

# VANDERBILT MAGAZINE

fall 2003

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### Star Gazers

Vanderbilt's Dyer Observatory serves as a resource for faculty, students and the Nashville community. The observatory's 24-inch telescope was built through the efforts of Dr. Carl K. Seyfert in combination with individuals and firms in the Nashville area. Today the observatory regularly hosts programs designed to encourage interest in astronomy throughout the region, most recently featuring opportunities to observe the planet Mars through the facility's telescope. Photo by Neil Brake.

# 1,000 Words

*One image frozen in time*

# Dore Ways

A forum for exchanging ideas

## From the Editor

*Gift horse*

IT SEEMED LIKE SUCH A GREAT IDEA FOR A MAGAZINE STORY: highlight some gifts Vanderbilt has given the world. I'd send out a few broadly targeted e-mails, make three or four phone calls, and—*voilà!*—a mountain of fodder for an engaging feature. “The story would write itself,” I told GayNelle Doll, *Vanderbilt Magazine's* associate editor.

Well, not quite. I was right in one sense; the response was tremendous—e-mails, phone calls, envelopes piled up in a matter of days. But then what? We simply didn't have space in the magazine to print everything, which begged the question: Where do we draw the line? At 100 gifts, 50 gifts, even fewer? For that matter, who draws that line? So we huddled, we sorted, resorted, and ultimately decided to feature 20 gifts that we believed were representative of the many suggestions we received, and of the significance and sometimes serendipity surrounding events, discoveries and phenomena that help shape the world and our experience of it.

I hope the story, which begins on page 42, will offer some surprises. Who would have thought that Vanderbilt researchers conducted the basic science responsible for Viagra's benefit to thousands of men? Or that Alternative Spring Break, a community-service program that engages students at colleges and universities across the nation, originated at Vanderbilt? For that matter, who would have imagined that fields as diverse as immunology, literature and economics were transformed by “gifts” made by members of the Vanderbilt community?

These gifts are the fruits of our varied labors at Vanderbilt, and they are available to the world. I suppose this makes Vanderbilt a gift horse. We give what we have and what we've learned. Then we build on that knowledge and give again. But that's the nature of a great university and the faculty, students, alumni and staff who make up that institution. We generate new knowledge and we share it—with our students and with our regional, national and global neighbors.

When I came to Vanderbilt a little more than two years ago, I knew about the University's accomplishments—the Fugitives, Nobel laureates, Dr. Shumway, to name a few—and I understood the potential Vanderbilt had to offer the world. Publishing this issue of *Vanderbilt Magazine* has reinforced what I already knew and given fuel to what I imagined. I hope it does so for you.

KEN SCHEXNAYDER

## From the Reader

### A Question of Ethics

I read with interest the article on Bart Victor, the Cal Turner Professor of Moral Leadership at the Owen School [Spring issue, “In Class: What Doth It Profit a Man?” p. 30]. The article touches on topics covered in his class, such as corporate responsibility, but doesn't tackle the basic problem of “ethics” in business: that there is no such thing as ethics in business. Business is governed by laws. Thus, business activity is either legal or illegal. Ethics, however, are separate from law and are derived from independent rules developed and enforced by a licensing body (e.g., Rules of Professional Conduct promulgated and enforced a state supreme court to create ethics and ethical standards for attorneys in that jurisdiction). No independent licensing body or bodies exist in business that both govern and have the power to take away an individual's right to engage in that business based merely on the individual's “ethical” conduct. Simply, the activity of the business person is either legal or illegal.

For example, a widget salesman may legally engage in a consensual sexual relationship with a customer where that sexual relationship did not exist prior to the business relationship. No independent licensing body will take away the salesman's right to continue to sell widgets because of the sexual relationship. If a doctor engages in the same conduct with a patient, he risks both public sanction and loss of licensure, preventing him from rendering medical services in the future. Businessmen have no license that can be taken away. Rather, only their freedom can be taken if convicted of a violation of law. Even if convicted and imprisoned, after the person serves his sentence, he can start another business. No license required. No ethics governing his conduct.

“Business ethics” are better defined and discussed as morals. The title of Professor Victor's chair, Professor of Moral Leadership, recognizes that “business ethics” are, in fact, mere moral conduct. Teaching morals certainly has value and a place within any business school curriculum. The title of “business ethics,” however, is misplaced. There is no such thing as ethics in business.

ROLAND BAGGOTT III, BA'95  
*Metairie, La.*



## The Search for God

I was intrigued, to say the least, by the articles in our Spring 2003 edition related to spiritual issues: “The Search for God at Vanderbilt” [p. 46] and “Seeking God Against the Grain” [p. 53], both written by Ray Waddle.

In “Against the Grain,” Mr. Waddle uses quotes from the Divinity School dean, the director of development and alumni relations, and a student to pretty much define what the Divinity School hopes to accomplish: “opposition to racism, sexism and homophobia”; a “framework of progressivism”; “the religious conviction to speak out for justice, and the consoling miracle of community.” Along with other kindred souls, the student takes part in anti-war demonstrations and protests against capital punishment. The school is eclectic, ecumenical, answering not to any “Christian” denominational tie since 1914, and for almost 90 years directed by the Vanderbilt University Board of Trust. A vast melting pot of religious, social and even political views, swirling around in its diversity and pluralism, trying to produce—what? Ministers, or chaplains, social servants, lawyers, teachers who know a degree-full of “divinity.” Waddle subtitles his piece “... Pluralistic Approach to Theology.” The dean says, “We see our preparations as extraordinarily realistic for the *real world*.” Another student says, “We are prepared here to ask better questions.”

The other article, “The Search for God at Vanderbilt,” outlines another approach and tells me, anyway, that a growing number of Vanderbilt students are joining “communities” dedicated to examining the Bible as God’s written revelation to mankind—communities under the heading “Christian” or “of Christ.” Such groups did not exist when I attended Vanderbilt in 1948–50; or if they did, I certainly was not aware of them, and didn’t care. The world was “real” back then, too, concerning the vital issues of life, but religion was for Sunday. It took a personal tragedy to ring my bell and cause me to search for God, and find Him—not in pluralism, or diversity, or ecumenism, but in His written word, through the words and the person of Jesus.

It isn’t pluralistic, or diverse, and it surely is “narrow” for Jesus of Nazareth to say, “I am the way, the truth, and the life. No man comes to the Father except through Me.” I didn’t say that. Jesus did. Any argument against it need not be directed my way, but at Him. The question the Divinity School, and the faculty, the students at Vanderbilt, and every living human being need to answer is, Was He truly resurrected? If He was not, Christianity is a gigantic hoax. But if He was, then we search for, approach and meet God through a faith in His Son, not in diversity or community. We meet Him one at a time, all alone, just us and Him.

People at Vanderbilt and all over this planet have an adversary whom scripture calls the prince

of darkness, and as long as he can get us focused on pluralism, diversity, protests against capital punishment (which was instituted by God) and homophobia, etc., we will not examine with intellectual honesty the claims Jesus Christ made for Himself. I’m not referring to denominationalism or some religious “tradition.” Jesus is who He says He is, or He is a liar, a lunatic, or just a legend. Which is He? That is a second question every person should examine and give answer to. If He was resurrected, He is deity. One wonders why a divinity school, teaching about divine things, doesn’t major on those two questions. Could there be any better questions?

Thank the God of scripture for the Vanderbilt students who are delving into these questions now. How I wish I had done so at their ages.

MANNING KIRBY JR., ’52  
Knoxville, Tenn.

In the Spring issue of *Vanderbilt Magazine*, Ray Waddle wrote a very interesting article, “The Search for God at Vanderbilt.” In the article Mr. Waddle discusses the breakdown of religions represented at Vanderbilt. He erroneously lists the United Church of Christ under religious minorities. It is a mainline Protestant religion, formed in 1957 when the Congregational Church (the church of the Pilgrims) joined with, among others, the Evangelical and Reformed Church (German Protestant church).

Even though the UCC has been around for only 46 years, the churches under its umbrella have been here for hundreds of years. Therefore, I feel that even though there is a small percentage of UCC students on campus, it is more correct to list it with the Protestant groups instead of “other religious minorities,” which it clearly is not. Thank you for this opportunity to correct this misinformation.

VIRGINIA PLACE MYER, BSN’75  
Cincinnati

## Thanks

We would like to express our thanks and appreciation to the *Vanderbilt Magazine* for two excellent articles in the Spring edition.

Paul Kingsbury did a fine job honoring Professor Bart Victor for teaching our students that there is a right and a wrong. Our son is an economics major at Vanderbilt, and it thrilled us to read about a professor who cares more about honesty and ethics than making money at any cost. A man’s character and integrity are his most valuable assets. Our country and corporate offices badly need leaders who are honest, moral and ethical. Vanderbilt is seeking the high road.

We are most grateful our son attends a great university where both business ethics are taught in the classrooms and the “Search for God” is pursued by students and faculty alike. Ray Waddle’s

article was outstanding.

It was a huge factor for our son in deciding which college to attend. Vanderbilt has so many wonderful religious groups that help students grow in their faith. We had heard of the RUF [Reformed University Fellowship] from alumni and parents all over the country, and the positive influence that group made in their lives. We are grateful for the Rev. Brian Habig’s leadership and the time he invests in our students to help them with their spiritual journeys.

Thank you, Vanderbilt, for providing many groups for our students to pursue their spiritual goals and growth. Thank you also for hiring men and women of character, like Bart Victor, to teach our students.

We enjoy your fine magazine.

DR. AND MRS. KENNETH BECKETT II  
Boca Raton, Fla.

## More on Lawson

As a Vanderbilt alumnus and as a longtime former Nashville resident, I have always been a strong admirer of James Lawson.

I wish you had devoted more attention to Lawson’s earlier pre-Vanderbilt activism, particularly his refusal to be drafted to fight in the Korean War. When he went to jail in 1951 as a conscientious objector, he put the nonviolent activism he had learned beforehand to good use by forcing President Truman to order the desegregation of the Federal Bureau of Prisons System. By putting his own life and safety to extreme risk in the U.S. prison system to pursue simple justice, he prepared himself for his future struggles in Nashville almost 10 years later during the lunch-counter sit-ins.

The fact that Lawson took on the U.S. Cold War establishment in the early 1950s by challenging the legitimacy of the Korean War is a very important part of the history of U.S. radical pacifism. It is a shame that most histories of U.S. pacifism and of conscientious objection continue to skip from the World War II period to the Vietnam War period, ignoring the Korean War and its opponents altogether. Maybe that is why the prominent East Asian historian at the University of Chicago, Bruce Cumings, refers to Korea as “the unknown war” instead of as “the forgotten war.”

WILLIAM R. DELZELL, BA’74, MLS’75  
Springfield, Mass.

**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: [ken.schexnayder@vanderbilt.edu](mailto:ken.schexnayder@vanderbilt.edu).

## A Totally Expected, Legitimate Question

*Why be a doctor? The answers are bumbling.* By BONNIE MILLER, M.D.

**T**HIS YEAR MORE THAN 3,500 aspiring physicians will apply for one of 104 positions in the Vanderbilt University School of Medicine Class of 2008. Along with providing grades, MCAT scores, and information about their extracurricular activities, these applicants will be asked to respond, implicitly and explicitly, in essays and interviews, to a simple question asked of nearly everyone who has ever applied to medical school: Why do you want to be a doctor?

It is a totally expected and legitimate question. We'd ask the same of anyone choosing any career, whether physician, teacher or firefighter. It's a great topic of conversation and a way to begin to know someone. But the question has more than just conversational value: Our applicants are judged by their answers. This might seem strange. When we daily read about some new crisis in health care—soaring malpractice premiums and doctors on strike; astoundingly high rates of medical error and mismatched lung transplants; declining rates of reimbursement and vanishing public trust—we should be grateful that anyone decides to become a doctor, regardless of the reason. As long as you choose to do the right thing, should it matter at all what moves you?

Our admissions process continues to query applicants about motivation with the notion that it truly does make a difference. Physicians can expect to face myriad major and minor ethical dilemmas in the lifetime of

their careers, and how they navigate the murky waters of moral crisis will be partly determined by the values that brought them to medicine in the first place. Their goals and aspirations could well determine whether they help to solve the problems currently facing medicine, or help to create new ones.

Application essays are never truly personal statements. They are written for the eyes of others, and applicants are savvy enough to know that some answers are more acceptable than others. In my role as associate dean for medical students, however, I have the great privilege of talking to these students after the delicate dance is over, the dream of doctoring secured. I've questioned hundreds about why they chose medicine, and I've repeatedly been humbled by the sincerity and sustained idealism of their answers. While every student is unique, certain themes emerge.

Many of our students have witnessed serious illness in family members, or experienced illness themselves. That alone is not earth shattering. Many young adults have closely encountered disease, whether they're inclined towards a career in medicine or not. But like combustible material exposed to high heat, these students find something in that experience that lights a fire. For some it's gratitude. They are grateful to doctors who provided them compassionate care and are inspired to repay with emulation. For some it's the opposite. Disappointed with a doctor's lack of caring or skill, these students are determined to be different, better, more empathetic or knowledgeable. For others it's a sense of frustration and futility. With all its wondrous capabili-



JIM HSIEH

ties, medicine could not prevent the loss of a loved one. Rather than becoming cynical or skeptical or disparaging, these students become inspired to find the answers and seek the cures that would prevent such loss in the future.

And then there are the "Doctors' Kids." These sons and daughters of physicians generally fall into two groups. The first group decided on medicine as toddlers, when they first became aware that mom or dad took care of those who were ill. They ignored the long hours and interrupted meals, and with precocious certainty they skipped the usual adolescent wanderings and remained unwaveringly true to this goal. The second group took another path. Discouraged by the long hours and interrupted meals, they focused their energies on anything but medicine, sometimes establishing other highly successful careers. But some force, some attraction that was there all along finally overcame them. No longer able to resist, they enrolled in post-baccalaureate courses and found themselves explaining why they wanted to become doctors.

*continued on page 82*

# The Campus

“All cultures include aspects of religious expression,



JIM HSIEH

## It Was a Dark and Sultry Night

ON A DESERTED TWO-LANE highway in the middle of a warm summer night, 15 undergraduate students stopped at a magical gas station. Lawnmower racers, bobbing blowup dolls, and an orchestra-conducting tiger met them inside. Their brief, bizarre visits began with a creative process that produced a 200-plus-page novel in Intermediate Fiction class, taught by Tony Earley.

Earley, assistant professor of English and best-selling author of *Jim the Boy*, decided that because several students in this class previously had taken one of his other writing courses, he would find a different approach to teaching young writers. His divergence came in the form of leading students to pen a serial novel. Each student wrote a chapter of the book.

For the first few meetings of class, each student pitched an idea. After all the presentations and several votes, one idea stood alone. Welcome to Booth's Grocery and the No Name Lounge, a mysterious oasis in the middle of the country. Each chapter's characters stop at the fictional gas station/nightclub during 15-minute intervals on the same night.

The winning creator, then-junior Ashley Foret, based the setting on actual places outside her hometown of Lake Charles, La. After revisions under Earley's guidance, each writer submitted a final copy of his or her chapter for a bound edition of the novel. Then-junior Eric Locko sketched a drawing of the fictional place for the cover. Earley compiled the final copy and published 16 books—one for every author and one for himself.

“I wrote more that semester than any semester in years,” says Earley. “I suspect that was largely inspired by Booth's.”

## A&S Adds Major in Jewish Studies

VANDERBILT'S STRENGTHS IN religion, culture, history and politics provide a broad base for the launch of a new undergraduate major in Jewish studies through the College of Arts and Science this fall.

“All cultures include aspects of religious expression, and faith communities often reflect the

cultures in which they develop,” says Richard McCarty, dean of the College of Arts and Science. “This expanded commitment to Jewish studies advances Vanderbilt's mission to equip our students with the tools they will need to appreciate the rich interrelationships between the religions, cultures and societies in which we live today.”

Students can choose from courses in Hebrew and biblical studies, as well as classes taught by faculty from Law, Divinity, Peabody and Blair. They may also gain pre-professional expe-

“We as humans are made for interdependence. There are no outsiders in our family. And if we were very serious about that, we would not spend obscene amounts on weapons of death and destruction. We would never call the casualties of war ‘collateral damage.’”

—Archbishop Desmond Tutu, 1984 Nobel Peace Prize recipient, in an April 16 address at Vanderbilt

DANIEL DUBOIS

# Fall 2003

*and faith communities often reflect the cultures in which they develop.* ” —DEAN RICHARD MCCARTY

rience by serving as volunteer community leaders or teachers in sectarian schools.

Jack Sasson, the Mary Jane Werthan Professor of Jewish Studies and Hebrew Bible at Vanderbilt Divinity School and a professor of classics in the College of Arts and Science, serves as director of the program. Martina Urban of the Hebrew University and of Berlin's Institute for Jewish Studies has been hired as assistant professor of religious studies and Jewish studies.

## External Research Funding Reaches All-Time High

THE AMOUNT OF EXTERNAL funding Vanderbilt University researchers received last year from peer-reviewed contracts and grants jumped by a dramatic 31 percent to reach an all-time high of \$285.8 million.

In fiscal year 2002, extramural funding at Vanderbilt University Medical Center surged by 36 percent to a total of \$211.9 million, making it the third fastest-growing academic health center in the country in terms of funding from the federal National Institutes of Health.

“Generous increases in the budgets of the Public Health Service and National Institutes of Health provided by Congress

have made this possible,” says Lee Limbird, associate vice chancellor for research at VUMC. “At the same time, our faculty has been more aggressive in seeking out funding opportunities. We are currently averaging an amazing ratio of 1.5 grants per faculty member.”

At the same time, support for research on the rest of the campus increased by 21 percent to a record \$73.9 million.

Among the highlights for the year was the meteoritic rise of funding in psychology, which has nearly doubled, from \$3.1 million in FY 1999 to \$6.1 million last year. The School of Engineering has posted similar increases, rising from \$10.9 million in FY 1999 to \$19.3 million in FY 2002. Peabody College also had an exceptionally strong year, shooting up to \$19.4 million in FY 2002 from levels hovering around \$15 million.

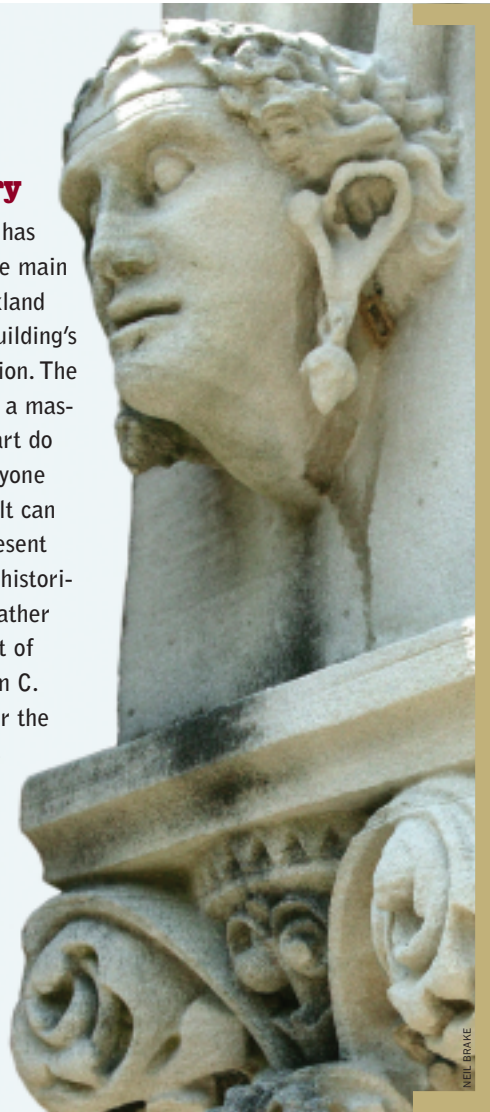
## Fisk, VUSN Join Forces to Offer B.S.N.

THE TENNESSEE BOARD OF Nursing has approved a plan by Vanderbilt University School of Nursing and Fisk University, a historically African-American private institution in Nashville, to expand their current relationship and offer courses to meet requirements of a bachelor of science degree in nursing to be awarded by Fisk.

### {Details}

#### Stone Sentry

This stone head has presided over the main entrance to Kirkland Hall since the building's 1870s construction. The female face and a masculine counterpart do not, as far as anyone now at Vanderbilt can determine, represent mythological or historical figures but rather were simply part of architect William C. Smith's vision for the Victorian Gothic structure.



Students will complete a specified liberal arts curriculum at Fisk and the VUSN pre-specialty curriculum to earn a B.S.N. degree from Fisk. Fisk will administer the program, and VUSN's Linda Norman, senior associate dean for aca-

demics, will coordinate Vanderbilt's courses and the Fisk curriculum.

“This relationship provides a nursing program to an institution with a high percentage of minority students,” says Norman. “It's cost-effec-



**{Inquiring Minds}****Drink Water, Stay Conscious**

Vanderbilt University Medical Center scientists and a team of German researchers say you may be able to prevent fainting episodes by consuming 16 ounces of water before activities that precipitate fainting, such as donating blood. Both groups studied healthy people without a history of fainting to follow up earlier research performed at VUMC. That research found that drinking water reduced the likelihood of fainting in people with malfunctioning autonomic nervous systems.

An estimated 150,000 people a year faint or experience near-fainting after blood donations; many never give blood again. "We wondered if water might help prevent fainting in healthy people who donated blood," explains Dr. David Robertson, the Elton Yates Professor of Medicine, Pharmacology and Neurology, and director of the Vanderbilt Clinical Research Center.

Researchers found drinking water tended to lower the heart rate while lying down, and improved the force and flow of blood both when horizontal and upright.

**New Therapy Helps Cancer Patients Swallow, Breathe**

Vanderbilt-Ingram Cancer Center is offering a technique that uses a light-activated drug to help restore the ability to swallow in patients whose esophagus is blocked by cancer. Photodynamic therapy (PDT) uses an injectable drug called porfimer sodium (Photofrin) that is taken up preferentially in tumor cells. A laser adjusted to a specific frequency of light is used to activate the drug, which then kills much of the tumor within about 48 hours. "Esophageal cancer is one of the deadliest cancers, and many patients die not because of metastatic disease but because they can no longer swallow," says Dr. Matthew Ninan, assistant professor of cardiac and thoracic surgery. "We were looking for a palliative method to open the esophagus and allow these patients to eat and keep up their strength." Vanderbilt-Ingram will also use the technique to improve breathing in patients with lung cancer whose tumors obstruct their airways. The technique has been around since the 1970s, but previous iterations of the instrumentation have been cumbersome. Improvements in technology have made using PDT much more practical.

**Tea Found to Lower Cholesterol**

A clinical trial testing a theaflavin-enriched green tea extract is the first human study to find that a tea product lowers cholesterol. The study included 240 men and women with high cholesterol levels in China. The results, reported in the June 23 issue of *Archives of Internal Medicine*, amazed lead

author Dr. David J. Maron, associate professor of medicine at Vanderbilt University Medical Center. "We saw a 16 percent reduction in low-density lipoprotein (LDL) cholesterol," says Maron. In the past, experiments in animals have demonstrated that green tea, black tea, and flavonoids derived from tea lower cholesterol. However, previous tea-drinking experiments in humans, as well as those experiments involving the administration of green tea extract, failed to show any effects on cholesterol.



**Linda Norman, senior associate dean for academics at VUSN (left) and Cathy Martin, associate provost of Fisk University, at the historically African-American institution**

author Dr. David J. Maron, associate professor of medicine at Vanderbilt University Medical Center. "We saw a 16 percent reduction in low-density lipoprotein (LDL) cholesterol," says Maron. In the past, experiments in animals have demonstrated that green tea, black tea, and flavonoids derived from tea lower cholesterol. However, previous tea-drinking experiments in humans, as well as those experiments involving the administration of green tea extract, failed to show any effects on cholesterol.

itive for Fisk University. It prevents them from incurring the expense of providing classrooms and skills labs, or employing a department of nursing faculty." Norman will serve jointly as director of nursing at Fisk during the first five years of the program.

Existing classroom, laboratory and clinical facilities for VUSN's pre-specialty nursing curriculum will be used for students admitted under the new plan.

Six part-time clinical faculty positions will be added to accommodate the students. Fisk will hire one full-time faculty member to provide advisement services and teach three nursing courses at Fisk.

VUSN Dean Colleen Conway-Welch says the partnership is groundbreaking in nursing academics. "To the best of my knowledge, this is a first. No other school of nursing has worked out these arrangements," she says.



**Hot Property** Fans left over from Vanderbilt Commencement exercises help members of the 101st Airborne fight the heat while stationed in Iraq. Vanderbilt business manager and financial planner Josie Merrell sent the fans to her husband, Tim Merrell, who, along with other members of B Troop, 2-17 Cavalry, have been living in barracks without electricity or running water. Temperatures at the former Iraqi airbase frequently soar to 120 degrees or higher.



### **An Eye for Detail**

Four-year-old Carmen Canedo takes a close look at a “pregnant plant,” a succulent in the genus *Kalanchoe* that reproduces by dropping plantlets from the edges of its leaves. She was one of 15 children from the Vanderbilt Child Care Center’s Shooting Stars preschool class who recently visited the Department of Biological Sciences greenhouses atop the Stevenson Center.

## Virtual Vanderbilt

<http://www.vanderbilttravelclinic.com/>

Want to find out how to avoid Montezuma's revenge or minimize jet lag? The Vanderbilt International Travel Clinic, part of the Division of Infectious Diseases, is dedicated to the prevention, diagnosis and treatment of diseases international travelers may encounter. On the clinic's Web site, you can check to see if your immunizations for overseas travel need updating, and glean tips for travel geared toward international adoption, mission trips or corporate trips. You'll also find information about drugs used for a variety of maladies travelers may fall prey to, and link to other useful sites such as those for the Centers for Disease Control and the U.S. State Department's current travel warnings.



## Kennedy Center Co-sponsors Camp for Youth with Down Syndrome

FOR TEENAGERS WITH DOWN syndrome and their parents, summertime presents special challenges. Not only is the number of organized activities for older children limited, but helping children with Down syndrome retain what they learned the previous school

year over the summer is especially important.

This summer for the second year, a four-week academic enrichment camp has given adolescents and young adults with Down syndrome the chance to build on individual strengths in reading, math and social awareness. Explorers Unlimited, sponsored jointly by the Down Syndrome Association of Middle Tennessee and

Vanderbilt University's John F. Kennedy Center for Research on Human Development, is one of the first camps of its kind in the United States.

Classes took place across the street from the Vanderbilt campus at the University School of Nashville, with weekly art activities at the downtown Frist Center for the Visual Arts. Community and Vanderbilt experts talked to the campers about such subjects as fire safety, hygiene and sexuality. Field trips helped them gain experience in important life skills like using public transportation. Explorers Unlimited also included such traditional camp activities as swimming and line dancing.

## Robot Extends Benefits of Endoscopic Surgery

VANDERBILT'S FIRST ROBOTIC surgical procedure was performed in May when Dr. Joseph A. Smith Jr., the William L. Bray Professor and Chair of Urologic Surgery, used VUMC's new \$1 million-plus Da Vinci Surgical System to perform a radical prostatectomy.

Robotic systems offer the

surgeon more control and freedom of movement. Endoscopic surgery, a less-invasive alternative to traditional open surgery, uses small incisions, or ports, for inserting an optical device (endoscope) and surgical instruments. Viewing the operating field through a video monitor, the surgeon manipulates instruments with mechanical extensions. Endoscopic surgery reduces blood loss and postoperative pain and allows for a quicker recovery. But it's an awkward way to work, involving large arm movements and requiring the surgeon to transpose his movements as he manipulates instruments in a visual field where up is down and left is right.

The Da Vinci robot uses three arms, one for the endoscope and two for surgical instruments, each entering the patient through its own port. "It's very intuitive," says Smith. Hand movements mimic those of open surgery.

Sitting across the room from the patient and using his feet to manipulate the endoscope, Smith looks through a hooded display at a three-dimensional view of the operating field, magnified 15 times. His middle fingers and thumbs are wired so that their movements are relayed to the surgical instruments, minus the normal tremor hands produce.

To help drive development of new robot applications, Vanderbilt surgeons are working with experts in the School of Engineering to create new instrumentation and to integrate radiological images alongside the robot's view into the operating field.

In addition to applications in urologic and neurologic sur-



Explorers Unlimited campers learn life skills by making purchases at Nashville's Farmer's Market.

NEIL BRANKE



DAVID GLASCOV

**Pictured with divinity student William Young at the entrance to the University of Havana, Fernando Segovia recalls that many students were killed in the late 1950s in retaliation for their guerrilla acts against Batista's brutal regime.**

gery, the robot is expected to be used in general surgery, cardiac, thoracic, vascular, obstetric/gynecologic and surgical oncology procedures.

### Return of the Native

FORTY-THREE YEARS AFTER fleeing Cuba with his family, Fernando Segovia made his first visit back in June. The professor of New Testament and early Christianity led a 19-person study trip sponsored by Vanderbilt Divinity School.

Returning to scenes of his childhood, Segovia was greeted warmly by old acquaintances. After Castro came to power, Segovia told students, Cubans without the means to leave “had little faith in the religious institutions that had primarily served the middle classes. ... They were ignoring the poor and nonwhites.” Now, the Vanderbilt group found, the church is beginning to reemerge as an important social institution.

### Vanderbilt Magazine Receives National Awards



The Council for Advancement and Support of Education has honored *Vanderbilt Magazine* with two Gold Awards in its national Circle of Excellence program, which recognizes excellence in communications, alumni relations and development. *Vanderbilt Magazine* received awards in the categories of Periodical Publishing Improvement and Visual Design in Print.

### {Top Picks}

#### Animated Characters as Teachers



DAVID CRENSHAW

A Vanderbilt engineer has earned one of the National Science Foundation's most prestigious awards for his high-tech exploration of an old maxim: The best way to learn a subject is to teach it.

Robert E. Bodenheimer, assistant professor of computer science, received the NSF's Faculty Early CAREER Development Award to develop a program that reinforces and tests what a student has just learned by requiring the student to teach the same material to an animated character. The national award, given to selected junior faculty for exceptionally promising research, includes nearly \$425,000 over five years.

Bodenheimer's research involves developing animated characters called “teachable agents” to aid children in understanding and applying scientific and mathematical concepts. After children learn new scientific and mathematical concepts, they are asked to teach them to the animated agent. The character then attempts to apply what the student has taught it to solve some problems.

#### Experts Scrutinize Reproductive Technologies

Dr. Arnold Strauss, medical director at Vanderbilt Children's Hospital and the James C. Overall Professor and Chairman of Pediatrics for VUMC, is one of five members chosen to serve on the Assisted Reproductive Technologies (ART) Children's Health Panel.

More than 1 million children worldwide have been born using high-level assisted reproductive technologies, like in-vitro fertilization. A few studies suggest a small but significant increase in the risk of cancer, genetic diseases and birth defects among these children.

The panel will assess risks of assisted reproductive technologies, evaluate studies involving children born using ART, determine if current scientific data is conflicting or inconclusive, and will make recommendations for future research.



NEIL BRAKE



NEIL BRAKE

#### Ingram Scholar Honored

Shortly before his May graduation from Vanderbilt, Rusty Phillips received Nashville's Mary Catherine Strobel Award for Youth Volunteer of the Year and was also recognized by the *Tennessean* newspaper for his work as a student. While at Vanderbilt, Phillips founded VSMAC (Vanderbilt Students Meeting for the Awareness of Cancer) and, with other students, launched a National Marrow Donor Drive, which in its first two years registered 1,142 potential bone-marrow donors in the community.

An Ingram Scholar, Phillips had been volunteering since he was a teenager at children's hospitals and for Habitat for Humanity and other service projects. Since graduating he is working as a patient advocate for Atlanta Blood Center.

# Sports

A look at Vanderbilt athletics

## Pitch by Pitch

*For Jeremy Sowers, there's no place like the pitcher's mound.*

By NELSON BRYAN

**I**T STARTED INNOCENTLY ENOUGH: a couple of toddlers, barely out of the terrible twos, playing catch with their dad in the back yard. By age 4 or 5, it had escalated ... to Little League. And by age 9, the die was cast. Destination: the mound.

"As soon as we were able, we played with a Little League team," admits Vanderbilt junior Jeremy Sowers. "We've been playing ever since." The "we" he refers to includes his twin brother, Josh. Josh is a righty. Jeremy's a leftie.

"It's just always been a part of my life," Sowers says. "When we were living in Miami, we started pitching around 8 or 9 years old. It seemed like back then, if you could throw a strike, you pitched, and I was able to throw a strike. So I pitched."

He's still pitching. And he's still throwing strikes. In his freshman year at Vanderbilt, he was named to the Collegiate Baseball/Louisville Slugger All-American Team. His 85 strikeouts ranked first in the SEC among all freshmen pitchers and sixth among all SEC pitchers. This past season, his second, he led the SEC in batters struck out, with 123. He had the second-best ERA in the conference (2.50) and finished in third place in opposing batting average (.223), innings pitched (115), and runners picked off (5).

Sowers came to Vanderbilt from Louisville,

Ky. "I was always interested in the academic orientation of a school," he says, "and when I got here for my visitation, it just seemed right. I had been to Wake Forest and Notre Dame, but they didn't seem to be there for me like Vanderbilt was. It was an easy decision."

There was also that \$1 million-plus offer from the Cincinnati Reds to consider back in 2001. "This is more important to me than the Reds were," he says matter-of-factly. "That's why I'm here."

Vanderbilt's baseball media guide says the word that best describes Sowers is "composed." That composure is evidenced on the days he pitches. "During the day, I take it about as easy as I can," he says. After lunch he goes to the field to watch batting practice, talk strategy with batting coach Derek Johnson, stretch and warm up.

"During batting practice, there are some things you can tell—especially about the mentality of a team—just by watching what they do," he says. "If you have guys up there just trying to hit home runs, you know they're not really trying to work on anything. They're more or less showcasing their strength. That will give you an idea how to pitch them. Ultimately, you really don't know how to pitch people until you face them, and you learn pitch by pitch, batter by batter during the game."

The pace of the game is important to Sowers' and the team's success. "We like to keep the game as fast as possible," he says. "The faster

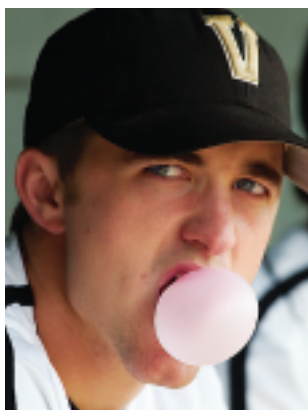
the game goes, the better the rhythm you can find and the more success I think you'll have. A lot of the games I've pitched in have been less than two and a half hours. That's about where you want to keep it, if not faster. It says you're getting the job done, not walking people, not allowing too many hits, working ahead of batters, forcing contact, stuff like that.

"Last year my velocity was a little slower than it was this year. I've got a better sense of how to pitch this year. As a result of that, my slider's better, my change-up's better, my curve ball's better, my fastball's better, and my strength's better, so I've had more success in striking people out."

Sowers admits that getting the out is the important thing. "Since my primary goal is to get a guy out, I don't really care how it happens. I'd rather get a first-pitch ground out than a strikeout, simply because it means I keep the pitch count down, which means I stay in the game longer, and the game goes faster."

Off the field, he goes into his junior year as a political science major. "That's something that interests me. I enjoy the classes—that and history. I can't say what I really want to do with it."

But of course, Sowers' world orbits around baseball, and he would like to take his game to the major leagues. "Everything I do has something to do with baseball. It takes up an extraordinary amount of time, especially in the spring semester. I'd really like to play baseball as a job. That would be ideal for me. But I'm not taking anything for granted. That's another reason I'm here getting a degree."





Jeremy Sowers



Teammates congratulate Worth Scott after his two-run walk-off homer sealed a three-game sweep of UT and a berth in the SEC Tourney.

## Lewis Named All-American

Vanderbilt right-hander Jensen Lewis has been named to the 2003 *Collegiate Baseball Newspaper*/Louisville Slugger Freshmen All-America Team, announced June 5 by the national publication. He was one of nine relief pitchers and 76 freshmen honored.

A 6-3, 185-pounder from Cincinnati's Anderson High School, Lewis ranked among the top pitchers in the Southeastern Conference in several categories, including saves (fourth with eight), games finished (sixth with 15), appearances (tied for seventh with 25), opposing batting average (eighth at .236), and games in relief (10th with 21).

## Four Vanderbilt Pitchers Combine for School's First Perfect Game

Four Vanderbilt pitchers combined for what was believed to be the first perfect game in school history as the Commodores defeated Western Kentucky 4-0 on May 6 at Nick Denes Field in Bowling Green.

Freshman right-hander Jensen Lewis started for Vanderbilt with six strikeouts in five innings to earn the win. Freshman right-hander Nick Pilkington entered in the sixth inning and retired all three batters he faced while recording one strikeout. Sophomore left-hander John Scott retired the side in order in the seventh inning. Freshman right-hander Matt Buschmann pitched the final two innings,

striking out two in recording his fourth save of the year.

The perfect game is only the eighth in Southeastern Conference baseball history. It also marks Vanderbilt's first no-hitter since Doug Wessel's in 1971 against Belmont.

## Football: VU Graduation Rate Ranks Among I-A Leaders

The Vanderbilt football team has been recognized as one of seven I-A universities to graduate at least 90 percent of its eligible student-athletes, according to the American Football Coaches Association.

"We are proud of the recognition regarding our success with graduation rates in the football program," says Commodore Head Coach Bobby Johnson.

The Vanderbilt football program is a two-

time winner of the Academic Achievement Award. The team was recognized with Notre Dame in 2001 for graduating 100 percent of its 1995-96 freshman class. The Commodores also shared the award with Duke and Boston College in 1996.

Of the 102 responding I-A member universities, 31 were recognized for graduating 70 percent or more of its football players. The overall graduation rate was 59 percent, one percent less than the previous year.

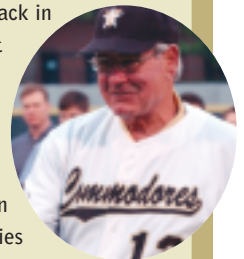
According to the AFCA release, Vanderbilt and six other universities—Duke, Boston College, Connecticut, Northwestern, Rice and Wake Forest—were in a group that graduated at least 90 percent of its 1997-98 freshman class of football players. Duke captured the AFCA's prestigious Academic Achievement Award with a graduation rate of 100 percent.



COURTESY OF CHARLES HAWKINS; INSET BY NEIL BRAKE

Hawkins circa '54

**Charles Hawkins**, BA'54, Vanderbilt's first All-Southeastern Conference honoree as a pitcher in 1954, is a successful real estate broker and developer in Nashville. The Charles Hawkins Co. has been in operation since 1962. "We had a wonderful team back in '54," he says, "a team of crackerjack players. We had a lot of fun, but we got serious when the game began." A two-sport athlete, he attended Vanderbilt on a football scholarship and was able to concentrate on his pitching in the spring of '54 because there was no spring football practice that year. He and several of his teammates remain close friends today. The 1954 team (as well as all teams before and after) played on the same field that is known today as Hawkins Field. Thanks to his generosity, Vanderbilt's baseball facilities were renovated to become one of the finest new parks in the nation.



# {Sports Roundup}

## **Tennis: Reynolds Ends Season with Record 46 Singles Wins**

Bobby Reynolds concluded his junior tennis season with an incredible 46-7 overall record, which included a 25-1 dual-match mark. He finished the SEC regular season with an 11-0 record and ended the year by winning 35 of his last 37 matches.

He was named Southeastern Conference Player of the Year and the SEC Tournament's Most Valuable Player. He also was named the NCAA Tournament's Most Valuable Player after



**Bobby Reynolds**

leading the Commodores to a national runner-up finish. Reynolds is the first collegiate tennis player to be named Intercollegiate Tennis Association Player of the Month on three occasions.

## **Tennis: Men End Season as No. 2 in Nation**

The Vanderbilt men's tennis team fell just shy of winning the school's first team national title, as the Commodores fell to top-ranked Illinois in the NCAA National Championship match, 4-3, last spring. The Commodores concluded the 2003 season with an overall mark of 27-4, while the Fighting Illini finished with a perfect 32-0 mark, their first national championship in men's tennis.

Junior Bobby Reynolds was named the tournament's Most Valuable Player, and he and junior Chad Harris were both named to the NCAA All-Tournament team in singles. The No. 1 team of Reynolds and sophomore Scott Brown and the No. 3 team of juniors Zach Dailey and Lewie Smith were selected to the All-Tournament team in doubles.

## **Tennis: Riske and Tsubanos Advance to NCAA Doubles Quarterfinals**

Vanderbilt senior Sarah Riske and junior Aleke Tsubanos advanced to the quarterfinal round of the NCAA Doubles Championship before losing to Florida's No. 1 doubles team, 6-3, 6-2, in Gainesville, Fla. They concluded the season with a 32-8 record.

Riske and Tsubanos were named Intercollegiate Tennis Association All-Americans for the second straight year, ITA National Doubles Team of the Month in January 2002, Riviera/ITA All-American Doubles Champions, and All-SEC Second Team.

## **Golf: Women Tie for 14th at NCAA Tournament**

The women's golf team advanced in its quest to become a perennial national power when it finished tied for 14th at the NCAA Championships.

Freshman May Wood shot a second consecutive 73 (1-over) at the 6,225-yard Birck Boiler-maker Golf Complex-Kampen Course in West Lafayette, Ind., and paced the Commodores' effort. Each Vanderbilt golfer made at least one birdie in the final round, and the team score of 304 (16-over) was its best of the championship. Wood made three birdies in the final round and finished the championship in a tie for 24th place, the second-best NCAA finish ever by a Vanderbilt golfer. Her four-round total was 16-over par.



**May Wood**

PHOTO BY DOWN JONES; INSETS BY NEIL BRAKE

**The Vanderbilt polo team at Riverview Farm**



# Vanderbilt Holdings

Collections and collectibles

## Playable Art

*The gift of an Amati violin offers students and the community access to a world-class instrument. By KAY WEST*

**B**ACH AND BEETHOVEN might seem worlds apart from country and bluegrass, but in Music City, home of the Grand Ole Opry and the Nashville Opera, the two definitively divergent styles of music traversed the same path across the bridge of an unlikely conduit: a rare, centuries-old Amati violin. That violin began its cross-cultural and international voyage in Cremona, Italy, in the early 1600s; in 2003 it was placed on permanent loan to Vanderbilt's Blair School of Music by retired Vanderbilt professor and one-time Nashville Sound session player Martin Katahn.

"We have had some wonderful gifts over the years, but this is truly a milestone," says Christian Teal, the Joseph Joachim Professor of Violin at Blair and first violinist with the Blair String Quartet. "These instruments are valued and coveted for several things: their sound, their fame, their age. They provoke fascinating questions and prompt discussion and debate among musicians. What are their secrets? Is it the wood, which many believe was floated down the river to Cremona and then dried in the Italian sun? Is it the varnish? The varnish protects the instruments and helps maintain flexibility. We don't know how these masters made their varnish or put it on.

"Is it the aging? The molecules in the wood of these old violins are not as dense as the wood in a new violin, and that makes the old violins more flexible and resonant. Though each violin by these makers varied, and some were better than others, the violins made by these masters are like none made today. The Amati is an amazing gift to this school."

Certainly, the most well-known name in the violin world is Stradivari, and the instruments that bear that name are among the most sought after among musicians, collectors and museums. But what many people outside the rarefied world of professional and amateur violinists do not know is that it was the Amati family who is credited with founding the revered school of Cremonese violin making. Antonio Stradivari apprenticed under Nicolo Amati, who passed the mantle of master violin making to his star pupil.

The violin emerged in Italy in the early 1500s, believed to have evolved from two medieval bowed instruments: the fiddle, also called viella or fiedel, and the rebec, from the

Renaissance lira da braccio, a violin-like instrument with off-the-fingerboard drone strings.

Whether the violin actually was born in Cremona is difficult to prove, but certainly Cremona was and remains important in the evolution of the violin. The founder of the Cremonese School was Andrea Amati (1505–1577), who made one of the first instruments on the pattern of the classical violin, as well as cellos of large dimensions. (The cello he made for King Charles IX of France in 1572, known as "the King," is today known as the first cello in history.)

Andrea Amati's two sons, Antonio and Girolamo (also referenced as Hieronymus and Geronimo), took on their father's craft and made instruments primarily in accordance with his teachings. When Girolamo died in 1630, his son Nicolo took over the business, and with his skills elevated the Amati name to further acclaim.

"In all these families there are many makers, but always one who became very famous for his work. In the Stradivari family it was

Antonio, in the Guarneri family it was Joseph, and in the Amati family it was Nicolo," explains Christian Teal.

Nicolo Amati improved the model passed on to him by the other Amatis, producing instruments with meticulous care and aesthetic sense capable of yielding greater power of tone. Nicolo also made his



mark in the history of violin making through the emergence of his stable of gifted apprentices, who included Francesco Ruggeri, Andrea Guarneri (whose grandson is the celebrated Joseph, or Giuseppe) and, of course, Antonio Stradivari.

Ironically, it was through a Stradivarius that Katahn—whose early career as a professional violinist, instructor and music professor in the Northeast preceded his arrival in Nashville to join the psychology faculty at Vanderbilt—came to acquire the Amati.

Katahn refers to himself as the accidental violinist. “When I was 7 years old, I really wanted to play guitar, but I couldn’t reach the end of the neck. My father, who played the violin, suggested that instrument, so I began taking instruction. I started performing when I was 12.”

He went on to study at Juilliard and met patroness Mabel Degen following a performance in Taos; she subsequently became sponsor of the Degen String Quartet, formed in the summer of 1949 in New York City. At the time, it was the youngest professional string quartet playing under management in the country, its members averaging 19 years of age. That same year he made an unexpected acquisition. Though he remains reluctant these many years later to reveal the entire chain of events, he and a colleague learned of a Muntz Stradivarius that its owner was hoping to sell. From Manhattan, with hardly a suitcase between them, the duo flew to Europe, took a train to Germany, met the seller, came to agreement on a purchase price, and when he returned to the States, Katahn had in his possession a Muntz Stradivarius. “There are about 600 Strad violins in existence; this particular Strad is one of only six that has not been damaged in any way.”

Not everyone was so impressed, Katahn recalls with a laugh. “At one point, while I was living in Greenwich Village, my financial situation became quite precarious. Just out of curiosity, I took the violin to a pawn shop and tried to explain the value of the instrument to the owner. He looked at it quite carefully and sputtered, ‘Muntz Schmuntz! I’ll give you \$100 for it.’ I took the violin home.”

In 1952 the Degen String Quartet moved to the Hart College of Music in Hartford, Conn., and Katahn, in addition to his live performances, began teaching. In the mid-’50s his father suffered a serious illness and appealed to Katahn to come back home to Utica and take over his appliance business while he recu-



DANIEL BURBOS

perated. After two years, Katahn was sure of a job he didn’t care for. While attending night school at the local extension of Syracuse University, he met a psychologist who inspired a course of study that four years later would result in his doctorate.

With the Stradivarius essentially in storage, and his musical career on hold as he studied, Katahn could not resist an offer made to him by an acquaintance. “A fellow violinist knew I was interested in divesting myself of the Strad, and he knew of a physician in Cal-

ifornia who had an Amati and wanted a Strad.” The trade was made, and in 1957 Katahn became the owner of the Amati. “It was beautiful, and so easy to play. The first time I saw it, I picked it up and played it and it was a dream. A Strad is a better concert instrument; it is a soprano and Amatis are contraltos. But the Strad was more difficult to play. I much preferred the Amati.”

The violin he obtained in exchange for the Muntz Stradivarius was made by the master Nicolo Amati in 1638, though the instrument’s credentials hardly mattered to the millions of people who unknowingly heard it played on record or in concert for the next 20 years.

When Katahn moved to Nashville with his wife, Enid, in 1962 to join the Vanderbilt faculty, it was for the princely salary of \$7,500 a year. But he found a side job almost immediately, one that required him to pull the valuable Amati out of its case.

“Brenton Banks, a music contractor in town, called me one day and said, ‘We need 18 violins for a session with Hugo Montenegro.’ I told him I hadn’t played in years. He said, ‘I don’t care; I need 18 violins.’ So I took the Amati and went over to the Quonset Hut, where they were recording. We went into the room, a hand came through a hole in the wall and counted one, two, three, four, and we played. No one there had any idea of the value or acclaim of this instrument. It was just one of 18 violins.”

Over the next many years, particularly during the glory days of the much-vaunted “Nashville Sound,” Katahn and the Amati violin performed on nearly every Nashville-recorded album that required a string section. His work was so highly regarded within the industry and among artists that he became Johnny Cash’s concert master, working closely with him on his national television program.

“I really enjoyed all of it—it was very different from the academic world. My fellow faculty members always wanted to come to sessions with me. The artists were very warm and gracious, with the exception of Webb Pierce. He was not a pleasant man. Jerry Lee

*continued on page 82*

# Bright Ideas

“I see this synapse as the center of the world”

## AIDS Uses Trojan Horse Attack

**1** IN THE BATTLE against AIDS, the virus that causes it has proved a stealthy foe. The ability of HIV to evade the body's defenses and lurk in unknown recesses has long baffled scientists and stymied their efforts to develop effective drugs and vaccines.

New findings from collaborating researchers at Vanderbilt University Medical Center, the University of Illinois, Chicago, and the National Cancer Institute provide evidence of a Trojan horse-like mechanism whereby HIV infiltrates the immune system undetected and then exploits the system to promote its own survival.

The study, published online in *Science*, describes how the transmission of HIV is facilitated through a critical “infectious synapse,” created by concentrating virus, receptor and co-receptor at the tight junction that forms between two specialized immune cells.

“I see this synapse as the center of the world for the immune response,” says Dr. Derya Unutmaz, assistant professor of microbiology and immunology. “That’s where all the decisions are made ... whether you will have a useful immune response, a harmful immune response, or

a useless immune response.”

With HIV, the response falls somewhere between useful and useless. The immune system does mount an initially strong response, Unutmaz says, but something happens that causes the defense to fall short of the goal of total extinction.

It’s all about subterfuge, really. To gain a foothold in the body, HIV enters the system through specialized immune cells called dendritic cells, which serve as scouts in the defense system, scanning mucosal tissues and mopping up any encountered bacteria and viruses.

Normally, once a virus is engulfed, enzymes within the dendritic cell chop it up and use the pieces to alert other soldier immune cells—the T cells—that an invader has been captured. In the case of HIV, dendritic cells capture it just as they would any other virus, but HIV remains somehow invisible to enzymatic destruction. Scientists have learned that the virus can hide there, unharmed, for days before the dendritic cell links up with a T cell.

What happens next is the subject of the current study. Using remarkable time-lapse microscopy, the researchers found that the “cloaked” virus particles rapidly stream toward the surface of the dendritic cell at the point of interaction with

a T cell. At that same point of contact, the T cell concentrates HIV entry receptors, including CD4, CCR5 and CXCR4, which allow the virus to slip undetected across the junction, into the T cell.

Passing from the dendritic cell to the T cell is not sufficient for the virus to launch a productive infection, however. The T cell must be activated, which means that molecular signals passing between the two cells across this “infectious synapse” must trigger the T cell to begin the process of dividing and proliferating into an army of

clones, which would be the normal response to battle an invading pathogen.

Once HIV moves inside the T cell, however, the cell doesn’t have time to begin its proliferation. The virus takes over the cellular machinery, turning it into a factory for its own reproduction. Eventually, the T cell is killed, releasing viral progeny and furthering HIV infection. “So in a way what we have is a two-punch model,” says Unutmaz, “where the virus exploits both its capture and presentation to a T cell, and at the same time utilizes dendritic cells to



Unutmaz

NEIL BRADY

for the immune response ... where all the decisions are made. ” —DERYA UNUTMAZ

activate the T cell, making a perfect environment for its own benefit.”

Unutmaz and his collaborators believe their model opens up a number of possibilities in the way of drug or vaccine design, from preventing capture of the virus to interfering with the ability of the virus to become “cloaked” to preventing transport across the cell junction.

“If we come to understand these mechanisms precisely, and how the virus utilizes these mechanisms to exploit the immune system, we could come up with ways to plug the weak points and ways to potentiate the response against the virus,” he says.

Understanding HIV infection also sheds light on normal immune function, adds Unutmaz. “I always say that HIV knows more about immunology than I do,” he laughs. “Understanding how it utilizes these mechanisms, we learn more about how dendritic cells talk to T cells. And that, of course, has a wider range of implications in designing vaccines against a variety of pathogens, not just HIV.”

Recent studies have implicated the same dendritic cell receptor that captures HIV in Ebola virus, hepatitis C, and cytomegalovirus, among others.

## Molecular Fingerprinting and Cancer Therapy

2. IN THE FUTURE, many cancer scientists and physicians believe a “molecular fingerprint” of an individual’s cancer may be used to diagnose that patient’s disease and to tailor his or her therapy.

Researchers at Vanderbilt have moved a step closer to that scenario with the identification of a distinct pattern of expression of 15 proteins in lung cancers that can predict a poor prognosis or a good prognosis. All patients in the poor prognosis group had died one year after diagnosis, while all patients in the good prognosis group were still alive. Median survival, the point at which half the patients were still alive, was six months for the poor prognosis group, compared to 33 months for the good prognosis group.

“If this pattern is confirmed in larger studies, its prognostic power exceeds that of virtually any previously published standard molecular marker,” the authors write in the Aug. 9 issue of *The Lancet*.

The scientists also demonstrate that protein profiles obtained from a tiny amount of tumor tissue—only 1 millimeter in diameter and 1/1000th of a millimeter in thickness—can



STEVEN HUNT/PHOTOGRAPHERS CHOICE

be used to predict risk that the cancer has spread to nearby lymph nodes.

“Involvement of lymph nodes is one of the most important factors in determining treatment strategies, so the clinical implications of these data could be significant,” says Dr. David P. Carbone, Ingram Professor of Cancer Research and professor of medicine and cancer biology. “Being able to use molecular markers to divide patients into high- or low-risk groups would also be

very useful in determining treatment strategy.”

Such a predictor could help patients and families, with their physicians, in deciding the most appropriate action, which could range from more aggressive therapy at the outset to the avoiding of therapies that are more likely to hurt quality of life for the patient than to extend that life.

The research involved investigators from the Vanderbilt-Ingram Cancer Center; Vanderbilt School of Medi-

cine's departments of medicine, preventive medicine, molecular physiology and biophysics, cardiac and thoracic surgery, and pathology; and Vanderbilt's Mass Spectrometry Research Center. The project is part of Vanderbilt's Specialized Program of Research Excellence (SPORE) in lung cancer, a major initiative funded by the National Cancer Institute.

Now that the human genome has been defined, proteomics—the study of the proteins that carry out the work of cells at the instruction of the genes—is widely considered the next frontier in biomedical research. Vanderbilt has one of the strongest programs in the world in proteomics research, with the sophisticated equipment, informatics power and statistical expertise required to analyze comprehensively the activity of thousands of proteins at once.

The investigators used mass spectrometry and customized software to analyze samples from 79 lung tumors and 14 samples of normal lung tissue. The investigators were able, based on differences in patterns of protein expression, to distinguish with 100 percent accuracy: lung tumor from normal lung; primary non-small-cell lung cancer (NSCLC) from normal lung; primary NSCLC from cancer that had spread to the lungs from other organs; and adenocarcinomas from squamous cell carcinomas, squamous cell carcinomas from large-cell carcinomas. Predictions based on protein profiles were confirmed by pathological

evaluation under a microscope.

In one case, a large-cell carcinoma may have been misclassified based on protein patterns as an adenocarcinoma, but investigators report that this tumor may actually be an adenocarcinoma that is too poorly differentiated to identify as such under the microscope.

The investigators note that using protein profiles to make

could have great implications for treatment strategies, Carbone says.

“Because such small tissue samples are needed, it would be of great interest to analyze protein expression patterns of tissue samples from needle aspirations or from different cell subtypes within the lung,” says Carbone. “It also would be interesting to look for patterns



distinctions that are already apparent under the microscope offers little use in clinical care, although the approach is potentially useful in identifying novel therapeutic targets.

However, the ability to use protein profiles to predict node involvement or to identify patients as high or low risk

associated with response to specific therapies, with smoking exposure, or with preneoplasia and the progression to cancer. If these data are confirmed using larger numbers of patients, this technology could have significant implications for the clinical management of non-small-cell lung cancer.”

## Perceptual Traffic Jams

3 NOT ONLY MAY automobile aficionados treat their cars as if they are people, but it now appears they recognize their cars with the special part of the brain that is also used to identify faces. And when they try to identify cars and faces at the same time, they are likely to experience a kind of perceptual traffic jam.

Those are the implications of research conducted at Vanderbilt University and the University of Colorado at Boulder. Researchers there compared how the brains of auto experts and novices process pictures of cars and faces. They found that viewing cars elicits signals from the brains of car experts that are just like the signals evoked by viewing faces in other brains. Moreover, the experts' skill interfered with their ability to identify faces when they were forced to process cars and faces simultaneously.

The findings, reported online on March 10 in the journal *Nature Neuroscience*, directly challenge the widely held view that a small, specialized area in the brain is specially hardwired to recognize faces. When confronted with a novel object, people use different parts of the brain to identify it by breaking it down into pieces. By contrast, the special facial recognition area appears to recognize faces holistically, all at one time, and does so more quickly than the piecemeal approach.

*For more information*



working with Tim Curran, assistant professor of psychology at CU Boulder, designed a study to address this issue.

“With this study, we show that the holistic identification process takes place very early in the sequence of visual processing and that at least some of the same neural circuitry must be involved in identifying faces and other objects of extreme interest,” says Gauthier.

The researchers recruited 40 men for the study—20 car fanciers and 20 car novices. They had the subjects view alternating sequences of faces and cars and asked them to compare each car to the previous car they saw, and each face to the previous face they saw. In this fashion, the person had an image of a car in his mind when he was looking at the faces. A trick the researchers used was to cut both the images of the faces and cars in half and ask the subjects to ignore the top parts of the images. By modifying the top halves of the images, they were able to measure whether the subjects looked at both the cars and faces in a holistic or piecemeal fashion.

Gauthier and Curran found that individuals with the greatest degree of car savvy recognized the cars in a holistic fashion, but this came at a cost. It reduced their ability to process faces holistically at the same time. By contrast, auto novices used the piecemeal approach to identify the cars, which did not interfere with their ability to recognize faces holistically.

Some researchers, including Isabel Gauthier, assistant professor of psychology at Vanderbilt who co-authored the current paper, have argued that faces are not recognized in a special-purpose module but rather by a general-purpose visual processor that can be trained to identify other objects holistically, not just faces.

Three years ago Gauthier published a study that showed car fanciers and bird watchers both used the facial recognition area in the brain to identify the objects of their interest. Last year she published work showing that as people are trained as experts on identifying novel, computer-generated objects, they begin to recognize them holistically.

But these studies left unanswered the question of whether the same neural circuitry was involved in processing faces, birds and automobiles or whether the faces and objects were processed by different neural networks that are intermingled in the same small area in the brain. So Gauthier,

“This indicates that the two holistic processes are not independent,” Gauthier maintains.

In order to determine the timing of the interference between holistic car and face recognition, the researchers had their subjects wear a net intermeshed with electric sensors that measured their brain waves. They took the readings from all the subjects and averaged them together to reduce individual variability using a technique called event-related potential (ERP). This allowed them to identify the timing and general location of the process-

about, cars in a different way,” says Gauthier.

The analysis also located this activity in the right hemisphere in the same area where functional MRI brain scans have located the facial recognition area, known as the fusiform face area. The fMRI brain-scanning technique provides higher-resolution mapping of brain activity than ERP, but does not provide information about how this activity varies over the short time periods involved in visual processing.

“The ERP results indicate that holistic processing of faces



NEIL BRINKE

Gauthier

ing associated with both car and face recognition.

The ERP analysis found the difference in a brain wave labeled N170, which has been associated with facial recognition in previous studies. It also established that the conflict between face and car recognition in the auto experts takes place shortly after a person views an image. “This indicates that it is a basic perceptual process, not something that happens because auto experts attend to, or reason

and cars by experts both involve fast-acting visual recognition processes that occur less than one-fifth of a second after faces or cars are seen,” Curran explains.

The researchers argue that if the brain’s holistic processing capability can be applied to automobiles, which are about as visually distinct from faces as possible, then it should be possible to train it to identify almost any type of object.

*about stories in Bright Ideas, visit Vanderbilt’s online research journal, Exploration, at <http://exploration.vanderbilt.edu>.*

By GAYNELLE DOLL

# Join the Club


*A sampling from  
Vanderbilt's abundant  
student club and  
organization scene*

THREE YEARS AGO HARVARD PROFESSOR ROBERT D. PUTNAM published a groundbreaking book titled *Bowling Alone: The Collapse of American Community*, in which he used extensive data to show a marked trend over the last quarter century of Americans belonging to fewer organizations and participating less in civic affairs.

Vanderbilt students clearly buck the trend. A look at the calendar of student organization activities makes you wonder how students find time for studies and sleep. There are clubs for the political, the theatrical, the philosophical. There are clubs that focus on academic majors or sports, clubs that celebrate ethnic and cultural identities, clubs that help improve life for others. There are clubs whose members are into stuff you never heard of when you were a student: Anyone for Australian rules football, Japanese animation, paintball?

Vanderbilt students can choose from more than 200 student clubs and organizations. And yes, one of them is a bowling club.

*Photography by* NEIL BRAKE



# From the Ground Up

During the past academic year, Vanderbilt students helped Habitat for Humanity build 11 homes in Nashville. “We get dirty,” says Vanderbilt Habitat co-chair Melissa Bates. Some volunteers have spent summers working construction jobs; others have never before held a hammer. One of the things that keeps volunteers coming back is that students like Bates are designated supervisors on site and help control work flow. “Students don’t feel like they’re just standing around without much to do. I make sure we have something to do at all times,” Bates says. “One of the coolest things about Habitat is working side by side with the homeowners and getting to know them. It’s rewarding to come back a year later and walk through the neighborhood and say, ‘I helped build that.’” From left: Courtney Allen, Melissa Bates, Kristin Littleton, Ashley Phillips and Meredith Bates.



# Spice of Life



“Masala is a traditional Indian spice used throughout Southeast Asia,” says Heemesh Seth, president of Masala/SACE (South Asian Cultural Exchange). “It symbolizes the variety of students who come together in our activities.” The organization’s 130 members take part in service activities and sponsor cultural events. The biggest, Diwali, attracts about 1,200 attendees. Back row from left: Ashik Jahan, Heemesh Seth, Sonal Patel, Shilpi Roy. Middle row: Pawan Kotini, Rahul Mishra, Sherry Mahomedally, Viral Patel. Front row: Neha Patel, Khushboo Agrawal, Nishy Milekkachalil.



# Well Said

Vanderbilt's debate squad has literally talked its way into five top awards in national competition this year. "The squad always does well, but this year has been exceptional," says M.L. Sandoz, director of debate.

Approximately 40 to 50 Vanderbilt students take part in debate activities, many of them behind the scenes doing research, publicity, or even helping local middle and high school programs get debate teams started. "We attract students from almost every major," Sandoz says. "Debate helps them polish skills in critical thinking, research and communication. They learn about issues that cross all majors and areas of interest, from philosophy to politics to linguistics."

Having the gift of gab can actually be a liability. Debaters must stay focused and present arguments that are well researched and well reasoned. Back row from left: Johnathan Lindsey, Susan Mader, Mark Kendall, Kate Ryzoc and Nikhil Perumbeti. Front row: Scott Hangauer, Shaun Mahaffy and India McKinney.



Vanderbilt students started the gospel choir Voices of Praise in 1992. Since then the group has expanded to include acting, dancing and step, as well as singing. The choir usually includes between 20 and 30 students. “Some of us grew up singing, and others don’t have any background in music,” says Tamala Autry, outgoing president. “We come from different faith traditions but we all know something about God.” The choir performs pretty much wherever they’re asked—from residence halls on campus to churches in the Nashville community, and beyond. “We’ve traveled as far as Virginia and Wisconsin to perform,” says Autry. No auditions are required to join. “For freshmen who have just come from home and are looking for a place where they can feel comfortable and also have a family environment, Voices of Praise is a great place.” Back row from left: Rose Johnson, Alexandria Duncan, Petra Rauenbusch, Erin Boyd, Renauld Clarke, Tiffany Huggins, Erin Shepherd, Latoya Elder. Front row: Shandia DeLoach, Kristen Trulear, Audrey Austrie, LaTannia Ellerbe and Rikki Mack.

# Lift Every Voice

A group of five diverse Vanderbilt University students are posed on the stone steps of a large, arched doorway. They are all holding laptops. The students are arranged as follows: one standing on the far left, one standing in the middle background, one sitting on the steps in the center, one sitting on the steps in the foreground on the right, and one standing on the far right. The scene is set in a classic, stone-arched building entrance.

# Saturday Surfers

Vanderbilt is just blocks from the Nashville inner city communities of Edgehill and Preston Taylor, yet worlds apart in terms of opportunities. Vanderbilt students who volunteer for Kids and Computers help bridge the gap by teaching middle school youngsters from the two neighborhoods. Saturday mornings after brunch with their Vanderbilt mentors, the kids learn to type, research the Internet for class reports, send and receive e-mail, and even prepare PowerPoint presentations. At the end of the semester, kids who pass a touch typing test get to take home used computers, donated from the Vanderbilt and Nashville community and refurbished by Vanderbilt students. Founded through a partnership with the Edgehill Community Center and the Nashville Mayor's Office, Kids and Computers has graduated more than 100 Nashville youth. Clockwise from upper left: Vanderbilt students Viral Patel, Matt Stevens, Alice Davenport, Charles Mak and Rahul Mishra.



# Martial Artistry

“In karate, we don’t try to hurt other people, but rather to learn,” says Matt Deepe, last year’s president of the Vanderbilt Goju-Ryu Karate-Do Club. Vanderbilt’s karate club draws both undergraduate and graduate students. For student Emily Mowry, self-defense is definitely part of the appeal. “As an entering freshman, I knew I would be going dark places at night sometimes. Karate has made me feel safer, partly because it’s taught me to be more aware of my surroundings.” Sensei Roberto Schipp, the club’s instructor, says over many years of teaching karate, he’s observed that “students change every 10 years or so. Today’s students have spent too much time at the computer and too little time in physical exercise. But within a few minutes of starting karate, they’re much more physically adept.” From left: Kathleen Ayers, Sonia Patel, Emily Mowry, Roberto Schipp, David Reif, Dr. Kenneth Ayers and Surya Dev Pathak.

# Loud & Proud

Part cheering section, part shameless muckrakers, the Memorial Maniacs take basketball—and fun—seriously. Begun a few years ago as an offshoot of the Open Dores, Vanderbilt's official student pep squad, the Memorial Maniacs now number more than 300 students. In their 100-seat "Pit," the primo section of Memorial Gymnasium reserved for these boisterous basketball boosters, Vanderbilt students—often wearing wigs and latex masks—cheer on the Dores and dish out the dirt on opposing teams. Members can only miss two games per season or they're out of the group. But being a Maniac means perks like a visit to the chancellor's suite, game passes, and free food from local restaurants.

From left: Mark Holling, Anna Habash, Dabney Lipscomb and Alex White.



# The \$1.25 Billion Question

*Vanderbilt aims to be a model American university for the 21st century. How will it get there?*

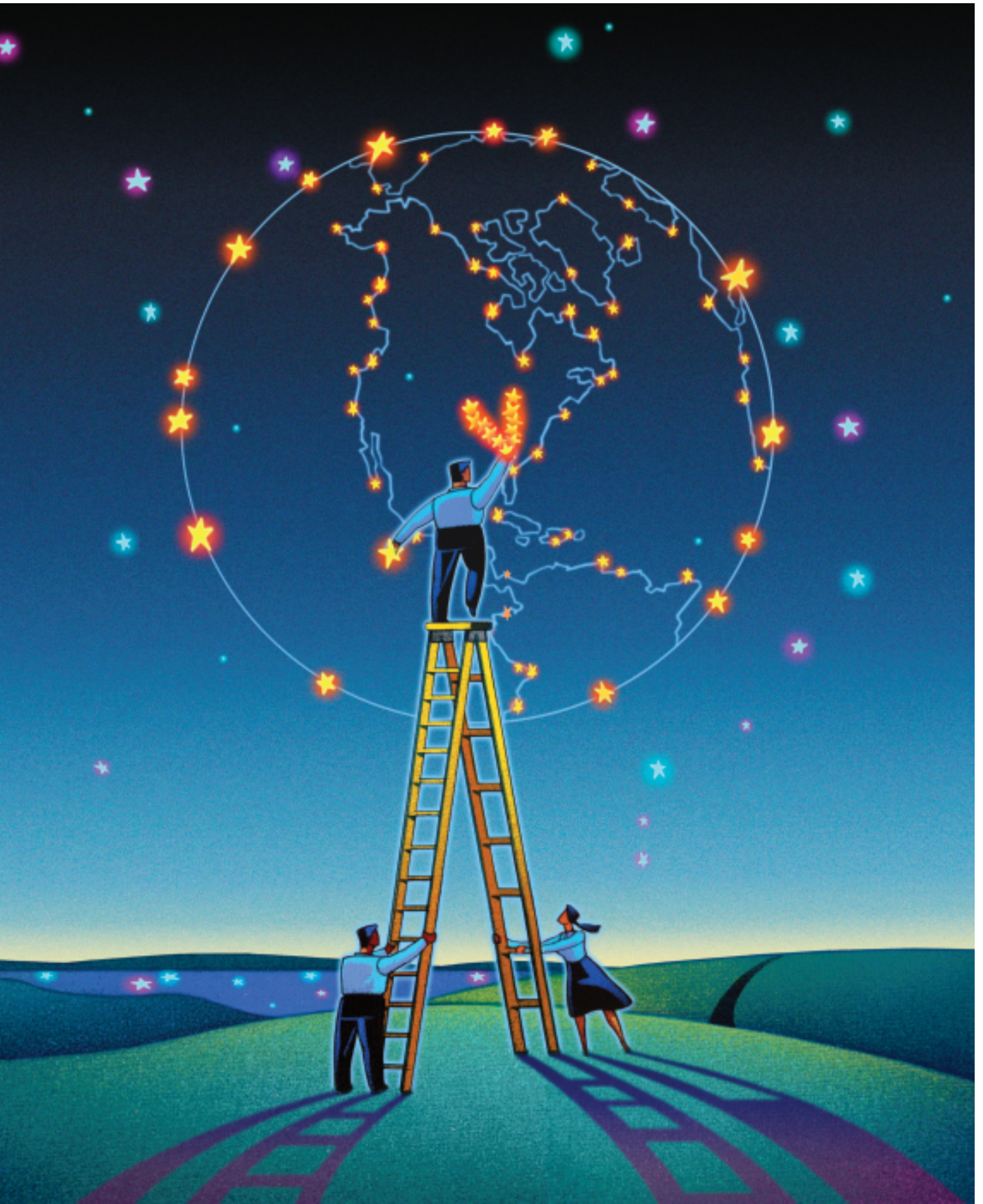
By PAUL KINGSBURY, BA'80

On the evening of April 24, 2003, some 500 alumni, parents, friends, students and faculty gathered in Langford Auditorium to celebrate the launch of the most ambitious fund-raising campaign in Vanderbilt University's history. Titled "Shape the Future," the campaign aims to raise \$1.25 billion. That's not just an astronomical figure; it's more than three times the original \$350 million goal of the University's last major fund drive, which ended in 1995. (That campaign went on to raise \$560 million in gifts, pledges and planned gifts.)

By any measurement, it's a huge reach forward.

*Illustrations by* DAVID TILLINGHAST







For those in attendance that April night, the announced goal was no surprise. Rather, it was a celebration of a job well done and a recognition of the challenging work ahead. Already the University had raised \$828 million in what is commonly known in fund-raising parlance as the “quiet” or “silent” phase of the campaign, and most of the Langford audience had been part of the effort behind the scenes that makes such a goal possible. Some of them—volunteers, faculty members, administrators, benefactors—had been working toward this announcement in various ways since 1997.

“A campaign is a moment in time when a university has an opportunity to focus on its mission and its future,” says Robert Early, executive associate vice chancellor for development and alumni relations and a veteran Vanderbilt fund-raiser. “It’s a time to say: What do we want Vanderbilt to become? What do we need as we look to the future? It gives you permission to dream—and not only to dream, but also to define the steps necessary to realize that dream. And it gives you the opportunity to draw alumni, parents and friends into that process because they are the ones who help you realize the dream.”

Alumni who have not been involved in the campaign planning must surely wonder: What

raise \$1 billion or more, led by UCLA’s \$2.4 billion goal. In joining such a select group and aiming for such a lofty target, clearly Vanderbilt intends to distinguish itself further as one of the top research universities in the nation.

As Chancellor Gordon Gee noted during the public launch, “We do something tonight that simply cannot be done by just any institution of higher education. A campaign of this magnitude, a campaign of this transformative potential can only be imagined by so many colleges and universities. It takes confidence and boldness—and steadfast belief in the vital mission we perform every day. It takes enthusiastic commitment—from our alumni, our supporters, our friends.”

It’s axiomatic: Colleges constantly seek more money, and today’s fund-raising goal inevitably outstrips yesterday’s. Quality in teaching and research comes at a price. But a fund-raising campaign is not just about money. The fundamental question is: What will the university do with the money? In Vanderbilt’s case, University officials have a transformative plan in mind for the institution, and they arrived at monetary goals through carefully laid strategic plans. Indeed, the campaign title “Shape the Future” is not just a slogan; it’s a fairly accurate descriptor.

as medicine, law and education.

This year the University ranked 19th in the *U.S. News & World Report* survey. Its Medical Center has been named for two consecutive years by *U.S. News* to its “Honor Roll” as one of 17 of “America’s Best Hospitals.” In 2001 *Newsweek* deemed Vanderbilt one of “America’s Hot Schools” for undergraduate education. Financially, Vanderbilt has kept pace as well. As of the close of fiscal year 2002, Vanderbilt’s \$2 billion endowment ranked 22nd among American universities.

“The reason we’re doing well is we’ve already had great support from our alumni as well as other private support,” says Chancellor Gordon Gee. “But the difference between good and great is the type of private support we receive. It fuels new ideas, and it is the investment in those new ideas that allows us to be distinctive.”

Now aged 59 and entering his fourth year as Vanderbilt’s chief executive, Chancellor Gee has spent more than a quarter century as a law professor and academic executive. Before joining Vanderbilt in 2000, he led four large universities—West Virginia, Colorado, Ohio State and Brown. He has been through university fund-raising campaigns before, and he has a keen appreciation for what a

“A campaign of this magnitude, a campaign of this transformative potential can only be imagined by so many colleges and universities. It takes confidence and boldness—and steadfast belief in the vital mission we perform every day. It takes enthusiastic commitment—from our alumni, our supporters, our friends.”

—Chancellor Gordon Gee

is this \$1.25 billion dream? What does the University hope to fund? How can Vanderbilt presume to aim so high in the midst of a tough economic climate? How did the University arrive at such a price tag? And how does Vanderbilt plan to reach the goal?

Vanderbilt is hardly alone in daring to cross the billion-dollar threshold. It joins the ranks of 22 other American universities that, as of mid-year 2003, had ongoing campaigns to

### The Vision

By any reasonable measure, Vanderbilt has done very well since its founding in 1873 with a \$1 million gift from transportation magnate Cornelius Vanderbilt. Over the past two decades, the University has consistently ranked among the top 20 universities in the country in surveys conducted by publications such as *U.S. News & World Report*—both overall and in graduate and professional programs, such

university must do to succeed.

“We have a unique opportunity because we have managed ourselves well, and we are one of the few institutions that has the ability to go out and aggressively pursue talent: talented students, talented faculty, talented staff. And that gives us an opportunity to vault ourselves even higher.”

In his three years as chancellor, Gee has taken the measure of the University and what

makes it distinctive. In particular, he sees great strength in Vanderbilt's relatively compact size that encompasses 10 schools, more than 10,000 students, and some 2,000 full-time faculty members. "We happen to have on these 330 acres some of the finest intellectual endeavors on the face of the earth, and they're within walking distance of each other."

According to Gee, this compactness offers unique opportunities for collaboration across boundaries—between schools and academic departments, between professors and students.

"We are all cheek to jowl on this campus," says Gee. "And that almost immediately diminishes any kind of picket fences or Berlin Walls that exist. I have been part of institutions at which the engineering schools or education schools or undergraduate departments and programs were so large that they really become self-contained. Our

compactness, the size of our student body, and the size of our faculty allow us to have this creative energy that crosses all these various intersections and lines.

"We have an opportunity to create an intellectual environment that is unparalleled in this country," he continues. "Our vision is to create new, distinctive and creative programs while giving great deference to the strengths we already have, and in so doing reposition ourselves as the leading institution in this country."

Nicholas Zeppos—who joined Vanderbilt in 1987 as a law professor and who, as provost, is now the University's chief academic officer—describes how the post-campaign Vanderbilt will evolve: "Vanderbilt will be one of the most unique intellectual academic communities in higher education. It will be an academic community that is cross-disciplinary, transinstitutional, focused on basic questions of mind, body, spirit and word in a close-knit community of scholars and teachers. It will be a residential campus with

faculty and students engaged not just in didactic learning, but in an exciting process of learning and creating knowledge and disseminating knowledge and making a difference in the world."



Setting financial priorities for student and faculty support are key elements of most university fund-raising campaigns, and Vanderbilt's Shape the Future initiative is no exception. There are two key components in the Vanderbilt campaign, however, that distinguish it from those of other universities. Residential colleges and transinstitutional initiatives build on the University's traditional strengths, but represent new directions for Vanderbilt. Gee calls these priorities "the two transformative areas of our plan."

The residential college concept originated at Oxford and Cambridge in England, and is in place at some 65 universities in the U.S. In a residential college system, students become affiliated with a college residence within the university and typically live, dine, and participate in sports and extracurricular activities as a unit. Some faculty members also live in residence halls and participate in their activities. The residence halls become more than simply living quarters; they become an extension of the classroom and a bonding

experience for students and faculty.

Currently, some 85 percent of Vanderbilt undergraduates live on campus, a much higher percentage than on most college campuses. Gee and other University administrators

see the residential college system as a way to build on this already ingrained strength of the University's undergraduate experience. It also is a clear alternative to growing competition in the higher-education marketplace from lower-cost, distance-learning colleges, such as the University of Phoenix, for the residential college maximizes the immersive strengths of a traditional university education. Vanderbilt is seeking \$50 million to begin the process of establishing a residential college system, which is slated to open in 2006.

"I believe that [the residential college system] ultimately will be the hallmark of Vanderbilt," says Gee. "It will deepen our intellectual

rigor. It will also assure that everyone who comes to Vanderbilt will find a place immediately, that we'll have a retention rate that will be among the best, if not the best in the country, and that we'll provide students with the opportunity to participate in social, cultural and intellectual activities, but at the same time have a centered area that they can return to and be at home."

Similarly, to build on the University's research strengths within its 10 schools and the proximity of those schools, Vanderbilt is developing what are being called "transinstitutional initiatives." These initiatives are on-campus interdisciplinary research centers and projects that focus on issues falling between traditional departmental and school boundaries; such research areas—for example, the workings of the brain, the intersection of religion and culture—call for expertise of researchers from many disciplines. Vanderbilt is seeking \$25 million for these transinstitutional initiatives. Further financial support will be realized through other campaign pri-

orities, notably graduate fellowships and faculty chairs.

“Most great research work is going to be done across disciplinary boundaries,” explains Zeppos. “What we’re trying to do, in a focused way, is to bring all of the strengths of the University to bear on a particular area of inquiry where we think Vanderbilt can make a difference.”

Central Parking Corp., a Vanderbilt Board of Trust member, and chair of the Shape the Future campaign, the issue of student scholarships hits close to home. Carell attended Vanderbilt on full scholarship thanks to the GI Bill, following service in the Navy. He was the first in his family to attend college, and he is grateful for the life-changing opportunity his Vanderbilt education afforded him.

to says, “but it’s a very competitive environment.” Currently, Vanderbilt has only 64 chairs (outside the schools of medicine and nursing), a number far smaller than at competitors like Washington University, Northwestern and Emory. To keep pace, Vanderbilt hopes to raise the number of named chairs to a level more competitive with peer institutions.

Beyond scholarships, faculty chairs, resi-

“Vanderbilt will be ... an academic community that is cross-disciplinary, transinstitutional, focused on basic questions of mind, body, spirit and word in a close-knit community of scholars and teachers.”

— *Provost Nicholas Zeppos*

“We’ve made a strategic decision that our future is at the intersections,” says Gee. “By that I mean the intersections of ideas, the intersections of our campus, in terms of where those ideas flow. It’s at those intersections that ideas are energizing us. We see this in a number of our centers, such as the Center for the Americas, the Center for Religion and Culture, the Center for Structural Biology.”

Though residential colleges and transinstitutional centers are major new thrusts for the University, their portion of the \$1.25 billion campaign goal is relatively small: \$75 million. The lion’s share of the goal—\$560 million, nearly half the campaign total—has been targeted for students and faculty, chiefly in the form of scholarship funds and endowed faculty chairs. In each case is a need to attract and keep the best. Gee points to these two areas as Shape the Future’s “top priorities,” summing up the campaign’s two major goals succinctly as “support for students and support for faculty.”

For scholarships and graduate fellowships, the campaign seeks \$300 million. It is a huge amount, but then the current annual cost of sending a student to Vanderbilt tops \$40,000. At that price, many deserving students cannot afford to attend. Often those who can are saddled with enormous debts upon graduation; indeed, out of the top 25 universities, Vanderbilt students graduate with the third-highest debt burden.

For Monroe Carell, BE’59, the C.E.O. of

“We need to make Vanderbilt available to far more people than those who can pay the tuition,” said the 70-year-old Carell during a June interview at his tidy and modest Central Parking office in Nashville. “If you look at kids who take their SATs every spring, nine out of 10 who score over 1320 come from families with less than \$100,000 in gross income. There’s no way that kid could go to Vanderbilt without significant scholarship aid. As a university, we have \$110,000 per student in designated scholarship funds. A place like Emory or Duke has \$600,000 or \$800,000 per student. ... This campaign is really going to address scholarships.”

The other major goal in the campaign is faculty support. Nationally, the average salary for associate professors has risen nearly 70 percent over the last 20 years, adjusted for inflation, according to James Surowiecki in *The New Yorker*. To recruit and retain top faculty, the campaign has earmarked \$260 million. Much of these resources will go toward creating named chairs for faculty, which offer prestige and additional research funds. The University’s best faculty are often coveted—and sometimes hired away—by other universities. According to Greg Perpetto, associate provost for institutional research, Vanderbilt has made great strides recently in faculty retention in the face of raids from other universities, but the effort has been expensive.

“We have reduced faculty attrition by more than 50 percent in the last five years,” Perpetto

dential colleges and transinstitutional initiatives, the Shape the Future campaign also seeks \$231 million for research and programs, \$58 million for annual giving, \$326 million for new buildings and technology, and, in addition to the campaign’s stated goal, \$100 million for new planned bequests. Gee emphasizes that the entire campaign is necessary for Vanderbilt’s future success. “It’s absolutely essential,” he says. “Without it, we will not achieve our vision. With it we will achieve great things. It’s that simple.”

Gee hastens to add, though, that “this is not about making a new Vanderbilt. This is about continuing to enhance our character. It’s not about changing our character. At the same time, it’s about becoming a thoroughly modern university.”

### **The Roadmap**

Although Chancellor Gee is the leader of the University, he did not single-handedly dream up the University’s transformative plan and the fund-raising campaign’s dollar targets. In fact, well before Chancellor Gee’s arrival, Vanderbilt had begun a period of intensive internal self-study that led to new strategic plans for the central University and the Medical Center, which in turn have helped to set campaign dollar goals.

For the central University, that period effectively began in February 1998, when Vanderbilt’s Board of Trust convened a strategic planning retreat in Florida, the first the Uni-

versity had held since the early 1970s. The Board had determined that Vanderbilt had the talent and the means to enter the uppermost tier of American universities, and the retreat allowed a number of faculty and administrators to discuss Vanderbilt's future with the Board. Led by Chancellor Joe B. Wyatt, the University quietly embarked on the development of a long-term strategic plan. Out of that plan would come the financial goals for a new comprehensive fund-raising campaign.

The Vanderbilt University Medical Center actually preceded the University as a whole in developing its own strategic plan. This process had been formally taking shape since 1996. "At the end of '97, really at the beginning of '98, we started executing that plan," says Dr. Harry Jacobson, vice chancellor for health affairs at Vanderbilt since 1997. "And that was an academic strategic plan, focused on our educational and research missions."

Along with articulating the Medical Center's continual needs for top-notch students, faculty and facilities, the Medical Center's strategic plan spells out key areas of clinical research and basic science research where VUMC is already strong and where VUMC believes it can become a research leader. In clinical research the areas of emphasis are: cancer, diabetes, heart disease, children's health and neuroscience. But the Medical Center intends to strengthen its already world-class research in the basic foundational sciences by focusing on structural biology, chemical biology, genetics and proteomics. The focus on these basic chemical mechanisms will chart a course for diagnosing and treating disease.

To expand research capabilities in these areas requires an infusion of additional talented faculty and graduate students. Among other things, the strategic plan calls for expanding the number of Ph.D. candidates from 250 to 500 by year 2007, and growing the number of candidates who pursue both M.D. and Ph.D. degrees as well.

Jacobson is quick to point out that the strategic plans for both the Medical Center

and the greater University have been developed to maximize cooperation. "Both strategic plans place a high priority on looking at things we can do together. So transinstitutional opportunities are in both of our plans through initiatives like the new Institute of Chemical Biology and the Center for Neuroscience." In addition, says Jacobson, graduate programs for scientific specialties such as the

ier to describe transinstitutional initiatives if we do so together. There are very few campuses where people in the Arts and Science biology department are working side by side in the same building as basic scientists from the medical center. We're fortunate to have that. And today, especially in research, if you want to make progress, you need people from several disciplines working together."

As the Medical Center was putting the finishing touches on its strategic plan, the central University began its strategic planning process in the summer of 1999, under the direction of then-Provost Thomas G. Burish. Each department throughout the University evaluated its research and teaching with the help of outside peer reviewers from other universities. In June 2000 the University organized a strategic planning retreat involving about 80 faculty members, administrators and development staff. Out of this process of self-scrutiny came what has come to be known as the central University's Draft Academic Strategic Plan. This document began to spell out key areas of focus, among them: student scholarships, faculty recruitment and retention, a residential college system, and transinstitutional initiatives.

In the midst of this process, the University experienced two major changes: Gordon Gee arrived on campus in February 2000 and officially succeeded the retiring Joe B. Wyatt as chancellor that August, and Nicholas Zeppos succeeded Thomas Burish as provost in January 2002. Both men became key players in the development of the strategic plan.

Shortly after his arrival at the University, Gee issued five challenges to Vanderbilt: Recommit ourselves to establishing an unparalleled learning experience for undergraduate students; fully integrate our outstanding professional schools into the undergraduate and graduate programs; reinvent graduate education; modify and improve upon our budgetary and business structures; and reaffirm our covenant to the broader community. As the Draft Academic Strategic Plan took shape, Gee's challenges became woven into



neuroscience Ph.D. program are cooperatively run by many of the University's schools.

The Medical Center's target goal for the campaign is \$625 million, fully half of the \$1.25 billion grand total. Some major university medical centers have chosen to mount fund-raising campaigns independent of their universities. Nevertheless, Jacobson believes that in Vanderbilt's case, much is to be gained from combining efforts in a single campaign.

"The philosophy of the leadership of this University—the chancellor, the provost, myself and others—is that we are one University. There are building blocks in the University. The Medical Center is just one of those. So it makes sense for us to go out as a single university to the community—whether they be individuals or foundations or corporations—and present our capital requests. It's also eas-

the fabric of what ultimately became a 50-page document in 2002.

After three years of work, the draft plan was presented to the Board of Trust and approved in April 2002. (Even more than a year after its adoption, it continues to be called a “draft” to emphasize the fluidity and flexibility of its purpose.)

“We are not just raising money,” says Gee. “We are raising money for a very specific purpose. People are going to invest in ideas. They are not going to invest in institutional priorities. The strategic plan is really the idea, the mechanism. We have made an absolute commitment to raise money based on that plan.”

### Finding the Target

A huge milestone in the gathering campaign was the November 1998 announcement of a gift from the Ingram Charitable Fund. The fund was established in 1995 by Martha Rivers Ingram, who is now chairman of the Vanderbilt Board of Trust, and her late husband, Bronson Ingram. At the time, news sources valued the 8 million shares of stock in Ingram Micro Inc. at more than \$300 million. The gift is believed to have been the single largest gift to an American college or university. Ingram Micro is the world’s largest wholesale distributor of technology products and service. The enormous gift, credited by University officials to the entire Ingram family, served as a natural catalyst for the upcoming campaign. With the exception of a small portion of the gift that Bronson Ingram pledged during the previous campaign, the Ingram gift has been applied to the current Shape the Future campaign.

Among the projects funded by the gift were: support for the Vanderbilt-Ingram Cancer Center; expansion of facilities at the Blair School of Music, including construction of the new Martha Rivers Ingram Center for the Performing Arts; support for the Owen Graduate School of Management; a major commitment to the Monroe Carell Jr. Children’s Hospital at Vanderbilt; a long overdue

renovation of Memorial Gymnasium; and a major expansion of the Ingram Scholarship Program, begun by Bronson Ingram during the last Vanderbilt campaign.

Other large, early commitments to Shape the Future include multimillion-dollar gifts from Monroe Carell Jr. for the new Children’s Hospital building (which will bear his name when it opens in October), and from fellow Board of Trust member William Featheringill, BE’64, whose gift enabled construction of the School of Engineering’s new Featheringill Hall, which houses state-of-the-art laboratories, classrooms, offices and design studios. Such early gifts went largely toward bricks-and-mortar projects aimed at the campaign’s \$326 million target for facilities and technology. Getting those projects funded during the silent phase of the campaign has allowed the public phase of the Shape the Future campaign to focus now more on people: scholarships and faculty chairs.



These and other early commitments from key Board of Trust members gave the University momentum and confidence heading into a new campaign. In 1999 the Board of Trust formed a campaign planning committee, chaired by Carell, to map out key elements of the campaign, such as determining

its rationale. Following planning committee meetings in 1999 and 2000, the entire Board of Trust voted in November 2000 to approve the campaign, with Carell as its chair, and an initial goal of \$1 billion. To oversee Shape the Future, a campaign steering committee of some 20 Board of Trust members, alumni, parents of undergraduate students, and key University officials was formed as well.

How did the Board of Trust arrive at the magic \$1 billion number?

“You know, we have infinite appetites,” says Gee with a laugh, “and finite resources. And when we started out taking a look at this strategic plan for the University, we said: What will it take to make this happen? We then made decisions based upon the overall priorities of the University and what we thought were realistic goals.”

To set a realistic dollar target, Vanderbilt also had expert help. Since the 1990 campaign, Vanderbilt has relied on the consulting serv-

ices of E. Burr Gibson, executive chairman of the New Jersey-based fundraising consulting firm Marts & Lundy. A member of the Marts & Lundy team since 1964, Gibson has worked with numerous universities, prep schools and museums over the years. He served as consultant on the first billion-dollar university campaign—for Stanford, in a campaign that concluded in 1992.

According to Gibson, virtually all not-for-profits determine their fundraising goals by applying standard rules of thumb that take into account the institution’s typical base receipts of annual gifts and grants, as well as counts of the number of potential donors who can contribute in large categories (e.g., \$1 million+, \$5 million+, \$25 million+). “If, for example, you have 300 people who could give you a million dollars,” says Gibson, “there are some fairly consistent percentages of probability

that can be applied as to how these people might respond in a campaign. These give you rough guides. Then, ultimately, you ask, Shall we make what looks like a fairly cautious decision, or shall we press to the limit?"

Following numerous conversations between

in the midst of a gloomy economic climate, but the success of the silent phase pointed to the new goal. "Burr Gibson has indicated that few if any universities have had a more successful silent phase of a campaign than has Vanderbilt," says Gee.

Reunions to get out the campaign message. Also, the University is planning a series of what Early calls "regional launches" in eight to 10 cities—such as Houston, Atlanta and New York—that have a critical mass of core Vanderbilt supporters. Finally, there will be

"There are very few campuses where people in the Arts and Science biology department are working side by side in the same building as basic scientists from the medical center. We're fortunate to have that. And today, especially in research, if you want to make progress, you need people from several disciplines working together."

— Vice Chancellor for Health Sciences Harry Jacobson

Board of Trust members, development staff and benefactors, the Board of Trust arrived at the \$1 billion target figure at its November 2000 meeting. The University then arranged consultation meetings with some 175 key University supporters in 10 cities around the country.

All these steps took place during the "silent phase" of the campaign. Robert Early, who has headed the development team since August 2002, explains the reasoning behind the silent versus public phases of a campaign: "Early in the process, you talk to the people who have the resources to make a campaign successful. You ask them to comment on our reasons for launching a campaign and to think about what they might do to support the University. Based on their responses, you can then say, 'This is what is already committed; let's add to that the potential for additional support. Therefore, a reasonable goal to shoot for is X.'"

Following the period of refining the goal, says Early, comes the public announcement. "This is where you say, 'We're putting our flag in the ground, and we're declaring to the world that we're going to go out and raise \$1.25 billion.' A public launch gives you the opportunity to make that kind of statement."

In its silent phase, during which \$828 million was raised, Vanderbilt upped its target 25 percent to \$1.25 billion. It was a bold move

### Spreading the Word

Of necessity, billion-dollar campaigns are built on multimillion-dollar gifts. They couldn't succeed without them. If Vanderbilt did not have the support of major benefactors such as the Ingrams, Carell and Featheringill, the University couldn't expect to reach its \$1.25 billion goal unless every one of its 112,000 living alumni gave more than \$11,000 during the campaign. As much as University officials might fondly wish for such across-the-board support, they know it's a highly unlikely occurrence. Nevertheless, says Early, Vanderbilt hopes to engage all its alumni in the campaign, no matter the size of their contribution. "There is a place in this campaign for everyone to make a gift. When you total the gifts of people who pledge \$100 or \$1,000 to the University every year, it's significant. All those gifts added together fuel this great engine called Vanderbilt."

The general population of 112,000 Vanderbilt alumni first learned of the campaign in a letter from Board of Trust Chairman Martha Rivers Ingram in early 2001, announcing the Board's decision to mount a campaign. In April 2003, some 30,000 or so alumni who have chosen to subscribe to *Commodore*, the University's monthly e-newsletter, received information about the \$1.25 billion goal and the April public launch. To further spread the news, the University will be using annual

a regular campaign newsletter targeted to about 25,000 key supporters and alumni. Others will hear about the campaign and its priorities at alumni club events.

In the past half-century, regular periods of fund-raising have become standard for colleges and universities. "If you study the fund-raising results of almost every institution," says Gibson, "you'll see that major campaigns, while they raise a lot of money during the campaign, also have an impact long term on the amount of money that can be raised. So each institution, when it finishes a campaign, has the ability to raise more money annually than it did before. You might call it a ramping-up effect."

Although Vanderbilt didn't mount its first public fund-raising campaign until 1916 (a \$1 million goal for the endowment), and subsequent campaigns tended to happen at almost random intervals before 1960, these days Vanderbilt's fund-raising campaigns are finely tuned machines, involving some 200 development staffers (five of whom are dedicated solely to the campaign) and about 200 alumni volunteers. The volunteer leadership of the campaign is experienced as well. According to University officials, two-thirds of the Board of Trust, including Monroe Carell, were involved in the 1990 Campaign for Vanderbilt. Many top-level development staff, too,

*continued on page 83*

**I**T'S A DAUNTING TASK—SOME WOULD ARGUE FOOL-  
hardy—to select from the myriad contributions  
Vanderbilt has made to the world, and offer up a hand-  
ful as representative of the University's influence. In its  
120-year history, Vanderbilt's faculty, students, alumni  
and staff have been engaged in work that has literally shaped  
the way we perceive ourselves and the world around us. Their  
work has changed the way we treat disease. It has created  
some of the programs developed to help those in our society  
who need assistance. And it has offered new twists on some  
very old traditions.

We've chosen 20 "gifts" to highlight here. You may be  
amazed at what we have featured; you may be amazed at what  
we've left out. We're certain you'll find some surprises.



ANNE RAYNER

# 20 *gifts* VANDERBILT GAVE THE



# *Fetal Surgery* 1

■ Pediatric surgeons have long been frustrated that medical science can identify birth defects in a fetus long before its mother delivers. But corrective surgery had to wait until birth, and by then the defect often had worsened and caused even more damage to the child.

Drs. Joseph Bruner and Noel Tulipan were determined to find a way to do surgery sooner when the baby had a better chance of recov-

ery, even survival. They found it in 1997. Bruner, who directs Vanderbilt's fetal diagnosis and therapy program, and Tulipan, director of pediatric neurosurgery, developed a dramatic new technique to operate on a stricken child while still in its mother's womb. Spina bifida was the disease they set their sights on to conquer, or at least tame.

The two surgeons knew they couldn't reverse the damage of spina bifida, but they

hoped to halt it before it got worse. Their solution was to get into the uterus via an incision, expose the fetus, and repair the opening in its spine. They began operating at 28 weeks, but on occasion have done so as early as 21 weeks. Since the first surgery in 1997, they have performed more than 200 with good results. Along the way, they pioneered a similar surgery to treat hydrocephaly.

Today the fetal surgery pioneers are studying long-term benefits of the surgery along with teams at Children's Hospital of Philadelphia and University of California at San Francisco. Bruner and Tulipan are confident of the outcomes, and they already are studying other possibilities for treating other malformations and troubles—heart defects, metabolic disorders, blood and tissue transplantation—in babies long before they begin their lives in the outside world.

# WORLD



## 2 *Alternative Spring Break*



NET PHOTOGRAPH BY VICKI VALENDI, PHILADELPHIA INQUIRER

■ If you've ever woken in a cold sweat from nightmares about your kid turning up in one of those Geraldo-style television news specials featuring college students cavorting naked and inebriated on some Florida beach during spring break, then this will be your favorite Vanderbilt gift to the world.

In 1986, after Vanderbilt students told Susan Ford Wiltshire they needed more exposure to the world beyond the Vanderbubble, the classics professor suggested they form a spring break program that would place students, faculty and administrators in different cultures and environments to confront social issues through community service.

Fast-forward 17 years. Thousands of students at Vanderbilt and dozens of other colleges and universities have spent their spring breaks working for social change in hundreds of cities in the U.S. and around the world. Vanderbilt's Alternative Spring Break has been emulated at institutions across the country.

Last March some 300 Vanderbilt students participated at 25 sites across the United States, Mexico and Canada. Students confronted

issues as diverse as youth homelessness in Nashville, cultural clashes within Texas Hispanic communities, and wetlands protection in Florida.

In 1991 two Vanderbilt students, Michael Magevney, BA'91, MBA'98, and Laura Mann, BA'91, JD'97, formed Break Away as a clearinghouse for volunteer spring break activities. Now called Break Away: The Alternative Break Connection, the national nonprofit organization provides training and information to universities and other organizations interested in creating lifelong volunteerism through intensive service-learning programs.

## 3 *Corrections Corporation of America*

■ In 1983, Tom Beasley, JD'73, started Corrections Corporation of America, the nation's first and now the largest private provider of correction facilities. It houses 53,000 inmates and employs 14,000 people in 61 facilities around the United States.

CCA officials maintain that privatization reduces overcrowding and achieves economies in both construction and operating costs. Recidivism, they add, is lower at private prison facilities and its facilities have an escape ratio of less than two-thirds the national average.

The company grew out of a cocktail-party brainstorm. Someone remarked that privatization was the only way to fix Tennessee's prison system and, a short while later, Beasley had rustled up management and financing.

A graduate of West Point, Beasley served in the U.S. Army in Vietnam, where he received the Silver Star and two Bronze Stars for valor. "My law degree gave me willingness to roll the dice every day," Beasley says. "I'd been in the army and Vietnam, I had a law degree from Vanderbilt, and I thought, 'If I go broke tomorrow, I can do it again.'"





## *Chick Embryo Technique for Culturing Viruses*

■ The next time you or your child is about to receive an immunization and your health-care provider asks if you're allergic to eggs, remember Dr. Ernest W. Goodpasture and his contribution to fighting viral disease.

In 1931 the professor of pathology developed the first practical method for cultivating large quantities of a virus in the laboratory—by growing it in the exposed membrane of a chick embryo.

“It revolutionized the study of viruses and viral diseases,” says Dr. Robert D. Collins, the John L. Shapiro Professor of Pathology, who was one of Goodpasture's students. “Scientists from all over the world came here to learn the technique.”

The method opened the door for research that probed the nature of viruses and led to the development of vaccines to protect against viral diseases.

Goodpasture graduated from Vanderbilt in 1907, was on the Vanderbilt School of Medicine faculty from 1924 to 1960, and was its dean during the World War II and post-war era.

He was most proud of his discovery of the cause of mumps, which had eluded investigators since ancient times. In a series of experiments using monkeys, he proved the viral nature of the disease.



## *The Fugitives*

■ “Down [South],” wrote H.L. Mencken in 1920, “a poet is now almost as rare as an oboe player, a dry-point etcher, or a metaphysician. ... [It] is almost as sterile, artistically, intellectually, culturally, as The Sahara Desert.” Two years later a group of poets at Vanderbilt began publishing a literary magazine called *The Fugitive*. Though it lasted less than four years and published just 19 issues, many consider it the spark that ignited what came to be called the Southern Literary Renaissance.

Four of the most prominent members included John Crowe Ransom, Donald G. Davidson, Allen Tate and Robert Penn Warren. Among them they account for three Guggenheim Fellowships, two Rhodes Scholarships, more than 20 honorary degrees, three Pulitzer Prizes for poetry and fiction, two National Medals for Literature, two National Book Awards, two Endowment for the Arts Awards, and one Presidential Medal of Freedom.

**Left to right: Allen Tate, Merrill Moore, Robert Penn Warren, John Crowe Ransom, Donald Davidson**



Grantland Rice, center, wearing hat

## 6 Grantland Rice, BA 1901

■ Quite arguably the greatest sports writer ever to grace the halls of Vanderbilt, Grantland Rice conveyed the drama of sports with a turn of phrase bordering on poetry. Notre Dame fans certainly remember his 1924 report of Notre Dame's football victory over Army: "Outlined against a blue-gray October sky, the Four Horsemen rode again."

Accolades and honors followed Rice throughout his career. In 1948, the Philip Morris Company established the Grantland Rice Trophy at Vanderbilt, a permanent award in honor of students who best combine scholarship and athletic ability. On the national level, the Grantland Rice Trophy remains the most coveted of awards. It has been awarded to college football's national champion since the 1954 season (the year Rice died) by the Football Writers Association of America. In 1978, Vanderbilt loaned Rice's vintage Underwood typewriter to the College Football Hall of Fame in Canton, Ohio, housed in a replica of a 1930s press box. The Thoroughbred Racing Association established the Grantland Rice Scholarship in 1956, an all-expense scholarship for prospective sportswriters.

Of all of Rice's writings, perhaps the most often quoted—and most often misquoted—is this: "When the One Great Scorer comes to write against your name / He marks—not that you won or lost—but how you played the game."

■ Let's say you're a guy who agrees to take part in a clinical trial testing an enzyme for possible use as a blood pressure drug, and what happens? Ummm ... You can't help but notice that suddenly your ability to sustain an erection is dramatically enhanced. Imagine telling *that* to the research assistant.

Fortunately, for millions suffering from erectile dysfunction, one research subject did report the serendipitous side effect to his physician, who recognized its significance. Researchers began questioning other men in the study who reported the same phenomenon.

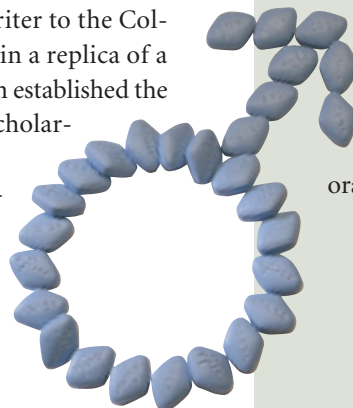
Forget blood pressure, Pfizer said. The company quickly arranged a new clinical trial with the goal of producing a male impotence drug. The result was Viagra, which earned the highest revenue of any drug in history during its first year of release.

Most of the basic science research done to identify and clone the enzyme PD-5, which is responsible for Viagra's effect, was conducted at Vanderbilt by Jackie D. Corbin, professor of molecular physiology and biophysics, and Sharron Francis, research professor in molecular physiology.

Viagra, also known as sildenafil, works by inhibiting PDE-5, which is responsible for preventing or stopping a man's erection by destroying the protein cyclic GMP. Although cyclic GMP and PDE-5 are present in all blood vessels, sildenafil only works on cells in the penis.

Corbin earned his Ph.D. from Vanderbilt in 1968 and did post-doctoral work for three years at the University of California, then returned to Vanderbilt where he has spent much of his time working on cyclic GMP, a molecule that is key to regulating a number of vital smooth-muscle functions, including blood pressure and penile erection.

In 1984 he and Francis merged their labs and have been collaborating ever since.



Viagra



## Neonatal Intensive Care

# 8



■ In 1961 there was no such thing as neonatal intensive care. Babies born prematurely with underdeveloped lungs died.

A research project led by Mildred Stahlman, BA'43, MD'46—and funded by the National Institutes of Health—was under way at the time to try and determine what physiological changes occurred in babies as they develop from intrauterine life to the world outside. The NIH grant resulted in the addition of a laboratory adjacent to the nursery at Vanderbilt Hospital. At the same time, Dr. Stahlman obtained a prototype of a respirator that was the same type used for polio patients, but it had been scaled down for premature baby size. In October of that year, the ongoing research project came face to face with life-or-death human need.

A baby girl had been born with severe hyaline membrane disease. Everyone agreed that unless something was done, she would die. With her parents' permission, a bold experiment began.

Using the equipment, technology and human knowledge on hand, a medical breakthrough occurred. For the first time in the history of medicine, a premature baby was helped to breathe by the use of a respirator. For five days, the fragile baby girl had her blood gases monitored and the pressures in her blood vessels and respiratory system checked, along with EKG readings. This ability to monitor vital signs was a daily challenge to the researchers, who had to use modified equipment that was never meant for such a tiny body. That first patient now leads a productive life and works for IBM.

The pioneering work of Mildred Stahlman, who continues today as a professor of pediatrics and pathology at Vanderbilt, led her to put into place the first modern neonatal intensive care unit in the world.



## 9 *Astronomical Bodies*

■ Edward Emerson Barnard, a professor of astronomy at Vanderbilt in the late 1800s, was the first to witness and document numerous astronomical discoveries of his day. The only person ever to receive an honorary academic degree from Vanderbilt, he discovered 16 comets, more than 23 nebulae, and Jupiter's fifth moon. He was the first person to photograph the Milky Way.

At the age of 9, Barnard went to work in a photography gallery where he was placed in charge of the solar enlarger, a device that tracked the sun to make photographic prints.

The experience helped develop his interests in photography and astronomy. Eventually, he saved enough to buy a telescope with multiple eyepieces. In 1881 he was the first person to spot a comet that later became known as 1881 VI. A New York foundation was awarding \$200 for every new comet discovered. Barnard used the money as a down payment on a small house near Kirkland Hall and set about enthusiastically looking for more new comets. He would later joke that "the house was built entirely from comets."

At the age of 26, Barnard was persuad-

ed to enter Vanderbilt as an assistant in its new observatory on the main campus and as a special student. He remained at Vanderbilt four years. In 1887 he became one of the initial staff members of the newly formed Lick Observatory at the University of California, and in 1895 joined the Yerkes Observatory at the University of Chicago.

The six-inch refractor he used at Vanderbilt is today located in the Vanderbilt Observatory in the Stevenson Center.

# 10



## Vanderbilt Voice Center

■ If you're a country music singer who's prone to fraying your vocal cords after belting out one too many of your hit ballads at one too many state fairs, then you've probably got this center on your speed dial.

The list of patients who have sought treatment at the Vanderbilt Voice Center reads like a Who's Who of Country Music. (Because country singers often lack formal training, they are particularly vulnerable to straining their voices.) In one recent year, nearly one-fourth of the singers nominated for Country Music Association Awards had been patients.

Of course, you'd have to visit the Center yourself and peruse the autographed photos lining the walls to figure out which performers have been treated there. "In an industry where perception is everything, even a hint that you've had trouble with your voice can make or break a record deal," says speech pathologist Melissa Kirby, who coordinates the Center's Preventative Care Program. "We're very protective of our patients."

Not all patients are singers. Bill Clinton sought the Center's research when he was a presidential candidate.

Patients who use their voices professionally—ministers, lawyers, broadcasters and teachers, as well as performers—may be treated with voice therapy, medication or even surgery at the Center. In 1999 doctors at the Vanderbilt Voice Center were the first in the United States to fit a patient with a laryngeal pacemaker called an Implantable Pulse Generator (IPG), allowing a Missouri woman with paralyzed vocal folds to breathe and speak normally.

Care at the Voice Center, which is housed in the Vanderbilt Bill Wilkerson Center, includes a combination of diagnosis and intervention by three teams: physicians, speech-language pathologists and singing specialists.

# 11



## Banking for the Poor

■ When banks in his native Bangladesh refused to loan impoverished women the tiny amounts of money they would need to become independent business owners—an average of 62 cents—economist Muhammad Yunus, PhD'71, took matters into his own hands, lending 42 people in one village a grand total of 27 dollars.

Women used the money to buy supplies for small enterprises like bamboo stool making. Though every single borrower paid Yunus back with interest, the bank was unmoved: The poor, they said, were not credit-worthy.

Village by village, district by district, Yunus proved conventional bank lenders wrong. Twenty-seven years later, his pioneering approach to micro-lending has spawned nothing short of a credit revolution.



Yunus

TIM CAMPBELL

His Grameen Bank (what other financial institution has as its slogan "banking for the poor"?) has disbursed roughly \$3 billion to more than 2 million borrowers in Bangladesh alone, allowing many thousands to lift themselves up from the most abject poverty. Grameen Bank's approach has been imitated by more than 7,000 micro-finance organizations worldwide, including some in inner-city America.

"I see a world in which poverty is absolutely unnecessary and unacceptable, even for a single person," says Yunus, who earned a doctorate in economics from Vanderbilt.

# 12

## *HCA and Managed Health Care*



CHRISTA KIEFFER/THE IMAGE BANK

■ Love it or hate it, managed health care is here to stay. One of its chief architects is Tommy Frist Jr., BA'61. Frist is the retired chairman, president and C.E.O. of HCA, the nation's first and now its largest for-profit, investor-generated hospital management company. In 1968 he founded the company in partnership with his father, Thomas Frist Sr., MD'33, and businessman Jack Massey.

From the beginning, the idea of for-profit health care was controversial. Within two years Hospital Corporation of America was listed on the New York Stock Exchange. In less than 10 years, HCA reached \$1 billion in sales. By 1982 the company expanded to more than 350 hospitals in 41 states and five foreign countries. By the late 1980s, however,

it was plagued by sluggish earnings and Frist rolled 100 percent of his net worth into a leveraged buy-out of HCA to take it private, purchasing it for \$5.1 billion, then returned it to a profitable publicly traded company a few years later. After a merger with Columbia Healthcare, Frist went into semi-retirement, but the new management was eventually charged with Medicare fraud. Frist stepped back in as C.E.O., drawing a salary of \$1 a year, and HCA paid more than \$1 billion in fines to settle claims by the federal government.

Last year, confident that HCA was back on track, Frist again stepped aside and into the role of chairman, officially retiring in January 2002.

## *De-Stigmatizing Homosexuality*

# 13

■ In 1952 the American Psychiatric Association added homosexuality to an official list of mental illnesses in its Diagnostic and Statistical Manual.

The label remained for 20 years, until John E. Fryer, MD'62, broke the silence about his profession's tacit discrimination and forced his fellow psychiatrists to confront the classification by appearing at a 1972 American Psychiatric Association convention as "Dr. Anonymous." Wearing a baggy suit, a mask and a huge wig, and using a microphone that distorted his voice, Fryer riveted fellow therapists when he announced, "I am a homosexual. I am a psychiatrist."

"As psychiatrists who are homosexual, we must know our place and what we must do to be successful. If our goal is academic

appointment, a level of earning capacity equal to our fellows, or admission to a psychoanalytic institute, we must make certain that no one in a position of power is aware of our sexual orientation or gender identity," Fryer told the audience.

The disguise was no mere publicity stunt for Fryer, then an untenured faculty member at Temple University. "I had been thrown out of a residency because I was gay," he recalled in 1985. "I lost a job because I was gay. It had to be said. But I couldn't do it as me."

The following year the APA's board of trustees removed homosexuality from its Diagnostic and Statistical Manual, a result of Fryer's speech and years of activism. It was considered a major victory for gay and lesbian civil rights.



ALBERTO RUGGIER/THE IMAGE BANK

■ When biochemist **Stanley Cohen** injected salivary gland extract into newborn mice, he noticed a strange acceleration of development: Their eyes opened and teeth erupted earlier than usual. This observation led Cohen, then a researcher at Washington University, to discover the substance epidermal growth factor (EGF), so named because it stimulated the growth of epithelial cells in the cornea and skin.

Cohen had previously, with Italian developmental biologist Rita Levi-Montalcini, isolated a nerve growth factor (NGF) that Levi-Montalcini had discovered in certain mouse tumors. The two shared the 1986 Nobel Prize in Physiology or Medicine for their “discoveries of growth factors.”

Cohen’s isolation of EGF and determination of its amino acid sequence provided scientists for the first time with a factor that allowed studies of the cell growth process. His work laid the foundation for the study of growth factors and the mechanisms regulating growth and survival of cells—of critical importance to cancer research.

Cohen has been on the Vanderbilt faculty since 1959 and is now distinguished professor of biochemistry, emeritus.

■ **Earl Sutherland** opened the black box that concealed the secrets of hormone action. The Vanderbilt professor of physiology (1963–73) won the 1971 Nobel Prize in Physiology or Medicine for “his discoveries concerning the mechanisms of the action of hormones.”

In studying how adrenaline causes liver cells to convert glycogen to glucose, Sutherland discovered a previously unknown substance—cyclic AMP—a metabolic regulating compound. He proposed a general scheme for hormone action in which hormones interact with receptors on the cell surface. These receptors, he contended, then pass the signal along to an enzyme that manufactures cyclic AMP intracellularly where it activates or inhibits various metabolic processes.

Sutherland called cyclic AMP the “second messenger” (the hormone was the first messenger). The second messenger-signaling mechanism he described is now one of the basic stepping stones of cutting-edge research

and laid the groundwork for much current work in intracellular signaling at Vanderbilt.

Sutherland died just three years after receiving the Nobel Prize.

■ **Stanford Moore, BA’35**, won the 1972 Nobel Prize in Chemistry with Christian Anfinsen of the National Institutes of Health and William Stein of Rockefeller University. The award recognized their fundamental contributions to enzyme chemistry through their work with the enzyme ribonuclease. Their studies illu-

■ Born into an academic family in Berlin in 1906, **Max Delbrück** trained as a theoretical physicist but later switched to the study of biology. In the 1930s he began working with bacteriophages, viruses that infect and destroy bacteria. In 1937 he fled Nazi Germany for America, working first at the California Institute of Technology and at Vanderbilt during the war years from 1940 to 1947.

He was one of the first to link quantum physics and other fields of science, including biology. In 1969 he and Salvador Luria and



minated some of the most important principles involving the relation between the chemical structure and catalytic activity of an enzyme.

Moore grew up in Nashville, where his father was a member of the Vanderbilt Law School faculty. As a Vanderbilt student he was interested in both aeronautical engineering and chemistry, but organic chemistry professor Arthur Ingersoll helped spark his interest in the study of molecular architecture. Much of his research was conducted at the Rockefeller Institute. In 1968 Moore was a visiting professor of health sciences at Vanderbilt University School of Medicine. He died in 1982.

Alfred Hershey won the Nobel Prize in Physiology or Medicine for their discovery of the replication mechanism for viruses and the genetic structure of viruses. Delbrück discovered that the genetic material of different kinds of viruses can combine to create new types of viruses, a process previously believed limited to higher forms of life.

He died in 1981. The Max Delbrück Center in Berlin-Buch, one of 15 German national research laboratories, bears his name.





© ED EKSTEIN/CORBIS

## *Project Head Start* 15

■ In the mid-1960s, President Lyndon Johnson launched his “War on Poverty” at the same time education researchers were studying the effectiveness of early intervention programs on low-income children. Leading much of this research was child psychologist Susan Gray, MA’39, PhD’41, a professor of psychology at Peabody College and a founder of what is now Vanderbilt’s John F. Kennedy Center for Research on Human Development.

In 1959 Gray and colleague Rupert Klaus designed the Early Training Project (ETP), a preschool educational intervention program. ETP investigations revealed significant, positive effects of intellectually and culturally enriching experiences upon the cognitive, social and emotional development—and subsequent school achievement—of children from low-income families.

With passage of the Economic Opportunity Act in 1964, a mechanism was created to develop initiatives aimed at ending poverty. The next year, Susan Gray’s Early Train-

ing Project became the inspiration and model for one of these national initiatives—Project Head Start.

Head Start was designed to help break the poverty cycle by providing preschool children of low-income families with a comprehensive program to meet their emotional, social, health, nutritional and psychological needs. Since 1965, Head Start has enrolled more than 21.2 million children and currently has a \$6.5 billion annual budget. Administered by the U.S. Department of Health and Human Services’ Administration for Children and Families, it is the world’s largest government-supported social program for children.

Susan Gray died in 1992 and is today considered among the 20th century’s greatest child psychologists. Peabody College honors her legacy through the Susan Gray School for Children, an inclusive early childhood education program serving young children with and without disabilities.

## Maker's Mark Bourbon Whisky

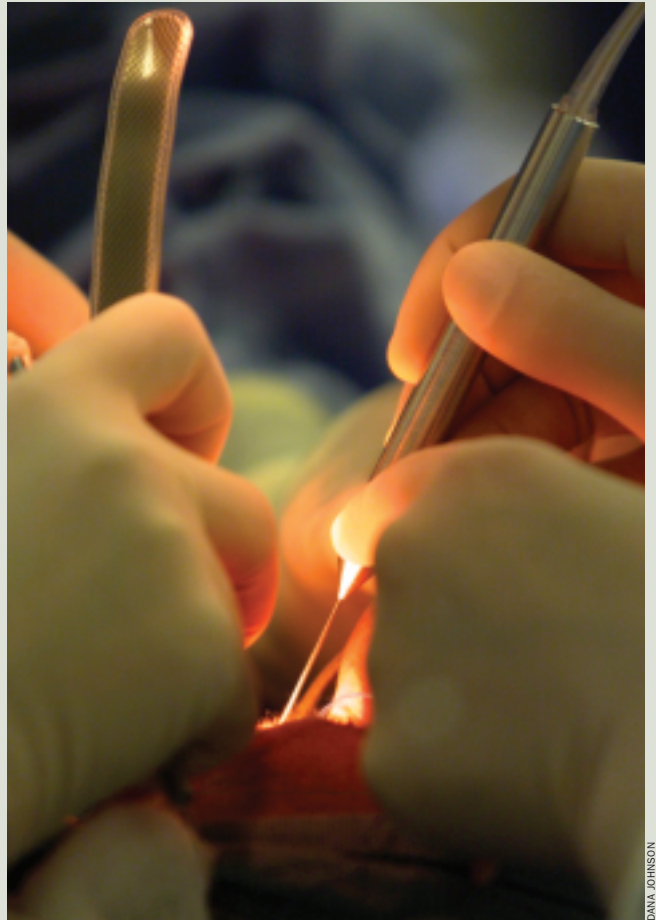
■ Nestled between the rolling hills near Loretto, Ky., is the world's oldest bourbon whisky distillery. Its president, Bill Samuels Jr., JD'67, comes from a long line of whisky distillers, dating all the way back to the 1780s, when Bill Jr.'s great-great-great-great-great-grandfather moved from Pennsylvania to Kentucky to take advantage of corn laws that required settlers to grow native grain.

"We were of the fortunate few who knew what to do with all that grain because we were Scottish," Samuels says. In 1953 his father, Bill Sr., burned the whisky recipe that had been passed down through the family for generations and set out to make a better bourbon. He created the blend of corn, barley malt, and soft winter wheat that sets Maker's Mark apart from other bourbons, which use rye instead of wheat. The result: a mellow, sweet bourbon that holds a 60 percent share of the "boutique" bourbon market and is one of this country's top small businesses.

Bill Jr. has been the brains behind marketing Maker's Mark, which advertises nationally and receives glowing coverage in such publications as the *Wall Street Journal*, *Esquire* and *GQ*. "We still make Maker's in 19-barrel batches, which is the smallest batch size in the industry," says Samuels.



# 17



DANA JOHNSON

## The Keck Free-Electron Laser Center

■ "Star Trek" doctor Leonard McCoy would approve of this one: Researchers and surgeons at Vanderbilt's W.W. Keck Foundation Free-Electron Laser Center are laying the groundwork for eventually replacing the scalpel with laser light in both brain and eye surgery.

Visible light spans only a tiny sliver of the entire electromagnetic spectrum. The lower end of the spectrum ranges from radio waves that are hundreds of meters long, through millimeter-sized microwaves, to infrared radiation associated with radiant heat. The upper end proceeds from the ultraviolet rays that cause sunburn, through X-rays, up to gamma rays with wavelengths less than the diameter of an atom and energies three trillion times greater than typical waves. Each color, or wavelength, interacts with matter in a different way.

The W.W. Keck Foundation Free-Electron Laser (FEL) Center at Vanderbilt is one of four university FEL centers in the United States and one of only nine such centers worldwide where scientific research is conducted. Vanderbilt has the only FEL in the world licensed to use this powerful beam for surgical operations on human patients.

The first human surgery using a free-electronic laser beam was performed successfully on Dec. 17, 1999, when the beam was used to destroy part of a brain tumor. This feat was repeated the following September with a second patient. Two weeks later the FEL was used for eye surgery to cut the sheath surrounding the optical nerve of a patient whose eye was being removed. Subsequent surgeries have demonstrated the laser's superiority as an instrument in the operating room.

Laser surgery, monochromatic X-rays and protein characterization are three areas where research at the Vanderbilt FEL Center is showing particularly promising results.

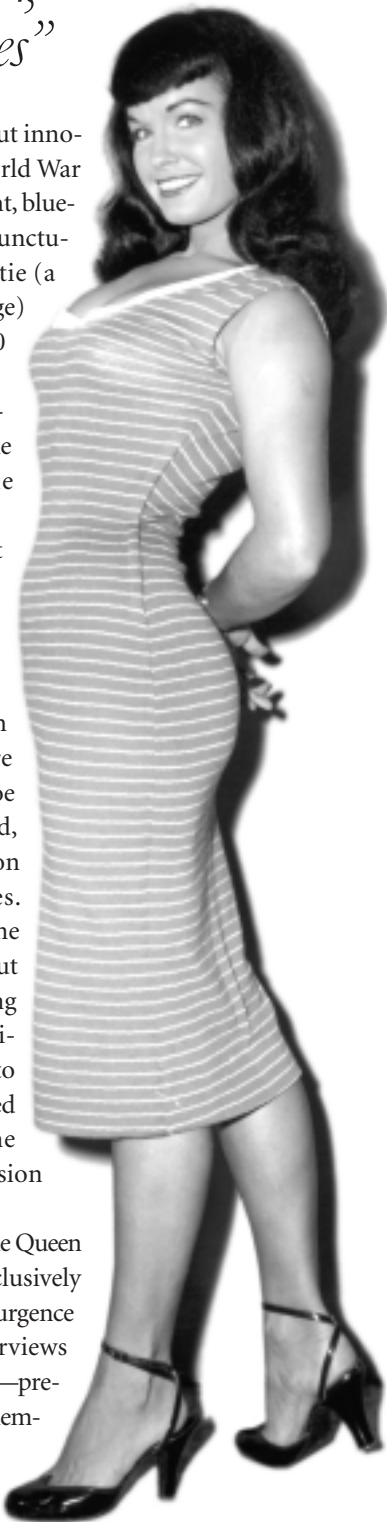
# 18

## Bettie Page, BA'44, "Queen of Curves"

■ Shapely and sassy, wanton but innocent, Bettie Page took post-World War II America by storm. With bright, blue-gray eyes and long black hair punctuated by trademark bangs, Bettie (a 1944 alumna of Peabody College) was a pinup sensation from 1950 to 1957, appearing in hundreds of magazines and several burlesque films. In 1955 she won the title "Miss Pinup Girl of the World."

Then, for reasons she has yet to explain fully, Bettie abandoned New York and her career in 1957. Today she is a bona-fide pop-culture icon. Bettie merchandise rakes in millions each year. She has appeared in more magazines than Marilyn Monroe and Cindy Crawford combined, and she is currently featured on more than 100,000 Web sites. Numerous books and magazine articles have been written about her through the years, including at least four biographies. Musicians have composed tributes to her, fashion designers have copied her look, and she has been the subject of several recent television documentaries.

Meanwhile, at 80 years old, "the Queen of Curves" lives quietly and reclusively in California, amused by her resurgence of fame. She rarely grants interviews and refuses to be photographed—preferring, she says, always to be remembered as she was.



# 19

## Heart Transplantation

■ In November 1967 pioneer heart surgeon Norman Shumway, MD'49, held a press conference at Stanford University announcing that he and a surgical team were ready to perform what would be the world's first human heart transplant as soon as a suitable donor and recipient were found.

Within a few days, however, surgeon Christiaan Barnard bested the Shumway team by performing the first human heart transplant in South Africa, making headlines around the world. Shumway had known Barnard at the University of Minnesota; it was a technique Shumway perfected in his animal lab that Barnard applied to that first heart transplant.

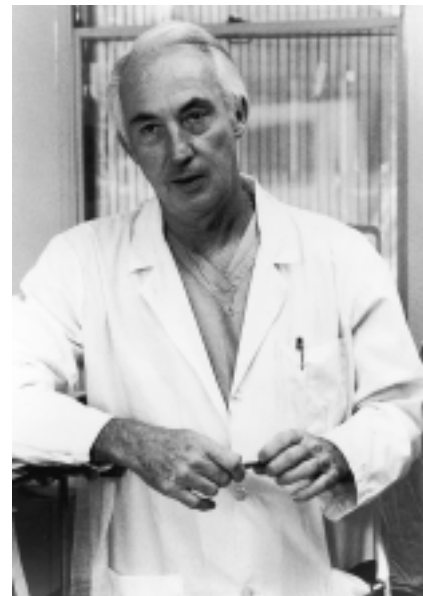
A month after Barnard performed his surgery, Shumway and a team at Stanford performed the first adult human heart transplant in the United States. "The fact that the focus was on Barnard was a blessing," Shumway told *Vanderbilt Magazine* in 1998. "It allowed us to continue our work without much folderol."

But patient deaths soon overshadowed these surgical triumphs. By 1971, 146 of 170 heart-transplant recipients were dead of infection or rejection. Most American surgeons abandoned the procedure.

Shumway persevered. He and colleagues spent the next decade tackling the complex challenge of tissue rejection. In the late 1970s they obtained a supply of cyclosporine, a drug originally intended for chemotherapy but found not to be effective and therefore discontinued. Cyclosporin dramatically boosted the survival rate of transplant patients.

In 1981 a team headed by Shumway performed the world's first heart/lung transplant.

The son of a Michigan creamery owner, Shumway wound up at Vanderbilt by chance in the 1940s when World War II helped create a demand for surgeons. Within a decade of his Vanderbilt graduation, he was already making news with a heart-bypass surgery technique for correcting "blue baby" birth defects.



# 20 *Mainstreaming*

■ Just three decades ago, most parents of children with intellectual, physical or behavioral disabilities believed they had no choice but to “institutionalize” or “segregate” their children—to place them in a facility or classroom where they would receive specialized instruction, apart from typically developing children and often with very negative results.

The educational environment of 2003 is quite different, thanks in large part to the research of two former investigators at Van-

derbilt’s John F. Kennedy Center for Research on Human Development. In the early 1970s, Peabody College professors William Bricker and Diane Bricker, PhD’70, led the Toddler Research and Intervention Project in the Kennedy Center’s Experimental School (now called the Susan Gray School for Children). Through the project, and for the first time, an equal number of children with and without disabilities learned together in the same preschool classroom. Eventually, the term “mainstreaming” and, later, “inclusion” was applied to this approach.

Research has continued to prove that, in most cases, all children—those with and without disabilities—benefit academically and socially from an appropriate inclusive classroom environment. Children with disabilities are stimulated by experiences that promote typical child development, and children without disabilities learn to accept and value the differences in their classmates. All learn firsthand that everyone has different needs and different strengths.

Although the model of inclusion is debated and sometimes hotly opposed, inclusive education is today considered the recommended practice among educators—and by legislators. The Individuals with Disabilities Education Act (IDEA), first passed by Congress in 1975 and amended in 1997, requires that children with disabilities be educated in regular classrooms “to the maximum extent appropriate,” unless “the

nature and severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.”

Because research has shown inclusion’s benefits, general and special educators now work more closely together than ever before to ensure that each individual child’s needs are met, whenever possible in an inclusive setting.

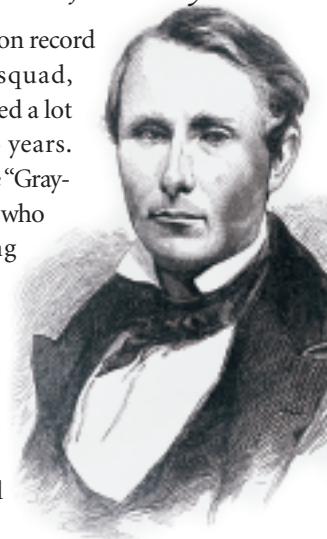


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## Dubious Distinction:

### *William Walker, “Gray-Eyed Man of Destiny”*

■ The only alumnus on record as dying by firing squad, William Walker packed a lot of living into his 36 years. Hailed in his day as the “Gray-Eyed Man of Destiny” who would lead a young expansionist-minded nation in efforts to extend its boundaries southward, Walker was the model for one of dime novelist Bret Harte’s fictional characters.



Born in Nashville in 1824, Walker was a child prodigy who enrolled at Peabody College’s forerunner, the University of Nashville. He graduated at age 14, then studied at various European universities.

Back in America he practiced briefly as a surgeon, studied law in New Orleans, and gained admittance to the Louisiana bar, but abandoned law for journalism. By 1852 he was editing the *San Francisco Herald*. The following year he led an armed invasion of Mexico, proclaiming himself president of the new independent republic of Sonora and Baja California, but was forced to surrender.

Walker viewed establishment of a new slaveholding territory in Central America as a solution to slavery disputes in the United States, and in 1854 he led an invasion of Nicaragua, bankrolled by Cornelius Vanderbilt. Walker set himself up as president of Nicaragua and began building a Central American empire. When he quarreled with Vanderbilt and appropriated Vanderbilt’s transit company, however, the Commodore financed Walker’s overthrow.

Walker returned briefly to widespread acclaim in the United States before launching several attempts to recapture Nicaragua. Instead *he* was captured and marched before a firing squad in the village square. One florid account of the day reported that it took three soldiers firing at 20 feet and, finally, a sergeant with a pistol standing over Walker to kill him. ▼

By JONATHAN BANKOFF, BA'96

# Letters from Camp FOX

*An alumnus takes up the pen to explore  
his experience in the Middle East*

*Editor's Note: Semper Fidelis. Forever faithful. With those words Lt. Jonathan Bankoff, BA'96, closes each letter as he chronicles his journey as a soldier, from initial rumors about war with Iraq to his return from service in Kuwait. About his correspondence Bankoff says, "Writing those letters was originally something that I chose to do to collect my thoughts, hoping to have something to remember 20 years from now about this difficult time. As it turned out, writing helped me face each day. It gave me an outlet to express my feelings and showcase some of my experiences for those supporters back home." Since the summer of 2001, he has been assigned to the 8th Communication Battalion, II Marine Expeditionary Force at Camp Lejeune, N.C., as the battalion medical officer.*



**2nd Lt. Tom O'Neil writes a letter during a bio-chemical drill in Kuwait.**

## **Jacksonville, N.C.—February 14, 2003**

My wife and I spent part of our Valentine's Day thumbing through books at the local bookstore. In an adjacent aisle, we overheard two young boys talking.

Their conversation was a mixture of current grade-school topics: candy, valentines and SpongeBob SquarePants. As they talked, a young man with a high and tight haircut motioned to one of the boys that it was time to go. The boy turned to his friend as they walked off and said, "That's my dad. He's a Marine. He's going to war. Is your dad going to war, too?"

The innocent exchange of these two young boys shed an unpleasant light on the situation that our nation is facing. Throughout the country, as the discussions intensify and the politicians lobby for support, this tiny Marine town prepares for war.

The local paper is dominated by articles and pictures of deploying forces, seemingly a different battalion every day. The streets are lined with banners and signs, messages of "God bless our troops"

and “Hurry home, Warriors.” The schoolchildren are writing Valentine’s Day cards and letters to their pen pals, young Marines and sailors who visited their classrooms before being called upon to carry out their missions.

While the possibility of war is still being debated in many parts of the country, in Jacksonville, N.C., it is reality.

I am a commissioned medical officer in the U.S. Navy. I have been stationed at Camp Lejeune, N.C., since July 2001, assigned to a Marine Corps communication battalion. As the primary physician for these 1,200 Marines, my duty is to provide operational medical care in an expeditionary environment.

Essentially, this means keeping my Marines healthy enough to go to war and ensuring they remain healthy once they get there. To assist me in this effort, I have 11 enlisted Navy corpsmen, of varying ages and experience, trained in the fundamentals of medical diagnosis and treatment.

For the past several months, our battalion has been preparing for deployment to the Middle East. We have already sent a large number of troops to countries in that region and will shortly be sending the balance of the battalion forward to assist them. While the specifics of our mission, until recently, have been unclear, our pre-deployment training has been standard.

My direct role in this training has been to educate the Marines about potential medical threats they may encounter in the region and medically screen and immunize them against such threats. Some recent topics of interest have been lectures on proper autoinjector use to combat nerve agent exposure, and briefings on anthrax and smallpox shots.

As the window for deployment rapidly approaches, the initial feelings of excitement, once so visible among the Marines, have been replaced by the palpable, underlying feelings of fear and anxiety. Not every Marine has these feelings, and very few will admit to them, but you can see it in their eyes.

You can hear it in their voices as they ask questions about possible immunization side effects. You can sense it in their expressions as they stand in line to receive their desert camouflage uniforms and gas masks. Anxiety associated with a mission of unknown length or outcome. Concern for loved ones left behind. Fear of failure.

Marines are a unique breed, a special group of highly skilled warriors, trained specifically for combat. They are taught never to show fear, that pain is a sign of weakness leaving the body. Our recent pre-deployment training, however, has also revealed a side rarely seen on Marine Corps recruiting posters or television commercials: the human side. It will be of great interest to me to observe the interaction of these delicately balanced feelings in a potentially hostile environment.

“We will not tire. We will not falter. We will not fail.”

These paraphrased words spoken by our commander-in-chief,

shortly after Sept. 11, are written on a plaque above the entrance to our battalion. They are in clear view every time a Marine or sailor walks out the door. I have the utmost confidence in my ability and the abilities of the Marines and sailors around me. We wear our uniforms with honor and take great pride in being afforded the opportunity to serve our country.

We will be on foreign soil soon, our length of commitment uncertain. Our mission and orders are clear, though, and we intend to see them through.

The Marines and sailors of 8th Communication Battalion are going to war.

### **Cherry Point, N.C.—March 4, 2003**

Hurry up and wait.

Anyone in the military or anyone familiar with the armed forces has heard this phrase before. It is usually followed by a string of expletives and a long, frustrated sigh, as it likely signals another speed bump in the already bumpy road of military planning and logistics.

A specific example of one “hurry up and wait” episode came yesterday. I received a call on Sunday evening that we had two Marines scheduled to deploy on a commercial charter early Monday morning and a large number of Marines slated for a C-17 cargo transport later the same day. I instructed the two Marines to meet me at the Battalion Aid Station Monday morning at 0400 for their smallpox shot and final medical briefing.

So, there we were at 0400: two excited Marines, two unlucky corpsmen, and one bleary-eyed doctor. We had just received confirmation of an inbound plane with two open seats, so we proceeded with the shots and brief as planned. By 0430 the Marines were on their way to Cherry Point, and I was on my way home to sneak 30 more minutes of sleep.

When the executive officer, Maj. Green, and I arrived at Cherry Point at 1600 that afternoon to say goodbye to another group of our departing Marines, we noticed a hangar full of bodies and a tarmac with only one plane. We talked to officers in other battalions that had been waiting there for days. We quickly realized that our Marines were in for a long night.

The atmosphere was charged, but morale was high and the Marines kept busy. Some passed the time by studying their NBC (Nuclear, Biological, Chemical) training and chemical decontamination instructions. Others played cards or watched movies, while the majority slept curled up against their gear, seemingly oblivious to their surroundings. Some of the officers attempted to keep the mood light by buying Snickers bars for their troops, just to let them know that “they weren’t going anywhere for a while.”

Word finally came at 2100 that no more planes were departing until the following day. Needless to say, the humor quickly disap-

**Marines are a unique breed, a special group of highly skilled warriors, trained specifically for combat. They are taught never to show fear, that pain is a sign of weakness leaving the body. Our recent pre-deployment training, however, has also revealed a side rarely seen on Marine Corps recruiting posters or television commercials: the human side.**

peared. Many of those present were, by now, accustomed to it, having been there the better part of a week already. They quietly proceeded to their makeshift bunkers and settled in for the night.

The newest arrivals, though, including most of the 8th Comm Marines, were angry. Having just said goodbye to their spouses and children, they weren't happy that they would be sleeping so close to home, yet unable to go there.

As the XO (executive officer) and I headed out to the government van for the 90-minute ride back home, we walked past the two Marines who I had given shots to at "zero dark thirty" that morning. They informed us that their plane was still on the ground in Turkey and they were looking to hitch a ride with another battalion. We struggled to control our laughter as we wished them good luck, for we knew they would need all the luck they could get. We also realized that in a few days, when we were in their boots, waiting to board the last plane out of town, we'd better have a long book, a strong cup of coffee, and a good sense of humor.

### **Camp Fox, Kuwait—March 12, 2003**

"Welcome to Kuwait."

The big banner greeted us at Kuwait International Airport. It was a bittersweet greeting. The excitement and pride associated with being deployed to defend our country was still pulsing at the surface of everyone on our plane.

The reality of actually doing it, though, was also now apparent. No turning back now. No going home to Mama.

We arrived in Kuwait after a 25-hour trip from Cherry Point, N.C., via Frankfurt, Germany. Our 11-man team flew on a C-17 Globemaster aircraft, one of the Air Force's largest planes. It is configured primarily for cargo transport but on occasion can accommodate "passengers."

The usual stipulation for those passengers is that they are prepared to jump out once they reach 10,000 feet.

Passengers ride in jump seats, which are essentially cargo nets molded to the wall of the plane with a small cushioned support to sit on. The seats don't recline. They don't have a tray table or a place to put your carry-on. They face inboard, so you have to rest your feet on the cargo.

In my case, this turned out to be a big shelter filled with sandbags. Fortunately, there were only 11 of us on the flight, so once we reached cruise, we could spread out and lie on the ground. Nothing like trying to sleep on the cold metal ground at 35,000 feet with your 9 mm Beretta stuck in your ribcage and your gas mask strapped to your hip.

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All in all, the flights were pretty uneventful. The excitement started once we hit the ground. We had to take a bus from the tarmac to the gear staging area. We were instructed that we weren't allowed to

take pictures, talk to the Kuwaiti driver, or open the blinds on the bus.

We were escorted by two Humvees, manned by Marines with mounted .50-caliber machine guns. Once we entered the staging area, we were issued security rounds, one bullet each to protect us on

the drive to the camp, just in case we ran into trouble or the bus broke down. We loaded up the flatbeds with all of our gear and set off for the ride to Camp Fox.

Three hours later we arrived at our new home. Fox is a massive, 30-square-mile sandbox in central Kuwait. It is 45 minutes from the nearest gravel road and can only be reached by Humvee or SUV. It is home to more than 7,500 troops from the U.S. Marines, U.S. Navy and British Royal Marines. There are six battalions from the Marine Corps alone.

Some of the troops are just here temporarily, until the war kicks off, at which point they will move forward. Others

are permanently based here and may stay long after the war is over. Right now, my battalion falls somewhere in between, as the communication footprint for the war is always changing.

Although I wouldn't mind switching to another region (like maybe the Caribbean), this is pretty nice for my first deployment outside the United States. We have hot food twice a day and hot showers anytime we want. We get to sleep in 20-man tents with actual bunk beds and thin mattresses. We have e-mail access around the clock, as long as the server is working. I actually get to sleep in later here than I did at home.

There are some downsides as well. We have to use Port-a-Johns, which only get cleaned once a day. Now you would think that once a day would be outstanding, considering Marines often go to the field for a week without any cleaning. But when you have 1,000 troops sharing a block of six Port-a-Johns, once a day leaves much to be desired.

Additionally, the weather has been less than cooperative. Since I've been here, the average wind speed has been 30 knots (about 34 to 35 miles per hour). Not too bad if you're windsurfing, but not much fun when you're trying to set up a camp compound or keep communication gear running smoothly.

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The weather has contributed to our patient load at the Battalion Aid Station. We are only seeing a handful of patients each day, but the common complaints are beginning to form a pattern: irritated eyes, nasal congestion and cough.

We are quickly running low on Sudafed and saline eye drops. Even with goggles and neck scarves, the sand is impossible to keep out of your face. Conditions are not likely to improve as we move into spring and summer, when temperatures average above 90 degrees.

Morale is good, but the Marines are working long hours. Setting up camp in a combat environment means lots of busy work—digging bunkers, filling sandbags, running cable. The troops are staying busy, which helps keep their minds off their families and, more important, keeps them focused on why they're here.

**The other corpsmen here with me are reservists, activated for the sole purpose of war. They represent a wide range of geography and experience. One is a SWAT team paramedic in Charlotte. One is a nurse in Missouri. One builds baseball diamonds and RVs back home in South Bend. One, a retired sheriff, was a corpsman in Vietnam.**

We'll be ready for the increased patient load, and we'll get them back into the fight.

### **Camp Fox, Kuwait (No Date Written)**

The tents are staked and sandbagged. The bunkers are built and reinforced. The nerve-agent injectors have been distributed. Kevlar helmets and flak jackets are staged and at the ready. Now we're just waiting for the order. From the sound of it, we won't be waiting long.

A number of officers in my tent, or "hooch" as it's called in the military, woke up at 0400 this morning to hear President Bush address the nation. We weren't expecting any surprises, and we weren't disappointed. Word came last night that troops up north were preparing to roll forward. Air traffic overhead has been steady during the past 48 hours, as the number of sorties has increased. Phone lines have been temporarily disconnected, and Internet connections will be soon to follow. All indications are that war with Iraq is upon us.

The commanding general for the area has issued a directive that there will be no organized physical fitness or martial arts training until further notice. As a result, and as they are taught, Marines have had to adapt, improvise and overcome. At least for my tent, hooch 15, this has meant Poker Physical Fitness.



Each night six of us play cards, and the losers of each hand are subjected to a physical punishment of the dealer's choice. We've found this to build muscle as well as camaraderie. After two consecutive nights of more than 400 pushups and 1,000 crunches, though, I had better find a different way to make friends.

Medically, we've been busy with last-minute reminders for the Marines: Classes on how to drink out of your canteen while wearing your gas mask. Instruction on how and when to use your nerve-agent antidote injectors. Signs and symptoms of chemical exposure.

Back home it was difficult to keep the Marines focused and awake during these classes. Now I have a captive audience. Marines are asking questions. They are correctly answering my questions. I think they finally realize the importance of these lectures. I pray that this realization isn't coming too late.

My BAS (battalion aid station) is ready. The corpsmen spend their days preparing Artpacks—individually wrapped packs of gauze, tape,

battle dressings and IV bags to help quickly control arterial bleeding. They clean their weapons, in case they are called upon to do more than provide medical support. They send e-mails home to family and friends, assuming the connections will be shut down soon.

My complement of corpsmen is an interesting crew. They range in age from 23 to 52. Several of them are active-duty sailors, with me since I arrived at 8th Comm BN. They know me well and know what I expect of them. They have been preparing for this deployment since November of last year. They are primed and ready.

The other corpsmen here with me are reservists, activated for the sole purpose of war. They checked on board with 8th Comm in mid-February, only days after being told to pack their things and say goodbye to their families. They represent a wide range of geography and experience. One is a SWAT team paramedic in Charlotte. One is a nurse in Missouri. One builds baseball diamonds and RVs back home in South Bend. One, a retired sheriff, was a corpsman in Vietnam.

As reservists, they all drop what they are doing when duty calls. Often this means significant salary cuts, maybe even lost jobs. It means quick, tearful goodbyes to wives and children. It means living in a tent with guys you just met. It means flipping the medical switch back on.

For some of them, it's been a while since they took care of patients. As a result, the last month has consisted mostly of on-the-job training and refresher courses to get them back up to speed. Basics on physical examination skills. Recertification in CPR. Suturing classes and wound management lectures.

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There is a definite edge now to the Marines at Camp Fox. As the battalion sergeant major puts it, the Marines here are "harder than woodpecker lips." They are dialed in, ready for action. Morale remains high, but it requires quite an effort to keep from getting bored. Something tells me that we won't be bored for much longer. ...

### **Camp Fox, Kuwait—March 22, 2003**

Lightning! Lightning! Lightning!

Gas! Gas! Gas!

The call came out for the first time over the SABRE radio on Thursday at 0845. These dreaded words indicated that a Scud missile, possibly loaded with a chemical agent, was inbound and everyone was to drop what they were doing immediately, grab their MOPP gear, and head for the nearest bunker. We've trained for this contingency both in the rear and since relocating to the desert, but for some reason, Scud drills in rural North Carolina don't induce the same nausea or fear as those in Kuwait.

MOPP (Mission Oriented Protective Posture) gear is uncomfortable. It consists of heavy, weather-proof, charcoal-impregnated polyester jackets and trousers, as well as butyl gloves and boots. It is to be worn over your regular desert utilities and boots, to provide protection from chemical agents. It is carried in a pack on your back at all times, and must be donned fully within 10 minutes of the first warning sirens. Sounds easy enough, right?

Of course, I neglected to mention the gas mask. The gas mask is the first thing that we must put on when the alarms sound. It is to be



in place and functional within 10 seconds to prevent inhalation of a possible aerosolized agent. It is hot and sweaty and sucks the air right out of your face when cinched down tightly. It eliminates all hopes of peripheral vision. It makes even the toughest Marine claustrophobic.

It also makes the seemingly simple task of getting dressed quite difficult. Not only can you not see around you, you can't sit down either, for fear of unprotected body parts or clothing coming into contact with contaminated areas. Nothing like trying to keep your balance, blindly putting on your suit, and focusing on your breathing all at the same time when your brain is screaming at you to run like hell for the nearest bunker.

MOPP Level 4, which consists of full suit and mask, raises the ambient temperature by about 15 degrees. It restricts your work cycle to only 20 minutes per hour, in hopes of preventing heat illness and severe dehydration. It makes the 90-degree days here in Kuwait almost unbearable.

Fortunately, our first alarm Thursday lasted only 40 minutes. I can say "fortunately" now, because I'm typing this article with my mask and suit lying next to me on the deck. Those 40 minutes were the longest and scariest of my life.

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At a classified intelligence briefing with the colonel later that evening, we learned that Marines from the 1st Marine Division had breached the berm and were crossing the border as we spoke. We learned about stealth fighters and cruise missiles taking out a convoy of Iraqi Cabinet members and possibly Saddam and his sons. We also learned about the crash of a CH-46 helicopter with four Marines and eight British Royal Marines on board and the death of the first American warfighter on the ground, a Marine killed in action as his unit attempted to secure a forward position.

I had a particularly difficult time dealing with this. Knowing that while I was doing my laundry and complaining about not having a clean Port-a-John, there were Marines and soldiers fighting and dying for their country, my country. I'm not sure that I'll ever be able to accept that.

I sought out my commander, Col. Anderson, for some advice, to help me understand how to deal with what I was feeling. A former infantryman with almost 20 years in the Marine Corps, he told me simply: "You carry on. You have to."

These last two days have been the hardest of my life. Tougher than any decision I had to make as a teenager. More difficult than any test I took in medical school. I've watched people die before, knowing that even as a doctor, I couldn't help save them. But I've never been this close to the fire, never really had to face my own mortality.

### **Camp Fox, Kuwait—March 25, 2003**

I sent my first corpsman into Iraq last night. We had a Joint Task Force Enabler team of 26 communicators head north to provide satellite and radio capability for a transportation battalion. Any time a team of that size leaves the main body, they need to have medical support. It is my job to decide which corpsman goes with them.

I struggled with this decision for a few days. Should I send my most experienced, most independently capable corpsman? Should I send one of the reservists who, although rusty, has actually seen combat before? Should I send the corpsman who was a prior enlisted Marine

infantryman, even though he is the youngest and most inexperienced?

What about family considerations? Should I send one of the single guys? Should that even factor into my decision process?

I wrestled with these questions and discussed them with the guys. In the end, it turned out that the answer was simple: The youngest corpsman, all of age 23, volunteered. He was comfortable with an M-16 from his Marine Corps days and was an excellent marksman. He was in the best shape physically. He really wanted to go forward, as



he had been at Camp Fox since early January.

He and I sat down late last night, and I gave him a once-over reminder of what I thought he needed to be sharp on. We discussed basic life support and casualty care. We reviewed some fundamentals of field medicine: foot care, heat illness, snake bites, etc. I helped him pack his medical can of supplies, guiding him on what he would need the most and what he could do without. I gave him malaria medication and nerve-agent blister packs. I gave him a small supply of narcotics, in case he and his Marines ran into some real trouble.

It was tough. I didn't want to step on his toes by micromanaging, but I didn't want to send him forward unprepared. I felt like a father sending his son off to summer camp—letting him walk on his own two feet, but reminding him that help was only a tactical phone call away.

...

As for me, I'm just trying to keep my chin up and my mind focused on the current mission. It's been really hard the past few days, as all I can think about is how scared those young men and women must be on the front lines. I think about our POWs constantly and pray for their safety and strength.

...

Our morale has taken a beating these past few days, but our resolve is strong and our confidence remains high. Nothing has helped more than the kind words of support and encouragement from family and friends back home. I have shared the dozens of e-mails that I have received from readers of this column with all of my corpsmen and close friends. That support, coupled with my firm belief in my leaders and our mission, has helped me get through these difficult times. I will depend on it to get me through the difficult times still ahead.

### **Camp Fox, Kuwait—April 22, 2003**

Our days here have changed over the past week or so. As the emphasis up north has shifted from combat to peacekeeping, the rules and restrictions on base have softened somewhat.

We are no longer required to carry our gas masks or MOPP suits with us at all times. We are still required, though, to be able to get to our masks within 10 minutes. This change is a huge break for our backs and our psyches.

We can now exercise and work out as a unit. This means we can go running in small platoon-size groups (10 to 15 Marines) or play football. The general even authorized the construction of a basketball hoop, complete with a concrete half court.

Not all the changes, though, have been so well received. The hopes of AT&T phone installation, as was originally promised, have been dashed. Instead, a government morale line was connected.

Five such phone lines are spread throughout Camp Fox, providing service to the States for the 7,500-plus Marines and sailors here. The phones are open only from midnight to 6 a.m., and the time limit per call is 10 minutes. The phone line designated for our Marines is shared with two other battalions, so access is a nightmare. Although the calls are free, you pay for them with lost sleep and often unfulfilled wishes.

I made my first attempt to call my wife from the morale line early this morning. I had heard that some Marines had waited for hours on previous nights to make a call, only to get to the front of the line and be cut off by the 6 a.m. disconnect. I figured that I would avoid that by going at the most objectionable time.

So, I woke up at 4 a.m. to make the quarter-mile walk to the phone tent. I braved the rain and gusting wind to join the short line of excited troops, all with hopes similar to mine. With only four Marines in front of me, I assumed that I was set. I had a cup of coffee and a good book, so I parked it in the sand and waited my turn.

What I was unprepared for, however, was the lag time between calls. Apparently, it takes eight or nine minutes even to get a direct line through our switchboard back to the States. Once that connection is made, each Marine has 10 minutes to talk to their loved ones. I didn't need a calculator to determine that I would be cutting it close when my turn finally came.

After the first three Marines completed their calls, it was 5:18 a.m. I still figured that I was in good shape. Even if the last Marine took 30 minutes to get connected and complete his call, I would still have almost 15 minutes for my call.

Well, as luck would have it, it took him 23 minutes to get connected. He then talked for eight minutes, bringing us to 5:49 a.m. As I cradled the receiver, I openly cursed the dinosaur phone that had no

redial option, thus requiring manual redial of the 11-digit number.

At the same time, I silently prayed for a quick connection, even just for two minutes, so that I could hear my wife's voice and tell her that I loved her.

It didn't happen, and 6 a.m. came and went. I was still frantically trying to dial a number that wasn't working. I quietly gathered my belongings and trudged back down the hill, resigned to the fact that I would have to e-mail my wife and tell her to go to sleep, as the phone call would not be coming tonight.

...

I have been chosen to go north next week. Coalition forces have established an Iraqi POW camp and hospital in Umm Qasr, the southernmost port city of Iraq. The hospital is desperately in need of physicians and medical supplies, so the general here at Fox asked for volunteers to temporarily fill the void. My colonel knew how badly I wanted to be involved in the humanitarian mission, so he offered up my name. I'll only be there for a short time, but I hope I can make a difference in the care being offered to the more than 6,000 Iraqi POWs. It's a once-in-a-lifetime opportunity, and I plan to take full advantage of it.

### **Camp Fox, Kuwait—April 29, 2003**

Camp is abuzz with talks of retrograde. That's the fancy military term for going home. Convoys from up north roll in daily, bringing back Marines and gear from the front lines. The daily meeting focus has shifted from communication support to plans for debarkation and personnel movement. The challenge now is finding enough seats for all the troops.

Realistically, most of us will still be here for several months. Although the combat operations have ceased and the commander-in-chief will likely soon declare the war over, the need for a Marine presence in the region will remain for some time.

The Marines are not an occupying force. They pride themselves on striking with quick and deadly precision, accomplishing the mission, and then turning things over to the Army for maintenance and long-term occupation.

While this tradition may be true for the grunts, the Marine infantry, it isn't so readily applicable to the cooks, communicators and corpsmen. Although these support-element Marines and sailors understand the reasoning behind this progression, they certainly don't like it.

Not coincidentally, in my opinion, we are starting to see some different patient presentations in the battalion aid station (BAS). We still see the standard, run-of-the-mill ankle sprains and stuffy noses, but we are also now evaluating Marines for more significant complaints.

In the past week, I have evaluated and examined Marines for

*continued on page 83*

**I sent my first corpsman into Iraq last night. I struggled with this decision for a few days. Should I send my most experienced, most independently capable corpsman? Should I send one of the reservists who, although rusty, has actually seen combat before? Should I send the corpsman who was a prior enlisted Marine infantryman, even though he is the youngest and most inexperienced?**

# The Arts

“Reliving these experiences on stage *and*

## VISUAL ARTS: Summer Reading: Artists' Books from Nashville Collections

provided a feast of imagery and words this summer at the Vanderbilt Fine Arts Gallery. These artist-made books, some illustrating important works of



### Artist Book

literature and other unique pieces that redefine the idea of what constitutes a book, illuminated the relationship between the visual and verbal in beautiful and often delightful ways. The exhibit ran through Aug. 16.

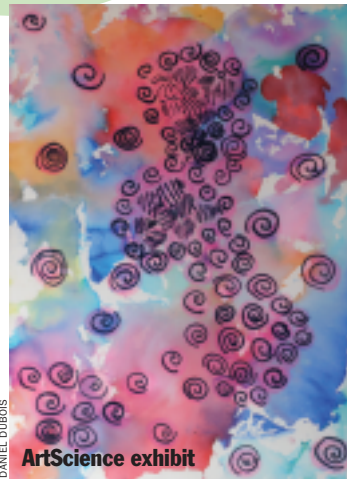
**Richard Jolley**, BA'74 (Peabody), held his first major retrospective of works in glass and mixed media at the Tennessee State Museum through Aug. 10. The 48 works in the exhibit, which is currently on a four-city tour, represented major phases of Jolley's career between 1984 and 2002. Although the exhibit was grounded in his sculpted glass forms and totems that highlight the human figure, prints, bronzes and mixed-media work also were featured.

The “**Classic Black Catfish**” currently on display in Centennial Park is sponsored by Vanderbilt as part of the “Catfish Out of Water City Art Project,” on display in Nashville through October to benefit Cumberland River Compact, Greenways

for Nashville and the Parthenon Patrons. This larger-than-life bottom dweller, weighing in at about 30 pounds, was designed and made by artist

Margaret Krakowiak and is but one of 51 such cats currently found around town. A second catfish, “Striper” by artist Bryan Roberson, is sponsored by Vanderbilt Children's Hospital and can be seen in Fannie Mae Dees Park near Vanderbilt Medical Center.

This spring Vanderbilt's program in **developmental biology** partnered with Metro-Nashville Schools' Encore program for gifted students in a “science as art” contest geared toward fifth- and sixth-grade students. Around 350 entries



DANIEL DUBOIS

ArtScience exhibit

were received for **ArtScience**, and 35 winning pieces were on display in Vanderbilt's new Medical Research Building III through June. Artwork created by the students ranged from abstract to realistic, and depicted subjects such as cloning, DNA replication, and



“Universal Bond”  
by Richard Jolley



“Classic Black Catfish”

# Culture

*coming out the other side is almost always exhausting but cleansing* —HEATHER MALOGRIDES

in-utero development of animals and humans.

Time often seems to stand still during the heat of summer, but in **Sarratt Gallery's Marking Time** exhibit, time took on a much more physical quality as artists Linda Laino and Zelda Tanenbaum used a variety of media to remark upon the layering of dreams, memory and experience in relation to time. Their tactile assemblages and handmade paper quilts were on view through Aug. 2.

**Vanderbilt University Medical Center** hosted landscapes painted by members of the **Chestnut Group** in honor of Earth Day. The Chestnut Group is an organization

of artists dedicated to preserving endangered ecosystems, historic locales, and aesthetically or environmentally significant places. The exhibit was on display in the Mezzanine Gallery in the lobby of Vanderbilt Hospital through the end of June.

Vanderbilt's **John F. Kennedy Center for Research on Human Development** hosted an exhibit by artists of Pacesetters Inc. called **"Who's in Rabbit's House?"** in the foyer of the MRL Building from June through August.

Based on the African



NEIL BRAKE

"Blackburn"

folk tale, the exhibit included fabric appliqués, masks, vividly painted fabric wall hangings, and colorful "trees" with stuffed fabric monkeys leaping between them. Pacesetters, a nonprofit agency with centers in six counties, provides services to persons with disabilities and has grown to become one of the largest community-based day training and residential programs in Tennessee.



DANIEL DUBOIS

"Who's in Rabbit's House?"

## NEW ACQUISITION:

The **Vanderbilt Fine Arts Gallery** recently acquired a seven-color lithographic print, **"Blackburn,"** an homage to master printer Bob Blackburn of New York by master printer Ron Adams of Santa Fe, N.M.

Since its release last summer, the print has entered the collections of the Smithsonian National Museum of American Art, the Cleveland Museum, the Studio Museum of Harlem, Kansas City's Nelson-Atkins Museum of Art, the Library of Congress, and the corporate collections of Hallmark and Sprint.





DANIEL DUBOIS

**MUSIC:**

Nashville jazz ensemble **The Establishment** performed for the Blair Big Band Benefit Bash on July 18 in Ingram Hall with proceeds going to the Blair School of Music Big Band program. The Establishment was formed in 1970 under the

direction of Del Sawyer, who at the time was dean of the Blair School. Bill Adair, adjunct associate professor of jazz studies at Blair, currently directs the group.

Blair School of Music faculty members **Edgar Meyer** and **Amy Dorfman** played “Free for All at Town Hall” in May at New York City’s historic Town Hall auditorium. For their May 11 recital, the audience heard works by Vivaldi, Schubert, Bloch and Meyer himself. Other artists on the series included Nadja Salerno-Sonnenberg with Anne-Marie McDermott, David Finckel with Wu Han, and Joshua Bell with Simon Mulligan.

her ability to intermingle bluegrass, country, Celtic and folk genres. Guests on the CD include Alison Brown, Jeff White, Amy Grant and Alison Krauss, among others, and compositions by songwriters Beth Nielsen Chapman and Karla Bonoff are featured. On



Andrea Zonn

Fiddler and vocalist **Andrea Zonn**, BMus’93, a member of Vince Gill’s band and a veteran studio musician in Nashville, recently released her first album, “Love Goes On,” showcasing

May 10, Zonn made her debut on Nashville’s world-famous Grand Ole Opry, appearing during the televised broadcast. “That’s an experience I’ve heard other people talk about, and it’s certainly a lifetime thrill,” says Zonn.

**ACCOLADES**

**John Frank Sands**, who just completed his junior year at the Blair School of Music, is the winner of Glimmerglass Opera’s 2003 Fanfare Competition. The Festival Season fanfares, a tradition at Glimmerglass Opera since 1987, are played by members of the opera’s orchestra from an exterior balcony overlooking the entrance to the theater, a few minutes before the start of each of the summer’s 43 performances in Cooperstown, N.Y. “John Frank Sands’s fanfare showed great invention and sureness of technique,” says Stewart Robertson, Glimmerglass Opera’s music director. “We are delighted to have a youthful winner of such accomplishment and promise.”

**Melissa Faith Cartoun**, a 2003 graduate majoring in English, won third place in the 2003 BMI Foundation John Lennon Scholarship competition. Cartoun was awarded a prize of \$2,500 for her song “25.” Judges for the competition included legendary record producer Arif Mardin, who most recently earned three Grammys as producer of Norah Jones’s “Come Away with Me”; Frank Wildhorn, composer, lyricist and producer of the musical “The Civil War”; and jazz specialist Suzan Jenkins, senior vice president for marketing, Recording Industry Association of America. Cartoun is the second student in two years to be honored in the Lennon Scholarship competition. She was a student of **Deanna Walker**, director of the songwriting program at the Blair School of Music.



NEIL BRAKE

“Music on the Mountain”

Blair Children's Choir



NEIL BRAME

Vanderbilt's Dyer Observatory was the setting for the first **"Music on the Mountain,"** a free community concert held in late April featuring the Blair School's **Butch Baldassari** on mandolin, **David Schnauffer** on dulcimer, and **Bobby Taylor** on oboe. Following the concert, the public was invited to tour the observatory and look through the telescope. Plans for renovation and expansion of the observatory were on display during the event.

The **Blair Children's Chorus Summer Camp**, for children entering grades three through seven, took place July 29–31 at the Blair School of Music. Each summer the Blair Children's Chorus program hosts this three-day camp open to the public to share and encourage musicianship in the community. The students learn music and singing fundamentals in prepa-

ration for a concert performance at the end of the camp. This year's concluding concert was in Ingram Hall, conducted by Pamela Schneller, director of the Children's Chorus program; Coni Ely, director of the Young Singers of Blair; and Chris Warren, director of the Boychoir of Nashville at Blair.

### BOOKS & WRITERS:

**Vivien Green Fryd**, associate professor of art history, has written *Art and the Crisis of Marriage: Edward Hopper and Georgia O'Keeffe*, recently published by University of Chicago Press. Combining biographic study of the artists' marriages with a formal analysis of their paintings, Fryd illustrates how the artists expressed their own marital crises in



their works—crises mirrored during the period between the two world wars when birthrates fell, divorce rates rose, and women entered the workforce in record numbers. "The complexities of O'Keeffe's and Hopper's marriages intersect with what was being said about marriage at this time, a time when people had one foot in the old, traditional marriage and one foot in the new," writes Fryd. "They

represent two couples dealing with this dilemma in two different ways, and their struggle embodies issues and confusions addressed during this period that are also manifest in their paintings."

Vanderbilt's history is vividly portrayed in two recent editions: *Chancellors, Commodores, and Coeds: A History of Vanderbilt*



University, published by **Bill Carey**, BA'87, through his Clearbrook Press, and *Ernest William Goodpasture: Scientist, Scholar, Gentleman* (Hillsboro Press) by **Robert D. Collins**, BA'48, MD'51, now the John L. Shapiro Professor of Pathology at Vanderbilt Medical School.

Carey's history of the University, the first since Paul Conkin's 1985 tome *Gone with the Ivy*, began as a series of articles on Vanderbilt's past written for the *Vanderbilt Register*, the University's campus weekly. The former business reporter for the *Tennessean* newspaper found the stories of his alma mater fascinating, and the book details everything from Henry Foote, "the cantankerous

### ACCOLADES

**Justin Quarry**, recent graduate in English, won for the second consecutive year the *Vanderbilt Review* Fiction Award for best undergraduate short story. In addition, Quarry also received a scholarship to the Bread Loaf Writers Conference at Middlebury College in Middlebury, Vt.

## UPCOMING

## DANCE

On Nov. 1, **Lingo DanceTheater**, a contemporary ensemble based in Seattle, brings its adventurous and athletic work "Speak to Me" to Langford Auditorium as part of Vanderbilt's Great Performances series.



## HUMANITIES

On Nov. 12 famed playwright **Tony Kushner** will speak as part of the Chancellor's Lecture Series. The *New York Times* says of Kushner, "Some playwrights want to change the world. Some want to revolutionize theater. Tony Kushner is that rarity of rarities: a writer who has the promise to do both."

## VISUAL ARTS

In "Closure" (Nov. 4 through Dec. 2) at Sarratt Gallery, **Laura Chenicek** will show mixed-media works that



address memory—how we choose to remember events or suppress them, especially those that linger from childhood. The artist will talk about her work on Nov. 7 at 4 p.m., with a reception following.

## MUSIC

The Vanderbilt Opera Theatre and faculty of the Blair School of Music will brighten the holiday season with "**Amahl and the Night Visitors.**" This fully staged, costumed and orchestrated production of Menotti's beloved opera will take place in Ingram Hall on Dec. 5 and 6.

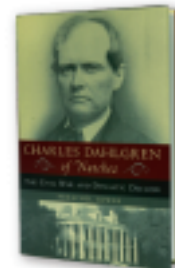


man who used to own Old Central," to the story behind the Joint University Library, to memorable faculty members from every era. Carey's previous book, *Fortunes, Fiddles, and Fried Chicken: A Business History of Nashville*, was named History Book of the Year in 2001 by both the Tennessee Library Association and the Tennessee Historical Commission.

Collins' biography of Ernest William Goodpasture pays tribute to the former dean of Vanderbilt Medical School (1945–50), whose landmark discovery of the chicken embryo technique for culturing viruses led to the development of vaccines for yellow fever, influenza, smallpox and typhus. Goodpasture also discovered the viral cause of mumps during his tenure at Vanderbilt. These contributions to laboratory research, combined with his loyalty to the school, which he led through severe fiscal constraints in the period following World War II, make for a stirring portrait of one of the most important figures in the Medical School's history.

*Charles Dahlgren of Natchez: The Civil War and Dynastic Decline* (Brassey's Inc: Dulles, Va.) by **Herschel Gower**, MA'52, PhD'57, and professor

of English, emeritus, recounts the rise and fall of an ambitious Pennsylvanian who hoped to build a dynasty in the antebellum South. At the outset of the Civil War, Dahlgren, by then the father of 16, owner of two



mansions overlooking the Mississippi, and a banker, planter and slaveholder, finds himself pitted against his brothers in a true tale that chronicles family allegiance during the most unstable of times.

## FILM &amp; TELEVISION:

**Darren McDaniel**, MA'96, recently started filming in Central Florida on his "mockumentary" titled "**The Essence of Irwin.**" The two-hour independent film follows the adventures of an idealistic sociologist and his cameraman in the fictionalized town of Irwin, Texas, and uses local crews and unknown actors in an attempt to blur the line between fiction and nonfiction.

**Rich Hull**, BA'92, is executive producer of "**Free for All,**" a new animated series that debuted on the Showtime cable network in July. The series, based on the comic strip of the same name by Brett Merhar, is syndicated nationally in more than 60 newspapers and features a pair of cynical friends whose world includes a lunatic ferret and a homicidal grandmother.

## “Free for All”



“Free for All” showcases the voice talents of actors Juliette Lewis, Sam McMurray, Jeremy Piven and Jonathan Silverman and the writing of Merriwether Williams, who spent three years as head writer of the Nickelodeon children’s series “SpongeBob SquarePants.” Hull’s producing credits include the films “She’s All That,” “On the Line,” and “American Psycho II.”

## HUMANITIES:

In late April the University announced plans for the country’s first university-based program dedicated to exploring the American model of cultural policy. **The Curb Center for Art, Enterprise and Public Policy at Vanderbilt**

was made possible by a \$2.5 million donation by Music Row executive



Mike Curb. Bill Ivey, former director of the National Endowment for the Arts and the Country Music Foundation, and now serving as Harvie Branscomb Distinguished

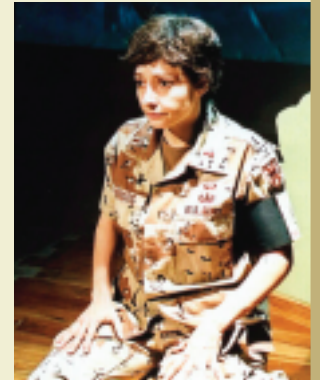
Visiting Scholar at Vanderbilt, will head the new center. Housed within the College of Arts and Science, the Curb Center will work closely with graduate programs through the Owen Graduate School of Management, the Law School, the Blair School of Music, Peabody College and the Divinity School.

Grounded on the principle that art conveys national identity, the center will provide internships for students and research opportunities for faculty. It will also give special consideration to the local music industry and the artistic traditions of Nashville’s multi-ethnic communities.

In July, **The Plan of Nashville: Cultural Policy at the Grassroots**, a two-day conference co-sponsored by the center and the Washington-based Center for Arts and Culture, discussed arts education, cultural tourism, and affordable housing and venues for artists in an effort to identify how public policy might be shaped to address problems in these areas.

## Heather Malogrides,

BA’89, was a graduate of Vanderbilt’s ROTC program when she was sent to Kuwait during Operation Desert Storm in 1991 as a U.S. Army second lieutenant commanding a bomb disposal unit. Three of her soldiers died there, resulting in mandatory negligent homicide charges, which were later dropped. This ordeal is central to **“After the Storm,”** a one-woman play written and performed by Malogrides, now working professionally in theater as Heather Grayson. It has played two runs in New York to critical acclaim.



**Q:** How do you take something so personal and turn it into art?

**A:** I didn’t start this project with the intention of turning life into art. The initial goal was to get down my experience on paper. But with the addition of an amazing design team and a truly dedicated director and dramaturge, we ended up with a “production.” Early in the process I was a little too wrapped up in what really happened to me versus a clear, simplified storyline. To help combat my own defensiveness, I changed the character’s name to Karen and was then able to morph two characters into one or juggle the order of events a bit. Funny how such a simple adjustment opened up possibilities for me.

**Q:** Was writing this play cathartic for you? Does performing this one-woman show get easier for you the more you do it, or has it evolved into something entirely different as time goes on?

**A:** Writing this play, although it forced me to muck around in a very personal set of experiences, wasn’t as cathartic for me as the doing of it is. Reliving these experiences on stage and coming out the other side is almost always exhausting but cleansing. I don’t mean “cleansing” in a way that releases me from guilt or responsibility, but in a way that helps me let go of the constant churning of the events in my mind.

**Q:** Why did you pick a one-woman show as the format?

**A:** The one-woman show format started out as a grad school requirement. Our M.F.A. thesis was to perform a one-person show, and I decided to write mine rather than choose a published play. Once I got to New York and started tinkering with the story, I realized that having one woman on stage surrounded by male voices added to the themes in the story, so we kept it. When I write the screenplay, the rest of the cast will fill out!



# S.P.O.V. \*

\* Student Point of View

## Surviving Enron

*Turning shattered innocence into resolve for a better corporate America*

By STEPHEN PLAUCHE

**M**ANY THINGS, good and bad, have been written about Enron Corp. over the last five years. Once thought to be a shining example of the 21st-century business model, Enron will now and forever stand as the poster child for greed run amok and the absolute failure of the corporate governance system in the United States.

My employment with Enron began as a financial analyst June 30, 1997. Exactly five years, one promotion, eight business units, and one massive bankruptcy later, I left the firm on my own accord, having weathered the storm of massive layoffs and corporate malfeasance. How did the experience change me as a person, and what personal impressions or scars remain? More important, what insights can I share with the Vanderbilt community that will make us all better corporate citizens and more aware of the potential hazards facing managers today in the global business community?

When I arrived on the Enron “campus” in 1997, I was the epitome of the young and green “eager beaver,” ready to conquer all, make money, and do whatever it took to make Enron the best energy trading company in the world. What I quickly discovered was that outside the fast-paced trading floors and

serene corporate finance floors, few Enron employees were satisfied with their position in the firm. Nearly everyone I met wanted to be a “commercial guy”—the person who cut the deals, traded the positions, made the money, had all the respect, and could basically do no wrong. After a few months on the wholesale-energy commodity desk, I found that this mind-set permeated from the top of the organization and was most clearly manifested by Jeffery Skilling, a Harvard M.B.A. who had left McKinsey & Company to start up Enron’s wholesale gas trading business.

Skilling was a hard driver. Case in point: He was such an avid believer in “pay for performance” that he instituted the now-infamous “yank and rank” performance review process whereby the bottom 10 percent of the employees in the normal distribution were sent packing twice a year. People commented that his ruthless behavior often mirrored that of Louis XIV, himself a master of power, control and politics. For example, at one point it was reported that Skilling felt his position as front-runner for the position of C.E.O. was threatened by two other top executives in the firm. What did he do? He promoted both of them to the position of vice chairman and nominated them for seats on the Enron board of directors. Skilling, following the example of the Sun King, was “keeping his friends close, but his enemies closer.” Over the next year, he gave one of these directors a new business unit to man-

age that he thought would ultimately fail. It did. The second executive lasted longer but ultimately left the firm in frustration. Unfortunately, due to Skilling’s paranoia and lust for power, Enron lost two of its finest and most admired leaders: Rebecca Marks, also a Harvard M.B.A., and Joe Sutton, a former high-ranking U.S. military officer. When you posed a threat to Skilling, the gloves came off.

It seemed that Skilling’s desire for power was matched only by his greed and burning desire to prop up the stock price. Case in point: A close friend interviewed with Andrew Fastow, Enron’s former C.F.O., for an analyst position in his financing group, nicknamed the LJM group. The acronym stood for the first letter of the first names of Fastow’s wife and two children. The group’s main responsibility was to structure Enron’s off-balance-sheet financing transactions, those designed primarily to help fuel the firm’s stratospheric growth rate. My friend related that during the interview, it became apparent that much of the group’s activity revolved around highly questionable accounting and business practices. When my colleague asked Fastow what Skilling thought of the group and its place in Enron’s future, Fastow replied, “Skilling loves the deal flow we bring into Enron. Its like cocaine to him—he can’t get enough.” Given the debt level associated with LJM-related transactions and the effects they had on Enron’s ultimate demise, it appears that

this was a habit Skilling and Fastow should have kicked.

I have numerous other anecdotes from my time at Enron. Some of the more memorable ones include watching former NBA-great Clyde Drexler play a pick-up game of basketball with Ken Lay in front of the company's HQ during lunch hour; sitting in the field boxes watching the Houston Astros play the New York Yankees in the first baseball game at the stadium formerly known as Enron Field; watching the value of my in-the-money options jump nearly \$13 per option in one trading session because Scott Nealy, C.E.O. of Sun Microsystems, appeared at a press conference where Skilling and Lay formally announced Enron's entrance into the broadband markets; hearing Skilling call a respected Wall Street equity research analyst an "asshole" under his breath while on a conference call explaining the firm's seeming web of financial statements; listening to Ken Lay describe in agonizing pain that the firm would be forced to merge with Dynegy Corp. in order to survive; and ultimately witnessing as thousands of my co-workers watched their computer screens go blank and hearing the voice of an HPD officer telling them to pack their bags and vacate the building in a half hour's time on Monday, Dec. 3, 2001, the day after the firm had filed for bankruptcy protection. Although this day gratefully didn't mark the end of my tenure at Enron, this day did mark the end of my innocence forever as a trusting and loyal employee of corporate America.

What are my recommendations and take-aways from this experience? First, if something in corporate America appears too good to be true, it probably is. Second, never put anyone you work for or with on a pedestal, no matter how respectable, honest and smart they appear to be. Every person is suscepti-

ble to the basest of human emotions including greed, pride and envy. Third, it is of paramount importance that everyone in corporate America do all they can to ensure that the best people sit on their firm's board of directors. Board members are the last line of defense for deviant manager behavior and corruption. They are charged with the ultimate

responsibility of keeping the weights of all firm stakeholders balanced over time. With this awesome power comes awesome responsibility. Without a strong board dominated by unbiased outsiders, no company is imperious to a similar Enron calamity.



My thoughts on this subject appear to be cynical, but it cannot be helped; I am a product of my environment, and the pain of the experience is now a firmly entrenched part of my nature. I wouldn't give up my five-year Enron experience for anything, but I will always be tormented by thoughts of what could have been for me and thousands of my

former colleagues had Enron's executive management acted more ethically and honorably. I am certainly less trusting and more suspicious than I once was, and find myself much more reticent to give people the benefit of the doubt. Perhaps because I loved my company too much, my most lasting impression is the pain of betrayal I felt when the truth surfaced regarding just how wrong Enron's executives had acted in their attempt to fatten their own wallets at the expense of many of the firm's stakeholders.

I urge tomorrow's leaders to learn from the mistakes of yesterday's leaders. Don't let hubris and your personal desire for riches turn you into monsters who lead more by fear and intimidation than by example, inspiration and admiration. Wake up every morning hungry and humble, ready to take on the challenges of the new day in a moral and ethical manner. Above all else, think for yourself and make decisions you will be able to live with later in life. Don't be lemmings, allowing personal relationships and peer pressure to persuade you to throw your weight and vote behind potentially unlawful and fraudulent activities. If we can rise above at least a few of humankind's basest emotions, maybe we can avoid another string of corporate scandals that have had such a permanent effect on our country's stability and outlook on life.

Stephen Plauche, a former Enron employee, is a second-year student at Vanderbilt's Owen Graduate School of Management, where he serves as editor-in-chief of the Owen School's student-run newspaper, *The Bottom Line*. He interned this past summer on Wall Street for a bulge bracket investment bank and plans to return to Wall Street on a full-time basis after graduation.

# A.P.O.V.\*

\*Alumni Point of View

## Pursuing a Crown of Perfection

*A Journey from Atlantic City to Vanderbilt University Divinity School*

By SHELLI RENEE YODER, MDIV'02

I ALWAYS AM UNCERTAIN HOW TO respond when someone who discovers I competed in pageants offers, “Really? You don’t seem the type.” Usually I enjoy engaging the other person, and together we discover our own stereotypes and ambiguous pasts. But there are those days when I am in no mood to discuss the subject, and I retort, “Well, I guess I am the type.”

Unless I am willing to ridicule my own experience, I usually refrain from disclosing my pageant past. I keep the lessons learned from those experiences locked away in the dark along with my Miss Indiana crown. Occasionally, and with people I trust, I bring out the crown, brush off the dust and hold the crown and the experience up to the light for closer examinations. Talking openly about the good, the bad and the in-between is like reuniting with an old friend. My pageant past is multilayered and peculiar—complete with big hair and, oddly enough, a significant amount of gratitude.

I stumbled into pageantry at the close of my senior year of high school when I participated in a small Youth for Christ choir called Skywatch. We were asked to sing during the Miss Northeast Pageant, a preliminary pageant to the Miss Indiana title. As contestants changed from swimsuits into evening

gowns, we sang songs about Jesus and the glory of God and how we all need the Lord and the grandeur of heaven’s streets of gold. Such peculiarity did not register with me immediately.

Following the pageant, one of the judges approached me and suggested I enter a local pageant. She offered the name and telephone number of the person to contact. I called the director of the pageant, and two weeks later I participated in and won the Miss Limberlost title, which qualified me to compete in the Miss Indiana pageant. Over the next seven years, I competed for the crown of Miss Indiana three times. The first trip resulted in my finishing 26th in the top 26 places. During the second time around, I finished in second place. Finally, in 1992 I won the crown of Miss Indiana and competed in the Miss America pageant.

### Long, Long; Short, Short

The days leading up to my departure to Atlantic City are among my most cherished memories. In my hometown of Shipshewana, Ind.,

the 500 citizens, predominately Amish and Mennonite, exercised no restraint in celebrating my being crowned Miss Indiana. Welcome-home parades, community gatherings, exquisitely handcrafted gifts, horse-and-buggy rides, endless phone calls, and mountains of homemade breads, cookies, pies and Amish

peanut butter were aplenty. An outpouring of love and support encircled my family; our home resounded from the constant activity. Neighborhood children, family, friends and curious strangers were welcomed guests. I met for the first time my second, third and fourth cousins—once removed.

Suddenly, life became a celebration, day after day after day. The crown became more than a stack of sterling silver embedded with rows of sparkling rhinestone. We shared laughs together as men and women, young and old, Amish and English, tried on that stack of sparkling silver and paraded around like royalty, imitating the stylized Miss America wave—long, long; short, short. The experience was so novel and out-of-the-ordinary, but those days were sacred. Together with my community, a positive experience of Miss America was shared.

### Impressionistic Violence

What cannot be ignored or denied is the objectification imbedded in the phenomenon of Miss America, a reflection of the broader culture. This certainly is not news for veteran feminists. But for a novice, who also happens to be a past Miss Indiana, the misogyny is more difficult to name, more painful and shameful. I am not merely reflecting critically on an abstract phenomenon; I am scrutinizing personal experience and acknowledging how unpleasant life becomes when we look inward.

Reflecting on my experiences of pageants is like trying to look at an impressionist paint-



ing with my nose against the wall. Gaining distance from the wall, from the painting, from pageants, I begin making out images of an unusual violence against women. Maybe the violence is not physical, but the message sent to women of all ages, especially the young, leaves an unusual kind of scar. As we compete against each other to become the ideal woman, as we struggle to alter our own body shape to achieve a culturally defined image of beauty, as we volunteer within our community not necessarily for our community's sake but to win favor from our peers, a violation of the soul occurs.

Perhaps these scars are not visible to the eye; nevertheless, they are etched into the surface of the heart. This objectification of women scars not only women but all creation. It is a violation that keeps us disconnected from each other and imprisoned in harsh and critical self-judgment.

The inherent danger in this violation is that it is couched in terms of women's liberation. Great efforts to change the image of Miss America from a beauty pageant to a scholarship program have taken place over the past decade. Miss America is now marketed as the world's leading provider of scholarships for women, but

Miss America's relationship with education creates mixed messages of women's liberation and sexual objectification. As long as women are able to name and claim the conditions, the misogyny is no longer labeled as objectification but earns the dangerous label of women's liberation via empowerment. But I ask: Whose definition of the ideal woman are we embracing?

Just as our bodies are manipulated in pageantry, so is the message regarding violence against women; this violation against women is subtle but contributes to our society's objectified gaze upon women. Height, weight, hair color, skin tone, intelligence, talent, sense of style, posture, composure, wit

and personality—women are walking checklists based on a male model of perfection. From my experience, the 21st-century Miss America ideal is a “liberated” woman complete with an education and a career; she is smart, talented, heterosexual, and remains on display for the male gaze.



### The Prescription According to Matthew

If being a novice feminist who also is a past beauty queen is not enough to raise eyebrows, being a Mennonite and a beauty queen certainly will. Either of the seeming contradictions can provoke eyebrow raising on its own, but combine the two paradoxes and entire faces begin to contort. Discovering my feminist voice would come years later, but I was a Mennonite when I entered pageantry, and at this interval of my life, the pageant ideal and my religious sensibility seemed compatible: Abide by a list of rules and morals; dress according to strict guidelines; and by adhering to these codes, salvation—or in this case success—was sure to follow. There was

no gray ambiguity. For me, religion and pageants seemed more similar than different. Legalism stood firm. Religion and Miss America seemed to embody the pursuit of perfection. To become Miss America was to become America's ideal, God's ideal, or so I thought. The possibility of achieving perfection arrested

me and seemed to clarify the Gospel of Matthew's prescription, “Be perfect, therefore, as your heavenly Father is perfect.”

The Miss America image of perfection challenged the guessing game in life. I was addicted to the control I thought I had in pageants. Competing, achieving and winning gave me a sense of self-worth, a self-worth defined externally and not internally; “knowing thyself” was not a priority. I used the Miss America program to define who and what I was and would become. Instead of learning the skill of critical thinking, I only had to imagine: WWMAD? What would Miss America do?

This mythical, superheroic figure put God first, followed the Ten Commandments, committed no acts of misconduct, smiled and looked attractive, and performed good deeds for her neighbor. Follow such a list, and

behold—an excursion down the runway of gold was certain. Such a pursuit of perfection served strictly as an external checks-and-balances system. Never mind about listening within for the voice of God. God was the checklist of America's ideal. Become Miss America, and God's favor would be bestowed upon me.

### Virtue, Check

When my dream of becoming Miss America ended, I was left with a big, gaping hole of emptiness. The checklist of perfection, which so narrowly defined how I should and should not be, failed to produce a sense of fulfill-

*continued on page 84*

# The Classes

“**Gilbert S. Merritt, JD’60**, was one of 13 legal experts selected by the U.S. Justice Department to travel to Iraq and help rebuild its judicial system.”

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Please Note: Class Notes are only available in the print version of this publication.



**Berenice Denton,  
BA’58**

NEIL BRAKE

## **You Can’t Take It with You**

She once sold a *Commodore* yearbook with Dinah Shore’s picture in it to a fan club for \$375. She sold country music star Waylon Jennings’ bathrobe for \$385, then got an irate call from a fan prepared to pay \$1,000.

From million-dollar art collections to a household freezer with a boa constrictor inside, Berenice Denton has sold it all. She got her start more than 30 years ago doing neighborhood sales. Since then, she’s been on a lifelong course to educate herself about the things others accumulate. She’s taken courses at Christie’s and does appraisals at antiques road shows.

These days Denton has two Nashville retail shops and handles more than 125 estate sales a year. She approaches each sale knowing it can be traumatic for those involved. Once, while a sale was going on downstairs, the owner was upstairs committing suicide. Another time when Denton arrived to discuss an upcoming sale, the estranged husband met her at the door with a shotgun.

“I tell people we come into this world with nothing and we leave with nothing. What we do with what we have is what’s important in God’s eyes,” she says. “Life is all about recycling.”

“**Teresa Lawrence Phillips, BA’80**, became the first woman in NCAA history to coach a men’s Division I basketball team last season.”

## Alumni Association News

### Strategic Planning to Enhance Alumni Relations

Over the past two years, the Alumni Relations Office has worked with the Alumni Association, faculty, students, administrators, staff and alumni to review Vanderbilt’s alumni relations program and explore ways to improve perceptions and engagement regarding the Alumni Relations Office. An ad hoc committee has recommended focusing on three key areas:

- Building on Vanderbilt’s sense of community by fostering class identity and increasing alumni participation;
- Enhancing Reunion to celebrate alumni involvement with VU; and
- Increasing alumni interaction with students.

The Alumni Relations Office looks forward to the challenges ahead. To learn more or to make suggestions, contact us at 615/322-2929 or at [alumni@vanderbilt.edu](mailto:alumni@vanderbilt.edu).

### Our Place in Manhattan

Vanderbilt University has become an affiliate school with the **Penn Club of New York**. Vanderbilt alumni and current parents worldwide are invited to join the Penn Club, which is located in midtown Manhattan on West 44th Street between Fifth and Sixth avenues. The club includes a library, formal dining rooms, a grill room, meeting and function rooms, a business center and sleeping accommodations. Members have access to one of the most comprehensive reciprocal club networks in the world. For information about the application process and membership fees, go to the Vanderbilt Alumni Association Web site ([www.vanderbilt.edu/alumni](http://www.vanderbilt.edu/alumni)) or contact Eileen Cunningham, director of alumni outreach programs in the Office of Alumni Relations at 615/322-2929.

### Kentucky Alumni Make Their Mark

An exciting and unique event took place in Loretto, Ky., on May 31 as more than 75 alumni and guests from the **Lexington, Louisville** and **Western Kentucky** Vanderbilt Alumni Clubs spent their Saturday at the Maker’s Mark Distillery. Alumni gathered at the beautiful distillery, which is a National Historic Landmark and the smallest and oldest operating distillery in the nation. President **Bill Samuels, JD’67**, conducted a personal tour followed by Maker’s Mark cocktails, lunch, and alumni dipping their own Maker’s Mark bottle in the bourbon’s signature red wax.

“**Andrea Zonn, BMus’93**, a musician with Vince Gill, made her debut on the Grand Ole Opry in May. She also has a release, “Love Goes On.””



Ron Ford,  
MBA '92

NEIL BRAKE

### Starting Early

Ron Ford remembers the first person he ever met who wore a necktie to work.

One Saturday when he was 10 or so, he accompanied his mother to work at Arvin Industries in Lenoir City, Tenn., and ventured into the office of her boss, plant controller Leon Viars.

“What can I do for you?” Viars asked.

“I want your job,” said Ford. “How do I get it?”

Viars advised the ambitious youngster to go to college, major in accounting, and become a C.P.A.

For most kids growing up “very, very poor” as Ford did, Viars’ advice might have seemed unattainable, but Ford has always had a life plan. From the age of 12, he has worked full time “doing anything I could to make an honest dollar.” After high school he worked at Oak Ridge National Laboratories by day and attended college by night, first at Roane State Community College, then the University of Tennessee. He earned his M.B.A. at Vanderbilt’s Owen Graduate School of Management, then a doctorate from Case Western Reserve.

“I absolutely loved it” is a phrase that frequently crops up when Ford talks about his career, whether it’s an early job in Oak Ridge or a recent stint as C.E.O. and president of Media Arts Group Inc., the nation’s largest producer and distributor of arts reproduction and related gift items.

This year Ford turns his boundless enthusiasm to service as president of the Vanderbilt University Alumni Association.

“ **Bennett Haselton, BS'99, MS'99**, founder of *Peacefire*, an unfiltered Web advocacy group, is working at the behest of the U.S. government to circumvent China's restrictive firewall. ”



Marissa Shrum,  
BA'03

NEIL BRAKE

### Pushing Past PC

“When I was growing up, I used to watch ‘The Cosby Show’ and wonder why kids on the program were automatically considered African-American even though they came from interracial backgrounds,” says Marissa Shrum. Growing up in Chattanooga, Tenn., with a black mother and a white father, she says, “my mom always stressed that I was both. I went to a private school where I was often the only person of color, and I could see how easy it was for kids to have preconceptions when all they knew was what they’d seen on television.”

As a Vanderbilt student, Shrum was active in a long list of campus and community organizations, serving for three years as a senator in the Student Government Association and two years as speaker of the senate. She graduated with a double major in English and sociology and was selected as the Young Alumni Trustee. This fall she will take the LSAT exam and is working in Nashville for the National Conference for Community and Justice.

“One of our programs is Camp Anytown for high schoolers,” she says. “We teach that diversity is not easy. A lot of people believe they have to be PC, so creating a forum where they can say what they think and learn from others helps prepare them to make a difference in their communities.”





**VJournal** *continued from page 9*

Perhaps the most common theme is “love science, love people.” Our students have been gifted students, many since kindergarten, although a few late bloomers always emerge. While VUSM collects poets and historians, economists and anthropologists, most of our students found their greatest gift in the study of science and, specifically, the life sciences. But science was not enough. Working alone in a lab did not satisfy their social natures. They needed to be with people. Or science in a vacuum, for its own sake, did not seem completely fulfilling. Science seemed to gain its greatest value and meaning in the context of human application. They wanted to put science into action, to relieve the suffering of other human beings.

This particular sense of service is the most pervasive and humbling. We have gathered together a group of young people who want to serve in Third World countries, want to

equalize access to care, want to practice “poverty medicine,” want to find a cure for AIDS. They want to educate, communicate and understand.

I suppose I feel most humbled when I try to recall my own reasons for wanting to become a doctor. It seems so long ago, and I can’t remember if my reasons now are the same as my reasons then. I did indeed love biology, and I’ve always enjoyed talking to people. My father was a veterinarian, and I loved going on farm calls with him, not just to watch him treat the cows that were “down,” but also to hear him banter with the farmers about their crops and their kids and the weather. But when I asked about following him into veterinary medicine, he answered simply, “Be a doctor.”

As with much parental advice, I placed these words on the back burner—not discarded, just set aside to simmer. I enjoyed a broad liberal arts education, sampling anthropology and religion and lots of literature, but

I always returned to biology. So the question for me, like many of our students, became one of how to use it. I thought about ecology and teaching and writing middle-school textbooks, but in the end I succumbed to the force. Of all the possibilities, medicine seemed like it would be the most fun.

Fun. Compared to the depth and altruism of my students’ motivations, this seems so shallow. And yet I know that we are all motivated to seek rewards, and what differentiates us are the rewards we seek. Money is rarely a true reward for anything, and it can’t be the motivation that sustains a life in medicine. All the money in the world could not induce me to do some of the things I’ve had to do in the past 20 years—it was simply duty and obligation. And all the money in the world cannot match the reward of some of my most memorable moments—a successful outcome against all odds, the gratitude of patients, the meeting of souls. ▼

**Holdings** *continued from page 21*

Lewis was one of my all-time favorites. The Amati was even used on a commercial for Miller High Life, the Champagne of Bottled Beer!”

His last recording session was in 1981 for Barbara Mandrell. Katahn again put away the Amati and wrote several best-selling diet books.

“I wasn’t using the violin, and it seemed that it would be nice for it to be played by students or faculty who would appreciate it. So I decided to make a permanent loan to Blair.”

A few months ago, before the Blair School took possession of the instrument, Virginia Payne, director of development for Blair, flew with it—rather apprehensively—to New York for an appraisal for insurance purposes. The official verdict sets its value at \$375,000. “The appraisers were very impressed with its condition,” says Payne. “They said it is in excellent shape.” Katahn also donated two valuable bows.

Unfortunately, because Blair lacks a secured space for displaying the instrument, the Amati will be kept locked away. But it most definitely will be played, and discussions are under way within Blair to determine how best to

use the instrument.

Blair School Dean Mark Wait is excited about the possibilities the Amati presents. “Many of our students come from middle-class backgrounds and have parents who have sacrificed much for their educations since childhood. This presents an opportunity for our students of special merit to perform important recitals and competitions on a truly great instrument. I suspect we will have a special celebration of this gift with a performance by one of our faculty violinists, a performance that can be enjoyed by the public.”

“Instruments such as these truly need to be used,” Teal confirms. “Musicians call it ‘playing in.’”

The Smithsonian Institute, which has one of the most spectacular collections of musical instruments in the world, adheres to that philosophy with its most valuable pieces—notably four Stradivari instruments appraised collectively at \$50 million and donated in 1998 by Herbert Axelrod. The self-taught ichthyologist, who made a fortune publishing handbooks on pets, gifted the Smithsonian with two Stradivari violins, a Stradivari viola and a Stradivari cello. Axelrod also donat-

ed a set of Amati instruments and, subsequently, the Smithsonian renovated a gallery in the American History Museum dedicated to displaying these remarkable and beautiful objects. But they are not held forever in repose. Many of the instruments are used in master classes and chamber concerts along the Washington, D.C., mall, as many as 20 per year. The Institute’s quartet, known first as the Smithson, then the Party of Four, is now the Axelrod Quartet.

“I can’t wait to put a bow across it; it is such a lovely instrument,” says Teal of Blair’s Amati. “There is certainly a period of becoming familiar with an instrument such as this, and getting to know its characteristics. One would have to practice on it for a couple of months. But I believe there will be an ease of play one doesn’t find in a new instrument. New instruments in the violin world are considered a little dangerous, unknown and unproven. But, after 300 years, you know what you’ve got. What we have with the Amati is a very exciting prospect not only for the school, but for the entire music-loving community.” ▼

**\$1.25 Billion Question** *continued from p. 41*  
were involved in that previous campaign.

Every bit of that combined experience is needed, given the troubling economic climate. The slump in the U.S. economy since 2000 has had an effect on fund-raising in general. In February the *Chronicle of Higher Education's* John Pulley reported that a number of colleges currently in the midst of campaigns are "tempering their campaign goals, extending the 'quiet phases' of those campaigns, and putting off completion dates." *The Chronicle* noted campaign problems at several universities, ranging from reduced campaign dollar goals to defaults on pledged gifts.

In general, says Burr Gibson, the state of the economy "has slowed down commitments, especially at the higher levels. For the larger commitments, many times they're made with appreciated stock. And when the market is down, there's obviously a hesitation to make the commitments. Everyone has been in a difficult period because of the impact of the market on the largest gifts."

Carell admits that the slump in the economy "has had some impact." But he points out that "we had our momentum under way before the economic downturn hit. We had a very compelling story, and it's had some impact. I think we had some pledges that might have been filled earlier or completed, but people are still being very generous with their pledges, and most are looking at the five-year payout and making significant gifts. People want to be part of a successful team."

When asked about managing this campaign in light of the current economy, Early responds with a story. "I remember in the last campaign, in the very beginning of it, someone stood up in one of our initial steering committee meetings and said, 'We're getting ready to go into a recession. Now is no time to do this.' This was a big business person, someone who knew where the economy was going. Bronson Ingram was our chair, a great chair of the campaign. His response was: This campaign's going to last basically 10 years—five to solicit and five to pay out. In any 10-

year period, this country's going to go through a recession or have an economically challenging time. He said, 'We've just got to keep going.' And so that's been my philosophy: You've just got to keep going."

Provost Nicholas Zeppos has a ready answer for those who question the wisdom of such an ambitious plan during an economic downturn. "I tell people, Listen, I would much rather have a great university like Vanderbilt is—thriving, growing, revealing this incredible potential—and a bit of a weak economy in the stock market, than a jumping stock market and a university that really doesn't know where it's going. I know the economy will turn around. It's very difficult to change a university." ▼

*Nashville freelance writer Paul Kingsbury, A'80, is author of books about the Grand Ole Opry and Nashville's historic Hatch Show Print poster shop. His articles have appeared in Entertainment Weekly, US, Nashville Life and other magazines.*

**Camp Fox** *continued from page 61*

depression, anxiety, sleepwalking and bulimia. Although in each case the Marines were found to be healthy and returned to duty, the work-ups were often confrontational. On several occasions, Marines left my hooch in tears and without their weapons (for personal and command safety).

Unfortunately, the reasoning behind this is simple. Marines are smart, especially communications Marines. They know what "illnesses" it takes to get Medevac-ed and what buttons to push to raise the colonel's blood pressure. This knowledge, in turn, makes even a simple diagnosis a logistical nightmare. Oftentimes, these Marines become such a headache to the command that they are sent home just to resolve the situation. While this is certainly an exception to the norm, it leaves a bitter taste in the mouths of those Marines left behind. They are the ones who have to pick up the slack, work the extra shifts, and stand the additional duty. Understandably, this has not helped the overall morale of the battalion.

**Jacksonville, N.C. (No Date Written)**

Home sweet home.

I arrived back in North Carolina on the afternoon of June 4, 89 days after leaving.

We flew home in style: a United Airlines 747 charter with all the trimmings. Being a company grade officer entitled me to a business-class seat, which I took full advantage of. The crew served us food every hour, and we had in-seat TVs to choose one of eight movies.

We stopped in Frankfurt, Germany, for a refueling layover and a crew change. Although it was 3 a.m. on the East Coast, I made a quick call to my wife to let her know that I was halfway home and out of harm's way. She was very excited, but needless to say, I got a friendly little lecture later that day about 3 a.m. phone calls.

We landed in Cherry Point, N.C., at 12:35 p.m. EST. As the wheels touched down, the back of the plane erupted in cheering and clapping, as the young Marines celebrated the end of their deployment. The pilot came on the intercom and proudly welcomed us back to the United States "on behalf of a grate-

ful nation." It was a sweet feeling.

We stepped off the plane into an early summer rain shower. It was so beautiful to see trees and green grass again that everyone just stood in the rain, too excited to move. As the last Marine deplaned, we gathered up our bags and loaded the buses for Camp Lejeune. Driving back to base, we passed miles of signs welcoming us and other Marines home. Signs of "Welcome Home Daddy" and "Good Job Warriors" flanked both sides of the highway, leading all the way to the front gate.

As we pulled into the battalion parking lot, the rain stopped and families began pouring out of the welcome tent to greet us. Children reunited with their parents, and some babies met their fathers for the first time. It's really something that can only be appreciated in person.

As my wife and I drove home, I thought about how lucky I was. This was my first deployment, but it was also Heather's first deployment. Not every Marine or sailor who deployed

*continued on page 84*

**Camp Fox** *continued from page 83*

in support of Operation Iraqi Freedom came back to a happy environment. Many relationships don't make it through deployment. Many spouses can't handle the stress and responsibility associated with it. Many troops can't readjust to their normal pre-deployment routine after being in and around combat for several months.

With Heather (BA'98), there was never any doubt. She was so strong throughout my deployment that it surprised even me. She worked full time, took care of the house and all the animals, and maintained a strong front to keep my mind at ease. She is a remarkable woman, and I'm very lucky to have her in my life.

Although Heather and I picked up as though I'd only been gone for a few days, not everything has been so easy to resume. Much to my surprise, it's been difficult readjusting to routine things. My first few days back, I found myself reaching to check the safety of my weapon, which for the past 89 days had been literally attached to my hip 24/7. I felt a little uncomfortable without it.

Returning to work at the battalion aid station has been hard. I am finding that I have less patience for things than I did before, less

tolerance for whiners and complainers. I guess part of me is bothered by the lack of toughness in some of the non-deployed Marines, when I was so impressed with the Marines whom I treated and heard about in Kuwait and Iraq. I don't know how long some of these Marines would have lasted in the desert.

Eating all those things I missed while deployed has been a challenge, too. Despite knowing better, I've found out the hard way that you can't just load up on ice cream and dairy products when you haven't really eaten them in three months. My system is slowly returning to normal, but it hasn't been a pretty five days.

I have also noticed that I've lost more weight than I first realized. Yesterday, for the first time in three months, I put on civilian clothes, and my pants kept falling down. I left for Kuwait weighing an already lean 165 pounds, but I weighed myself this morning and was shocked to find that I had lost 11 pounds. Now I have to deal with my wife *and* my mother trying to fatten me up. Oh, well, there are worse fates to face.

Most important, despite my attempted resistance, I'm slowly finding out that this deployment has changed me mentally. I can't place a finger on what exactly has changed,

or what caused the change for that matter. I just don't feel the same.

I have found it hard to talk about the things I saw or experienced over there, even with my wife and closest family, despite the fact that I was never involved in direct combat. Maybe it is the realization of how fragile life can be, or how easily it could have been me staring down death in An Nasiriyah or Al Kut. I think the question of "Why not me?" will be one I struggle with for some time. I'm hoping that these feelings are only temporary and, as I get settled back in here, that everything will return to normal. I imagine only time will tell.

I ate dinner last night with my wife and our friend Jimmy, the Marine lieutenant injured in the fighting at An Nasiriyah. He is doing remarkably well and is expected to make a full recovery, allowing him to stay in the Marine Corps. It was great to see him, and I am looking forward to sitting down with him sometime and hearing all about his unique experiences. I just don't think that either of us is ready yet. ▼

*Jonathan Bankoff's letters first appeared in the South Bend (Ind.) Tribune.*

**A.P.O.V.** *continued from page 71*

ment or spiritual transformation. What was God if not perfection or power? Even more perverse, what was God if not male or American? The emptiness left me searching. I would like to say I was searching for a way to confront and begin living into the emptiness I felt inside; however, I searched for a replacement checklist, a new inventory of "dos and don'ts" to define who and what I should be.

I still longed to be the ideal, virtuous woman. I got married. Check. I got religious. Check. I started graduate school. Check. I decorated my house for every national and religious holiday. Check. I bought shoes to match every individual outfit. Check. After all, a virtuous woman has all her boxes checked off, for only then is she "far more precious than jewels" (Proverbs 31:10). Check. For the ideal woman, perfection is not just the destination; it is her way of travel.

While fulfilling the criteria of the checklist, I was "getting religious" and at the same time working toward my first master's degree in the field of counseling. During my studies I discovered a book by Murray Bodo titled *Clare: A Light in the Garden*. Neither biographical nor a spiritual meditation on the life of Saint Clare of Assisi, the story tells of Clare's relationship with Francis of Assisi.

Reading the book proved to be a transformative experience. I was not comforted by the story; I was angered. I became furious. I questioned. In the middle of my anger and questions, my idolatrous belief system and fettered spirit were exposed. Just as Clare's life was defined and understood through her relationship with a man, I realized this pattern was how I valued and understood my own life—through a male definition of perfection. In the middle of my questions and through my relationship with another woman's

story, 700 years removed, I experienced the holy. In a rush of emotion from anger to feelings of solidarity with a woman such as Clare, I questioned "destination perfection."

Clare's commitment to peace, her ability to recognize the Beloved in all creation, her understanding of the connectedness in the world, her contemplative heart, her courage to walk away from wealth and 12th-century expectations of the virtuous woman, inspired me to begin delving beneath the surface of my own reality. What or whom would I find beneath the mask of Shelli Yoder, second runner-up to Miss America? Where would my questions lead?

The path of seeking is more circular than linear. I began noticing the endless shades of green found in creation; the unique shape of each individual eye, mouth and nose; the different ways children laugh and the many ways we experience silence; my bare feet touching

the earth; and the overwhelming presence of homelessness in a country of affluence and resources. I noticed how little I knew about the beautiful gift of my sexuality—how fear and ignorance kept me from exploration instead of inviting me to a greater awareness—and how the Divine Spirit dwelt within one. I began paying attention.

Ten years have passed since I was Miss Indiana and second runner-up to Miss America. During the decade my thoughts have fluctuated from “What was I thinking?” to offering up a whispered “Thank you.” I am grateful for the unique perspective this experience provided, and I am thankful for the kind and generous people my chosen path encountered.

People whom I met during my reign as Miss Indiana continue to correspond with me. Their words are encouraging. There are many others from whom I have never heard. I am sure meeting a beauty queen in a St. John knit ensemble, wearing a glitzy

crown, and talking about accepting and believing in yourself regardless of the circumstances were bound to foster questions as well as create distance. The decked-out beauty queen talking about self-acceptance is a rather hypocritical image, an image of my past I live with daily.

I have been told I am only responsible for actions I deliberately perform, that it is the intent of the heart that really matters, and because I did not intend to do harm, I am not responsible.

I disagree.

If I embrace the theological tenet of the connectedness of all life, and I do, I am responsible, or rather accountable, to my neighbor and not just the ones defined as human. We are connected and accountable to the hermit crab, the missal thrush, the wood sorrel, the air we breathe, the ocelot, the prairie, and the weeping willow. We stand accountable to the 12-year-old girl dying to be thin, the man

on death row awaiting execution, and the Afghan refugee without a home. My choices have consequences. Such privilege demands critical reflection, just responses, and an unfettered spirit embodying the love of God.

With a list of “dos and don’ts,” we can convince ourselves we are granted a special dispensation from life’s asymmetry. Perhaps that’s the lure of such a phenomenon as Miss America. The pageant sweeps the messiness of life under the train of an ermine-trimmed robe and projects a contrived image of perfection. It helps tie up the loose ends. But what is reality if not loose ends? Life is scarred and flawless, broken yet whole. Perhaps in opening ourselves up to the questions, embracing unconditional compassion, and standing accountable to our neighbor, we are as close as we possibly can be to what it means to be perfect. ▼