Journeys and Discoveries
By Dean Richard B. Schwartz

On Sept. 14 many of us attended the second Mizzou on Broadway performance at the York Theatre. While in New York I was also able to see the recent IMAX film of the Lewis and Clark expedition, the subject of our Corps of Discovery: A Musical Journey, which will premiere May 2 to 4, 2003. The story of the Corps, its journey and its captains is compelling for a number of reasons, all of which will be highlighted and reinforced in the course of the bicentennial commemorations. I hope you will plan to follow our work dealing with this journey as we present it in whole or in part (beginning at Monticello on Jan. 17, 2003).

Psychologists are increasingly interested in the concept of the individual’s personal journey and in the elements that constitute it. Comparisons have been drawn with fictional narratives and the shape taken by such narratives. Fictional narratives, including comic narratives, are usually built upon conflict, and it is interesting to note that a number of psychologists have argued that the most important elements in our own lives turn out to be those events that have involved personal challenge.

Many years ago at a scholarly conference I was sitting with the principal speaker, one of the most distinguished scholars in the world — the past president of our society, a man who had received nearly every form of recognition available within our profession. He was then in his 70s. After he delivered his address he sat down, turned to me and whispered, “Thank God that’s over.” I realized then that it never “gets easy,” not for those who aspire to always do their best and who build their lives on such aspirations.

While each of us remembers his or her college experience with fondness, we also remember it with pride as we reflect on the challenges we faced and surmounted, and the personal growth and development that resulted from our actions. This issue of Mosaics focuses upon the personal journeys of our students, alumni and faculty, and the discoveries that resulted from those journeys.

As the existentialist philosophers used to say, we find out who we are as we move through life, making choices. Such decisions and the efforts that they entail advance the plot of fictional narratives just as they advance the lives of real people. We become who we are by embracing the journeys before us and electing the path that brings out the best in us. I hope you will enjoy the stories that follow in these pages and that you will share in the pride of accomplishment that characterizes them. The members of the extended family that constitutes the College never cease to amaze and inspire us, and what follows is only a small portion of the events in a small portion of that family’s individual lives. And they are all true.
**PEACEFUL PICTURE**

M ORE THAN 5.5 MILLION PEOPLE in Japan saw in print the beauty of MU’s Jesse Hall and the Columns, thanks to the Peace Studies Program. A photo of the Quadrangle was featured in January 2002 on the front page of the daily Tokyo newspaper *Seikyo Shimbum.*

The photo accompanied a story about an award made by the Friends of Peace Studies to Daisaku Ikeda, president of an international peace organization. The group named Ikeda a Distinguished Honorary Member of its board of directors.

*Seikyo Shimbum* began in 1951 as a twice weekly newspaper and maintains a mission of spreading uplifting human-interest stories, based on a humanistic Buddhist philosophy.

The text about the award praises Ikeda’s work, whose philosophy on peace is part of the undergraduate course and the Honors College course. Bill Wickersham, president of the Peace Studies board of directors, acknowledges that academic programs in the United States have been affected by Ikeda’s “dedicated and sustained efforts for world peace.”

In addition to recognizing major international peacemakers, the Friends of Peace Studies group supports MU’s Peace Studies Program through financial contributions and by attracting noted speakers to campus.

**IN THE TRENCHES**

T WO SUMMERS AGO AT A DIG IN Athienou, Cyprus, Erin Walcek’s group of aspiring archaeologists — her “trench” in archaeology terminology — discovered what she considers the most exciting find of her life. On the last hour of digging, just before the final day, Walcek’s excavators found a cache of six limestone statues.

The sight was beautiful to anyone who has experienced a dig. Statues were lying in various positions among all sorts of pots and a few terra cottas. As the team kept digging, another leg or arm of yet another statue would appear.

“Once you uncover a nice find like that, you can’t leave it exposed to the elements and possible looters,” she says. So the dig and the excitement continued into the night.

After digging in Cyprus for six summers, Walcek embarked on a new adventure in fall 2002 at the American School of Classical Studies in Athens, where she is the recipient of the coveted Brunilde Ridgway Fellowship. The location and fellowship give her access to a tour of every archaeological site in Greece, including excavations at Corinth.

Even as a high school student, Walcek had an interest in ancient cultures and the study of Latin. That, plus her MU course work toward a doctoral degree, prepared her for the grueling six-hour test in Greek translation, history, art and archaeology, which helped win the competitive fellowship. She later learned she also won a Fulbright.

“As a career, the best aspect of archaeology is that it offers you a chance to travel,” Walcek says. The traveling scholar is using her ancient Greek and modern Greek while working on her spoken Greek.

When she returns to MU, she will dig into another project: the research for and writing of her dissertation that will result in a PhD in art history and archaeology.
COOPER ON CAPITOL HILL

Even in winter, the thought of summer school is never far from Harris Cooper’s thoughts. Considered a national expert on issues of summer school, Cooper answered a call in June to take questions at a Senate hearing on the importance of summer school to student achievement.

Sens. Christopher Dodd, Hillary Rodham Clinton and Jeff Sessions were seeking hard evidence that summer school works, and the professor of psychological sciences who has analyzed 93 summer programs was ready for their questions.

In his research, Cooper studied remedial, enrichment and acceleration programs and found they have roughly the same impact: they all work. The average achievement test scores of remedial summer school students show a jump of about 5 percent to 10 percent over the scores of students who don’t go to summer school.

The senators wanted to know which students benefit from summer school and if lower-income students are among those whose achievement level rises. Cooper’s studies indicate that all groups of students benefit from summer programs.

“Summer school programs are effective for lower-income students,” Cooper says, “but the programs have an even greater impact on middle-class kids.” He can identify two possible reasons for that statistic: programs in middle-class districts may be better funded; and middle-class kids going for remedial instruction often have specific deficits to overcome, while poorer kids come with clusters of difficulties.

What is important for the programs to be effective are small classes that allow teachers to use innovative techniques, as well as something pretty basic — air conditioning.

“Most kids still don’t enjoy going to summer school,” Cooper says, “but a certain amount of the stigma has disappeared, so more kids are going.”

Four months after the Senate hearing, Cooper learned that he and colleague Jeff Valentine had received $1.5 million from the Department of Education to operate “quality control” for the What Work’s Clearinghouse. Cooper and Valentine will develop standards for assessing the quality of education research and will judge how the standards are applied in reports that summarize evidence on the value of education policies and practices.

The clearinghouse is a central part of a bipartisan effort in Washington to ensure that educational practices are based on sound scientific evidence.

“These are exciting times for education researchers,” Cooper says. “It’s an honor to be among those working for positive change.”

DUELING TRUMPET HONORS

A MU trumpet student and his teacher are the first student/professor combination ever to win a national Yamaha Young Performing Artists award. It’s hard to say who was more excited — junior Patrick McGinthy or his mentor, Assistant Professor Stephen Bottom — over McGinthy’s May 2002 win. McGinthy was one of only eight winners nationally. He was selected in the trumpet division. Bottom won the same award in 1994.

“The Yamaha competition is one of the biggest competitions of its kind for this age group (16-21),” Bottom says. “I feel like a dad whose kid has excelled in the same event or sport.”

The award gives McGinthy first preference at becoming a professional Yamaha Performing Artist and Clinician. And performance is what he hopes to do after graduation, eventually in the St. Louis
Stephen Bottom, left, won the national trumpet performance award in 1994 that his student Patrick McGinthy captured in 2002.

area. “Playing for people is what I do best,” he says.

The honor also carries some endorsement perks, not quite of the scale that Michael Jordan receives of course, but good for a music student. McGinthy will receive promotional assistance and exposure from Yamaha.

For the competition, entrants were required to submit a taped performance and a résumé. McGinthy won with his performance of the first movement of “Sonata for Trumpet and Piano” by Paul Hindemith, a work used to demonstrate ability and tone quality. Adrienne Price of Columbia played the piano.

Although Bottom has his own share of national and international competition victories, this is the first time one of his students has won a national honor.

It was also Bottom’s first year teaching at MU, and he sees a special quality in this student, who has the talent and the work ethic required to win competitions.

“Patrick practices more than any student I’ve ever had in a teaching career that spans three different universities.”

The compliments are mutual because McGinthy says the duo “click” as teacher and student. “He’s one of the best teachers I’ve ever had,” McGinthy says.

“Everything he tells me to do seems to work.”

The two have played duets but have never performed together.

THE SUM OF GOOD THINGS

With more than 550 faculty members in the College, Mosaics magazine usually doesn’t feature campus awards, focusing instead on national and international recognition of A&S faculty and students.

But an unusual occurrence in the mathematics department demands notice. For seven consecutive years, faculty members in math have acquired a William T. Kemper Fellowship for Excellence in Teaching. That’s a campus record. Only 10 of the fellowships are presented each year.


The awards are presented with a flourish as Chancellor Richard Wallace and a contingent of media fling open the door during class. Most professors are left speechless while their students applaud and news of the $10,000 stipend sinks in. It’s a golden moment.

Often the most compelling reasons for selecting the honorees come from the students themselves. A former student of
Grafakos—who now teaches mathematics at another university—wrote that he makes a difference in the life of students who struggle.

Saab, the only woman in the group of mathematics Kemper Fellows, was nominated for, among other strengths, her dedicated work to increase the number of women in mathematics and the sciences.

Included with the nomination for Latushkin was another telling student comment about quality teaching: “You realize that you just took a magic ride with a master…, and that you had an opportunity of a lifetime.”

Papick is credited with teaching an unusual course with a mysterious name, The Terrible Beauty of Mathematics. The class is a unique exploration of mathematical ideas with highly motivated first-year students. Imagine the creativity, enthusiasm and preparation needed for that.

For years Asmar led a mathematics Summer Enrichment Camp for junior- and senior-high students that consistently drew high ratings. A parent wrote that Asmar’s program took “two young women who had real math reluctance and turned them into serious mathematics students.”

No one should start a day at 3 a.m., which is when Casazza frequently heads to his office. He lectures nationally and internationally on the theme that mathematics can and should be interesting, and students say his classroom demonstrations help them understand calculus.

Beem, collaborating with Papick and colleagues from the College of Education, works on teacher-training projects that provide comprehensive preparation for teachers of middle school mathematics. That effort has dramatically influenced mathematics curricula statewide.

Department Chair Mark Ashbaugh may have the answer for the record accumulation of Kemper Fellows. “The department values good teaching,” he says.

**COME BACK TO SWALLOW HALL**

With new top hats in place, Swallow Hall looks pretty well-dressed both outside and inside. The historic building on Francis Quadrangle wears two newly constructed “witches hat” towers — replacements for the original towers that were destroyed by a tornado in the 1930s.

Those tower tops and a recently completed exterior restoration haven’t gone unnoticed. The city of Columbia cited Swallow Hall as one of 10 “most notable historic properties” of 2002. The award commends examples of historic preservation in the community. Swallow Hall was one of the first buildings constructed on the Quadrangle after the 1892 fire that consumed Academic Hall, leaving only the Columns.

Of course, historic preservation is not a new activity inside the restored building. Swallow Hall houses the Department of Anthropology and the Museum of Anthropology, noted for the preservation and display of anthropological treasures.

As early as 1885, MU began accumulating ethnographic materials. The Museum of Anthropology is the only such museum in the state and one of the few in the Midwest.

In addition to enhancing the research and teaching needs of this University and serving as the state’s archaeological curation facility, the museum is one interesting...
Currently missing from the museum displays is an exceptional example of a hawk mummy. The piece is on loan to another fine facility on the Quadrangle, the Museum of Art and Archaeology. But that’s another story.

**RHYME AND REASON FOR KIDS**

Like her own book characters, Dorothy Anne Daley, AB ’71 French, faced the fears of childhood and the trying tribulations of growing up. Now she writes about them as Dandi Mackall, children’s author from West Salem, Ohio.

Her books have sold 3 million copies for readers from preschoolers to young adults.

Mackall knows her prospective readers. She targets their interests by age with fiction and nonfiction books of rhyme, mystery and humor. *Wild Thing*, a teen novel out in March 2002 — and one of Mackall’s favorite books — is about a girl who’s great with horses but not at ease with humans. “I suppose there’s a lot of me in my heroine,” she says.

*No, No, Noah* for preschoolers is part of a new series aimed at helping children overcome common fears. The book features a monkey who doesn’t want to board the ark and who tickles Mackall’s own funny bone with monkey observations such as: “Is this whole trip necessary?”

An 11-book series, *Puzzle Club Mysteries*, was animated and aired nationally on television. Her *Kids Are Still Saying the Darndest Things*, with an introduction by Art Linkletter, led to a series with similar titles: *About Moms, ... About Dads*, and about many other things.

Mackall teaches book writing for the Institute of Children’s Literature and conducts writing workshops nationally. She has written articles for numerous magazines, including *Family Circle, Parenting* and *Today’s Woman*. She writes from her rural home, where she lives with her husband, three children, one horse, a dog, a cat and two newts.

**A NEW YORK NICHE**

Two doctoral students in theatre know firsthand the excitement that emerging playwrights feel when their original work is performed on stage in New York.

Plays written by Kate Berneking Kogut and David White made their New York debuts through the Mizzou on Broadway showcase at the York Theatre Sept. 14. The students are part of MU’s Writing for Performance program, which nurtures developing playwrights.

Kogut’s short plays, *Truckers* and *Parents*, reflect her observation that people don’t easily fit into niches, such as the plumber with a doctoral degree in philosophy or the veterinarian who studies musical theatre in college.

Kogut says *Truckers* was inspired by an article in an herbal gardening magazine that recounted truck drivers discussing the use of herbs in recipes and swapping thyme and basil cuttings. The play won a national new play competition sponsored by the Association for Theatre in Higher Education.

Two new tower caps and exterior renovations collect a historic preservation award for Swallow Hall. The building houses the Department of Anthropology and the Museum of Anthropology.

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Education and was first alternate in the 2000 Kennedy Center Theatre Festival.

White’s play, Trash, is an Ozark folk tale of friendship and understanding, and the first in his series of plays set in the fictitious town of Last Chance, Mo. In that locale along the Missouri and Arkansas state line, folk-artist Winter uses junkyard trash to create works of art.

White admits that he spent many formative years “running amok in the hills of southwest Missouri,” which had a significant impact on him as inspiration for writing. “The Ozarks and its inhabitants continue to call me back,” White says.

Heather Carver, assistant professor in the department’s Writing for Performance program, says Mizzou on Broadway attracts students to the department and encourages their creativity. “Our main goal is to give students as much opportunity as possible,” she says.

For MU theatre students, that means a taste of the Big Apple.

**SELFISH GIANT EARNS HUGE HONOR**

It was a giant step in children’s theatre for a local writer and artistic director when their original musical won a national award.

Russ Brown, a former staff member of the theatre department, and Jill Womack, AB ’84 theatre, create and produce original plays for children. The love of working with young actors rose to a new level when Brown’s original script and score for The Selfish Giant won the 2002 New Visions, New Voices Festival sponsored by the Kennedy Center.

In May, Brown and Womack traveled to the Kennedy Center to produce a staged reading of the musical with a company of professional actors.

The work was one of six new children’s plays to be performed at the Kennedy Center in what many consider the Tony Awards for children’s theatre. The Selfish Giant was selected from hundreds of plays submitted and was the only musical chosen.

Brown adapted The Selfish Giant for the stage from an original Oscar Wilde fairy tale by the same name. He wrote the dialogue, and the music and lyrics for 12 songs in just two weeks. The story centers on a giant who attempts to keep children from playing in his garden and thus brings on years of winter. Eventually, the children help spring reappear in the garden.

The accomplishment is amazing considering that Brown never had music lessons or acting lessons and can’t read music.

Womack, AB ’84, describes Brown’s music for Giant as “lush.” She tested the new work through her children’s theatre company, Theatre Reaching Young People and Schools. Columbia schoolchildren and some MU students formed the cast for the one-hour production, which made its debut in December 2001.

“Columbia is a thriving community for the arts,” Womack says, “and the kids in this town are insanely talented. The trip to the Kennedy Center really put TRYPS in the national spotlight.” Her request for funding from the Missouri Arts Council resulted in the means to launch such entertainment. TRYPS ranks No. 1 for funding among all theatre applicants statewide.

For four years, Brown coordinated promotion of MU’s theatre productions. That changed in August when he began work on a master’s degree in stage combat at Western Illinois University.

The partnership continues. Writer and director are working long distance on a new adaptation based on The Prince and the Pauper.
HE LOVED LEARNING

In a break from tradition, the procession of graduates for the 2002 commencement in the College of Arts and Science was led — not by a graduating student — but by the parents of student Charles Linnenbringer. It was a proud and moving event for the Wildwood, Mo., couple as they led the traditional march and later accepted a posthumous diploma in the name of their son.

Linnenbringer was the type of student who keeps professors motivated. When he graduated from high school, he already knew he wanted to earn a doctoral degree. He just hadn’t decided on the area of study.

Starting as an English major, Linnenbringer discovered he loved learning and enjoyed the diversity of subjects. He declared majors in three areas and continued to expand his interests through other subjects.

In five years, Linnenbringer completed most of the course work to earn a bachelor’s degree in journalism and an A&S bachelor’s degree with four majors — psychology, English, classical studies and history. One can only imagine the study hours involved in that work load.

Then Linnenbringer’s world became even more complicated. In July 2000, illness forced him to return to his St. Louis area home for treatment, where doctors discovered he had leukemia.

After a bone marrow transplant and two near-fatal cases of graft vs. host disease, Linnenbringer re-enrolled for a final semester to finish his remaining course work in psychology and journalism.

“He was driven,” his father, Jerry Linnenbringer, says. “He wanted to get his degrees.”

Just two weeks after returning to campus, Linnenbringer experienced an attack of graft vs. host disease and died March 12 after five weeks of hospitalization.

A&S Associate Dean Ted Tarkow and Rob Logan, Tarkow’s counterpart in journalism, set in motion a plan to honor this remarkable student. Both deans checked with faculty members and the registrar’s office to waive the remaining credit hours.

The faculty and administrators agreed that awarding Linnenbringer’s degrees was an appropriate celebration of an extraordinary academic achievement.

So on that beautiful Sunday afternoon on May 19, Mary and Jerry Linnenbringer walked in Charles’ place, accepted his diplomas and watched as the Hearnes Center graduation crowd rose in a standing ovation to their son.

As a postscript to the story, one of Charles’ MU friends, alumna Sara Kanevsky, Arts ’01, of St. Louis, is leading fund-raising activities in his name for bone marrow transplantations and research. Visit her Web site at www.bike4bonemarrow.org.

WHAT THE FROGMAN HEARS

In the sounds of a summer night, the big talkers out there are insects and frogs who croak, chirp, hum and otherwise vocalize.

It may be a jumble of sounds to the untrained, but Curators’ Professor of Biological Sciences Carl Gerhardt listens with ears attuned to messages in acoustic communication.

Gerhardt hears and studies encoded messages. Those take the form of advertisements for romance, statements of aggression, declarations of territory, calls to back off and distress calls that he describes as “nearly screams.”

The genus Gerhardt studies is *Hyla*, North American tree frogs, which are born with the ability to recognize sound patterns.

Geberhardt’s research on sound-pattern recognition is important for the study of human health and speech, and is supported by a $1.1 million grant from the National Institutes of Health.

He has found similarities in frog communication and human communication.

“At some level human babies are like frogs,” Gerhardt says. “Infants without linguistic experience can tell basic speech sounds apart, and frogs can discriminate their own sounds without experience. Japanese babies, for example, can hear the “r” and “l” sound distinction, but because this is not reinforced when they hear speech, the ability is lost as they grow.”

His new book, *Acoustic Communication in Insects and Anurans*, collected praise from reviewers who call it a “tour de force” spanning cellular neuro-
physiology to evolution. Gerhardt wrote the book with Franz Huber of Seewisen, Germany, and the two authors are considered the foremost authorities in insect and animal communication.

In another coup, a paper by Gerhardt and one of his doctoral students, Mark Bee, won the Frank A. Beach Comparative Psychology Award for the best paper published in *The Journal of Comparative Psychology* in 2001. Studying learning in bullfrogs, they showed that the frogs were able to identify their neighbors’ calls after repeated hearing.

“Hard to believe that a frog paper would win the hearts of comparative psychologists,” Gerhardt says of the achievement. “This is an honor because Frank Beach is a giant in this field who influenced many biologists as well as comparative physiologists.”

So much for those lazy, summer nights when nothing much seems to be happening in your back yard beyond a piercing electric zing.

**BUTTER WITH THAT?**

A new degree option in film studies is getting a two-thumbs-up from students. The departments of Romance languages and literatures, English, and German and Russian studies have combined forces to offer a minor in film studies.

Students registering for film classes, however, shouldn’t anticipate movie entertainment. This popular field of study is academic, leaning more toward *La Dolce Vita* than *Roman Holiday*.

In Professor Glenn Pierce’s Italian film classes, film viewing is accompanied by assignments on developing theses that must be defended.

“This is not the Gene Shallot variety of film criticism,” Pierce says. “We do analytical discussion of film. The students consider sound, imagery and mise en scène (how the scene is constructed).”

In the same manner that literature reflects society, film study is another way of exploring culture, history and politics, and of enhancing literary appreciation. Fellini, for example, is considered an outstanding literary figure.

“The movies come from a wide range of national cinemas and include everything from Hollywood blockbusters to low-budget indies,” says Roger Cook, chair of the Film Studies Program. They also represent all periods of the history of film, from the silent era up to recent releases.

After completing the prerequisite in film analysis, students may select course work in American film or cinema trends worldwide. Elective courses explore film statements on crime, gender, literature and politics as expressed through movies from numerous countries.

English Professor Nancy West teaches American crime films of the 1930s and 1940s, which she considers especially appropriate to teach in an English department.

“Many of the crime films are based on hardboiled literature or on tabloid stories, and the screen writers were often the writers of the original stories or worked on the newspapers that originally published the stories,” West says.

“So the genre raises fascinating questions about the dissemination of stories, such as what happens when a story moves from tabloid to film. It’s also a genre that frequently demonstrates a fascination with the pleasures of language.”

For language students, there’s an added bonus to the study of cinema. While analyzing films from a linguistic point of view, they also improve their ear training through film dialogue such as *I conti non tornavano.*

*Translation from *La Dolce Vita*:

“There was a mistake in the bill.” This is the equivalent of “Nobody’s perfect” from *Some Like it Hot*, and it has the same effect. It’s the last line. The audience always cracks up and sits there laughing as the lights come up.
Voila! American Art

Associate Professor Adrienne Hoard may not speak French fluently, but apparently her paintings do.

Hoard’s abstract art was selected for a three-week exhibit in April as the opening exposition of the new Maison des États-Unis at the University of Caen in Basse-Normandie.

The university established the cultural center to introduce the French to the work of American artists through annual exhibits. Speakers at the opening ceremonies called the center a “window on the United States in our region.”

Certainly, the French know how to celebrate such an event. Hoard’s one-person art show of 16 pieces was feted with a champagne reception in the Palace of William the Conqueror, where she was surrounded by dignitaries.

“This opportunity offers me an opening into the European community,” Hoard says. She has exhibited previously in Italy, South Korea and South Africa.

Hoard was pleased to note that fellow painter and friend Manuel Hughes, who holds an MU master’s degree from 1965, was on hand for the opening festivities. Hughes and family took the bullet train from Paris to Caen to attend.

Hoard and Hughes met in New York City in 1974 when Hoard received a grant from the New York State Council on the Arts and Hughes was working in New York. “We became good friends and communicated frequently as home folks from Missouri,” Hoard says.

Following the opening exhibition, large posters of Hoard’s work were auctioned to faculty and staff.

At the opening of her three-week exhibit of art in France, Adrienne Hoard was delighted to encounter longtime friend and MU alumnus Manuel Hughes, a painter living in Paris. Hoard’s abstract work, at left, included 16 pieces.
Before he committed himself to art and architectural history, Keith Eggener wanted to write novels. A summer internship spent researching and working on a 19th century house turned him on to a career in architectural history.

Now an assistant professor of art and architecture, much of Eggener’s appetite for acquiring knowledge through research revolves around objects as material culture. “Understanding the strangeness of the past can help us keep a perspective on ourselves by showing that much of what we regard as natural is culturally constructed,” he says. The artifacts also serve as a reminder that “We too will seem odd to people just a few generations down the line.”

Architecture not only represents society and history to Eggener, it helps shape them. To explore his view, he began researching public space in American cities as well as architecture and death.

After living in Las Vegas, Eggener noticed how public space increasingly turned into semipublic space, such as hotel lobbies, restaurants, theme parks and shopping malls. He then looked at how public space in many cities has diminished. “Without public space, a country loses its foundation of democracy,” Eggener says.

His recent research examines architecture and death. Eggener is trying to cover every perspective of death, ranging from cemeteries and haunted houses to concentration camps and what he calls “the memorialization of architecture.”

In other research, Eggener has studied architect Luis Barragan, considered the most influential Mexican architect of the 20th century.

Eggener wanted to tell the stories behind the Gardens of El Pedregal, the 1,250-acre residential subdivision Barragan built in 1945 south of Mexico City. He traveled to Mexico City and Guadalajara, analyzed site remains and rummaged through archives in the United States, Mexico and Switzerland.

The work paid off when Luis Barragan’s Gardens of El Pedregal was published and garnered excellent reviews. Like those novels Eggener had hoped to write, it tells a good story.
record of achievement through his work as a public official in Richmond.

**Great Scott Scholarship**

In a room filled with movie posters of George C. Scott’s work, senior Charles Willis heard the announcement Oct. 8 that he was the first recipient of the George C. Scott Memorial Scholarship in the theatre department.

A surprised Willis walked to the front of the room, where he accepted a framed certificate and a handshake from another actor — Scott’s son, Campbell Scott.

Scott, who is also a director and producer, visited campus as an artist in residence in the theatre department and attended a campus showing of his film *Hamlet*. He made the scholarship presentation on behalf of the Episcopal Actors’ Guild of New York, which led the fundraising efforts for the scholarship endowment. Mart Hulswit, executive director of the guild, says he expects the number of scholarships to increase as donations to the Scott memorial continue to arrive.

George C. Scott, who died in 1999, had his first role on the MU stage in 1950 and made his film debut in 1959 in *The Hanging Tree*. He won an Oscar for his portrayal of Gen. George S. Patton in the 1970 classic *Patton*. Among his most memorable television roles was his 1984 interpretation of Scrooge in *A Christmas Carol*.

The announcement of Willis’ award received a burst of applause from the theatre students assembled. A National Merit Scholar from Racine, Wis., Willis won an American College Theater Festival Meritorious Achievement Award in January 2002 for lighting design for *I Dream of Flying*. He has starred in numerous MU plays, including *Truckers*, which played at the York Theatre in New York as part of the 2002 Mizzou on Broadway showcase.

Willis plans to pursue a master’s degree in fine arts and a professional career in theatre.

The Scott Scholarship is the second theatre scholarship that carries a recognized box-office name. Tom Berenger, AB ’71 theatre, established a scholarship that has been awarded for several years.

**Message from Qatar**

During a three-month tour of duty in Afghanistan, alumnus Col. Tom Hulsey flew into Bagram, Afghanistan, on a night resupply mission in the combat zone. He was holding a Mizzou flag and calls the action “a statement” from the “Al Udeid, Qatar, Chapter” of the MU Alumni Association.

Hulsey is vice commander of the 379 Air Expeditionary Wing in Qatar and was part of the most active air refueling wing in the Southwest Asia theater. The unit flew airplanes over Afghanistan in support of Operation Enduring Freedom combat missions.

While living in tents 7,000 miles from home and working 14- to 16-hour days, Hulsey says he never heard a complaint from the 1,800 airmen and officers who form the 379th, even during June and July, when temperatures surpassed 120 degrees in the shade.

A 1974 graduate, Hulsey spent four years in MU’s Air Force ROTC program and was commissioned through Detachment 440. The flag Hulsey carried over Afghanistan belongs to Lt. Col. Mark Bentele, medical group commander at Al Udeid. Bentele attended MU as an undergraduate for three years, then took early admission to dental school at the University of Missouri-Kansas City.

Aerospace Studies Chair Col. A.J. Briding invited Hulsey to Mizzou’s Homecoming Oct. 26 and was delighted when the C-130 pilot agreed to attend activities sponsored by the program.
Universal Interest in a Galaxy Far Away

The planets were aligned. The telescopes were positioned. Jupiter would pass close to the light coming from a quasar. With those elements in place, an international team of astronomers led by physics Associate Professor Sergei Kopeikin was ready for a groundbreaking experiment.

Such a planetary alignment in distant galaxies that was to occur on Sept. 8, 2002, would not happen again for another decade.

The team had a chance to test Albert Einstein’s theory that the speed of gravity is equal to the speed of light at 186,000 miles per second, something that has never been proven. The speed of gravity has gone unmeasured since Einstein devised his famous equations in 1916 because scientists previously didn’t have the proper technology.

About two years ago, Kopeikin presented his idea to use the alignment of Jupiter and a collection of quasars to measure the speed of gravity, and his idea quickly caught on.

Kopeikin and colleagues used a network of radio telescopes around the world to obtain a “stereo” collection of gravity field distortion caused by the propagation of gravity effect. They used equipment located in New Mexico, the Virgin Islands, Hawaii and Germany to watch as light from Jupiter tugs at light streaming past from a distant quasar.

Media across the country and around the world carried news of the unique project. Kopeikin was surprised at the number of reporters worldwide who contacted him.

In January, Kopeikin reported the results: “We have determined that gravity’s propagation speed is equal to the speed of light within an accuracy of 20 percent.” The scientists found that Einstein was on target but had neglected to include a slight bending of radio waves in his calculations.

In the future, scientists can use this research for technological improvements in such areas as telecommunications and space navigation.
A&S Awards 2001

Alumni of the Year Award
• Gary A. Tatlow, AB ’62 psychology, JD ’64, and Marilyn Silvey Tatlow, AB ’62 French, advocates of the arts and benefactors of Mizzou on Broadway. Their support helped create a unique literary-theatre showcase that provides MU student playwrights and actors an affiliation with the York Theatre in New York City.

Distinguished Alumni
• Helgi Gunnlaugsson, MA ’85, PhD ’92 sociology, nationally known in his native Iceland as a scientist, educator and expert in social issues. He is active in the policy and legislative process in Iceland, where he serves on the Scandinavian Council of Criminology.
• Christopher A. Jensen, BJ ’89, MA ’91 communication, international model based in New York City with the Ford Agency. With the assistance of 18 agents in 11 countries, he has worked for Polo Ralph Lauren, Versace, Nieman Marcus, Saks Fifth Avenue, Bloomingdales, Macy’s and Eddie Bauer.
• Kathryn N. McFarland, MA ’71, PhD ’76 chemistry, divisional vice president of Synthroid for Abbott Laboratories. She is one of the few women executives in the pharmaceutical-chemical industry and is known as a mentor who paves the way for women in science and management.
• Sandra W. Rackley, BS Ed ’59, MA ’60 speech and drama, dean of undergraduate studies at Florida State University. An educator for more than 30 years, she is a recognized expert on inter-racial-intercultural communication.
• Joseph W. Westphal, PhD ’80 political science, chancellor of the University of Maine System, former acting secretary of the Army and former assistant secretary of the Army, where he directed the U.S. Army Corps of Engineers. He previously worked as senior policy adviser for water at the U.S. Environmental Protection Agency and was a senior member of the Washington law firm Patton Boggs, LLP.
• Gary Williams, AB ’73 biological sciences, MD ’78, MA ’79 medical physiology, practices medicine in the rural town of Hawkinsville, Ga., where he provides cardiology and internal medicine services to that underserved area of 4,154 residents. He previously worked in clinical pharmacology with the Squibb Institute for Medical Research.

Distinguished Service
• Joseph E. Warden, BS BA ’67 accountancy, and Linda C. Warden, benefactors of Tiger Spot, the glass-tile mosaic installed in Lowry Mall. Their support helped Paul Jackson, MFA ’92, and art students create Tiger Spot and open the project to children and adult volunteers as a community art event.

Honorary Alumni
• Christopher “Kit” Bond, United States Senator and former governor of Missouri, who has become a champion of the life sciences in this state and on this campus.

A&S Award recipients, from left, are Marilyn and Gary Tatlow, Joseph Westphal, Christopher Jensen, Kathryn McFarland, Gary Williams, Sandra Rackley, Helgi Gunnlaugsson, and Linda and Joseph Warden. Not pictured is U.S. Sen. Christopher Bond.

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Students, faculty and alumni will present a gift to the nation in May with the world premiere of *Corps of Discovery: A Musical Journey*. MU commissioned and is producing the original musical drama to commemorate the Lewis and Clark expedition. Concert versions of the work received standing ovations at the Kennedy Center, in Weill Recital Hall at Carnegie Hall and at national Lewis and Clark bicentennial activities in Charlottesville, Va.
Corps of Discovery: A Musical Journey

“Don’t expect to find this depth of quality singing at a small music school.” — Michael Ching, composer

Rediscovering Lewis and Clark in Music

By Nancy Moen

**Discover through exploration** is a journey all students take. At MU, young singers on the cusp of discovery have found a unique adventure in music.

After two years of creation, planning, practice and early appearances, MU’s **Corps of Discovery** will make its world premiere May 2, 3 and 4 at the Missouri Theatre in Columbia.

The decision to mount this production was a watershed moment for MU’s School of Music and Department of Theatre. Universities — even those with large music programs — don’t normally undertake projects of this magnitude.

Using its own students, faculty and alumni who are opera professionals, MU commissioned and is producing the nation’s musical drama featuring the Lewis and Clark expedition.

“The members of the Lewis and Clark expedition played a significant role in shaping American history,” says Assistant Professor and Artistic Director Pamela Legendre, “and **Corps of Discovery** provides an entertaining musical forum for rediscovering that journey.”

The strength of the project rests in the depth of the collaboration: Voices by MU Show-Me Opera; orchestra and artistic direction by the School of Music; sets, staging and costumes by the Department of Theatre; and checks for historical accuracy by professors in the departments of history and anthropology.

MU commissioned composer Michael Ching, artistic director of Opera Memphis, and librettist Hugh Moffatt of Pullman, Wash., to write the score and text.

Their new composition falls into a genre called musical drama, which crosses the traditional lines of opera and musical theatre. With music that is melodic, memorable and at times complicated, **Corps of Discovery** broadens the artistic reach of this University.

Ching shakes his head in disbelief at the connections MU used to book concert performances on prestigious national stages and in Missouri at the Governor’s Mansion. Concert versions presented in March at Carnegie Hall and at the Kennedy Center drew standing ovations.

Julia Stemper, project manager for the Kennedy Center’s Millennium Stage, says the “extraordinary performance” there attracted double the audience expected for a weekday evening. “The audience of 800 people was as entranced by the opera as I was,” she says.

Legendre calls the musical drama “striking and impressive,” with “profound musical moments.”

As part of MU’s collaboration with professional opera, Ching has worked as scholar in residence with music composition students, and Moffatt with theatre students interested in writing for performance.

Both composer and librettist are enjoying what they call “unprecedented” collaboration with professors of music, theatre, history and anthropology, and the support of University administrators.

“This type of collaboration, particularly with theatre and music, is rare and refreshing,” Ching says.

Ask Ching if **Corps of Discovery** is likely to be the next *Les Misérables*, and he’ll smile, letting you make an assumption. He’s more likely to offer a comparison to *West Side Story*, but it’s obvious that **Corps of Discovery** is America’s story set to music, and that Ching would love to see it performed nationally in opera and musical theatre venues.

**History celebrated in words and in song**

**Corps of Discovery** was a military expedition. If these men were in music class, they would have sung together,” Legendre says to her assembled singers during a practice session as the performers finish slightly off beat.

Her humor relieves the tension at the end of a lengthy rehearsal. Practices are fun, but they are serious business, too. There’s an electricity in the air because the alumni singers have returned to campus in the principal roles, and they sing full voice with the company of undergraduate and graduate students. The students are obviously enjoying the interaction...
with professionals.

Tenor Ryan MacPherson, BES ’97, as Capt. Meriwether Lewis uses his voice and posture to convey authority on stage. A few measures into his singing, listeners understand why MacPherson’s résumé is so extensive for such a youthful performer. His strong voice easily carries above the company ensemble. MacPherson is a veteran performer of numerous opera companies, most recently with New York City Opera.

Lewis’ exploration counterpart, Capt. William Clark, is played by Dean Southern, MM ’93, a seasoned performer who teaches voice and opera at the University of Akron and is working toward a doctoral degree. Southern’s creamy baritone and gentle stage persona mark Clark as a compassionate leader of the Corps. In his position as captain, Clark knows how to keep the men on task. He sings an order — “For one week, no whiskey for them” — that routinely gathers chuckles from the audience.

Two recent music graduates, tenor Neal Boyd, 2000, and baritone Kory Bickel, 2002 — both winners of national collegiate vocal championships as MU students — sing featured roles.

Boyd plays Clark’s slave, York, with a dignity that tugs at the heart. In the melodic “York’s Aria,” Boyd sings about his childhood as a playmate of Clark and about his eventual realization that he is a servant, not a free man. In the role, Boyd balances MU’s production with his schedule as a graduate student at the New England Conservatory of Music in Boston.

Bickel juggles the MU practice and performance schedule while working toward a master’s degree at Indiana University, where he won a role in that university’s first opera of the season. In Corps of Discovery, he sings the role of John Potts, a German-born member of the Corps who displays the potential for conflict among the Corpsmen with their varied ethnic backgrounds.

Bickel appreciates the bond the students have formed with the alumni. “It’s wonderful to work with professionals in such a close setting,” he says. “We work with them in rehearsals and concerts, ride on buses and planes with them. We have made connections that we will take with us everywhere. Do you know how beneficial that is to students, performing a new work in New York and Washington, D.C.? You don’t do that at all schools.”

A STORY OF DISCORD AND HARMONY

Some of the finest moments of this musical drama appear in its portrayal of the discord and harmony of life among the members of the Corps and the tribes they encountered.

Act 2 features Sacagawea and members of her nation and other tribes. Mezzo-soprano Alicia Miles, a senior vocal performance major, and soprano Christina Bonsall, BM ’02 vocal performance, share the role of Sacagawea. Miles spent the summer singing in productions at Seagle Music Colony in New York; Bonsall is a master’s student at Indiana University. Through music, the two women convey Sacagawea’s dilemma of living with her own people and justifying her help with the Corps.

There’s unexpected humor in this river
saga, too. Laughter ripples through the audience during a celebration at the St. Louis tavern known as La Tigresse (an early reference to Missouri’s fascination with tigers). Stories told by the returning members of the Corps enlighten the audience to an embarrassing wound suffered by Lewis, who was mistakenly shot in the hindquarters by one of his own men.

Judging by applause, early audiences felt a strong affection for the duet by Lewis and Clark who are joined by the spirited company in “The River.” The song celebrates another star of this production — the Missouri River.

Like the movement of that river, Corps of Discovery is setting its own course for the future. A concert version performed Jan. 17 in Charlottesville, Va., helped open the national Lewis and Clark bicentennial.

The Missouri Department of Tourism is promoting the musical drama as Missouri’s contribution to the Lewis and Clark commemoration. Ching and Moffatt expect the premiere to attract music writers nationally as well as representatives of music publishing firms. And Opera America requested two full productions on June 13 and 15 for its national convention in St. Louis. That performance at Missouri Baptist University is open to the public.

Fortunately, a musical work doesn’t end with a premiere. MU will continue to use this unique achievement to attract the state’s and nation’s finest student musicians because, as Bickel says, not all schools undertake such nationally visible projects.

And because learning is a journey of discovery.

After superb auditions, Christina Bonsall, left, and Alicia Miles learned they would share the role of Sacajawea. Bonsall graduated in May and is a master’s student at Indiana University. Miles is a junior who recently won her division of the state National Association of Teachers of Singing competition.
Think of the modern musicals of Broadway and the images that evoke their music: Phantom of the Opera has its half mask and dungeon hideaway, Lion King its stylistic animals and Les Misérables a street urchin and barricade.

As set designer for Corps of Discovery, theatre Professor Patrick Atkinson faced the challenge of creating a memorable set to fit the rather small stage of the Missouri Theatre and evoke symbolism for the opera. With a company of 30 singers on stage and 30 instrumentalists in the orchestra pit, there isn’t much room for scenery.

Atkinson needed a set that would work with the continuity of the production and “maintain the pace.” Because the musical drama itself runs about 2 1/2 hours in length, he wanted to conserve time by eliminating set changes. That ruled out any sweeping landscapes to depict locations.

Instead Atkinson designed a set straight out of the pages of history, using the map that Meriwether Lewis himself had drawn. The Missouri River and the route of the Corps of Discovery form the backdrop of this opera.

To indicate the changes in locale, Atkinson uses props. Bar stools, tables, barrels and crates set the scene for Act 1 at a tavern in St. Louis. Squash-drying racks transport the audience to the Native American camp in Act 2. Flags and other visuals in Act 3 mark the return of Corps of Discovery to Washington, D.C., at the end of the voyage.

Staying with this abstract theme, costume designers James Miller and Kerri Packard also looked for simplicity.

“The telling of the story should be a theatrical experience,” Miller says of the opera set and costume design. Audiences have to bring their imaginations and be a part of it. This is not a movie.”

Miller, who also directs the staging, says St. Louis in the 1800s was the “outpost of nowhere” with just 725 inhabitants and certainly not a place of fashion. Act 1 opens at the tavern — La Tigresse — where members of the Corps gather after their voyage to interact with the local citizens.

Although the Empire clothing style was in vogue in Europe, Miller suspects that few St. Louisians or members of the Corps had access to the latest fashions. He will dress the company in clothing variations ranging from 1795 to 1804. Buckskin, fringe and beading will be in greater evidence than the raised waistlines of the Empire period, and, like the set design, the costumes will be subtle, tending toward the abstract.

Patrick Atkinson's set design, left, features the Meriwether Lewis map. Costume designer James Miller envisions clothing, right, that can be adapted for singers who perform dual roles, such as Native Americans and St. Louis bar patrons.
History Shows the Past, Warts and All

It’s opera. Somebody has to die,” history Professor Jeffrey Pasley says of Meriwether Lewis in MU’s production of Corps of Discovery. He was speculating about how the musical drama would treat Lewis’ death on stage.

Pasley’s connection to the musical drama is academic. He is the chief adviser who made sure Corps of Discovery stayed on course historically.

Pasley knows that the eyebrows of historians across the nation will go up at the thought of a musical drama about the Lewis and Clark expedition. Historians typically have reservations about showing history through pop culture. They agonize about issues of conquest, discovery and exploration with, as Pasley says, “white guys discovering things” that previously existed.

Despite the flaws connected with the 1804 expedition across America, Pasley says it’s all right to treat the Lewis and Clark story as a heroic event as long as “we don’t sign off on everything they did.”

Because there are two distinct sides to this story of exploration — that of the Corps and that of the Native American nations — there was potential for going adrift with the story line.

Several advisers, including representatives of Shoshone, Mandan and Hidatsa tribes, worked with librettist Hugh Moffatt. They helped to eliminate simplification of issues and to avoid the use of clichés that distort reality.

Pasley searched for anachronisms. In an early draft of the libretto, he found a reference to someone as a “civil servant.” The civil service didn’t exist then, so that part of the dialogue was scratched.

Later, Pasley questioned one Corpsman’s dream of settling down and having a family when the voyage ended. “A bit too 21st century,” Pasley concluded. But he didn’t strike the statement because “it could have happened.”

Therein lies some of the dilemma for advisers — how much artistic liberty to allow. “With opera, you have the freest hand,” Pasley says. “Remember, people are breaking into song here.”

While guarding against stereotypes, Pasley allowed latitude in elements of the Lewis and Clark story that are unknown. One of those areas is the role of Sacagawea, the Native woman who helped guide the Corps.

The composer and librettist acknowledge that their advisers have been extremely tolerant of their portrayal of Sacagawea, which they describe as fictional. Pasley, in turn, was impressed with the amount of material taken directly from the explorers’ journals.

Writing a historical libretto isn’t easy. Moffatt spent a year researching the expedition. He read about two dozen books on the subject, interviewed numerous people and consulted his advisers to maintain the integrity of the story.

Judging historical accuracy isn’t easy either. Pasley began preparing for life as a history scholar in childhood, visiting historic sites with his grandfather, and he confesses to being a “history nerd.”

Now a respected author, Pasley wrote The Tyranny of Printers and for his effort earned kudos from the St. Louis Post-

Jeffrey Pasley used his knowledge of history to check the libretto of Corps of Discovery for its accuracy. The professor is known as a Jeffersonian expert.

Dispatch, which named it a “best book” of 2001. Tyranny explores the world of newspaper publishing 200 years ago, around the time Lewis and Clark pushed off on their voyage of discovery.

In his work with the musical drama, Pasley checked some difficult facts that he calls the “warts” of history: the confrontation of the Corps with Native Americans, the relationship of the United States government and the tribes, and Clark’s ownership of York, a slave who was the only unpaid member of the Corps.

Pasley gives the libretto good grades for treating the cultural issues in as sensitive a manner as possible. The story, he says, is politically correct. “This is the last great Western story that people think is OK to love. Sacagawea, a woman and Native American, is portrayed as a hero, and Lewis and Clark went with the intention of getting along.”

As for the staging of Lewis’ death? Well, no good storyteller would give away the ending.
Lewis and Clark Slept Here, But Not There

The April 2002 National Geographic magazine was a treasured issue that flowed like a meandering river through the departments in the arts and sciences.

Capturing the attention of MU faculty and staff was the magazine’s public unveiling of a unique set of maps of the 1804 Missouri River territory explored by Lewis and Clark. The maps are the result of diligent work in the labs of the geography department’s research and mapping unit, the Geographic Resources Center.

Assistant Director James Harlan and his team — including 37 students — created the computer-generated maps that show the Missouri River as seen by Lewis and Clark. With the data collected and the computer technology, the maps are as accurate as yesterday’s information and today’s technology can make them. Harlan says that the surveyor data measures in accuracy to one link from the surveyor’s chain, or 7.92 inches. That’s INCHES!

Cathy Salter of Columbia, a former teacher of geography and history, wrote the accompanying article from the perspective of the 21st century. With elegant description, she reminded readers that the Missouri River of 1804 was a formidable and unfettered waterway coursing along forested banks.

Although the topic may seem benign, the maps roiled the waters with controversy when Harlan’s depiction of the exploration route, especially the campsites, left some small towns high and dry in history.

It’s common knowledge that the configuration of the rivers changed considerably during the 200 years after Lewis and Clark. Harlan estimates that the Mississippi River shifted east dramatically at the confluence with the Missouri River, by at least one or two miles.

His maps reproduce the course and islands of the Missouri and Mississippi rivers in relation to the state of Missouri. While doing that, they show that some towns initially presumed to be on the route were never visited by the explorers. News like that can be upsetting for mayors planning to put their communities on the map with bicentennial activities.

Harlan attests to the accuracy of his maps and understands the angst of community leaders whose dreams of historic campfires were extinguished with the new documents. “It’s community pride,” he says. “These communities will have to re-evaluate some of the folklore to align with the reality of what happened with Lewis and Clark.”

To re-create the route, Harlan used information from various sources, including the explorers’ journal entries and sketches, 18th century French and Spanish survey documents, as well as survey notes from the General Land Office gathered a decade after Lewis and Clark. He added to that some modern three-dimensional relief and combined it with satellite images showing land-cover information.

The data emerged as detailed images of the Missouri River in the early 1800s as it ran throughout the region that now encompasses Missouri, Illinois, Kansas, Nebraska and Iowa. And for 37 students, the project was an opportunity to participate in geographic research and mapping that has changed the course of history.

View the Lewis and Clark exploration maps online at http://lewisclark.geog.missouri.edu.

Giving students experience in mapping was an important part of Jim Harlan’s maps of the 1804 Missouri River area that greeted Lewis and Clark. Publication of the maps in National Geographic magazine was an added bonus.
Wilderness Etchings

Solvents, acid and ink permeate the air in Professor Brooke Cameron’s classroom and studio where she teaches print-making to art students who are learning the techniques of lithography, etching and wood cutting.

During her studio time, Cameron works on her own etchings — a collection of landscapes from the Lewis and Clark journey. It’s a subject that has fascinated Cameron most of her adult life.

A car ride on the Interstate 70 bridge spanning the Missouri River cemented her plans to create etchings of the line of bluffs at Rocheport, Mo. The expanded project will include views of most of the Corps of Discovery route through Missouri.

Etchings are multiple originals, each hand-printed, signed and numbered by the artist. Cameron begins with a design that she works through a coating onto a metal plate. She exposes the plate to acid that eats into the metal and holds the ink. Prints can then be “hand-pulled” on a press.

Cameron’s etchings portray the land and water that welcomed Lewis and Clark. For interest, she is adding some of the explorers’ own sketches to each piece.

Cameron surmises that most of the better sketches she’s using were done by Clark. The drawings Lewis made are not as exact.

“Some of the sketches have the charm of cave drawings,” she says. As an example, Cameron points to drawings of an Indian pictograph and an animal that is probably a goat. Both sketches look as though they could have been taken from a cave wall.

Other drawings of a fish and of leaves are intricate and beautifully executed. A sketch of a keel boat used by the Corps is meticulously drawn, but Lewis’ profile of a Native American boy is out of proportion with the boy’s eye placed too high on his head.

Cameron fits her favorites of the Lewis and Clark designs — including the boy — into the blank spots of the landscapes where the boulders and vegetation end.

In addition to researching the explorers’ drawings through the Missouri State Historical Society, Cameron consulted MU geographer Jim Harlan and Missouri conservationist/historian James Denny and investigated the watercolors of Swiss artist Karl Bodmer, who painted scenes from the route in the 1830s.

Her respect for the work of those men grew as she gathered material. Harlan showed her the route; Denny supplied dates and times; and Bodmer provided inspiration. Now it will take two or more years for Cameron to complete her own journey of discovery through art.

To give layers of meaning to her etching, below, of a Lewis and Clark landscape, Professor Brooke Cameron includes some of the explorers’ own sketches, including the sketch of a Native American pictograph, above.
Life has been an uphill climb for Professor Nancy Flournoy. A statistician with an international reputation, Flournoy is as adroit at hiking mountains as she is at making sense of mountains of statistical research.

In her personal life, she has her own Sherpa guide to direct her over the geographic mountains she faces. Among her recent hiking conquests is the Himalayan base camp of Mount Anapurna, a hike from 3,000 to more than 13,000 feet.

It’s obvious that Flournoy enjoys challenges. Ballet keeps her agile. She doesn’t consider hikes satisfying unless they take 10 days. Mountainous terrains draw her like a compass needle seeks magnetic north.

The local hiking trails are barely a warm-up for statistician Nancy Flournoy, who prefers hiking more challenging routes with mountainous terrain. The clinical trials she designs are equally as challenging.
Still, the highest praise one can give Flournoy is recognition that her statistical models are elegant. As the new department chair in statistics, Flournoy joins the 10 men and one woman who form Mizzou’s small but impressive unit.

Flournoy is at ease teaching, researching and speaking as an expert in an area dominated by men. As a statistician, she is known internationally for her innovative work in sequential experimental design. In layman’s terms, that means she helps researchers design statistical methods for clinical trials.

For the classical model used in trials, researchers assign proven treatments to some patients and new treatments to others, then compare the results. The two treatment regimens, for example, are a combination of drugs and radiation, with the dosages, rates and schedule fixed. Everyone on one treatment arm gets the same combination.

“It’s a carry over from agricultural experiments, which gave birth to the field of statistics,” Flournoy says of the method. “You plant in the spring and harvest in the fall.”

But because patients come into a study one at a time, researchers often prefer to use the information as it develops. “We want to change the type of treatment we give — dosages perhaps — as the study progresses,” she says.

In Flournoy’s sequential model, treatment combinations are likely to change. As information surfaces, the dosages may be modified to optimize treatment according to what is best for the patient. Flournoy controls the chances of error through the use of mathematical algorithms.

“Statistical methods are designed to control your chances of being wrong,” she says.

Sometimes, as in the recent case of the clinical trials on hormone replacement therapy, the treatment stops early, which may be more efficient and better for the patient.

**NOBEL CONTRIBUTION**
The most memorable clinical trials that Flournoy designed were for the bone marrow transplant team of E. Donnell Thomas at the Fred Hutchinson Cancer Research Center in Seattle. Her biostatistics work there played a significant role in the transplantation research that later earned Thomas a Nobel Prize.

After a series of clinical trials, Flournoy completed a retrospective of the trial methods. That look back is what motivated her to develop experimental designs to produce improved methods.

Flournoy’s methods are highly regarded by her peers. Valerii V. Fedorov of GlaxoSmithKline pharmaceuticals, also a distinguished researcher in experimental designs, calls her work “mathematically elegant.” He says her results will have an impact on many important, practical problems in the drug-development industry.

Flournoy is a sought-after speaker at national and international conferences in such locations as Hungary, Spain, England, Croatia, France, Russia, Wales, Mexico and India. She presented the opening address for and ran the joint conference on multiple statistical integration for the American Mathematical Society and the Institute of Mathematical Statistics. She holds the title of Fellow in five scientific organizations, is an elected member of the International Statistical Institute and serves as associate editor for the *Journal of Statistical Planning and Inference* and for *Communications in Statistics*.

In August, Flournoy left a position at American University in Washington, D.C., to lead Mizzou’s statistics department and to seek collaborative work with the many life sciences and social sciences researchers at MU.

“I have broad interests and need an environment with stimulation from the sciences, medicine and other areas,” she says. “It was time for me to find that.” As a statistician seeking collaboration, she understands the advantages of working on a campus known for its critical mass in life sciences research.

While developing statistical content across the sciences at MU and lecturing internationally, Flournoy has other goals. She wants to spread information about the excellent quality of the statistics faculty. Finally, she will continue to serve as a mentor to students — especially women who seek careers in statistics — so she won’t be the only woman at the meetings.
Kory Bickel never dreamed he’d be preparing for a career in opera. He planned to become a vocal music teacher. Winning a national collegiate vocal championship changed his major and his life. Mizzou on Tour will feature Bickel singing his award-winning repertoire in a showcase performance March 22 in Weill Recital Hall at Carnegie Hall.
Kory Bickel removes his tuxedo jacket and leans back against the concert grand piano in Whitmore Recital Hall as his baritone voice envelopes the audience. The hall is filled for Bickel’s senior recital.

People have come to hear what a national collegiate vocal champion sounds like. Few who are gathered that evening know that hiding behind that champion’s voice is a young man who suffers from severe stage fright.

“I hate performing, but I love it more than anything on earth,” Bickel says. The operatic vocalist had to conquer the symptoms of stage fright — sweating, racing heart and even nausea — to win the vocal competition of the Music Teachers National Association in March.

Bickel won the state of Missouri and regional championships, giving him entry to the quest for the collegiate title. That journey began with an eight-hour car ride from Columbia to Cincinnati for nationals.

Bickel was exhausted when he arrived. He had just spent two weeks in intense rehearsals for the musical drama Corps of Discovery, participated in two performances and continued rehearsing for the approaching national competition.

At his warm-up in Cincinnati, Bickel’s voice cracked on every piece. He was in agony. Thinking he wasn’t hydrated, he chugged water. He was powerless to stop his mind from centering on those voice cracks that are devastating to a performer.

Jo Ella Todd, Bickel’s vocal coach and mentor, who traveled to nationals with him, advised her panicked student to remain silent for the evening. So Bickel stopped talking at 6 p.m. and resorted to rehearsing his songs mentally. He used only hand signals and head nods to communicate.

After 12 hours of sleep, he again drank water — 12 to 15 bottles — and at 1 p.m. walked into the competition area to begin his 35-minute repertoire. For the first time in the MTNA competition he would perform for an audience rather than just a judge.

He began singing, scanning the faces in front of him. The people were just five feet away, nearly close enough to touch. As usual when he starts singing, his panic eased. He saw people smiling and nodding to the music. A woman in the back row closed her eyes as she listened, sending an emotional message that directly affected him. At that instant, he loved performing.

“I left everything in that room that I possibly could,” Bickel says of the performance. He knew he had done well.

INSPIRATION
Bickel started as a freshman at Mizzou with no formal vocal training. He’s the youngest of five children in a family headed by a Baptist pastor and says there wasn’t extra cash available for splurges like voice lessons. To earn spending money in Columbia he sang as a cantor for Catholic and Lutheran churches in town.

The greatest inspiration in Bickel’s music experience is Todd, whom he considers an extraordinary teacher and role model. All the MU professors, he says, take time to get to know their students, and “with Ms. Todd, compliments must be earned.” He knew that was good for him.

When Todd accepted Bickel as a new vocal student, she was pleased to have a student with a “natural raw instrument,” one who didn’t need to be “untrained.”

She took him through the basics. At the end of that year, after Todd had taught him to understand his voice, they started building. By his sophomore year Bickel had enough confidence to change his degree from teaching to vocal performance.

In the summers he took lessons from Associate Professor Ann Harrell to gain another perspective. Todd, he says, taught as a performer, Harrell as an educator.

Bickel loved the mix.

He was encouraged by Todd’s international professional experience. She had worked in Europe for much of her career, singing for 11 years with the Munich State Opera and for six years with the Salzburg Regional Opera. As a vocal teacher, specifically of opera, she looks for young talent and enjoys “building a human being who can take it.”

“I needed a good education from professors who would teach in a warm, inviting atmosphere, and that’s what I got,” Bickel says.

Bickel graduated in May 2002 with a degree in vocal performance and is pursuing a master’s degree at Indiana University. In his first audition there, he further validated his national title by winning a role in Don Giovanni, Indiana’s opening opera of the season. Todd was in the audience.
Physics Professor Peter Pfeifer is on to something that could shake up the automotive industry and reduce the nation’s dangerous dependency on Middle East oil.

While studying the internal structure of activated carbon, Pfeifer and his international team of collaborators discovered that the material they created contained carbon nanopores in the form of a highly convoluted network of uniform channels penetrating the carbon.

Since the 1980s, scientists had the notion that nanopores might exist, but they had not proved that theory until now. Nanopores resemble small tunnels with storage capability for molecular-size materials. The labyrinth gives the tunnels a high storage capacity and facilitates rapid loading and unloading.

For the automotive industry, Pfeifer’s research on carbon nanopores is the early work that could produce a material used to store fuel — such as methane — in alternative fuel vehicles.

Much of the excitement surrounding this research lies in the safety factor. The current method of storing methane is in steel cylinders under extreme pressure. If cylinders were used as fuel tanks for automobiles, they could explode like a bomb in a collision.

“Our material would allow methane to be stored at a safer, significantly lower pressure, reducing the risk of an explosion if the vehicle were in an accident,” Pfeifer says. It is also lightweight, easy to manufacture in large quantities and relatively inexpensive.

Some scientists estimate that our planet contains a 10,000-year reserve of cleaner-burning methane gas that could be harnessed as an alternative energy source to replace the gasoline used in internal combustion engines.

Pfeifer believes a commercially usable carbon nanopore storage product for methane gas could be on the market in five to 10 years if this were made a national priority. With retrofitting, it is possible, he says, for service stations to handle methane storage and fueling for cars with fuel cells.

The carbon nanopore discovery was published in the March 2002 issue of Physical Review Letters, the journal of the American Physical Society. Since then, Pfeifer has been amazed at how well the word of his research has spread. Previous research in alternative fuels often met with disinterest or even resistance. Pfeifer speculates that the prospect of lowering the nation’s dependency on foreign oil has helped focus attention on the project.

The slowness in alternative fuel development, he says, “is not a lack of promising technology. It’s due to a lack of strong economic and political driving forces.”

As science news organizations and the popular press spread Pfeifer’s research results, the volume of his e-mails from energy companies and from organizations interested in alternative fuels expands nationally and internationally.

“The idea has generated a lot more interest than I expected,” Pfeifer says. “To make a potential contribution in a major breakthrough for improving life on this planet doesn’t happen every day for a physicist. I take great delight in being able to do that.” — Peter Pfeifer
Peter Pfeifer is experiencing a growing interest in his work on alternative fuel for automobiles.

Pfeifer is also pleased with the national and international collaboration he experienced. His research colleagues are centered at the University of New Mexico, Edwards Air Force Base and Los Alamos National Laboratory, and at scientific institutes in France and Spain.

When Pfeifer wrote the paper, his collaborators, who produced the samples, saw the big picture. Pfeifer is the theorist and data analyst who, with Françoise Ehrburger-Dolle in France, coordinated the project. Working with computations in such areas as X-ray scattering, gas absorption and atomic-resolution microscopy, he deduced from the data the spatial arrangement of the pores deeply buried in the carbon.

Pfeifer is used to collaborative efforts in his scientific research with fractal structures. He spent the summer at Los Alamos National Laboratory working on a biological physics project that could help prevent lung disease.

With 10,000 scientists, engineers and support staff on site, the Los Alamos experience was as thrilling for him as working in Florence, Italy, is for an artist.

To illustrate her husband's scientific research in nanopores and other fractals, Therese Pfeifer sketched this portrait of him through the use of repeating patterns.

Clearly, both the scientist and the artist can see the beauty of Pfeifer's research.
Researchers don’t set out to develop items like Doppler radar or a replacement for the light bulb. They start by seeking answers to questions through basic scientific research.

These researchers help improve our lives by staying in the background with research so basic that it may have to remain unpatented — open to the scientific community.

They open doors by expanding the knowledge base and building a foundation for applied research. Basic science, which is almost entirely a university function, benefits society by exploring the tools that may develop new products.

Biology, chemistry and physics are the A&S units whose researchers do basic science affecting plants, animals, human health, energy and the environment. Success stories from these units point to the importance of fundamental experiments.

Investigations through MU’s chemistry department resulted years ago in patented medications that relieve the pain of bone cancer. Chemist Jerry Atwood and co-researchers William Orr and Leonard Barbour have discovered a method to control the way molecules naturally form, which is considered a milestone by the scientific community. The new molecular building blocks could act as refined drug-carrying systems to seek and destroy viruses in the body.

Also in chemistry, Associate Professor Jack Tanner’s team of molecular researchers has determined the shape of an antibody that could unlock new treatments for the disease lupus. Patients with lupus have unusual antibodies in their blood. Tanner’s team studies the structure of these antibodies to learn the role they play and how they react and interact with DNA. Knowing the shape of an antibody involved with lupus could lead to new pharmaceuticals to treat the condition.

In the biological sciences, Karen Cone and Mannie Liscum collaborate with colleagues in other MU divisions to identify the genetic code of maize. That interdisciplinary collaboration in plant sciences is among the strongest worldwide. The work may result in vast improvements in plant health leading to better food, increased crop yields and less need for environmentally harmful pesticides.

Physics department researchers are examining a class of organic and inorganic materials with potential applications for developing efficient light sources and for detecting cancer.

The most likely use of light sources will be for displays in electronics, perhaps in stereos, computers and movie screens, as well as laser sources for compact information storage and retrieval. Because of this work, DVDs of the future will be able to hold eight times as much information as they currently store.

Quite possibly, the same class of materials may work as replacements for the conventional light bulb. Meera Chandrasekhar, H.R. Chandrasekhar, Henry White and Kattesh Katti are the investigators who are bringing light to this effort.

The physicists also are doing research that crosses over into the medical field. New optical imaging techniques are being developed using molecules that selectively attach to cancer sites and form optical antennae for detection by spectroscopy.
FINGERPRINTS ON THE FRONTIER
SCIENTIFIC JOURNALS AND THE popular press have informed readers about recent discoveries in genomics. Scientists now are able to produce maps marking the DNA of plants, animals and humans. So what’s next?

Researchers are working in proteomics, the logical next step, which combines protein research with genomics. While genomics looks at all the genes comprising a mouse or a human, for example, proteomics examines the proteins encoded by the genes and their function in normal and disease processes.

Through research, scientists are trying to learn the correlation between genes and their corresponding proteins, whose functions and interactions determine everything about us from our hair color to our body tissue.

With detailed information on proteins, scientists will have a better chance of finding treatment options for human diseases such as cancer, Alzheimer’s and multiple sclerosis.

“MU will play a significant role in proteomics,” says Associate Dean Michael O’Brien. He predicts that drug companies and agricultural-products firms will invest hundreds of millions in proteomics research during the next decade. “Scientific groups that come to the forefront will be those that can cut through the mass of information, identify key proteins, characterize them and figure out what they do,” he says.

Proteomics research is considered so essential that MU created a Proteomics Center in the Chemistry Building with a collection of equipment that doesn’t exist at most state universities. Three robotic machines and two mass spectrometers recognize cells, separate the thousands of proteins found in cells and then do a digest of the proteins, dividing them into even smaller pieces that can be identified. In a sense, the equipment provides fingerprints of proteins.

“It is a state-of-the-art facility in terms of ability to do proteomics research,” says biological sciences division Chair John David. “There aren’t many state institutions with this type of research in place.”

Some of MU’s key players are professors in the biological sciences. Professor John Walker serves as head of the proteomics facility, and Professor Stephen Alexander was first on campus to do proteomics research of any extent.

MU’s proteomics team is integrating biology with analytical chemistry by combining protein separation and mass spectrometry, a combination that Walker calls “highly unusual.”

Walker studies plant growth, examining phosphate groups that regulate processes. He is working to identify the protein that allows phosphates to turn processes on and off.

“Genes are parts lists,” he says. “We’re connecting that list to the functions. In organisms, we understand genes and we can predict proteins, so we want to compare the reality to the predicted.”

Alexander investigates why cells become resistant to drugs and determines the ability of cells to repair damage to DNA. Among the possible outcomes for Alexander’s work is the discovery of a method to modify drugs so cells can’t become resistant, or to find other drugs that will work. In his research on cancer drugs, he is collaborating with Proteome Systems Ltd. of Sydney, Australia.

Chemistry Associate Professor Michael Greenlief joins the proteomics researchers in his role as director of MU’s Mass Spectrometry Facility. As the enabling technology for proteomics, mass spectrometry gives researchers the ability to determine the peptide fragments in a digested protein. Once the peptides are determined, researchers can compare the results to a theoretical digest of a protein to make an identification.

Even with high-end research such as this, plans evolve for the future. One might ask, when the proteomics mysteries are solved, what new endeavors will draw researchers? They will work on the next wave — metabolomics.

In MU’s Proteomics Center, researchers such as John Walker and colleagues can immerse themselves in projects to identify cell proteins. Assisting their proteomics research is a collection of sophisticated robotic machines and mass spectrometers.
Firm Commitment

The No. 2 man at Cantor Fitzgerald discusses the company’s assistance for families of victims of Sept. 11
A few professors and students have an usual business card in their wallets, given to them by the No. 2 man at Cantor Fitzgerald. The cards list Stuart Fraser’s address as 105th floor, One World Trade Center.

Fraser, AB ’83 history, returned to his alma mater in May 2002 to talk about business strategies and about Cantor Fitzgerald’s commitment to the families of its employees who perished at the Trade Center.

Fraser survives because he had an off-site business meeting planned for Sept. 11. While eating breakfast in front of the television that morning, Cantor Fitzgerald’s vice chairman learned that a plane had crashed into the twin towers housing his office.

As he watched the grim news at 8:55 and saw the early damage, Fraser’s pager beeped. He listened to the recorded voice of his secretary asking for help: the office was filling with smoke, and the workers needed help getting out. Then she added more urgently, “Please send help.”

Fraser’s repeated calls never reached her on the 101st floor of the World Trade Center or other employees on floors 101 through 105. At 8:46:47 the company computers switched into their backup system, sending all trading through the London office. Cantor Fitzgerald was changed forever.

“We had no calls from the 101st floor. We believe the people were taken out immediately,” Fraser says. The average person lost to Cantor Fitzgerald was 36 years old and had three children.

As the 2002 William Francis English Scholar in Residence, Fraser discussed how and why business was able to proceed at Cantor Fitzgerald. Although he spoke the language of economics in class sessions, the human toll of Sept. 11 kept resurfacing, and with good reason. Fraser himself hired many of the people who died. “I knew everybody,” he says.

On the Monday before the tragedy, Fraser did what company founder Bernie Cantor had started as a tradition. He walked around to visit employees on all floors of the business. Now the faces of those victims are burned in his memory.

Only 350 Cantor Fitzgerald employees survive. The brokerage firm lost 658 people that day, including one who died in a hospital burn unit.

As the rescue teams searched for victims and survivors, Fraser worked with CEO Howard Lutnick to determine who was still living. At the same time, they had to make tough business decisions. “We needed the company to survive,” he says.

Even before the tragedy, Cantor Fitzgerald took pride in being a people-oriented business with a history of annually giving 10 percent of its profits to charity. Providing assistance for the victims’ 658 families was a logical step.

Lutnick, Fraser and the partners pledged a minimum of $100,000, possibly as much as $250,000, tax free from the company to each victim’s family. The firm also pledged 10 years of free health care. Under that plan, the partnership is giving 25 percent of its earnings to the surviving families of victims.

The firm’s leaders knew too that there were other casualties on the company’s five floors that day: people who operated the cafe and shoe-shine services, visitors, the janitorial staff and 60 brokers from a small, competing firm. Cantor Fitzgerald “adopted” all 200 of those families, awarding them the same benefits as the survivors of their own employees through the Cantor Fitzgerald Relief Fund.

Letters of condolence and support for the firm arrived from all over the world. “It made a huge difference to have people saying they’re behind us,” Fraser says.

Letters of condolence and support for the firm arrived from all over the world. “It made a huge difference to have people saying they’re behind us,” Fraser says.

Fraser, who started his career on Wall Street at age 21 and is credited with developing the firm’s automated trading system, eSpeed, says he has no regrets at focusing on the company’s most important assets — its people.
STUCK IN ISTANBUL ON A BACK-packing trip, John McHale was in trouble. He had missed his flight and couldn’t speak the language. When a stranger noted his plight and helped because it was “the human thing to do,” the lesson stuck.

While he was a doctoral student in the communication department, McHale led an effort in 2001 and 2002 to prevent the execution of a Missouri prisoner accused of stabbing to death another Missouri State Penitentiary inmate in 1985.

McHale produced a documentary film about Joe Amrine’s unusual case because he considered it the human thing to do. Amrine had no history of harming anyone. He was serving a 15-year sentence for robbery, forgery and burglary, and all witnesses against him had recanted.

“If I turned my back on this case, I wouldn’t be a conscientious human being,” McHale says.

The film, *Unreasonable Doubt: The Joe Amrine Case,* and the cause became a passion for McHale after he watched footage of a witness central to the case who recanted his statement of Amrine’s guilt.

Eventually all three witnesses for the prosecution said they lied about Amrine’s guilt. Two wanted protection from sexual predators, which was offered by prison officials in exchange for their testimony. The third hoped to remove blame from himself by implicating Amrine.

Amrine’s attorney, Sean O’Brien of Kansas City, Mo., says he has never seen a case where the facts were so insufficient to warrant the death of a person. A prison guard — the only witness with no prison record — testified to Amrine’s innocence from the beginning. Now three jurors, including the jury foreman, say they convicted the wrong man.

The film includes footage of the witnesses recanting their testimony. “There is clearly unreasonable doubt about this case,” McHale says. “I felt a moral compulsion to do something. I have the skill, the knowledge, the equipment and the people to work with.”

The people he asked to join him on the project are Dan Huck, AB ’00 interdisciplinary studies, and Ryan Wylie, AB communication ’01, an independent filmmaker and editor. They had been communication students of McHale.

The film won second place in the Documentary Open Division of the Kansas Film Festival in June 2002. With showings in Kansas City, St. Louis, Columbia, Joplin and Springfield, Mo., it targeted Missouri audiences, but the story spread nationally and internationally. In Europe, it was featured on *BBC Nightly News* in Great Britain and in the *London Independent.*

The trio of filmmakers, who delivered a copy of the documentary to the Missouri Governor’s Office and joined death-penalty protesters at the State Capitol, were named 2002 Peacemakers of the Year by MU’s Peace Studies Program. They received the award at the film’s premiere in Columbia.

Joe Amrine waits behind bars to learn his fate.

Editor’s Note: McHale received his doctoral degree in May 2002 and took a position in August as assistant professor of communication at Illinois State University at Normal.

Looking through the lens, John McHale envisioned creating a documentary film to tell the story of a Missouri prisoner on death row. McHale’s work earned him awards from a film festival competition and a group of peacemakers.
All Talk, Action Too

As vice president and general manager of KMOX Radio in St. Louis, Karen Carroll’s decisions affect listeners coast-to-coast. The station reaches 44 states in clear-channel broadcast every evening and holds a record for top ratings by Arbitron.

Women executives in broadcasting were generally unheard of in the 1980s when Carroll, who attended MU in the 1960s, stepped into management. She worked her way up after starting in sales and later running a multiple station cluster for EZ Communications.

Taking over at KMOX in 1998, Carroll directed an astonishing growth in revenue for the AM station that calls itself the Voice of America, Voice of St. Louis and, yes, grrrrr, Voice of the Tigers. With its all-talk format, KMOX broadcasts MU basketball and football games.

Under Carroll’s guidance, KMOX continues to test innovative programs. The station offers what she calls unique marketing opportunities to clients by creating special events, such as a Speakers Series and programs that both recognize and serve the community.

Her marketing strategies involve feel-good activities attractive to sponsors. A popular sports project gives kids and dads a chance to play catch on the Cardinals’ field before a game. A student achievement award recognizes high school students who are involved in their community.

“We create a product that enriches lives and offers sponsorship opportunities,” she says. Like her station’s reception, Carroll’s philosophy is clear: provide what listeners need and enjoy.

Carroll’s ideas spring from strong listening and observation skills. “I’ve always been a curious person who understands people and their needs.”

For this manager, the bottom line is not only about making money — although she’s obviously good at that. “We have to be part of the current trends,” she says. “With plenty of choices out there, doing things the same way isn’t necessarily the winning way.”

There’s a strong sense of accountability in Carroll’s decision-making. The station went commercial-free for several days after Sept. 11 and again when covering the death of sports announcer Jack Buck.

In another demonstration of her management style, Carroll shares credit with colleagues for good work. She also sends MU a thank you for assistance with projects that involve collaborations with the journalism school and the Harry S Truman School of Public Affairs.

“Mizzou is so important to this community,” she says. “MU has a lot to offer us that helps improve the product. We love the collaboration.”
Spontaneous Altars

How people communicate their shared grief in spite of religious differences

Spontaneous altars spring up like mushrooms along roadways to mark the sites of highway fatalities. They were abundant near Ground Zero and at the scene of Princess Diana’s fatal accident. Perhaps you’ve noted that the memorial “altars” are appearing with greater frequency at sites of tragedies.

As memorials and as expressions of grief, they are a topic of interest to Paul Johnson, assistant professor of religious studies and a historian of religions with a focus on indigenous religions. Johnson views the use of altars as a “shared religious grammar.”

In the wake of Sept. 11, Johnson started wandering around Ground Zero out of curiosity and to pay respects. He went to the sites where officials were erecting a viewing ramp and to some sites less traveled.

On those back streets, he found clusters of items that people had left: candles, flags, teddy bears, photos, fruit, flowers and religious icons, as well as written messages and religious texts.

“In the various individual offerings used to help leave grief behind, I noticed a dramatic religious pluralism,” Johnson says. “People are trying to find a shared way to communicate in spite of religious differences.” He speculates that families of victims may have an enhanced need to express themselves through spontaneous altars at the World Trade Center because of the lack of bodies and the horror of the destruction.

Unlike formal memorial services, spontaneous altars are unorchestrated and unofficial, helping to focus emotions and memory.

Many offerings Johnson spotted are secular in theme. Symbols of pop Americana, such as Mickey Mouse balloons, T-shirts and caps with high school and university logos, sports memorabilia and even colorful pinwheels, grace some sites. These hands-on religious enactments are not new to religious expression in America.

“In the broadest sense, we all use material objects to remind us of the past and to orient us to the present,” he says. “If you have a fireplace mantle filled with objects that you carefully dust, you have, in one sense at least, an altar.”

According to Johnson, the spontaneous altars show an interaction with gods or ancestors and serve as an attempt to bring memories of the past to bear on problems of the present. As a side effect, they may also generate unity because the participants can share an action even if they have radically different theological views.

Johnson appreciates the richness of those differences. Among the religions he studies are Afro-Brazilian Candomblé — related to Haitian Vodou and Cuban Santeria — and the ancestor religion of the Afro-Honduran Garifuna. He is the author of a newly published book, Secrets, Gossips and Gods: The transformation of Brazilian Candomblé.

As a scholar, Johnson examines what the religions mean to the people and societies he studies.

And in his office, he has assembled candles, icons, Garifuna rhythmic instruments and Native American symbols. The collection of mementos reminds him of his work and of the people he has met. He considers it a spontaneous altar.
So Students Can So
Imagine the storage issues that confront Thomas Soapes, who heads one of the nation’s most important archives. Under his charge are 1.7 million photos, 20,000 films and videos, and nearly 11,000 cubic feet of technical drawings and manuscripts.

Soapes directs the management of historic materials at the National Air and Space Museum in Washington, D.C. “We’re highly selective,” he says of the decisions involved in working with an enormous quantity of materials.

Researchers worldwide use the archival material that is selected for its uniqueness and historical significance. They range from schoolchildren doing reports to senior scholars.

But when Soapes met with an MU development representative, it wasn’t public acquisitions he wanted to discuss. He had a plan to invest some personal financial holdings where the funds could best help A&S students.

Soapes, BS Ed ’67, MA ’69, PhD ’73 history, directed that $1 million of his estate be used for scholarships in the arts and sciences. The testamentary gift creates the Thomas F. Soapes Scholarship Fund for students “who exhibit academic promise.”

Soapes’ experience at MU — the academics and the interactions with a variety of people — was something he wants other young people to have. He came to MU in the 1960s after graduating from a large high school in Independence, Mo.

“We were all alike in high school,” he says. “There was a sameness typical of the 1950s, and coming to MU was an opportunity to meet and work with people from different backgrounds.”

Soapes says that he and his wife, Emily, wanted to put their estate to good use when they no longer need the money. “Education is a great door opener,” he says. “It opened up opportunities I wouldn’t have had without it. We want to help others have that experience.”

At MU, Soapes learned a lot from working in campus politics. In graduate school he wrote speeches for Christopher “Kit” Bond during Bond’s 1970 campaign for state auditor. Bond went on to become governor of Missouri; with a commission through MU’s Army ROTC program, Soapes left for Vietnam as education officer for Long Binh, an Army post 30 miles outside Saigon. As the USARV education officer there, he directed classes, testing services, exams and education counseling to prepare GIs who were ready to return to the United States for education.

Returning to the States himself, Soapes took a position as staff archivist and later as oral historian of the Dwight D. Eisenhower Library in Abilene, Kan., then moved to Hyde Park, N.Y., to direct the Eleanor Roosevelt oral history project at the Roosevelt Library. During that assignment he met his future wife, also a historian and former chief of the exhibits branch at the National Archives.

Later in Washington, Soapes held a management position at the headquarters of the National Archives before moving to the National Air and Space Museum in 1990.

And despite this lifelong professional commitment to collecting artifacts of history, Soapes says he himself is not a collector.

In his workplace, a historic treasure from Missouri reminds Thomas Soapes of his student days at MU. The Spirit of St. Louis hangs in the Milestone Gallery at the National Air and Space Museum in Washington, D.C.
Timothy Lyons’ interest in the geological sciences began when he was much younger than the students he teaches.

“I can remember being a 10-year-old holding a piece of sandstone as it crumbled into powdery white sand,” he says. Lyons’ early passion for geology grew into adulthood. Now a respected expert, teacher and researcher in his field, Lyons hasn’t forgotten the thrill of seeing the Grand Canyon for the first time.

In addition to lecturing, Lyons takes his students on field trips to places such as the Grand Canyon, Florida Keys and the Gulf of California so they can learn about geology through their own experiences.

“Standing on the south rim of the Grand Canyon, it was easy to hold the students’ attention as I discussed the 1 billion years of history stretching out before us,” Lyons says. His penchant for inciting interest among his students stems from a dedication to research, which keeps his own enthusiasm and knowledge up to date. His investigations focus on two primary themes.

He works to understand the way elements such as sulfur and carbon are cycled in the complex environments of oxygen-deficient ocean basins, and he uses that knowledge to interpret ancient conditions on the Earth’s surface as recorded in very old rocks — some more than a billion years old.

He and his colleagues across the country also have been involved in NASA’s initiative in astrobiology, which explores the origins of life on Earth and the potential for life elsewhere in the solar system.

These research avenues have offered Lyons fortuitous opportunities to spend weeks and months at breathtaking field sites such as the Canadian Arctic and the Great Barrier Reef. One of his primary goals as a mentor and instructor has been to create similar opportunities for his students.

When field trips are not an option, Lyons brings the location to the classroom through slide presentations. While teaching introductory geology, whether to 260 students in an auditorium or to 15 in an honors section, Lyons ends most lectures by sharing photographs from field areas where he has conducted research.

“A slide of me hammering on an outcrop 400 miles north of the Arctic Circle speaks volumes compared to an isolated rock in a lab drawer or a photograph supplied by the publisher of a textbook,” he explains.

In their teaching evaluations, students praise Lyons for his ability and enthusiasm, praise that is echoed by his University. Lyons holds a 2001 Kemper Fellowship for Excellence in Teaching, one of MU’s most prestigious awards.

Timothy Lyons uses field trips to such spots as the Grand Canyon and the Florida Keys to expand the interest of his students in their billion-year-old planet Earth.
A Gift from MU

Corps of Discovery is MU’s gift to the nation, featuring the students, faculty and alumni of Mizzou. Enjoy the original music and experience the adventures of Lewis and Clark as we commemorate the national bicentennial of that expedition across America.

- World premiere: May 2, 3 and 4 at the Missouri Theatre in Columbia. Order tickets by phone at (800) 292-9136 or online at www.concertseries.org/discovery.html.

- St. Louis performances, requested by Opera America, open to the public: June 13 and 15 at Missouri Baptist University’s Performing Arts Center, 1 College Park Dr., Creve Coeur. Order tickets by phone at (800) 430-2966.