

VirginiaTech

magazine

summer 2010 | vol. 32, no. 4



Hereditary Hokies

Saving the bay | Factor of X

Arts on campus entering new era

BY CHARLES W. STEGER '69



Shortly after I became president, we made a commitment, on Founders Day in 2000, to invigorate the university’s fine and performing arts spaces and programs. Later, I posited on this page thoughts on the importance of the arts in the college experience. [Editor’s note: See the Winter 2001 issue of *Virginia Tech Magazine*.]

As a university, we strive to educate the whole person—to prepare students for life at work as well as for life beyond work. Creating successful scientists, engineers, and businesspeople is a very different endeavor now than in the past. Research demonstrates that participation in the arts is a pivotal element in this endeavor, that exposing students to the different modes of thinking and problem solving are necessary parts of the creative process.

Two of history’s greatest artists, Leonardo da Vinci and Michelangelo, were also among history’s greatest engineers. Da Vinci, who painted and sculpted some of the world’s greatest artistic treasures, also designed machines for human flight and greatly advanced the state of knowledge in fields as diverse as anatomy and civil engineering. Michelangelo, whose masterpieces include the *Pieta*, the *Statue of David*, and the Sistine Chapel ceiling, also engineered the dome of St. Peter’s Basilica in Vatican City. For these great thinkers, there were no boundaries between the creative arts, science, and the mechanical arts.

Now, one decade after sharing these ideas with you, the arts are entering a new era on the Virginia Tech campus. In June 2010, we broke ground for the Center for the Arts. Opening in fall 2013, this \$89-million, 130,000-square-foot facility will feature a 1,260-seat performance hall, visual art galleries, and creative-technology lab spaces.

The Center for the Arts complex will include both new and renovated facilities at the intersection of North Main Street and Alumni Mall. Its location at the main entrance to campus near the center of the Town of Blacksburg symbolizes our commitment to the arts and to other dimensions of the educational experience, as well as its importance to the university and to our broader community. In addition, the central location surely will stimulate arts-related businesses.

The Center for the Arts will comprise three major areas: the performance hall, visual arts galleries, and the Center for Creative Technologies in the Arts. The performance hall will have the flexibility to present theater, music, and dance performances. The visual arts galleries will incorporate display space for traditional visual art as well as emerging interactive and digital forms. It will exhibit artwork on loan to the university as well as parts of our permanent collection.

The Center for Creative Technologies in the Arts will be housed in new space as well as renovated space in Shultz Hall. The center, a technological incubator, laboratory, and studio setting, will be used to explore the many intersections of art, education, and technology and will enhance education at the primary, secondary, undergraduate, and graduate levels. The center will include the Collaborative Performance Lab, a venue for exploring visual and performance arts using the latest interactive technology.

Through the center, we can leverage the strengths of existing arts programming and explore new relationships between the arts and technology. So, Virginia Tech finally will have facilities supporting the arts to match the university’s world-recognized prowess in so many areas of academe.

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Virginia Tech researchers are at the forefront of renewed efforts to save the Chesapeake Bay, pitted against excessive nutrients and sediment that degrade water quality and threaten aquatic life. See how experts at Virginia Tech are restoring the future of a national treasure.

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D.C. Wolfe (civil engineering '21), a musician and engineer, was also a prolific photographer. From pole-vaulting on the Drillfield to cadets with disarming smiles, Wolfe’s photos—compiled with memorabilia in two previously unpublished scrapbooks—offer a unique glimpse of the Blacksburg campus.

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Virginia Tech dazzled the world in 2003 with System X, the fastest supercomputer in academia, trumpeting the university’s technological credentials. Seven years later, the lightning-quick supercomputer is still producing groundbreaking results for scientists in Blacksburg and around the world.

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Spending a day with Congressman Rob Wittman (biological sciences '81) is to realize that every minute is scheduled in order to maximize his influence, outreach, and service. But Wittman wouldn’t have it any other way, and he’ll never forget his roots.

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Virginia Tech Magazine
Summer 2010, Vol. 32, No. 4

www.vtmagazine.vt.edu

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Advertising opportunities will be available beginning with the fall 2010 edition, with placement throughout the magazine. In addition, alumni may promote their businesses in the Class Notes section. For advertising rates and information, contact vtmag@vt.edu.

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Proud to see Tech tackling tough issues

I would like to praise Denise Young and the staff at *Virginia Tech Magazine* for having the courage to publish the article in the recent issue (Spring 2010) titled "Tearing Down Animal House." As a 48-year-old mother with plans of sending my 10th-grader and 8th-grader away to Virginia universities in a couple years, I was impressed that Virginia Tech had the audacity to print the truth about alcohol use and problems at their own school. Obviously, I am disappointed in the widespread use of alcohol in our high schools and universities, but I am thankful that Tech is doing many things to try to educate students: using a harm-reduction model, focusing on high-risk groups, counseling emotional issues, and utilizing the motivational interviewing model to focus students on examining their behavior and making better choices.

I agree that it takes the students, school staff, community, and parents working together to reduce the use and/or the risks of alcohol. I am so proud to be an alumna of a great school that does not try to hide such important issues, but instead is addressing them directly to try to improve this serious problem.

Kudos to *Virginia Tech Magazine*!

Sherry H. Watkins '84
Centreville, Va.



Happy to be Hokies

I couldn't resist sending you this photo of my new grandson and his little buddy. On the left is Joseph Coolick, and Charlie Taylor is on the right. They were born several days apart in November 2009, and were about six weeks old in the photo. Their moms are good friends and were Chi Omega sisters at Tech—Ann Marie Ferramosca Coolick ('02 art, '03 marketing) and Christine Stora Taylor ('03 urban planning). Their stocking caps said "L'il Hokie," and were made by my wife, Cathy Murray Ferramosca '75.

Tim Ferramosca '73
Virginia Beach, Va.

50th birthday for alumna and Hawaii

For my sister Dory's (Dory Pratt Gordon '81) 50th birthday, I gave her a pair of Hokie flip-flops to take to Hawaii, where she celebrated her birthday on Aug. 21, 2009, with her family—also the exact day of the 50th anniversary of Hawaii's statehood. She made sure that Hokie tracks were left in the sands of Hawaii's beautiful

These little Hokies were either hungry or steaming mad to learn the Hokies were excluded from the NCAA basketball tourney.

beaches. The photo was taken at Waikiki Beach on Oahu.

Janine Pratt '80
Cheltenham, Pa.

The legacy of Hokie Stone

I want to let you know how much I enjoyed Clara Cox's article on Hokie Stone in the [Spring 2010] *Virginia Tech Magazine*. It brought back memories of many sessions of the board of visitors' buildings and grounds committee. It was several years ago that you were covering the committee meetings for the *Spectrum*. During the 16 years after 1983, several battles were undertaken on the direction of architecture on the campus, and I was fortunate to be involved in the majority of them.



Restoring the traditional architectural theme and style of the campus and affirming the future use of Hokie Stone was a challenge and one of our greatest achievements. The university should know that without Ray Smoot's steady leadership and oversight of the process, this could have never happened. Ray had to deal with a number of diverse constituencies. Some wanted the campus to go modern, some postmodern, and some wanted to fill all the open space around the Drillfield. By Ray's skillful management of the construction program and his ability to work with the buildings and grounds committee, we still have one of the more beautiful campuses in the country.

Cecil Maxson '52
Richmond, Va.

Recollections of Dean Norris

I continue to read and enjoy Clara Cox's journalistic work. I was especially delighted with the piece on Earle B. Norris. I date back to his era. He retired as dean of engineering the year I received my B.S. Back then, VPI had a number of unique faculty (each with a notable personality) who were strongly devoted to teaching as opposed to building layer upon layer of academic laurels. Their credentials were quite natural. I have the dean's signature in

Letters to the Editor: Send us your thoughts at vtmag@vt.edu

my "steam tables," a much-used book from my undergraduate days in mechanical engineering. Norris was also a mechanical engineer—and initiates for Pi Tau Sigma, the honorary mechanical engineering society, were required to obtain the signatures of all current faculty and student members at the time of the new member's initiation.

H.J. "Jack" Heikkinen, a retired entomology professor, delighted in telling me the following story. Whenever he told me that he lived at 802 Preston Ave., they invariably said, "Oh, you live in the Norris house." Jack would loudly proclaim, "I have now lived there 20 years. When does it become the Heikkinen house?" Just another tale from old Blacksburg.

Roger Hedgepeth '52
Blacksburg, Va.

I want to congratulate Clara B. Cox on her excellent biography on Dean Norris. It was his establishing of two-year engineering courses at various locations in Virginia that enabled me to earn an engineering degree at Virginia Tech. I was a student at the Bluefield branch under Professor Clarence Trent.

John A. Gardner '44
Tulsa, Okla.

To serve is to learn

I read Meghan Williams's article in the spring issue of *Virginia Tech Magazine* with

great interest. It was good to read about a friend and excellent servant of Virginia Tech, Ray Smoot.

I thought the issues and interests that drove the article's subjects to want to serve Virginia Tech by being the student body president certainly mirrored mine when I was a junior and decided to run. I can still remember Garland Rigney talking to me about running when I had never considered it, and I thought I must be out of my mind. I just wanted to graduate out of the engineering program, move on, etc.

But truly there have been many times since 1968 when I've looked back and thought that was the best year of my time at Tech. I learned more about myself and others, I think I helped in some small way shape the future of Tech, I met many people who influenced me to keep reaching for goals and always striving to do better, and I was there at a time of significant change for the university.

I was proud to have my name listed with all of the others who have served the university so unselfishly. Thanks for writing the article.

Bill Coulbourne '68
Dewey Beach, Del.

Hokies in Disney World

Since I am a '93 graduate and have a husband who's a "Hokie by marriage" to me, my family honored Virginia Tech on April 16, 2010, while vacationing at Disney World. It was a wonderful feeling to support my alma mater and have the public embrace our Hokie Spirit that day in Epcot. We thought you'd enjoy seeing us in our Hokie Spirit at Epcot/Disney. Thanks for all the outreach and great information you all provide us!

Kristin Metz Mentz '93
Columbia, Md.

Rob and Kristin Metz Mentz with their children, Chloe, 6, and Trevor, 2.



Commencement then and now: 1910 and 2010

The 2010 commencement ceremonies in mid-May didn't include a Sham Battle or an Alumni Smoker, as did the 1910 commencement celebration at Virginia Polytechnic Institute, now Virginia Tech. Spread over six days in June 1910, the events—listed in a mint-condition commencement program recently donated to the university by Dr. James M. (biological sciences '58) and Marilyn M. Porterfield—honored 62 VPI graduates listed in the program's "Class Roll."

Porterfield received the program several years ago from a friend who knew he was a Hokie. Porterfield gave it to Bob Smythers (secondary education '82), Virginia Tech Foundation associate director of gift planning, with the understanding that Smythers would deliver it to the Virginia Tech Alumni Association in time for the 2010 commencement ceremonies.

While the May 2010 commencement events looked far different than their 1910 counterparts, Virginia Tech did acknowledge some fantastic academic achievements this year:

- 4,153 bachelor's degree candidates, with biology being the most popular among graduating seniors, followed by mechanical engineering; finance; human nutrition, foods, and exercise; and a fifth-place tie between physics and marketing;
- nearly 1,270 students honored at the Graduate Commencement ceremony: 980 master's degree candidates, three education specialist degree candidates, 22 Ed.D. candidates, 53 advanced graduate certificate candidates, 213 Ph.D. candidates, and 87 doctor of veterinary medicine degree candidates;
- about 300 National Capital Region graduates; 140 students honored for graduating from the Virginia Tech Corps of Cadets; and 29 associate's degree candidates.



1910 commencement program



Shashank Sharma



Jennifer Nicole Lamb

University announces 2010 Undergraduate Man, Woman of the Year

Shashank Sharma, a senior majoring in biological sciences in the College of Science, and Jennifer Nicole Lamb, a senior double-majoring in agricultural and applied economics in the College of Agriculture and Life Sciences and political science in the College of Liberal Arts and Human Sciences, are recipients of Virginia Tech's 2010 Undergraduate Man and Woman of the Year awards. President Charles W. Steger presented the awards at the annual Founders Day student recognition banquet on April 11. The awards are the most prestigious nonacademic undergraduate awards at Virginia Tech and are given

to those students who have exceptional and balanced achievement in academics, leadership, and service.

Steger recognized with international leadership award

Virginia Tech President Charles W. Steger was among three recipients of the 2010 Michael P. Malone International Leadership Award, sponsored by the Association of Public and Land-grant Universities (APLU). Established in 2000, the annual award recognizes individuals who have made significant contributions to international education at public and land-grant institutions. The award will be presented during the summer meeting of the APLU Commission on International Programs, held July 12-14, in Sedona, Ariz. In Steger's more than 10 years as president of Virginia Tech, five international centers have been established around the globe, doubling student participation in the university's study-abroad programs.

Bucharest street named for hero of April 16 tragedy

The street in front of the new U.S. Embassy compound in Bucharest, Romania, will be named after Virginia Tech Professor Liviu Librescu, who sacrificed his life to save his students on

April 16, 2007. U.S. Ambassador to Romania Mark Gitenstein said, "Professor Librescu will live on in our memory every day as we pass by this street named in his honor." Naming the street after Librescu was the initiative of former U.S. Ambassador Nicholas Taubman, who says he was profoundly moved by the professor's courage. Taubman stated: "While he was a leader in the school of engineering at Virginia Tech, Professor Liviu Librescu was first and foremost a humanitarian who put the lives of his students above his own. His name will always be a blessing and a tribute to those who perished on April 16, 2007."

General Federation of Women's Clubs donates ambulance

A two-year fundraising drive by the General Federation of Women's Clubs of Virginia culminated in the organization presenting Virginia Tech's student-run rescue squad with a new ambulance. The 2009 E450 Ford ambulance increases the rescue squad's fleet to four, which will help the organization meet increasing demand for its services, said Matt Johnson, who was squad captain May 2007 through May 2010. The ambulance is believed to be the largest single donation to the Virginia Tech Rescue Squad.

College of Engineering graduate program ranked 25th

Virginia Tech's College of Engineering now ranks among the nation's 25 best engineering schools for graduate studies, according to *U.S. News & World Report's* America's Best Graduate Schools 2011 survey, released in April. In all, graduate programs in five of Virginia Tech's colleges ranked among the nation's best in their fields, according to the annual report. Boasting some 2,000 graduate students, the College of Engineering advanced two spots from the 2010 survey, where it was ranked 27th. It ranked 28th in the 2009 survey. Tying the Virginia Tech College of Engineering program for 2011 were Johns Hopkins University and The Ohio State University. The Tech college is the highest-ranked engineering school in the Commonwealth of Virginia.

University celebrates 3-millionth rider with Blacksburg Transit

As students unloaded the Tom's Creek bus along the Drillfield on the morning of Tuesday, April 27, each student was handed an envelope. Inside one was a special ticket recognizing the recipient as the honorary 3-millionth Blacksburg Transit rider for the year. Stephen Carey claimed the title, receiving a \$100 gift certificate for

— continued on page 6



JOHN MCCORMICK

3.2-mile Run in Remembrance

University marks tragedy's third anniversary in Day of Remembrance

The third anniversary of April 16, 2007, was commemorated by honoring the pursuit of scholarship clearly evident in the lives of those who died.

An open house on the second floor of Norris Hall showcased the Center for Peace Studies and Violence Prevention, the Liviu Librescu Student Engagement Center, and the Norris Hall Art Gallery, while displays in Newman Library highlighted the academic achievement of the 32 victims.

A sense of community permeated the Day of Remembrance, with small groups sharing a moment of silence in the War Memorial Chapel, thousands running and walking in the 3.2-mile Run in Remembrance, a community picnic, and the candlelight vigil on the Drillfield. For more on the day's events, visit www.weremember.vt.edu.

The future starts here

Impact.

It's what you do well.

It's what Virginia Tech does well.

Innovation fosters impact in everything we do. As alumni, faculty, staff, students, and friends, the entire Virginia Tech community is transforming the lives of those we serve.

Visit ThisIsTheFuture.com and tell us what you're doing to make your community a better place to live. Share a story, or leave a comment. Be as creative or straightforward as you like. We've redesigned the website to be more user-friendly and hope you'll share how you're making an impact.

The future is being created by all of us, every day. Let's show the world that Virginia Tech is leading the charge.

— ThisIsTheFuture.com —





JIM STROUP

Fallen alumnus honored in Pylon Dedication Ceremony

In a Pylon Dedication Ceremony on April 9, a solemn university community paid its respects to Capt. David Seth Mitchell (English '01), a U.S. Marine helicopter pilot and cadet alumnus who was killed Oct. 26, 2009, in Afghanistan.

Mitchell's name was etched into the Ut Prosim pylon, becoming the eighth Virginia Tech graduate since military operations after Sept. 11 to make the ultimate sacrifice. At the ceremony, President Charles W. Steger compared war veterans of the post-Sept. 11 era to WWII veterans. "I firmly believe these eight Virginia Tech alumni represent the next 'Greatest Generation,'" Steger said.

Days later, the university learned that U.S. Navy Ensign Zachary Eckhart (aerospace engineering '08) was killed in the April 12 crash of his training aircraft in Georgia. A ceremony is being planned for spring 2011.

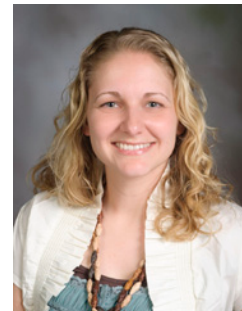
To see a slideshow of images from Mitchell's ceremony, visit www.vtmagazine.vt.edu.

Downtown Blacksburg Inc. Programs such as Bike, Bus, & Walk have contributed to the successes of Blacksburg Transit and collectively have garnered state and national recognition.

VBI partners to receive \$1.45 million grant for plant protection

A research collaboration led by a professor from the Virginia Bioinformatics Institute (VBI) will develop methods to protect agriculturally important crops in developing countries from devastating attacks by plant pathogens. A \$1.45 million award from the Basic Research to Enable Agricultural Development program sponsored by the National Science Foundation and the Bill & Melinda Gates Foundation will fund the research. VBI and Virginia Tech plant pathology, physiology, and weed science Professor Brett Tyler, along with colleagues at other universities and the U.S. Department of Agriculture, will develop new approaches for crop protection against a broad range of diseases caused by fungal and fungal-like pathogens. The team's research will target cacao, an economically and

ecologically important crop for a number of developing countries.



Bonnie Fairbanks

Student receives Fulbright to study tuberculosis in Africa

Bonnie Fairbanks, a doctoral student in biological sciences in the College of Science, has been awarded a prestigious Fulbright scholarship to pursue her research in Botswana studying tuberculosis in mongoose populations. The research may offer insight into the spread of the disease among humans, according to Fairbanks. She will work with the Centre for Conservation of African Resources: Communities, Animals and Land Use. Her project, titled "Behavior and Physiological Factors Affecting TB [tuberculosis] Infection in Banded Mongooses," will shed light upon the variation in TB incidences in banded mongooses.



Elizabeth Prisley

Student receives Fulbright to teach in Germany

Elizabeth Prisley, who received her master of arts in English in May 2010 from the College of Liberal Arts and Human Sciences, has been awarded a Fulbright English teaching assistantship. Prisley will teach English to high school students in the German state of Hessen beginning in September 2010 and ending June 30, 2011. She will be teaching American and British literature and conversational skills through discussion groups on politics, religion, geography, family life, sports,

and general culture. The grant pays for Prisley's travel and provides a stipend to cover living expenses while abroad.

Renovation project and theatre earn LEED certification

Virginia Tech's Theatre 101 and the Henderson Hall renovation project have been awarded LEED Gold certification as established by the U.S. Green Building Council (USGBC). Considered the industry standard for green buildings, LEED (Leadership in Energy and Environmental Design) certification was designed by the USGBC to encourage the development of more sustainable buildings. The Henderson Hall renovation and Theatre 101, which had its debut performance in October 2009, achieved LEED certification on Feb. 5 for energy use, lighting, water, and material use, as well as for incorporating a variety of other sustainable strategies.



JIM STROUP

Virginia Tech history book published online

- Relive the events leading to the establishment of Virginia Agricultural and Mechanical College in Blacksburg.
- Read biographical sketches of every Virginia Tech president, including one whose administration was so short that he is not counted among the university's top leaders.
- Find the history of the university's academic colleges and schools and the name of every academic dean since the first four were appointed in 1903-04.
- Compare the records of football coaches since E.A. Smyth was appointed the first coach in 1892, and discover how women's basketball has fared since Ruth Louise Terrett "stirred up an enthusiasm for basketball," which spurred women students to form their own team in 1923, two years after the first full-time female students were admitted.
- Learn about the life of William Addison Caldwell, the first student to register, and the wartime actions that earned the Medal of Honor for seven alumni.



The *History and Historical Data of Virginia Tech*, an updated and expanded edition of the *Historical Data Book* published in 1972, has been published online and can be seen at www.unirel.vt.edu/history. The online book was compiled, written, and edited by Clara B. Cox (English M.A. '84), expanding on the 1972 book by Jenkins M. Robertson.

For more news about Virginia Tech visit www.vtmagazine.vt.edu, where you can read such stories as:

Student receives Steger prize for poetry

Fornash appointed Virginia deputy director of education

Students help town of Floyd reinvent itself

Growers Academy helps farmers, growers break new ground

Genomes of citrus canker pathogens decoded

Professor's research increases awareness of deck safety

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Beyond Blacksburg

Research centers serve state's diverse agricultural regions

BY LORI GREINER

For more than a century, Virginia Tech's Agricultural Research and Extension Centers (ARECs) have provided Virginia Tech faculty, staff, and students with the unique ability to perform basic and applied research on issues related to the state's agricultural, seafood, and forestry industries. In addition to serving Virginia's needs, the research conducted at ARECs benefits these industries across the region, the nation, and the world. Twelve ARECs, strategically located across the commonwealth, provide laboratory space, land, and facilities for research programs that reflect each region's agricultural diversity.

The centers were established in part through the creation of the Virginia Agricultural Experiment Station (VAES). In 1886, the Virginia General Assembly established the VAES to conduct research and development programs on behalf of farmers. Then, the Hatch Act of 1887 authorized federal funds for each state to establish an agricultural experiment station in cooperation with the state's land-grant institution. To share information developed from research at the experiment stations, the Smith-Lever Act of 1914 created the Cooperative Extension Service. The first research center in Virginia was established in Appomattox in 1906 to conduct research on dark fire-cured tobacco and other crops.

Today, the research projects and activities of VAES encompass the work of approximately 340 scientists and specialists in four Tech colleges: agriculture and life sciences, natural resources and environment, liberal arts and human sciences, and veterinary medicine. In 2009, the National Science Foundation ranked Virginia Tech fifth in the country for agricultural research expenditures, much of which originated through VAES.

Although faculty members use facilities at Tech's main campus in Blacksburg for much of their work, the ARECs offer the opportunity to expand laboratory results into field-scale investigations and to

conduct proof-of-concept studies before implementing new ideas and technologies. The work of VAES scientists has had a significant effect on agricultural and forest products, horticulture, human nutrition and food safety, and environmental quality. Here are a few examples of recent AREC successes.

Increasing profitability

Researchers at the Tidewater AREC in Suffolk are helping peanut growers increase profitability by reducing costs and improving production efficiency. Peanut diseases, such as sclerotinia blight and cylindrocladium black rot, and the costs of fungicides to control them are chronic problems threatening the sustainability of peanut production. Researchers conducted field trials to evaluate new approaches for improving the efficiency and profitability of peanut disease control. With support from the Virginia Peanut Board, researchers issued daily weather-based advisories for fumigating soil and planting and frost advisories for avoiding freeze damage at harvest. The advisories reduced fungicide sprays used to control early leaf spot by an average of three to four applications per farmer, saving \$642,000 in production costs across 12,000 acres planted in Virginia while also reducing the potential for environmental contamination.

"The various advisories developed and implemented at the Tidewater AREC

have been instrumental to Virginia producers," says Dell Cotton, executive secretary of the Virginia Peanut Growers Association. "Frost advisories give the grower the only tool available to possibly avoid the effects of a frost, which can greatly diminish the value of a peanut. Other advisories help lower spraying costs because the grower only sprays when the conditions [are right]. This lowers costs tremendously."

Improving management practices

At the Eastern Shore AREC in Painter, scientists are looking at ways to help vegetable growers improve management practices on a variety of crops. Virginia is a major producer of summer potatoes, and pest management is critical to successful crop production; without effective control, crop losses would exceed 50 percent annually in most Virginia potato fields. Plant pathologists monitor a network of weather stations on the Eastern Shore that forecast the chances of late blight, enabling growers to make timely fungicide

applications. Entomologists are studying the biology of the Colorado potato beetle and wireworms, evaluating current insecticide products, and determining environmentally and user-friendly alternatives. With funding from the U.S. Department of Agriculture and the Virginia Irish Potato Board, field research studies have been conducted using new pesticides that reduce the health risk to consumers, applicators, and the environment. The collected data have helped to register many of these new improved insecticides for use on potatoes grown throughout the United States, and virtually all of the major potato producers on Virginia's Eastern Shore have utilized some of the products.

Researchers at the Hampton Roads AREC in Virginia Beach have developed a water-treatment method that has provided immediate economic benefits for growers, with every major plant-production facility in the state using the chlorination protocol. Without treatment,

contaminated irrigation water is a major source for diseases of horticulture crops. Pathogens can spread easily within farms and from farms to other production facilities that share the same water source, and crop losses due to waterborne pathogens can be significant. For example, a malfunctioning chlorine injector cost one Eastern Virginia nursery approximately \$143,000 during a three-week period when plants were lost to root rot caused by a waterborne pathogen. By following the chlorination schedules designed by the Hampton Roads AREC, Virginia facilities are minimizing losses in a big way.

Providing research-based information

One of the most critical issues confronting seafood processors in Virginia is employee training, and the predominant language spoken by many employees is Spanish. Faculty members at the Virginia Seafood AREC have developed multilingual training materials for seafood companies that address food safety topics, such as

Agricultural Research and Extension Centers

- 1 Alson H. Smith Jr. AREC - WINCHESTER
- 2 Middleburg AREC - MIDDLEBURG
- 3 Shenandoah Valley AREC - STEELES TAVERN
- 4 Northern Piedmont AREC - ORANGE
- 5 Eastern Virginia AREC - WARSAW
- 6 Eastern Shore AREC - PAINTER
- 7 Southwest Virginia AREC - GLADE SPRING
- 8 Reynolds Homestead Forestry Resources Research Center - CRITZ
- 9 Southern Piedmont AREC - BLACKSTONE
- 10 Tidewater AREC - SUFFOLK
- 11 Virginia Seafood AREC - HAMPTON
- 12 Hampton Roads AREC - VIRGINIA BEACH

preventing cross contamination, washing hands properly, controlling food allergens, and maintaining clean equipment and utensils. The well-received materials have resulted in better understanding, applying, and monitoring of sanitation procedures. According to some seafood companies, these materials have helped them comply with regulations while also keeping their products safe and wholesome.

Reflecting the principle of outreach across the commonwealth and beyond, Virginia Tech's ARECs are valuable industry allies.

To learn more about the centers, visit www.vaes.vt.edu/arecs/index.html.

Lori Greiner is the College of Agriculture and Life Sciences communications manager.



Field days are held at the agricultural research centers to give producers the opportunity to learn about research being conducted at the center and discuss the projects with faculty and students.

Hereditary Hokies

BY CHELSEA NEWMAN '10

It's no wonder that Hokie Spirit is sprinkled across the blood lines of many Hokie families, with 20 percent of Virginia Tech's current students considered legacies. When Hokie charm hooks a family, the results passed down from generation to generation can be impressive. The Echols-Saunders clan claims 35 Hokies and the Craun family boasts 33 Hokies, to name just two. But it's more than just following in mom's and dad's footsteps; Virginia Tech and its environs have charmed people for generations.

For Pat (Echols) Saunders (interior design '87) the allure of Tech was its small-town, yet global, atmosphere. "I applied to only two schools, Virginia Tech and Radford," says Saunders, and when she got into both, she headed to Blacksburg. She fell in love with Tech as a child, when her parents would buy football tickets and make game days into a vacation. "We would walk over to the bookstore, get a T-shirt or some kind of Tech memorabilia, then walk to the football game." At Homecoming games,

Saunders' father would buy her mother a mum corsage from a vendor on the corner.

Virginia Tech may inspire the romantic in all of us. Saunders met her husband, Robert, at Tech, and the union of the two families created one of the largest Hokie families around. Robert Saunders' six brothers joined him at Tech, and all six Echols sisters are Hokies as well. Various marriages, daughters, sons, nieces, nephews, and distant cousins factor into the 35-count Echols-Saunders family,

with plans for more: Pat Saunders hopes that her daughter, Annie, a high school sophomore, will fall in love with Virginia Tech, too.

The lineage of the Craun family, 33 Hokies deep, shows a focus on agriculture, including dairy science, animal science, and poultry science. "Many of us Crauns own and operate dairy farms, beef farms, or are involved in the agricultural economics field," says Linda Leech (dairy science '78). "We are so fortunate that Virginia Tech has a nationally

Photos of the Echols-Saunders family are surrounded by memorabilia from the family and the Holtzman Alumni Center's Alumni Museum.



JIM STROUP

The Tokarz brothers, all Hokie alumni, recently celebrated the 95th birthday of John, the eldest, seated at lower right. Go to www.vtmagazine.vt.edu to see photos from the party with their extended family.



recognized dairy science department that encourages its students to achieve their potential." The family often encounters other Hokies in their profession and, thus, realizes the true reach of the Hokie Nation.

Hokie Spirit runs strong in the Craun family. Sidney Grove (dairy science '66), Linda's cousin, often returns to "walk the same grounds and paths that bring back so many memories from the early 1960s," he says. "I often go with a classmate, and we seem to always relive the same stories and return to the same places." When Tech is not inspiring a love for the beauty of Blacksburg, it is often inspiring a love for fellow Hokies.

Chad Craun (dairy science '07) returned to Blacksburg on June 5, 2010, to marry Samantha Davis (dairy science '09) at Smithfield Plantation.

Virginia Tech also strengthens family ties, as shown by Brendan McDonald (political science '04) and Cindy Comisky (psychology '06), two cousins from a 12-graduate Hokie family. When Comisky entered Tech as a freshman, she became best friends with her cousin, McDonald, who was a junior. Comisky is thankful for her experience at Virginia Tech, which became a surprising family reunion.

Hokie family trees come in all sizes, and each has a story—or any number of

stories—to tell. The Bugas family may have the largest number of current Hokies, with six first cousins all attending Tech. The Howes, who sign cards "Happy Holidays from the Hokie Howes," have seven graduates and can trace their Hokie lineage back to Richard David Maben, who was a freshman in 1875.

The Watsons—with 10 Hokies and a lineage that includes the late William E. Skelton, a former dean and namesake of two centers at Virginia Tech—found themselves in a pinch when one of their sons got married during a home game against Miami. The minister graciously provided the current score—14-0—during the ceremony.

During most any game, it can be assumed that J.W. Thomasson (agricultural education '64) and his wife, Linda, cheer on the maroon and orange in their "VT Room," a room in their home with "nothing but VT stuff in it."

George Nolen (marketing '78), a member of the Virginia Tech Board of Visitors, met his wife, Michele Carpenter

Family members gathered on campus for the June 5 wedding of Chad Craun and Samantha Davis.



Nolen (finance '78) at freshman orientation. He said in a 2006 *Virginia Tech Magazine* story that in addition to their two children, "18 other members of our family have attended Virginia Tech."

If you're not one of the nine Hokies across three generations in the Venerable family, they'll dress you up like one. In family photos, the children in the family hold maroon and orange pom-poms. To the Quick family's 19 Hokies, dressing up half Hokie and half Cavalier is a crime. When William Austin Quick (dairy science '39), saw his granddaughter Jill in a Tech sweatshirt and U.Va. sweat pants, he was shocked—"He sure knew he wasn't a U.Va. fan!" says his daughter, Donna Quick Courtney.

The Jackson family, with 11 Hokies, prides itself on a combination of American and international students attending Tech. George C. Jackson (horticulture M.S. '59) was granted leave from the University of Puerto Rico to pursue a master's degree in horticulture at Tech, and he brought his family with him. His eldest daughter, Zulma, studied at Tech as a transfer student from Puerto Rico. While in Blacksburg, she met her husband, Robert Keynton, and their three children later attended Virginia Tech. When Jackson returned to Puerto Rico, his younger daughters went with him. His daughter Emilse returned to Virginia, married, and had four children, three of whom are Hokies. His daughter Maritere lives in Puerto Rico, but the Hokie blood still runs strong. Maritere's daughter, Marilse, attended Tech as an exchange student from the University of Puerto Rico.

Is it genetic, or is there something in the Blacksburg water? Whatever the case, once someone in the family catches the contagious Hokie fever, it tends to spread quickly, as each new generation is drawn to the charm of Virginia Tech. □

Go to www.vtmagazine.vt.edu to upload photos of your Hokie family, and share your family with the Hokie Nation!



A special thanks to those who submitted their Hokie families!

(35)* Pat Saunders
(33) Linda Leech
(19) Donna Quick Courtney
(18) John R. Wilkins Jr.
(17) Amy A. Vaughan
(17) Michael E. Snyder
(16) Linda Thomasson
(15) Gretchen Quant
(15) Jeff Sweeney
(14) Annie Roller
(13) Elaine Griffin
(12) William Armstrong
(12) John Hovell
(12) Cindy Comisky
(12) Hugh David Scott
(11) George C. Jackson
(11) Theresa P. Price
(10) William E. Watson
(10) C. Todd Bower
(10) Lorrie Cooper
(10) James N. Wright
(9) Susan Lamore
(9) David Brown
(9) Michelle Gibson
(9) Helen E. Meeks Mitchell
(9) Becky O'Connor
(9) Laura Stemmann Crotteau
(9) Laura Venerable
(8) Aron Johnson
(8) Paul Bugas
(8) Ashley Jones
(8) John Miller
(8) Deborah L. Powers
(8) Sara Tatum

(8) Robert Thomson
(8) Edward "Ned" Carter Turner Jr.
(8) Teresa Weisenburger
(7) Bruce Chestnutt
(7) Douglas C. Curling
(7) Jennie Stokes Howe
(7) Bart Warner
(6) Betty Pendleton
(6) Anne Cabell
(6) Carolyn Kramer
(6) Michelle Vance
(5) Rena Johnson
(5) Bruce Kirk
(5) Brenda Logan
(5) Valerie Ore
(5) Lisa Preskitt
(5) Rose Mary Alexander
(4) Patricia Brown
(4) Gray Coyner
(4) Mayer Levy
(4) Frank Miller
(4) Laura Roberson
(4) Keith E. Sturgill
(3) Tom Ficklin
(3) Walter Gray
(3) Carol Landaiche
(3) Crystal Morgan
(3) Ed Pittman
(3) Audrey Woo
(2) Tom Kingsley
(2) William Stepp

* Represents the number of Hokies per submitted family.



N. KAYE

Saving the Chesapeake Bay

**Restoring the
future**

BY DENISE YOUNG

Virginia overflows with historical sites, from the pioneering inventiveness of Thomas Jefferson's Monticello to the catchy bluegrass music of Southwest Virginia's Crooked Road. But for many, the commonwealth's greatest asset is the natural bounty and beauty of the Chesapeake Bay.

President Barack Obama reaffirmed the importance of this environmental asset when, in 2009, he signed an executive order declaring the Chesapeake Bay a national treasure and directing federal agencies to coordinate and accelerate the restoration process. Obama's order is an attempt to bring the state and federal governments into compliance with the Clean Water Act of 1972.

Setting the mark

As the bay's brackish water glints sharply in sunlight, a wealth of trouble lies beneath the surface: eutrophication, which involves an overabundance of nutrients and sediments that degrade water quality and clarity and create algae blooms, depleting the oxygen necessary for a thriving aquatic life scene.

The Chesapeake Bay watershed stretches through parts of six states and the District of Columbia (see map). Most pollution doesn't begin on the Eastern Shore or the Coastal Plain bordering the bay, but rather originates inland.

Though the Chesapeake Bay Initiative began in the 1980s, the restoration has been a long, slow process. Despite cooperation among the states in the watershed, the program is far from meeting its bay-restoration goals. In the Chesapeake 2000 Agreement, the states banded together to lower pollution in the bay and improve water quality. By 2008, however, they had met only 21 percent of those goals, according to the Chesapeake Bay Program's website.

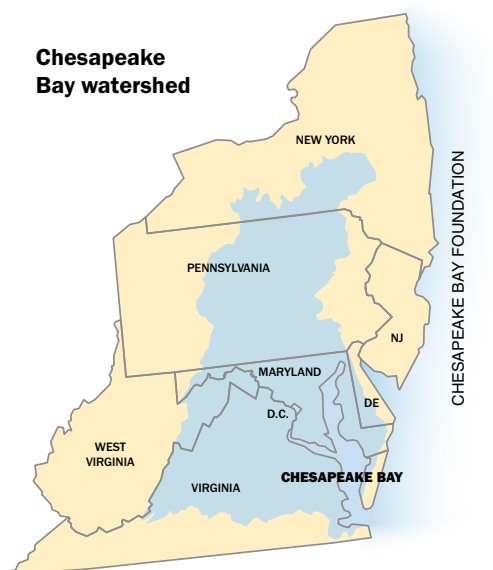
That's where Obama's mandate enters the scene. For the first time, the Environmental Protection Agency (EPA) and

bay watershed states are setting Total Maximum Daily Loads (TMDLs) that define how much of a given pollutant the bay can tolerate—what the EPA calls a "pollution diet" for the bay. With the advent of TMDLs, officials hope to reduce nutrient and sediment pollution through a combination of regulatory and voluntary measures, keeping those nutrients out of the waterways before they enter the bay.

A number of Virginia Tech researchers are playing vital roles in this process. Saied Mostaghimi, associate dean for research and graduate studies in the College of Agriculture and Life Sciences and the H.E. and Elizabeth F. Alphin professor in the Department of Biological Systems Engineering, serves on the executive board of the Scientific and Technical Advisory Committee (STAC) for the Chesapeake Bay Program. The committee provides scientific and technical guidance to the Chesapeake Bay Program on measures to restore and protect the bay.

In a related area, Tamim Younos, associate director of Virginia Tech's Water Resources Research Center (WRRC), leads a multi-institute academic advisory

committee that is devoted to helping the Virginia Department of Environmental Quality (DEQ) establish water-quality standards for Virginia. The committee's goal is to analyze the data collected by the DEQ to help the agency set nutrient standards for Virginia's streams and rivers by 2011. While standards for other pollutants, such as bacteria, are already in place, no such benchmark exists for nutrients. These standards will greatly improve the health of the Chesapeake Bay.



**Chesapeake
Bay watershed**

CHESAPEAKE BAY FOUNDATION



Tangier Island, nestled in the heart of the Chesapeake Bay.

N. KAYE

“There’s no easy solution,” says Younos, “but our job as a university is to come up with a science-based solution that’s also practical and cost-effective.”

The EPA has already promoted the use of five cost-effective measures to reduce human effects on the bay: wastewater treatment upgrades, diet and feed adjustments for livestock, cover crops to prevent soil erosion in winter, conservation tillage to minimize soil disturbance, riparian buffers, and traditional and enhanced nutrient-management plans. In place since 1985, these and other restoration efforts have reduced human impacts on the bay, but not nearly enough, says Jim Pease, a professor in the Department of Agricultural and Applied Economics. Pease is also a member of STAC and of multi-state Extension groups working to provide education on cost-effective pollution controls.

One of the biggest detriments to bay health is population growth, which results in an increased need for food production and for land development, which inflates the volume of wastewater and lawn fertilizer runoff.

Some solutions are relatively small and site-specific, such as fencing to keep cattle out of streams, preventing erosion of stream banks while keeping waste from going directly into the waterways, or teaching landowners how to apply the

proper amount of lawn fertilizer.

Other solutions are technology-based, such as the work of Jactone Ogejo, an assistant professor in the Department of Biological Systems Engineering, whose research focuses on nutrient recovery, finding ways to concentrate excess nitrogen and recover phosphorous from manure. “Manure has more phosphorous and nitrogen than the crops can use,” says Ogejo. “One of the ways of looking at the continued use of manure as a fertilizer is to make ‘designer’ manure in which the nitrogen and phosphorus is made available according to the need of crops. The phosphorus recovered or removed in the process can be transported for use in locations that have phosphorus deficits.”

While many changes and technologies target the individual or local level, other research takes more of a large-scale approach. Courtney Reijo, a graduate student working on her master of science in forestry, is doing research using Geographic Information Systems (GIS) to determine the most effective places to locate riparian buffers, areas of trees or other vegetation planted next to streams and creeks that prevent soil erosion and act as natural filters of nutrients.

These buffers perform many ecosystem functions, says Reijo, including sediment reduction, nutrient removal, wildlife habitats, and stream temperature

control. Reijo is using GIS to evaluate topographic influences on the riparian zones’ nutrient removal throughout the entire bay watershed. By determining the places in the landscape where riparian buffers are most effective, the research will help officials select the best places to concentrate their energy and resources.

“We’re trying to use natural means to fix these problems,” says Kevin McGuire, a research assistant professor for the WRRC, who also serves as Reijo’s advisor on the project.

Unlikely treasures

Just as rainforests may hold undiscovered sources for treating disease and improving the human condition, the Chesapeake is home to a critter that proves invaluable to our everyday lives: the horseshoe crab.

“They’re really critical to the near-shore ecosystem,” says Eric Hallerman, professor and head of the Department of Fisheries and Wildlife Sciences and director of the Horseshoe Crab Resource Center. Aside from playing an important role in the food web by serving as prey for fish and birds, particularly in the early life stages, the horseshoe crab is vitally important to humans as well. Their blood contains limulus ameobocyte lysate, a chemical commonly known as LAL.

Almost every person in the developed

world has benefited from LAL, which is used to detect endotoxins in vaccines and implantable medical devices. The crabs don’t rely on antibodies to fight illnesses; instead they have broad-spectrum resistance to bacteria. “Horseshoe crabs have been around for 200 million years, so they’ve seen everything,” says Hallerman. “LAL can see the widest range of bacteria of any chemical that we know.” Though other types of crabs are harvested in other parts of the world for LAL, the horseshoe crab is the most prized for this use.

Hallerman has devoted most of his research to monitoring and conserving the horseshoe crab population. For these crabs, the biggest danger comes from overfishing. People have been harvesting horseshoe crabs for centuries. They served as a food source for Native Americans and were used by European settlers as fertilizer well into the 20th century.

In 1999, the government placed restrictions on the number of crabs that could be harvested, especially female crabs, in hopes of rebuilding the population. Hallerman says the numbers are creeping up. “I want these populations to rebuild. ... I want there to be abundant horseshoe crabs when my great-

grandchildren walk down the shores of the bay.”

It’s not just the horseshoe crab that makes the bay a natural gem worth preserving. The bay is famous for soft-shell crabs and oysters that many treasure as delicacies, and game fish, such as striped bass and bluefish, often lure anglers to its deeper waters. “There are a huge number of fish and oysters that are affected in different ways by pollution,” says Pease.

What makes the bay and its watershed so important, Pease adds, isn’t just that it is a water source, but the “ecosystem services” that water provides to people across the watershed, from fishing and canoeing to witnessing wildlife and hiking near streams and rivers. “Those things are generated by land uses we want to preserve as a society.”

“Everyone is a stakeholder when it comes to water,” notes Younos.

Michelle Prysby, coordinator of the Virginia Master Naturalist Program, has seen firsthand the value of engaging citizens in both stewardship and hands-on education. With 850 active volunteers, the program consists of educational projects, citizen science projects such as surveys and monitoring, and stewardship.

Master naturalists teach the public about rain barrels and rain gardens; planting riparian buffers; and bayscaping, a form of landscaping in which landowners plant native plants instead of traditional lawns, thereby using less water and fertilizer. They also lead excursions for youth as part of the Meaningful Watershed Educational Experience (MWEE) program. “Research shows that engaging students in these field experiences makes them more likely to act to protect the bay in the future,” says Prysby.

She adds that these experiences are important for both youth and adults.



GARNETT MELLEN

Virginia master naturalists teach the public about rain barrels and rain gardens; planting riparian buffers; and bayscaping, a form of landscaping.

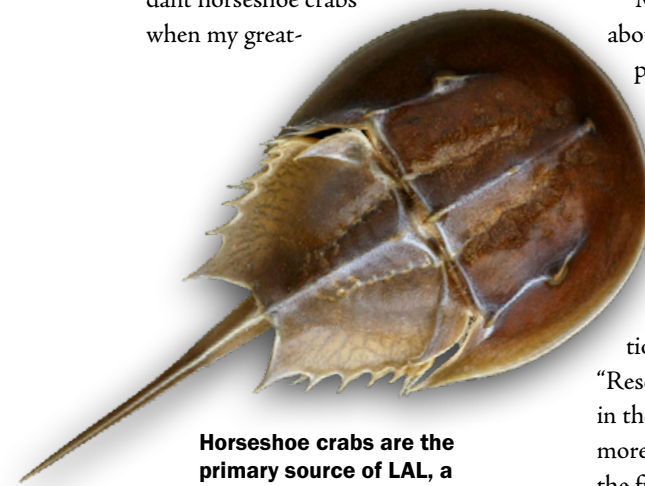
“When people don’t get to be outdoors and see the natural resources and wildlife that we have in the bay watershed, they don’t feel as inclined to participate in conservation efforts,” she says.

Buoyed by the hard work of Virginia Tech faculty members and others from all levels of government, from local to federal, restoration is still a slow process—and it can take decades before water quality improves. “We have to get down to the individual and local level,” says Pease. “The question has to be there every time, ‘What is going to be the impact of [this action] on the bay?’”

From the small scale to the big picture, experts at Virginia Tech are helping to ask those questions, to restore and preserve a national treasure that belongs to everyone. □

To read other articles about how Virginia Tech faculty and staff are working to restore the Chesapeake Bay, visit the online version of this article at www.vtmagazine.vt.edu.

Those interested in the Virginia Master Naturalist Program should visit www.virginiamasternaturalist.org to learn more or to enroll in a basic training class.



Horseshoe crabs are the primary source of LAL, a chemical used to detect endotoxins in vaccines and implantable devices.

D.C. Wolfe: Musician, engineer, photographer

BY CLARA B. COX M.A. '84

During four years at Virginia Agricultural and Mechanical College and Polytechnic Institute (popularly called VPI, today's Virginia Tech), DeWitt Clinton "D.C." Wolfe Jr. of Big Stone Gap, Va., a civil engineering major, kept his camera close at hand. Wolfe compiled his photos and memorabilia into two photo albums that give us a glimpse of life on campus in the World War I era.

The Southwest Virginian and 1921 graduate moved through the ranks in the corps of cadets, from a private during his freshman year to band captain his senior year. The 1921 yearbook, *The Bugle*, praised his efforts: "Although 'D.C.' rules the band with an iron hand, his absolute fairness and impartiality to all have won for him many friends."

Three years after graduating, Wolfe married Ruth Mildred Irvin, and the couple had one son. By 1929, he was living in Jefferson City, Mo., working as an assistant bridge engineer for the state highway department. Not long afterward, he was lured away by Sverdrup and Parcel Corporation, a civil engineering firm that focused on bridge design, becoming a partner in the firm in 1936. Wolfe, who had moved to Atherton, Calif., probably to manage a branch office, retired in 1966. He died in 1991 at the age of 92.

To see a slideshow of selected photographs, go to www.vtmagazine.vt.edu.



1.

2.

1. One of the newest buildings on the college campus near the end of World War I was the first McBryde Hall (building with tower, left center), completed in 1917. To the left of McBryde is Faculty Row, and in front of it is the Administration Building. Just to the right of McBryde is the YMCA Building, followed by several barracks. The buildings in the foreground are agricultural education buildings with a faculty residence to their right. Just to the right and above the residence is the Field House, and to the right and above it is the Chapel, which, when the photo was taken, was used as a library.

2. D.C. Wolfe's 1918-19 Athletic Association card, which cost \$10, allowed him

entrance to all student athletic events that were held on Miles Field (today's Drillfield) or in the Field House.

3. Wolfe played a cornet in the Regimental Band, which was not called the Highty-Tighties until a somewhat crude company yell, which contained the catch phrase "Highty-Tightie!" was composed in 1919. As the band used the yell, other members of the corps began applying the phrase to the band. Wolfe is the third cadet from the left.

4. The Blacksburg depot, this one constructed in 1912, served as the departure and arrival destination for the Huckleberry train, which carried cadets

and other passengers to and from the main depot in Christiansburg for just over half a century, beginning in 1904. Tracks for the Blacksburg spur were removed in 1965. Today, the Huckleberry Trail marks its path.

5. Corps freshmen, known as "rats," marched through downtown Blacksburg each fall in costumes designed and applied by sophomores. The Rat Parades attracted spectators from throughout the area.

6. Pole-vaulting, part of the college's track meets, was set up on Miles Field (today's Drillfield) just inside an oval track that ran around the perimeter of Miles Field (today's Drillfield).

7. Following the first significant snowfall each winter, the corps divided into two groups, and each group lined up on Miles Field (today's Drillfield) for the annual snow battle. When the bugler sounded "Charge," the opposing lines rushed each other and tried to rub snow into their opponents' faces. Following the battle, freshman cadets made a run for the barracks amid a hail of snowballs thrown by upperclassmen.

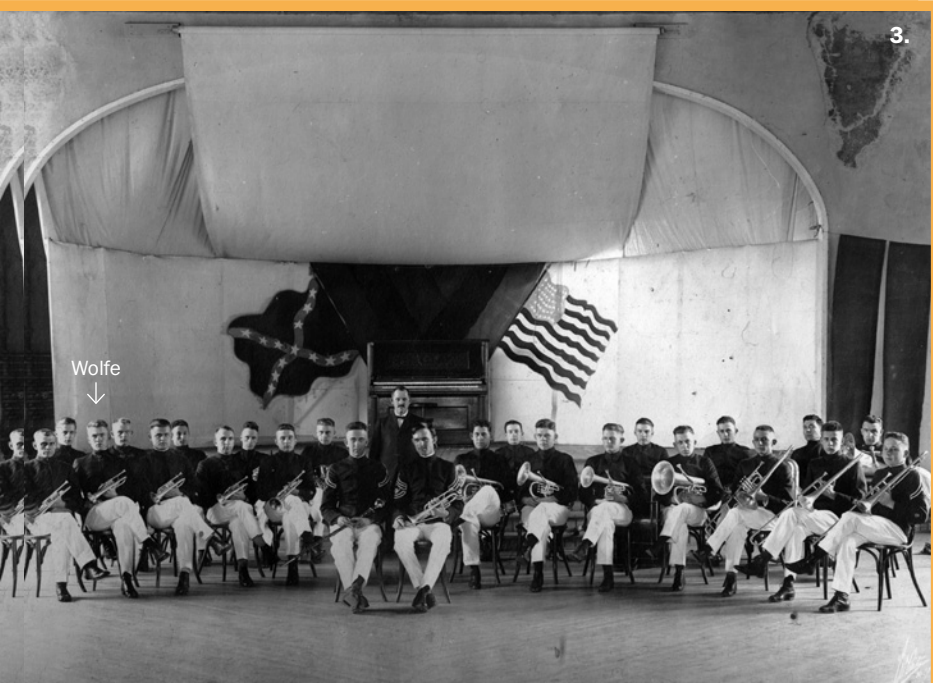
8. Stroubles Creek openly ran through the southern section of Miles Field (today's Drillfield) until it was covered by a conduit in 1934.



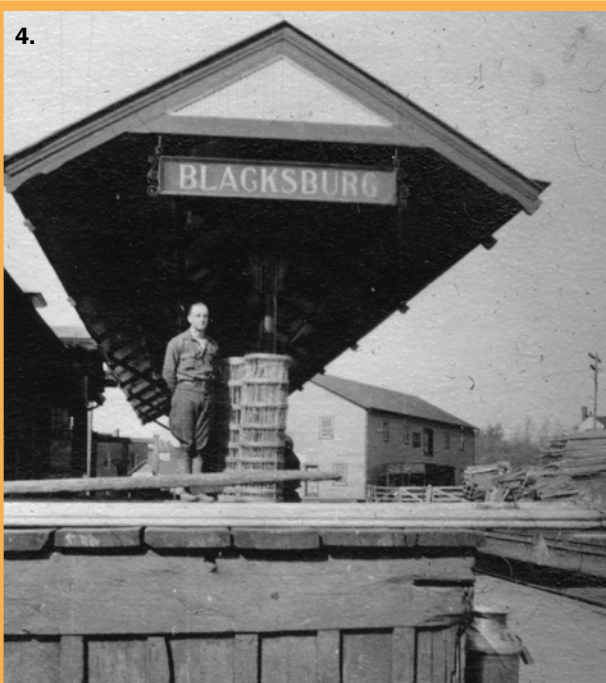
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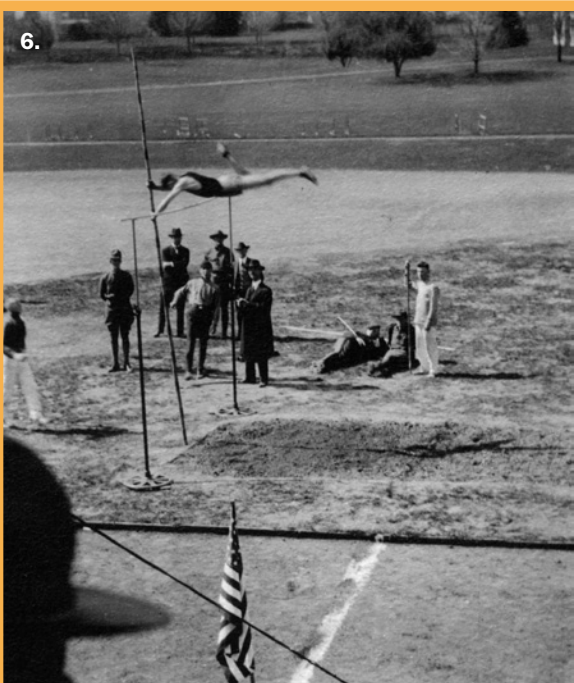
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Factor of X

BY STEVEN MACKAY

In October 2003, Virginia Tech crashed the supercomputer market with a machine that put Blacksburg on the map of technology powerhouses. Known as System X—pronounced “ten,” the Roman numeral, reflecting the goal of achieving 10 teraflops, or 10 trillion operations per second—the supercomputer landed Virginia Tech among the most powerful computational research facilities in the world.

As a production supercomputer, X certainly changed how research is done at Virginia Tech. Researchers no longer have to wait months or a year for government supercomputers to complete research. With X, the wait time is nearly nil, and the payoff is huge.

Scientists in Blacksburg and from around the world have used X to crack riddles of the blood system that have befuddled researchers for decades; discover previously unknown attributes of DNA, the basic building block of all life; and helped find missing genes that could lead to improved medicines.

“System X is a unique and powerful resource that enables a very broad range of research,” says Mark Paul, an associate professor of mechanical engineering at Virginia Tech who conducts research with X and serves on the committee that selects the supercomputer’s projects. “It plays a pivotal role in our ability to explore open challenges in computational science and engineering.”

Beyond engineering, X is serving faculty members across campus, such as geosciences and other departments in the College of Science. On average, \$20 million of the research money that flows into Virginia Tech annually is tied to research supported by System X, says Kevin Shinpaugh, director of Virginia

System X put the university on the supercomputer map and helped push groundbreaking research at Virginia Tech.

Wu Feng, an associate professor with the computer science and the electrical and computer engineering departments, recently used System X for a massive study to identify genes previously missed by scientists.





JIM STROUP

Srinidhi Varadarajan, the architect of System X, has seen the supercomputer assist countless research projects.

Tech's Research & Cluster Computing Center and one of X's original architects. During the 2009-10 academic year, related funding bumped up to roughly \$25 million.

X solves problems dramatically faster than it would take humans to plow through on pen and paper or an isolated personal computer. It is the launching pad pushing Tech's scientific and technological leadership into the stratosphere.

It also is a brain magnet for Virginia Tech, attracting researchers who want to work for a U.S. university that has the means to assemble such a massive beast of technology. In turn, these researchers have brought more grants, prestige, and headlines to the university. "System X has been a draw for faculty hiring in many areas of the College of Engineering for several years," says Don Leo, associate dean of research and graduate studies in the college. "Computer science, of course, is a major benefactor, but X also has helped

us recruit faculty in the departments of engineering science and mechanics, and mechanical engineering. Faculty whose research relies on modeling of large-scale systems need access to high-performance computing facilities."

Not bad for a supercomputer that is 7 years old and had a start-up price tag of just \$5.2 million.

Great expectations

The hype surrounding System X was reaching a crescendo seven years ago when Virginia Tech's Srinidhi Varadarajan presented the keynote address at the O'Reilly Mac OS X Conference, a hotbed annual gathering in Santa Clara, Calif., of the world's leading information technology researchers. The room was packed. Everyone wanted to know about System X.

Varadarajan, then-assistant professor of computer science in the College of Engineering, delivered. Back in

Blacksburg, in an office building at the university's Corporate Research Center, was X, a vastly high-tech supercomputer just assembled by Virginia Tech faculty, staff, and students, comprising 1,100 Apple PowerMac G5 computers right off the assembly line. It was rumored to rank among the largest supercomputers in the world.

The New York Times and scores of industry publications already were publishing stories, building up anticipation as if X were a summer blockbuster film. Varadarajan, now associate professor of computer science and director of Virginia Tech's Center for High-End Computing Systems, was not expecting this attention. The supercomputer was not even fully operational at the time of his talk, and it was unknown whether the system would work in its entirety. The System X team had ordered crates of G5s on an act of blind faith, well before the G5 hit the market. The near month-long process of

assembly and testing was painstaking.

"We were racing against time to submit the benchmark timing results in time for the fall 2003 release of the TOP500 list. And we were dealing with leading-edge technology—both hardware and software. So the system was not very stable at first," says Cal Ribbens, associate professor of computer science and one of many original masterminds behind X, along with Erv Blythe, vice president for information technology; Hassan Aref, then dean of the College of Engineering; and Glenda Scales, associate dean of information technology for the college; and others.

The intensive work paid off. In fall 2003, X landed at No. 3 on the TOP500, an international tabulation that has benchmarked the world's top high-performance computing systems since 1993. The machine achieved a sustained rate of 10.28 teraflops on the standard TOP500 benchmark calculation, ranking it behind only supercomputers in Japan and at the Los Alamos National Laboratory, both of which cost more than 10 times as much as System X. With a 2004 update, System X began running at a sustained rate of 12.25 teraflops, with a peak speed of 20.24 teraflops. "We had the fastest supercomputer machine in academia," says Varadarajan.

Finding genes and solving unknown puzzles

Wu Feng, an associate professor with Virginia Tech's computer science and electrical and computer engineering departments, has used X on numerous occasions. A 2005 study, just prior to his arrival at Virginia Tech, involved Feng and several other researchers focusing on parallel genomic sequencing. The findings resulted in a best paper nomination at the 2006 International Conference on High-Performance Computing Network-

ing, Storage and Analysis. Feng continues research into that field, having recently participated in a massive study with the Virginia Bioinformatics Institute that used X and six smaller supercomputers to locate genes in the genomes of microbes that were previously missed by gene annotation programs created by scientists. Using computational software developed by Feng called mpiBLAST, researchers were able to compact work that would take a sole PC 90 years to complete into half a day. The vast amount of work and newly found genes could be used to create cutting edge antibiotics and vaccines against evolving diseases such as HIV or even the flu, according to researchers.

Alexey Onufriev, associate professor in the departments of computer science in the College of Engineering and of physics in the College of Science, was one of X's earliest users and remains a strong advocate. He used X to crack a decades-old riddle that befuddled scientists: tracking the routes oxygen uses as it moves in and out of myoglobin, the oxygen-binding protein found in the muscle tissue that has been the guinea pig of molecular science for the past 50 years. It is the protein that gives fresh meat its nice red color in your local supermarket, and principles that govern its function often are applicable to other, more complex proteins.

In separate work, Onufriev used X to explore the full range of motions of a long DNA strand—long enough to form the fundamental unit of DNA packed in a single living cell, the nucleosome. The computer simulation, using only 10 percent of X's total heft, scuttled the long-held belief that DNA is a rigid building block of life, like a Lincoln Log. Instead, the computational experiment showed DNA is much more flexible than previously thought, Onufriev says. These findings may go a long way in helping scientists track the molecular makeup of human beings.

Computer cousins

System G sits behind two large, blank wooden doors in a building in Virginia Tech's Corporate Research Center. It has no visible signage that brags of its name, mass computing power, technical creativity, or computer science ingenuity.

But it should.

G is comprised of 325 Mac Pro computers, each with two 4-core, 2.8-gigahertz Intel Xeon processors and eight gigabytes of random access memory, cranking out 22.8 teraflops (trillion operations per second) of computing power, compared to System X with its 1100 Apple PowerMac G5s, boasting 12.25 teraflops. "It's twice as powerful, a third the size, and uses a third of the power," says Kirk W. Cameron, associate professor of computer science in the College of Engineering.

Unlike System X, System G is not a production supercomputer for conducting super-fast research. The \$1.2 million machine was built to develop new high-performance software tools and applications with paramount efficiency, in environmentally friendly fashion. Hence the "G" for green. "We wanted to try and find the most efficient way to use computers," says Cameron.

Read more about System G online at www.vtmagazine.vt.edu.



Cal Ribbens, associate professor of computer science and one of the many original masterminds behind X

X's future

Supercomputer years make dog years look easy. Built in 2003, System X is ancient for its species. Among typical PCs, every 18 months computer processors can run twice as fast for roughly the same cost. For supercomputers the process is more drastic: performance increases by 50 percent every six months.

"We are looking for a successor," says Varadarajan. But the process may be grueling. Including upgrades, X has cost \$6.5 million. A supercomputer now, to be competitive, would cost upward of \$30 million to build and would need to run 1,000 times faster at peak power. As of publication, the No. 1 computer on the TOP500 list is the "Jaguar," peaking at 2,331 teraflops.

X and other supercomputers, now and in the future, will be vital tools for researchers such as Feng, Onufriev and Ramakrishnan. But they still are tools. They need cutting-edge users to ask the important questions.

"A supercomputer is a fast tool. It won't lead to discoveries, but it can help scientists and researchers discover things faster," says Feng. "One important thing to remember is a supercomputer is only as smart as its users. It does what it is told. That's it."

X is by no means ready for retirement. In the hands of Virginia Tech's world-class researchers, the supercomputer will continue to pave the way for groundbreaking research that will change the world. □

To read about the launch of System X, see the Winter 2004 Virginia Tech Magazine story at <http://www.vtmagazine.vt.edu/winter04/index.html>.

Steven Mackay is the communications coordinator for the College of Engineering. Lynn Nystrom, director of news and external relations for the college, contributed to this article.

The fast track

With a committee of just three members—Ribbens; Paul; and Daniel Crawford, professor of chemistry in the College of Science—approval time for using System X for a project is one or two days; and once an allocation of System X time is made, researchers on a given project can submit jobs to the machine with virtually no waiting time at all. Requests to use supercomputer resources at other installations can take anywhere from three months to a year, says Varadarajan, and jobs often sit in a queue waiting to run for hours or days. The committee reviews 25-30 projects a year, declining only a handful of projects that don't justify the supercomputer's resources, Ribbens says.

Virginia Tech researchers, including Onufriev, appreciate this fast track. "I could have applied for time at national supercomputer centers. Problem is, the applications take a while, and then you have to stand in a queue to run your jobs," he says. "With the myoglobin project, it was really important to quickly test out many factors, so the on-demand access to fairly large chunks of X was important. I would have given up on the project if I did not have access to X, simply because it would have taken me years to do this work with ordinary computing power."

Multiple experiments and research projects can be handled simultaneously on X, as it is rare for any one project to consume the full blast of X's regular 12.25-teraflop computing power.

Naren Ramakrishnan is a professor of computer science whose research has focused on data mining—the science of processing massive quantities of data to discover patterns and to produce new insights. X is vital to this work. In 2008, Ramakrishnan and a colleague from India used X to catalogue templates of possible "switches" within a living human cell. To illustrate, imagine a massively large disassembled puzzle.

"The 'pieces' are chemical reactions, and we used System X to try out different ways to put together these reactions to form a biochemical switch," says Ramakrishnan. "It's actually a little bit more complicated because some of the pieces can be used multiple times in completing the jigsaw, some pieces need not be used, and each piece has many orientations. So there are millions of possible combinations, which is why we need a supercomputer to sift through all of them."

Paul, the associate professor of mechanical engineering, also conducts research under the flag of the College of Science's physics department, where he has used System X to conduct large-scale computational simulations to better understand the chaotic dynamics of the atmosphere and oceans. "We are exploring fundamental aspects of the chaotic dynamics that result when large systems are driven far from equilibrium," he says. "Examples include the weather and climate, the convection of biological organisms in the oceans, the efficiency of combustion and chemical reactions in complex flow fields, and fluid turbulence."

Ut Prosim Society members celebrate 25 years of exceptional support for Virginia Tech

BY ALBERT RABOTEAU

Like many passionate Virginia Tech football fans, Doug and Nina Trott traveled to Blacksburg, Va., the last weekend in April this year.

The Trotts

But this time it was not just the Hokies' spring game that drew them back to their alma mater. The Trotts came to be inducted into the Ut Prosim Society, a select group of the university's most generous donors.

The Trotts—who run Capital Pension Services Inc. in their hometown of Woodbridge, Va.—are two of the more than 100 people who joined the society this year.

They and other new members were honored at a gathering at the Inn at Virginia Tech and Skelton Conference Center that also included a celebration of the group's 25th year.



JOHN MCCORMICK



Doug and Nina Trott

Nina Trott (management '78) says Virginia Tech "just felt like home" from the first time she visited campus. She met her husband, Doug (finance '78), while in college. Their two sons are alumni. Each of the Trotts also has a sibling who graduated from the university.

Given those family ties, the Trotts say it's natural to want to donate and help the university continue to excel. But that's not the only reason they give, Nina Trott says.

"There are very few places where you can put your money where you know it will be handled well," she says. "We have faith in the leadership of Virginia Tech that they will use our gifts in the best way that advances the university's goals."

Like many members of the Ut Prosim Society, the Trotts have supported a wide range of programs. In their case, that includes the business college they attended; the College of Liberal Arts and Human Sciences that educated their sons; the Department of Athletics; and the Virginia Center for Civil War Studies, headed by James I. Robertson, the university's famous Civil War historian.

"We both took Dr. Robertson's class [on the Civil War], and anyone who's ever been in that class will tell you it's great," Doug Trott says.

Thanking those who give

The Ut Prosim Society was established in 1986 as a way to recognize exceptionally generous supporters like the Trotts. Donors and their spouses are invited to join after reaching \$100,000 in lifetime giving to the university. Within the society, membership levels honor those who reach \$250,000, \$500,000, and \$1 million in contributions.

The society began with 230 members and today has 1,907. Including members who have passed away, 2,238 people have belonged to the society. As a whole, society members have given or pledged nearly \$1.5 billion to Virginia Tech.

In recent years, Ut Prosim Society members have played a pivotal role in The Campaign for Virginia Tech: Invent the Future. Including pledges, members contributed nearly \$375.5 million between the beginning of the campaign in July 2003 and the end of March this year—more than 41 percent of the total raised during that period.

Encouraging others to give

In addition to generous financial support, many Ut Prosim Society members, including the Trotts, give their time. While volunteering on campaign committees, they encourage other alumni and friends to support the campaign, a vital part of the fundraising effort.

Nina Trott says she and her husband have been happy to serve on the campaign committee focused on the Northern Virginia region because “in a time when state funds are being cut, we feel it is especially important to step up and support the university.”

The Wests

Hance West (accounting ’86) was working at an investment firm in the 1990s when a colleague and fellow Hokie encouraged him to donate to Virginia Tech. Today, West, a managing director with Investure LLC in Charlottesville, Va., serves on a campaign committee for the Richmond, Va., region.

“It’s an opportunity to reach out to other Hokies who share our commitment to the university and who can help advance the mission of Virginia Tech,” West says.

Like the Trotts, West and his wife, Jane (finance ’85), are new members of the Ut Prosim Society. Along with supporting athletics, the Wests, who live in Glen Allen, Va., created a fund

To see a video highlighting the society’s 25 years of growth at Virginia Tech, visit www.campaign.vt.edu/UTPIs25. For more information on Virginia Tech’s giving societies, visit www.campaign.vt.edu/society.



Jane and Hance West

JOHN MCCORMICK

to benefit BASIS, a student investment team that focuses on bonds.

25 years of progress

Each year, the induction of new members like the Trotts and the Wests into the Ut Prosim Society illustrates how a remarkably strong tradition of giving back to Virginia Tech has carried on for generations.

T. Marshall Hahn Jr. was in his second year as president of the university when West was born, and Hahn was an original member of the Ut Prosim Society in 1986. Hahn, whose daughter and grandson became society members last year, says he is not surprised that the society has grown nearly 830 percent in 25 years.

“But I am impressed by it, and I applaud it,” adds Hahn, who led the university from 1962 to 1974 and still lives in Blacksburg. “The university has grown and strengthened, and the enthusiasm of the alumni has grown and strengthened. I think that it’s to be expected that there would be this magnificent, cumulative level of support.”

Albert Raboteau is a writer for University Development.



Zimmer Gunsul Frasca Architects’ design for the Signature Engineering Building echoes the neo-Gothic look familiar on campus but also has many contemporary touches, including large amounts of glass to allow for natural light. Visit www.eng.vt.edu/signaturebuilding for additional renderings of the new building.

A signature facility for an exemplary college

BY ALBERT RABOTEAU

A dramatic new building earmarked for the northern end of campus will showcase one of the nation’s premier engineering programs and provide much-needed space for its students and faculty.

“The Signature Engineering Building will be a world-class instructional facility that will attract the nation’s brightest students and faculty,” says John Sparks (mechanical engineering ’74, M.S. ’76, Ph.D. ’81), an Aerojet executive who has been a vocal advocate in Richmond for the project and is the incoming vice-chair of the College of Engineering Advisory Board.

Located near the corner of Prices Fork Road and Stanger Street, the four-story building will address the space crunch faced by a growing college, says Richard Benson, the college’s dean.

“We have a much larger faculty than we did in the 1990s, we have a lot more students, and we have an urgent need for this kind of space,” Benson says. “We’re the nation’s third-largest producer of undergraduate engineers after Georgia Tech and Penn State.”

Students and faculty will both benefit

from the new building. It will contain seven general-assignment classrooms and a 300-seat auditorium. The building also will house the chemical engineering department, engineering education department, and part of the mechanical engineering department.

The departments of mechanical engineering and aerospace engineering also will have showcase laboratories on the ground floor. One memorable feature of the building is a dramatic glass atrium that will contain a turbine engine.

Another notable feature is a glass-enclosed space on the third floor that will be visible from the atrium and will house the Virginia Tech Engineering Communication Center, co-directed by Assistant Professors of Engineering Education Lisa McNair and Marie Paretti.

“We really like the open design of the building,” says McNair, whose department is currently located in McBryde Hall, separate from other engineering programs. “Being integrated with other engineering departments will allow more opportunity for collaboration between

our department and the rest of the college.”

State support will play a key role in the university’s plan for this much-needed new building for the College of Engineering, but ultimately, the success of the project will depend on private money.

Officials are working to raise \$50 million in contributions to help fund the 153,000-square-foot building. Dozens of supporters have already contributed generously, but significant private funding is still necessary. On the state’s side, the project is included in a \$1 billion capital program approved by the 2010 General Assembly.

College of Engineering Associate Dean and Chief of Staff Ed Nelson, who is overseeing much of the project for the college, says the goal is not just to provide much-needed space, but to inspire future engineers as well.

“We want to make Virginia Tech and the College of Engineering an inspiring place to work and study, and this building is part of that.”

Albert Raboteau is a writer for University Development.



In the fish bowl with Rob Wittman

BY JESSE TUEL

Rob Wittman's official biography contains a seemingly scripted phrase, attesting that the U.S. representative from Virginia's 1st Congressional District is an "avid hunter and fisherman."

A visit to his D.C. office, however, makes it apparent that Wittman (biological sciences '81) is the genuine article. Mounted fish, from an 8-ounce redbreast sunfish to a 308-pound blue fish tuna, adorn the walls, along with five stuffed ducks and three framed diplomas.

"We call this 'the fish bowl,'" says Mary Springer, Wittman's chief of staff.

In this fish bowl, the Virginia Tech alumnus now operates on a stage of national prominence, a place where every minute of the day is meant to maximize his outreach, influence, and impact.

A tailor-made background

In late April, Wittman was at a House Armed Services Committee hearing, considering a bill to improve financial management practices in Department of Defense purchases.

The Republican listens intently, surrounded by 55 representatives and a packed gallery. The 52-year-old leans forward to adjust his microphone and to place reading glasses on the end of his nose, studying a series of new amendments. One by one, each representative's name is called for the vote.

"Aye," Wittman says, the single syllable carrying the weight of about 643,000 people. One of 11 Virginia congressional districts, the 1st District stretches alongside the Chesapeake Bay from Fauquier County to Gloucester.

Wittman's gradual rise was most recently marked by his re-election to the U.S. House of Representatives in November 2008, having first earned the seat in December 2007 after Rep.

Jo Ann Davis's death. Wittman's political career began in 1986 on the Montross Town Council, which led to the Westmoreland County Board of Supervisors in 1995 and then the Virginia House of Delegates in 2005.

Wittman's background—equal parts professional, political, and academic distinction—is tailor-made for Congress. The self-described "policy wonk" spent 26 years in state government as a field director for the division of shellfish sanitation in the Virginia health department and as an environmental health

"At the end of the day, good public policy is good politics. I think that's where my strengths are: to be able to talk in a very simple, basic, but thoughtful way about public policy and convey it in a political context [that is] not overly partisan."

specialist for local health departments in the commonwealth. Coupled with his political experience at the town, county, and state levels, Wittman enjoys the interplay between politics and public policy.

"At the end of the day, good public policy is good politics. I think that's where my strengths are: to be able

to talk in a very simple, basic, but thoughtful way about public policy and convey it in a political context [that is] not overly partisan."

After completing his degree at Virginia Tech, Wittman earned a master's degree in health policy and administration from the University of North Carolina and a Ph.D. in public policy and administration from Virginia Commonwealth University. Wittman says he's learned "how much [I] don't know" but, most importantly, how to find credible, valid information. "If you don't develop analytical, problem-solving, and writing skills, then you haven't gotten out of the advanced degrees what you need," he says.

Go to www.vtmagazine.vt.edu to hear audio excerpts of the day with Wittman—on topics such as partisanship, Wall Street reform, his political rise, his Hokie experience, and what it's like to have handlers.

The Hokie experience

Wittman walks fast, his aides warn. Almost jogging between appointments, the former member of the Virginia Tech Corps of Cadets recalls how cadets carried bricks in their backpacks, one for each wrong answer. By the end of the week, laden with 17 or 18 bricks, the cadets then ran up Brush Mountain. On Capitol Hill, he's now engaged in the political equivalent. He breezes up and down flights of stairs, through underground tunnels and security checkpoints, from speeches to photo "ops" to votes to constituent meetings in a calculated series of events repeated daily. He's carried a pedometer to learn he walks up to five miles a day.

The discipline, structure, and teamwork of the corps remain with him today. "This is a job where you have to really stay on task and be focused," Wittman says. "The corps taught me that."

His Virginia Tech professors also played an important role. George M. Simmons Jr., who taught courses in biology, limnology, aquatic ecology, and marine biology, challenged and motivated Wittman. After an academically sub-par second year, Wittman needed an exemption to perform undergraduate research. Simmons stood up for him.

Professors hope to develop a knack for identifying talent, Simmons explains. In Wittman, he saw the sincerity, character, and intelligence that could lead to great things.

"[Wittman is] that caliber of individual," Simmons says. "It's kind of like that in athletics. You can't make a racehorse out of a donkey. You've got to have talent."

University Distinguished Professor George J. Flick Jr., an expert in food science and technology who has experienced Wittman's expertise outside academics, says that the alumnus is a capable scientist who has improved food safety regulation but is also focused on service to people. In an echo of Virginia Tech's motto, *Ut Prosim* (That I May Serve), Flick illustrates



Rob and Kathryn Wittman (bottom row) with their son Josh (upper right), son-in-law Daniel Gooch (upper left), daughter Devon Gooch, and granddaughter Morgan.



his point. About five years ago, the FDA sought to disallow a common industry practice whereby workers selected which bucket of oysters to sort, claiming that a forgotten bucket of oysters might sit out in the open all day. The industry didn't have the laboratory space or resources to run samples showing that the sorting practice was safe.

But Wittman did, and his research—which the FDA accepted—validated the safety of the process and saved the industry money.

"He was up early, and he'd quit late at night," Flick says. "That was typical Rob. As a regulator in a state health agency, he didn't have to do that."

Downtime

In his office that afternoon, Wittman takes his suit jacket off for the first time and reflects on coming to Washington.

"Being able to meet with world leaders—understanding that what you once used to read about in the newspapers, now you're actually a part of that news—has been a pleasantly surprising element to me here," Wittman says. "I didn't think I'd be able to get involved at that level as quickly as I have been."

Three years ago, Wittman was running for his second term in the House of Delegates when Davis died. "I had a number of people call me and say, 'Rob, you ought to run,'" he says. "My wife and I had a lot of conversations, did some pray-

ing, and determined that we were going to put forth the effort to seek the nomination."

Ten others had the same idea, and Wittman went into the convention without many resources "but with lots of desire. A number of people helped, and the whole thing caught fire."

Though Wittman finds himself in a whirlwind now, he's fortunate to remain close to his family by living in Montross and commuting to D.C. His wife, Kathryn, teaches elementary school, as she has for 30 years. Their daughter, Devon (management '04), and son-in-law, Daniel, have a daughter and live nearby. Their son, Josh, a captain on a commercial fishing boat, is also close.

Wittman recalls sage advice from fellow Virginia congressman Frank Wolf: "Leaders in this nation come and go. But you know who will be there after all this? They were there at the beginning, and they'll be there after all of this is over, and that's your family." He said, "Don't ever forget your family."

Wittman's life revolves around relationships and people — lawmakers, constituents, family, and staff. Around 5 p.m. in his office in April, he is beckoned by aides and whisked away to yet another appointment.

This time, there is no advocacy, no facts to remember, no speech in front of cameras.

Just singing. Right on schedule, everyone sings "Happy Birthday" to Wittman's chief of staff, topping it off with ice cream cake. □



Alumni Association

Alumni Association News

Commentary

Campus life is vibrant, even during summer. We've borrowed the Alumni Association's 135th anniversary theme from the original alumni gateway, which was the first portal to the campus grounds, constructed in the early 1900s. Today, there are several major entrances to campus, some with attractive gateways that welcome visitors and new students. Each July, more than 5,000 newly accepted freshmen enter campus through those gateways. For most, their journey will carry them beyond those gates four years later. As new alumni, they will know that Virginia Tech is *for life* and will always be connected to their university. On the following pages, you can read more about the generations who have passed through our gates for more than 14 decades.



More than 250,000 people have graduated from Virginia Tech in the 135 years since the earliest degrees (originally called certificates) were awarded. More than 212,000 alumni continue their journeys through careers or through service in retirement. Our alumni association enjoys increased participation in its programs as more alumni join the rolls and attend class reunions, college homecomings, and other events. Alumni return by the thousands to visit campus with its energetic students and to support the Hokies on the gridiron. There is a robust program of alumni events planned for this fall; see page 35 and check our website for dates and schedules.

Earlier this year, several alumni events enjoyed record participation. Hokie Day at the General Assembly, an annual tradition, had its largest attendance, and a record number of students joined alumni to visit with state legislators. The National Capital Region Job Fair had its highest attendance yet as it continues to serve alumni in that region. In March, the Black Alumni Reunion, held about every three years, had its most successful program in more than two decades. Also of note, the Class of 2011 Ring Dance, which celebrated the 100th anniversary



Corps of cadets blanket toss, 1920

of the university's class ring tradition, had the largest attendance in the dance's 75-year history.

We'll summarize the achievements of our alumni programs in the magazine's fall issue, where we will present a more comprehensive annual report. Our 135th anniversary year is off to a roaring start. Thanks to so many of you for helping make it such a success.

Tom Tillar '69

Tom Tillar
Vice President for Alumni Relations



Many generations of alumni have passed through Virginia Tech since the university opened its doors in 1872. Much has changed in the past 138 years, and the campus and colleges have evolved so that students can keep pace with an ever-changing society. Through the years, the generosity and service of Virginia Tech alumni have made a 135th anniversary celebration possible for the Alumni Association.

While the passion and excitement of our alumni and students remain strong, each generation has unique qualities. The characteristics below don't describe each of Virginia Tech's 250,000-plus alumni individually—after all, not every baby boomer went to Woodstock—but they do address commonly held perceptions of each generation. More likely than not, these characteristics influenced the Virginia Tech experience of each generation in a slightly different way.

The Civil War Generation: Born 1850-80

This generation experienced challenging times in a nation divided by the Civil War. West Virginia, which was created in 1863, separated Virginians in the western part of the state. As the nation recovered from war, the university, then called Virginia Agricultural and Mechanical College, graduated its first 12 students in 1875.

The Lost Generation: Born 1881-1900

Members of the "Lost Generation" were disillusioned by the large number of casualties of World War I. They were cynical, disdainful of Victorian notions of morality and propriety, and ambivalent about 19th-century gender ideals.

The G.I. Generation: Born 1901-24

The G.I. Generation, or the "Greatest Generation," is characterized by loyalty, hard work, patriotism, respect for authority, self-reliance, and a strong sense of civic obligation; "sacrifice for the common good" was a widely accepted norm. The G.I. Generation takes traditional retirement, stopping work to pursue a life of rest and leisure. Having worked hard, often in manufacturing, many yearned for the freedom and fun of the "golden years."

The Builders: Born 1925-42

This generation, known as the "Builders," saw America move from the farm to the city and from a blue-collar economy to the information age. Builders are hardworking, frugal, patriotic, cautious, dependable, and private about their feelings. More than 75 percent of the nation's wealth and more than 80 percent of its savings are controlled by this generation.

- ▶ Family: close family
- ▶ Mother: homemaker
- ▶ Marriage: married once
- ▶ Education: a dream
- ▶ Major influences: family and church
- ▶ Teenage experience: the Great Depression
- ▶ Entertainment: radio
- ▶ Attitude toward authority: honor and respect
- ▶ Value system: conservative
- ▶ Perception: "we"

The Boomers: Born 1943-60

Boomers were raised in an era of rapid growth and change. Technological advances meant more leisure time, and boomers were free to explore their feelings and experiment with life. Major cultural events—three dramatic assassinations (John F. Kennedy, Robert Kennedy, and Martin Luther King Jr.), the

Vietnam War, and the Watergate scandal—caused many in this generation to become activists and to distrust societal institutions. The Cold War, consumerism, civil rights, women's issues, and the environment also occupy boomers' attention. Boomers are independent, cause-oriented, and media-informed. They are quality-conscious, fitness-preoccupied, and linked by a common heritage of rock music.

- ▶ Family: dispersed family
- ▶ Mother: working mother
- ▶ Marriage: divorced and remarried
- ▶ Education: a birthright
- ▶ Major influences: family and education
- ▶ Teenage experience: civil rights and Watergate
- ▶ Entertainment: TV (three channels)
- ▶ Attitude toward authority: replace them and challenge leaders
- ▶ Value system: self-based
- ▶ Purchasing: credit card
- ▶ Perception: "me"

Generation X: Born 1961-81

This generation has experienced several new definitions of family and great personal insecurity. Recently, authors have described it as the postmodern generation. This generation values time over money and rejects the workaholic materialism of their parents. X-ers are not slackers; in fact, they must work to repay substantial student loans. Financing the ability to "get away from it all" and spending time with close friends are the best reasons to work for most Gen X-ers.

- ▶ Family: latchkey kids
- ▶ Mother: single mother
- ▶ Marriage: single parent or blended families
- ▶ Education: a way to get there
- ▶ Major influences: the media

- ▶ Teenage experience: information explosion, AIDS, trillion-dollar debt, and environmental woes
- ▶ Entertainment: TV (30-plus channels), VCR, and Nintendo
- ▶ Attitude toward authority: ignore leaders
- ▶ Value system: media
- ▶ Purchasing: struggling to purchase
- ▶ Perception: "us and them" (the boomers)

Generation Y (Millennials): Born 1982-2001

Millennials may lead a seismic wave of change in the world. They are more numerous, more affluent, better educated, and more ethnically diverse and "unlike any other youth generation in living memory," according to one expert. Millennials also have positive social habits—focused on teamwork, achievement, and good conduct—and exhibit strong civic duty with confidence, sociability, and diversity.

- ▶ Family: comfortable with a loose family structure
- ▶ Mother: single mother or single father
- ▶ Marriage: undetermined
- ▶ Education: an incredible experience
- ▶ Major influences: friends, media, athletes
- ▶ Teenage experience: overwhelming information, downsizing, living at home longer
- ▶ Entertainment: surfing the net, DVDs, PlayStation, and Xbox
- ▶ Attitude toward authority: leaders must respect you
- ▶ Value system: shop around
- ▶ Purchasing: online
- ▶ Perception: "Change is possible and good"

Generational descriptions were pulled from research conducted by Dennis Gaylor, national director of Chi Alpha Campus Ministries, and Tom Tillar, vice president for alumni relations.

2010 HOKIE CRUISE

JOIN HOKIE FRIENDS AS WE SAIL ON ROYAL CARIBBEAN'S
REVOLUTIONARY MASTERPIECE, THE NAVIGATOR OF THE SEAS.

6 DAYS/NIGHTS | NOVEMBER 15 - 21, 2010 | MIAMI GAME

SPONSORED BY THE VIRGINIA TECH ALUMNI ASSOCIATION AND VIRGINIA TECH HOKIE CLUB

Your Hokie Cruise package will include a 5-night cruise to the Western Caribbean prior to the Virginia Tech vs. Miami football game and 1-night at the Hokie Headquarters Team Hotel. You will sail from Fort Lauderdale to Labadee, Haiti (Royal Caribbean's private island) and on to Ocho Rios, Jamaica with two relaxing days at sea and an onboard cocktail party. Visit www.martintravel.com to book today! If you have questions, please contact Kathy Sharp at kathy@martintravel.com or call 800/888-4484.



A RELAXING HOKIE EXPERIENCE



Reunions and homecomings

The 2010 reunions and homecomings: Celebrations tailored just for you!

Whether you graduated from Virginia Tech five or 50 years ago, don't miss a celebration tailored just for you. Return to reunite with classmates or attend a homecoming for alumni from your college. Enjoy the Virginia Tech campus during the beautiful Blacksburg autumn, and celebrate with classmates, make new friends, and see how much everything has changed since your last visit. Be sure to register today.

Sept. 10-11: VT vs. James Madison University

Class of '85 reunion
Corps of cadets homecoming
College of Engineering homecoming

Sept. 17-18: VT vs. East Carolina University

Class of '75 reunion
College of Agriculture and Life Sciences homecoming

Oct. 8-9: VT vs. Central Michigan University

Class of '65 reunion
College of Science homecoming
College of Liberal Arts and Human Sciences homecoming

Oct. 15-16: VT vs. Wake Forest University

Class of '60 reunion
Virginia-Maryland College of Veterinary
Medicine homecoming
RA and RHF special reunion
Highly-Tighties homecoming

Oct. 22-23: VT vs. Duke University

Class of '70 reunion
Pamplin College of Business homecoming

Nov. 4-5 (Thursday night game) VT vs. Georgia Tech

Class of '80 reunion
College of Natural Resources homecoming
Graduate School homecoming

Nov. 26-27: VT vs. U.Va.

College of Architecture and Urban Studies homecoming
Young alumni reunion featuring the classes of '97-'99
and '06-'08
Multicultural alumni reunion

A message to young alumni in the classes of 1997, 1998, 1999, 2006, 2007, and 2008

There is no better way to celebrate being a Hokie than returning to Blacksburg for the annual VT-U.Va. rivalry. Consider coming back to campus this fall to reunite with classmates and celebrate our years at Virginia Tech. This promises to be yet another memorable Hokie experience.

We will begin our weekend on Friday evening with registration and a welcome reception at the Holtzman Alumni Center. Stop by to reminisce with old friends and meet new ones, then go downtown to visit familiar haunts. We will gather on Saturday at The Inn at Virginia Tech and Skelton Conference Center for a Hokie Spirit tailgate party before heading to Lane Stadium to cheer on the Hokies as they challenge the Cavaliers. Football tickets are available with each paid registration, while they last.

We look forward to seeing you in Blacksburg on Nov. 26-27. For event details and to register, visit www.alumni.vt.edu/reunion/youngalumni.

James P. O'Connell, Class of '97 president
Jennifer G. Ginther, Class of '98 president
Raphael R. Castillejo, Class of '99 president
Sumeet Bagai, Class of '06 president
J. Russell Davis, Class of '07 president
Michael P. Dunleavy, Class of '08 president



Alumni board elects new officers and members

New Alumni Association President Curry A. Roberts (political science '80), President-Elect Lance L. Smith (business administration '68), and Vice President Matthew M. Winston Jr. (marketing '90) have begun one-year terms. Roberts resides in Richmond, Va., and is president of the State Fair of Virginia. Smith, of Pinehurst, N.C., is a retired U.S. Air Force general. Winston, of Athens, Ga., serves as assistant to the president at the University of Georgia.



Curry A. Roberts '80



Lance L. Smith '68



Matthew M. Winston '90

Newly elected board members for three-year terms:

Lisa Carter Ellison (finance '86), A. Jerome Fowlkes (finance '88), Kathleen Kyger Frazier (agricultural and applied economics, political science '04), Hoda Kotb (communication '86), W. Park Lemmond (business administration '54), Brian C. Montgomery (industrial and systems engineering '05), and James P. O'Connell (biochemistry '97).

National Capital Region Chapter job fair

NCR chapter's 19th annual job fair sets record, boosts scholarship support

The sustained growth of the National Capital Region (NCR) Chapter's annual job fair, held this year on March 9, has allowed the chapter to award scholarships to graduate students enrolled in the NCR in addition to its traditional scholarship awards for regional high school seniors bound for Blacksburg.

"This year's job fair set a number of records," said Marvin Boyd, NCR chapter president and chair of the job fair for the past six years. "We had over 2,200 registered applicants, more than 80 participating employers, and grossed more than \$50,000. This year's event was a tremendous success."

Held at the Northern Virginia Center in Falls Church, Va., the job fair is free to prospective job applicants and open to the general public; employers pay a fee to participate. Employers

at this year's job fair represented a wide range of companies and organizations, including consulting, government agencies and contractors, technology, security, public utilities, financial services, education, and retail.

"Today's event saw a very diverse mix of job seekers, which I believe is a sign of the times," Boyd said after the fair. "I am proud that our NCR chapter can serve the community in this way when so many people are looking for employment."

The job fair is just one way NCR alumni honor Virginia Tech's motto, *Ut Prosim* (That I May Serve). To find out more about the NCR Chapter and other alumni events, visit them online at www.ncrhokies.org.



BARBARA MICALE

Call for Outstanding Recent Alumni Award nominations

The Alumni Association invites nominations for the 2010-11 Outstanding Recent Alumni Awards, which recognize professional achievement and leadership by alumni who have graduated in the past 10 years (2001-10). Nominations are due by Sept. 1 and should be mailed to: Outstanding Recent Alumni Awards, Virginia Tech Alumni Association, 901 Prices Fork Rd., Blacksburg, VA 24061. Please include each candidate's biographical information and qualifications.

Resident advisor and Residence Hall Federation reunion

A special reunion of former residence hall advisors and Residence Hall Federation (RHF) leaders will be held on Saturday, Oct. 16, 2010, when Virginia Tech hosts Wake Forest. This is a great opportunity to reconnect with fellow advisors and RHF leaders, all of whom served a campus resident community that has grown to 9,000 students since the RA program and Interdormitory Councils began in the 1960s. For reunion details, visit www.alumni.vt.edu/reunion.



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T-shirt

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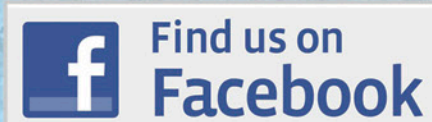
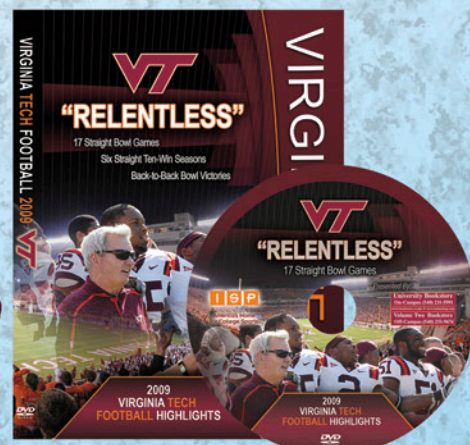
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In July, look for ... Hokie Collection 2010 Clothing and Gift Catalog!

The catalog will be mailed to Alumni and available online.

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Corps holds videoconferences with deployed alumni



ROCK ROSZAK

BY MAJ. CARRIE COX

For the first time, the Virginia Tech Corps of Cadets' highly regarded Gunfighter Panel series was interrupted by incoming fire.

In Iraq,

Thanks to the inspired efforts of Brig. Gen. Michele Compton (geology '83), who was until recently the senior female officer

serving in Iraq, cadets spoke directly with corps alumni serving in a combat zone. Called Remote Gunfighter Panels, the events were held this spring as part of the corps' leadership development training.

The videoconferences are a spinoff of the Gunfighter Panels the corps has sponsored on campus for the past 13 semesters. In the traditional Gunfighter Panel, three or four alumni return to campus as part of the Leaders in Action lecture series hosted by the corps' Rice Center for Leader Development. The officers share combat deployment experiences, lessons learned, and leadership challenges and discuss how their corps experiences prepared them for life after college.

Using the new Global Technology Center in Norris Hall, cadets heard from alumni who were serving in a combat zone at the time. With Compton's help, these lessons came to life in real time from Baghdad—the alumni even had to take an accountability check to see if anyone was injured after receiving incoming fire during one session.

Three remote sessions were held

between January and March. About 30 cadets attended each session and asked panelists about their day-to-day lives at Camp Victory in Baghdad and at Contingency Operating Base Adder. Virginia Tech's video/broadcast services recorded each event, and all cadets were able to view the discussion online as part of the corps leadership course.

Besides Compton, the alumni who shared their experiences with cadets were Maj. Rafael "Pete" Pazos (mechanical engineering '93), Maj. Patrick Hogeboom (civil engineering '94), Maj. Heather Clevenger (hospitality and tourism management '99), Capt. George Mallory (interdisciplinary studies '05), 1st Lt. Amir Abu-Akeel (aerospace engineering '06), and 1st Lt. Brian Orlino (management '07), all in the U.S. Army; and Capt. Angela Jacobson (mathematics '00) of the U.S. Air Force.

From Iraq to Blacksburg, the videoconferencing technology gave cadets a valuable insight into what their futures may hold.

Maj. Carrie Cox is the executive officer for the corps.

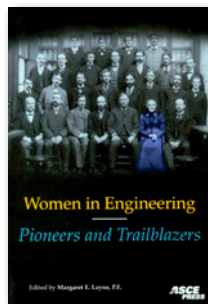
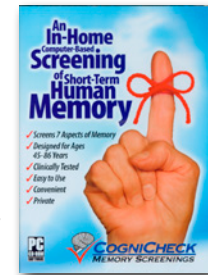
Brig. Gen. Michele Compton '83 has since completed her tour as deputy director, J5, plans, strategy, and assessments for U.S. forces in Iraq and was the senior female officer serving in that country. She was also the first female graduate of the corps of cadets to attain the rank of general or flag officer. Compton is the proud parent of current cadet Leigh Compton of Kailua, Hawaii, a junior majoring in animal and poultry sciences and pursuing a minor in leadership studies. Leigh is a recipient of both the Emerging Leader and ROTC scholarships.

Virginia Tech Magazine is pleased to note books by alumni, faculty, and staff or books about Virginia Tech. To submit a book, please mail it to Book Notes, Virginia Tech Magazine, 105 Media Building, Blacksburg, VA 24061. You can also e-mail a high-resolution image of the book cover, along with your name, the name of the publisher, and a brief description of the book, to vtmag@vt.edu. For more information about Book Notes policies, please go to www.vtmagazine.vt.edu/bookreview.html.

Books by faculty and staff

The CogniCheck Memory Screening CD-ROM, by **W. David Crews**, an adjunct assistant professor in the behavioral neuroscience laboratory in the Department of Psychology, and **David W. Harrison**, director of the neuroscience laboratory, allows users to complete clinically tested memory screenings designed to evaluate seven aspects of short-term memory in people 45 to 86 years old. The CD-ROM is self-published through CogniCheck Inc. (P.O. Box 11901, Lynchburg, VA 24506); contactus@cognicheck.com.

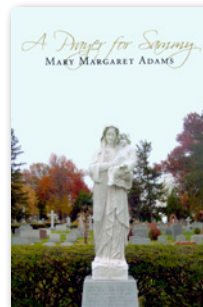
In the books *Women in Engineering: Pioneers and Trailblazers* and *Women in Engineering: Professional Life*, the editor, **Margaret E. Layne**, project director of AdvanceVT, a Virginia Tech program created for the advancement of women in science



and engineering, introduces the visionary women who opened the doors for contemporary female engineers and illuminates the lives of today's women engineers. The publisher is American Society of Civil Engineers (1801 Alexander Bell Dr., Reston, VA 20191); www.pubs.asce.org.

Books by alumni

A Prayer for Sammy, by **Mary Margaret Adams** (sociology '97, M.S. '99), is a Christian devotional for a son who was never born. This book is self-published through AuthorHouse (1663 Liberty Dr., Bloomington, IN 47403); www.authorhouse.com.



In *Canine Instinct, a Guide to Survival and Advancement in Corporate America*, **Ellen Burts-Cooper** (Ph.D. organic/polymer chemistry '00) explains how to navigate the corporate game and how to break beyond the mid-management ranks of corporate America. This book is self-published through AuthorHouse (1663 Liberty Dr., Bloomington, IN 47403); www.authorhouse.com.



In his novel *Guardian of Eden Springs*, the sequel to *The Battle of Eden Springs*, **Jim Crowgey** (electrical engineering '60) tells the story of Robert Barker, who is back for revenge seven years after attorney

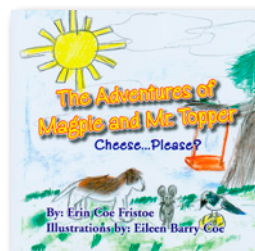


Ed Housman thwarted the development of a strip mine near Eden Springs. This book is self-published through Trafford Publishing (9045 N. River Rd., Ste. 400, Indianapolis, IN 46240); www.trafford.com.

In his book *An American Solution for Reducing Carbon Emissions—Averting Global Warming—Creating Green Energy and Sustainable Employment*, **Andre DuPont** (information technology M.S. '02) focuses on the innovation of recycling carbon emissions to create green fuel from coal, oil, and electric power producers. This book is self-published through DuPont Group Inc. (P.O. Box 3328, Falls Church, VA 22043).



In her picture book *The Adventures of Magpie and Mr. Topper, Cheese, Please*, **Erin C. Fristoe** (communication '01) tells a story of two best friends, a bird and a dog, spending a lazy, hazy summer afternoon together searching for a snack. This book is self-published through Xlibris (1663 Liberty Dr., Ste. 200, Bloomington, IN 47403); www.xlibris.com.

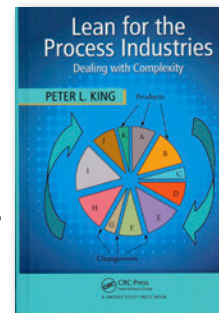


In *The Saga of Caty Sage*, **Jerry L. Haynes** (chemical engineering '77) follows the true story of a 5-year-old girl who disappeared in 1792 from her frontier home in Elk

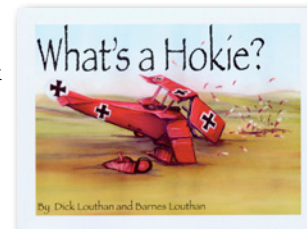


Creek, Va. This book is self-published through Word Association Publishers (205 Fifth Ave., Tarentum, PA 15084); www.wordassociation.com.

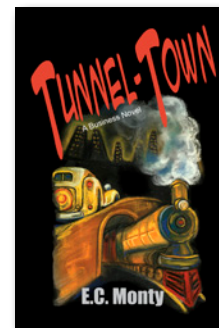
In *Lean for the Process Industries*, **Peter L. King** (electrical engineering '65) provides a comprehensive resource for change agents, focusing on areas of the process industry that differ from those of assembly manufacturing. The publisher is CRC Press, Taylor and Francis Group (6000 Broken Sound Pkwy. N.W., Ste. 300, Boca Raton, FL 33487); www.taylorand-francisgroup.com.



In *What's a Hokie?* **Dick Louthan** (metallurgical engineering '60) and **Barnes Louthan** (general science '70) tell the tale of how the "Hokie" became an important part of Virginia Tech and just what a Hokie really is. This book is self-published through Word-sprint (225 Industrial Dr., Christiansburg, VA 24073-2538); www.wordsprint.com.

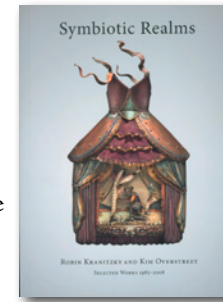


In his novel *Tunnel-Town*, **E.C. Montcrief** (chemical engineering '54, M.S. '55, Ph.D. '57), whose pen name is E.C. Monty, follows the tale of two childhood friends who take different paths in search of lucrative business careers. The publisher is American

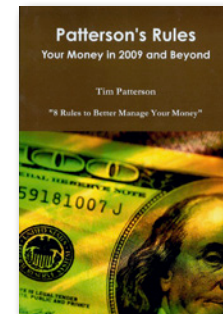


Book Publishers (P.O. Box 65624, Salt Lake City, UT 84165); www.american-book.com.

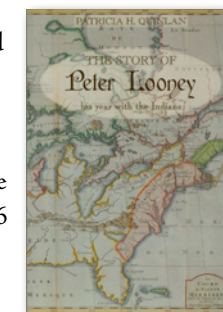
Symbiotic Realms is a collection of selected works by Robin Kranitzky and **Kim Overstreet** (human nutrition and foods '85). Each work is a wearable diorama created from recycled materials. The book is published by DesignMuseo (Korkeavuorenkatu 23, 00120 Helsinki, Finland); www.designmuseum.fi.



Patterson's Rules, by **Tim Patterson** (accounting '83), focuses on the causes of the recent financial meltdown in a humorous way and provides common-sense ideas for readers to help prevent economic crises from affecting them in the future. This book is self-published through Lulu Enterprises Inc. (3101 Hillsborough St., Raleigh, NC 27607-5436); www.lulu.com.

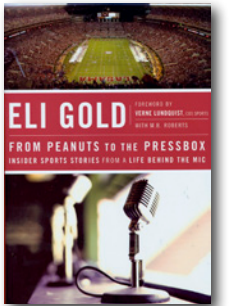


In her novel *The Story of Peter Looney*, **Patricia H. Quinlan** (clothing and textiles '58) tells the tale, based on a true story, of her ancestor Peter Looney, who was captured by Native Americans in 1756 during the battle of Fort Vause and taken to live with them for one year. The book is self-published through iUniverse (1663 Liberty

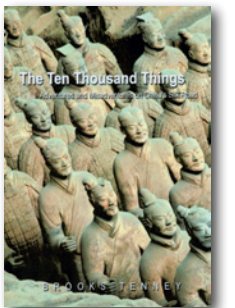


Dr., Bloomington, IN 47403); www.iuniverse.com.

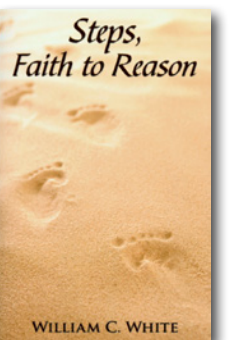
In *From Peanuts to the Pressbox: Insider Sports Stories from a Life Behind the Mic*, **M.B. Roberts** (communication '86) and Eli Gold, the voice of the University of Alabama's Crimson Tide, tell the unforgettable highlights of Gold's historic career. The publisher is Thomas Nelson Inc. (P.O. Box 141000, Nashville, TN 37214); www.thomasnelson.com.



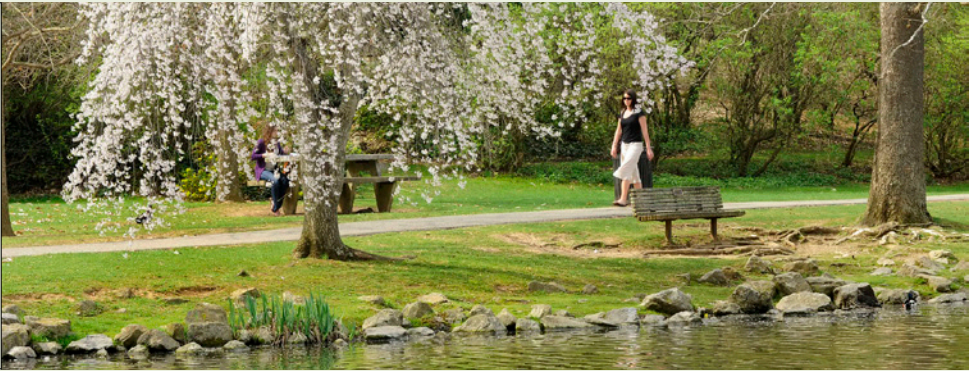
In *The Ten Thousand Things*, **Brooks Tenney** (architectural engineering '58) examines the development of unmanned aerial vehicles along China's ancient Silk Road as seen through the eyes of a student led by an Asian studies professor. This book is self-published through Trafford Publishing (9045 N. River Rd., Ste. 400, Indianapolis, IN 46240); www.trafford.com.



Steps, Faith to Reason, by **William C. White** (agronomy '49), describes key steps made by humankind during the past four millennia to use reason rather than faith as the preferred faculty for life. This book is self-published through Author House (1663 Liberty Dr., Bloomington, IN 47403); www.authorhouse.com.



Alumni, we want to hear what you've been doing. Although we cannot print stories or obituaries, we can post on-line photographs of weddings, babies, and spirited alumni. Mail photos to *Virginia Tech Magazine*, 105 Media Building, Blacksburg, VA 24061, or e-mail them to vtmag@vt.edu. Please mail career, retirement, wedding, birth, and death notices to Alumni Notes, Virginia Tech Alumni Association, Holtzman Alumni Center, Blacksburg, VA 24061; send them via e-mail to fleets@vt.edu; or submit them online at www.vtmagazine.vt.edu/submit.classnotes.html.



JIM STROUP

Editor's note: For privacy reasons, mailing addresses for alumni appearing in Career News, Weddings, and Births and Adoptions may now be viewed online at www.alumni.vt.edu/directory by logging in with your Virginia Tech PID and password.

'60s

- '63
James D. Burnett (EE), Satellite Beach, Fla., is vice president of the Florida Genealogical Society.
- '65
George L. Hanbury II (PAD), Fort Lauderdale, Fla., is president and COO of Nova Southeastern University.
- '67
Robert B. Fish (CHE), Parkersburg, W.Va., received the Bolton/Carothers Innovative Science Award from the DuPont Company.
- '68
George M. Simmons Jr. (BIOL), Blacksburg, Va., was conferred the Alumni Distinguished Professor Emeritus title by the Virginia Tech Board of Visitors.
- Victor E. Sower** (CHEM), Huntsville, Texas, authored the book *Essentials of Quality with Cases and Experiential Exercises*.
- '70
J.B. Hyler Jr. (ACCT), Raleigh, N.C., is president of the U.S. Golf Association.
- '71
Mark S. Londner (ARCH), Hillsboro, Va., was named

- to the American Society of Home Inspectors board of directors.
- '72
James H. Hatch (ACCT), White Stone, Va., received the 2010 Distinguished Alumnus Award from Pamplin College of Business.
- '74
Gary G. Ahrendts (ETE), Attleboro, Mass., was awarded the 2010 President's Award for Outstanding Service at Wheaton College.
- Francis H. Ayers Jr.** (HIST), Palm Coast, Fla., is executive vice president of the Prescott, Ariz., campus of Embry Riddle Aeronautical University.
- '75
Lewis L. Lanier (BIOL), San Francisco, Calif., is chairman of the Department of Microbiology and Immunology at the University of California, San Francisco, School of Medicine.
- '76
William D. Wray (CHE), Kingwood, Texas, is chairman of WBF, the Organization for Production Technology.
- '77
Mitzi Potts Lail (ELED), Kenbridge, Va., authored her first children's book, *Box and Contents*, which tells of a young boy's first trip to a country auction.
- '78
Kylene Barker McNeill (CTRA), Naples, Fla., participated in the Evening of Dreams Gala hosted by Robin Leach.
- Robert N. Rector Jr.** (BIOL), Roanoke, Va., is president of Richfield Retirement Community.
- '79
Mary Leigh Wolfe (AGE), Blacksburg, Va., was inducted as 2009 Accreditation Board for Engineering and Technology Fellow.

'80s

- '80
Thomas T. Wiatt (ETC), Newport News, Va., wrote and published *Just Tell Me What Happened*.
- '81
Thomas M. Barrie (ARCH), Raleigh, N.C., is the author of *The Architecture of the In-between: The Mediating Roles of Architecture and Spiritual Path, Sacred Place: Myth Ritual and Meaning in Architecture*.
- Allen A. Brunk** (COMM), Redmond, Wash., co-founded a health care software company that delivers interactive entertainment and education content to the patient's bedside.
- David A. Dillard** (ESM), Blacksburg, Va., received the International 2010 Award for Excellence in Adhesion Science.
- Judy S. Riffle** (CHEM), Blacksburg, Va., was elected a Fellow in the polymeric materials science and engineering division of the American Chemical Society.
- '82
Kimberly Kratch Giancaspro (SOC), Richmond, Va., is a licensed therapist with James River Psychotherapy Associates.

- '83
Mary Kathryn Burke Owens (ENGL), Chesterfield, Va., was selected as one of Virginia's 2009 Legal Elite by *Virginia Business* magazine for her work in the category of family/domestic relations.
- Joseph P. Parr** (HORT), Tampa, Fla., is director of horticulture for SeaWorld Parks and Entertainment.
- '84
Richard D. Evans (GEOP), Varina, N.C., published a book called *50 Year Adventure*.

- Jacquelyn Reed Hall** (HIDM), Southbury, Conn., is senior pastor of Winchester Center Congregational Church.
- '85
David M. Barker (HIST), Palm Harbor, Fla., wrote a novel, *The Heretic: A Mystical Parable*.
- L. Catherine Brinson** (ESM), Evanston, Ill., was named an American Society of Mechanical Engineers Fellow.
- Richart C. Kahler** (CE), Virginia Beach, Va., is a structural engineer with the Virginia Task Force 2, Urban Search and Rescue team in Haiti.
- Michael D. Miller** (ARCH), Midlothian, Va., is vice president at HKS Inc., a leading architectural design firm.
- '89
Ralph P. Albrecht (EE), Fairfax, Va., founded an intellectual property law firm named Allbrecht Tousi and Farnum PLLC.
- Jeffrey W. Burkett** (MGT), Alexandria, Va., attained the rank of colonel in the U.S. Air Force and is the assistant to the A3 for Nuclear Enterprise Operations.
- Brian L. Klock** (EE), Alexandria, Va., is managing partner of the Washington, D.C., office of Fitzpatrick, Cella, Harper & Scinto.

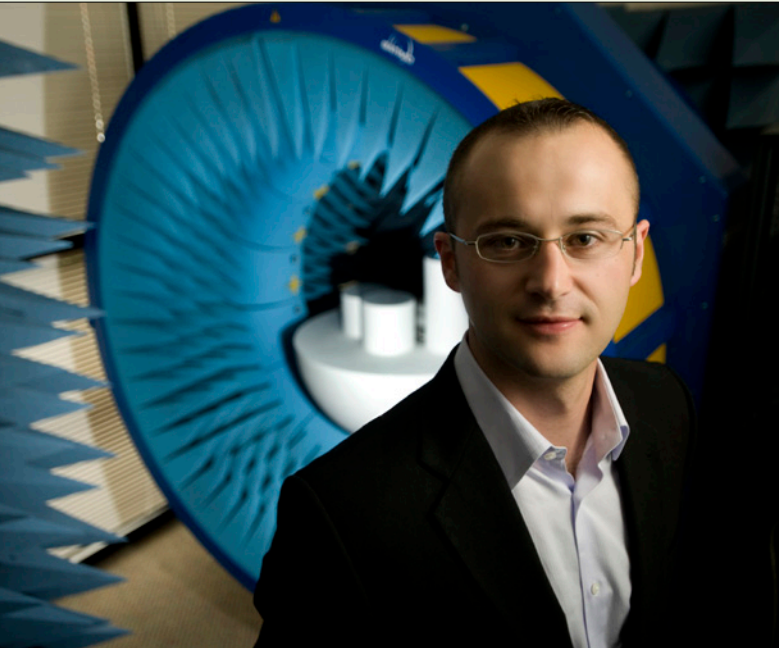
'90s

- '90
Carl D. Gray (PSCI), Chesapeake, Va., is serving as counsel at Hunton & Williams LLP.
- Michael P. Maxwell** (FIN), Waukesha, Wis., is a judge for the Wisconsin Governor's Business Plan Contest.
- William D. Tyrrell Jr.** (VM), Leesburg, Va., is the Virginia Veterinary Medical Association president.
- '91
Mary Ann Drumright Clarke (MATE), Bruceton Mills, W.Va., was chosen to receive WVU Foundation's Award for Outstanding Teacher.
- Jennifer K. Martin** (ART), Big Pine Key, Fla., installed her most recent paintings and sculptures in the gallery of the East Martello Museum.
- '92
Christopher J. Gregoire (ACCT), Tracys Landing, Md., is vice president and controller of Lockheed Martin.
- Jill S. Weseman** (ENGL), Seattle, Wash., is a National Board Certified Teacher in English.
- '93
Michael T. Maslanka (FW), Rockville, Md., is head of the department of nutrition for the Smithsonian's National Zoological Park.

- on the CONSERV 1&2 Study Team were named Team of the Year by Cubist Pharmaceuticals Inc.
- Stuart P. Mease** (MKTG), Christiansburg, Va., is director of undergraduate career services for the Pamplin College of Business.
- '98
Anne Miller Frazier (ARTF), Martinsville, Va., was listed as one of the Influential Women of Virginia for 2010 by Virginia Lawyers Media.
- John T. McConnell Jr.** (APSC), Haymarket, Va., is a major in the U.S. Army and has received the Bronze Star.
- '99
Erin McCants Parker (FIN), Arlington, Va., is a senior partner with Isis Associates LLC.
- Steven J. Wilkes** (EE), San Clemente, Calif., received his M.B.A. from Pepperdine University.
- '00s
- '00
Somil R. Mehta (BIOL), Burke, Va., is assistant director of graduate international recruiting and admissions at Stevens Institute of Technology in Hoboken, N.J.
- Melissa Haskell Miller** (IDST), Fredericksburg, Va., completed her doctorate in educational leadership.
- Pavli Mykerezzi** (EDVT), Blacksburg, Va., is director of the Virginia Tech agricultural technology program.
- Ryan J. Witherell** (COMM), Nashville, Tenn., is vice president of client services and new media at Seigenthaler Public Relations.
- '01
Brian D. Sutton (MATH), Roanoke, Va., was awarded the 14th Leslie Fox Prize in Numerical Analysis.
- John I. Thomas** (CPE), Crozet, Va., created an iPhone application called Buckets.
- '02
Jennifer Riley McLendon (MKTG), Roanoke, Va., received her M.B.A. from Radford University.
- '03
Emily R. Gambill (PSCI), Midlothian, Va., received her master's of public administration and homeland security and emergency preparedness graduate certificate from Virginia Commonwealth University.
- Peter A. Parker** (STAT), of Gloucester, Va., won a NASA NESCLeadership Award.

- '04
Gary D. Grassi Jr. (BIOL), Kingman, Ariz., was selected as a Hokie Hero for the Virginia Tech vs. Tennessee Chick-fil-A Bowl game.
- '05
Evan I. Gant (IDS), Medford, Mass., designed the Flip Bath, Dad's Changing Bag, and the Modular Rocker to accommodate parents of infants.
- Jessica M. Schnekser** (IDS), Norfolk, Va., joined HBA Architecture and Interior Design Inc. as marketing coordinator.
- '06
Howard A. Deskin (BAD), Midlothian, Va., opened a Central Virginia WSI office in April 2009.
- Andrew T. Shadley** (HIST), Von Ormy, Texas, was selected as a Hokie Hero for the Virginia Tech vs. Tennessee Chick-fil-A Bowl game.
- '07
Elizabeth A. Hart (COMM), New York, N.Y., served as an assistant stage manager at the 2010 Olympic Winter Games.
- '09
Jeong Doo Park (HTM), Knoxville, Tenn., was recognized as having written one of three best papers at the Graduate Student Research Conference in Hospitality and Tourism.
- Weddings*
- '77 **Ann R. Tatman** and Donald F. Bennis, of Virginia Beach, Va., 1/9/10.
- '81 **Melanie A. Pearson** and Stephen K. Hurley, of Alexandria, Va., 5/2/09.
- '00 **Andrea J. Puckett** and Brian Wells, of Alexandria, Va., 5/09.
- '01 **Tonya L. Echols** and Brent Humphrey, of Arlington, Va., 7/3/09.
- '05 **Nicholas A. King** and '08 **Meghann E. Vincie**, of Goshen, Ohio, 8/22/09.
- '05 **Nathan O. Reynolds** and '07 **Samara Kuhn**, of Morrisville, N.C., 1/16/10.
- '06 **Steven A. Kyriakides** and '07 **Annie E. Parsons**, of Simpsonsville, S.C., 9/5/09.
- '08 **Mark A. Ballintyn** and Jennifer Lynn Sieber, of Wilmington, Del., 8/8/09.
- Births and Adoptions*
- '89 **Susan Brennan Amaral**, Severna Park, Md., a daughter, 5/18/09.

From field to sky, alumnus sets the bar high



KELSEY KRADEL

Stanislav Licul

As the war wound down in his native Croatia, Stanislav Licul (electrical engineering '99, M.S. '01, Ph.D. '04), arrived in the U.S. as a student in a high-school exchange program. "I didn't know [that the war was ending] at the time, so it played a part in my leaving home. But I came to the United States to experience something new and different and to have opportunities I might not have had back home," says Licul.

Licul is now president and CEO of Maxtena, a Blacksburg-based company he founded in 2006 to develop and produce antennas and antenna systems that are used to communicate with satellites. "In a start-up company where everything is new and undefined, it's all about understanding your strengths and weaknesses and finding the position that feels comfortable and right—where do you best fit in; what is the best use of what you have to offer?" he says.

Licul credits his days at Virginia Tech with teaching him lessons that have been crucial in his business. "Balancing both academic and athletic careers, I learned valuable lessons about leadership, pressure, and time management," says Licul, who played varsity soccer for the Hokies.

Licul was a leader even on the field. He was named offensive player of the year as a freshman, rose to team captain his senior year, and ranks third in all-time goals scored.

"Playing on the soccer team and being an engineering student was a tough combination. It taught me to work hard," Licul says. "I hold myself to high expectations, and then I try to exceed them."

Licul maintains this drive in his current work at Maxtena, where he is joined by several fellow alumni: Nathan Cummings (electrical engineering '98, M.S. '01, Ph.D. '03), vice president of engineering; Vanja Maric (international studies '06), sales and marketing manager; and Paul Piccione (electrical engineering '02, M.Eng. '08), senior radio frequency engineer.

Alumna bridges a cultural divide in Afghanistan

BY CHELSEA NEWMAN '10

Larissa Mihalisko (political science '08) has more on her plate than the average 24-year-old.

When the Marine Corps Intelligence Activity (MCIA) office created a cultural intelligence team to support Marine operations in Afghanistan, Mihalisko—who interned at MCIA before being hired there full time—volunteered to deploy. The role of the cultural intelligence team is to inform Marines about the mindset of the locals and identify which cultural factors may impact military operations. After six months of Pashto language training, Mihalisko was deployed to support operations in the Helmand, Farah, and Nimruz provinces. She now holds the title of “Afghan culture analyst and Pashto linguist” for the Marine Expeditionary Brigade.

Of the many rewarding aspects of her job, Mihalisko particularly enjoys working directly with Marines and Afghans, which requires her to understand both Marine Corps operations and the ideologies of the locals.

“I am surprised every day at how the Marines are able to get the job done well, despite this being a very unconventional operating environment for them,” she says.

Mihalisko sits inside the locals’ homes and experiences everyday life in Afghanistan. One night, a shopkeeper, one of the first to return to his city after being displaced, played music on several instruments for her. Under the Taliban, this was strictly prohibited.

The Afghans around Mihalisko continue to impress her. “I have learned so much from them over the last several months about history, tribalism, war, forgiveness, and determination,” she says, adding that these lessons are best understood over a “cup of chai.”

Mihalisko took a spirit of service overseas. “Virginia Tech’s commitment to service is unique and continues to drive what I do,” she says. Inspired by her parents, who were Cold War journalists; her Marching Virginians director, Dave McKee; and her professors, Mihalisko wants to continue the tradition of service by one day teaching at Virginia Tech.

She urges other recent alumni to use their skills to serve others. “Being young is not an excuse for doing nothing, and ... hard work coupled with a good support network can open wonderful opportunities.”

Chelsea Newman (English '10) is an intern with Virginia Tech Magazine.



Larissa Mihalisko

- '89 Richard T. Nielsen and '91 Christine A. Espinoza, Oak Hill, Va., a son, 12/11/09.
- '90 Robert K. Brooks, Mechanicsville, Va., a son, 8/28/09.
- '90 Charles H. Brown, Fairfax Station, Va., a daughter, 10/30/09.
- '92 Stephen R. Payne, Highlands Ranch, Colo., a daughter, 3/7/10.
- '92 Michael S. Schroder and '94 Elizabeth N. Schroder, Baltimore, Md., a daughter, 9/4/09.
- '94 Jesse M. DeShazo and '03 Natalie N. Nicar, Suffolk, Va., a son, 11/02/09.
- '94 Edwin M. Wied III, Annawan, Ill., a son, 12/21/09.
- '95 Mary D. Connor, Houston, Texas, a son, 2/3/10.
- '95 Kristie L. Nichols, Blue Ridge, Va., a son, 10/30/09.
- '95 Ami J. VanDeventer, Louisville, Colo., a daughter, 12/22/09.
- '96 Claire L. Blevins, Richmond, Va., a son, 6/29/09.
- '97 Terra M. Schaden-Ireland, Walkersville, Md., a son, 12/24/09.
- '98 James P. Holzgrefe, Fort Belvoir, Va., a daughter, 10/20/09.
- '98 Ryan D. Johnson, Plymouth, Mass., a son, 6/25/09.
- '98 Sara Grove Jordan, Fishersville, Va., a son, 5/15/09.
- '99 Courtney Briggs Hampton and '00 Brian E. Hampton, Richmond, Va., a daughter, 12/22/09.
- '99 Sean T. Hoffman, Walden, N.Y., a son, 11/10/09.
- '99 Jeffrey A. Holmes, Chicopee, Mass., a son, 12/29/09.
- '99 Rodelito G. Homoroc Jr. and '02 Nikole M. Giraldi, Fredericksburg, Va., a daughter, 10/09.
- '99 Chadwick E. Meade and '00 Misty Wiley Meade, Denver, Colo., a son, 10/2/09.
- '00 Brian C. Okerberg and '00 Laura Pollard Okerberg, Gibsonia, Pa., a son, 1/17/10.
- '01 Julie Cobb Accamando and '01 Matthew R. Accamando, Canonsburg, Pa., a daughter, 6/1/09.
- '01 Mark C. Bigley and '03 Giselle Bergeret Bigley, Anchorage, Alaska, a daughter, 11/6/09.
- '01 Brian K. Cabacar, Woodbridge, Va., a son, 2/1/10.
- '01 Mary Ellen Braswell Duy, Alexandria, Va., a son, 8/13/09.
- '01 Marilyn Kay Eames Kitchell, Morris Plains, N.J., a son, 1/11/10.
- '01 Brendan J. McMurrer, Arlington, Va., a son, 1/13/10.
- '01 Ashley Garth Updike and '01 Michael S. Updike, Clarksville, Md., a daughter, 7/21/09.
- '01 David P. White, Roswell, Ga., a daughter, 10/22/09.
- '01 Jennifer L. White-Friend and '02 Scott A. Friend, Christiansburg, Va., a son, 8/12/09.
- '02 Marsha Wood Canfield and '02 Matthew A. Canfield, Ashburn, Va., a son, 8/14/09.
- '02 Kevin B. Cooley and '02 Melissa Gill Cooley, Yorktown, Va., a daughter, 3/14/09.
- '02 Kylie Felps Draucker, Midlothian, Va., a son, 7/17/09.
- '02 Robert T. Garnett, Norfolk, Va., a daughter, 1/20/10.
- '02 Stephen P. Janoschka Jr. and '03 Macel Hubbard Janoschka, Salem, Va., a son, 10/29/2009.
- '02 Christina Schiller Kilduff and '02 Robert S. Kilduff, Hilton Head Island, S.C., a daughter, 12/15/09.
- '02 Bethany Lindsay Schiller and '02 Noah H. Schiller, Yorktown, Va., a daughter, 8/19/09.
- '03 Matthew S. Britt and '03 Sarah Breeding Britt, Virginia Beach, Va., a son, 1/10/10.
- '03 Benjamin A. Sady and '03 Shannon O'Neill Sady, Midlothian, Va., a son, 2/12/10.
- '03 Vival S. Weatherford Jr. and '04 Jennifer Fox Weatherford, Richmond, Va., a son, 12/16/09.
- '05 Gabrielle Horton Everett and '05 Thane W. Everett, Fredericksburg, Va., a son, 4/8/09.
- '05 Benjamin K. Sovacool and '09 Kelly Siman Sovacool, Canton, Ohio, a daughter, 7/23/09.
- '05 Brian C. Wells and '06 Amy Ducut Wells, Mechanicsville, Va., a son, 1/18/10.
- '06 Brian R. Dudrow and '06 Lindsey Weise Dudrow, Minneapolis, Minn., a daughter, 12/29/09.
- '07 Daniel M. Maine, Pensacola, Fla., a son, 8/12/09.
- '32 William E. Betts Jr., 12/29/09 (P.O. Box 11929, Lynchburg, VA 24506).
- '33 J. Kyle Montague III, 9/11/09 (2418 Williams St., Bellingham, WA 98225).

Deaths

- '34 Carl F. Robison, 1/2/10 (The Hermitage, 1600 Westwood Ave., Ste. 308, Richmond, VA 23227).
- '37 Blair L. Whitt, 1/31/10 (355 E. Spiller St., Wytheville, VA 24382).
- '38 Joseph P. Venezia, 2/11/10 (Apt. 1E, 806 S.E. 46th St., Cape Coral, FL 33904).
- '39 R. Tate Alexander, 11/7/09 (258 Red Hill Rd., P.O. Box 163, Fairfield, VA 24435).
- '39 Ward A. Goodwin, 12/10/09 (Rt. 2, Box 758, Bluefield, WV 24701).
- '39 Howard Gordon Jr., 1/15/10 (287 Sansbury Rd., Friendship, MD 20758).
- '40 Charles W. Hutton, 12/12/09 (2947 Arizona Ave. N.W., Washington, DC 20016).
- '40 Benjamin A. Williams Jr., 1/16/10 (22445 Linden St., Courtland, VA 23837).
- '41 W.C. Buchanan, 11/24/09 (450 Keller Ln., Marion, VA 24354).
- '41 Claude A. Harper, 1/14/10 (1900 Hillsmere Ln., Apt. 147, Staunton, VA 24401).
- '41 David B. Keezell, 9/4/09 (2604 Central Ave., Alexandria, VA 22302).
- '41 Charles O. Schobel Jr., 1/31/10 (1843 North Akina Dr. N.E., Atlanta, GA 30345).
- '41 Welford A. Sherman Jr., 1/20/10 (Apt. 441, 12401 Gayton Rd., Henrico, VA 23238).
- '42 H.G. Alley Jr., 1/22/10 (241 Bay Colony Dr., Virginia Beach, VA 23451).
- '42 John H. Ball Jr., 11/19/09 (404 Havenwood Ln., Walkerton, VA 23177).
- '42 Richard G. Broun, 11/22/09 (c/o Kenneth O. Broun, 1500 Front Cove Ct., Virginia Beach, VA 23454).
- '42 James W. Green Jr., 12/20/09 (1271 Wyndham Pine Dr., Apopka, FL 32712).
- '42 A. Ray Pentecost Jr., 12/25/09 (1530 Blanford Cir., Norfolk, VA 23505).
- '42 Samuel G. Spangler, 1/31/10 (Apt. 534, 300 Westminster Canterbury Dr., Winchester, VA 22603).
- '42 Jordan B. Wheeler Jr., 1/12/10 (3526 Mt. Carmel Rd., Upperco, MD 21155).
- '43 Fanning M. Baumgardner, 5/28/09 (15 Bellview Ln., Washington, VA 22747).
- '43 C. H. Carter Jr., 11/20/09 (490 Shirley Plantation Rd., Charles City, VA 23030).
- '43 Constantine K. Geaneas, 1/18/10 (176 Deep Woods Way, Ormond Beach, FL 32174).
- '43 Richard H. Hawkes, 1/31/10 (4321 Thorough-
- good Dr., Virginia Beach, VA 23455).
- '43 Robert F. Jackson, 1/4/10 (1944 Tucker Ln., Salem, VA 24153).
- '43 John P. Middleton, 1/25/10 (P.O. Box 14, The Plains, VA 20198).
- '43 Carey J. Padgett, 1/19/10 (1005 Greenway Ln., Richmond, VA 23226).
- '43 C. Allan Paxton, 11/26/09 (811 Pocono Dr., Richmond, VA 23236).
- '44 W. Gordon Echols Jr., 2/2/10 (216 North St., Marion, VA 24354).
- '44 Robert J. Fagelson, 12/2/09 (Apt. 105, 5902 North St., Nacogdoches, TX 75965).
- '44 Donald F. Franz, 12/28/09 (11110 Tom Adams Dr., Austin, TX 78753).
- '44 John C. Gray, 12/20/09 (3004 Downing St., Williamsburg, VA 23185).
- '44 Robert E. McGhee, 1/2/10 (22 54th St., Gulfport, MS 39507).
- '44 Shreve S. Woltz, 11/27/09 (8454 Boulder Hills Dr., Longmont, CO 80503).
- '45 John T. Harris Jr., 12/4/09 (7296 Woody Rd., Gloucester, VA 23061).
- '45 Edwin P. Ketchum Jr., 11/24/09 (1692 Old Glory Blvd., Melbourne, FL 32940).
- '45 Robert C. Morehead Jr., 12/14/09 (Condo 72, 1055 E. 900 S., St. George, UT 84790).
- '45 Martha King Neate, 12/8/09 (3555 Heritage Cir. S.W., Roanoke, VA 24015).
- '45 J. Knox Pannill Jr., 2/1/10 (Apt. 119B, 2460 Village Ln., Billings, MT 59102).
- '45 Ernest Saunders, 12/15/09 (365 Arrow Ln., Wytheville, VA 24382).
- '45 Raymond E. Toms, 12/11/09 (P.O. Box 948, Deltaville, VA 23043).
- '46 Charles F. Ballou III, 11/19/09 (1520 Linden Ave., Clifton Forge, VA 24422).
- '46 Lawrence D. Hamner Jr., 12/26/09 (2100 Dispatch Rd., Quinton, VA 23141).
- '48 John L. Amato, 1/6/10 (3106 Ardsley Dr., Orlando, FL 32804).
- '48 William L. Rodman, 1/7/10 (250 Pantops Mountain Rd., Apt. 331, Charlottesville, VA 22911).
- '48 Edward C. Turner, 11/30/09 (Unit 104, 6696 Club House Ln., Warrenton, VA 20187).
- '49 John A. Hawkins, 12/22/09 (1248 Eyrie View Dr., Lynchburg, VA 24503).
- '49 Otis L. Hurt, 12/24/09

- (801 West Valley Dr., Bristol, VA 24201).
- '49 Thomas W. Old, 12/1/09 (3818 Grandview Ave. N.W., Roanoke, VA 24012).
- '49 Cordelia J. Richards, 1/17/10 (7 Wallace Cir., Newport News, VA 23606).
- '50 William M. Bennett, 2/14/10 (Box 127, Riner, VA 24149).
- '50 J.V. Gorman Jr., 12/20/09 (402 Hearthstone Dr., Blacksburg, VA 24060).
- '50 E. George Middleton Jr., 12/7/09 (1518 S. Seebreeze Tr., Virginia Beach, VA 23452).
- '50 Charles S. Phillips, 12/7/09 (St. James Wellness Center, 31842 Crosswoods Way, Wesley Chapel, FL 33543).
- '50 James H. Pruitt, 7/29/09 (2712 Houston Branch Rd., Charlotte, NC 28270).
- '50 Pietro Reck, 11/27/09 (213 Primrose Dr., Blacksburg, VA 24060).
- '50 Arthur G. Sherrell Jr., 7/17/09 (404 E. Merle Ct., San Leandro, CA 94577).
- '50 Rollin P. White, 1/18/10 (2112 S. Main St., P.O. Box 76, Graham, NC 27253).
- '51 Jacob R. Berger, 1/10/10 (Apt. E206, 13180 Dorman Rd., Pineville, NC 28134-9025).
- '51 Edward T. Creger, 12/13/09 (Apt. 3305, 98 Whitlock Ave. N.W., Marietta, GA 30064).
- '51 G.W. DeHaven, 12/2/09 (1328 Clay St., Franklin, VA 23851).
- '51 Edmundson L. Dickerson, 12/11/09 (900 Tyson Dr., Pawleys Island, SC 29585).
- '51 Allison G. Glover, 1/15/10 (5815 Williamsburg Landing Dr., Williamsburg, VA 23185).
- '51 J.S. Paxson Jr., 1/10/10 (8714 Waxford Rd., Richmond, VA 23235).
- '51 Charles R. Poole Jr., 1/3/10 (2059 Manor Dr., Lexington, KY 40502).
- '52 P.W. Hanson, 12/4/09 (506 Elizabeth Lake Dr., Hampton, VA 23669).
- '52 Roy H. Jennings, 12/12/09 (120 The Green, Williamsburg, VA 23185).
- '52 Paul F. Maine, 9/18/09 (1700 Gulf Blvd., Apt. 111, South Padre Island, TX 78597).
- '52 Wendell A. Smith, 12/26/09 (5401 Ferndale St., Springfield, VA 22151).
- '52 Lewis N. Springer, 2/5/10 (759 Cedar Crest Dr., Unit B, Warrenton, VA 20186).
- '53 N. Erskin Arehart, 1/20/10 (820 Cedar Ave., Drexel Hill, PA 19026).
- '53 William G. Sandy, 1/6/10 (3207 Orchard Hill Rd. S.W., Roanoke, VA 24018).
- '55 Margaret Cox Ayers, 11/19/09 (7110 Ayers Meadow Ln., Springfield, VA 22150).
- '55 Eugene O. Wilson, 9/2/09 (802 San Carlos Ct., The Villages, FL 32159).
- '56 John R. Canada, 1/20/10 (8324 Bald Eagle Ln., Wilmington, NC 28411).
- '56 H. Randolph Tillett, 12/22/09 (320 Monument Ave., Malvern, PA 19355).
- '57 Nancy Mitchell Miller, 11/29/09 (2909 Kanawha Ave. S.E., Charleston, WV 25304).
- '57 Carlton E. Ryan, 1/15/10 (3156 Tomaranne Dr. S.W., Roanoke, VA 24018).
- '57 Joseph W. Sabol, 1/17/10 (8860 Bridger Canyon Rd., Bozeman, MT 59715).
- '57 C. Ray Wells, 1/26/10 (924 Lakemount Dr., Moneta, VA 24121).
- '57 Richmond T. Zehmer Jr., 2/10/10 (1551 Mt. Vernon St., Petersburg, VA 23805).
- '58 Patsy Steckler Bean, 12/10/09 (1235 Roanoke Blvd., Salem, VA 24153).
- '58 John R. Davidson, 1/26/10 (8700 E. University Dr., Mesa, AZ 85207).
- '58 Richard F. Harrington, 10/2/09 (100 Whitehouse Dr., Poquoson, VA 23662).
- '58 Josephine E. King, 1/31/10 (249 Low Bridge Ln., Lexington, VA 24450).
- '58 C. Edward Wrenn Jr., 9/23/09 (79 Cypress Blvd. W., Homosassa, FL 34446).
- '59 Leland F. Cornwell, 11/27/09 (1125 S. Homewood Dr., Charleston, WV 25314).
- '59 H. Jack Spencer, 12/16/09 (812 Crestview Dr., Madison, AL 35758).
- '60 Jerry T. Ferguson, 12/2/09 (13603 Winterberry Ridge, Midlothian, VA 23112).
- '60 Peter E. Lewis, 12/23/09 (133 Reflection Ln., Hampton, VA 23666).
- '61 T. Harrison Williams, 12/5/09 (647 Bouldercrest Dr. S.W., Marietta, GA 30064).
- '61 Eddie L. Wood, 12/3/09 (880 Northgate Ave., Waynesboro, VA 22980).
- '63 E. Lee Reed III, 2/14/10 (Exxon Energy Limited, 10/F., St. George's Building, Hong Kong China, China).
- '63 W. Roger Simer, 11/20/09 (Unit 10, 3423 Grand Vista Ct., Port Charlotte, FL 33953).
- '64 J.F. Brandon III, 11/18/09 (11541 Rexmoor Dr., Richmond, VA 23236).
- '64 Ronald M. De Young, 12/21/09 (235 Wheeler Rd., Marstons Mills, MA 02648).
- '64 N. Nat Hurd III, 12/8/09 (3149 South Shore Dr., Smithfield, VA 23430).
- '64 Robert H. Lindsay III, 1/6/09 (P.O. Box 1727, Gloucester, VA 23061).
- '65 Bennie A. Clemmer, 12/2/09 (1730 Wind Haven Way, Vienna, VA 22182).
- '65 Royall B. Smithey, 1/3/10 (105 Fisher's Shore Rd., Columbia, SC 29223).
- '66 James L. Stork, 1/7/10 (P.O. Box 734, Crozet, VA 22932).
- '67 Betty R. Mahan, 12/8/09 (P.O. Box 283, Chatham, VA 24531).
- '67 Martin R. Wittersheim, 1/23/10 (5201 Watercrest Rd., Midlothian, VA 23112).
- '68 Harry W. Johnson, 1/21/10 (13922 Old Cox Rd., South Hill, VA 23970).
- '69 Sally Robinson Browning, 12/6/09 (1242 Clearview Cir., Allentown, PA 18103).
- '69 D.M. King, 11/27/09 (501 Farms Rd., McKinney, TX 75069).
- '69 George W. Preston, 11/28/09 (3905 W. Grace St, Richmond, VA 23230).
- '69 Richard L. Thomas, 12/17/09 (910 Canteberry Ln., Smithfield, VA 23430).
- '70 Terry G. Ferguson, 1/18/10 (P.O. Box 1049, Mechanicsville, VA 23111).
- '70 H.S. Patterson, 4/16/09 (1512 Carnegie Dr., Raleigh, NC 27610).
- '71 Brian D. Holm, 7/27/09 (3217 Oak Borough Run, Fort Wayne, IN 46804).

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Hats off to true friendship



NICHOLAS RICE

During one summer break, seven Virginia Tech students—(pictured left to right, back row then front row) Janet Hoffman Szoch (management, housing, and family development ’82), Joy Todd Calkins (public administration ’82), Kim Way (marketing management ’82), Liz Erickson Foit (communication ’82), Linda Robichaud Serpe (art ’82), Liza Davis (psychology ’83), and Mary Upchurch Kruger (animal science ’82)—rented a beach house in Ocean City, Md.

Along with their suntans, the group developed a bond that has lasted three decades. Despite living miles apart and having plenty of adult obligations, they still gather at least once a year—usually at a beach—to celebrate their extraordinary friendship.

They call themselves the Orange Hat Girls because of their tradition of wearing matching beach hats that Serpe bought for the group before their 2005 gathering.

“I couldn’t find seven in any other color, but over the years orange has come to symbolize the bond of our friendship, which began at Virginia Tech,” says Serpe, of Virginia Beach, Va. “We’ll be friends for life.”

Davis says that even when she lived in California she made it a priority to reunite on special occasions like weddings. Since she moved to Cary, N.C., getting together has been a bit easier.

“These women have been such a wonderful part of my life,” Davis says. “I feel very fortunate.”

Kruger, of Olney, Md., says the group has celebrated multiple marriages and the births of 19 children but also has offered consolation though divorces, illness, and tragedy.

“I tell my daughters, ‘Know who your real friends are, people that stick with you in good times and bad, people you can count on,’” says Kruger, a mother of two. “I always use this group of women as an example.”

’71 William K. McDonald, 1/30/10 (551 Elmwood Ave., Lynchburg, VA 24503).

’72 Richard C. Albert, 11/17/09 (554 Lafayette Ave., West Trenton, NJ 08628).

’72 Robert J. Poux Jr., 1/26/10 (108 Stoneleigh Dr., Cary, NC 27511).

’73 Frank W. Haden, 1/21/10 (1229 S. High St., Harrisonburg, VA 22801).

’75 Michael R. Eanes, 1/1/10 (104 Dove Ln., Martinsville, VA 24112).

’75 Hugh V. Ferguson, 12/25/09 (2836 Marellan Ave., Bluefield, WV 24701).

’76 Anna Malin Hoehn, 12/17/09 (202 Musket Ln., Locust Grove, VA 22508).

’76 Stephen H. Smith, 11/27/09 (102 Madison Ln. N., Newport News, VA 23606).

’77 John E. Davey III, 9/1/09 (8205 Pettit Ct., McLean, VA 22102).

’77 Marilyn Helmeyer Hamilton, 10/5/09 (128 Kerryton Rd., Columbia, SC 29223).

’77 Frederick F. Pearson II, 12/6/09 (223 Morgan Ln., Warsaw, VA 22572).

’77 Robert H. Penn, 11/28/09 (5459 Linda Ln. S.W., Roanoke, VA 24018).

’78 Betty L. Bobbitt, 12/8/09 (1507 McArthur Ave., Lehigh Acres, FL 33972).

’79 David W. DeHart, 1/4/10 (407 Eighth St., Radford, VA 24141).

’79 Michael M. Heller Jr., 12/9/09 (5959 Annunciation St., New Orleans, LA 70115).

’79 David Z. Walker, 11/24/09 (4046 Fairway Dr., Medina, OH 44256).

’81 Warren J. Burch, 11/25/09 (1105 S. Groveland Dr., Bluefield, WV 24701).

’82 Ramons Miezis, 11/15/09 (4017 Laytonville Rd., Olney, MD 20832).

’84 Kathleen Lacey Henne, 8/11/09 (12210 Kyler Ln., Herndon, VA 20171).

’89 Joan M. Baruffaldi, 11/5/09 (29 Robin Rd., Lynnfield, MA 01940).

’91 Donna Brewer Conner, 1/24/10 (6124 Jordantown Rd., Vinton, VA 24179).

’92 Bradley E. Jones, 2/17/10 (606 Binnacle Dr., Naples, FL 34103).

’98 Deborah Rhatigan, 12/10/09 (5509 Brierclyff Rd., Knoxville, TN 37918).

’00 Shane A. Leone, 2/2/10 (11167 Soldier Ct., Manassas, VA 20109).

’03 Adam L. Boardway, 11/24/09 (503 Victoria Dr., Montgomeryville, PA 18936).

’04 Thomas J. Gray, 1/12/10 (501 Aldersmead Rd., Richmond, VA 23232).

’05 Lisa M. McCoig, 2/6/10 (835 Claytor Sq, Blacksburg, VA 24060).

’06 George W. Humphrey, 12/26/09 (Office of the University Registrar, 250 Student Services Building, Blacksburg, VA 24061).

’06 Andrew J. Woodward, 2/3/10 (2304 LaSalle Dr., West Lawn, PA 19609).

’07 Travis F. Campbell, 1/10/10 (10 Bridgenorth Ln., San Antonio, TX 78218).

’07 David W. Epp, 1/20/10 (12614 Glenbrooke Woods Dr., Herndon, VA 20171).

’09 Mark K. Abdallah, 2/16/10 (Office of the University Registrar, Virginia Tech, Blacksburg, VA 24061). Class of 2013 **Jacquelyn E. Bruhn,** 2/27/10 (9114 John Way, Fairfax Station, VA 22039).

U.S. Navy Ensign **Zachary Eckhart** (aerospace engineering ’08), a 2007 graduate of the Virginia Tech Corps of Cadets, was killed April 12, 2010, in the crash of his T-39 training aircraft in Georgia. Eckhart was a member of the Regimental Band and the Highty-Tights, and served as the 3rd Battalion academics officer for the spring semester of his senior year. He is remembered by the senior band cadets, who were freshmen when Eckhart was a senior, as always smiling and positive about everything he did. A Pylon Dedication Ceremony will be scheduled in spring 2011 and more will be posted on the corps’ website as details become available.

Col. Richard Franklin Wilkinson, 89, of Williamsburg, Va., died on May 14, 2010. The 1942 forestry alumnus earned a Bronze Star and a Silver Star for heroic actions while leading troops in Africa during WWII. He led an infantry battalion in taking Mount Venere in Italy, which earned his battalion the Presidential Unit Citation, indicating that each man in the unit deserved the Distinguished Service Cross. His division saw more days of combat than any other American division in the war. Wilkinson was a long-time supporter of the Virginia Tech Corps of Cadets; he and his late wife, Margaret, are recognized in the Commandant’s Circle for giving more than \$1 million. According to his obituary, Wilkinson briefly pursued graduate studies at VPI after WWII before rejoining the U.S. Army for a distinguished 26-year career. After he retired, he served as the chairman of the York County Industrial Development Authority from 1981-90.



Stuart K. Cassell

Tech’s gutsy go-to guy

BY CLARA B. COX M.A. ’84

You can’t walk far on the Virginia Tech campus without spotting a building or feature that bears the mark of Stuart Kent Cassell, chief business officer and later vice president for administration at Virginia Polytechnic Institute (VPI) as it morphed into a major university.

According to Bennett Cassell (dairy science ’68, dairy cattle genetics M.S. ’72), a recently retired Tech professor of dairy science and Stuart’s nephew, his uncle “had a vision of Virginia Tech as bigger than an agricultural and engineering school.”

Stuart worked hard to realize that vision, but turning it into reality was not easy. “The university was more under the oversight of the state government then, and Stuart spent a lot of his time figuring out how to get things done,” says Ray Smoot, university treasurer and COO

of the Virginia Tech Foundation, who worked for Cassell and succeeded him as secretary-treasurer of the foundation, another of Cassell’s creations. Sometimes, that “figuring out” involved superior gamesmanship. For instance, Cassell wanted a golf course on

campus, but the governor believed that investing in one would waste taxpayers’ money. Undaunted, Cassell had nine turf-grass test plots constructed that were then connected by stretches of grass resembling fairways. When the governor objected to the use of state funds for a golf facility, Cassell reportedly said, “Governor, show me in our books where VPI spent any money on a golf course.”

Perhaps being one of 12 children taught Cassell how to work his way through obstacles to reach goals. Born in 1910, he grew up on a farm near Rural Retreat, Va. His father, Sidney “S.S.” Cassell, was a farmer and teacher who encouraged his children to go to college. Some attended colleges in Salem, Va.; five went to VPI, including Stuart, who enrolled in animal husbandry in 1928.

In college, Cassell was active in agricultural organizations; in sports, an interest he maintained throughout his life; and in the corps of cadets, where he

attained the rank of lieutenant. But he also found time for tomfoolery, joining several other upperclassmen in taking the laundry bags of some freshmen to fill with apples from the college orchard. When school officials discovered the would-be thieves in the act, writes Harry Temple in *The Bugle's Echo*, the cadets fled, abandoning the bags.

"The rats whose names were on the bags," Temple continues, "were called before the commandant but, of course, knew nothing of the episode." The commandant never learned who the real culprits were. Even in later life, Smoot recalls, Cassell had "a little mischievous streak in him."

Cassell graduated with honors in 1932 and earned a master's degree in agricultural economics in 1933. He spent the next six years teaching agricultural economics at his alma mater. During that time, he married childhood friend Catherine Neff; the couple had three sons.

In 1939, he accepted a position as director of the Agricultural Adjustment Administration in Virginia. Cassell turned his program, which regulated the sale of farm commodities at pre-set prices, into a model for the country.

In 1945, he received a lucrative job offer from the Federal Land Bank in Washington, D.C., but it was trumped by one from John R. Hutcheson, who was acting VPI president. Hutcheson offered him a position as financial and business manager, effective March 1, 1945. "When I took the position," Cassell later said, "it seemed as if I got the duties no one else wanted to do."

He quickly turned his job into one of power, prestige, and persuasion, working seven days a week and earning the confidence of presidents John R. Hutcheson, Walter S. Newman, T. Marshall Hahn Jr., and William E. Lavery, all of whom valued his vision and relied on his ability



Cassell wanted a 10,000-seat arena, but the state would only approve 8,000 seats. "The reason the seats are so small," Smoot notes, "is because Stuart put 10,000 in a space designed for 8,000."

to get things done. As an example of his quickly acquired standing in the college, when Hutcheson was hospitalized in late 1946, Cassell and Newman, then the vice president, shared the presidential duties.

Cassell was a complex man, as evidenced by the litany of adjectives used to describe him: soft-spoken but direct, caring, gentle, gruff, authoritarian, compassionate, dedicated, effective, brusque, persistent, hard-nosed, loyal, dependable, and even sneaky. Lavery called him "a man of great strength, integrity, and vision." Those traits and his work ethic—"If you want to get ahead, you have to work a little harder than anybody else," he once said—ensured his success. His willingness to bend the rules also played a significant part. "He knew," Smoot says, "how to get things done," a trait that led Hahn to call him a "giant of the university" and Lavery to see him as "larger than life."

Cassell met challenges head-on. Faced with the need to house an influx of veterans at the end of World War II, he set up temporary lodging in war-surplus buildings at nearby Radford Arsenal and filled three locations on campus with trailers. Veterans dubbed one of the trailer parks, located in the vicinity of today's Cassell Coliseum, "Cassell Heights."

During his latter 31 years of employment at VPI, enrollment grew from 738 to 17,740, and he was involved in the construction of 36 major buildings and the renovation of another 15. He played a key role in raising money to construct the War Memorial Chapel and today's Alumni Mall, which involved the destruction of numerous large trees. Facing strong opposition from students and townspeople, Cassell ordered a contractor to begin cutting the trees one day at 6 a.m. By 8 a.m., they were down. "You never saw such fussing and fuming, but there wasn't anything they could do about it then," he later said.

When he and Hahn orchestrated the rise of the athletic program, Cassell developed the physical plant, which included Lane Stadium and the coliseum. "Stuart concocted the idea to build a coliseum and to get it funded as a student activity center so the state would put up the money," Smoot recalls. Cassell wanted a 10,000-seat arena, but the state would only approve 8,000 seats. "The reason the seats are so small," Smoot notes, "is because Stuart put 10,000 in a space designed for 8,000."

Cassell died unexpectedly on Oct. 6, 1976. A month later, the board of visitors passed a resolution renaming University Coliseum the Stuart K. Cassell Coliseum to recognize his role in making the facility a reality and to express the university's "deep appreciation and gratitude for his untiring work, outstanding leadership, and unfailing good humor."

Cassell devoted his worklife to his vision of the modern university and, in the process, affected the physical growth of Virginia Tech more than any of the four presidents he served. Today's campus stands as mute testimony to the efficacy of that vision—and his unrelenting drive to make it a reality.

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