketing '90) were elected to serve additional one-year terms. Smith, who resides in Pinehurst, N.C., is a retired U.S. Air Force general. Winston, an assistant to the University of Georgia president, resides in Athens, Ga.

Also elected to the board's executive committee were Gregory D. Merritt (marketing '93), Nicholas J. Moga (aerospace and ocean engineering '76), and A. Carole Pratt (biology '72).

Colin Goddard (international studies '08) was newly elected to a three-year term. Incumbents elected to a second term were Kendley J. Davenport (public affairs, management '84), Lisa Glasscock Miller (veterinary medicine '87), Jean Skelton Montague (English '69), Jay S. Poole (agriculture education '78), A. Carole Pratt (biology '72), and Philip S. Thompson (materials science engineering '77).

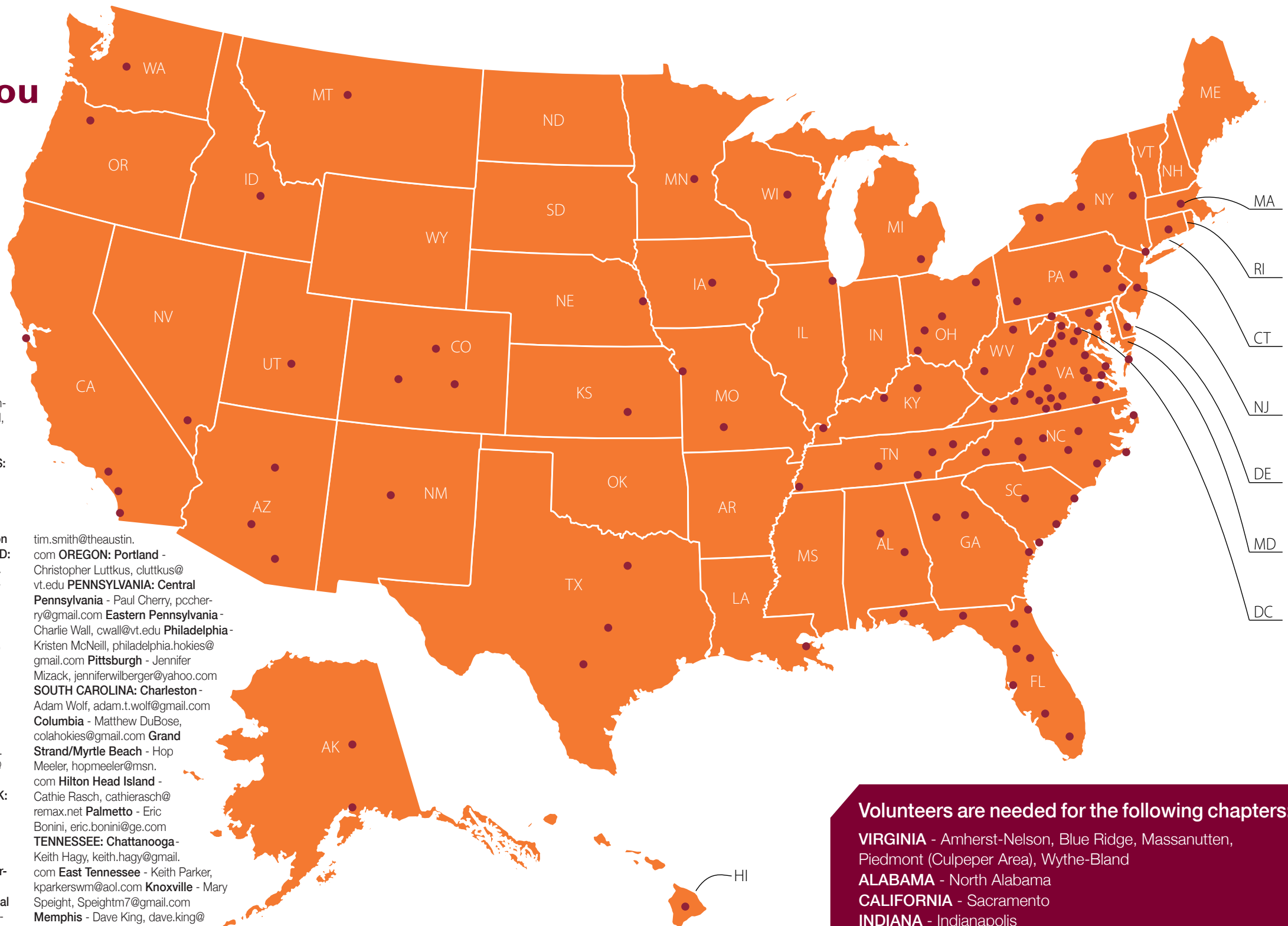
An Alumni Chapter Just For You

Get involved with the Alumni Association and one or more of its 130-plus chapters around the world. Find a chapter near you and make a difference! Go online to www.alumni.vt.edu and click "Update My Profile & PID" to ensure that your address and email are current so you will receive notices of chapter events.

IN-STATE: **Allegheny Highlands** - Mary K. All, sandkall@aol.com **Augusta** - Billie Smith, bsmith@personna.com **Black Diamond** - Greg Carter, gcarter@wva.com **Central Virginia** - Duke Grant, grantle@vt.edu **Charlottesville** - Chad Schnell, chad@charlottesvillehokies.com **Commonwealth** - Andrew Moody, handrewmoody@gmail.com **Danville** - Corrie Teague, cteaguevt@gmail.com **Eastern Shore** - Worth Saunders, aes3ptocs@yahoo.com **Emporia/Roanoke Rapids** - Scott Wrenn, cswrenn@verizon.net **Fauquier** - Rick Mountjoy, rmountjoys@hughes.net **Franklin County/Smith Mountain Lake** - Sheldon Bower, sbower@parkerdg.com **Fredericksburg Area** - Laura Noel, librarydy76@aol.com **Gloucester/Mathews** - Louis Serio, seriol@ballardseriocpa.hrcocmail.com **Halifax** - Carlyle R. Wimbish Jr., mrtech@pure.net **Loudoun County** - Keith Seekford, loudounhokie@hotmail.com **National Capital Region** - Scott Pence, scott.pence@ncrhokies.org **New River Valley** - Cindy Kelley, kelleycw@vt.edu **Patrick Henry** - Matthew Jones, matt@fordsure.com **Peanut** - Alan Duke, alan.duke@ferguson.com **Peninsula** - Stephen Stewart, sestewart@gmail.com **Prince William** - Krysta Ardigo, krysta@pwhokies.com **Richmond** - Clota Gerhardt, president@richmondhokies.org **Roanoke Valley** - Matt Spencer, mspencer@spencertechsolutions.com **Rockbridge** - Lynn Jones, lingon@embarqmail.com **Shenandoah** - Drew Forte, dforte@vt.edu **Southside** - Frank R. Turner, frank_r_turner@hotmail.com **Southwest Virginia** - Andrew Stiltner, stiltner@vt.edu **Tideneck** - Jim Cox, tappikie@gmail.com **Tidewater** - Chris Jennings, Vthokie96@cox.net **Tri-Cities** - F.W. Abernathy Jr., wanddean@aol.com **Williamsburg** - James McKown, wbac-vtaa@cox.net

OUT-OF-STATE: **ALABAMA:** Birmingham - Jeff Graveline, jgraveli@uab.edu **Central Alabama** - Rod Turochy, rturochy@vt.edu **ALASKA:** Anchorage - Katie Walker, alaskahokie@gmail.com **Fairbanks** - James K. Brooks, jkbrosks85@gmail.com **ARIZONA:** Flagstaff - Erin Bell, ebell@vt.edu **Phoenix** - Jessica Sandler, 4everahokie@gmail.com **Tucson** - Diane Manzini, dianemarievt@yahoo.com **CALIFORNIA:** Los Angeles - Ryan Athearn, lahokies@gmail.com **Orange County** - Larry Morgan, lwmorgan03@yahoo.com **San Diego** - Rachael Spruill, rachael@spruill@gmail.com **San Francisco Bay Area** - Erin Hash, ehash@vt.edu **COLORADO:** Aspen - Jeffrey Orsulak, jorsulak@yahoo.com **Colorado Springs** - Russell Bolish, rjbolish@yahoo.com **Denver** - Debbie Flippo, debbieflippo@yahoo.com **Connecticut** - Steffanie Elkins, steffanie.elkins@gmail.com **DELAWARE:** First State - Meghan Gloyd, meghan.gloyd@gmail.com **FLORIDA:** Central Florida - Thomas Feeney, tfeeney3@cfi.rr.com **Gainesville** - Kevin Knudson, Kevin.p.knudson@gmail.com **Jacksonville** - Christin

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Volunteers are needed for the following chapters:

- VIRGINIA** - Amherst-Nelson, Blue Ridge, Massanutten, Piedmont (Culpeper Area), Wythe-Bland
- ALABAMA** - North Alabama
- CALIFORNIA** - Sacramento
- INDIANA** - Indianapolis
- MARYLAND** - Southern Maryland
- MISSOURI** - St. Louis
- TEXAS** - Houston
- WEST VIRGINIA** - Morgantown
- WYOMING** - Greater Yellowstone

For information or to volunteer, contact Ginny Ritenour, ginnyr@vt.edu.

Expand your horizons with fellow Hokies.

travel



New England

Broaden your horizons and take in new adventures with other Hokies. For more information, visit www.alumni.vt.edu/travel, call 540-231-6285, or email alumnitravel@vt.edu.



COURTESY PHOTO

Memories made

Intrepid traveler Gray Coyner (animal science '70), pictured above with his wife, Anne, offered some advice to fellow Hokie wanderers.

Favorite Alumni Association trip: *The Historic Reflections cruise of the Mediterranean, in May 2010.*

Most memorable travel experience: *Traveling halfway around the world to Moorea (an island north of Tahiti) and meeting a Hokie and his wife from Marshall, Va., which is only 10 miles from my home.*

A travel necessity: *Camera and pre-packed disinfectant handi-wipes.*

Must-do for every trip: *Research, but don't plan too extensively. You cannot see everything. Enjoy the trip and relax.*

Who's in charge: *My wife, Anne, was in charge unless something went wrong—then I was! (Really, we share all decisions!)*

Best souvenir: *Hand-made coconut leaf palm tray from Tahuata Island in the Marquesas Islands. Also, photos, new friends, and memories.*

Final thoughts: *Travel with an open-minded attitude. Every culture is different—learn and respect it. Be flexible. Meet the locals. Relax and enjoy the trip—don't make it a competition to see everything in the travel guide.*

Turkey and Greece: Aegean Marvels
Go Next (Oceania Cruises, Marina)
Oct. 31-Nov. 8 | \$1,499* (air included)**

Mediterranean: Ancient Civilizations
Go Next (Oceania Cruises, Nautica)
Nov. 4-15 | \$2,549* (air included)**

Ancient Mysteries of the Americas
Go Next (Oceania Cruises, Regatta)
Jan. 5-23, 2013 | \$3,499* (air included)**

Caribbean Discovery
Go Next (Oceania Cruises, Riviera)
Feb. 12-22, 2013 | \$1,999*

* Dates and prices are subject to change. Pricing is per person based on double occupancy without air, except as noted.
** Free air is based from select North American gateway cities.

Scotland: Stirling
AHI Travel
Aug. 15-23 | \$3,050*

NEW!
Epic Civil War River Cruise
Go Next
Aug. 18-30 | \$2,845*

Italy: Apulia
AHI Travel
Sept. 4-12 | \$2,395*

Canada and New England: Fall Foliage
Go Next (Oceania Cruises)
Sept. 25-Oct. 7 | \$3,999* (air included)**

India and Nepal
AHI Travel
Oct. 14-28 | \$5,595*

 www.alumni.vt.edu/travel

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Historic medallion finds a new home

Fourteen feet in diameter, 500 pounds, and 50 years old, a medallion featuring the university seal—one of two medallions that once adorned Shultz Dining Hall—was installed on the exterior southeast wall of the Holtzman Alumni Center, facing the Duck Pond, in early May. The two medallions had to be removed from the exterior of Shultz, which opened in 1962, to make way for the hall's renovation and incorporation into the new Center for the Arts, slated to open in 2013. Vice President for Alumni Relations Tom Tillar '69 secured the medallion to preserve on the alumni center.



DAVE HUNT

Say hello to the future.



Meet Kyle Simmons, a senior majoring in wood science and forest products who plans to work in sales. In job interviews, Kyle will be able to cite his experience designing, manufacturing, and marketing the wood products he developed alongside classmates in a program supported by donors to the College of Natural Resources and Environment.

The hands-on learning initiative Kyle benefited from is just one of many extraordinary student experiences that you can support with a gift to Virginia Tech. Please visit www.givingto.vt.edu to make your gift or learn more.

Virginia Tech Office of University Development (0336)
University Gateway Center, Blacksburg, VA 24061
540-231-2801 or 800-533-1144 | www.givingto.vt.edu



Alumni, we want to hear what you've been doing. We can post online photographs of weddings, babies, and spirited alumni, with some images appearing in print. Mail photos to Virginia Tech Magazine, 205 Media Building, Blacksburg, VA 24061, or email them to vtmag@vt.edu.

Please mail career, wedding, birth, and death news to Alumni Notes, Virginia Tech Alumni Association, Holtzman Alumni Center, Blacksburg, VA 24061; email them to fleets@vt.edu; or submit them online at <http://www.vtmagazine.vt.edu/submit-classnote.php>.

Alumni mailing addresses may be viewed online at www.alumni.vt.edu/directory by logging in with your Virginia Tech PID and password. For assistance, call 540-231-6285.

- weddings
- births and adoptions
- deceased

'32 Ruby L. Peery (GBUS), Rural Retreat, Va., 1/11/12.

'34 Isabel S. Saunders Kelsey (BAD), Abingdon, Va., 2/23/12.

'36 James C. Coleman (CHE), Pensacola, Fla., 3/11/12.
Newell D. Sanders (ME '37, MS '37), Olmsted Falls, Ohio, 10/10/11.

'37 Donald D. Rohwer, Arlington, Va., 11/11/10.
Ormonde Smith Jr. (IE), Pittsfield, Mass., 2/27/12.
William G. Thayer (BAD), Swanton, Ohio, 2/15/12.

'39 John F. Kuck Jr. (CHEM, MS), Atlanta, Ga., 8/4/11.

'40 John C. Hutt, Montross, Va., 11/13/11.

'41 D.R. "Dave" Fourney (ME), Purcellville, Va., 11/18/11.
Theodore M. Von Sprecken Jr. (CE), Moss Point, Miss., 2/24/12.

'42 M.A. "Bill" Burnette (AGRN), Lynch Station, Va., 2/17/12.
Paul E. Irwin (CHE, CHE '48), Richmond, Va., 10/26/11.
Eloise Claiborne Keefe (HNF), Columbus, Ohio, 11/26/11.

'43 M.G. "Moe" Martin (BIOL), Lexington, Va., 4/4/12.

Howell H. Michael III (EE), Matthews, N.C., 12/7/11.
Robert P. Taylor (AGED), Smithfield, Va., 1/14/11.
Lorraine Hagen Westerberg (GHEC), Catonsville, Md., 12/12/11.

'44 Richard C. Caldwell (GAG), Salem, Va., 2/3/12.
John A. Maddox (AGED), Virginia Beach, Va., 12/30/11.
Garland "Mac" T. McCoy (ME), Leesburg, Va., 11/7/11.
Charles C. Rawlings Jr. (CHEM), Petersburg, Va., 1/24/12.
Clara Frazer Riddell (GHEC), Doswell, Va., 11/26/11.
John J. Wallace Jr. (ARE), Colorado Springs, Colo., 12/20/11.

'45 Leonard B. Aaron (ACCT), Newport News, Va., 1/13/12.
James W. Collins (ME), Wellston, Ohio, 3/9/12.
William S. Moses (BAD '47), Roanoke, Va., 2/1/12.
Hal H. Rhea (ME '44), Portland, Ore., 11/15/11.
Hunter T. Wagener (IE '48), Irvington, Va., 3/26/11.

'46 Charles W. Barnett (EE), Black Mountain, N.C., 1/24/12.

Edward J. Cooper (ME), Virginia Beach, Va., 3/17/12.
W. Hugh Moomaw (BUS), Virginia Beach, Va., 12/21/11.
Arthur R. Willis (CHEM '49), Warrenton, Va., 2/29/12.

'47 Lester R. Moskowitz (EE), Coopersburg, Pa., 3/27/12.
C.E. "Bill" Ridenour III (IE '49), Stamford, Conn., 12/10/11.

'48 Herbert L. Duff Jr. (ME '49), Burlington, N.C., published a memoir entitled "Recollections and Reflections: The Years Go By."

Wesley L. Baum (EE), Moyock, N.C., 2/16/12.
Warren E. Burnett, Odessa, Texas, 9/23/11.
Thomas A. Dollins Jr. (ME), Brainaird, Minn., 11/8/11.

'49 Thomas E. Briers (ME), Crofton, Md., 3/17/12.
Roger R. Brooks (EE), Richmond, Va., 12/14/11.
H.T. Grindstaff (BAD, VOED '56), Troutville, Va., 2/21/12.
Victor Rogers (CE), Richmond, Va., 12/9/11.



COURTESY PHOTO

Successful seeds: About 40 alumni of the SEED (Student-managed Endowment for Educational Development) program gathered for a reunion in April at the Virginia Tech Research Center – Arlington. "I think everyone enjoyed the weekend, and hopefully this is just the beginning for future events," said event organizer Christina Todd (finance '09). SEED alumni wishing to hear about the next reunion may email Steven Corcoran, a junior finance and economics major, at steve10@vt.edu.

Former U.S. Rep. **William C. Wampler Sr.**, R-Va., of Bristol, Va., died May 23 at the age of 86. Wampler (business administration '48) was first elected to the House in 1952, becoming at age 26 the youngest member of the 83rd Congress. He served initially for two years and then for another 16 years, from 1967 to 1983. At Virginia Tech, Wampler served on the board of visitors from 1978 to 1982. He received the university's Alumni Distinguished Service Award in 1980. A native of Pennington Gap, Va., Wampler served in the U.S. Navy and attended the University of Virginia law school. He worked briefly in newspaper journalism at the Bristol Virginia-Tennessean, the Big Stone Gap Post, and the Bristol Herald Courier. After a failed re-election bid in 1954, he joined the U.S. Atomic Energy Commission. He was later vice president and general manager at his family's furniture and carpet companies.



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2012 Homecomings

- Sept. 3** Georgia Tech - College of Science, College of Architecture and Urban Studies
- Sept. 8** Austin Peay - College of Veterinary Medicine, College of Natural Resources and Environment
- Sept. 22** Bowling Green - Corps of Cadets, College of Liberal Arts and Human Sciences
- Oct. 13** Duke - College of Engineering, High-Tighty reunion, Marching Virginians Alumni Band Day
- Nov. 8** Florida State - College of Business, College of Agriculture and Life Sciences
- Nov. 24** Virginia - Multicultural alumni, Graduate School

2012 Class Reunions

- Sept. 2-3** Georgia Tech - Young alumni reunion
- Sept. 7-8** Austin Peay - Class of 1982 30th anniversary, Class of 1987 25th anniversary
- Sept. 21-22** Bowling Green - Class of 1972 40th anniversary
- Oct. 12-13** Duke - Class of 1962 50th anniversary
- Nov. 8-9** Florida State - Class of 1967 45th anniversary
- Nov. 23-24** Virginia - Class of 1977 35th anniversary, Class of 1992 20th anniversary



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class notes



'00 Douglas A. Barton II (WOOD) and Elizabeth Sylvanus Barton (IDST '01), York, Pa., a son, 7/30/11.

'01 Melissa J. Cheliras (COMM), Richmond, Va., 2/10/12.

'01 Michael S. Finnegan (PUA), Richmond, Va., is vice president of construction and development for Gumenick Properties.

Elisabeth G. Hodgson (BIT), Herndon, Va., authored a book entitled "King of Darkness."

Thomas R. Greer III (HIST, FIN) and **Erika Weiberth** (MATH '01), Centreville, Va., married 7/9/11.
Lisa Olsen Hahn (PSYC, ENGL '03) and **Peter Hahn**, Arlington, Va., married 2/18/12.

Heather N. Cayey (MUS) and **Brian Morgan** (HD '03), Philadelphia, Pa., twin daughters, 10/2/11.
Robin Pumphrey Wiedegreen (WSCI) and **Kristiaan Wiedegreen** (ENGL '04), Glen Allen, Va., a son, 1/5/12.

'02 **Hylton J. Haynes** (FOR), Cambridge, Mass., is associate project manager of the Firewise Communities Program for the National Fire Protection Association.

Emily Gaddy Taylor (MGT), Christiansburg, Va., obtained her Certified Manager of Community Associations certification as property administrator for CMG Leasing.
Caleb D. Welty (MKTG '09), Charlottesville, Va., is the director of marketing and technology with the National Association of College Auxiliary Services.

Charles H. Florin (EE) and **Francesca Lorusso-Caputi** (COMM '03), Trenton, N.J., a son, 2/28/11.
Lauren Duvall Heisey (MKTG), Falls Church, Va., a son, 12/19/11.
Richard A. Powers II (ARCH), Norristown, Pa., a son, 1/24/12.
Candace Wiltshire Toone (COMM '01), Rockville, Va., a daughter, 10/24/11.

Sarah Bell Van Orman (PSYC), Portsmouth, Va., a son, 12/19/11.
Catherine E. Conroy Webster (HD) and **Brian Webster** (IDST '03), Amherst, Va., a daughter, 1/24/12.

'03 **Heather L. Grutzius** (ARCH), Richmond, Va., owns an architecture and construction firm with her husband, John P. White Jr. '04.

Stacey Hornyak Gnugnoli (HD '03) and **David M. Gnugnoli** (ME, BIOL '04), Wilmington, Del., married 10/8/11.

Molly School de Lima-Campos (HIDM), Oakton, Va., a daughter, 11/30/11.

Dawn Springer Huntzinger (ACIS), Mount Pleasant, S.C., a daughter, 10/2/11.

James R. Kane (MINE) and **Lesley Stec Kane** (HD '04), Concord, N.C., a daughter, 2/12/12.

James S. Miller (ME) and **Kathryn DeBragga Miller** (PSYC '03), Lynchburg, Va., a son, 1/23/12.

Charles L. Simmons (FORS), Harrisonburg, Va., a son, 1/5/12.

Walter R. Thomasson (EE) and **Blair Tyson Thomasson** (HNFE '04), Mechanicsville, Va., a daughter, 1/17/12.

'04 **Matthew J. Kushin** (PSYC) and **Kelin Kitchener**, Pleasant Grove, Utah, married 5/29/11.

Jennifer Banasky Bookwalter (MKTG), Lutherville-Timonium, Md., a daughter, 9/14/11.

David W. Litchfield (CHE, CHE '07, CHE '08) and **Lindsey Saufley Litchfield** (HNFE '04), Midlothian, Va., a daughter, 12/10/11.

Amber K. Stewart-Humphries (ME, BAD '06) and **David Humphries** (ME '06), Inman, S.C., a daughter, 10/20/11.

Virginia Anne Edwards Swails (COMM), Franklin Springs, Ga., a daughter, 12/1/11.

John R. Robinson III (FORS), Stevensville, Va., 11/12/11.

'05 **Alison Cordell Matthiesen** (COMM), Roanoke, Va., is the

communications manager for the Division of Undergraduate Education at Virginia Tech.

Lauren B. Stull (FORS, PAPA '07, FOR '07), Robbinsville, N.C., was promoted to district ranger of the Nantahala National Forest, where she manages forest service operations for the Cheoah and Tusquitee districts.

Braden S. White (WOOD, FPR '08), Blacksburg, Va., is director of technical services for White & Company.

Christopher C. Hall (CS) and **Alison Doherty Hall** (ARCH '06), Charlotte, N.C., a son, 9/19/11.

Brian L. Pruden (HTM), Avon, Ohio, a daughter, 7/18/11.

'06 **James R. Sage** (CS) and **Amanda Feree Sage** (PSYC '08), Reisterstown, Md., married 10/01/11.

Jonathan Galgan (ISE) and **Gillian James Galgan** (BIOL '07), Yorktown, Va., a son, 11/3/11.

'07 **Victor H. Valenzuela** (CE), Mechanicsville, Va., earned his professional engineering license and works in the utilities engineering division of Draper Aden Associates.

Katherine C. Boatwright Dawley (AHRM) and **Jeffrey Dawley** (GEOG '07), Reston, Va., married 2/18/12.

Jessica Bradner Carwile (IDST) and **David Carwile**, Hampton, Va., married 10/15/11.

'08 **Monica K. Streeper** (IDST, LAR '11), Lynchburg, Va., is a landscape architect for Rhodeside & Harwell Inc.

Brian M. Jasion (CE, CE '09) and **Patricia Adkins Jasion** (CHE '11), Williamsburg, Va., married 3/24/12.

'09 **David W. Grant** (PSCI, IDST), Columbia, Md., is the congressional correspondent for The Christian Science Monitor in Washington, D.C.

Ryan A. Koumbis (GEOG), Virginia Beach, Va., is a lead systems engineer at Rigel Science & Technology LLC.

Bradley W. Miller (FOR, GSCR), Florence, Ky., was selected as a U.S. Young Observer to the International Union of Pure and Applied Chemistry general assembly and congress in Puerto Rico.

'10 **Kelsey B. Ewing** (WSCI, EDCT '11), Wytheville, Va., is the 4-H Extension agent for Wythe County.

Jessica L. Lockwood (MKTG), Hampton, Va., is an account coordinator for Big River, a Richmond-based, independently owned branding and advertising firm.

Sunarto (GSCR, FIW '11), Jakarta, Indonesia, led a study to systematically investigate the use of different land-cover types for tiger habitats.

Bethany A. Laine (PSYC) and **Andrew Lanier** (SOC '11), Moore, S.C., married 1/14/12.

Megan L. Goellner (IDST), Mechanicsville, Va., 2/25/12.

'11 **Olivia N. Marshall** (ENGL), Baton Rouge, La., is a legislative correspondent for Sen. Jim Webb of Virginia.

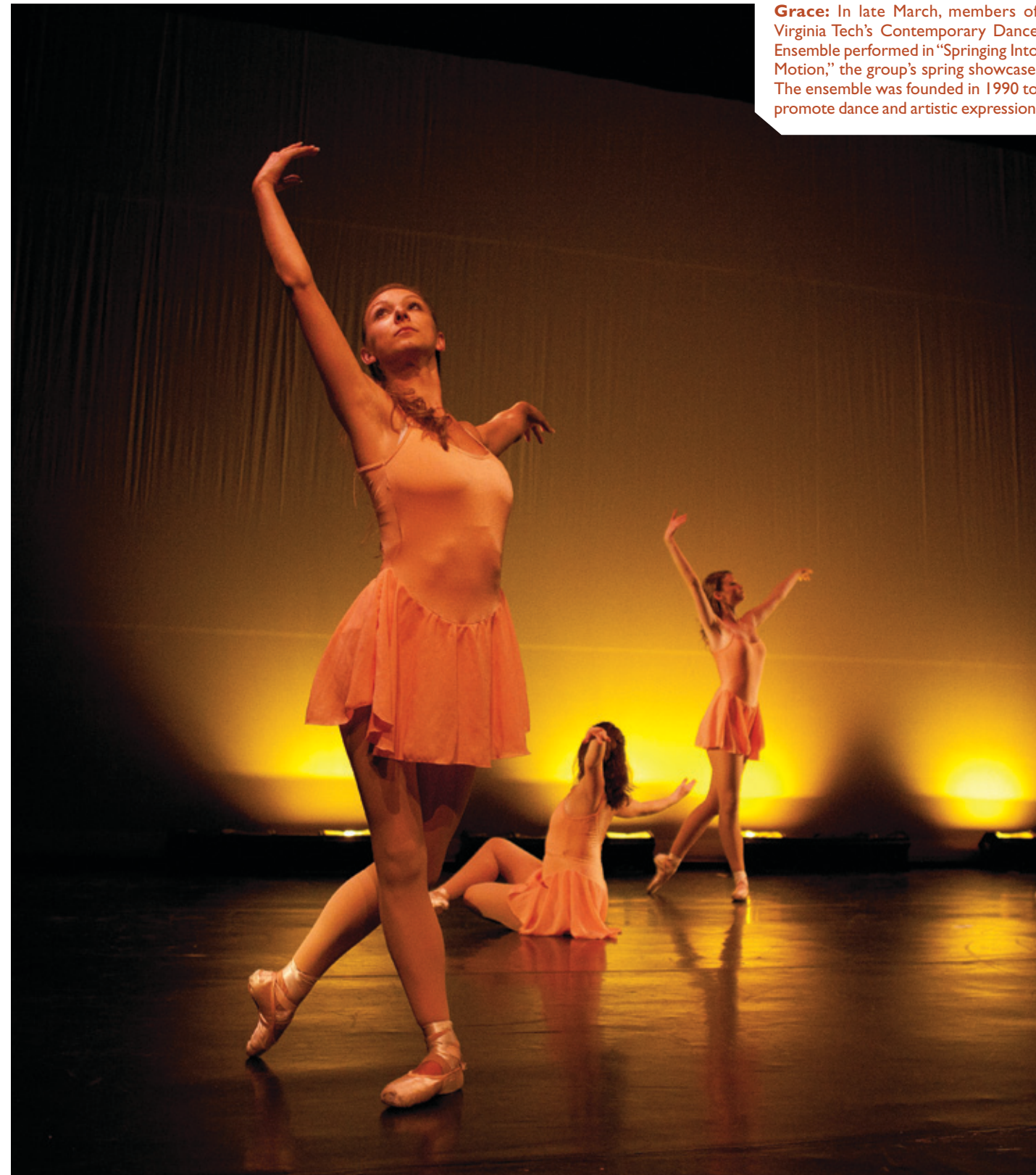
obituaries

student deaths

- Dieter Reinhardt Seltzer**, Class of 2013, Manassas, Va., 2/14/12.
- John B. "J.J." Stinson**, Class of 2014, Alexandria, Va., 4/6/12.

faculty/staff deaths

- Celia Ray Hayhoe**, Virginia Cooperative Extension specialist in family financial management and associate professor in the Department of Apparel, Housing, and Resource Management in the College of Liberal Arts and Human Sciences, died March 16.
- Michael Frederick Naff**, director of Application Information Systems, died Feb. 10.
- Michael D. Olsen**, professor emeritus of hospitality and tourism management in the Pamplin College of Business, died March 20.



Grace: In late March, members of Virginia Tech's Contemporary Dance Ensemble performed in "Springing Into Motion," the group's spring showcase. The ensemble was founded in 1990 to promote dance and artistic expression.

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