

From the Editor

Historians Among Us

HREE INCIDENTS IN THE COURSE OF PRODUCING THIS ISSUE MADE me appreciate how alumni, regardless of their Vanderbilt major, serve as unofficial university historians.

A few months ago Danielle Throneberry, BA'05, phoned to suggest a story idea. Working on the Vanderbilt Review as a Vanderbilt student, she had gotten to know Alex Moffett, a Class of 1932 Medical School alumnus who wrote poetry. "When he was a student, he used to earn money ironing Chancellor Kirkland's pants," she told me.

"Chancellor Kirkland?" I said, thinking Danielle had her chancellors mixed up. James Kirkland had been chancellor of Vanderbilt beginning in the 1890s.

"Dr. Moffett is a hundred years old," Danielle told me. "And Chancellor Kirkland was here until the 1930s." That Vanderbilt still had any living alumnus who remembered Kirkland was reason enough to want the story; that one of Vanderbilt's youngest alumnae had uncovered this nugget made it irresistible. To read Danielle's essay, turn to page 64.

A few days after my conversation with Danielle, we received an e-mail from Alan Pierce, BS'77, who had read our Robert Penn Warren feature ("Corner of the Eye") in the Fall 2005 issue. Alan owned a history book that had belonged to Warren when he



was at Vanderbilt, complete with handwritten notes. Would Vanderbilt have any interest in it? In short order, arrangements were made for the book to be added to the Heard Library's Robert Penn Warren holdings. "I have been sitting on the book for 20 years," Alan wrote us. "Had it not been for the article in VANDERBILT MAGAZINE, the book still would be in my bookcase where I would pull it out once a year and imagine what formative role it might have held for a young Robert Penn Warren."

As we were planning a feature about science, critical inquiry and religious belief (see page 36), Frye Gaillard, BA'68, e-mailed me with an article idea. "Back in 1970 when I was working for the Associated Press, I covered a speech at Peabody by John T. Scopes. I would have assumed he was long dead, but there he was, a vigorous man in his 70s talking about the important calling of being a good teacher," Frye wrote. "I think readers of the magazine might be intrigued by the oddity that Scopes came to our campus some 45 years after the Scopes Trial."

Frye and I did some digging and learned that the Peabody appearance had been Scopes' first return in 45 years to a Tennessee classroom, long after being driven out of his profession for teaching Darwinism to high-school biology students. Frye shares his recollection of this largely forgotten incident on page 40.

If you have ironed a chancellor's pants, keep a Pulitzer Prize winner's Vanderbilt textbook sitting on your bookshelf, or hold some other relic of university history in your memory, write and share it with other alumni.

GAYNELLE DOLL

4 forum for exchanging ideas From the Reader

Money Isn't Everything

When I received my master of library science degree from Peabody College in May 1975, we were told the job market was not good for librarians. I sent out blind letters to a number of Georgia public libraries simply stating that I wanted to work in the area. Although I had some family in Georgia, I knew no one at all in the county where I landed my first job by late June. I was shocked to read the letter from the "former librarian" in the Fall 2005 issue of VANDERBILT MAGAZINE [From the Reader, "Library Allegations," p. 5]. Now that I am 30 years into a wonderful career, I may have a few connections. But my first few positions were gained not by connection, but by persistence and maybe a good interview.

My career has not been financially rewarding. I still make far less than classroom teachers and librarians in the public schools, but I love my work. I deliberately chose to leave a good job in a college to go back to a public library. I like being in the thick of things, and academia was just not for me. As director of the county library system in one of the poorest counties in South Carolina, I know that I have made a difference and hope that will continue. Maybe I am deluding myself in that opinion, but I know that I am

It is sad that the former librarian did not find work. I think he may have pursued the wrong degree. I do not know of any middleaged librarians planning to leave the field. There are plenty of openings, especially in rural areas, for the motivated librarian who has goals other than making the big bucks.

Norris Wootton, MLS'75 Kingstree, S.C.

Conscience of the Campus

WHEN I WAS AN UNDERGRADUATE IN 1949, the Joint University Library was closed to blacks. However, the School of Religion, which had its own library on the ground floor of the JUL, chose to allow blacks to use its facilities, and allowed them to check out books from the JUL through their desk and study in their room.

Founding members of the Vanderbilt Unitarian Fellowship (now First Unitarian Universalist Church of Nashville), including Ron Rouse (BA'50, PhD'58) and I, believed this was not right, so we took on the project of opening the JUL to black students. We got appointments with all the JUL board members and asked them to open the library to blacks. We were told in every case that the time was not right.

It is very rewarding to see that our goals have been met with the naming of James Lawson as the 2005 Distinguished Alumnus Award recipient, and that the School of Religion [now Vanderbilt Divinity School] is still at the forefront of race relations.

E. Allan Blair, BA'52 *Flagstaff, Ariz.*

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Kent State Shootings Canceled Classes

I READ WITH INTEREST CLAIRE VERNON Suddath's article "I Heard a Rumor" in the Fall 2005 issue [p. 40]. I beg to differ, however, with Ms. Suddath's assertion that Vanderbilt has canceled classes only twice. In May 1970, Chancellor Heard canceled classes (at least for an afternoon) so that students could attend a campus memorial service for the shooting victims at Kent State University. Although I do not recall the specific date of the memorial service, the shootings occurred May 4, 1970.

Donald B. Dorwart, BA'71 St. Louis

What Gives with Clyde Lee?

THE PAGE 20 SIDEBAR ABOUT CLYDE LEE [Fall 2005 issue, Sports, "Where Are They Now?"] said he was Class of 1970. If so, it took him at least four years to get his degree after his regular graduating class. He starred on the hard court in the mid-'60s for the 'Dores, including a thrilling loss in the NCAA regional finals to Michigan and Cazzie Russell in 1964. I think.

RICHARD F. RANSOM, BA'71 Mountain View, Calif.

[Editor's Note: Lee began his Vanderbilt career with the Class of 1966, but because he went pro before graduating, he did not complete his degree until 1970.]

A Piece of Red's Past

I have in my possession a book on English history that was apparently owned by Robert

Penn Warren while he was a student at Vanderbilt. I say that because on the inside cover is written in script, "Robert Penn Warren, History IV, Vanderbilt University, Nashville Tennessee."

The book is not in pristine condition, but it does have a lot of underlining and a few sonnet fragments on the back piece. I have just finished reading the fall VANDERBILT MAGAZINE and realized that some Warren scholar might like to have the book. Or Vanderbilt might like it as well.

If you have some interest in assisting me get this book to a suitable recipient, please let me know. The title of the book itself is *An Advanced History of Great Britain* by T.F. Tout, published in 1920.

Alan Pierce, BS'77 *Apalachicola, Fla.*

[Editor's Note: Thanks to Mr. Pierce, this part of Robert Penn Warren's past will now reside in the Special Collections and University Archives Department of Vanderbilt's Jean and Alexander Heard Library.]

More Sports, Please

I WEAR MY VANDY SHIRTS TO MY LAW CLASSES often, especially during football season. My alumni sticker is on my car, I send donations when I can to various Vanderbilt fund drives, and I keep the latest issue of this magazine on my coffee table. I chose a small law school in Texas, and the first time I wore a Vandy t-shirt to class, a few students looked at me with fear, as if I had suddenly become smarter in their eyes. If only they knew we all strug-

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Visitors from Far and Near

Remembrances of literary legends, celebrated barflies and Mrs. Vanderbilt's money. By Walter Sullivan, BA'45, MA'50

HEN I JOINED THE
Vanderbilt faculty in 1949, I was
among friends
who two years
earlier had been

my teachers. From almost as far back as I could remember, I had wanted to be a writer; after I entered Vanderbilt, I saw that, in order to write, I would have to teach because, with few exceptions, good writers didn't make much money from their writing.

In my judgment we were a good department, and we shared an admiration, almost a veneration, for literature recent and past. We argued sometimes about whether Shakespeare was a greater writer than Chaucer or about whether a poem as hard to fathom as "The Waste Land" could be a great poem, but we never doubted the tradition in which we worked.

Early in his tenure as chancellor, which began in the 1950s, Harvie Branscomb persuaded Harold Vanderbilt, a grandson of Cornelius Vanderbilt, after whom the university was named, to join the Board of Trust. His wife, Gertrude, took an interest in the English department and promised to give \$5,000 a year, a good sum in those pre-inflationary days, to hold an annual literary symposium. For the first couple years, Randall Stewart organized the symposium; then I succeeded him, and my duties included consulting with Mrs. Vanderbilt, who said that if she liked what we were doing, she would endow the symposium. But she hadn't yet endowed it, so every spring I had to go to her, hat in hand.

She was, in my judgment, a woman of pecu-

liar tastes and sometimes even more curious opinions. Apparently, she thought a good deal about money. She told me once that the "real money" in her and Mr. Vanderbilt's family belonged to Mr. Vanderbilt. She had only \$10 million of her own, this when money was worth much more than it is now. She worried about being cheated. When the grocery bill at her house in Palm Beach seemed too high, she dressed herself as a person of slender means and investigated prices at the grocery stores. Many people, she told me, many of whom did not deserve it, asked her for money. The inference was not lost on me.

The symposium was a rousing success. Not only the university community but also people from all over Nashville came to hear visiting writers, to talk with them after their lectures or readings, and to have books signed. Without Mrs. Vanderbilt's support there would be no symposium, and I was determined to have it continue; I wanted desperately to please Mrs. Vanderbilt, but my job would have been easier if I had known what she wanted me to say. If she had contended that the earth was flat, I would have agreed with alacrity and deplored the fact that everybody did not know this. Consequently, coward that I was, I did not dispute her when she said that it was all right to teach Shakespeare, but only selected passages. A whole play was too much to ask students to read. She told me that one of her prep-school teachers in Philadelphia had asked her to memorize verses by Shelley, which she did, but she had declined to recite them because "wert" was not a word that anybody except Shelley used, and she would not join

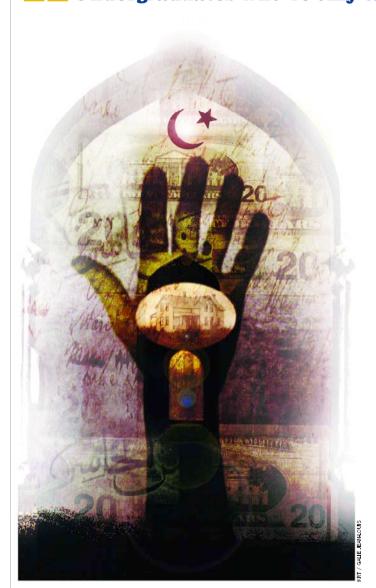


him in subverting the English language. I kept remembering Scott Fitzgerald's remark that the rich were different from the rest of us and Hemingway's riposte that they had more money, and I sided with Fitzgerald.

My major problem in dealing with Mrs. Vanderbilt was the difference between the cultures in which we had been bred. She gave money to the Paris Review, and she often praised George Plimpton, hoping, I suppose, that I would be more like him, but that was a lost cause. My Southern manners, my Southern accent, were the only ones I had, and it was too late for me to try to change them. But I did what I could. She once reprimanded me for using "school" to refer to a university. "Never do that," she cautioned. "School refers to your prep school. You call your college a college." I didn't make that mistake a second time. On one of her trips, she visited the English department offices, arriving with the thermos of martinis she always seemed to carry

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The Campbuls Undergraduates who've only taken three courses in Islamic studies



Islamic Studies Minor a Hot Commodity

The NEED FOR UNDERSTANDING about the Muslim faith is so great that Richard McGregor is having an interesting problem with students taking part in Vanderbilt's new minor in Islamic studies.

"I have under gradu a tes a year or two away from finishing who are get ting job of fers to go to Iraq," says McGregor, assistant profess or of religious studies. "These students have only taken something like three courses in Islamic studies so far. There's just this vacuum. They need people in a big, big way, and they're coming after undergraduates before they finish."

Un der graduates working on a minor in Islamic studies who turn down job of fers are still get ting plum internships in New York and Washington, and many will use their language training to travel.

McGregor, who came to Vanderbilt two years ago to teach Islamic studies, launch ed the minorlast fall. It's a rigorous curriculum that includes a year of Arabic language study.

The war in Iraq, terrorist attacks and other world events have made an accurate understanding of Islam a rare commodity. "People's awareness of this entire civilization, tradition and religion of Islam are coming from news paper headlines about Islamic ex tremists, suicide bombers, Am erican soldiers, Is raeli soldiers," McGregor says.

Students who participate in the minor in Islamic studies will get a mu ch broader vi ewof Islam. "We need to study Islamic law," McGregor says. "We need to know about Islamic culture. We need to study Islamic history, and not all of it has to do with politics and empire. We should study economic and cultural history, intellectual history. We should talk about Islamic philosophy."

Simple curiosityled to McGregor's interest in Islam. "I come to it from the pers pective of the study of comparative religion," he says. "I'm from a Protestant Canadian background. Islam is very far out from where I started."

McGregor says he's happy to train liberals and conservatives alike, so long as they get an anchorof knowledge that will allow them "to swim in this stuff and not get swept away by it."

Vanderbilt Among Top Academic Workplaces

VANDERBILT UNIVERSITY RANKS fifth among the "Best Places to Work in Academia," according to an extensive survey of practicing scientists released Nov. 7 in *The Scientist*, a magazine catering to the life sciences.

Gemson University (S.C.) topped the 2005 list of U.S. institutions, followed by the Trudeau Institute in Saranac Lake, N.Y., and the J. David Gladstone Institutes in San Francisco The University of Florida in Gainesville placed fourth, one spot ahead of Vanderbilt.

Respon dents were asked to assess their working conditions and environments by indicating their level of a greement with 41 criteria in eight different areas: job satisfaction, peers, infrastructure and environment, research resources, pay, management and policies, teaching and mentoring, and tenure.

"I think our scientists really feel like they are part of the team, that their input is respected and responded to," says Dr. Steven Gabbe, dean of the Vanderbilt University School of Medicine. "What they do in their laboratories has an important impact not only on science, in terms of discoveries that will hopefully benefit our patients in years ahead, but in training the next generation of scientists."

are getting offers to go to Iraq.

According to the survey, the two most important factors for U.S. tenured or tenure-track life scientists working at non-commercial research institutions were doing work that provides "great personal satisfaction," and working for an institution that provides "adequate health-care coverage for me and my family."

Archaeology Exhibit Tours Europe

Monuments, sculptures, jades, and other treasures recovered by the Vanderbilt University and National Geographic

Cancuén Archaeological Project are now on exhibit in a museum tour in Europe. Treasu res recovered from the royal palace, ballcourts and artisan workshops of this ancient Classic Maya site dating from A.D. 650 to 800 have been on display in the exhibit Cancuén: the Mys tery of the Lost Maya City at the Didrichsen Museum in Helsinki, Finland. In April the exhibit moves for one year to the Nati onal Ethnographic Museum of Sweden in Stockholm. From there it will continue to other venues in Europe and the United States before returning to Guatemala to become a permanent exhibit in the National Museum of Archaeology and Ethnography of Guatemala.

In Scandinavia the exhibit, heavily covered in television and newspapers there, is breaking historic attendancerecords. The

findings from Cancuén are being featu red in documenta ries in Europe and a National Geogra phic television special in the United States.

PROFESSOR RICHARD MCGREGOR

Highlighting the exhibit are be a utifully carved stone panels and huge altars, some recovered from the 2003-2004 pursuit and arrest of a loo ter's gang by project mem bers and agents of the SIC (Guatemala's FBI). A team of Guatemalan and American archaeologists led by Arthur A. Demarest, In gram Professor of Anthropology at Vanderbilt, has excavated ruins of the ancient cityof Cancuén, capital of one of the richest kingdoms of the Classic Maya civilization, located in the Petén rain forest of Guatemala. Among their discoveries is a royal massacre site containing the remains of 31 assassinated and dismem bered Maya nobles found with precious adornment. The gru esome site is believed to record a critical moment at the beginning of the mys terious collapse of a great ancient civilization.

Class of 2010 Applications Break New Record

THE NUMBER OF APPLICATIONS for Vanderbilt's incoming freshman class has surpassed 12,000, the highest number ever, says William Shain, dean of undergraduate admissions. "Our 4 percent increase from last year is a continuation of a trend in

which we not only have more applicants, but the avera ge one

is bet ter qualified,"

we have a very large number of applications from schools that are not in our region."

he says. "In addition,

Applications from West
Coast students are up 10 percent from last year, while there is a 9 percent increase in applications from Tennessee. Significant increases also are being seen in the number of applications from New England and the Mid-Atlantic states.

"Vanderbilt is becoming a more primary choice in the Boston to Washington, D.C., corridor, but I also want to emphasize that we are reaching out to bright, engaging students in all regions of the country," Shain says.

Overall, applications for students of color are up 17 percent this year. Applications by male students are up 5.5 percent over last year, but there are still more women than men in the pool of applicants.



Stone panel (A.D. 798) depicts the Cancuén king appointing sub-lords.

10 SPRING 2006

{Top Picks}

Tong One of 2005's Scientific American 50

Vanderbilt psychologist Frank Tong has been named a research leader in the 2005 Scientific American 50, the magazine's annual list recognizing outstanding leadership in science and technology from the past year. Tong and his colleague Yukiyasu Kamitani, an investigator at ATR Computational Neuroscience Laboratories in Kyoto, Japan, shared the honor



for their work in neural imaging. Tong and Kamitani were recognized for their work in functional magnetic resonance imaging, a special type of MRI technology that detects the brain areas that become active during certain mental tasks by registering variations of blood and oxygen flow.



Seddon Lands in Hall of Fame

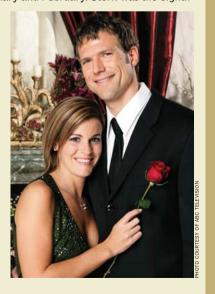
Dr. Rhea Seddon, assistant chief medical officer at Vanderbilt University Medical Center, was inducted into the Tennessee Aviation Hall of Fame in November. A former NASA astronaut, Seddon flew three space shuttle missions between 1985 and 1993, including service as payload commander for the 1993 life sciences research shut-

tle mission. The Tennessee Museum of Aviation opened in 2001, and the Hall of Fame inducted its first honorees in 2002.

Doc Hollywood

Dr. Travis Stork, 33, who is completing his residency in the Vanderbilt University Medical Center emergency room, was the star of ABC's matchmaking reality TV show *The Bachelor*, which aired during January and February. Stork was the eighth

bachelor to star in the series, which pits 25 females in competition to win the heart of the leading man. A native of Fort Collins, Colo., Stork earned his medical degree from the University of Virginia and graduated magna cum laude from Duke University. The series was filmed in Paris, but Vanderbilt University Medical Center worked with Warner Brothers Telepictures in October to provide footage of Stork on shift in the ER.



Top Students Get Early Admission

When word went out a year ago to high-ability high school seniors that a new program could give them advanced admission to Vanderbilt's professional and graduate schools, no one expected quite the level of interest that resulted.

More than 470 students from all over the country applied to the ENGAGE Scholars Program, and nine of them are now in their second semester. "ENGAGE" stands for Early Notification of Guaranteed Admission for Graduate Education, and the program is aimed at outstanding high school students with a demonstrated commitment to graduate or professional school education.

"With a continued record of academic success over the next four years, they are guaranteed a place in one of Vanderbilt's nationally ranked graduate or professional programs," says Lyn Fulton-John, director of the Office of Honors Scholarships and ENGAGE. The program emphasizes a broad liberal arts education, relieving participants from taking courses only to make themselves more attractive for acceptance into a graduate or professional program. Up to 50 percent of Vanderbilt's baccalaureate graduates will go on to graduate or professional school.

Of the nine members of the inaugural ENGAGE class, four are interested in graduate school in engineering, three in management, one in medicine and one in law. Participants also may choose to pursue an advanced degree from the School of Nursing, Divinity School or Peabody College.

While a few other universi-

ties offer early or joint admission to a single school or a limited number of programs, none offers such an array of choices as Vanderbilt.

"I've wanted to be an attorney in the JAG (Judge Advocate General's) Corps since about the 10th grade," says Hayley Curry, one of the first ENGAGE scholars. "It's a huge relief to know I'll have a place at such a great law school."

Students in the program are free to pursue any undergraduate major but, as ENGAGE scholars, must participate in an interdisciplinary program designed especially for them. The program will help secure the best students in the country for Vanderbilt's professional and graduate programs. The average SAT score of the first cohort of ENGAGE scholars is 1546; the average of the incoming class of 2009 as a whole is 1371.

Vanderbilt Takes on Hispanic Diabetes Epidemic

EACH TUESDAY, AFTER A FULL day of work at Vanderbilt, Dr. Michael Fowler heads to the Siloam Clinic in downtown Nashville to combat an enemy threatening the health of the fastest-growing population group in the United States, Hispanic Americans.

The enemy is diabetes, and it is advancing at an incredible pace. According to the National Institute of Diabetes and Digestive and Kidney Diseases, Hispanics are nearly twice as likely to develop diabetes as white non-Hispanics. About 2.5 million Hispanic Americans have been diagnosed with diabetes, and millions more may have the



disease without knowing it.

While the incidence of diabetes is low in their native countries, adoption of an American lifestyle after entering this country prompts a rapid rise in disease incidence. "I think we should hand out diabetes medicines at the border when people come into the country," says Fowler, assistant professor of medicine in the Division of Endocrinology, Diabetes and Metabolism.

The impact of this epidemic is felt at the Tuesday night clinics. "It's always a packed house," Fowler says.

He is working to establish a practice at the Vanderbilt Eskind Diabetes Clinic specializing in treating diabetes in the Hispanic population. Through advertising in Spanish newspapers and word-of-mouth, Fowler hopes to draw Spanish-speaking patients to Vanderbilt for their diabetes care. He recently secured grant support to study how best to provide services.

Non-English-speaking patients often harbor a distrust of medical science. But Fowler, who majored in Spanish in college and has studied in Spain, finds having a Spanish-speaking medical staff helps break down the walls and puts patients at ease. "If patients can explain things to you in their own native tongue, they are much more comfortable with the doctor."

Several lab staff, nurse educators and dietitians at the Vanderbilt Eskind Diabetes Clinic also speak Spanish. Fowler hopes to recruit additional Spanishspeaking faculty and encourage other faculty to learn Spanish.

"The complications [of diabetes] are preventable, and diabetes is absolutely controllable if we catch it in time," Fowler says.

Lawson to Return as Visiting Professor

More than four decades after a national furor over the expulsion of James Lawson from Vanderbilt University, he will return as a distinguished university professor for the 2006–07 academic year.

"This is for me an unexpected, even momentous personal instant in my journey," Lawson said. The announcement was made Jan. 18, when Lawson was named Vanderbilt's 2005 Distinguished Alumnus.

Lawson's expulsion from Vanderbilt Divinity School and the resulting resignations of faculty members in protest embroiled the campus and the Nashville community in a nationally reported controversy for months in the spring of 1960. Eventually, a compromise was forged to stop most of the resignations and allow Lawson to complete his degree in Nashville. Lawson instead

chose to transfer to Boston University.

During his visiting professorship, Lawson will teach at least one course and give at



least one public lecture each semester, participate in discussion groups with faculty, and work on his autobiography.

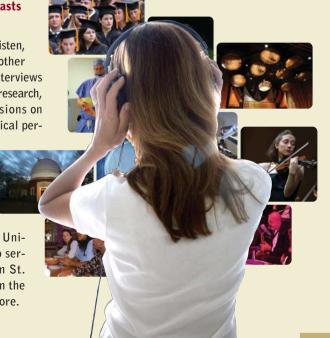
Lawson is pastor emeritus of Holman United Methodist Church in Los Angeles, where he served for 25 years before retiring in 1999. As a young man he studied the Gandhian

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formances by Blair School of Music faculty, hear conversations about the universe with astronomers from Vanderbilt Dyer Observatory, learn about new research and treatments

being discovered at Vanderbilt University Medical Center, listen to sermons and other offerings from St. Augustine's Episcopal Chapel on the Vanderbilt campus, and much more.





movement in India before becoming an integral part of the Civil Rights Movement. Lawson was dubbed by the Rev. Martin Luther King Jr. as "the leading nonviolence theorist in the world."

Lawson helped organize sitins by African American students, which led to the end of racial segregation of lunch counters in downtown
Nashville. He also was active in civil rights struggles in Alabama and Mississippi.

"Permanently expelled from Vanderbilt University, James Lawson would have done fine and well," said James Hudnut-Beumler, dean of Vanderbilt Divinity School. "But Vanderbilt could not be fine or well without confronting its troubled soul. ... James Lawson has progressively helped this university find its conscience—and dare I say— its soul."

Children's Hospital Takes Services to Guatemala

CHILDREN IN POVERTY-STRICKEN Guatemala have among the worst growth rates in the world due to rampant malnutrition and lack of quality medical care. Half the country's population of 14.2 million is children under the age of 18.

In February a team of 14 surgeons, doctors, nurses and staff members from the Monroe Carell Jr. Children's Hospital at Vanderbilt took part in a weeklong surgical trip to Guatemala. They screened patients and performed 35 pediatric urologic surgeries on children at San Sebastian Hospital in Guatemala City.

Many of the surgeries they performed were on children much older than those who might receive the same procedures in the United States. Limited resources and lack of specialists cause many children to suffer disabilities and conditions that would be corrected much sooner in the U.S.

Children's Hospital partnered with The Shalom Foundation, a Middle Tennessee-based non-profit humanitarian aid organization, and the Guatemalan Pediatric Foundation, a non-profit based in Guatemala that provides health services and helps coordinate international medical missions and trips.

The groups plan to continue their partnership, and Children's

Hospital has committed to participate in other surgical trips to Guatemala in the future. Children's Hospital has committed with Shalom to help create sustainable programs to provide health-care services, educate the community on health issues, provide staffing for surgical trips, and share technology and information related to advances in health care in the country. In the future, elective international rotations for pediatric residents and nurses from the U.S. may also be offered.

Meth Costly in Lives and Health-Care Delivery

In 2004, Tennessee authorities seized 1,574 meth labs in the state—a whopping 75 percent of the total in the Southeast and second only to Missouri across the United States. To fight the use and manufacturing of methamphetamine in Tennessee, Gov. Phil Bredesen has enlisted a group of local and state partners, including Vanderbilt University Medical Center. In November they launched a \$1.5 million statewide methamphetamine education campaign, "Meth Destroys."

The issue is an important one to Vanderbilt, according to Dr.



Jeffrey Guy, director of the Vanderbilt Regional Burn Center. In 2004 as many as one-third of the patients in the Burn Center had been involved in meth explosions, which are responsible for an estimated \$5 million to \$10 million a year in uncompensated care. The number of meth patients has since reduced to about 10 percent, but many of the cases rely on self-reporting.

"It's not like a gunshot wound where there is no denying how it happened," Guy says. "On a lot of this stuff we rely on self-reporting, and even when the patients come here, you don't know who has the meth burns."

Meth is typically consumed in a white powder form that can be snorted, smoked or dissolved in water to be injected. Effects of chronic meth abuse include psychotic behavior and brain damage. Health risks include depression, psychosis, skin infections, high blood pressure, hepatitis C, kidney damage and severe tooth decay.

The "Meth Destroys" effort includes television and radio spots, brochures, posters, bill-boards, a Web site, and other sources of information dissemination.

"We have seen a reduction in the number of really big explosions," says Guy. "But even if you have four or five of those a year, economically, you are still taking it in the teeth."

Owen Students Win Three National Competitions

TEAMS OF STUDENTS FROM the Owen Graduate School of Management emerged victorious at three of the nation's premier case competitions last fall. Case competitions have become a common tool for MBA students to test skills in strategic thinking and problem solving. This year Owen students have bested teams from top business schools around the world at contests hosted by Carnegie Mellon, Ohio State and Thunderbird, and posted finishes in the top echelons at competitions held by the National Society of Hispanic MBAs (NSHMBA) and the National Black MBA Association (NBMBAA).

A team of four Owen students came out on top in a field of more than 321 teams from 83 universities and 18 different nations at this year's Global Innovation Challenge. Their work earned them the title of "Most Innovative MBA Team in the World" and a \$20,000 prize. Owen students took second place in this same competition last year.

At the second annual Key-Bank Minority Case Competition, hosted by the Fisher College of Business at Ohio State University, the Owen students' solution earned team members the top prize of \$6,000. Owen students also won the top spot in the 10th Annual International Operations Case Competition at the Tepper School of Business at Carnegie Mellon in Pittsburgh. Widely regarded as one of the most significant case competitions in the operations field, this year's invitation-only contest included 15 student teams from the United States, Canada and China.

"Their accomplishments reflect two of the hallmarks of an Owen education: cuttingedge thinking and real-world knowledge," says Jim Bradford, dean of the Owen School.

{Inquiring Minds}



SAT May Predict Life Satisfaction

When taken in the early teens, the SAT test may foretell success and life satisfaction. Psychology researchers David Lubinski and Camilla Benbow at Vanderbilt's Peabody College, along with Rose Mary Webb (Appalachian State University) and April Bleske-Rechek (University of Wisconsin-Eau Claire), say high SAT scores at young

ages can reveal cognitive and creative potential for future success as doctors, engineers and professors. Their study provides evidence that students who scored in the top .01 percentile of their age group on the SAT before age 13 were more likely than a comparison group of graduate students to later achieve an M.D. degree, earn an annual salary of at least \$100,000, or secure a tenure-track position in a top 50-ranked institution. The findings were reported in the March issue of *Psychological Science*.

Research to Probe Cancer Treatment's Effect on Offspring

Can high doses of chemotherapy and radiation that young cancer patients receive cause inherited health problems for their children? Vanderbilt-Ingram Cancer Center member John Boice and an international team of colleagues have been awarded a \$4 million grant from the National Cancer Institute to try to find out.



"Our initial data indicate that the level of adverse genetic effects among children of cancer survivors is not remarkably different than seen in the general population," says Boice. "This suggests that the human genome may not be as susceptible for inherited effects as other species, despite high exposures to radiation and chemotherapy." Over the next five years, the study team will continue to identify survivors and their children, as well as siblings of cancer survivors.

Canals Reveal Underpinnings of Early Civilization

Ancient canals discovered in the Peruvian Andes offer long-sought proof that irrigation was at the heart of the development of one of the earth's first civilizations. The discovery by Vanderbilt anthropologist Tom Dillehay and his colleagues, Herbert Eling of the Instituto Naciona de Anthropolotica e Historia in Coahulila, Mexico, and Jack Rossen of Ithaca College, was reported in the Nov. 22 issue of *Proceedings of the National Academy of Sciences*.

Preliminary results indicate one of the canals is more than 6,700 years old and another is more than 5,400 years old. They are the oldest such canals yet discovered in South America. Anthropologists had presumed the canals that helped support early Andean civilization had lain closer to the surface and were hence destroyed by human activity and nature over time. Dillehay and his team found that the canals had not been destroyed but had been buried by sediment.

A look at Vand<mark>e</mark>rbilt atbletics

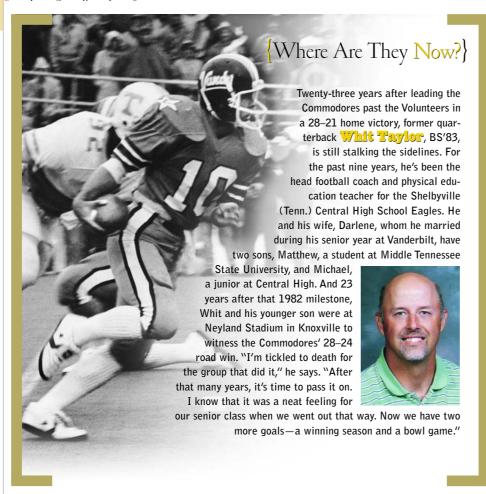
onjour. Guten tag. Moïen. Γ εια σου. It doesn't really matter how you say hello to Liebelei Lawrence—she's equally at home speaking any of those languages. But the most remarkable thing about this Vanderbilt sophomore isn't that she's fluent in five languages (Greek, French, German, Luxembourgish and English); it's that she is a varsity athlete who is fluent in five languages.

"When we go to golf tournaments," teammate and roommate Helen Richards says, "you run into a lot of players from different countries, and she can always speak to them. It's really funny to see how she can go up and have a conversation with them. Knowing those five languages, there aren't very many people she can't talk to."

Born in Greece, Lawrence moved to Luxembourg at the age of 3 when her father, a pilot, was assigned there. There she lived until moving to Florida at the age of 16 to pursue a career in golf. With a Greek mother and Luxembourg's blend of French and German culture, Lawrence says she acquired her repertoire of languages almost by default.

"It wasn't really my choice," she says. "I picked up Greek from my mom. That was my first language. When we moved to Luxembourg and I was around my dad the whole time, I picked up English because that's all he speaks. Luxembourgish isn't an official language. It's a spoken language, but it doesn't have actual grammar. Elementary school in Luxembourg is in German, and then





Vanderbilt 28, Tennessee 24

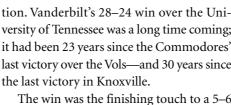
"OK, you can breathe now." That was the initial reaction by many Vanderbilt faithful Nov. 19 as they watched senior linebacker Moses Osemwegie intercept a goal-line pass to stop Tennessee's last-gasp desperation drive to win the game as the last second ticked off the clock. The next reaction was pure celebra-

versity of Tennessee was a long time coming; it had been 23 years since the Commodores' last victory over the Vols—and 30 years since the last victory in Knoxville.

The win was the finishing touch to a 5-6 football season that garnered regional and

> national recognition for several Commodores. Senior quarterback Jay Cutler was voted the Southeastern Conference Offensive Player of the Year by the league coaches and the Associated Press. The all-time leader in virtually every Vanderbilt passing category, he also was named first-team All-SEC quarterback. Joining Cutler

Quarterback Jay Cutler Player of the Week after throwing for 315 yards and three touchdowns against the Vols.



was named SEC Offensive

as a first-team All-SEC pick was Osemwegie, the SEC's active career leader in tackles, and freshman receiver Earl Bennett, who set an SEC freshman record with 79 receptions and was named a second-team All-America pick by Rivals.com. Senior tight end Dustin Dunning and junior offensive tackle Brian Stamper were named to the All-SEC second team. Bennett, safety Reshard Langford and kicking specialist Bryant Hahnfeldt were named to the SEC All-Freshman Team.

Kraus Named All-Region in Final Year of Men's Soccer **Varsity Play**

Senior forward John Krause was named to the All-Midwest Region first team by the National Collegiate Soccer Coaches Association in December. He led the team in scoring with 12 goals and two assists and was a first-team All-Missouri Valley pick. He also was named to the MVC All-Tournament team as the Commodores reached the conference semifinals and a school-record thirdplace finish during the regular season.

Vanderbilt will not sponsor men's soccer as a scholarship varsity sport beyond June 30, 2006. The university will, however, maintain a club team through the Student Recreation Center. The current scholarship commitments for the players will be honored until the recipients graduate.

Women's Swimming Joins Varsity Lineup

Women's swimming has been added as a Vanderbilt varsity sport, beginning in the 2006–2007 academic year, following an internal periodic review of the athletics program. "Swimming is a good fit for Vanderbilt," says David Williams, vice chancellor for student life and university affairs. "It should be a sport in which we can naturally become very competitive, and we are pleased to show our commitment to the Southeastern Conference by adding one of its marquee programs, which will only make the league stronger."

The university will begin searching for a swimming coach after the current NCAA season is completed, and discussions are currently under way with Metro-Nashville officials to make nearby Centennial Sportsplex the Commodores' home pool.

{Sports Roundup}

Baseball: Corbin to Coach 2006 National Team

Commodores baseball coach Tim Corbin was chosen by USA Baseball to serve as head coach



of the 2006 USA Baseball National Team, representing the United States in the FISU World University Championship this summer. This is Corbin's second stint with USA Baseball (the national governing body of amateur

baseball in the United States), but his first as head coach, having served as an assistant on the 2000 team. "To represent the USA in any capacity is certainly an honor," Corbin says, "and to represent this country in baseball is an extreme privilege and one for which I am very grateful." In addition, Thomas Samuel, Vanderbilt's baseball media relations liaison, was named the team press officer. Team USA will travel to Durham, N.C., and Cuba in search of its second consecutive championship.

Women's Soccer:

Players, Coach Win Honors

Goalkeeper Tyler Griffin and defender Kim Perkins, both juniors, were named to *Soccer Buzz* magazine's 2005 Central All-Regional Team, and Coach Ronnie Hill was named Central Region Coach of the Year. Griffin also



was named an NSCAA All-American and SEC Defensive Player of the Year. The team finished 2005 with a 16-3-3 record and received its first invitation to the NCAA Tournament since 1998

Men's Golf: List Wins New Year's Invitational

Junior Luke List carded a four-round total of 7-under-par to win the 80th New Year's Invitational at the St. Petersburg (Fla.) Country Club in January. With the win, the 2004 U.S. Amateur runner-up moved into 14th place in the *Golfweek/*Titleist men's amateur rankings. "This is one of the premier winter events in amateur golf," notes Coach Press McPhaul.



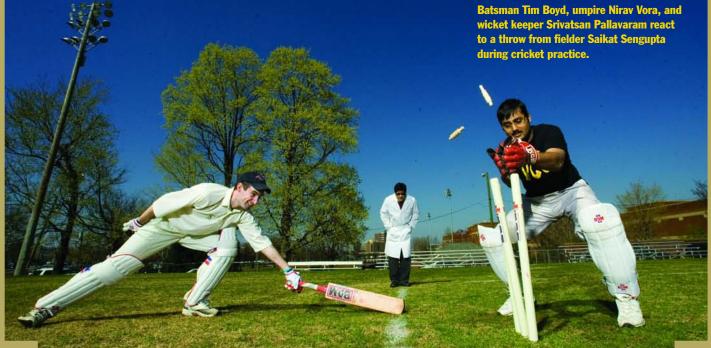
Bowling: Fledgling Team Joins Varsity Lineup

The women's bowling team ended the fall portion of its schedule on a roll after finishing in third place at the Eastern Shore Hawk Classic in Millsboro, Del. In its second year as a Vanderbilt varsity sport, the team is coached by John Williamson, who previously served as Vanderbilt's director of baseball operations. Bowling became Vanderbilt's 16th varsity program in 2004, added to meet newly implemented NCAA Division I-A membership requirements.

Women's Golf:

Vandy Lends a Hand

In the wake of Hurricane Katrina, Vanderbilt picked up the tab for food and hotel costs for the Tulane University women's golf team at Vanderbilt's Mason Rudolph Championship last September. It was the first golf event in which the Tulane women had competed since the storm roared through New Orleans, Tulane's home.



PHOTOS BY NEIL BRAKE

Collections and collectibles

Vanderbilt Holdings

The Librarian and the Tenor

A tale of passion, Pavarotti and poultry.

By ANGELA FOX

ens of thousands of items are housed in the Special Collections Department of Vanderbilt's Heard Library. The collections run the gamut from astronomy, archaeology and

antebellum history to women's issues and World War II. There are collections that contain the musings and memorabilia of the famous and the obscure. There are rare manuscripts, books, films, photographs, sound recordings, posters, letters and more.

As diverse as they may be, all the collections have one thing in common: Each reflects the passion of its collector, whether for history, art, literature or science. Among them all, however, the Clarise DeQuasie Luciano Pavarotti Collection may be the most passionate yet. DeQuasie, you see, was a librarian at the Jean and Alexander Heard Library for 30 years, and when she died in 2001, she bequeathed to Vanderbilt boxes and boxes of material charting her personal relationship with Luciano Pavarotti, the most famous tenor of the 20th century.

Like any great opera, the story of DeQuasie and Pavarotti includes a heroine of humble origins and a kingly hero who recognizes in her a kindred spirit. The tale also includes fresh eggs and a flock of beloved chickens, but we'll get to that in a moment.

According to longtime co-worker and friend Don Jones, DeQuasie was by no means an opera buff, nor did she come from a background steeped in classical music. "Clarise grew up on a farm in West Virginia—I mean,

she actually was a coal miner's daughter," recalls Jones, a catalog librarian at the Heard Library. "She first became enamored of Pavarotti in 1979 when she changed the TV channel from a presidential address and saw the

Dear Clarise,

It is always a pleasure to hear from you,

And I appreciate your taking the time to write

and I appreciate your taking the time to write

and I appreciate your card, Also, your Christman
wither I'm here or wrong, Talentine and the steer at Covent dyour card, Also, your Christman
wy father receives, were enjoyed.

Wy father is back in italy and is doing
extremely will.

Hope all is well with you. I enjoyed meeting
you in Sarasota, and hope to see you again.

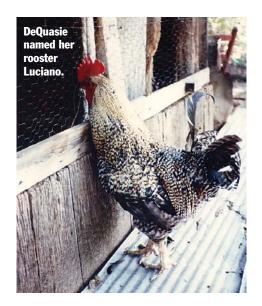
Tanti cari saluti.

Letters and
memorabilia reveal
Pavarotti and DeQuasie's
warm relationship.

singer on PBS." That chance encounter led to a 22-year passion for Pavarotti that would last until DeQuasie's death at age 63 of multi-system atrophy. Unlike other ardent fans of Pavarotti, however, DeQuasie developed a warm, personal relationship with her hero that is revealed in letters to her from the tenor and in memorabilia collected by DeQuasie from every concert she attended and every rehearsal and private party to which she was invited by Pavarotti himself. "She traveled all over the country to his concerts, and he always had her come backstage and invited her to rehearsals," Jones says. "She went to Tavern on the Green in New York City after one concert to dine with him and other guests including Joan Kennedy and Richard Thomas."

So, what was it about a librarian from the mountains of West Virginia that resonated with an opera superstar from Italy? By all accounts from her colleagues and friends at Vanderbilt, DeQuasie was a unique individual who, though outwardly quiet and even shy, connected with others through a sense of humor and a love of life's simple pleasures—qualities that are also often attributed to Pavarotti. "Clarise was the most unusual person I've ever known," agrees Frank P. Grisham, retired director of the Jean and Alexander Heard Library, who co-

officiated with Will Campbell (a close friend and neighbor of DeQuasie) at the memorial service and celebration of the librarian's life. "I hired her as a cataloger for the Divinity Library, and we became fast friends. She didn't have roots in family and had to make it in this world on her own. It was really some-



thing to see how this young lady moved from a limited background to create for herself her own world."

Born in 1938, DeQuasie graduated cum laude from Morris Harvey College in Charleston, W.Va., in 1961. She worked briefly as a newspaper reporter in her home state and then came to Nashville in 1963 to attend Vanderbilt University Divinity School on scholarship. While at the Divinity School, she was editor of the school publication *Prospectus* and received the J.D. Owen Prize in Old Testament. She later switched her career focus and earned a master of library science degree from George Peabody College for Teachers in 1966. She worked in the Vanderbilt library system from 1966 to 1996.

"I got to know her interests through the years—and there were many besides Pavarotti, including her love of animals," Grisham continues. It was, in fact, the librarian's flock of chickens that sealed her friendship with the great Italian tenor. DeQuasie lived on a farm east of Nashville in Mount Juliet and, after discovering Pavarotti, named her rooster Luciano and all of the hens Clarise. Pavarotti, who has a well-known appreciation for women, was amused and flattered when he learned of his fan's dedication. DeQua-

sie created humorous signs that caught his attention at concerts, sent fresh eggs to him backstage, and regularly wrote him letters—letters to which he, or his personal secretary, regularly responded.

In one letter on Hotel Navarro stationery from New York, dated 1980, Pavarotti addresses her as "Dear Clarise," thanks her warmly for the "Christmas wishes and goodies," and closes by saying, "I enjoyed meeting you in Sarasota and hope to see you again" before signing his name with a flourish. In another letter, his secretary and protégé, the opera singer Madelyn Renee Monti, assures DeQuasie that "your letters have brought many a smile" to Pavarotti and thanks her for the Christmas ornament DeQuasie made and sent to her. DeQuasie also became friends with Adua Pavarotti, the tenor's first wife, and is mentioned in her memoir, Life with Luciano (1991, Rizzoli).

These letters, along with signed notes and autographed photos of Pavarotti and DeQuasie together, are part of the Vanderbilt collection. Other items in the collection include scrapbooks, t-shirts, ticket stubs,

buttons, concert posters, programs, newspaper articles, recordings of Pavarotti's television and radio performances, and one of the singer's famous oversized handkerchiefs used during his concerts.

When DeQuasie's health began a precipitous decline, she went to live in McKendree Vil-

lage Retirement Community, and in February 2000 she attended her final Pavarotti concert at the Gaylord Entertainment Center in Nashville. "McKendree provided a van so she could go in her wheelchair, along with a nurse to accompany her," says Dorothy Parks Evins, former director of the Divinity Library and DeQuasie's closest friend. Evins and several other friends pitched in and bought DeQuasie a black velvet dress, did her makeup and her hair, and then attended the concert with her.

Anne Richardson Womack, associate director of the Divinity Library, recalls the highlight of the evening. "I had corresponded with Herbert Breslin [Pavarotti's long-time manager and author of *The King and I: The Uncensored Tale continued on page 84*

The Night I Fell in Love

BY CLARISE DEQUASIE, MLS'66

Clarise DeQuasie, MLS'66, was known among her friends and co-workers as a talented writer with a self-deprecating wit not unlike that of Dorothy Parker. Among the items included in the Clarise DeQuasie Luciano Pavarotti Collection is a rough draft of a talk DeQuasie once gave about her relationship with the Italian tenor. The following edited excerpt describes the time the librarian first heard Pavarotti sing.

owe it all to the 39th president of the United States. He didn't do much else for me while he was in office, but I'll always be grateful to Jimmy Carter for introducing me to Luciano Pavarotti.

It was one of those days two or three years ago. I was caught in rush-hour traffic; the elevator got stuck between floors; a heel came off my boot; my lunch sat at home on the kitchen counter while I ate peanut-butter crackers out of a vending machine; I got an obscene phone call, and the party on the other end hung up. And all this before noon. All I wanted to do was go home, prop up my feet, pop the cork on a bottle of wine and not even bother with a glass. And watch something inane on TV. Then my life was changed in the twinkling of a picture tube.

HE SUMMIT

100,

President Carter was on all three commercial stations. Now, I consider myself a good American. I stand up for the "Star-Spangled Banner"; I could probably remember the capitals of maybe 27 states; I cheat on my income taxes just like everyone else. So I watched for a while. Then it occurred to me that unless the CIA had my television set bugged, no one would know if I had watched the president or not, so I flipped over to the local public television station.

There was this woman singing. Now, that's not what my mother would have called it. I came from so far back in the hills of West Virginia that we didn't even get the "Grand Ole Opry" on the radio until Tuesday morning. But the announcer identified this woman as Joan Sutherland. I knew she was supposed to be good because I had a roommate once who told me so. I figured it would not hurt me to get a little culture.

Well, the more she sang, the more I drank. And the more I drank, the better she sounded. And I thought, "Well, this at least is not as bad as the music appreciation course I took in college." (We'd had to sit through something called *Carmen*. All I could identify with was the bull.)

After a while this large white handkerchief came out on stage with this gorgeous hunk of man tied to it. The audience was on its feet cheering. I removed my hand from the dial. And then he opened his mouth. I had never heard such sounds coming out of the mouth of a human being; I thought the wine had gone to my ears.

The next day I went to work proclaiming to everyone in sight that I was in love with Luciano Pavarotti.

nght Ideas

Buckyballs have a potentially adverse effect on the structure, stability and biological functions of DNA molecules.



Brain Morphing Technology Simplifies Movement **Disorder Treatment**

Tens of thousands of people who experience movement disorders associated with Parkinson's disease and a variety of other neurological conditions could benefit from a new guidance system that uses computerized brainmapping to improve an increasingly popular procedure called "deep brain stimulation" (DBS).

DBS has proven highly effective in treating movement disorders when standard drug therapies are not effective. Since the procedure's approval in 1998, the number of DBS operations performed has grown to about 3,000 annually.

But it is arduous, expensive, and therefore not widely available. More than 100,000 people a year could benefit from DBS to treat the tremor, rigidity, stiffness and slowed movement they experience as a result of neurological disorders ranging from dystonia to multiple sclerosis, Parkinson's disease to obsessive-compulsive disorder.

To improve the procedure, a team of electrical engineers and neuroscientists at Vanderbilt has developed a pilot guidance system that automates the most difficult part of the operation:

identifying the proper location to insert electrodes. To work, the electrodes must pass through small nuclei deep in the brain that are not visible in brain scans or to the naked eye. The researchers—writing in a special issue of the journal IEEE Transactions on Medical Imaging, published last November report that the new system can do a better job of identifying the location to insert the electrodes than can an experienced neurosurgeon.

"The biggest problem with the procedure is that surgeons cannot see the structure where they have to put the electrode, and as a result, they must spend a considerable amount of time searching for it," says Benoit Dawant, professor of electrical engineering, computer engineering, and radiology and radiological sciences at Vanderbilt, who is developing the guidance system in collaboration with Peter Konrad, assistant professor of neurological surgery and biomedical engineering.

The only way the target region can be identified is by its electrical characteristics. The surgeons must first insert a recording electrode and monitor the electrical activity of the neurons it touches. Sometimes they must remove and reinsert the electrode two or more times; sometimes they must insert three or four elec-



trodes at the same time to find the elusive spot.

"I tell patients that it is something like playing a big game of Battleship," says Konrad. "Like the game, you don't know where the target is until you've made a hit."

Each time surgeons reinsert the electrode, it increases the risk of brain damage. When surgeons decide they have hit the right spot, they implant a stimulating electrode and test

to determine if it reduces the patient's symptoms.

The operation can take as long as eight to 12 hours to place one electrode. Most patients require two—one in each hemisphere. "This is extremely rough on patients, who have to be awake through the surgery and have to be locked to the bed," says Konrad. "Anybody who performs this surgery appreciates the need to trim the procedure down to a shorter process." The computer-aided guid-

ance system compensates for variations in the three-dimensional brain structure of each patient, something that is very difficult for surgeons to do on their own. The system consists of a three-dimensional brain atlas that was built up by combining brain scans of 21 postoperative DBS patients into one using sophisticated computer-mapping methods. To predict the location of the target area in a new patient, the researchers map the reference atlas onto the patient's brain scan. When the neurosurgeons have used the system's predictions, they have hit the target area on the first insertion two out of three times, compared to one out of five times when working without it.

"We have reduced a two-day procedure down to five hours," says Konrad.

The researchers have begun to collect data on the effectiveness of the operations and will use that to refine their predictions. They also have set up a system that will collect electrophysiological data from the patients' brains during the procedure so they can add it to the brain atlas. And they intend to begin creating individual atlases for different conditions—Parkinson's, essential tremor, dystonia, etc.—in case the precise location of the neurological damage may differ.

The research was funded by Vanderbilt and FNRS, the Belgian Science Foundation.

Buckvballs: Please Do Not Immerse in Water

SOCCER-BALLshaped molecules known as "buckyballs" present prospects of revolutionizing medicine and the computer industry. Since their discovery in 1985, engineers and scientists have been exploring their properties for a wide range of applications and innovations. But could these microscopic spheres also represent a potential environmental hazard?

A study published last December in Biophysical Journal raises a red flag regarding the safety of buckyballs dissolved in water. It reports results of a computer simulation that find buckyballs bind to the spirals in DNA molecules in an aqueous environment, causing DNA to deform, potentially interfering with biological functions and possibly causing long-term side effects in humans and other organisms.

The research, conducted at Vanderbilt by chemical engineers Peter T. Cummings and Alberto Striolo (now a faculty member at the University of

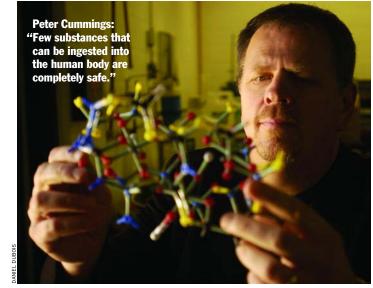
Oklahoma), along with Oak Ridge National Laboratory scientist Xiongce Zhao, used molecular-dynamics simulations to investigate whether buckyballs would bind to DNA and, if so, inflict any lasting damage.

"Safe' is a difficult word to define, since few substances that can be ingested into the human body are completely safe," says Cummings, the John R. Hall Professor of Chemical Engineering at Vanderbilt and director of the Nanomaterials Theory Institute at Oak Ridge National Laboratory. "What we are doing is looking at the mechanisms of interaction between buckyballs and DNA. We don't know yet what actually happens in the body."

But the research could reveal a serious problem. "Buckyballs have a potentially

adverse effect on the structure, stability and biological functions of DNA molecules," Cummings says.

The findings came as something of a surprise, despite earlier studies that have shown buckyballs to be toxic to cells unless coated, and to be able to find their way into the brains of fish. Before these cautionary discoveries, researchers thought that the combination of buckyballs' dislike of water and their affinity for each other would cause them to clump and sink to the bottom of a pool, stream or other aqueous environment. As a result, researchers thought



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Cummings' team found that, depending on the form the DNA takes, the 60-carbonatom (C60) buckyball molecule can lodge in the end of a DNA molecule and break apart important hydrogen bonds within the double helix. They can also stick to minor grooves on the outside of DNA, causing the DNA molecule to bend significantly to one side. Damage to the DNA molecule is even more pronounced when the molecule is split into two helices, as it does when cells are dividing or when the genes are being accessed to produce proteins needed by the cell.

"The binding energy between DNA and buckyballs is quite strong," Cummings says. "We found that the energies were comparable to the binding energies of a drug to receptors in cells."

It turns out that buckyballs have a stronger affinity for DNA than they do for themselves. "This research shows that if buckyballs can get into the nucleus, they can bind to DNA," Cummings says. "If the DNA is damaged, it can be inhibited from self-repairing."

Researchers don't know whether these worrisome binding events will take place in the body. "Earlier studies have shown both that buckyballs can migrate into bodily tissues and can penetrate cell membranes," Cummings continues. "We don't know whether they can penetrate a cell nucleus and reach the DNA stored there. What this study shows is that if the buckyballs can get into the nucleus, they could cause real problems. What is

needed now are experimental and theoretical studies to demonstrate whether they can actually get there. Because the toxicity of nanomaterials like buckyballs is not well known at this point, they are regarded in the laboratory as potentially very hazardous, and treated accordingly."

Loss of Virginity as a Rite of Passage

THE LOSS OF VIRGINity is a complex and relatively unstudied rite of passage addressed in a new book by Vanderbilt sociologist Laura M. Carpenter, assistant professor of sociology. Virginity Lost: An Intimate Portrait of First Sexual Experiences (NYU Press) is the first scholarly book on virginity loss as a social phenomenon.

During 18 months in 1997 and 1998, Carpenter, then a doctoral candidate at the University of Pennsylvania, interviewed 61 young adults aged 18 to 35 in great detail. Men and women from diverse social backgrounds were asked to share their personal stories in order to understand the variety of meanings and experiences associated with virginity loss.



"We all read and hear the statistics about at what ages men and women begin having sex, but it doesn't tell us what losing their virginity means to them," Carpenter says. "Nor do these figures tell us how teens and young adults made decisions about when, where and with whom to lose their virginity."

Though every story she uncovered was unique in its details, most of the people viewed virginity in one of three ways: as a gift, a stigma, or as a step in the process of growing up.

"Processers" seemed to have the most emotionally satisfying, healthy and safe experiences.

The well-being of "gifters" depended on having partners who reciprocated loving, appreciative feelings. For the women in the study for whom that did not happen, the result was not only disappointment—even devastation—but also a feeling of being deprived of sexual empowerment.

The "stigmatized" group reported mostly positive virginityloss experiences. Men who saw virginity as a stigma especially felt compelled to conceal their inexperience and felt particularly vulnerable to humiliation and disempowerment at the hands of female partners. Derided as virgins or sexual incompetents, three men in the study avoided sex long after losing their virginity. The intensity with which most in this group wanted to hide their inexperience, along with the circumstances and casual relationships in which many lost their virginity, also resulted in the lowest rates of protected sex in the study.

Carpenter suggests that viewing virginity as a rite of passage or step in the process of growing up is the most conducive to



physical health, emotional well-being and sexual empowerment. She says parents, policymakers, sex educators and others would do well to encourage young people—one-on-one and through public policies—to approach virginity that way. She believes her findings could be of help in developing sex-education programs.

Regardless of gender, Carpenter found, people who viewed virginity loss through the same metaphor—as a gift, as a stigma, or as a rite of passage—understood and experienced the act in very similar ways.

"Men and women are a whole lot less different than people think they are when it comes to how they view virginity loss," she says.

The 61 young adults who took part in her study included 33 women, of whom 22 self-identified as heterosexual, seven as lesbians and four as bisexual. Of the 28 men interviewed, 17 described themselves as heterosexual, nine as gay and two as bisexual. The group came from diverse racial and ethnic groups, social-class backgrounds and religious traditions. All but five were no longer virgins when Carpenter met them. She also sought to

interview secondary or bornagain virgins—people who recommit to abstinence, often after a religious awakening.

One man and three women she interviewed described themselves as current or former secondary virgins.

"Growing up in a context of uncertainty, diversity and change, young people benefit from being able to understand virginity loss in ways that help them fashion specific social identities and that bring them one step closer to adulthood," Carpenter says.

"Given these benefits, it makes sense to treat virginity loss as a significant and important life event; however, treating it as one of the most important sexual experiences of a person's life appears to carry real costs as well."

Mapping Orion's Winds

FOR THE PAST FEW months, Bob O'Dell has been mapping winds blowing in • the Orion Nebula, the closest stellar nursery similar to the one in which the sun was born. New data from the Hubble Orion Heritage Program, a major observational effort by the Hubble Space Telescope in 2004 and 2005, have given the Vanderbilt astronomer information to measure the stellar winds with unprecedented detail. He reported his early results in January at the annual meeting of the American Astronomical Society in Washington, D.C.

"Determining how stellar winds interact with the ambient material in stellar nurseries like Orion is a critical factor in understanding the process of star creation," says O'Dell, distinguished research professor of astrophysics.

All stars, including the sun, give off a stream of particles as they burn. In young, hot stars like those that form the "Trapezium" at the heart of Orion, this stream of particles is millions of times more dense and energetic than the solar wind. Newborn stars, which are still shrouded in thick veils of

winds in different parts of the nebula. By back-tracking older, more distant shock waves to their likely points of origin, the astronomer can also get an idea of how long major currents have been flowing.

"When you look closely enough, you see that the nebula is filled with hundreds of visible shock waves," O'Dell says. In his analysis, he has identified three different types of shock waves.



dust and gas, often eject gas and dust from their polar regions in narrow jets, rather than broadcasting them outward in all directions. When these stellar winds impact floating clouds of dust and gas, they produce shock waves that erode and shape the clouds in a fashion similar to the way in which terrestrial winds sculpt sand dunes. When they are strong enough, such shock waves also can compress the free-floating clouds of dust and gas, triggering the formation of new stars.

O'Dell is using these shock waves as celestial "wind socks" to plot the direction of these Bow-shocks are stationary shock waves formed by the collision of two steady winds and are excellent indicators of wind direction. They are present near the hottest stars in the center of the nebula where they show winds flowing outward at velocities of thousands of kilometers per second. They are also present in the outer nebula where they are produced by low-velocity stellar winds of tens of kilometers per second.

Jet-driven shocks are produced when narrow streams of gas and particles traveling at hundreds of kilometers per second pass through gas that is relatively stationary. Many shockwaves of this type in the nebula are produced by jets of material ejected by newly formed stars.

Warped shocks are jetdriven shocks located in areas where the ambient gas is not stationary but is moving in a cross current. This bends the jets and shocks into bow-like shapes.

Using these markers, the astronomer has mapped the outflow from two of the three regions of star formation in the nebula. Both of these regions, labeled "BN-KL" and "Orion-South," are located behind the glowing region of the nebula where the light from the central stars ionizes the outer layers of the parent molecular cloud. The specific objects that are producing these winds in the two regions are not visible to optical telescopes, but they stand out as hot spots in infrared images.

By tracking back the farthest shockwaves produced by these outflows, O'Dell has established that the winds blowing from BN-KL have been doing so for 900 to 1,100 years, while those from Orion-South have been going on for 200 to 1,500 years.

These observations were made during 104 orbits of the Hubble and provide the most comprehensive picture ever obtained of the Orion Nebula. The data will be combined with other Hubble and ground-based telescope observations to create a widely available archive for research scientists interested in this region, in addition to acting as a base for a detailed study that should provide new insights into the conditions required for creating stars like the sun.

A spotlight on faculty and their work

Common Ground

On the testy frontier of Christian-Jewish relations, Amy-Jill Levine finds a calling. By RAY WADDLE, MA'81

MY-JILL LEVINE, WHO teaches New Testament at the Divinity School and Graduate Department of Religion, knows her ancient languages—Greek, Hebrew, Aramaic. But she speaks modern "Christian," too. And contemporary "Jewish."

That is, she is multilingual in interfaith dialogue—a translator perched along the testy frontier of Christian-Jewish relations.

As scholar and lecturer, she's eager to help people talk beyond misconceptions and mutual incomprehension. She's also keen to expose anti-Semitism, anti-Catholicism, and other strains of religious hatred, one of today's fiercest obstacles to world peace.

Word is out about Levine's fluency. Reporters, pastors, rabbis and high school students keep her phone ringing, anxious to talk about flashpoint Mideast politics, or the sexual politics of Apostle Paul, or the intrigues of *The Da Vinci Code*.

"My agenda is to recover for the church the Jewish Jesus, and instruct the synagogue in what Christians are thinking," she says. "Christians need to know that Judaism is not 'legalism.' And I tell Jews it's not true that Christians don't care about good works. If I can stop the demonization of the person on the other side, and get a conversation going, then I've done my job."

Her skills come with the territory: Levine

is a world-acclaimed New Testament scholar, a teacher of future Christian ministers and teachers of biblical studies.

She is also Jewish.

That combination—plus her mastery of the field, a monumental work ethic, and a high-spirited sense of humor—keep her ever in demand as a visiting lecturer in local congregations, as a keynoter at colleges and national forums, and as an expert on CNN specials about Jesus.



Her vitae is 29 pages long (single-spaced).

"I'm a Yankee Jewish feminist who teaches in a predominantly Protestant divinity school in the buckle of the Bible belt," she offers as a self-description.

Working at that cultural-religious crossroads has become a calling. At Vanderbilt, Levine is the E. Rhodes and Leona B. Car-

penter Professor of New Testament and director of the Carpenter Program in Religion, Gender and Sexuality. She is currently editing the 14-volume Feminist Companion to the New Testament and Early Christian Writings series. Her essay "Jesus Who?" was included in Best Jewish Writing 2003.

She's also a hit on DVD and tape, having completed three lecture series for the Teaching Company's "Great Courses" audio and video catalog: "Introduction to the Old Testament," "Great Figures of the Old Testa-

ment," and "Great Figures of the New Testament."

She will go anywhere to speak about issues she is passionate about—Christian origins, the Jewish roots of Jesus, formative Judaism, interfaith understanding, social justice, feminism, biblical perspectives on sexuality, and exposure of (willful or unwitting) religious bigotry, including that among religious liberals who otherwise preach tolerance.

"I try to make the text more relevant and interesting and show how deep biblical interpretation can go," she says. "How do Jesus' parables work? They're

supposed to be edgy, but today they aren't. I try to recover Jesus in his Jewish context—a teacher provocative enough that people wanted to follow him, and edgy enough that people wanted to kill him."

Last year she trekked to the Philippines to lecture to Catholic seminarians, reli-

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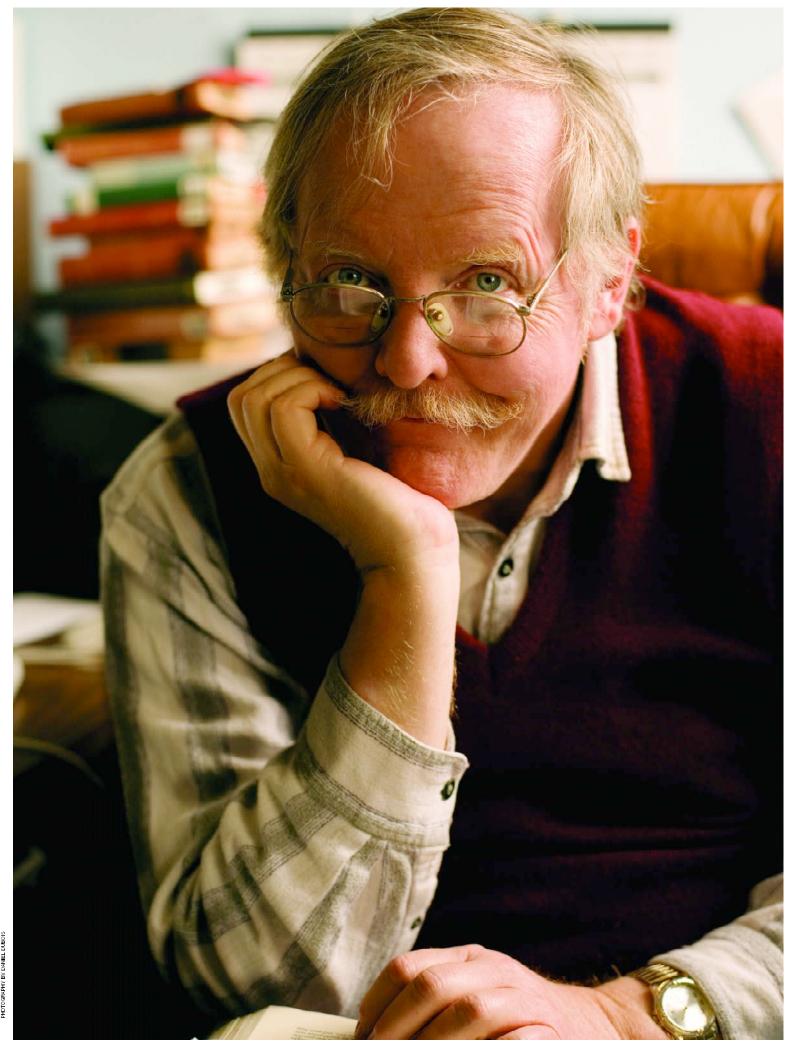
His upbringing was marked by poverty and isolation. But inside the ramsbackle farmhouse, a rich oral tradition fed a boy's imagination.

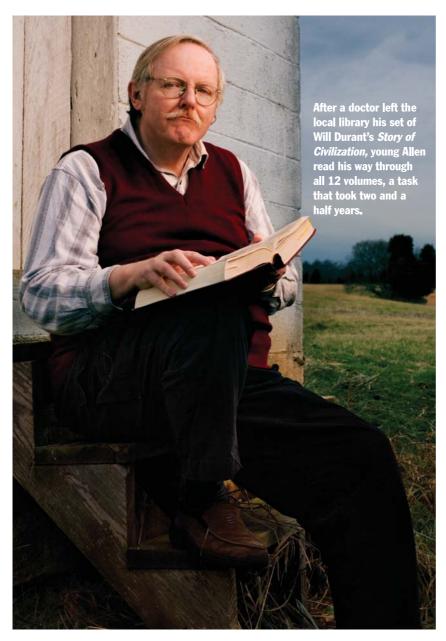
EDUCATION
ORDBERT
HOWARD
ALL

By Frye Gaillard, BA'68

There's a small framed portrait in Robert Allen's office, a bearded ances tor from the 19th century peering out across the clutter of the desk and the bookshelves crammed full of classical texts. It's hard to say which is more important to him—the musty hard backs of Tolstoy and Dickens, or the dark-eyed visage of Hosea Preslar, Allen's great-great maternal grandfather who preached against slavery in West Tennessee and s pent the Civil War hiding in a cave.

The truth of it is, all these symbols of his heritage and learning are so mixed together in Robert All en's mind that he probably couldn't separate them if he tried. All en is a poet, now living and te aching in East Tennessee, and his improbable story is unlike any other. He grew up poor in the hard-scrabble country northeast of Memphis, where the hills give way to the Mssissippi Delta, and until he entered college at the a ge of 32, he had never set foot in a school.





He was raised in a house full of aging relatives—his grandfather, a great-uncle and three great-aunts, including Great-Aunt Ida, a round-faced woman, gray-haired and blind, who was born in 1885 and was the self-appointed keeper of the family history. Hour after hour, he would listen to her stories, which she told with matter-of-fact precision, even though none of them had been written down. In the cumulative certainty of Aunt Ida's memory, there were heroes and scoundrels and people in between, and the old woman seemed happy to talk about them all.

"Aunt Ida fig-leafed nothing," Allen says. After a while he began to write it all down—the stories of pio-

neers and Tennessee soldiers who fought for the Union and adulteries committed in the haylofts of barns. He carried that legacy of family identity on his belated pursuit of a formal education, first to Bethel College in West Tennessee, where he received his undergraduate degree, and then to Vanderbilt University, where he earned his master's and his Ph.D.

He began writing poetry in the course of that journey, much of it about the members of his family, and he left some dazzled professors in his wake. "I thought he was a genius," says a teacher at Bethel. At Vanderbilt his adviser, Donald Davie, summarized Robert Allen this way: "He has the most single-minded appetite for learning of anyone I've ever taught. A good mind, yes, an extremely retentive memory, a very good sense of humor, all that; but the greatest thing is his unquenchable thirst for knowledge. The man simply can't get enough learning."

As Allen understands it, his thirst took hold in that rambling farmhouse in West Tennessee, last painted, he said, in 1909 and rented by his family for \$20 a month. It offered only the bare rudiments of shelter, and as the winter wind whistled across the Delta, it was easy for a boy growing up in such a place to find himself drawn to the flicker of the wood stove and the reassuring warmth of Aunt Ida's stories. There wasn't much formal education in the house. Aunt Ida had none, and his grandfather, James Ethridge Jones, was a farmer and carpenter who had never been to school and saw little reason why anyone should.

But there was a darker reason, talked about in whispers, for the old folks' decision to keep the boy at home. Robert's parents had been involved in a nasty divorce, his mother running off with a traveling shoe salesman, and the boy's new guardians were afraid the father would come back one day and steal him from the school yard. There was some wrangling for a while with the local school board, producing an agreement that Robert simply would be taught at home. A teacher did come to his house on occasion, but the arrangement didn't last, and after six months or so, says Allen, "I just sort of fell through the cracks."

By the age of 12, he had taught himself to read, mostly through the medium of comic books, and his horizons began to grow a little broader. His original introduction to the outside world came from a warm

and familiar source, the family Bible that he began to read to Aunt Ida in the evenings. They started with Genesis and worked their way through, proceeding at the rate of five chapters a night, and they were startled sometimes by the stark humanity of the biblical characters—the kings such as David, insatiable in their sexual appetites, but caught up also in that heroic odyssey of the Hebrew people.

To Robert Howard Allen, it sounded a little like the story of his family, all those people Aunt Ida talked about, who had made the journey across the Tennessee mountains looking for a place where they could build a better life. More and more in his teenage years, he felt himself drawn to nearly any kind of story. Most nights in the sanctuary of the farmhouse, he would ply his aunt for everything she remembered, and at least a couple of times a month, he made the four-mile trek to the Carroll County Library. The librarian there was a middle-aged woman by the name of Pearl Harder, who saw

Innocents Abroad. And then came the day when a prominent doctor in Carroll County died, leaving the library his 12-volume set of Will Durant's *Story of Civilization*. Allen decided to read the whole thing.

"It took me two and a half years," he says, "but I read all of it and retained a lot of it. Even today, off the top of my head, I could probably write a small book on the history of the world."

And so it was that for young Robert Allen, living without any friends his own age, his books and his family and a county librarian made up the expanding boundaries of his world. By sometime late in his teenage years, he had turned his hand to writing stories of his own—journal entries first, written in a flowing, old-fashioned script his grandfather had taught him. But the world of poetry called to him early, and by his mid-20s he was sending submissions to prestigious journals, unaware of the odds that were weighted against him.

When his work was accepted, he took it in stride.

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His introduction to the outside world came from the
Bible he read to Aunt Ida in the evenings. They started
with Genesis and worked their way through, startled
sometimes by the stark humanity of the biblical characters.

great promise in such an eager young mind, and for Robert Allen, she became his fellow pilgrim in the world of greater learning.

"In many ways," he says, "she was a typical librarian, but not the kind to shush an eager child."

Among other things, she introduced the boy to the collected works of William Shakespeare, a well-worn volume that became more so in Allen's eager hands. He read everything—Hamlet, Romeo and Juliet —but his favorites, he discovered, were less conventional. He loved King Lear and The Tempest, and when he read Mark Twain, it was not The Adventures of Huckleberry Finn that captured his fancy, but rather the hilarity of

"That just seemed like what ought to happen," he says. "The purpose of the journals was to publish people's poems." And whatever his relative level of inexperience, he had studied the work of Longfellow and Yeats, Shakespeare and Poe, and he thought he understood what they were doing. Not that he saw himself as Shakespeare. But the intertwining power of eloquent language and a captivating story was now the primary passion of his life.

Pearl Harder, among others, couldn't help but be impressed. "I identified with Robert," she said. "He was his own person, unassuming, but very bright, and with a keen sense of humor. I knew he was exceptional." In addition to his mind, she told a journalist in 1988, she was impressed by the dignity of Allen and his relatives, who sometimes came to the library with him. "Poor, but not ashamed," she said. But she couldn't help worrying that the young man's brilliance inevitably would be cramped, circumscribed by the peculiar isolation of his family. She thought it was time for him to go to college.

She talked to Robert about it off and on, and sometime late in the 1970s, he said he began to think about it, too. He was pushing 30 by then, working as a handyman and upholsterer, and when a recession hit hard in Carroll County, drying up his work, he decided he needed to do something different. Bethel College was

At a young age Allen began submitting poetry to prestigious journals, unaware that the odds were against him. When his work was accepted, he took it in stride. "That just seemed like what ought to happen."

just a few miles away, a little Presbyterian school that had opened its doors in the 1840s. After taking his high-school equivalency test and passing easily, Allen decided he might as well apply.

He came to Bethel in 1981, and both he and his teachers say it was a jolt. "He was pretty lonely," remembered philosophy professor William Ramsey, "and lacking in social graces." And English professor Bill King added, "He's just not like anyone else—and no one is remotely like him."

Allen himself more or less agrees, and in his memories of his early days at Bethel, one occasion in particular stands out in his mind. He was talking one day with a fellow student, a young man who was studying to go into the ministry, who seemed to be brighter than some of their peers. Having read the Bible from cover to cover, and having studied other works, including John Milton's *Paradise Lost*, Allen was eager for a conversation of substance.

"What do you think of Milton's theology?" he asked. For a moment, the ministry student stared at him blankly, then finally answered with an uncertain shrug. "Milton who?"

For Allen, it was not a moment that made him feel less awkward, for it was a reminder of the chasm between himself and his peers. But it did make him feel as if he might be prepared. Like any college freshman he had wondered about it, and perhaps at first even more than many others. School, after all, was completely new to him. But he threw himself into the process of learning, just as he had as a teenaged boy, and without any trace of self-consciousness or pride, he began to show what he could do in class. Having tested out of freshman English, he took a literature course under professor Bill King, and one day when the conversation turned to poetry, he stood and recited Thomas Gray's "Elegy Written in a Country Churchyard"—every word of it, without missing a line.

Let not Ambition mock their useful toil, Their homely joys, and destiny obscure Nor grandeur hear with disdainful smile The short and simple annals of the poor ...

In 1984, at the age of 35, he graduated after only three years, summa cum laude at the top of his class. He shared the graduation stage with commencement speaker Al

He shared the graduation stage with commencement speaker Al Gore, then a U.S. senator. Cameras from 60 Minutes arrived—not to focus on Gore, but instead to do a piece on Robert Howard Allen.

Gore, then a U.S. senator. Cameras from *60 Minutes* arrived— not to focus on Gore, but instead to do a piece on Robert Howard Allen. The award-winning Southern journalist John Egerton also profiled Allen about that time, and summarized his story this way:

"It's not often that middle-aged poor people finish college at all, let alone as classical scholars leading the academic procession."

But as the years would reveal, Robert Allen was just getting started.

llen left Bethel College for Vanderbilt to work on his master's in creative writing. By then he had already started on a project more ambitious than anything else he had done. He wanted to write down the story of his family—the journey that began in North Carolina, back around the time of the American Revolution. It was a brutal time, as Allen understood it. In the South, especially, it was neighbor against neighbor, people forced to choose between competing imperatives—loyalty to the king, a long-held value among British subjects, and the great, intoxicating notions of liberty.

Allen's ancestors were peaceable people, caught in the gathering fury of that choice. They fought when they had to, for after a while, there was no way to avoid it, but eventually they decided to move west. It was Allen's ambition to document that journey in verse, expanding on the power of Aunt Ida's stories. He relied in part on the example of the Bible. He had been reading the Old Testament one night, he said, first the Psalms and then the Book of Samuel—the psalms containing the poetry of King David, and Samuel a narrative account of his life. Allen decided to try to do both, to write the narrative of his own family's odyssey, deliv-

ered with the lyricism of a poet.

At Vanderbilt, as he worked to find his own writer's voice, he came under the tutelage of Donald Davie, one of the great elder statesmen in the English department. As Davie's colleague Vereen Bell later put it, "Davie was English, a very distinguished poet of his generation, and a really important literary critic. He came to Vanderbilt after being at Stanford, and he was classically educated, which was something that he and Robert Allen shared."

As Allen was working on his master's thesis, he gave Davie some of his poems to read. They came back to him with a note in the margin: "This won't do!"

"And he was right," says Allen today, smiling his wry and enigmatic smile. "What he was trying to get me to see was that I was imitating writers I admired. His point was that I had to be original. What do I know that no one else knows?"

That question marinated for a while, as Allen earned his master's degree and then his Ph.D., with a dissertation on William Butler Yeats. In 1990, with those milestones behind him, he started working more deliberately on the book he decided to call *Simple Annals*, taking the title from the poetry of Thomas Gray. At this point, he says, he knew he was ready.

The family stories beckoned more powerfully than ever, and at the age of 41, he was more his own person as a writer and a man. But most of all, his poems were beginning to take on a shape, not only individually but as a group. He began his collection with "Elias Butler," an epic reminiscence about an early ancestor, who went to war reluctantly against the British king. A few poems later, there was the story of Rebecca Singleton Thomas, a Civil War-vintage relative who, by the sheer, improbable power of her defiance, cowed the

Rebel soldiers who were threatening her farm. But in addition to these heroic accounts were memories of degradation and tragedy—for example, the story of Nate, a black man lynched in West Tennessee for the simple crime of loving a white woman.

In that poem, Allen let his imagination run free— "as is every poet's right," he says —and he wrote about the star-crossed lovers with all the gentleness he thought they deserved.

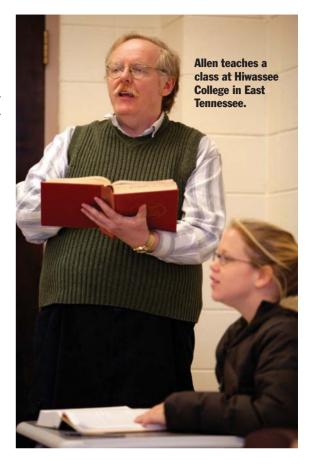
Tell the story: a love story;
Tender touched the lovers, proper as spring;
But death was the ending of it.
For loving,
Oh, for weeping in secret and longing
When the fat red sun
Lumbered to rest,
For the caring and the dreaming,
Standing with his hoe
In the weedy corn.

For that Death.

hen Simple Annals came out in 1997, published by the distinguished press Four Walls Eight Windows in New York City, there were those who compared it to Spoon River Anthology. But the reviews in the end were few and far between, and the sales, says Allen with a winsome smile, "might charitably be characterized as modest." And so it was that in the chilly and unpredictable world of publishing, Allen's great literary labor of love appeared and then quietly slipped away, leaving barely a trace. But Allen seemed to know, as good writers do, that this was not a reflection on himself. The stories were there, and there was art in the telling, and so he simply went on about his life.

He turned his attention, in part, to writing plays, including one soon to be staged at Murray State University, telling the story of a family maverick who built a cabin for his mistress within a stone's throw of the one for his wife. He also has written a work of scholarship, *The Classical Roots of Modern Homophobia*, to be published this year, which traces the prejudice against homosexuals from the time of the Roman Empire forward.

In that particular book, he was returning to a subject



he had taken on before, when a mainstream publisher, having seen the segment on 60 Minutes, asked him to write his autobiography. He wrote it as he thought Aunt Ida would have wanted, "fig-leafing nothing," including the difficult matter of his own sexuality. But as one of his Vanderbilt advisers later noted, this was not what the publisher had in mind, and in the end the manuscript was rejected.

Allen, as always, took it in stride and simply pushed ahead as a writer. It seemed there was always a poem or a play, and often something larger, taking its inevitable shape in his mind—and he also found new rewards as a teacher, seeking to impart his own love of learning to the diversity of students who passed through his classes.

He left Vanderbilt to return to Bethel College, a professor this time, and from there he moved to Murray State University and then to the University of Tennessee-Martin. Four years ago he made the trek eastward to Hiwassee College, a Methodist school built in the 1840s in the rolling foothills of the Great Smoky Mountains.

On Tuesdays and Thursdays you will find him in his classes, Freshman Composition and British Literature, orchestrating far-flung discussions that range from the shooting spree at Columbine High School to the iambic pentameter of Alexander Pope. At 56, with his tuft of a beard and his wire-rimmed glasses, he looks the part of a lifelong scholar, his seriousness tempered by a dry sense of humor his students seem to love.

"He's a lot of fun," says Josh Debity, one of his Brit-Lit students. And Ashley Wise, a sophomore English major agrees. "I love Dr. Allen's classes," she says. "Normally, there are some pretty heated discussions, some really good arguments about all sorts of things."

Allen seems to feel the same affection for his students, especially those who are eager and bright. "I've had my share of good ones," he says.

One night in his office just before Thanksgiving, he settles back in his chair and reflects on the various ingredients of his life. His Civil War ancestor, Hiram Preslar, stares down from the wall, a flinty-eyed man in a Wal-Mart frame, an apostle of abolition in the South.

"This is his book," says Allen, pulling out a hardback volume from the classics. "It's a book about slavery, but it's also partly an autobiography." He stops for a moment, thumbs through the pages, and then returns the book to its place on the shelf. He knows, of course, that it was much like his own, not famous or commercially successful in its time—but the writer's reward is not a short-term thing.

He had learned long ago, in the rambling old farmhouse back in Carroll County, that there was meaning simply in handing down the story. It was a curious way to grow up, he admits, lonesome at times, but he was surrounded by members of a family who loved him and, more than that, who knew who they were. They had kept alive a history of pathos and grace, and they had given their blessing when he began to expand it when he made those treks to the Carroll County library and filled his mind with the knowledge it contained.

"It was a good beginning for a poet," he explains. "I couldn't have asked for anything more."

As the conversation winds down, he shuffles through a handful of papers on his desk, then locks up his office and shuts out the light. He nods goodnight to a student in the hall, and again reaffirms the quiet and lasting satisfactions of his work. Barring anything unexpected, he says, he plans to stay at Hiwassee for a while-writing his poems, teaching his students—doing what he thinks would make the old people proud.

Going Home

By Robert Howard Allen

The wind in the pine trees is lonelier than I can stand; It wants my arm on its shoulder, my tears Mixed forever in the rain. I will go back.

The mountains' gesture on the horizon undoes me, As though their proud stone hearts unsaid The "Be thou" of God that is me. And when I think The words the pine trees find in the wind will wear down

The face of the mountains Watched by the merry stars, then my time, With a love or without, is nothing. I will go back.

Back to rooms where there are ticking clocks, And friends, and tea on Friday afternoons.

The desolate graves in the woods, Marked with uncut stones, where all my fathers sleep Tell me in the nights that the lichens Are gnawing at my name.

And in the country churches beside them,

Old men with broken voices

Sing like wagons rolling on stony ground,

And, the word is not worship,

But dread, God of Calvin.

Who makes me doubt

If all my love could move one mote,

Eternal as a star sinking in the sunrise. I must go back.

To the miles of silent bookshelves,

And the streetlights that dome the city with glare

Safe from the killing hail

Of blue, eternal stars.

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SCIENCE



FRICTION

Creationists are pushing intelligent design in the classroom.

Scientists are pushing back.

among Europe's leading thinkers over the question of whether the world as it existed was the best of all possible worlds. This debate revolved around such enduring issues as the role of evil, possible limitations on the Divine powers, human ability to understand God's hidden plan through critical analysis, and why the world was created as it is. Points of departure not only were traditional religious doctrine, but also growing scientific insights into the workings of nature. First and foremost was the view that an invisible force played a critical role in ordering the universe: the law of gravity. Equally revolutionary were the era's emergent disciplines of botany, biology and comparative anatomy. The physical world became multiple, diverse and changeable. It was governed by unseen laws.

German mathematician and philosopher Wilhelm Leibniz added fuel to the best-of-all-possible-worlds debate. The world as it currently exists, he reasoned, does not tell the full story because without the possibility of change beyond prescribed boundaries, it would limit God's potential as Infinite Creator. The principle of plenitude, Leibniz argued, mandated an accounting of potentially different worlds, different species and different types. Each thing in the constituted world had value and the right to realize its individual value fully within the system to which it was attached. This world he declared to be the only one that could ever conceivably exist because it allows for change and for the growing perfection of the parts and of the whole.

While not yet within the realm of a Darwinian theory of evolution, Leibniz's version of "intelligent design" clearly points forward toward evolutionary and co-evolutionary theory. The human mind he then likened to the mind of God, the realm of eternal verities. Human understanding is designed to explore without hindrance how the world functions, the place of humankind in it, and the role that reason plays in advancing God's ultimate design.

Much has been written on the subject since 1700. What Leibniz had to say about diversity, plenitude, interacting subsystems, possible worlds, and the creatively analytical thrust of human understanding as a god-like operation retains

its value for examining the relationship between critical inquiry and religious belief within the context of institutions of higher learning 300 years later.

Last fall I served as organizer and moderator for a panel discussion at Vanderbilt addressing the role of reason and faith in the pursuit of science and understanding the place of humanity in the world. I invited Father Edward Malloy, PhD'75, president emeritus of the University of Notre Dame, to join Vanderbilt faculty from several disciplines in the discussion, in which participants were asked to address, either directly or indirectly, the current battles over evolution prompted by advocates of intelligent design. Not surprisingly, given recent media attention to the subject, a standing room-only crowd turned out.

The event was sponsored by the Vanderbilt University Faculty Senate, the Center for the Study of Religion and Culture's Project in Religion and Science, and the Metanexus Templeton Research Lectures in Religion and Science program at Vanderbilt.

Included here are edited versions of the five panelists' remarks. Each was free to view the constraints, challenges and opportunities posed by the intersection of religion and critical inquiry from her or his own perspective.

 John A. McCarthy, professor of German and comparative literature and chair of the Vanderbilt Faculty Senate

Randomness Followed by Selection Is the True Genius of Creation

By Wallace LeStourgeon Professor of molecular biology

am one of many biologists who fears that someday, nonscientists and politicians will tell us what science really "is" and exactly how science should be taught.

I'll start by describing the day I fear might come true: In this scenario I am halfway through the semester, teaching advanced molecular genetics to a class of 60 students—bright young women and men who have studied the sciences for many years. They hope to someday use evolutionary principles to defend us from pandemics and to develop genomic therapies for diseases we cannot treat today.

Imagine on this day I say, "Students, today we are going to learn the truth. First, you must forget what you have learned in physics and in chemistry. You must forget what you have learned in geology and about plate tectonics. You must forget what you know about the fossil record. You must forget astronomy. You must forget all you have learned in biology, biochemistry and especially genetics.

"The truth is this: Everyone in this room and everyone on the face of the Earth today can trace their ancestry to a man named Noah. And according to some of the people who claim to know about Noah, he lived about 4,000 years ago.

"So, students, what we know about genetic diversity in humans must be some kind of mean trick because Noah's children's children would have had to mate among themselves for generation after generation after generation. Yes, I know, this is inconsistent with the existence of the Chinese, and the Africans, and Europeans, and Aborigines. But the truth is the truth."

My predicament as a biologist is that, if limited to this so-called truth, I might as well teach that the earth is flat. As



a biologist, when I hear people talk about intelligent design, my first thought is how little they know about the molecular mechanisms of life.

I could point to seeming mistakes like male nipples, or a little thing called an appendix, or the fact that humans' lower backs are not well designed to support our thoracic weight, or the fact that like other mammals, our internal organs are suspended from our backs. But I'd like instead to offer the example of the piloerector muscle.

Every hair on the body has a small muscle attached just under the skin. It is called the piloerector muscle. Each piloerector muscle is innervated by a neuron from the sympathetic nervous system. If I place a mouse or a chimpanzee outside when it is freezing, the hair will fluff up and it will not freeze to death. That is the piloerector muscle at work.

My predicament as a biologist is that, if limited to the so-called truth of intelligent design, I might as well teach that the earth is flat.

The same thing happens if I stand out in the cold: Every hair on my arm will stand up, and I will see goose bumps caused by contraction of the piloerector muscles. But I am not warmed by the hair standing up on my arm, and I will freeze to death. Does that sound like an intelligently designed system? It just doesn't work. Think of all the wasted genes, wasted enzymes, wasted muscle energy, wasted nerves—a total waste.

Evolutionary theory predicted long ago that as generations pass through time, we retain our ancestral genes. In other words, the major mechanism of evolutionary change is gene over-duplication followed by divergence. This is now confirmed in the sequenced genomes of both humans and chimpanzees. We can look directly at how our genes and the genes of chimpanzees are organized and evolved in our chromosomes.

Scientists want evidence, we want facts, and we want to understand the how and why. Without this kind of knowledge, there is nothing we can do to design new therapies.

Here is an example of randomness followed by selection at the molecular level, another example of an inefficient system that questions the argument that all life is designed by an intelligent creator: The biochemical conversion of the compound lanosterol to cholesterol takes 19 high-energy reactions. The entire process consumes massive amounts of energy. The end product, cholesterol, differs from lanosterol only by a couple of protons and carbon atoms. Today a good organic chemist could convert lanosterol to cholesterol in about six reactions. So not only is this an example of random reactions, but it does not seem especially intelligent.

I could provide hundreds of examples of life depending on random events followed by selection. DNA replication is totally dependent on this process. The point is that many millions of years ago, animals that could make cholesterol had enhanced survival value. Any mutation that inactivates any of these 19 enzymes is lethal. This is the mechanism of genomic conservation: Animals that can make cholesterol survive, and those that do not can't survive.

Even at the molecular level of life, we see clear examples of randomness followed by selection. It is the true genius of creation. It not only led to the origin of life on this planet, but it continues to create today. From this biologist's perspective, evolution based on randomness and selection is the best argument today of an "intelligent design."



Every Pursuit of Truth Is a Potential Path to God

By Father Edward A. Malloy, PhD'75 President emeritus, University of Notre Dame

ast summer when the Vanderbilt Board of Trust, of which I'm a member, gathered in Colorado, we had the opportunity to hear presentations by a number of faculty members. It gave us an appreciation of the cutting-edge research going on at Vanderbilt and also helped us recognize how difficult it is to find a common language by which we could interact and ask appropriate questions. The more specialized the research, the more difficult it is to communicate even to colleagues, let alone enlighten a broader audience.

I believe in a unified theory of knowledge that presupposes that every form of inquiry, whether highly sophisticated or not, has value in and of itself. To use theological language, every pursuit of the truth is a potential path to God, wherein the discovery of beauty can illuminate the wonder and brilliance of God's creation. To make a claim like that is not to assert that at any given moment, any one of us as particular limited human agents can fully compre-

No matter what our path of inquiry, whatever our level of confidence about the truth we've discovered, we should have a humility about other paths to the same reality.

hend the full nature of the integration of that knowledge, or even the particular path that we're pursuing at the time.

Much of human history is taken up with efforts within particular faith traditions to account for the creative order, to ascribe creation to a kind of agency, and to give that agency a name. It is an effort to recognize in the unfolding of history a sense of time and a sense of development that accounts for the future—either in hope or despair.

One part of that inquiry is a preoccupation methodologically with the created natural order, the social structures within which human life takes place, and all the subdisciplines by which we account for things.

When I was a sophomore undergraduate at Notre Dame, I remember taking a philosophy course in which I read a book that introduced me to the "nothing but" fallacy—the idea that all of reality is reducable to economic dynamics, to some psychological perspective, to the biological workings of the human organism, or something else. It has always seemed curious to me that, in the history of ideas, when someone is considered a genius in one realm of understanding, that same person is often thought of as all-encompassing, like the old Renaissance scholar. The assumption is that one human agent can be so wise in all things, in knowledge and in wisdom, that he or she alone among all human agents has something special to say. Albert Einstein, for example, one of the greatest physicists in human history, had attributed to him an understanding about other areas of human inquiry that seems in retrospect utterly naïve.

A perspective that I find helpful is the question, What is a door? If you ask that question of an architect, or a carpenter, or a poet—you can fill in the blank—each will give you a different understanding of what a door is. Some answers will be symbolic or indirect, appealing to a different dimension of human perception. And each can be appreciated on its own terms without necessarily being contradictory.

Those of us who are not scientists, for example, need to be open to the very best understanding of the world as we know it, according to the methodologies and tools available to us at a given time in history. If you were to go on an archaeological dig to someplace like the Mid dle East and you visited a tel—the mound that results from people living on the same site for hundreds and thousands of years—you would find that archaeologists cut into it at an angle. They know that in the future there will be more sophisticated ways of trying to unpack the nature of the civilization that lived there at different times in history. It's an implicit recognition of the limits of what we know today.

It seems to me that no matter what our path of inquiry, whatever our level of confidence about the truth we've discovered, we should have a humility about other paths to the same reality. There is, in addition to a pragmatic sense of things, a mythic sense of realitythat appeals to something in human nature, whichreligious traditions have provided.

"Mythic" is not to say false. It's simply another way of trying to come to grips with the complexity, the beauty and the won der of things.

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While I are

I 'm passionate about what I do, and I appreciate the passion, dedication and training required in order for the scientific community to discover ever more about the world in which we live. But I would caution against an excessive level of confidence or a predisposition to think that one's path to the truth is the only relevant or credible point of discovery of the beauty and the wonder of the world around us.

Intelligent Design: Unbiblical and Unscientific

By Douglas A. Knight Professor of Hebrew Bible and director of the Center for the Study of Religion and Culture

will begin my examination of the notion of "intelligent design" by asking why the word "intelligent" is used. Is it an anthropom orphic projection? In a sense, it appears as a narcissistic inversion of the notion of the "image of God"—that if humans are made in God's image, and if humans are intelligent, then God must be intelligent as well. The problem is that it doesn't logically follow. Does one want to accept that all otherattri butes of humans, such as various limitations or malicious intents, a re also attributes of God?

While I am no theologian, it strikes me that orienting the concept of a deity to a human attribute must be theologically suspect. The Hebrew Bible, it is true, does associate wisdom with God, although the Hebrew word for "wisdom" is in many instances also used to designate a practical human skill—for example, being skillful in building (Exodus 31:6), in conquering other lands (Isaiah 10:13), in keening (Jeremiah 9:17), or in advising a mon arch (2



Samuel 20:16). When wisdom in the Hebrew tradition is attributed to God, it generally denotes an understanding of the deeper workings of things, at a level not known to humans unless God reveals it to them.

Wis dom is present with God when the universe is being created (Jeremiah 10:12; Psalm 104:24). However, in the Hebrew Bible creation is not a matter of devising an evolutionary scheme but of establishing order and coherence where on ce there was chaos—separating light from darkness, dry land from the seas, birds from sea life, large animals from small, man from woman, the Sabbath from

Is the Supreme Being all-powerful but not fully good?

Or tho roughly good but not powerful enough to suppress all that is destructive and evil?

the rest of the week. An orderly world, so seems to be the message, is a more manageable place for humans to live.

Yet, dissent on this point is also expressed. Job protests that the system of just deserts hasn't worked for him. Ecclesiastes doubts that we can realistically understand very much about the workings of the world, so it's best to follow a course of moderation in all things, even in the practice of religion: "Do not be too righteous, and do not act too wise; why should you destroy yourself?" (Ecclesiastes 7:16).

Intelligence and wisdom are not identical. Wisdom has to do with judiciousness, skill, considerable experience in some field, contemplation, insight and understanding while intelligence corresponds more to knowledge and reasoning. Why didn't the ID folk use the term "wise design" instead of "intelligent design"? Are we suppose dto imagine that the world was the result of a supreme being with a perfect IO score, however high that might be?

My second point has to do with intelligent design as a

When John T. Scopes Came to Peabody

n April 1, 1970, I reported to work as I always did, with intermingled feelings of boredom and dread, taking my seat in the claustrophobic office I shared with 16 teletype machines. Fred Moen, czar of the Associated Press in Nashville, noted my arrival and shouted instructions above the clatter of the news: "Gaillard! John T. Scopes is speaking at Peabody. Get out there and do an interview."

I must have stood frozen for nearly a minute, trying to take in what he had said. I couldn't have been more stunned if he had told me to interview Abraham Lincoln. John T. Scopes. Was this some kind of April Fool's joke? As a history major fresh out of Vanderbilt, I knew a little about the famous "monkey trial"—the trial of the century, many people said—and 45 years later, that description still seemed to apply.

But was it possible that Scopes was still

alive—that this biology teacher from Dayton, Tenn., this apostle of science and academic freedom, was still a living, breathing human being? The answer to the question turned out to be yes, for there was Scopes on the Peabody campus—a twinkly-eyed man then 70 years old, with thinning gray hair and a dark, rumpled suit, speaking to a group of biology students.

It was his first appearance in a Tennessee classroom in 45 years—one of four appearances he made that day, followed in order by a luncheon with the president and leaders of the college, a press conference, and a final lecture to an overflow crowd at one of the auditoriums on campus. Until I went back and looked up the clippings, I couldn't remember very much of what he said, just the dominant impression he made, not only on me, but apparently on everybody who heard him.

He was self-deprecating about his role in the trial, seeing himself as a bit player in history. "I did little more than sit, proxylike, in freedom's chair that hot, unforgettable summer," he had written. "No great feat, despite the notoriety it has brought me."

To many of us that day at Peabody, Scopes' humility took us by surprise, though I'm not quite sure what we were expecting. Maybe Clarence Darrow or William Jennings Bryan.

The flamboyant Darrow was known as the greatest trial lawyer of his day, folksy and caustic, defender of the leaders of organized labor and criminal defendants nobody would touch. He came to Dayton to defend John Scopes, but more than that to attack the foolishness of fundamentalism, that pernicious doctrine, as he understood it, that was an affront to the intellect and common sense. In Darrow's view, nowhere was fanaticism more apparent than in Bryan's crusade against the theory of evolution.

Bryan, meanwhile, was regarded by many as a national treasure—a former presidential candidate and secretary of state, who had campaigned for peace, women's rights, and economic justice for American workers. He was also a deeply religious man who had aimed his

eloquence, in the latter years of his life, at the issue of evolution.

Partly, he simply had doubts about the science, but in the survival-of-the-fittest theories of Charles Darwin he perceived a cruel and dangerous understanding that was already being used in human society to justify the oppression of the weak.

He had come to Dayton as a special prosecutor, and with Darrow as lead attorney for the defense, John T. Scopes was the man in the middle. At the age of 25, Scopes was a popular first-year teacher, hired in Dayton to teach mathematics and coach football. He wasn't even sure he had taught evolution, though he had spent a few days subbing for a biology teacher who was ill, and thought he must have touched on it somewhere.

In any case, he was offended by the new law in Tennessee, passed in March 1925, making it a crime "to teach any theory that denies the story of the Divine Creation of man as taught in the Bible." As Scopes made clear, both at the time and during his later visit to Peabody, it

was not the theory of evolution that concerned him, so much as the freedom to teach and to learn.

"Education is something that is to mold the individual," he told his student audience at Peabody, free from the "contamination of state interference."

His depth of feeling seemed to be undiminished, despite his self-imposed absence from the classroom. He had made the decision right after his trial (a conviction followed by a \$100 fine, later overturned on a technicality) that he wanted to step back from the evolution limelight. He pursued a career as a man of science, an oil company geologist prospecting for a time in the jungles of South America. But his stand for academic freedom was not a fluke.

At his Peabody press conference, he declared his pleasure that the law he had challenged in 1925 had finally been repealed in 1967. "Better late than never," he quipped. But he also seemed to understand clearly that the issue was likely to come up again.

As he had written earlier in his autobiogra-

phy, "The cause defended at Dayton is a continuing one that has existed throughout man's brief history and will continue as long as man is here. It is the cause of freedom for which each man must do what he can."

He said essentially the same thing in Nashville, and Steve Smartt was one of the students who heard him. Smartt was president of Peabody's student government (today he is Vanderbilt's assistant provost for graduate education and research), and he served that day as Scopes' student host, marveling at the gentle humility of the man, but also at the passion that still seemed to burn.

It was a feeling that many of us shared that day. And looking back on it, it seemed appropriate that in one of the last appearances Scopes would ever make (he died unexpectedly the following fall), he would stand before a group of future teachers and defend, as he had much earlier in his life, what Steve Smartt called "the fundamental right of man to ask questions."

-FRYE GAILLARD, BA'68

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substitute for God. "In telligent design" is not a biblical notion, nor is it a doctrine in the history of theology. Rather, something devious is afoot, and it does n't take a very suspicious mind to sense it. Choose your own imagery: smoke and mirrors, under the radar, Trojan hors e. It is a deliberate effort to circumvent the Constitution's protections and the Supreme Court's decisions regarding the First and the 14th Amendments.

It's naïve to suppose that, for its proponents, intelligent design doesn't imply intelligent designer—a supreme being that is effecting the design work. The next question is obvious: Which god, or whose god? Or for that matter, which gods? There's nothing in the phrase "intelligent design" that requires there be only one divined signer.

The religions of the world are filled with creator deities. Each was immensely important for the religionists who worshiped them. I su ggest that wherever intelligent design is taught and a su preme "designer" is discussed, any and all of these great deities deserve equal billing with the Christian God.

Finally, there is the fundamental problem of theodicy—reconciling a benevolent and omnipotent God with reality. What about natural disasters, cancers, the bird flu, the meanness of many humans? Are all of these phenomena, plen ti-

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fully evident in the history of the world, also the result of "intelligent design"? Or are they design flaws?

Is the Su preme Being all - powerful but not fully good? Or thoro u gh ly good but not powerful enough to su ppress all that is de s tructive and evil? It's an ancient dilemma, experien ced by most of us at one time or another in our lives. A common manner of resolving it is to adopt a dualistic view, whereby good and evil are played off a gainst each other—for example, by picturing God vs. Satan in constant battle.

Yet, even this approach leaves the ultimatequestion of theodicy still open. In telligent design tends to downplay this importance of the meaning, purpose and morality of the universe, em phasizing instead that the world and all life a re simply crafted in an "intelligent" manner. Why, however, are the realities of the world presented so call ously and remotely? Ratherthan advance the abstract notion of "intelligent design," why not propose the concept of a "just design" or a "compassionate design"?

The notion of intelligent designis, I would argue, unbiblical, undear, unhelpful, uninformed, unscientific and, quite likely, unconstitutional.

Science Is a Living Enterprise, Not a Finished Book

By Lenn Goodman Andrew W. Mellon Professor of Humanities and professor of philosophy

vo lutionists need not get defensive and circle the wagons over intell i gent design. Instead, we need to delve into it and understand the motives of those who make the argument for teaching intell i gent design. I think the issue offers an opportunity for teaching more about evolution and more about related issues of law and religion, public policy and poetry. There's something from which all of us can learn.

The fact is that there are gaps in the evolution a ryaccount of the origin of living species by natural selection. Some of these gaps will not be filled by new empirical discoveries but will require new conceptual ones. Darwin himself found that natural selection did not explain everything. He expanded his realm of models, his realm of hypotheses, to include sexual selection. He also, erroneously, leaned on Lamarck's idea of the inheritance of acquired traits. Humility and intellectual honesty call on us to recognize that science is a liv-



ing, growing enterprise, not a finished book.

Stephen Jay Gould, an accomplished and original evo lutionary biologist, worked for decades, until his death in 2002, seeking to develop new naturalistic lines of explanation that would enrich our understanding of evo lution. His work suggests that intelligent-designadvocates who point to the areas not yet explained by natural selection may be performing

Faith in Reason Is Intrinsic to Faith in God

odney Stark is a plain-spokenprovocateur, a former journalist who writes prolifically and gets to the point. He has a knack for sniffing out conventional wisdom in his world of the sociology of religion, then defying it.

Where others argue that organized religion has held back science and enlightenment, Starksays monotheism led to the rise of science and the end of slavery. The title of his latest book plain ly announces his view: The Victory of Reason: How Christianity Led to Freedom, Capitalism and Western Success. The medieval world, he says, was not a dark ages but laid the foundation for sci-

entific discovery, free enterprise and belief in progress, belief in the accumulation of knowledge. Anti-Catholic bias among generations of scholars has distorted the historical record.

odney Stark is a plain-spokenprovocateur, a former journalist who writes arguments, yet still they do need to be argued,"
prolifically and gets to the point. He he said recently.

In his book he writes: "During the past century, Western intellectuals have been more than

willing to trace European imperialism to Christian origins, but they have been entirely unwilling to recognize that Christianity made any contribution (other than intolerance) to the Western capacity to dominate."

Europe—inevitably wither. The they repress religious pluration one "brand" on people. Also, their salaries are guaranteed success in the field, they lack touch with consumer needs.

A free-wheeling system of

Work ing at the intersection of religious thought and economic change, Stark, 71, is a hot ticket in sociological scholars hip these days. In February and March he came to Vanderbilt to give a series of lectures on a subject dear to

him: a "market approach" to understanding religion. R eligion works rather like a supply-anddemand economy, he says. Religious produces (denominations) compete for consumers (lay people). Throughout history, religions have risen or declined based on their competence at meeting the public's demand for spirituality.

R eligious "monopolies"—state-subsidized faiths, whether in ancient Egypt or modern Europe—inevitably wither. They're flawed because they repress religious pluralism and force only one "brand" on people. Also, they get lazy. Since their salaries are guaranteed, rather than tied to success in the field, they lack motivation and lose touch with consumer needs.

A free-wheeling system of competing faiths—the American scene—keeps religious "capitalism" in balance. In *The Churching of America* 1776–2005: Winners and Losers in Our Religious Economy (co-written with Roger Finke), Stark says American religious life became vibrant only after freedom of belief—and religious competition—became national habits.

In colonial America only 17 percent identified with an organized faith, he says (based on neglected census data). Colonists brought their lax wors hip habits with them from Europe, where state-run religion was the norm. By the Civil War the rate was up to 37 percent, as new energetic denominations sprang up to attract new believers. By 1980 the rate of religious adherence had topped 60 percent. Stark thinks it's been hovering there ever since.

Born in North Dakota, Stark got his Ph.D. at Berkeley and spent three &cades at the University of Washington teaching sociology and comparative religion. He personally continues to be a spiritual & archer, & claring no particular congregational affiliation. But in his latest book, The Victory of Reason, he happily gives Christian faith the credit for the rise of Europe's technological superiority in the last millennium.

The reason is reason: Centuries ago, Christian theologians "taught that faith in reason was in trinsic to faith in God," he says. Intellectual rigor and logic became worthy guides to theol-

o gy, biblical interpretation and individual rights. This spiritual style had world ly corequences, Stark says. It founced medieval universities, stimulated the pursuit of science, and applied natural laws to economics. It stirred early capitalism along the Mediterranean and on Catholic monastic estates—some 600 years before the Protestant Reformation. The usually accepted version of history gives the Reformation credit for sparking a work ethic that made free enterprise bloom.

When Stark is not rummaging through historical records to reassess the received wisdom about previous epochs, he is watching current spiritual shifts. He's as blunt about the present as the past. He explains the declines in mainline Protestant church memberships by their fixation on (liberal) politics and neglect of a demanding traditional faith.

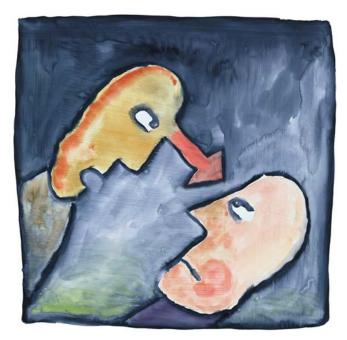
Conservative churches are outperforming them in the spiritual marketplace, he says. Churches that preach sin, salvation, hell and hope—churches that still "hold church"—do well. "If you forget to hold church, people won't come," he says.

-RAY WADDLE, MA'81

Rodney Stark's Vanderbilt visit was hosted by the Center for the Study of Religion and Culture and financed by the Templeton Research Lecture Grant, which will bring at least \$270,000 to Vanderbilt over three years to fund a research group, speakers, publications and a major conference.

The grant was awarded by the Metanexus Institute, which advances research, education and outreach on the engagement of science and religion. It runs some 300 projects in 30 nations, including the Templeton Research Lectures funded by a grant from the John Templeton Foundation.

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a heuristic role. For science does not advance without criticism. Any model we use will be incomplete, and all are susceptible to improvement.

Intelligent design presents itself in part as a lawyer's brief—not surprisingly, since Phillip Johnson, one of its chief advocates, is an attorney by trade. The aim is to shift the burden of proof to one's adversary. But in formal terms the move is fallacious. The advocate challenges evolutionists by pointing to "irreducible complexities" that natural selection has not explained, and then urges that what has not yet been explained is in principle *impossible* to explain—that is, naturalistically.

But science need not be adversarial. Here the burden should be shared. We should all assume some part of it. That means that the poet who celebrates the beauty and complex-

Intelligent design theorists who point out gaps in the evolutionary account of nature may be performing a heuristic role. Science doesn't progress without criticism.

ity of life has a place at the table alongside the scientist, whose explanatory work celebrates the same beauty and complexity in quite a different way.

I think it's a mistake both tactically and strategically for theists to rely on intelligent design: tactically, because they will find themselves on the defensive, open to refutation as new cases are found and new explanations worked out; and strategically, because it depends on a "god of the gaps." God becomes the explanation only of what's inscrutable, and as science advances God then retreats into ever narrower and darker corners. A more hopeful strategy, which I am trying to pursue in my work, is to explore the compatibilities of science and religion, creation and evolution.

As for the question of whether evolution or intelligent design should be taught, I think the question itself is based on a misunderstanding of what teaching is—as if teaching meant the same inculcation or indoctrination. As I see it, intelligent design presents an educator with an opportunity, that is, the opportunity to teach the controversy, analyze and discuss the issue, open up a dialogue between the sciences and the humanities, and ask ourselves, What kind of explanations can science offer? What kind of explanations go beyond what science can offer? Where is the right way of relating these areas of human experience? Are there things in nature that can't be explained mechanically? What do we see that can? This is a fruitful arena for conversation in which dogmatists on both sides will be very much hampered by their dogmatism, but people with open minds will find they have much to say to each other.

Wandering in a Dark Labyrinth

By Vicki Greene Associate professor of physics

y role in the mission of higher education is that of science teacher. My statement about intelligent design and creationism focuses on science education because the intelligent-design debate has revealed a deeper problem about the teaching of science.

A recent Pew poll shows that 67 percent of white Christians favor teaching creationism along with evolution. No significant differences on this matter exist among evangelicals, mainline Protestants and Catholics. Among those who believe in evolution by means of natural selection, 62 percent believe that creationism should be taught along with evolution.

Why do so many people without either scientific or religious predilection favor the teaching of creationism in the science classroom? We infer from the poll results that many people in this country do not understand science, neither as a body of knowledge nor as a process of discovery. The resulting vacuum allows many unfortunate ideas to rush in.

For the moment, physics teaching is removed from the controversies attending the life sciences classroom. However, physics has many pedagogical, structural and cultural attributes in common with these other sciences. Thus, the physics classroom is an excellent place to explore the various contributions that scientists and science teachers often make to popular misunderstandings of science. There are several possible reasons many people don't understand science well enough to classify descriptions of nature as scientific or nonscientific.

Among these are the construction of private universes, bad science teaching, bad translations, scientific arrogance, the "science as religion" problem, and general complacence on the part of scientists.

People have their own theories about how the world works. This set of theories forms a person's "private universe." This personal cosmology can be as firmly held as any religious conviction, more elaborate than epicycles and very, very wrong.

A well-known videotape shows recent Harvard graduates, Boston city high-school students, and at least one tenured professor at Harvard struggling to explain why it is warmer in the summer and colder in the winter. All have similar, incorrect explanations for this phenomenon. It is extremely hard for a teacher to help the students replace this picture with the correct explanation that seasons come from the tilt of the earth's axis relative to its orbit around the sun.

Much of bad science teaching can be summed up in the words of physicist Wolfgang Pauli: "This isn't right. This isn't even wrong." Explicit definitions of science in science textbooks range from reasonable to nonexistent. One example



in an elementary physics textbook shows a high-speed photograph of a water balloon shortly after being popped with a pin. The photograph shows that the water inside retains the shape of the balloon briefly before collapsing. The caption explains that the photograph provides evidence refuting the theory that liquid does not retain its shape when removed from its container. In fact, there was no such theory to contradict. The photograph shows that the water has conformed to the shape of the container as expected.

Another problem is the difficulty of translating physical concepts from the mathematical language of science. So many people are averse to math, and innumeracy is culturally acceptable in our culture. In the words of Galileo: "Philosophy is

written in this grand book, the universe, which stands continually open to our gaze. But the book cannot be understood unless one first learns to comprehend the language and read the characters in which it is written. [The universe] is written in the language of mathematics, and its characters are triangles, circles and other geometric figures without which it is humanly impossible to understand a single word of it; without these one is wandering in a dark labyrinth."

The arrogance of proponents of science also increases the difficulty with which many people willingly integrate scientific understanding into their everyday thinking. Philosopher Daniel Dennett said, "To put it bluntly but fairly, anyone today who doubts that the variety of life on this planet was produced by a process of evolution is simply ignorant—inexcusably ignorant." This sort of thinking is not likely to leave the reader with an open mind towards science.

Some scientists concatenate their scientific beliefs into their spiritual ones or simply substitute one for the other. In "The One That Got Away," a 1997 *Science* magazine article, Gary Taubes wrote an account of a Yale professor of

Many people in this country do not understand science, either its definition or as a process of discovery. The resulting gaps leave space for many unfortunate ideas to rush in.

physics, Jack Greenburg, who spent years trying to reproduce evidence for a new particle he thought he had discovered. His analyses were based on throwing out any data that didn't look right. Decades of wasted funds and lost careers later, a colleague explained: "Jack was on this Nobel Prize hunt. Jack was so convinced from his GSI data that it had to be there, it was like a religion with him."

Scientific explanations are built on observations, hypotheses and theories. But ID advocates want to redefine science, giving rise to the practical problem that we can't arbitrarily redefine science and simultaneously maintain our dependence on technology. Those of us who are teachers and practitioners of science need to counteract the various problems I have outlined. We also need to educate our students about the process of scientific inquiry and teach them the nature of scientific proofs. We need to distill the statistical arguments on which evolutionary biology depends so that students can still recognize the scientific method within these arguments. When the public can make informed decisions about what does and does not constitute a scientific argument, we will not have to worry about pseudoscientific controversies such as the intelligent-design debate. V

Critical Condition

Hospitals are pulling out all the stops—but can anything fix a nine-year nursing shortage?

n any given Sunday morning, the local Nashville newspaper runs pages of classified advertisements appealing for nurses across Tennessee, Kentucky, Georgia, Alabama and Mississippi. The range of openingsis so vast, and the promise of benefits so at tractive, that it's safe to infer the published demand is merely the tip of the iceberg.

"More and more people are realizing that nursing is the best-kept secret in the job market," says Colleen Conway-Welch, dean of the Vanderbilt University School of Nursing. "Nowhere else can you do a hundred different things on one license. You can be a staff nurse, you can teach, you can be in administration, you can be a traveling nurse, you can be a helicopter nurse, you can work in a hospital, you can work for the insurance industry, you can start your own business. The word is getting out."

Word may be getting out—but not quickly enough to satisfy need. While nursing remains one of the most revered professions in the eye of the public, while the work environment is undergoing radical improvements, and while nursing salaries are experiencing a dramatic upswing, both developed and developing countries are caught in a rapidly spreading nursing shortage.

Nursing short ages have coursed through the United States through various intervals of history, each usually lasting two or three years before being rectified. The current short age is entering its ninth year, with no end in sight.

How did a nursing shortage evolve into a global fiasco? The answer lies in a complicated, unwieldy fusion of events, says Peter Buerhaus, senior associate dean for research at Vanderbilt School of Nursing, who has spent the past 15 years studying the nursing labor market.

A Quick-Fix Solution That Failed

In the early 1990s, in an attempt to get a handle on the spiraling costs of health care, medical administrators examined their operating expenditures and realized that a large chunk of their revenues went to pay nurse salaries. Hospital and clinic administrators across the United States turned to a quick-fix solution. Following the advice of managedcare consultants, they replaced higher-paid registered nurses (RNs) with lower-salaried licensed practical nurses (LPNs). They shifted

master's degree-prepared nurses, such as clinical nurse specialists, into roles as case managers where they were responsible not for patient care, but rather for increasing the number of patients seen, and for moving them more quickly in and out of their facilities. Some hospitals went so far as to fire entire staffs of, for example, nurse anesthetists, and have medical residents take on those duties.

It took only a few years for physicians and patients to realize this quick-fix solution was a bad idea. Experts had underestimated the crucial roles nurses played in health-care delivery. They either misinterpreted or didn't foresee the boom in technology and pharmacology that would routinely begin saving the lives of patients who would have had no chance of survival five or 10 years earlier. Nor did they predict a 21st-century emphasis on wellness and disease prevention. All these factors would fuel the urgency for more—not fewer—nurses in the workforce.

Oops.

Throngs of laid-off nurses had entered the profession as a humanitarian calling, driven by a desire to help others. When they were treated as extraneous burdens on a struggling medical system, many walked away from nursing, never to return. The sounds of closing doors echoed down the line as college and junior-college students opted for more stable job opportunities. Enrollments at nursing schools declined, and universities began cutting back on nursing faculty.

At the same time, women interested in health care began entering medical schools in record numbers. Nurses who toughed it out felt underpaid and underappreciated, forced into seeing more patients while spending less time with each. In the wake of this failed experiment, hospital managers discovered they had been grossly mistaken to assume that a medical resident could take the place of a highly trained, experienced nurse anesthetist or other nurse with specialized expertise.

But the damage had already been done and the implications for the health and well being of our society are frightening. In 2001 there were 126,000 vacant positions nationwide. On the bright side, between 2002 and 2005, the country began to experience its first significant turnaround in two decades, as the number of RNs employed by hospitals rose by 185,000. Even so, these new employees did not ameliorate the shortage.

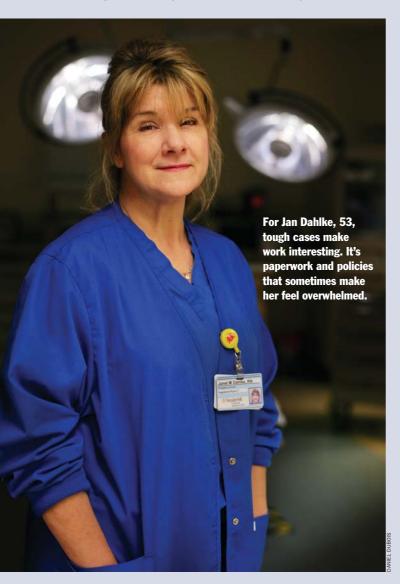
Buerhaus explains that the influx came largely from older nurses re-entering the workforce. When hospitals began raising wages to attract more applicants (adjusting for inflation, average nursing wages had not risen since 1993), nurses began to return to the profession. Many were compelled by the economic downturn—their spouses had lost jobs or had their hours reduced, and families needed a second income. At the same time, the United States began recruiting foreign nurses in unprecedented numbers: 75,000 between 2001 and 2004. Previously, in shortage years only 3,000 to 4,000 foreign nurses had entered the workforce. By historical standards, the recent infiltration was explosive.

"Both of those factors—older women returning to nursing and the hiring of for-



The gaps in generations of nurses are like open wounds. Only 24 percent of the nursing workforce is under the age of 35, compared to 50 percent 20 years ago.

More Paperwork, More Patients, and the Promise of Technology



enior staff nurse Jan Dahlke arrived at Vanderbilt University Hospital in 1987 to help Dr. John Morris set up the state's first designated Level I trauma unit, which meant delivering around-the-clock care to every emergency patient who came through the door. Level I Trauma requires that every position in the department be staffed 24 hours a day, seven days a week. Previously, Dahlke had served in a variety of nursing roles, from medical-surgical to Third-World health care to rural public health nursing. She says that when she encountered the adrenaline-charged, fast-paced challenges of emergency nursing, she realized she'd found her home.

"I'm not just a nurse from 7 a.m. until 7 p.m.," she says. "I'm a nurse when I'm sleeping, exercising, shopping. It's an extension of who I am. That's why I'm so crazy about it. I believe that what I do is so critical that I would do for free whatever I could."

Peter Buerhaus, senior associate dean for research at Vanderbilt School of Nursing, says it is significant that the current long-term

shortage began in the intensive care units, the emergency departments and the operating rooms—all subspecialties that require highly skilled, dynamic nurses. "What we found was that most specialty care units had traditionally staffed with a higher proportion of young RNs," he says. "They were bold, confident, cocky. They wanted to get as much experience as quickly as possible. They were the kind of people you want in those units—the kind who'd say, 'Give me your toughest cases." However, as these nurses began to age out, hospitals faced a dwindling supply of top guns to replace them.

To hone her skills and to keep her job interesting, Dahlke prefers to take on the most complicated and critically ill patients who come into the emergency department—victims of stroke, car accidents, heart attacks, drug overdose and gunshots. At age 53 she is at the top of her game professionally and has not experienced burnout. But as the trauma unit's reputation for excellence has matured, and as the increasing number of emergency transport helicopters, fixedwing aircraft and ambulances contribute to her patient load, she sometimes feels inundated by federal, state and university policies and regulations—in other words, paperwork. These little annoyances, these intrusions into her workday that force her to labor through a 12-hour shift with no lunch break, make her sad.

Unfortunately, the regulatory pieces of a nurse's job are not going away, says Marilyn Dubree, chief nursing officer and director of patient care services for Vanderbilt University Medical Center. To counter those necessary inconveniences, she has tried to create an environment for nursing practice that is rewarding for nurses and nursing leaders, while also enhancing patient care.

"We are in the midst of implementing an automated clinical documentation tool that will allow us to electronically input data about patients, share data across the medical center, and have that data cross-connected with monitors and ventilators," Dubree says. "This will allow us to spend more time with patients and also to better interact with colleagues. We are constantly examining technology that will allow us to work smarter, despite increasing paperwork and limited resources. We never want to sacrifice the softer, relational pieces of nursing."

Capitalizing on technology to benefit the day-to-day life of the nurse is a relatively new phenomenon. For example, as patients are getting older, more obese, and living longer with chronic illnesses, nursing has become more physically demanding. To make their jobs easier (and to stem the number of worker's compensation claims), Vanderbilt's Occupational Health Clinic recently rolled out a program known as "Smooth Moves," which provides specially designed equipment and lifts to assist in patient care. A remote-controlled lift helps patients move from a seated to a standing position, an electronic sling raises up people who may have fallen, and a special mat gently slides patients from, say, a gurney onto a hospital bed. These kinds of engineering innovations hold tremendous promise for healthcare delivery.

eign nurses—are self-limited opportunities," says Conway-Welch. "That's not a solution to the crisis."

To achieve stability every profession requires a fresh generation of new hires to start at the bottom of the employment ladder, work their way up, and then age out of their positions some 40 or 50 years later. The gaps in generations of nurses are like open wounds. The average age of practicing nurses in this country was 42.1 years in 2002 and is projected to increase to 45.4 by 2010. Buerhaus predicts that in only four years, the bulk of babyboomer RNs will begin retiring, will shift into part-time positions, or will transfer from the bedside into jobs in industry and less physically demanding roles. And the country isn't producing enough young nursing graduates to replace them. Only 24 percent of the nursing workforce is under the age of 35, compared to 50 percent 20 years ago.

"We'll have fewer nurses and older nurses at the same time society needs more nurses," says Buerhaus. "The large number of baby boomers will require more health-care and nursing services."

Nine percent of our nation's economy is

driven by health care, so the nursing shortage has the potential to create a massive societal problem. "We have the best doctors in the world," Buerhaus says, "but if you take away the nurse, the glue that holds the system together is gone."

Vanderbilt, with its huge complex of hospitals, clinics, public health programs, research faculty, and highly ranked nursing school, provides a microcosm for examining issues that have led to the current nursing shortage, as well as steps that might resolve it. In many ways Vanderbilt is a best-case scenario. The shortage has not hit Vanderbilt Medical Center as drastically as it has in other places. The region has a pool of nursing training programs from which to draw employees, and Vanderbilt Nursing School graduates about 250 master's-level nurses each year. Still, on any given day, the Office of Human Resources lists between 120 and 200 job openings that span the spectrum of nursing positions across the Vanderbilt system. Medical administrators are grateful there are only that many.

One upside of the shortage has been a general newfound reverence for nurses. Physicians have begun to appreciate the value RNs

contribute to the medical team. In a 2004 study, 81 percent of physicians reported that their hospitals were experiencing a nursing shortage, which they believed significantly impacted safety, efficiency, equity and effectiveness of care. Problems were cropping up in communications with patients, lack of responsiveness to pages and calls, delays in discharges, and excessive waits for tests and procedures. Consequently, anecdotal reports indicate nurses' relationships with doctors have never been better.

For years, says Buerhaus, nurses justifiably adopted a "victimization mentality." They felt undervalued because of low pay and minimal power within the medical hierarchy. Over time those complaints developed into a self-perpetuating cycle. "Evidence in recent national surveys shows the workplace has gotten better. Nurses' job satisfaction is at a very high level—83 percent, which is higher than physicians, attorneys, teachers, business people. Almost 90 percent of nurses would recommend nursing as a profession to students. Those are phenomenal numbers."

In a 2005 nationwide survey of 114,000 nurses, Vanderbilt nurses indicated they were



"We have the best doctors in the world.

But if you take away the nurse, the glue that holds the system together is gone."

significantly happier than their counterparts at other hospitals. Hospital administrators hope to capitalize on this upward trend of satisfaction by applying for designation as a "magnet facility," which would give Vanderbilt national recognition among medical personnel as a hospital offering not only top-quality care, but also a collegial atmosphere.

Dean Conway-Welch says, "You don't go for magnet status unless you believe your work environment is a very positive one and that nurses feel supported throughout the work environment, which is not the case in a lot of other places."

As part of the effort, the hospital paid the dues so that all emergency department nurses could become members of the Emergency Nursing Association—an investment of thousands of dollars.

Shared Solutions

The logical solution to America's nursing shortage would be to recruit, provide incentives, and train enough college and junior college nursing majors to alleviate the shortage. To spur interest, for example, Johnson & Johnson launched a series of campaigns to draw attention to nursing as a respected and rewarding career. Their initiative has helped turn numbers around. In 2005, according to the American Association of Colleges of Nursing, enrollments in entry-level baccalaureate programs in nursing increased by 14 percent over the previous year. But enrollments would need to increase by 40 percent over the next several years to replace all the RNs currently retiring from the workforce.

At best, nursing schools are simply bandaging a wound that actually needs stitches.

In the 1980s Vanderbilt decided to eliminate the School of Nursing's baccalaureate program and only confer master's-level degrees. Today's students take either three or four years of an undergraduate curriculum and then enter the nursing "bridge," or six semesters' worth of specialty courses, ultimately earning a graduate degree as a clinical nurse specialist, a nurse practitioner, a nurse midwife or a clinical manager. Each year about 250 students graduate from Vanderbilt with an M.S.N. degree, which makes a dent in the national demand for nursing specialists.

The shortage has hit hardest, however,

All of Us "Old" Nurses Have Pacts That We'll Take Care of Each Other

eresa Knoop started her nursing career with a B.S.N. in 1978, and worked the night shift in a rural Kentucky hospital. Through the years she moved several times and found employment on a medical/surgical floor, in the pediatric unit, as an instructor of nursing at a junior college, and as a nursing educator on the oncology unit at St. Thomas Hospital in Nashville. Over a four-year period, working full time, she took courses at Vanderbilt School of Nursing towards her master's degree and became a clinical nurse specialist. In the mid-1990s, St. Thomas, like many hospitals, switched a number of clinical nurse specialists into case manager positions, making them responsible for getting patients in and out of the system quickly.



"That was not my cup of tea," Knoop

says. She began to feel she was burning out. Rather than leave nursing, she applied for a job with the Vanderbilt-Ingram Cancer Center (VICC), which was then seeking designation as a comprehensive cancer center by the National Cancer Institute. At that time no specific person was in place to handle the barrage of calls coming in to the Cancer Center-patients seeking referrals and second opinions, physicians inquiring about clinical trials, families exploring treatment options. Knoop was hired to set up a centralized office and a toll-free number to handle those calls. Her job was to help cancer patients navigate through the health-care maze.

"When I went into this job, they warned me that I'd be talking to the most vulnerable people in the world," Knoop says. "Our goal is to make sure the voice they hear on this end of the line is compassionate and caring. Once people understand they can speak to a real person, not a voice-mail system, and once they realize someone will call them back right away with answers to their questions or will help them set up appointments, it calms even the most distraught patient."

Knoop has a small staff of veteran oncology nurses to assist her. Their jobs require an extensive background in hands-on nursing oncology, a broad knowledge about the realm of cancerous diseases, and patience. On the day she was interviewed for this story, she was assisting an assortment of patients with melanoma and cancer of the prostate, breast, lung and colon.

"This is the best nursing job I've ever had," Knoop says. "I am learning something new every day. The Vanderbilt physicians are doing research with some of the most exciting cancer drugs coming along, and it keeps me on my toes. This is a nursing position where every morning when I come in to work, I am directly helping people."

Still, Knoop knows that flocks of young RNs are not following closely behind her, preparing to advance into these positions. "It's scary for my age group to think of who will be taking care of us when we have to go into the hospital in a few years," she says. "All of us 'old' nurses have made pacts that we'll take care of each other."

among staff nurses. VUSN is addressing that issue on the regional level through a partner-ship with the local campuses of Fisk and Lip-scomb universities. Both colleges believe it fits their education mission—Fisk as a school with a large minority student population, and Lipscomb as a faith-based university—to offer a nursing undergraduate major. Students complete five semesters of prerequisite course work at their home institution and then spend their final three semesters at Vanderbilt taking courses in the bridge program. They ultimately receive a baccalaureate degree in nursing from their home institution.

Because Vanderbilt's tuition is much higher than tuition at the other two schools, Vanderbilt Medical Center offers the program's graduates a tuition forgiveness option if they work at Vanderbilt for at least two years postgraduation. In Lipscomb's initial class of 30, 28 students accepted the offer. While working at Vanderbilt they can take courses and accrue credit hours towards an M.S.N. degree—again, with tuition forgiveness.

Says Linda Norman, senior associate dean for academics at VUSN, "We anticipate that once we reach a steady state, we'll have 50 nursing graduates each year from Lipscomb and 30 from Fisk."

While this small infusion into the workforce helps, it does not address the vortex of the crisis—a drastic faculty shortage. The National League for Nursing estimates that in 2005, nursing schools across the country rejected a staggering 147,465 *qualified* applicants due to capacity problems.

"In some schools there's a shortage of faculty," says Buerhaus. "In some schools there's a shortage of classroom space. And in some schools they have faculty and class space, but they don't have the clinical space in which to educate nurses in the clinical environment."

At the Vanderbilt School of Nursing, the elephant in the room is the shortage of clinical placement opportunities. "It is expensive for an institution to incorporate students into the workflow of their nurses," says Conway-Welch, adding that while medical centers receive general medical education monies to support the training of medical residents, nursing students come attached with no such funding. "The nursing school can't pay for clinical placements, so we essentially rely on the kindness of professional nurses who want to train their replacements."

In terms of faculty, the top 30 nursing schools—Vanderbilt among them—are locked in an aggressive bidding war for high-quality, doctorate-prepared educators. "Recruiting is awful," Conway-Welch says. "All the deans are friends, we're all about the same age—and we all know the reality is that I will

take your most treasured faculty member if I can get him or her."

Training: Expensive and Labor Intensive

One approach to training that VUSN has taken is through satellite clinics run by nurse practitioners, established to bring excellent health care to underserved neighborhoods, to promote wellness and disease prevention, and to provide a training ground for students. Vine Hill Community Clinic in Nashville is one such facility. Vine Hill handles between 18,000 and 20,000 patient visits each year, and bustles with interaction between caregivers and patients. All the nurse practitioners at Vine Hill are VUSN faculty members who serve as educators and preceptors, or one-on-one mentors. Preceptorships, where faculty nurses allow trainees to get hands-on experience by shadowing them in clinical practice, are time and labor intensive, allowing for only four or five students to rotate through the clinic each year.

Martha Shamy graduated from Earlham College in 1998, went to work in the non-profit arena, and decided to come to Vanderbilt to become certified as a nurse practitioner. She is interning at the Vine Hill Clinic. "In this job I get to work with my hands and my head," she says. "It demands a combination of skills."

Salaries and Wage Compression

ne offshoot of the nursing shortage has been a substantial increase in nursing wages. According to the U.S. Bureau of Labor Statistics, annual salaries paid to RNs range from \$38,000 to \$77,000, with the mean annual wage being around \$56,000. LPNs are earning from \$28,000 to \$36,000. Nurses with advanced degrees, such as nurse practitioners, clinical nurse specialists, nurse midwives and acute-care nurses, often command salaries well into the six figures. The rise in wages has inspired more men to enter the field, though not in massive numbers: They comprise about 7 percent of the U.S. nursing workforce.

"Relative to most other comparable occupations and professions with the same degree of education, salaries are attractive," says Peter Buerhaus, senior associate dean for research at Vanderbilt University School of Nursing. "The problem is that we have nurses who've been in the profession for 20 years, and they're not making much more than the new nurse. That's a long-standing issue that doesn't seem to be getting resolved." The wage compression issue is forcing senior, more experienced nurses to look around, says Colleen Conway-Welch, dean of the School of Nursing. Medical centers are willing to pay top dollar for a new hire who already has years of experience. "As a new employee, you're in a better place to negotiate."

Industry is also pillaging from the ranks of seasoned, highly skilled nurses. Large companies have figured out that they can save costs and reduce days lost from work by employing staff nurses on site to diagnose and treat a variety of on-the-job injuries, and to handle routine medical exams. Experienced nurses offer skill sets that are attractive to corporate managers, particularly those in the biomedical and pharmaceutical fields.

Which means that nurses are now blazing uncharted territory. Traditionally, nursing has been seen as a profession with little upward mobility, but now new horizons for successive advancement are opening—although these opportunities rarely follow a linear path, and the model is constantly changing.

Says Terri Crutcher, clinical director of the Primary Care Faculty Practice, "Our nurse practitioners love taking care of a disadvantaged population. They want to be on the front lines."

Much of their daily responsibility, Crutcher adds, involves helping patients understand which medicines to take and determining whether a health complaint is minor or requires major medical intervention. In the latter cases, which are not uncommon, the nurse practitioners have patients immediately transported to an emergency facility.

A nurse's training helps him or her to recognize subtle problems and quickly triage patients into the proper service, providing a vital link in the national health-care structure. The results of a recent study published in the journal Health Affairs indicate that by increasing the number of hospital RNs, specifically, medical facilities could save 6,700 lives and 4 million days of hospitalization each year. (The results were mixed when LPNs were factored in.)

Because RNs have more exposure to liberal arts and critical thinking, Buerhaus explains, and have greater depth of knowledge of physiology, anatomy, and the science of nursing, they can detect complications early and intervene independently or seek help from physicians as needed. By interpreting understated clues from patients, they are constantly running interference on disease and saving lives. This surveillance function of nurses is central to a healthy community.

At the Vine Hill Clinic, caregivers recently installed a digital retinopathy-screening machine for the screening of diabetic patients for a certain ophthalmologic problem that can lead to blindness. In the course of screening these patients and transmitting images to the Ophthalmology Imaging Center, they discovered another eye problem, a silent precursor for stroke, in several relatively young patients. Those patients were immediately sent to Vanderbilt Hospital.

Chalk up another point for the value of surveillance.

"In today's world, with the potential for natural and manmade disasters, surveillance is a big issue," says Conway-Welch. The person most likely to pick up trends of a flu epidemic or some kind of biological threat will



"It's irresponsible to recruit nurses from developing countries because they desperately need nurses.... They spend a lot of money educating nurses, which further depletes their struggling economies."

be someone working in the community and/or with children. But local education systems are cutting back on the number of school nurses, leaving secretaries, teachers, and others with no background in health care to judge whether a child complaining of illness, injury or allergic reaction is sick enough to warrant being seen by a doctor.

"The public-health infrastructure in this country is cracked," Conway-Welch continues. "And the gaps will widen as fewer nurses go into public health because, frankly, it pays very poorly. When you've got a choice of jobs and there's a significant salary difference, chances are you're going to take the higher salary."

The Ethics of Going Global

If the system is cracked, and if the nursing shortage is oozing into every fracture and chink in the nation's infrastructure, why can't foreign nurses serve as a stopgap solution?

The issue, for the most part, is not that foreign nurses aren't as well trained. "They just haven't had the same exposure to technology, and they face language issues," says Buerhaus. "They may speak and write English passably, but they may not get the nuances, colloquialisms and expressions."

Foreign-born nurses are a benefit to hospitals with large foreign-born populations of patients because they tend to be more sensitive to cultural preferences. On the flip side, foreign nurses may come from countries where women are considered subservient to men, and where lower-paid employees cannot question decisions made by more powerful members of the medical team. Which, again, hearkens back to surveillance. Nurses must have the confidence to be willing to call a doctor in the middle of the night to come in and see a patient. They must question a protocol they are certain is wrong, or speak with a supervisor if someone in the treatment group needs to be called down. The American system depends on that kind of shared power.

Then there is the ethical question of hiring foreign nurses. The United States and Europe have been accused by other nations

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DORES WHO LOCATION TOO MUCH

Forget pompoms. Shaved heads, ritual fires and psychological warfare are fair game for these fans.

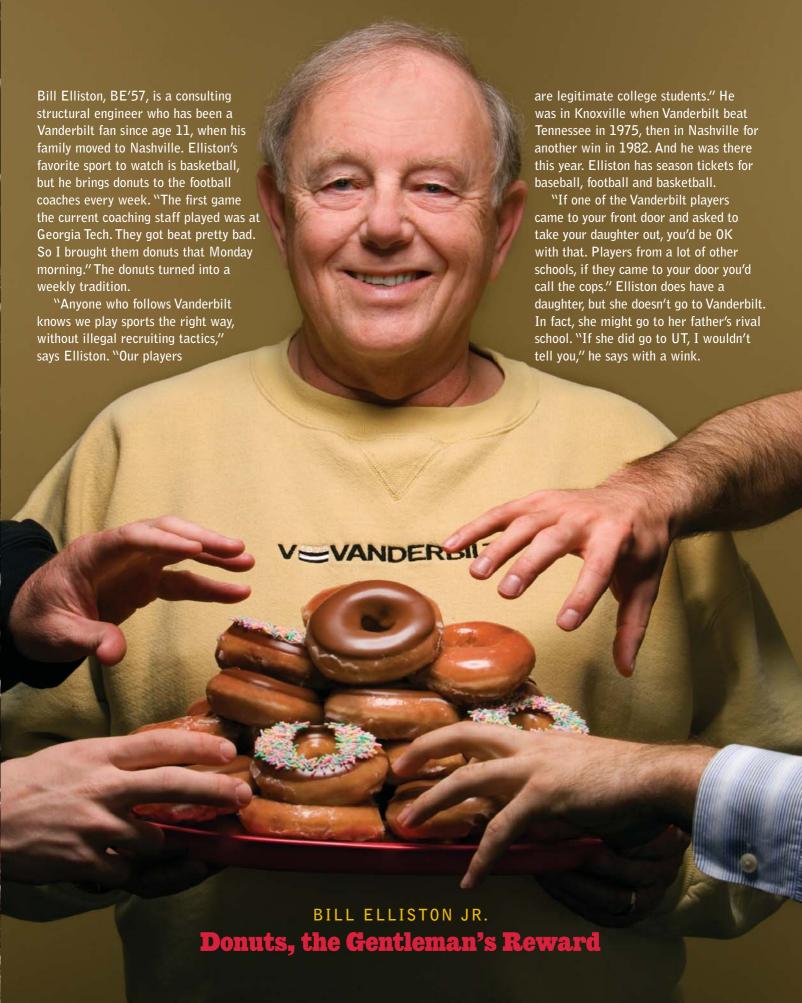
It's hard to be a fair-weather Vanderbilt fan. Sure, there are wins—even some dazzling victories—but as anyone can tell you, the agony of defeat is all too familiar to Vanderbilt sports fans. Undergraduates who view sporting events mainly as an excuse to see and be seen are rank amateurs compared to these stalwarts. What inspires such devotion? For some, it's love of the school. For others, love of the game. Here's a tribute to some of the fanatical faces who cheer for the Commodores, rain or shine, win or lose.

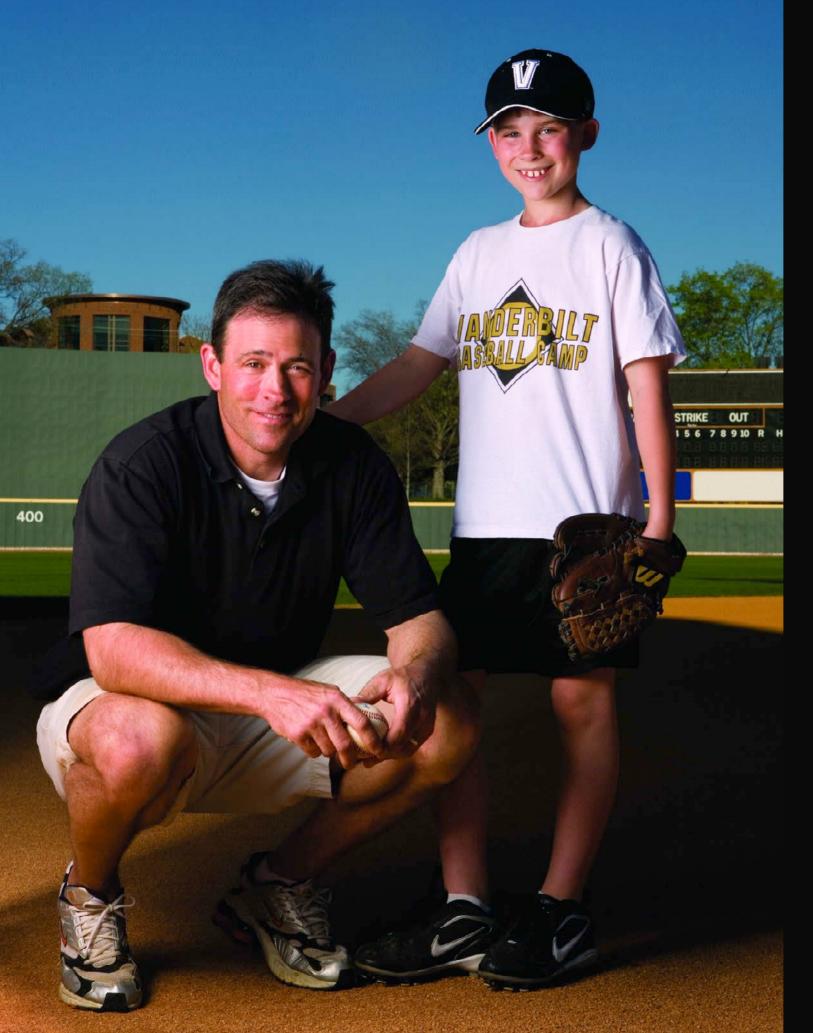
By Claire Vernon Suddath, BA'04

Photography by Daniel Dubois









BILL HAWKINS Bred in the Bone

"My dad went to Vanderbilt, my grandfather and grandmother went to Vanderbilt, my aunt went, my sister-in-law went, and so many cousins and uncles and relatives I'm afraid to even count," says Bill Hawkins, BS'82.

Bill started going to games as a child with his father, Charles Hawkins III, BA'54. "Dad grew up five blocks from the football stadium, so he went all the time with his father. When I was little, I used to sell Cokes and popcorn at basketball games, which let me in without a ticket," Hawkins says, as if the close association with the players still excites him.

Bill's father and grandfather both played baseball and football at Vanderbilt, and when the baseball stadium needed renovation, the Hawkins family was happy to oblige. Charles Hawkins III—the first Vanderbilt pitcher to earn AII-SEC honors—donated \$2 million to the renovation project. "My dad wasn't one of those people concerned with titles or names," Bill says, "but he was in a position to give the money and so he did." Charles was on hand to toss the first pitch in the renovated field named after him—a bittersweet memory for Bill since his father's death in 2004. Bill takes his three children to sports games just as his father once did for him.



MARY ANNE SUGG

Thicker Than Water

"I almost didn't buy tickets this year," says Mary Ann Sugg, BA'51, whose family has had season football tickets since 1936. "The friend I went with didn't want to go anymore. He gets really upset when Vanderbilt loses." Sugg didn't know who else to take, so she considered giving up her spot. "I couldn't do it, though," she says. "I'd be breaking the streak."

And what a streak this year turned out to be. Vanderbilt beat the University of Tennessee for the first time since 1982. Although Sugg wasn't there this time since the game was in Knoxville, she remembers witnessing the win 23 years ago. "My parents were still alive back in 1982, but they were ill. My father listened to the game on the radio, and he was so happy. And you know what? That night he died. But I was happy he got to hear that last game."

Now in her 70s, Sugg goes to every home football game. "To tell you the truth," she says in a hushed voice, "I think I like basketball better." She has only been a basketball fan since 1952, but women's basketball is her favorite sport. "It's not so run and gun. As soon as they start dunking the ball, it will become just like the boys' game."

hearts

lilture

Art should inspire people to feel, think and act... Good art is both mots and reach. —ART CRITIC LUCY LIPPARD





VISUAL ARTS:

Paintings by acclaimed South American artist **Dudley Charles** were on display at the Bishop Joseph JohnsonBlack Cultural Center

thro ugh Febru a ry. A native of Guyana, Charles' technique in cludes cutting up and rearranging the canvas using wood, dust, paper pulp and acrylic gel to create a textured ef fect. He frequently d raws on his heritage for inspiration.

Earlierin the ac ademic year, con temporary abstract painter Antonio **Carreno** discussed his art at the Black Cultural Center. An exhibit of his work was on display throughearly December. Carreno, born in Santo Domingo, Dominican Republic, has exhibited his work in collections throughout the world including the Lati n

American Museum of Modern Art in Washington, D.C., and the National Museum of Art in Santo Domingo. The exhibit was co - s ponsored by the Cen ter for the Americas and the Afro-Hispanic Review.

At the Vanderbilt Fine Arts Gallery, works by Hanh Ho, the 2004 Margaret Stonewall Wooldridge Hamblet Award winner, were on view from Jan. 12 thro u gh Feb. 2. The award, a \$19,000 grant to be used for travel and stu dy du ring the year following graduation, culminates in this exhibition. In

her artist's statement, Ho articula ted the plan for her Hamblet year: "Last year I el ected to s tu dy in It aly to hunt down the ancestors of my artistic lineage, and now I want to visit Asia to discover a more literal heritage. In the same vein that I believe artists have to know art history before they proceed with their creative processes, I have

to know my pers onal history before I can continue my life's future."

In "Three Paths to Abstra ction: Herbert, Leland and Mode," on vi ew from Feb. 9 through March 16, three Tennessee artists—Pinkney **Herbert** (Memphis), Whitney Leland (Knoxville) and Carol Mode (Nashville)—

> who have demonstrated a lifelong commitment to nonrepresentational art, showed abstraction as a viable mode of vi sual communication.

In February, Sarratt Gallery showed photos by Beth Lilly, whose work is poignant

and ethereal. In March, Colin **McLain** showed paintings that derive motifs from Gray's Anatomy and, according to the New York Times, "give the human form neon vibrancy with his slightly skitterish drip technique and his brush palet te of pinks, greens and yellows inspired by skateboard graphics."



Laurie Anderson

MUSIC:

The **Soweto Gospel Choir** visited Vanderbilt's Langford Auditorium as part of the **Great Performances Series** in February, conveying the traditions of South African music. Choirmaster David Mulovhedzi and South African executive producer Beverly Bryer built the Soweto Gospel Choir from talent in the many churches in and around Soweto. Also in February, the

Ingram Center for the Per-

forming Arts was one of the

world's select locations for an exhibition of photos of contemporary composers by philanthropist/ photographer Betty Freeman. with a concert honoring three composers Freeman has sponsored. And for the last two Fridays in March,

Quartet presented a special double bill performing the complete six quartets of Béla Bartók. The Blair School of Music's Concert Series

the **Blair**

String



for the spring featured pianist **Craig Nies** performing the grand finale concert in his eight-recital Mozart-Schubert Piano Sonata Series on Mozart's 250th birthday, January 27.

In February baritone John Marcus Bindel, a Nashville native who has been hailed by critics on both sides of the Atlantic, performed a solo recital in Ingram Hall.

The **Rova Saxophone Quartet** performed in late March at Langford. The ensemble is rooted in post-bop free jazz, avant rock and 20th-century new music.

THEATRE & FILM:

Laurie Anderson presented The End of the Moon in November as part of Great Performances at Vanderbilt. This expression of contemporary life incorporated dreams, theories and research from her recent stint as NASA artist-inresidence through stories, spoken word and her violin. Anderson appeared courtesy of the Chancellor's Lecture Series.



Vanderbilt University Theatre presented Hamlet in February at Neely Auditorium. Terryl Hallquist, associate professor of theatre and co-director of VUT, talked about the challenges of mounting a production of one of the best-known plays in the Western world.

- **!** Hamlet is daunting on many levels. Why did you decide to stage it this year?
- A: I am attracted to plays that have a strong link to the political (as Shakespeare's plays usually do). I appreciated a hero who did not readily fight or murder but, rather, considered and even agonized about the problem. I then looked to our casting pool, and it seemed like a good year to do the play based on the experience level of several of the young men I knew would audition, considering, too, the parts that might be played by beginners.
- **!** What do college a geacto rs bring to the play, and what is th eir gre a test challen ge in staging Hamlet?
- A: Undergraduates bring to any play their own understanding of the problems that pester and influence their life here on campus and in the world, and this certainly proved true with Hamlet. Language, always, is a huge impediment—the speaking of lines so they are heard and understood by an audience. I petitioned to have our depart-





ment invite a guest speech coach, and Alex Harrington was extremely helpful in this respect.

- **!** What did students discover about Shakespeare as a playwright and a master of theatre craft in doing a play as complex as Hamlet?
- A: The young man playi n g Hamlet, Jason Dechert, helped us all to realizewhy the character of Hamletcon tinues to fascinate and stands as a benchmark for each generation. In my research I was interested in one scholar's notionthat Hamlet is a cross between Rosalind (in As You *Like It*) and Falst aff in the Henry IV plays. Since I have directed Henry IV Part 1 and As You Like It, this gave me a window to understanding Hamlet that I had n't considered. I hope I hel ped Jason with this insight, but the actor, eventually, knows far more a bo ut his or her character than the director does, and that's quite as it should be if the director is doing her job. Jason's Hamlet was won derf u lly his own.

The Actors' Gang

presented *The Exonerated* Ian. 31 as part of the Great Performances Series. *The Exonerated* is about the innocence of people and illuminates the way our justice system works while teaching about human capacities for cruelty and compassion. The company presented a "Playwright Talk-Back" session that afternoon before the performance.

Vanderbilt's **Advanced Production Workshop** in the new Film Studies Program created *The Room* of Frequent Assignation as this semester's studentproduced video project. Written by Don Jones and Will Akers, and directed by Akers (who teaches the class), it is a period 1910 piece about the funeral of a romance novelist who drops dead under scandalous circumstances. His wife and children are at the funeral when, one by one,

Chinese Arts Alliance of Nashville

with **Richard Alston**

Dance in late January and

DanceBrazil in March.

Richard Alston Dance is

Kingdom. They visited

hailed as the finest modern

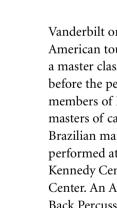
dance company in the United

DANCE:

his mistresses arrive.

To celebrate Chinese New Year in late January, the **Chinese Arts Alliance of Nashville** presented Touching Clouds— **Experiments with Chinese** Music & Dance. The program also featured other Chinese pieces as well as modern dances that interpreted Chinese music.

Great Performances at Vanderbilt once again brought top-notch contemporary dance to Nashville this spring





Lost Delta Found: Rediscover-Study, 1941-1942 was published recently by Vanderbilt University Press. The book,

Vanderbilt on their first North American tour, also offering a master class the afternoon before the performance. The members of DanceBrazil are masters of capoeira (the Brazilian martial art) and have performed at Spoleto USA, the Kennedy Center and Lincoln Center. An Audience Talk-Back Percussion Workshop was held at Nashville's Global **Education Center during** their visit.

ing the Fisk University-Library of Congress Coahoma County edited by Robert Gordon and



Bruce Nemerov, brings to light the work of musicologist **John** Work, sociologist Lewis Jones, and graduate student Samuel Adams—all of Fisk—who accompanied famed musicologist Alan **Lomax** on research trips in 1941 and 1942. Lomax condensed the two trips into one in his book Land Where the Blues Began after plans for a joint publication between Fisk and the Library of Congress fell through.

The research and writing of Work, Jones and Adams were rediscovered in a mislabeled box in a Nashville storage facility by Gordon while he was researching a biography of Muddy Waters.

The Gertrude Vanderbilt and Harold S. Vanderbilt Visiting Writers Series hosted poet **R.S. Gwynn** reading from his work in October. His first col-



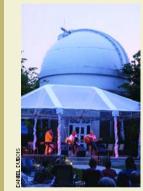
lection, The Drive-In, won the Breakthrough Award from the University of Missouri Press in 1986. He was awarded the Michael Braude Award in 2004

for *Light Verse* from the American Academy of Arts and Letters and was named University Scholar at Lamar University. His latest volume is No Word of Farewell: New and Selected Poems, 1970-2000. He lives in Beaumont, Texas.

Charles Baxter, whose fiction has been described as "a valentine to the Midwest" by The Atlantic, read from his

work in late January. Baxter has published eight books of fiction, including The Feast of Love, which was a 2000 National Book Award finalist. He is the Edelstein-Keller Professor of Creative Writing at the University of Minnesota and has received the Award in Literature from the American Academy of Arts and Letters and felowships from the Guggenheim Foundation and the National Endowment for the Arts.

UPCOMING



MUSIC

Vanderbilt's Dyer Observatory continues its Bluebird on the Mountain concert series this summer with some of the top songwriters in town playing in the round on perhaps the highest hilltop in Nashville. Bluebird concerts begin May 13 and continue monthly through October.

VISUAL ART

From June 1 through Aug. 4 at Sarratt Gallery, electronic media artist Brian DeLevie shows giclée prints that juxtapose images concerning the Holocaust and

DANCE

World War II.

The second annual Van derbilt Summer Dance Festival will take place June 7–17. Sponsored by the Vanderbilt Dance Program, it offers intensive dance training to persons 14 years of age and older.



* Student Point of View

Meeting Dr. Moffett

A young writer and an old physician bridge the distance of 78 years through their love of words. By Danielle Throneberry, BA'05

Jennifer Casale said from the couch of the tiny Vanderbilt Review office, where she sat in a storm of white papers. "This man graduated from medical school in 1932, and he's sending us poetry. And it's good!"

I looked up from the computer where I'd been working, pushed the chair away from the desk, and spun to take a polite look. A measured, clear script filled pages that had

been carefully torn from a steno pad and submitted to the *Vanderbilt Review*. Jennifer was right. It *was* good.

That was how Alex Moffett entered my life during my first year at Vanderbilt. Jennifer, who was editor of the *Review*, told me that the details of Dr. Moffett's life were a mystery, his author's biography the only information we had. He was known to us simply as a 1932

Vanderbilt University Medical School alumnus who had served briefly as a medical missionary in China and now resided in Grinnell, Iowa.

The fact that Vanderbilt still mattered so much to this man that he had sent hand-written poetry to a literary review that had first begun publishing in 1985—well, my little freshman mind reeled. Would I feel that way when I grew old? Would I still be writ-

ing? Is this what my four years at Vanderbilt would give me?

Dr. Moffett sent us a poem again the next year, then two the year after that. Each time, we marveled at his delicate, subtle verse and placed his name in the table of contents beside writers one-quarter his age. I was certainly no math major, but it was mostly fear that kept Jennifer and me from actually subtracting 1932 from 2005 to try and ascertain just how old Dr. Moffett must be. We were both afraid of that num-

ber—and afraid that the next year a new poem would not appear.

Jennifer graduated and went off into the "real world" of post-graduate life, and because I did not know what to do next, I took over as editor of the *Review*. I spent my senior year collecting pieces for the 2005 20th anniversary volume, planning and

plotting and designing. I tried not to wait for anything from Iowa. January melted into February. I Googled the words "Alex Moffett Grinnell Iowa" and found a phone number but was afraid to call. In March I filled two spaces in the table of contents with his name, but no titles. Finally, one sunny spring day as I was taking a break from working on the journal, the dogwood trees on campus protested so strongly

against endings that optimism overtook me, and I dialed the 641 area code.

The voice on the other end of the line was soft and measured—and slightly confused. I explained who I was and why I was calling, though I was uncertain that I was specific enough or that he was even hearing me properly. I hung up from that first phone call with an odd mixture of elation and dismay. Though he had promised he would call me back, I wasn't entirely sure that he had really comprehended what I'd said. I walked back to the *Review* offices, hoping that getting back to work would help me wait until his next call.

Just a few short hours later, I was rewarded by a call from a much more articulate and energetic-sounding Dr. Moffett. He had been taking a nap, he explained, and was so happy to hear from me. Of course he had poems he would send me; a friend of his would e-mail them right away. Within a day I had two poems from Dr. Moffett ready to insert into the Review's layout, and a much lighter heart. The man who had been only a few pages of written text now had a voice. When I read his poetry again, I could hear his voice speaking the words, and the sound was as strong as the shouts vaulting from the teenage Frisbee players on Alumni Lawn. It was only then, after Dr. Moffett's kind voice on the phone line, that I did the math.

The simple equation comes to 100—the total number of years that Dr. Moffett has



been on this earth. It took four of those years for my curiosity to reach the point that, in my post-graduation free-fall, with no job and no grad-school plans, I decided to find out just who this man was. Maybe I hoped that, in some way, meeting him might direct me towards the rest of my life.

My family has an impetuosity bordering on psychosis, which explains how, a few weeks after my graduation from Vanderbilt last May, we found ourselves driving from Atlanta to Iowa. I had checked to make sure Dr. Moffett was free for a visit, and my parents had joined my undertaking with a lunatic zeal.

Grinnell, Iowa, is about 15 miles off I-80 between Iowa City and Des Moines, in the middle of nothing but cornfields and prairie. It boasts several stoplights, a newly renovated Strand movie theater, a John Deere dealership, a small liberal-arts college, and the Mayflower retirement complex where Dr. Moffett lives.

I knocked on the door of

Room 210, and a now-familiar voice invited us in. His dorm-like room was neatly arranged, with an easy chair at the foot of his bed, flowers on the windowsill, a computer in one corner, and walls covered with water-colors and photographs. A portrait of his wife, his son's first headshot, and a photo of his daughter with her fiancé in England looked down on his writing desk, and a bookshelf full of poetry sat near at hand.

"We were all born in China," he tells me, speaking of his eight siblings, four of whom are still with him. "I grew up there. My father was from Kentucky. Mother was from New Orleans. They went over there right after they were married. Father was like one of the old Methodist circuit riders, and traveled to all the little churches around our city."

His voice, measured and low, does not waver as he speaks about his parents. The story is comfortable for him, as though this past is very much a part of his present.

"My mother taught music. The Chinese women would come and spend several

months learning from her. Mother taught all of us, too, got us ready to go off to school."

His early education prepared him well enough to be admitted to Washington and Lee University in Virginia, where he realized he wanted to become a doctor. "Then, you know,



you just applied to medical school. People just got in," he says with a soft chuckle, amazed but not surprised. "Vanderbilt was a small college then, a good one, but small. It was said when I was at Vanderbilt that Chancellor Kirkland had gone to court and took Vanderbilt away from the Methodist church."

He remembers working in the cafeteria to earn his meals. Even with free meals and a missionary child's stipend for tuition, Alex still had to cover rent and other expenses. "I did all the odd jobs I could find, made 35 cents an hour. I pressed Chancellor Kirkland's pants."

The chancellor lived on campus, and young Alex did odd jobs around the residence. He smiles as he tells this part of the story, his large hands resting on his knees. He is very still now, and calm, as he talks and talks.

"He had a big garden," Alex says. "He was quite the gardener, and I helped him there as well."

Alex took biology in the basement of Kirkland Hall, where the library was then housed, and he attended church services in Neely

Chapel. His collection of odd jobs saw him through medical school and then his internship. A two-year residency at Central State Hospital in Murfreesboro, Tenn., followed.

It was during this time that he met his wife of 62 years. "I married a Nashville girl,"

says Alex. "Virginia's home was on Vanderbilt Place, right next to where the front door of the gymnasium is now."

As he continues to speak about his wife, whom he lost eight years ago, a picture of Vanderbilt and Nashville-area life at the time begins to emerge. "Virginia was not one of those society people, but her whole crowd all laughed at the country music. They thought there was nothing to it," he says.

He and his wife did not stay in Nashville forever, though. "We went to China working in medical missions for five years, and then we came out on furlough but couldn't get back on account of the Second World War for a few years. We went

back for another year, just in time to have to get out for the communist revolution. One by one they completely closed down the mission hospitals and took them over. And we had three children, so we got out while there was time."

With China closed to them, they looked for a place in the States where Alex could work as a surgeon, settling on Taylorsville, N.C. "The community decided to build a hospital, and they wanted someone to come and do surgery," he says. "I went down there when the hospital opened. It was a very small town. I had to do a little bit of everything. Delivered a lot of babies."

He and his wife also had babies of their own. "We were in Taylorsville for 29 years. Then we just followed our family around."

He tells me about the five years they spent in New York, where their daughters lived. His strong familial bonds ease my worries that perhaps I am too close to my own family. Maybe driving with one's family across the

continued on page 87

*Alumni Point of View

Missing New Orleans

Amidst rubble and ruin, the periwinkles are making a comeback on Bancroft Drive. By MARY BETH PENDLEY RAY, BA'81

CAN'T THINK OF A POLITE OR PITHY answer when friends ask, "How was your trip to New Orleans?" I struggle for words to describe the devastation that has overtaken the Crescent City, the city where I was born and raised.

Two months after Hurricane Katrina, I returned with my mother to her home of 52 years. Mom had been back once already to survey the damage. I had seen the pictures, but nothing could have prepared me for seeing my childhood home destroyed.

Hurricane Katrina's wrath was merciless on the newer Lake Pontchartrain neighborhood where I grew up. Nature seemed to be reclaiming the swampy floodplain that our ancestors knew better than to try to control. Miles of destruction now mark the showdown between man and nature.

Most tourists think of New Orleans as the tawdry sleaze of Bourbon Street, swanky restau-

rant icons like Antoine's and Brennan's, garish casinos and sultry jazz clubs. More refined visitors reflect on the stately architecture of the Garden District or the charm of St. Charles Avenue streetcars.

My New Orleans, on the other hand, consisted of simpler pleasures, experienced during my 1960s childhood and more recently by my children: endless unsupervised bike rides on flat land; snowballs (called sno-

cones everywhere else), dripping in exotically flavored syrup like nectar, bubblegum and banana; neighborhood football games on lush, green front lawns unmarred by fences. We dangled from old oak trees and chased ducks around the lagoon in City Park. We sat on the seawall at the lake, brushing aside sunbleached clam shells, eating "sloppy" po-boy sandwiches, and tossing chunks of French bread to feisty seagulls.

Palms, crape myrtles, sweet bay, and birds of paradise surrounded pretty brick homes

in our comfortable enclave. The pungent scent of sweet olive, Confederate jasmine and gardenia enveloped our world, suspended in every balmy breeze. Blue jays, egrets, herons and squirrels thrived in the park-like setting.

My mother's home lies eight blocks from the lake, across the street from Bayou St. John, and exactly between the two levees that broke.

Today every plant is dead. We didn't think hell or high water could kill the ubiquitous banana trees, but sitting in two weeks of brackish water did. Lawns are brown, withered, and cluttered with detritus that resembles the bottom of a drained pond. Downed tree limbs and utility wires cover the streets and roofs.

Ugly brown watermarks deface every home, revealing the height of the ravaging flood water. Every home bears a cruel red "X," spray-

painted on the façade, indicating it was checked by relief workers for signs of life. Some markings indicate the number of dead bodies discovered inside.

We drive for miles and miles, my mother and I. Refrigerators sealed with duct tape perch on front lawns, indicating that optimists have returned to try to clean up their homes. A few residents are determined to defeat the mold and have gutted their homes down to the studs. Walls, insulation, sheetrock, carpeting and cabinets piled high have turned pristine gardens into dump sites. On other blocks, home owners have not tried to return. There are no cars, no people, no life. A military helicopter overhead occasionally breaks the deadly quiet.

The stench of mold and decay stays in one's nose, moves down to the throat, then becomes what locals call "the Katrina cough." Everyone's got it.

Friends and neighbors embrace and listen knowingly to each other's narratives—whether they evacuated before or after the hurricane, where they've spent the last few months, and when (or if) they plan to return. Even those whose homes escaped damage say they are depressed, that they feel in mourning for the city they loved and lost.

We found our favorite snowball stand in Lakeview. It was standing but flooded, closed for what may be forever. Hundreds of small cardboard signs cover the neutral ground along Harrison Avenue, Canal Boulevard and Wisner. They advertise mold remediation,



tree cutting, stump grinding and demolition. My favorite sported a touch of local humor: "Trash Haulin', Dawlin'."

Lakeshore Drive is still cluttered with boats pushed to the shoulder to clear the road. The landmark yacht club, the oldest in the coun-

try, burned just days after Katrina. The charming red-roofed lighthouse of the 1800s, half blown away, half tilting precariously toward the murky water, leads one to anticipate the sucking sound of its final collapse. Two pelicans fly along the shore, quietly surveying their new world order. They know not to expect friendly handouts, because the picnickers are long gone.

In the days and weeks after the storm, my family and I were glued to the TV news. Returning from our summer vacation in Canada, we sat in a LaGuardia Airport pizzeria, craning to see CNN. We pleaded with the waiter to turn up the volume so we could find out whether Mom and her home

were affected. Most of the coverage at that point focused on the Superdome and downtown.

Upon returning to our home in Washington, we learned that two acquaintances were going to New Orleans to cover the Katrina story for the *Financial Times* and the *Times* of *London*. We reached them on their cell phones and gave them directions to my mother's house, describing where to find the hidden key (in hindsight, a ridiculous hope).

For 24 hours we had no idea where Mother was. She had grown complacent about evacuating. Several times each summer for decades, officials had warned of "the big one," the hurricane that would wipe New Orleans off the map. The Saturday before Katrina, her next-door neighbor decided to evacuate to Lafayette, La., 150 miles west of New Orleans, and he offered Mother the high-rise hotel room he had reserved in an abundance of caution. She declined his offer, thinking the storm would change course, and that all the fuss was just the usual media hype. Finally, Sunday at noon she called to say that she

would check into the Wyndham Hotel downtown, just in case. That proved to be a decision that saved her life.

When she checked in Sunday afternoon, Mom was told that guests would have to come down to the windowless conference-room



level at 11 p.m. because the windows would not withstand the projected 150 mile-per-hour winds. Her room was on the 23rd floor, so she came down early with a pillow and blanket, dreading having to climb either up or down 23 flights of stairs. After the electricity went out, the hotel's generator ran for less than two hours, and stranded residents were without lights, water or a hot meal.

Monday morning Mom borrowed a hotel employee's cell phone to say that she was alive, hungry, and looking forward to getting home. She hoped the power outage had not spoiled the crawfish bisque in her freezer.

Then we lost touch with her. The entire 504 area code was unreachable. When I called the hotel's headquarters, they said they were unable to find out what was going on. News reports of looting, flooding, and forced evacuations to the Superdome brought forth alarming thoughts. Where was she, and how could she possibly get out? While we could not help but worry about Mom being alone, we were grateful that the hurricane had not

come one year earlier, when my father lay in a nursing home suffering from leukemia. Scenes of the elderly and the dying stranded at the New Orleans International Airport felt unbearably personal, and I feared that had Daddy been alive, that's where he'd be, with

Mom at his side.

Back at the Wyndham, guests huddled but did not especially bond—it was a group brought together by necessity, not by choice. Guests were told they had to remain inside the hotel until further notice.

By Tuesday morning my mother could stand the quarantine no longer. She quietly opened a back door, slipped out, and was rewarded with a gorgeous fall day. In the first hours after a hurricane, there is an eerie quiet and a yellowish light not like any other. Then a cool breeze stirs the heavy air. Trees and power lines were down, but New Orleans seemed to have dodged a bullet. Dazed tourists and natives wandered downtown streets to survey the aftermath, which didn't

seem so bad. But the sense of relief ended abruptly when a policeman stopped my mother near Harrah's Casino and urged her to get out of town immediately. The levees had broken and the city was flooding.

As we watched the news from our Washington home, we could see flooding already on Canal Street. The Wyndham stands at the foot of Canal Street next to the river. As cameras panned away from the river and towards the lake, the water level rose rapidly. The bulk of the city sat below sea level, like a bowl, into which water and toxic sludge poured from all directions.

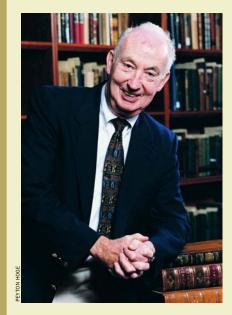
The next call came Tuesday afternoon. My 76-year-old mother was in her Volkswagen Passat with five hunky paramedics from California—hotel guests whom she had just met. She called from their cell phone as they weaved along back roads to Lafayette. Several days later Mom was able to get a flight from Baton Rouge to Washington, where we welcomed her with open arms, and disbelief.

continued on page 87

During his 57 years as an educator, Nelson L. Haggerson, BA'49, opened a new high school and an experimental elementary school, and supervised 201 doctoral dissertations.



{Alumni Association News}



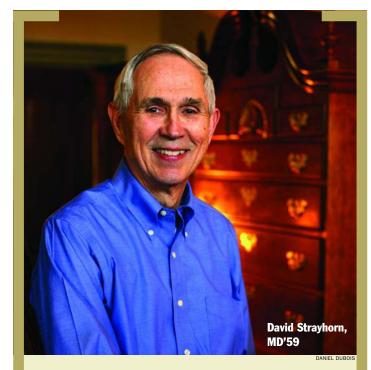
Heart **Transplant** Pioneer, Distinguished **Alumnus Dies** in California

Norman E. Shumway, MD'49, died of cancer Feb. 10, 2006, at his home in Palo Alto, Calif. The Vanderbilt University Alumni Association presented Shumway its second Distinguished Alumnus Award in 1997.

Shumway performed the first human heart transplant in the United States in January 1968. He and a surgical team at Stanford performed the transplant on a 54-year-old steelworker who died 14 days after the operation. While some on the same path gave up, Shumway continued his research, helping to improve techniques and patient survival rates. Thirteen years later he performed the first heart-lung transplant.

The son of a Michigan dairy farmer, Shumway joined the faculty at Stanford in 1958 and remained there his entire career. He also pioneered a procedure for correcting birth defects through bypass surgery and developed techniques for total surgical correction of "blue baby" heart defects.

Shumway is survived by his ex-wife; a son, Michael; three daughters, Amy, Lisa and Sara, MD'79, who directs the heart and lung transplantation program at the University of Minnesota; and two grandchildren.



Clever Hands and Claw Feet

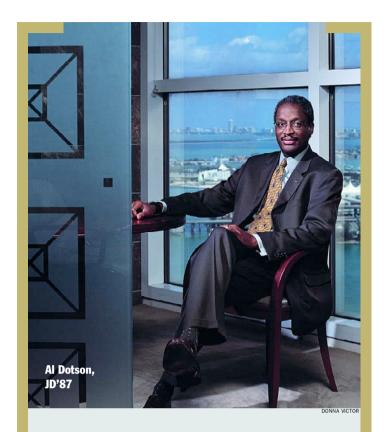
An English expert was asked the difference between British and American furniture of the 18th century. His reply: "It's the same difference as between a swan ... and a goose." No doubt which he considered the creations from his homeland. But the furniture of Dr. David Strayhorn might just change his mind.

Strayhorn's Nashville home is like a museum of American woodworking. Every bed, every piece of molding and wainscoting, high boys, low boys, tables and desks, china cabinets and bookcases, sideboards, chairs and window seats—even the kitchen cabinets and front doors were all lovingly crafted by Strayhorn. Each is made with the same construction techniques of the 18th century, with dovetail fittings instead of nails and hand-carved details like ball and claw feet or flame finials.

His father, also a physician, made furniture as well, and David picked up the hobby at an early age. His wife, Sue, thinks it has been a perfect pastime for a busy internist, now retired. "He would come home from work, change clothes, and run down the stairs—three at a time—to get to his shop. So he was always at home for the kids and for his patients who called," she says.

Steven Winkler, BA'76, and his wife, Monica, helped set up a field hospital for Katrina victims at an empty K-Mart store in Baton Rouge, La.





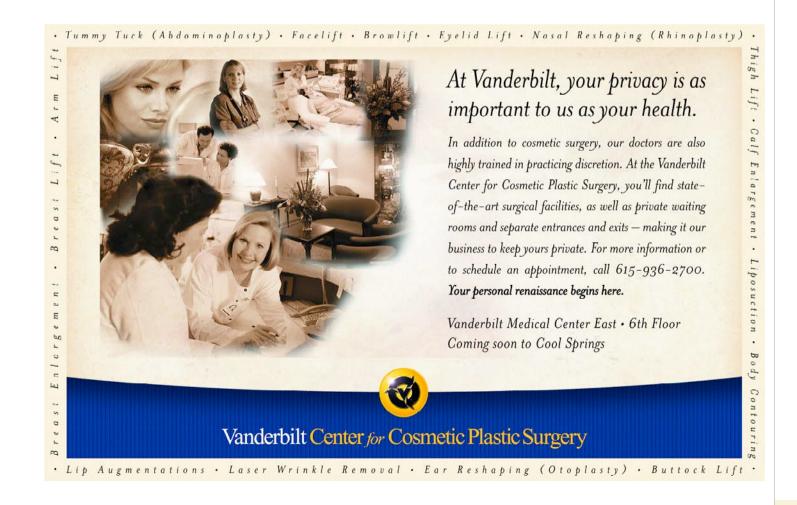
What Goes Around Comes Around

Soon after Al Dotson arrived in Miami to start his legal career, he and nine other businessmen started 100 Black Men of South Florida to extend the reach of its parent organization, 100 Black Men of America.

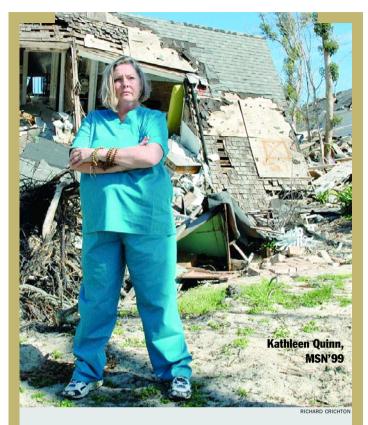
Today, Dotson is chairman of the international 100 Black Men organization, overseeing activities of 105 chapters worldwide. In addition to one-on-one mentoring, the organization and local chapters provide hundreds of scholarships and sponsor educational opportunities for thousands of students.

But the most important thing 100 Black Men offers young people is "the opportunity to meet people they otherwise would not meet, who will expose them to career opportunities and positive life choices," says Dotson, who is an equity partner with Bilzin Sumberg Baena Price & Axelrod. "Our programs enable young people—many of whom have never left their neighborhoods—to travel to other cities and gain exposure to different cultures and lifestyles."

In the 16 years since Dotson and colleagues founded the South Florida Chapter, some of the young men he mentored have returned and joined the organization. "There's nothing more rewarding than seeing that cycle complete itself and repeat itself."







Rebuilding Lives

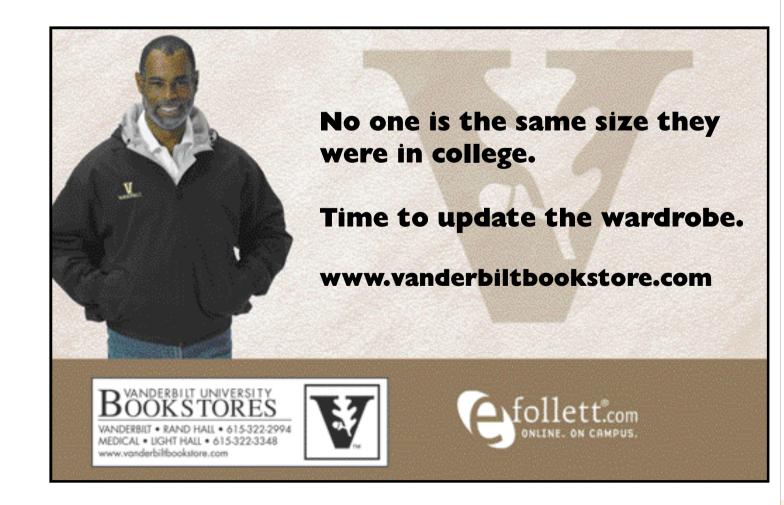
"Talk about some serious community health care," says Kathleen Quinn. "I didn't realize that I knew emergency medicine until Katrina hit and I was faced with people in the streets needing help."

A psychotherapist and a nurse practitioner in women's health, Quinn has offices and homes in New Orleans and in Pass Christian, Miss. Both became part of Katrina's ground zero.

Two days after the hurricane, Quinn returned to Pass Christian and began providing health services with supplies from her medical bag. The National Guard brought patients to her severely damaged home for treatment because it was one of the few standing buildings.

"Six thousand doctors and nurses from down here will not be coming back," she says. "We are still sorely lacking in hospitals in New Orleans and on the Gulf Coast." She currently is the only psychotherapist practicing in Orleans Parish, and the sole health-care provider in Pass Christian.

When the question arose as to whether Pass Christian might be bulldozed, Quinn took a political stand to protect remaining properties. She has become Pass Christian's watch-person on the ground. "We will rebuild the Pass," she declares.





{Alumni Association News}

Refrigerator Worthy

Watch for The Loop, a new calendar of Vanderbilt Chapter events in your area, to be mailed to you in fall 2006. We promise it's wor-



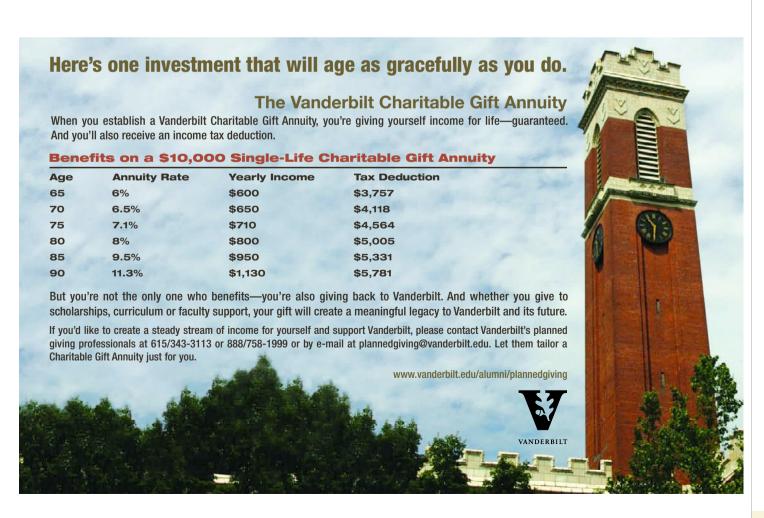
thy of a spot on your refrigerator.

Vanderbilt Chapters provide a great way to connect alumni, parents, students and friends worldwide. Opportunities include:

- Educational and cultural events featuring Vanderbilt professors, creative performances, art exhibits and more;
- Athletics gatherings to cheer the Commodores on to
- · Activities focused on young alumni, families and community service; and
- Events welcoming incoming students into the Vanderbilt community.

In addition to information in *The Loop*, many Chapter activities are publicized through e-mail. Don't miss out: Update your contact information and e-mail address on www.Dore2Dore.net, or send it to alumni@vanderbilt.edu.

Get involved today. Visit http://www.vanderbilt.edu/ alumni/alumclubs&events.htm for more information regarding Vanderbilt Chapters in your area.



From the Reader continued from page 6

gled equally during that first year.

I'm writing to encourage the magazine to include an article on the football team. Seeing pictures of happy fans and players on the day the 'Dores beat the Vols was priceless, and I hope it's the start of building a new kind of school spirit at Vandy. I don't want to read about Jay Cutler; I want to read about our prospects for next year. How does quarterback Chris Nickson expect to fill Cutler's shoes? Can Earl Bennett keep producing for next season? What is the team looking like for the future? I'm tempted to fly up to Nashville, interview these guys, and write the piece myself.

As a side note regarding the magazine: (1) I'd love to see Ms. Suddath continue with more myths dispelled [Fall 2005 issue, "I Heard a Rumor," p. 40]. As a former tour guide, I have helped perpetuate many myths. (2) Quarterly is nice, and more would be wonderful, but I realize it comes down to money, staff and articles. (3) The sports section should be larger. After all, we added sailing and a women's bowling team this year. Has anyone thought about a separate sports magazine? (4) With the residential college system attempting to come full swing, I'd like to see how that's going. (5) Keep up the great work.

Anne Wilkerson, BS'04 Fort Worth, Texas

Encouraging Words

[The Fall 2005] issue was simply the best. From cover to cover, it entertained, informed and caused reflection. Excellent job by all involved.

A note regarding an alumnus: Daniel W. Muehlman, BE'73, died in October of 2004. Many will remember him as the recipient of a standing ovation at his graduation. It was an amazing feat for a man who never liked the "rules" of academia.

HEATH GUNN, BA'71 Langley, Wash.

HEARTY CONGRATULATIONS ON AN OUTSTANDING issue. The article on Robert Penn Warren [Fall 2005 issue, "Corner of the Eye," p. 44] sent me back to the old Vanderbilt Miscellany. (Alas, that did not contain "Blackberry Sum-



mer.") The Roy Blount piece ["Take the Side Road," p. 54] was all new to me, and funny. And, of course, "Thando's Journey" [p. 30] was both heartbreaking and inspiring. This is just what an issue of an alumni magazine should be—and very few are. (We get several at our house, so I have some basis for comparison.) Keep up the good work.

LEE E. PRESTON, BA'51 Professor emeritus, University of Maryland College Park, Md.

The average age of residents in our assisted-living unit is 90 years. My friend (whose granddaughter is a freshman at Vanderbilt) and I thoroughly liked all of the Fall 2005 magazine. We especially enjoyed the life and work of Robert Penn Warren, Roy Blount's glimpses, "Thando's Journey," and the article about Vanderbilt legends. We're looking forward to the next issue.

PRISCILLA BARRETT, BS'57 Covington, La.

Busy as I am, I couldn't just toss the Fall 2005 issue. So I decided to sample a little of it, and then more and more. As always, reading from back to front, I at last came to your request for feedback.

I want you to know I haven't always been so proud of being an alumna as I am today. I want you to know that, and I thank God for you.

MARTHA GRAVES DEBARDELEBEN, BA'47 Princeton, N.J.

Letters are always welcome

in response to contents of the magazine. We reserve the right to edit for length, style and clarity. Send signed letters to the Editor, Vanderbilt Magazine, VU Station B 357703, 2301 Vanderbilt Place, Nashville, TN 37235-7703, or e-mail vanderbiltmagazine@vanderbilt.edu.

VJournal continued from page 7

in lieu of a purse. Randall was still our chairman, and I do not know why I didn't take Mrs. Vanderbilt to his office, but we went to Ed Duncan's more austere quarters, where we were joined by several of my colleagues. We got Mrs. Vanderbilt settled in the best chair available, took our places around her, and waited to try to answer whatever she might ask. To our discomfort, at first she did not ask anything, but it was clear that she wanted something. She looked around, not at us, but at the door and the corners of the room. Finally, she put out her hand as if she expected whatever she needed to be put in it.

"Mrs. Vanderbilt," I said, "what may I get for you?"

"Water," she replied, her tone indicating that I was a fool for having to ask.

All of us scurried to find a glass in which to put the water—sooner said than done in this case, for most of us used the drinking fountains in the building. We got a glass from one of the secretaries, thick and clumsy and, I surmised, not the sort from which Mrs. Van-

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derbilt was accustomed to drinking. But she did drink, and then she talked, and we agreed with whatever she said, whatever our thoughts were on the subject under discussion. Mercifully, the interview was soon over. I offered to accompany her to her car. "Well," she said, "you won't have far to go." And I didn't. Our building was in the middle of the campus, but her driver had brought her cross-country, over the lawns and walks and around trees, to park at our front door, which was where I said goodbye to her.

The symposium continued and, ultimately, perhaps in her will, Mrs. Vanderbilt endowed it, but this was after I had turned the program over to someone else. Randall Stewart had invited to the first symposia some of our distinguished alumni, members of the Fugitives and Agrarian groups who had brought notice, if not fame, to Vanderbilt in the late '20s and early '30s. Allen Tate, Robert Penn Warren. John Crowe Ransom, Andrew Lytle and Cleanth Brooks appeared on some of the early programs and, when I succeeded Randall, I invited them to come again. Alexander Heard, who had become chancellor when Harvie Branscomb retired, thought we were overdoing the Fugitive-Agrarian connection and said so. From time to time, Alex Heard got a letter from Jim Dickey asking that he be invited to read. Jim had earned [bachelor's and master's degrees] at Vanderbilt shortly after World War II. In his letters to Alex, he always warned that his schedule of readings was filling up. To avoid disappointment we should invite him at once. He added that Vanderbilt ought to be "falling all over itself" to arrange for him to receive an honorary degree. Vanderbilt doesn't give honorary degrees, but frequently, after letters from Dickey, Alex suggested that I invite Jim to appear at a symposium, probably because he was tired of the letters Jim was writing him.

I held my ground. I knew too well Jim and how he behaved for me to take responsibility for him, but the story has a sequel. Dan Young, my successor at running the symposium, in innocence or with guile—for Dan was known as a campus politician and may have wanted to curry favor with Alex Heard—invited Dickey and appointed a graduate student to be Jim's keeper. The student's duties were, first, to get Jim to the auditorium in

time for the reading and, second, to keep Jim sufficiently sober to read his own lines, an assignment that only a policeman, and a tough one at that, could have accomplished. At the hour the program was to begin, students crowded the auditorium. Some were there because they admired Jim's poetry. Many more had read his novel Deliverance or had seen the movie based on it. They occupied all the seats, stood at the back and along the walls, sat or sprawled in the aisles, but there was no Dickey. Dan Young hastened to the Holiday Inn where Jim was staying, went immediately to the bar, and found Jim and the graduate student drinking together. I did not see the scene that followed. Later, Dan said the graduate student was drunk beyond taking care of himself, much less seeing that Dickey kept to his schedule. Jim was at first happy, but he soon resented the tone in which Dan spoke to him. He declared that he was not ready to leave the bar and might not leave at all unless Dan addressed him in more conciliatory terms. He agreed to come at once, however, when Dan threatened to withhold his stipend.

In a perfect world, Jim would have paid for his arrogance with a poor reading and a disgusted audience, but no such thing happened. After his introduction he mounted the stage with a firm step. He stood behind the dais silently, allowing his gaze to move from one side of the room to the other, letting the audience wait a moment longer in anticipation. Then in the loudest voice he could muster, he said, "Sh-i-i-t," drawing out the word that, to the best of my recollection, had never before been spoken from a Vanderbilt stage by a visiting writer. He paused for a moment, beaming at the audience. He was having his triumph, congratulating himself for having packed the hall. The delighted students cheered this contravention of protocol. When they quieted down, Jim read and read well.

I brought to Vanderbilt the best writers I could find who would agree to come. Among fiction writers who lectured and read were Anthony Burgess, William Golding, Allen Sillitoe, Elizabeth Spencer, Eudora Welty, Jean Stafford, Peter Taylor, Mary Lavin, Katherine Anne Porter, J.F. Powers, Flannery O'Connor, Shelby Foote, Walker Percy, Madison

Jones, Verlin Cassill and Benedict Kiely. Some poets who read at Vanderbilt were Richard Wilbur, Richard Eberhart, W.H. Auden, Louis Coxe, Louis Simpson, Donald Justice, Paul Engle, William Stafford, William Jay Smith, Robert Hollander, and those stalwarts from the Fugitive days, John Crowe Ransom, Allen Tate and Robert Penn Warren.

In spite of legendary topers such as Dylan Thomas and madmen like Cal Lowell, in my limited experience as a literary impresario I found that, in general, poets, while not abstemious, behaved more prudently than novelists. Allen Tate was an exception. He drank too much and chased too many women and married too many times, but his fellow Fugitives, Mr. Ransom and Red Warren, lived careful lives, husbanding their energy as if, wherever they were and whatever they were doing, a part of their minds was always at work on the poem or novel or essay they were writing. For most of the years that I knew him, Mr. Davidson did not drink at all. His life after the Fugitive movement had been different from those of his colleagues—more difficult, as he saw it, and he seemed to want to separate himself from the loose behavior of other writers, from any suggestion of bohemian excess.

Some writers visited us for entire semesters, but these did not come on Mrs. Vanderbilt's money; they were supported by outside foundations such as the American Council of Learned Societies, or they substituted for Vanderbilt professors who were on leave and were paid out of the department budget.

Over the years our long-term visitors came from various parts of the world, and most of them spoke English fluently. In one spectacular case we were joined for a semester by a Japanese novelist who, we were told, was "the Robert Penn Warren of Japan." He appeared to be capable of speaking only two English sentences. "Do you know Allen Tate?" he would ask, and when you said that you did, he would smile amiably and say, "Thank you very much."

His wife knew English quite well, but she would not admit that she knew it when he was close by. She would not translate for him. She would not take messages over the phone. At parties, when he was at one end of the room and she was at the other, she would chat easily, but when he approached, suddenly, with a straight face she would say that she did not speak English. This was trying, but, once, her refusal to translate for her husband brought what some of us considered

just retribution. They were at our house. To go with her food, [my wife] Jane had put out some mild mustard and some that was extremely hot. Our visitor chose the hot and began to pile it on his ham and biscuit.

"Please," Jane said to his wife, "he is welcome to all he wants of anything, but that mustard is very hot. Please tell him. He will burn himself."

His wife, giving Jane an innocent smile, said, "No speak."

The Robert Penn Warren of Japan took a large bite. His eyes filled with tears. His face turned a deep red. He began to gasp. Jane gave him water, which did not immediately cool the fire. Our guest gasped again and coughed and wheezed. No one could help him. We watched while he suffered. But nothing changed. His pain wasn't sufficiently severe for him to allow his wife to translate for him.

Walter Sullivan, Vanderbilt professor of English, emeritus, is the author of three novels, numerous short stories, and three books of criticism. This article is adapted from Nothing Gold Can Stay: a Memoir, published by the University of Missouri Press (2006, www.umsystem.edu/upress).

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halfway through high school you switch to French."

Lawrence isn't content with knowing five languages and is working on her sixth, Spanish. It seems that for Lawrence, speaking several forms of vernacular is second nature. But for those around her, as Richards expressed before, there is something both entertaining and captivating about watching her linguistic fluidity in action.

"I have no idea what she's saying when she talks to her mom," says Coach Martha Freitag. "She might as well be speaking Japanese, but it's fun to see how easily she jumps between languages. It's fascinating. I can only speak very little Spanish—maybe enough to ask for directions—so to watch her jump between languages shows what a great talent she has."

Of course, it wasn't her talent with languages that persuaded Freitag to recruit Lawrence. While attending the prestigious David Leadbetter Golf Academy in Bradenton, Fla., Lawrence caught the eye of Vanderbilt's coaches with her impressive performances at various national tournaments. After narrowing her school choices down to Vandy and Texas, the decision became clear after talking to Coach Freitag and paying a campus visit.

"It just seemed perfect—the academics, the school itself, the coach—and the team was doing really well that year. It was a nobrainer," Lawrence says.

Disappointed with her performance as a freshman, Lawrence worked hard over the summer and, in the fall, twice bested her career low from last season with scores of 70 and 68. She also earned her first top-10 finish in the team's opening match at the Cougar Classic in Charleston, S.C.

"This year we're seeing the kind of golf we knew she was capable of," Freitag says. "I feel like she's just going to get more and more consistent every day." Even as Lawrence develops her game, Vanderbilt has changed her perspective on what she wants to achieve in life. When she came to the U.S., Lawrence was intent on pursuing a career in professional golf and had never experienced anything outside of the very golf-centric atmosphere of the academy in Florida. But during these last two years, Lawrence has come to realize that she has opportunities open to her that extend far beyond the realm of golf.

"Before I came here, I was never around so many intellectual people who are interested in so many different things," she says. "Vanderbilt has given me insights about the entire world and what I might be able to do."

Majoring in communication studies, Lawrence now knows that if a career in golf does not work out, her language skills can take her places she never dreamed of before.

Greg Roberts is a senior in the College of Arts and Science, majoring in French and history.

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of Luciano Pavarotti's Rise to Fame, 2004, Doubleday]," Womack says. "He had arranged for tickets and for Clarise to have a special pass that allowed us into Pavarotti's suite backstage." There, for the better part of an hour, the great singer sat and talked with DeQuasie, holding her hand and murmuring terms of endearment. "He was really a regal presence, attended by his staff. Clarise was his only guest, yet she felt perfectly natural with him," recalls Womack. "In fact, Pavarotti said words to the effect that Clarise was the most genuine person he knew, that she was her own person, with no pretenses, and there was no one else like her."

A little over a year later, DeQuasie died. She donated her body to medical research and later, according to her wishes, her ashes were sprinkled in the yard of Evins' home at McKendree Village. Her collection of Pavarotti memorabilia now sits in 22 boxes in the Library Annex, waiting to be cataloged. "This is the hardest kind of collection to process because you have to go through each box and all the items individually," says Kathleen Smith, associate university archivist. "It's a treasure waiting to be mined—we just don't have the resources to process it yet."

When it is, the tale of the Vanderbilt librarian and the Italian tenor will provide a happy ending for anyone researching opera, Pavarot-

ti, or that memorable time in the late 20th century when an opera singer was more popular than most rock stars. And, if it is true that collections are as much about the collector as they are about the items collected, the Clarise DeQuasie Luciano Pavarotti Collection will also shed light on another life and career—one perhaps not as illustrious as Pavarotti's, but one as richly enjoyed and generously shared with others in its own quiet way.

Angela Fox writes feature articles about the arts and travel from her Nashville home.

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gious educators and lay people about the relationship between Judaism and Christianity. During the stint of more than two weeks, she stayed in a Maryknoll convent in Manila. (She went as representative of the Catholic Biblical Association of America.) Evidently, she bonded with her audiences.

"At the end of her last lecture, instead of the usual words of gratitude, I decided to ask the audience to sing the Filipino liturgical song 'Hindi Kita Malilimutan,'" says Victor R. Salanga, president of the Catholic Biblical Association of the Philippines. "As soon as the audience began singing, A.-J. removed her shoes, sat comfortably on the stage floor and listened. At the song's end, I think there were tears in her eyes. I also sensed the same tears in the audience's. It was, I think, the best image of a conversation between Jews, whom A.-J. represented, and Catholics."

Lately, she has added a new venue to her long list of appearances—prison. For the first time, in fall 2005, she taught her seminar on the Gospel of Matthew at Riverbend Maximum Security Institution, a Tennessee state prison in Nashville. A dozen divinity students make the weekly drive there, where they are joined by nine inmates.

She calls the experimental Riverbend class a rewarding experience.

"It's very helpful for the divinity students who are studying to be ministers to work pastorally with people who have a take on, say, forgiveness, or hope, or community that is extremely different from those of the rest of us, and that's what's happening here," she says.

Harmon Wray, a Divinity School adjunct professor who co-teaches the Riverbend course with Levine, says she treats the inmates with sensitivity and respect.

"She is with them the way she is with the divinity students," says Wray, a longtime activist in prison and justice issues. "She looks for ways to make the material relevant, and she affirms what kernel of creativity and truth she finds among the students, and she pushes for more."

An Orthodox synagogue member teaching Jesus at a mostly Christian theological school sounds unlikely neither to Vanderbilt nor to Levine.

"She has a real gift," says James Hudnut-Beumler, dean of the Divinity School, "for working with people who want to be Christian ministers, especially around two topics—the issue of what the gospels really say, and on the relationship between Judaism and Christianity. It's a very valuable gift to bring to Vanderbilt, given Vanderbilt's long-standing commitment to the validity of both religious traditions."

Studying the New Testament, Levine says, "makes me a better Jew."

"It recovers a part of my history that the synagogue didn't keep," she says. "It contains some very good Jewish parables. And I find the New Testament extremely informative about the social freedoms Jewish women had at the time. They owned their own homes, they traveled freely. They had use of their own funds. They worshiped in synagogues and the Jerusalem temple.

"And Jesus is a quite splendid Jewish teacher. I find much of what he says about the kingdom of God compelling. What would society look like if people actually took care of each other? If we did forgive debts? If we recognized that we are all children of God?

"I just don't worship the messenger."

Levine has been on the case—pondering the complicated co-existence of Judaism and Christianity—since her girlhood days in New England. Growing up outside New Bedford, Mass., she was raised in a Jewish household in a Portuguese Catholic neighborhood. Her friends were Catholic, and she relished the invitations to the many feast-day celebrations, tree trimmings and Easter egg hunts.

The surrounding Catholicism could also occasion a young Jewish girl's wild surmises about the meaning of it all. In her introduction to *A Feminist Companion to Mariology*, Levine recounts some early musings about another Jewish girl, Mary the mother of Jesus.

"The Virgin Mary made me nervous. When I was a child growing up in a predominantly Roman Catholic town in Massachusetts, my friends informed me that Jesus would return the same way he had come before—that is, a Jewish virgin would be his mother. Being the only Jewish virgin in the

neighborhood, I might therefore become the messiah's mother.

"Consequently, during much of second grade, I was absolutely petrified that an angel would appear in my bedroom, say, 'Hail, Amy-Jill,' and tell me I was going to be pregnant."

Soon, however, the rich religious pluralism of her grade-school years took a difficult turn when she was confronted by a kid on the school bus.

"You killed our Lord," a girl said to her.

Levine recalls: "I had never heard that before. I took it personally. I couldn't figure out how this beautiful Christian tradition could say such horrible things about me. I started asking questions."

So began a line of inquiry that carries forward to this day—her attempt to get to the heart of religious meaning and unpack misconceptions and prejudices, all while honoring the integrity of historical faiths.

Lately, she has been outspokenly critical of anti-Jewish interpretations—sometimes indirect or unintended—in liberationist Christian or other church publications, the habit of exalting Jesus by denigrating the Judaism of his time. "As long as Jesus is divorced from Judaism and Judaism is portrayed as the evil side of religion, there is no hope for peace," she says.

Levine has confronted publishers and other ecclesiastical gatekeepers bluntly for tolerating official materials that casually or new and different Deity than the one revealed in Torah and worshiped in the Synagogue. This is the liberation-theological spin on that old canard of the Old Testament 'god of wrath' versus the New Testament 'God of love.' The false god is now the 'god' (lowercase g) of Pharisaic Judaism or the god of the Jewish tradition."

It's not a new problem; anti-Semitic readings of scripture have persisted for centuries, she notes. But world-scale terrorism has turned religious hatred into a recruiting tool and selling point, and it exists in subtle ways even among preachers of interfaith virtues. It's become everybody's problem, she says.

What, then, is to be done?

"First, Christianity—its scriptures, theologies, liturgies, saints, everything—is on the whole splendid," says Levine. "Thus, Christians should learn how to celebrate the glories of their own tradition without having to use Judaism as a negative foil. And, since Christianity—like Judaism, Islam and all other religions—has certain aspects that are less positive (aspects manifested in scripture, in history, in theology, etc.), then Christians need to acknowledge these points as well. Rather than blame 'the Jews' or 'the rabbis' for problems in scripture, Christians might recognize that the material is in their canon, take responsibility for it, and so find means other than anti-Semitic invention for addressing it."

World-scale terrorism has turned religious hatred into a recruiting tool and selling point, and it exists in subtle ways even among preachers of interfaith virtues. It's become everybody's problem.

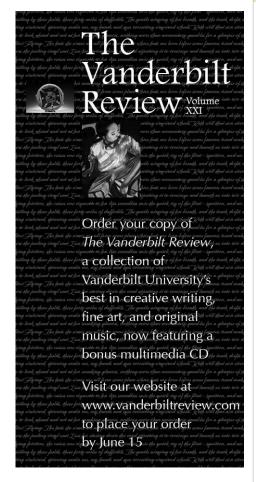
naively condemn first-century Judaism as oppressive, narrow-minded and anti-female.

"It's sloppy scholarship based on a false construct of Judaism, which leads to anti-Semitism, and liberals would be appalled if they knew they were doing that," she says. "Jesus was not—contrary to stereotype—the only Jewish teacher of the time who treated women with respect."

In a recent address she declared, "Worst of all is the assertion that Jesus introduces a

She says Jews, too, need to study Christianity more diligently and learn about the diversity of the Christian community—and do "remedial work" about their own Jewish religious traditions.

Are church and synagogue destined to remain on separate spiritual and political parallel tracks, always flirting with mutual alienation or hostility? The solution, Levine says, is finally a matter of belief and ethical action—mutual respect and generosity of



spirit under the one God:

"If we just look with our human eyes, we see separation. But if we look at those tracks on the horizon—if we look with God's eyes—then we see that the tracks meet. Jesus and his followers were all Jews; in the far past, there was no break between Judaism and Christianity. But history and hate have intervened. If we look to that other horizon, that future time, those tracks meet again. For we are all traveling in the same direction, with the same destination of love of God and love of neighbor."

A.-J. Levine embraces the roles of interfaith advocate and Bible teacher with energy and hope, not discouragement, in an era bent on polarization and violence. Says her boss, Dean Hudnut-Beumler: "She's turned a lifetime quest to the best possible advantage for both Jews and Christians."

Ray Waddle, MA'81, is a Nashville-based writer and author of Against the Grain: Unconventional Wisdom from Ecclesiastes.

Critical Condition *continued from page 53* of sucking away their intellectual, professional workforce.

"It's irresponsible to go to developing countries because they desperately need nurses," says VUSN's Linda Norman. In South Africa, for example, roughly 50 percent of nurses leave the country within three years of completing training so they can make more money, send that money home to destitute families, and take advantage of opportunities unavailable in developing health-care systems.

"These countries spend a lot of money educating nurses, which further depletes their struggling economies," she says. "On the other hand, the Philippines is a country that has always over-trained nurses. They have more trained nurses than positions. Filipino nurses are considered an export commodity."

Estimates suggest that foreign-employed Filipino nurses funnel billions of dollars back to their home country each year. But *Nurseweek* (April 11, 2005) questions the end result. According to a recent report, "Exportation of 15,000 nurses each year to developed nations ... poses a serious long-term threat to the Philippines' health system. ... Filipino physicians, realizing they can make more as nurs-

es in America, are enrolling in nursing school with the intention of immigrating to the U.S. to work."

Recognizing that the foreign nurse debate will need to be resolved on an international level, Norman helped set up a communications and training program in collaboration with Medlink International, a health-care recruiting firm that places foreign nurses in jobs in the U.S. and Europe. Although Vanderbilt does not recruit foreign nurses, Norman believes that both foreign nurses and the receiving institutions to which they are recruited must prepare for and accommodate multicultural differences. Easing this complicated transition ultimately works for the good of patients—even while the politics are being hammered out.

In the end, politics will likely determine how the nursing shortage is solved anyway. For years Buerhaus and others have been frustrated by Congress' lack of action. Recently, the Federal Bank of Boston convened Buerhaus and others to examine the state of the nursing workforce, fearing that if the workforce in New England were not adequate, the economic viability of the health-care industry—a large driver of the region's economy—

could be at risk.

Dean Conway-Welch proposes that Congress implement something akin to the Cadet Nurse Corps of the 1940s, when the U.S. faced a critical nursing shortage after entering World War II. The federal government provided stipends for people to attend nursing school, funds for tuition and fees, and expanded residential facilities. Thanks to the Cadet Nurse Corps, the nursing workforce grew by 169,443 within two years.

Says Conway-Welch, "I expect something like that will happen when things get serious enough."

They're already getting pretty serious. Buerhaus' data predict an escalation of the nursing shortage—estimated to be as high as 400,000, but which the U.S. government says may reach 800,000, by 2020. This deficit looms at the same time nursing schools are turning away thousands of qualified students.

"Congress needs to step up and quickly fix this capacity problem because, frankly, we're never going to get through a shortage of 400,000 to 800,000 nurses," Buerhaus says. "The lights will be turned off long before then."

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room schoolhouses in Tennessee. I began my schooling there, learning to read, write and "cipher" in a class of about 30 students. We were taught by a single teacher who had charge of eight grades. There was no electricity or running water in the schoolhouse. It was lit by kerosene lanterns and heated by a potbellied cast-iron stove. My teacher was a superb instructor, however, and I benefited from the setup. When I was not being instructed myself, I would listen to the lessons of the other students. Thus began my formal education.

I learned other things, too, mostly about myself. As I indicated earlier, everybody on the island participated in planting, tending and harvesting the cotton crop. All of that is done mechanically now, but in my boyhood most of it was done manually. That meant chopping cotton in the summer (hoeing weeds) and picking it in the fall. Both labors are incredibly difficult, but they wonderfully concentrated my mind.

I never keep a New Year's resolution today,

but I've kept two that I made in the cotton fields on Shoaf's Island as a boy of 10. The first was to get an education. I noted in my infrequent trips to the mainland that most of the people who weren't working in the sun had a college education, so I resolved to get myself one. The second was that I was never again going to wear blue jeans or boots, the garb of the field hand.

I didn't know it then, but I would soon test those resolutions. Change came slowly to the island, but it came nonetheless. The mechanical harvesters became more efficient, and factories moved from the North to the Tennessee mainland. Thus, as the '60s came on, people began to leave, until only a dozen remained by decade's end. In fact, I left myself. My parents divorced, and I moved to the mainland with my mother and became a "town boy" enrolled in Ripley schools. Even that was temporary. I got a scholarship to a boarding prep school and left West Tennessee for good in 1966. I've been on the run ever since, living all over

the world and trying my hand at several professions. I also picked up some book-learning (some of it at Vanderbilt), although I've concluded that Mark Twain, another boy who grew up on the River, was right: You shouldn't let your schooling interfere with your education. And part of that education arose from the fact that I was singularly fortunate to have grown up on the island. I came to love the land, appreciate the value of hard work and, mostly, to know in an increasingly rootless world where I'm from.

I still don't own any blue jeans. But every October I renew a ritual I began in 1972. I go home, back across the river, and into the fields where I labored as a boy. My father, now the island's lone inhabitant, is too old to put in a crop. But the people who lease the island from him know good cotton land when they see it. So I snap off one boll of cotton and carry it back to Nashville. For the next year it, like 33 bolls before it, will sit on the corner of my desk to remind me what real work is and where I came from.

S.P.O.V. continued from page 65

country like this is not abnormal, after all. Perhaps it is simply wise.

Dr. Moffett is finishing off the last chapters of his life near his son. He doesn't "get out much," he says, but his knowledge of the town and the contents of his room belie this. Of the Apple computer in the corner, he says, "All I can do is word process. I can't do any of the other stuff. I don't get Internet because I'm illiterate!"

I wonder what it would be like to live without the distraction of the Internet. The Mayflower community, it seems, provides him with all the intellectual stimulation of a big-city cultural hub, thanks to nearby Grinnell College.

"We can go to musical programs on campus without charge, and you can audit most of the courses for free," says Alex. "Except during the summers we have a program once a week, music or literature or some sort of lecture. I was on the committee for quite a few years and really enjoyed that, getting in touch with the professors and people who'd come in."

He launches into a passionate discussion of poets and poetry and music. He loves to read, he declares, loves John Crowe Ransom, Denise Levertov and Ted Koozer. He is an enthusiastic member of a poetry group in the Mayflower retirement complex.

"We have no organization," he says, smiling. "We just get together. There's a fair amount of talking, it's not strictly poetry. We try to bring our own work, but we *always* read from a good poet."

At that I smile, too, recalling nights from my senior year spent in dorm rooms, one of my writer friends reading aloud to a small group, all of us listening, slightly desperate, hoping to find a clue to uncovering our own genius buried somewhere within the lines of a "good poet." None of us yet has found that clue. Some have gone searching for it in the stars of the skies of Argentina, others in law school, but our genius remains elusive to us yet.

Still, our hope remains, in part for me because of Dr. Moffett. It must have felt elusive, too, to a first-year medical student putting himself through school, ironing the chancellor's pants and weeding his garden. The pages of his life must then, in a time of market crashes and wars, have stretched before him white and daunting. Perhaps at times he staggered under the expectation of filling his pages. It is that possibility that drives me on, keeps me afloat in similarly turbulent times. My story will be written, too, and my family will surround me as I compose it. I simply must continue, each day from my small surface, to pick up the pen, and write.

A.P.O.V. continued from page 67

For the next two months, little direct information existed about our neighborhood. We gathered bits from neighbors who made their way back to the city despite the roadblocks manned by the National Guard. We agonized over when to return, and whether we should bring our children. After six weeks Mom finally agreed to shop for clothes. The two outfits she evacuated with were not warm enough for the mid-Atlantic autumn. Those purchases spoke to her acceptance that what remained in her New Orleans closet was ruined.

When she finally returned, her worst fears were confirmed. Doors and windows were swollen shut, and the house could only be entered by breaking windows. The force of the water inside the house created an unholy chaos. The coffeepot floated from the kitchen counter to my bed. A heavy oak table 5 feet in diameter floated over the breakfast bar from the den into the kitchen and separated into 50 pieces.

Dark stinking mold covered everything. Clouds of green dust sprayed out whenever something was moved. Century-old family photographs, World War II scrapbooks, and bank records dating back to the 1920s were

reduced to a soggy mess and covered in sludge. It all looked as though some giant monster had filled the house with water and shaken it like a snow globe.

No one really knows the next step. What's predictable is the morass of bureaucracy that surrounds every logistical detail: insurance claims, FEMA applications and contractor bids. Circular voicemail recordings that ultimately disconnect the caller, along with mounds of paperwork, plague every evacuee. Who makes the determination of renovation versus demolition? Who pays for it? Where does one live in the meantime?

But today Bourbon Street is back in business. The "World-Famous Love Acts" sign flashes garishly, and presumably employees are back to doing whatever they did before the storm to live up to their advertisement. Law-enforcement officers swarm the streets of the French Quarter, but their guns seem smaller and more discreet than in those weeks just after the storm. Café du Monde's mellow chicory-laced coffee tastes better than ever. Uptown restaurants are bouncing back, and Jefferson Parish schools are back in session.

As for the neighborhood where I grew up, its fate is unclear. After the flood an alligator

was spotted strolling down the middle of Bancroft Drive, adding credence to the belief that the area will be razed and allowed to revert to its pre-1878 status as a swamp. Others expect a developer to bulldoze the houses and create a gated community of McMansions, built on stilts to avoid another flood.

Mom has returned to New Orleans to stay. She is living with friends Uptown while she hunts for a furnished apartment in the French Quarter. Strangely enough, almost every piece of her china and crystal survived the perilous wind and waves intact. My mother is determined that the city will make a comeback. And who knows? Maybe it will. Just yesterday she found periwinkles in the backyard, pushing their way through the broken glass and grime.

When I left New Orleans to fly back to Washington, I realized as my plane rose that the swimming pools are black and the roofs are blue, covered in protective tarps. But by the time we got to 20,000 feet, I smiled at the gentle curve of the Mississippi River below, glistening beside green rectangles of carefully tended sugar-cane fields. Despite it all, man and nature were peacefully coexisting again, at least until the next hurricane.

SouthernJournal

Reflections on the South

Island Roots

Chopping cotton with one eye on the land of chrome and concrete.

By Forrest Shoaf, MA'80

HE MISSISSIPPI RIVER, figuratively and literally, is central to the American experience. Certainly, it has been central to mine. I grew up in rural West Tennessee, approximately 50 miles north of Memphis, in the '50s and '60s and spent most of those days on my family's cotton farm. That's not so unusual. Lots of boys have done that. What distinguishes our farm and my early life there is that it was situated on an island in the Mississippi River, approximately one mile off the "west coast" of Tennessee. In fact, the state line between Arkansas and Tennessee. which everywhere else lies along the middle of the channel, runs through the island. (The river has a mind of its own and, after the border was established, the river decided it wanted to go somewhere else and bit off part of Arkansas.)

As far as I know, Shoaf's Island, as it is known locally (the bureaucratic Corps of Engineers refers to it less picturesquely as Island No. 26), is the only inhabited island in the lower Mississippi. Most river islands "ride low" in the water and flood when the river rises. Shoaf's Island sits 30 feet above the channel, just out of reach of the high water. Only once, during the Great Flood of 1937, has the entire island flooded.

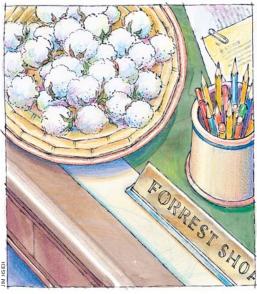
The island came into my family in the late 19th century, when my grandfather, who had been hired to herd cows on it, found that its solitude ideally suited his reclusive nature. (And it didn't hurt that the topsoil is at least 30 feet deep and that the Minnesota bank that had foreclosed on the island wanted to

sell.) In any event, he borrowed money, cleared a thousand acres, and started planting cotton, a crop suited to the long, humid summers of the Tennessee Delta. In those days—indeed, well until the 1960s when mechanical pickers were perfected—planting, tending and harvesting cotton was labor intensive. As a result, people began to move onto the island to find work. By the time of the Great Depression, 2,000 acres were under cultivation and several hundred people called it home.

In many ways the island resembled any other Southern cotton farm. There were important differences, however.

To begin, all staples not raised on the island for consumption by the inhabitants (corn, wheat and molasses) had to be brought over on a small ferry, which was the island's sole connection to the mainland. Not surprisingly, perishables were kept to a minimum. (I didn't eat ice cream in the summer until I was 12 years old.) And the only concrete in the entire place was in the barn. I still recall, with the wonder of a child, my first sight of sidewalks and paved streets when I visited my grandmother on the Tennessee mainland.

But the real difference was isolation. Obviously, there was no newspaper service, and the only contact with the outside world came through the weekly mail run or a battery-powered radio. That changed when electricity and phone service came in the '50s from Arkansas, but even then I knew that we were different. Lots of baby boomers recall their first television, but nothing in my early experience prepared me for network television. Those first images of Middle America



were literally alien to me. The Apollo 11 moon landing was eerie, but nothing compared to the shock of *Howdy Doody*.

Moreover, you couldn't go anywhere. Many people who learn about my background extol its presumed simplicity and say, "How idyllic—just like Huck Finn." I point out that Huck kept moving and got to see a lot of the world. We, on the other hand, could see the mainland, the land of chrome and concrete, but we couldn't go there. In addition, life on the island could be dangerous. If you were hurt, as sometimes happened in agriculture, it was more than 20 miles to the nearest hospital, and the trip was increased by the time it took to cross the river. And if you were bitten by a snake (they abounded), you pretty much had to take your chances. About the only thing not done in isolation was education. Shoaf's Island had one of the last one-

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