

NEW MATH

Two new centers apply mathematics to medical, space-age problems

Vanderbilt mathematicians are using their powerful discipline to attack problems as diverse as tumor growth and mapping the Earth's gravitational field.

Applying mathematics to biological and medical problems could have dramatic effects by helping medical researchers find better ways to understand, treat and possibly cure serious illnesses. At the same time, using new mathematical tools to deal with matters on the surface of a sphere promises to improve the accuracy of map-making, navigation and a host of other geocentric activities, according to campus mathematicians.

They are strengthening their links to both these areas with the creation of two new centers. Members of the Center for Biomathematics are studying a range of problems in the biological and medical sciences, while those in the Center for Constructive Approximation will address a variety of problems in "geomathematics" related to cartography, geodesy, geology, geophysics, oceanography and navigation.

"These new centers formalize areas of exceptional strength within the mathematics department," says professor of mathematics and department chair Michael Mihalik. "We are at a juncture where

the application of mathematics to the biological sciences could have revolutionary results," says Emmanuele DiBenedetto, Centennial Professor of Mathematics, who came to Vanderbilt from Northwestern

University two years ago to direct the biomath effort.

DiBenedetto and his fellow biomathematicians share an ambitious, long-term vision for strengthening the ties between the disparate worlds of mathematics and life sciences. "In the past, great advances in physics and chemistry have come about by synergy with mathematics," he says. A prime example is calculus, which was devised to explain the motion of the planets and then made it possible to design the machinery that touched off the industrial revolution.

"Until now the synergy between biology and mathematics hasn't been as deep," DiBenedetto says. But today the biological sciences are in a situation comparable to astronomy before the development of calculus. The human genome and medical imaging systems like MRI are producing vast quantities of data. Even rapid advancement in computer capability won't be enough to make sense of all the information without the application of new mathematical techniques, he argues.

Formation of the biomath center is the culmination of more than seven years of effort. "We felt it was a way that the math department could connect with the rest of the university," says

(please turn to page 10)



Scientist says planets might form infrequently

New evidence suggests that planet formation may be a less frequent occurrence than astronomers had believed. C. Robert O'Dell, lead scientist on the first Hubble Space Telescope studies of the Orion nebula and now a distinguished research professor of physics in the College of Arts and Science, reports that the youngest and brightest stars in Orion are so powerful that ultraviolet radiation they produce would likely blast away dust and gas before they could condense to form planets.

"According to current estimates, it takes about 10 million years for a planet to form," said O'Dell, who has been studying the Orion nebula since 1964.

"The massive, young stars in Orion are more than 100,000 times as luminous as the sun. Our best estimate is that these radiation levels can destroy a protoplanetary disk [disks of dust and gas from which planets can form] in a few hundred thousand years. So it appears that most of the disks will be gone long before planets can form."

If current planetary formation times are correct, and the conditions in the Orion nebula are typical of stellar nurseries, then only one star in 10 is likely to form a planetary system, O'Dell said.

Why then does Orion contain more than 300 circumsolar disks? The answer, according to O'Dell, is quite surprising. One of the stars in Trapezium Cluster at the nebula's center turns out to be a binary. By carefully measuring the properties of this pair of stars, Francesco Palla at the Osservatorio Astrofisico di Arcetri in Italy and Steven Stahler at the University of California, Berkeley, have estimated that it can be no older than 100,000 years. Orion's



C. Robert O'Dell, lead scientist on the first Hubble Space Telescope studies of Orion nebula (in background), has been studying the nebula—an incubator for stars—since 1964.

massive central stars must be even younger, O'Dell contended, because they have created an intense radiation environment that has essentially shut down star formation in the nebula.

"This estimate, combined with the fact that we don't see any evidence for depletion of the protoplanetary disks, even those exposed to the highest radiation levels, suggests that the central stars are even younger, perhaps only a few tens of thousands of years old," O'Dell said.

To view a scientifically accurate visualization of the nebula produced by the American Museum of Natural History, based on Professor O'Dell's mapping efforts, go to Vanderbilt's *Exploration* online research magazine at http://exploration.vanderbilt.edu/news/news_orion.htm.

Veteran A&S Registrar Dies

Jane Sutherland, who shepherded countless students toward their degrees during her 25 years as registrar in the College of Arts and Science, died on August 6.

A member of Phi Beta Kappa, she graduated from Vanderbilt magna cum laude in 1934 with a degree in mathematics. The next year she started her 44-year career at Vanderbilt as secretary to Deans Franklin Paschall and Madison Sarratt.

She was A&S registrar from 1953 until her retirement in 1978, when she received the title registrar emeritus. Over the years she registered thousands of students for classes, organized and published the class schedules, and made sure seniors fulfilled

all requirements for graduation. She accomplished these tasks manually in those pre-computer days with meticulous skill and grace.



Jane Sutherland

In an interview with the *Vanderbilt Alumnus* upon her retirement, she noted that it was much easier to become acquainted with the 847 A&S undergraduates who registered in 1935 than with 3,200 students in 1977. Although many changes occurred during her career, she noted, "Students have always been my first priority."

Jane Sutherland is survived by her sister, Sue Sutherland Snell, seven nieces and nephews, and numerous great nieces and nephews.

Styron delivers Warren Lecture

Pulitzer Prize-winning author William Styron delivered the third annual Robert Penn Warren Lecture on Southern Letters in April. His talk was sponsored by Vanderbilt's Robert Penn Warren Center and Humanities Tennessee. Styron's award-winning books include *Sophie's Choice* and *The Confessions of Nat Turner*, which won the Pulitzer Prize. In *Darkness Visible: A Memoir of Madness*, he talked about his struggles with clinical depression.

To Our A&S Friends

My colleagues and I in the College of Arts and Science were horrified and saddened by the recent terrorist attacks on our country. We convey to all members of the Arts and Science community—students, faculty, staff, alumni and other friends—our heartfelt belief in the ultimate triumph of people of good will over the forces of evil. We remain deeply saddened by the deaths of members of the Vanderbilt family during the attacks on September 11.

In spite of these tragic events, we have been comforted by the actions of our wonderful students. They have responded to these horrendous events with compassion, maturity and grace, and I have been tremendously impressed by their actions.

I pledge to you that we will continue to promote the study of the liberal arts and sciences, which serve to counteract

the forces of ignorance, hatred and violence. Finally, I want you to know that all members of the Vanderbilt family are in our thoughts and prayers during this time of national crisis.

Richard McCarty
Dean



A) An overflow crowd attended a service of "prayer and remembrance" in Benton Chapel Sept. 11, following the terrorist attacks on the World Trade Center and the Pentagon. B) A&S junior Andrea Alvord, a member of the Vanderbilt Naval ROTC unit, holds the American flag during the Moment of Silence service on Alumni Lawn Sept. 13. C) Students pledge allegiance to the flag during the Come Together event on Rand Terrace. D) Flowers with a note saying, "In loving memory of those American lives lost on Sept. 11, 2001," were left at the foot of the flagpole on Alumni Lawn.

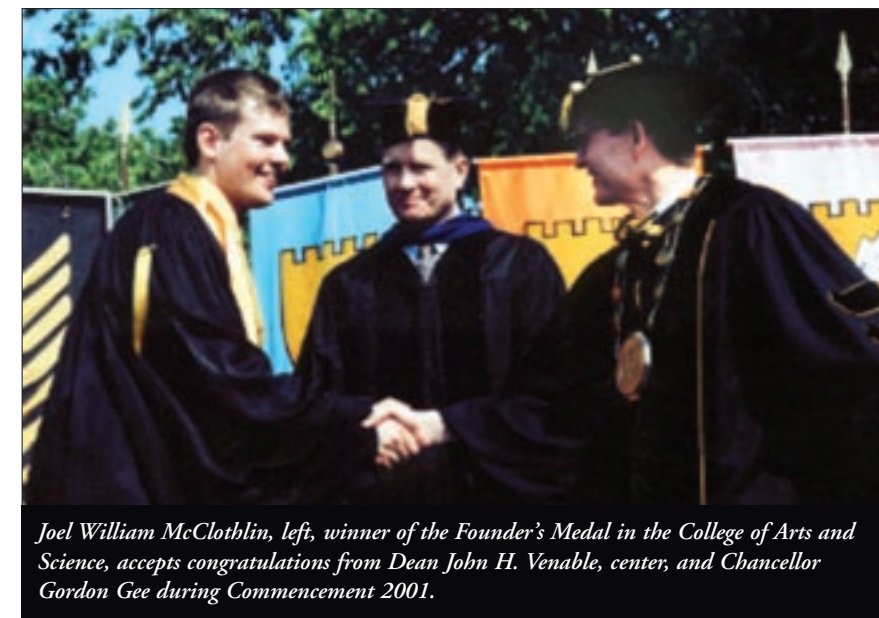
Tsinakis named executive dean

Constantine Tsinakis, professor of mathematics and former associate provost for faculty affairs, has been named to the newly created position of executive dean of the College of Arts and Science. He will be responsible for faculty development, graduate education and research, and the repositioning of A&S in the international arena. He will also work with Dean Richard McCarty on faculty actions, including promotions and tenure.

Tsinakis joined the A&S faculty in 1980 as assistant professor of mathematics. He received his bachelor's degree from the University of Thessalonika in Greece and his master's degree from the University of Houston before earning a PhD in mathematics from the University of California at Berkeley.



Constantine Tsinakis



Joel William McClothlin, left, winner of the Founder's Medal in the College of Arts and Science, accepts congratulations from Dean John H. Venable, center, and Chancellor Gordon Gee during Commencement 2001.

For more information about the College of Arts and Science, visit our Web page at

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You can also access the main alumni Web page at

www.vanderbilt.edu/alumni

and the on-line version of the A&S Cornerstone at

www.vanderbilt.edu/alumni/publications/cornerstone.html

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An American in Provence

Rebecca Folmar, a junior majoring in communication studies, spent the summer at Vanderbilt's oldest study abroad program in Aix-en-Provence in southern France. Here are some of her impressions.

Having studied French for years in the classroom, I was certain that I wanted to include the experience of living and studying in France as part of my college career. Now that I have completed the eight-week summer study program that Vanderbilt offers in Aix-en-Provence, I have added yet another wonderful experience to my Vanderbilt education.

The Vanderbilt-in-France program celebrated its 40th anniversary this year as the University's oldest study abroad program. Offered each semester and in the summer, it is designed to challenge students intellectually with course work taught by native French professors and to introduce students to French culture and everyday life. In addition to the classes offered in grammar, conversation, culture and literature, the summer program begins with a weeklong study tour of Paris. After arriving in Aix, students also go on weekend excursions to the regions and cities of Provence.

The most wonderful aspect of the Vanderbilt-in-France program was exactly what I had hoped to experience: learning about the culture and living it, both in and out of the classroom. At the Vanderbilt Center, located in a 17th-century building in the heart of the historic city, I took a class on the culture of Provence, exploring the history, topography, economy, and ethnology of the region through readings, oral presentations, and videos. But what really made the difference in learning about Provence were the field trips my class took to different places in the region that we were studying.

We visited the ancient ruins of the Celto-Ligurian city of Entremont; the world-famous santon (traditional clay nativity scenes) workshop of Mireille Fouque; the Granet Museum, which houses a permanent collection of French, Dutch, Flemish and Italian art; and La Ciotat, where we spent the afternoon snorkeling in the Mediterranean.



Schulman Center Under Construction

Construction began last summer on the Schulman Center for Jewish Life. Located at the corner of 25th Avenue South and Vanderbilt Place next to Branscomb Quadrangle, it will occupy the former site of the historically Jewish fraternity, Zeta Beta Tau. Ben Schulman, a 1938 Vanderbilt graduate, gave \$1 million to build the center which carries his name. "The Schulman Center will not only allow Jewish life at Vanderbilt to flourish as never before," said Chancellor Gordon Gee, "it will enrich the university experience for all students."



Writer Rebecca Folmar, center, visited L'Hôtel de Ville [city hall] in Paris with other Vanderbilt-in-France students: left to right, Keith Luckett, Christopher Brumback, Chelley Hines, and Rebecca Krefft.

My literature class, which focused on the works of famous Provençal writers such as Daudet, Pagnol, and Giono, was fortunate enough to see the settings described in their novels and plays. We visited the walled medieval city of Carcassonne, the cathedral at Albi, Marseille, Cassis, the Calanques, the lavender fields of the Luberon region, and many other wonderful sights. We also climbed Sainte-Victoire Mountain and rode the legendary white horses of the Camargue region. Thanks to Vanderbilt's excellent planning, I have seen parts of France that I would not normally encounter as a tourist.

Because I lived and ate with a French family, and because I was at all times immersed in the language, my ability to communicate in French has definitely improved. The professors that I had, the works that I read, the sights that I saw, and the daily exposure to French culture made my experience in France an incredible one. I will always be glad that I took advantage of this wonderful opportunity that Vanderbilt has to offer.

Where are they now?

Bob Baldwin has gone back to his roots. Since retiring from the active faculty in 1995—after teaching for 38 years—he has returned to his first love of drawing and painting. The professor of fine arts and of theatre, emeritus, and his art historian wife, Helen, MA'70, spend the summers at her father's old studio on Cape Cod, near Bob's hometown of Andover, Mass.

Professor Baldwin joined the Vanderbilt faculty in 1957 after receiving an AB degree from Oberlin College and an MFA from Yale School of Drama. In addition to teaching, he also worked with the Vanderbilt University Theatre and as assistant to the A&S dean.

Professor Baldwin joined the faculty of the fledgling Vanderbilt-in-France program at Aix during its second year in 1962-63. He and Helen returned to the lovely French city in 1978-79, when Bob was named director of the program and she taught art history. Last spring, he traveled to Aix again for the 40th anniversary celebration of the University's oldest foreign studies program (see related article above).

In June, Baldwin took part in the 20th anniversary celebration of the McTyeire International House, which he helped establish in 1980 and served as its first director. Alumni can reach Baldwin by e-mail at baldwira@aol.com



Professor Bob Baldwin at the McTyeire International House reunion

Student, alumnus break ice in historic mission to North Pole

Studying history wasn't enough for A&S senior James Dilg; he wanted to make history.

A battalion executive officer with the Vanderbilt Naval ROTC unit, Dilg served as a midshipman aboard the attack submarine *USS Scranton* in mid-June when it became the first of its class to surface through the ice at the North Pole. The historic mission tested the Improved Los Angeles Class submarine's ability to puncture the four-foot thick ice at the North Pole. The ship surfaced in the rugged white terrain 450 miles north of Greenland.

Dilg, who attends Vanderbilt on a full Navy scholarship, spent a month on the *Scranton* for his third and final training cruise.

He was one of only three midshipmen selected for the rare polar mission. The chances of being chosen for such a unique mission were one in 10,000 according to the U.S. Navy.

According to Marshall Eakin, professor and chair of Vanderbilt's history department, Dilg is an "excellent student, highly motivated and eager to learn."

Dilg said his interest in history was one of the reasons he decided to pursue a career in the Navy.

"It's the adventure. It's not your standard job," he said. "It's something I wanted to get involved in, making history myself."

The *Scranton's* commanding officer also has strong Vanderbilt ties. Commander Clarence E. "Earl" Carter graduated in 1980 with a double major in mathematics and civil engineering, and served as a manager of the Commodore men's basketball team.



A&S senior James Dilg served as a midshipman onboard the *USS Scranton* last summer, when the submarine broke through the ice at the North Pole.

AERIAL PHOTO BY COMBAT/ANDREW NINE

"Control of the sea has had a major impact on the history of our country, and the world for that matter," said Carter. "My education at Vanderbilt prepared me well to become successful in a very challenging career field."

Once the ship surfaced above the ice, Carter took time from enjoying the exceptional view to pay tribute to his alma mater by hoisting a Vanderbilt flag in the midst of the totally white environment.

"It's good to bring a bit of Vanderbilt to the North Pole," he noted.

Jessica Howard, *Vanderbilt Register*

College enrolls strongest freshman class ever

This year's A&S freshman class is one of the strongest ever recruited, according to William Shain, dean of undergraduate admissions.

"The Class of 2005 appears to present the strongest academic qualifications in Vanderbilt's history," Shain said, "and thus continues the surge in the University's popularity that we have seen in the past several years."

It is also slightly smaller than last year's class, with 909 classmates who were chosen from a record 7,000 applicants. The class includes 498 women and 411 men. Their record

SAT scores are the highest in memory.

The A&S class is also quite diverse, and includes a record number of African American students at 7.3 percent. Asian Americans are next at 6.4 percent, with Hispanics at a record 5 percent.

"We realize that competition for the very best undergraduates is intense among our peer institutions," said Richard McCarty, A&S dean. "We are delighted that such a strong group of students has chosen to enroll in the College of Arts and Science."



These students belong to one of the strongest freshman classes ever admitted to the College of Arts and Science.

ENRICH/TEHR

Among all the 1,557 incoming freshmen—not only A&S students—11 percent were valedictorians or salutatorians at their high schools, and 73 percent were in the top 10 percent of their class. One hundred and three are National Merit Scholars.

Many were also high school leaders. They include 57 student-body presidents, 123 class presidents, 90 editors-in-chief of student publications, and 514 captains of athletic teams.

They come from 45 states and 45 foreign countries. About 45 percent are from the South, with 14 percent from Tennessee.

The College's rich tradition in sports competition continues with impressive performances by current students and alumni:

● Last May, the women's tennis team became the first team in Vanderbilt history to compete for a national title, losing out in the NCAA Championships to Stanford. A&S students participating in the team's historic run included Kate Burson, a junior English major; Jenny Miller, a junior pre-med major; freshman Kelly Schmandt; Kori Scott, a freshman biology major; and Aleke Tsoubanos, also a freshman biology major.

● Matt Freije was named to the 2001 SEC All-Freshman Basketball Team by a vote of the league coaches last spring. Freije is only the fifth Commodore to earn SEC All-Freshman honors.

● During his sportswriting career, Fred Russell, A'27, L'27, rubbed elbows with and wrote about many famous athletes. Now the University has honored the legendary sportswriter by naming the press box at the newly renovated baseball stadium after him. Russell is the third member of the 1927 Commodore baseball team and one of two A&S alumni to be honored recently. The refurbished stadium will be known as Charles Hawkins Field, and the McGugin Center dining hall is named after Willard "Bill" Hendrix. Both Hawkins, BE'29, and Hendrix, BA'27, are deceased.

● Mallery Crosland, BA'99, won two prestigious golf tournaments over the summer: the Women's D.C. Golf Association match play championship at Lowes Island Club in Sterling, Va., and the Maryland Women's Amateur State Championship in Baltimore. She also won the latter event in 1997 and 1998. An economics major at Vanderbilt, Crosland is a producer at an NBC television affiliate in Washington, D.C., and plays out of Chevy Chase Club.

● A&S grads in the National Football League include John Markham, BA'01, a kicker with the New York Giants, and Todd Yoder, BS'00, a tight end with the Tampa Bay Buccaneers.



PENTON HOGE

Introducing Dean Richard McCarty

A&S Cornerstone: Why did you decide to come to Vanderbilt?
Dean McCarty: There were a couple of reasons. One, Vanderbilt is a great institution already, but it's also an institution that wants to be much, much better. A level of excitement has been building to move Vanderbilt to the forefront of American higher education, and I wanted to play a small part in that. Beyond that, Arts and Science has a tradition that is important to maintain, and that is to have a place where undergraduates receive an excellent education within the context of a major research university. That mix is becoming one that fewer institutions are able to offer, and Vanderbilt is in a position to do it and do it well.

A&S Cornerstone: What do you hope to accomplish as A&S dean?

Dean McCarty: There's a major list, but let me tell you what I see as the most important thing. The College of Arts and Science has to develop greater strengths in graduate education, while maintaining excellence in its undergraduate programs. I believe that balance can be achieved. I also think we could lose our competitive edge with undergraduates if our graduate programs aren't strengthened. We're offering a liberal arts education within a research university, which implies that we have great strength in research. We're not at that level right now, but we can get there and also enhance undergraduate education at the same time.

A&S Cornerstone: What will it take to get there?

Dean McCarty: It's going to take selective investment. We can't have strong graduate programs in every department and interdisciplinary program; we're too small an institution for that to occur. So we have to take some very careful looks at our current strengths and at where investment will pay handsomely. That process has been going on over the past year and will continue for the foreseeable future.

We also have to make use of strengths outside the College of Arts and Science. We can't go it alone, and we have the benefit of some well-developed programs in other parts of the University that are working well. But we need to do more to create a critical mass of faculty and students in a given area.

A&S Cornerstone: Can you describe some of those programs?

Dean McCarty: One area that excites me tremendously is the Center for the Americas that will be headquartered in Arts and Science. It will include virtually every department and program in the humanities and social sciences.

It will allow us to take advantage of existing strengths and pull together a group of faculty and students to do something that has not been done on this scale at any other university. This is a place where Vanderbilt has an opportunity to create a unique research and teaching effort. We don't have to start from scratch, but we will have to make significant investments in this program. I also think it will create some research and teaching activities that we can't even imagine at present. We're going to have a center that a lot of people will be

looking at, nationally as well as internationally. It will cut across major divisions of time, from pre-Columbian to the present. We already have archaeologists who do significant work in Central and South America; we hope to hire two historians who work in the Colonial era; and we have economists looking at economic development in the 21st century. So it's an expansion program, and one that we can do exceedingly well.

What other cross-campus, cross-school programs exist?

McCarty: There are any number of other programs that will involve Arts & Science, Medicine, Engineering, and Peabody. We are developing programs in nanoscience, in biophysics, in neuroscience, in genetics—again building on strengths that already exist at Vanderbilt across the institution. We also have geography on our side. We have the basic science cluster of A&S bumping right up against the Medical Center; that's a tremendous advantage. Having Peabody College directly across 21st Avenue and close to a number of A&S departments is another huge advantage.

A&S Cornerstone: What are some ways to strengthen the graduate programs?

Dean McCarty: The equation isn't that complex. We need to hire the best faculty; we need the best facilities to put them in; and we need the best students possible who are willing to work hard at all levels. That's easy to say and very difficult to achieve. Rankings of graduate programs evolve over long periods of time; we're not going to have a program magically jump onto the national scene. But the University seems extremely committed to this, and the A&S faculty is strongly committed to it as well. We also have this incredible campus, this wonderful gem, to attract both faculty and students. It's a world-class facility.

"We need to hire the best faculty, we need the best facilities to put them in, and we need the best students possible who are willing to work hard at all levels. That's easy to say and very difficult to achieve."

A&S Cornerstone: Do we have any graduate programs in the top 20 nationally?

Dean McCarty: We do not have, at present, any graduate programs in A&S that are currently ranked in the top 20. We have the possibility to move several programs into the top rankings. There's a plan to combine the strengths of the A&S and Peabody psychology programs, which will include a very large number of faculty positions and a large graduate program. Both [Peabody] Dean [Camilla] Benbow and I would like to see this happen, and we're both optimistic that it will be very well received by the next National Research Council rankings. Individually, the two departments are very, very strong, but when you combine the talents, you get a dynamic and very talented group of faculty and students.

We also have strengths in English, and we'll continue efforts to enhance the stature of that department. Spanish and Portuguese is a department that is critical for the success of the Center for the Americas. And then finally, we have a great group in anthropology and archaeology.

A&S Cornerstone: Can a strong graduate program help the undergraduate program?

Dean McCarty: We need active research programs in place to involve undergraduates in scholarly activities. It's one thing to read about scholarship; it's another thing to be involved in it directly. That's what we offer our undergraduate students: the ability to work with world-class scholars. That opportunity will allow us to attract some of the very best undergraduates in the country. If we become com-

placent and don't continue to build strength in our graduate programs, we do it, to some extent, at the peril of our undergraduate programs.

A&S Cornerstone: Isn't A&S very dependent on tuition for its operating expenses?

Dean McCarty: We do need a larger endowment, there's no question about that. That's obviously one of our goals for the upcoming capital campaign. Right now, we have an excessive reliance on tuition dollars, and we need more flexibility. We hope to keep tuition as low as possible in the future. It limits us to a select few students who have the financial resources to afford that level of tuition, so we're very mindful of the impact of tuition costs.

A&S Cornerstone: Will the things you've described increase diversity within A&S?

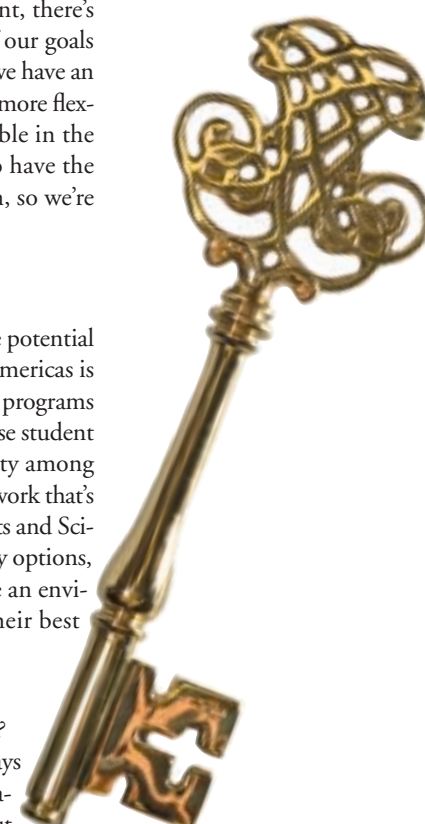
Dean McCarty: A number of initiatives have the potential to interest diverse groups—the Center for the Americas is at the forefront of such efforts—where academic programs will actually enhance our ability to attract a diverse student body as well as achieve some measure of diversity among our faculty. But there's no substitute for the hard work that's required to diversify all levels of the College of Arts and Science. The best students of color have many, many options, and we have to be competitive. We have to have an environment in which minority scholars can do their best work. That's an ongoing effort.

A&S Cornerstone: Are we speaking only about diversity of race or also diversity of economic status?

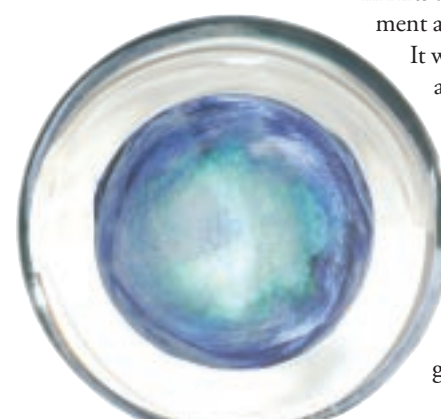
Dean McCarty: I think one of the most direct ways to energize a student body is to have first-generation college students. There's a special quality about them. We also have to look very seriously at making Vanderbilt attractive to international students—that's another dimension of diversity. But certainly within the United States, in the 21st century, race is a very salient aspect of diversity, and we won't sacrifice that. But we also have our eye on diverse opinions, diverse backgrounds, and we're doing it because it enhances what we do as an institution. Strengthening Vanderbilt through diversity is a win for the University.

A&S Cornerstone: What image best describes A&S?

Dean McCarty: I think of it as a tapestry with a very complex pattern, and the colors blend in a very interesting way. That's the way disciplines are moving now within A&S, where each color, each strand, is not viewed in isolation, but as part of a whole. When the individual strands are combined by an expert weaver, magic occurs. That's what we want to happen in A&S; we want magic to happen here by bringing people together in interesting ways and providing them with an environment where they can flourish. I think a tapestry captures A&S best.



Far left and above: These paperweights adorn the desk of the new A&S dean, Richard C. McCarty. Left: The mosaic on these pages is part of a larger work by artist Polly Cook, located on the back wall of Calhoun Hall. It depicts the many strands—people, scholarship, learning and events—that make up the tapestry of Vanderbilt University and its College of Arts and Science.



NEIL BRADY

Ann Colgin: Living the Grape Life

If you're thinking you'd like to buy a case of wine—say a cabernet with a near perfect rating, one that Brazilian pianist Sergio Mendes compares to “a sensuous lover”—from the cellars of your old college friend Ann Barry Colgin, forget it!

Colgin Cellars is known for wines that are both lyrical and impossible to find. While wine aficionados rhapsodize over the glories of her 1992 Herb Lamb Vineyard Cabernet Sauvignon and subsequent offerings, the demand has outstripped the cellar's small output of 400-500 cases a year. In fact, Colgin has reluctantly closed her 5000-name waiting list.

When Colgin, BS'80, was an A&S senior at Vanderbilt, she had no idea what she wanted to do with her life. “If anyone had told me I would end up in the wine industry, I wouldn't have believed it,” she says with a laugh. So, the fine arts major from Waco, Texas, decided to enroll in a Decorative Works of Art course that Sotheby's was offering in London. Following graduation, she and two of her Vanderbilt classmates packed up and moved to a flat off London's Sloane Square.

Soon she found herself sampling, and learning to appreciate, some of the better wines. When she returned to the United States six months later, Colgin accepted a position with Christie's in New York. For the next few years, while she worked as an arts and antiques dealer and earned her master's degree in arts administration at New York University, Colgin found many opportunities to learn more about wines.

It was in 1988 when Colgin (by now a private dealer) was invited to attend the celebrated Napa Valley Wine Auction in California and began learning about the winemaking process. In her heart, she never left.

More vacations found her back in Napa. And soon, she was planning a wine project of her own—as a sideline. She hired a noted winemaker and arranged to purchase grapes from the vineyard of Herb and Jennifer Lamb. By 1992, she had produced her first vintage, the Herb Lamb Vineyard Cabernet, which was uncorked in 1995 to rave reviews. After that, there was no turning back.

According to an article in American Express's online magazine, the cabernets from Colgin Cellars are now considered some of the best ever to come out of California.

“It has been a sensational few years,” says Colgin, who remains a bit amazed at all the fuss. (A Colgin wine allotment was even included in one couple's divorce settlement. It was awarded to the wife.)

The 40-something vintner has been offered everything from a stockpile of Colgin Cellars tee shirts to a Mercedes Sports Utility Vehicle in exchange for a case of her best vintage. As always with Colgin, the answer is a gracious, “Thank you, but no.”

In 1997, Sotheby's asked this Southerner to open their West Coast wine department. She continues as their consultant and is much in demand as a wine auctioneer.

These days, however, a lot of Colgin's time is divided between her Bel Air home and office and Tychson Hill, a vineyard she purchased in Napa Valley in 1996. She and her husband, Joe Wender, have rebuilt the historic old house and planted two and half acres with a small cabernet vineyard. The first vintage from her very own vineyard was stored in aging barrels last year and will be released in 2003.



Ann Barry Colgin

Judith DeMoss Campbell



Alexander, Gore hold bipartisan workshop

Former Tennessee Gov. Lamar Alexander, left, and former Vice President Al Gore, right, held a daylong bipartisan workshop at Vanderbilt in August for more than 100 young Democrats and Republicans from across the country. The conference focused on citizenship, political advocacy and grassroots civic involvement, with the goal of increasing young people's participation in the electoral process. At a reception following the sessions, Chancellor Gordon Gee, center, met with Alexander, a 1962 graduate of the College of Arts and Science, and Gore, who attended Vanderbilt Divinity School and Law School in the 1970s.

My most memorable professor

My most memorable professor at Vanderbilt (or any other university that I attended) is Daniel Patte. I took a course in New Testament with him and was not expecting anything exciting. What I found, though, was an engaging lecturer who made the New Testament come alive for me. He also taught me two very important concepts that I try to live by every day.

First, he taught me the art of respectful discourse. We disagreed on many things, but neither he nor I ever shouted or yelled. We always parted with the feeling that, although we may disagree, we still could remain friends and feel comfortable that we would always respect the other's opinion. This is something sorely lacking today in public discourse.

The second important concept he taught is respect of others despite our differences. Professor Patte had an end of semester party at his home. I'm Jewish and he was aware of that fact. He never asked if I kept kosher but made sure that he had kosher hot dogs for me at the picnic! It was a gesture that left me speechless and almost in tears. That level of respect of others I rarely even find in colleagues. The lessons that I learned from Professor Patte affect virtually every aspect of my life and always affect the way I try to interact with others.

Michael Raizen, A'75, DDS

Editor's Note: Professor Daniel Patte is professor of religious studies and professor of New Testament and early Christianity. He joined the Vanderbilt faculty in 1971.

If one of your professors made a lasting impression on you, let us know about it. We welcome your short articles (300 words maximum) about interesting faculty members. Send your nominations or articles by e-mail to Cornerstone@vanderbilt.edu, or by U.S. mail to A&S Cornerstone, VU Station B357703, 2301 Vanderbilt Place, Nashville, Tennessee 37235-7703.



Daniel Patte

A is for Ambassador

Wondering how far a liberal arts degree can take you? How about ambassador to Turkey, Latvia or China. Several A&S alumni have served in those capacities.

Currently, W. Robert Pearson, BA'65, is ambassador to Turkey, living in Ankara. A 25-year career officer with the Foreign Service, Pearson was most recently deputy chief of mission of the U.S. Embassy to France. He served twice at NATO and on the National Security Council under President Ronald Reagan. A native Tennessean, he majored in political science at Vanderbilt and attended law school at the University of Virginia.

Last summer, President George W. Bush nominated Brian E. Carlson, BA'69, to serve as ambassador to the Republic of Latvia. The U.S. Senate had not yet voted on Carlson's appointment when the *A&S Cornerstone* went to press, but was expected to confirm him soon. A history major, Carlson is a 31-year career officer of the Foreign Service. His wife, Marcia Nightingale Carlson, BSN'69, was the Founder's Medalist for the School of Nursing in 1969.

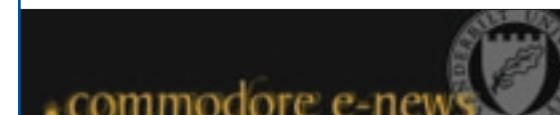
Both men said their liberal arts education has been important in their careers. Carlson recalled then-Chancellor Alexander Heard's remarks at Commencement 1969: “Vanderbilt has taught you *how to learn* to do anything you want to do.”



W. Robert Pearson

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Want to know more about what's happening at your alma mater? Keep up with favorite professors? Learn about new programs? Read what others are saying about Vanderbilt? You can do all that by signing up for the free, new, on-line, monthly alumni newsletter, *.commodore*. To subscribe, send an e-mail message to lew.harris@vanderbilt.edu. Please include your full name, degree and class year, and e-mail address, and ask to be added to the mailing list for *.commodore*.



“No university course could have taught me the skills and knowledge needed to live and work in distinct cultures like Venezuela, Yugoslavia, Bulgaria, Norway, England and Spain over the past 30 years,” Carlson said. “Nor could Vanderbilt have taught me about problems unimagined in the 1960s, like missile defense, biotechnology and the HIV-AIDS crisis. But, Chancellor Heard could not have been more right about what Vanderbilt does for its graduates—it teaches us *how to learn*.”

Pearson recalled attending Vanderbilt-in-France in 1964: “In Europe, all the literature, art, political science, economics, and language I had been studying at Vandy became immediately relevant. That liberal perspective is crucial to understanding the world in a critical period.

“I was in Washington on September 11 and heard the American flight hit the Pentagon,” he continued. “Now we are partners with many countries, including Turkey, to wipe out the scourge of terrorism and protect our democratic values. This struggle is not directed at a religion or nationality, and it is international. As many as 80 countries lost loved ones in these attacks, and we will need support from home and abroad as we fight against terrorism.”

Carlson echoed Pearson's comments about the fight against terrorism, adding: “We intend to win.”



Brian and Marcia Carlson

These A&S alumni also have served as U.S. ambassadors to other countries:

K. Terry Dornbush, BA'55, The Netherlands (1994-98)

Guilford Dudley Jr., BA'29, Denmark (1969-71)

Marshall F. McCallie, BA'67, Namibia (1993-96)

James R. Sasser, BA'58, JD'61, China (1996-99)

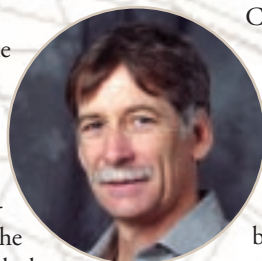
This information is believed to be accurate and complete. In the event it is not, please forward additional information to the editor via e-mail at Cornerstone@vanderbilt.edu.



Remember early morning classes in Benson Science Hall? This photo is one of several campus shots available in Vanderbilt Bookstore's new photo collection, “Images of Vanderbilt.” For the first time, the beautiful campus photos you've seen in various Vanderbilt publications are available to the public. You can view them at the bookstore or go online at <http://www.bookstore.vanderbilt.edu> and look under Campus Shop, then click on the Gifts section. Should you need your selected print professionally matted and framed, the bookstore can also be of assistance. For more information, call 615-322-2994.

New Math...(continued from page 1)

former department chair Constantine Tsinakis, now executive dean in the College of Arts and Science. Seven mathematicians and 10 researchers from other departments on campus are participating in the new organization, which is jointly supported by the College of Arts and Science and the Medical Center.



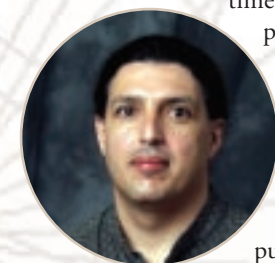
Michael Mihalik

Solving biomedical problems

Philip Crooke, professor of mathematics and education, is one of the key players in the biomath center. His research provides an example of how mathematics can contribute to solving medical problems. He and a specialist in pulmonary and critical care medicine at the University of Minnesota have created improved models of mechanical ventilators used in hospitals to assist patients with breathing problems. Their efforts have provided greater understanding of how these devices work, along with a computer simulation they hope will be used to train doctor-operators.

Mathematics Professor Glenn Webb and his colleagues are working on a more basic biological problem. They are developing mathematical models of the “vascularization phase” of tumor growth. During this phase, small, isolated tumor cells tap into the body’s blood supply, a process called angiogenesis. Without access to blood, tumors do not grow very large. Currently, medical researchers are pursuing a number of different approaches to cut off or control the flow of blood to tumor masses. Webb’s group is using its models to provide new insights into the basic processes involved in vascularization and to analyze the effectiveness of different treatments designed to prevent or control it.

Another major figure in the biomath initiative is Akram Aldroubi. The mathematics professor has worked for some time on the difficult mathematical problems involved in converting



Akram Aldroubi

data from diagnostic machines like MRI into accurate images that doctors can understand. He is part of a team with Benoit Dawant, associate professor of electrical engineering and computer science; Douglas P. Hardin, associate professor of mathematics; and two former students. They have developed more efficient ways to superimpose images taken with different instruments, such as MRI images and PET scans.

“The formation of this center is a testament to the courage of the members of the math department,” says Aldroubi. “A number of people working in different areas gave up resources to make this possible and its success will depend on their continuing support.”

Spheres of influence

Switching from the biological to the global, a distinguished mathematician, Edward Saff, moved from the University of South Florida to Vanderbilt this fall to head the new

Center for Constructive Approximation. He is joining forces with Larry Schumaker, Stevenson Professor of Mathematics, and Marian Neamtu, associate professor of mathematics, who have been working in the area of approximation theory for some time. Together, they give Vanderbilt exceptional strength in this specialty.

Schumaker founded a similar center at Texas A&M before coming to Vanderbilt in 1988. Saff has been running a similar institute in Florida, which is moving here with him. Because Saff is the long-time editor-in-chief of *Constructive Approximation*, the leading journal in the field, he is also bringing its editorial office with him to Vanderbilt.

“We are planning to work on problems that use advanced mathematical tools to solve high-tech problems in industry and government,” Saff says. “We hope to provide a lot of opportunities for students by better preparing them for positions in business and industry when they graduate.”

Keep it simple

Approximation theory is a field of mathematics that deals with replacing complicated functions with simpler ones, Schumaker explains. Most of the functions that describe the world that come from physics, chemistry and engineering are extremely complicated and cannot be computed explicitly. “So we have to be satisfied with approximations,” Schumaker says.

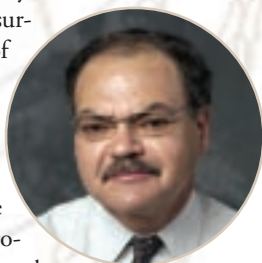
“The term constructive approximation means that we are interested in the kinds of problems where you can actually get on the computer and produce an answer of interest to scientists and engineers,” Schumaker says.

The specific area the trio will concentrate on is sphere-based mathematics. Many unsolved mathematical problems relating to spherical surfaces challenge researchers. One such problem is the nearly uniform spacing of points on the surface of a sphere. Saff’s studies of this problem have been used by Lockheed-Martin to test radar sensors in aircraft.

The mathematicians have submitted a proposal to the Defense Advance Research Project Agency to apply advanced mathematics tools to the problem of mapping the Earth’s gravitational field. This is important information for a number of reasons, including its impact on satellite navigation that is critical to both the military and civilian sectors. Because variations in the gravitational field affect the orbits of navigational satellites, the accuracy with which the field can be calculated has a direct bearing on the accuracy of satellite-based navigation.

“We have new mathematical tools that we think may allow us to do a better job of modeling this field than has been done in the past,” Schumaker says.

At both of the new centers, the mathematicians involved hope they are creating a solid institutional foundation for in-depth, multidisciplinary collaborations that will bring new mathematics to the twin realms of the life and earth sciences.



Edward Saff

David F. Salisbury

RESEARCH BRIEFS

Two genes make one head

It only takes two genes to make the difference between an ordinary embryo and one that develops without a head and trunk. At least, that is the case in the zebrafish, a small tropical fish commonly found in home aquariums. According to a team of geneticists from Vanderbilt writing in the journal *Genes & Development*, something similar is likely to hold true for mammals and humans. “One of these genes has an equivalent in human development; the other one we are not sure of,” says the paper’s senior author, Lilianna Solnica-Krezel, associate professor of biological sciences. Because zebrafish and humans share much of the same genetic material, discoveries about how a zebra fish egg develops into an adult can offer insights into the initial stages of human development.

Sugar and spice? Violence by girls is on the upswing in the United States, says Gary Jensen, professor of sociology, with more girls reporting that they’ve had physical fights with others. Although the gap between the number of boys and girls charged with violent crimes has narrowed, a “big gap” still remains. “Today girls are more willing to take risks and engage in dangerous recreational activities,” says Jensen, who has tracked crime trends over the past 25 years and was recently named a fellow of the American Society of Criminology. The increase in female violence has been mainly in crimes of “lesser violence,” such as minor assaults and getting into fights. For the most violent crime, murder, 15 times as many juvenile boys were arrested as girls, Jensen says, and that ratio has held steady since 1960.

For more information about Vanderbilt’s cutting-edge research, visit the University’s online research journal, *Exploration*, at <http://exploration.vanderbilt.edu>.

Faculty News

Retiring faculty members named emeriti

Twelve members of the A&S faculty received emeritus status at the annual Commencement ceremonies in May. Among them was Jimmie Franklin, professor of history emeritus.

Recognized as a major historian of the South and African Americans, Franklin has published many articles and four books. A native of Moscow, Miss., he joined the Vanderbilt faculty in 1986, after a 16-year career at Eastern Illinois University.

He has received numerous University awards, including the Jefferson Award last spring. Franklin noted the irony of an African American receiving an award named after a slaveholder.

“Jefferson was a slave owner, but also a great believer in education and faculty governance,” he noted. “To that extent I fulfill some of his ideals. He was democratic to a point, and his ideas on faculty governance pointed to that democratic control of the university.”

Other A&S faculty honored during Commencement included John Paul Barach, professor of physics, emeritus; Dan M. Church, professor of French, emeritus; John Crispin, professor of Spanish, emeritus; Thomas M. Harris, professor of chemistry, emeritus; Cliff J. Huang, professor of economics, emeritus; Robert J. Isherwood, professor of history, emeritus; Samuel T. McSeveney, professor of history, emeritus (please see letters, this page); John M. Post, professor of philosophy, emeritus; Walter L. Sullivan, professor of English, emeritus; Derek J. Waller, professor of political science, emeritus; and Dean P. Whittier, professor of biological sciences, emeritus.

Kudos

Gary Jensen, professor and former chair of the sociology department, has received the 2001 Thomas Jefferson Award. A criminologist who is frequently quoted by the national media, Jensen received the annual award in part for providing the first opportunity for service learning in the sociology department (please see Research Briefs, opposite page).

Joseph H. Hamilton, Landon C. Garland Distinguished Professor of Physics, received an honorary doctorate from the St. Petersburg State University, which was founded by Peter the Great in 1724 and is the oldest institution of higher learning in Russia. Hamilton is only the second American to receive this honor.

Francisco Ruiz-Ramón, Centennial Professor of Spanish, was awarded the “Premio Valle-Inclán” by Día Mundial del Teatro in March for his work on and for Spanish theater.

Virginia M. Scott, associate professor of French and chair of the Department of French and Italian, has been named associate provost for academic affairs. She succeeds Nicholas Zeppos, professor of law, who is now vice chancellor for institutional planning and advancement.

William P. Smith, professor of psychology and associate dean of the Graduate School, is serving as acting dean of the Graduate School. He succeeded Peter W. Reed, who retired in June.

Ronnie Steinberg, professor of sociology and director of the Women’s Studies program, received the 2001 Athena Award, named for the Greek goddess of wisdom. Given annually by representatives of 20 diverse women’s organizations in Nashville, the award recognizes leadership ability, contributions to the community, and commitment to women’s issues. Steinberg is nationally renowned for her research on wage discrimination and gender-neutral compensation packages. She was the first chair of the Tennessee Economic Council on Women and spearheaded the publication of the report on the *Status of Women in Tennessee*.

John A. Vasquez, professor of political science, has been elected president of the International Studies Association (ISA). ISA has a membership of 3,100 scholars from more than 60 countries. It publishes three journals, including the highly respected *International Studies Quarterly*.

A&S faculty honored for teaching excellence

Chancellor Gordon Gee has recognized the following five A&S faculty members for their outstanding contributions to the University:

Jeffrey D. Schall, professor of psychology and director of the Center for Integrative and Cognitive Neuroscience, received the Ellen Gregg Ingalls Award for Excellence in Classroom Teaching. Graduating seniors nominate the recipient of this award, with the Chancellor making the final selection.

John J. Siegfried, professor of economics, received the Alexander Heard Distinguished Service Professor Award for distinctive contributions to the understanding of problems of contemporary society. Gerald J. Stubbs, professor of biological sciences and professor of molecular biology, and Michael D. Bess, associate professor of history, were named to the Chairs of Teaching Excellence. The chairs recognize the extraordinary accomplishments of the recipients and promote teaching at Vanderbilt.



Jeffrey D. Schall



Gerald J. Stubbs



John J. Siegfried



Michael D. Bess



Virginia M. Scott



Ronnie Steinberg

To the Editor:

I was pleased to read in the latest issue of the *A&S Cornerstone* that Professor [Sam] McSeveney had received the 2000 Chancellors Cup. Professor McSeveney has always been a particularly kind and warm professor, and it is entirely appropriate that he was honored.

I worked on my honors thesis in history with Professor McSeveney my junior and senior years (1979-80). I often think back on the many hours we spent together and the many things I learned from him. Although I learned many practical skills and many facts about history, I think more often about what I learned simply from getting to be near him and spend time with him. His caring and thoughtfulness for his students was remarkable, and we were all better for having had the opportunity to spend time with him.

I am glad to see that both he and Vanderbilt are doing so well.

Sincerely yours,
Robert G. McCampbell
BA’80, JD

More than 2,300 alumni and guests celebrated a successful Reunion 2001, the weekend of June 1-2. Reuniting alumni included 10 undergraduate classes ending in '1' and '6,' plus the Quinqs [alumni who graduated 50 years or more ago].

In honor of the occasion, Fred and Claudia Lummis, general chairs of Reunion 2001 and both BA'76, announced to Chancellor Gee a reunion gift to Vanderbilt of \$14,165,774. The total included gifts and five-year pledges from 2,340 alumni to benefit all parts of the University. It exceeded the reunion fund-raising goal by over \$1 million, according to Nancy Dimond, director of undergraduate reunions. More than 1,700 Quinqs contributed an additional \$8.76 million.

Alumni came from as far away as Europe, Australia, and Thailand for Reunion 2001. Nashvilian Combs Fort, a 1933 A&S graduate, was the most senior alumnus in attendance. Steve Riven, a Nashville attorney and a 1960 A&S graduate, was installed as the new president of the Vanderbilt Alumni Association.

This year the University broke its long-standing tradition of holding the undergraduate reunion on Memorial Day Weekend. Next year, the date will change again, when undergraduate alumni from classes ending in '2' and '7' join graduates of the University's professional schools to celebrate reunion during Homecoming Weekend in October 2002.

PHOTOS BY PEYTON HOGE



A) More than 2,300 alumni and guests danced the night away under a golden tent on Alumni Lawn. B) Beth Callaway Alexander, BA'76, class chair, and Tom Steele, BS'76, fund-raising chair for the Class of '76 C) Tresia Thompson, BA'91, left, celebrated with her classmates, Patrick Fitch, BS'91, Reunion class chair, and Barbara Schmidt, BA'91. D) Made-

line Reynolds Adams, A'56, of Atlanta, and Debby Luton Cate, BA'56, of Houston, Texas, served as co-chairs for the Class of '56. E) Former residents of McTyeire International House also celebrated its 20th anniversary during Reunion 2001. F) Enjoying reunion were, left to right, 1986 classmates and guests: Philip Duncan; Nancy Christensen Schultz; her husband, Walter Schultz; and Christina Henly Duncan.

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