

Southern Methodist University

SMU Scholar

SMU Research Magazine

Office of Research and Graduate Studies

2007

SMU Research, Volume 14

Office of Public Affairs

Follow this and additional works at: https://scholar.smu.edu/research_magazine

Recommended Citation

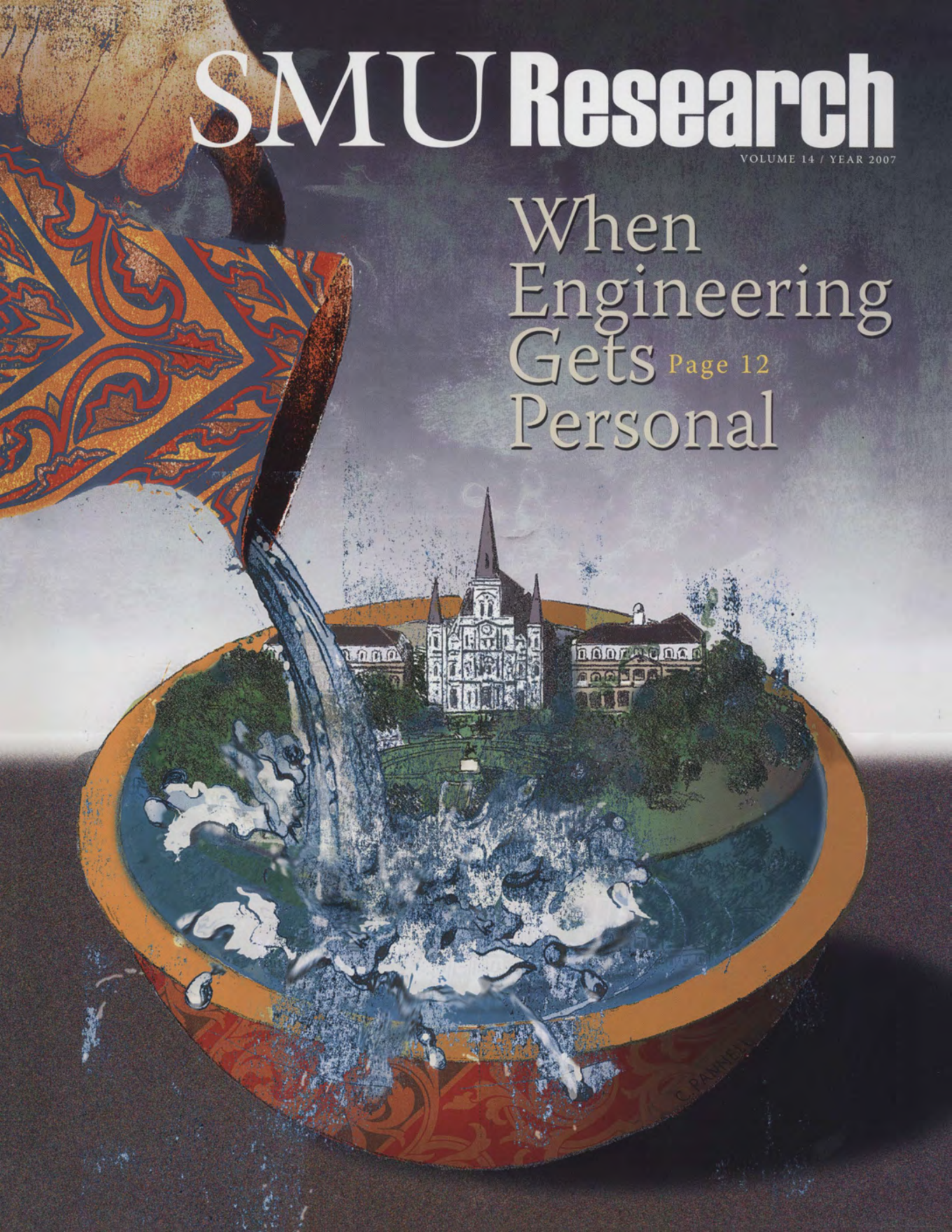
Office of Public Affairs, "SMU Research, Volume 14" (2007). *SMU Research Magazine*. 2.
https://scholar.smu.edu/research_magazine/2

This document is brought to you for free and open access by the Office of Research and Graduate Studies at SMU Scholar. It has been accepted for inclusion in SMU Research Magazine by an authorized administrator of SMU Scholar. For more information, please visit <http://digitalrepository.smu.edu>.

SMU Research

VOLUME 14 / YEAR 2007

When
Engineering
Gets Page 12
Personal



C. PAWELLE

SMU Research

www.smu.edu/newsinfo/research

SMU Research is produced annually by the Office of Public Affairs for the Office of Research and Graduate Studies of Southern Methodist University. Please send correspondence to Office of Research and Graduate Studies, SMU, PO Box 750240, Dallas TX 75275-0240, or call 214-768-4345. E-mail: bphillip@smu.edu

OFFICE OF PUBLIC AFFAIRS

Patricia Ann LaSalle Associate Vice President for Public Affairs

Susan White Editor

Sherry Myres Creative Director

Cap Pannell Designer

Hillsman S. Jackson Photographer

Contributors: Olin Chism, Sarah Hanan, Andrea Hugg, Gary Shultz,

Kathleen Tibbetts, Tory Winkelman, Deborah Wormser

OFFICE OF RESEARCH AND GRADUATE STUDIES

Phyllis Payne

Barbara Phillips

Larry Smith

UNIVERSITY OFFICERS

R. Gerald Turner President

Thomas W. Tunks Interim Provost and Vice President for Academic Affairs

Thomas E. Barry Vice President for Executive Affairs

S. Leon Bennett General Counsel, Vice President for Legal Affairs and Government Relations, and Secretary

James E. Caswell Vice President for Student Affairs

Brad E. Cheves Vice President for Development and External Affairs

Dana Gibson Vice President for Business and Finance

Elizabeth C. Williams University Treasurer

ACADEMIC DEANS

John B. Attanasio Dedman School of Law

U. Narayan Bhat School of Education and Human Development

José Bowen Meadows School of the Arts

Caroline Brettell Dedman College of Humanities and Sciences, ad interim

William B. Lawrence Perkins School of Theology

Gillian M. McCombs Central University Libraries

Albert W. Niemi Jr. Cox School of Business

Geoffrey C. Orsak School of Engineering

R. Hal Williams Research and Graduate Studies

A Productive Three Years, A Fond Farewell

With some regret I am writing my last letter to you as dean of Research and Graduate Studies. Although I look forward to returning to the professor's life of teaching and writing, I greatly have enjoyed my time in this office, one that offers remarkable opportunities to help SMU's researchers and graduate students fulfill their ambitions.

I am delighted to report on two recent decisions that strengthen our mission. First, President R. Gerald Turner and Provost ad interim Tom Tunks have elevated the stature of the office with the new title of associate vice provost for research and dean of graduate studies. Titles don't always tell the whole story, but in this case the new title reflects the determination of the president and the University to emphasize research, external funding and graduate programs at SMU.

So does the second decision as well, the naming of my successor – a talented and experienced individual with broad connections in the scientific community around the world. James E. Quick, program coordinator in the Volcano Hazards Program with the U.S. Geological Survey, will arrive this summer. Jim is a distinguished scientist, accomplished administrator and much-published author. His appointment is another firm signal of the University's commitment to research and graduate studies.

I was fortunate to inherit an excellent program from my predecessor, Dean U. Narayan Bhat, and it has been fun to build on his work. We have achieved much in the past three years. We project that our external research funding will reach more than \$20 million this year. With the addition of doctoral degrees in chemistry and English, we increased to 12 the overall number of our Ph.D. programs. We also put in place programs to help recruit diverse faculty and students, an initiative in which we take particular pride.

On Graduate Research Day this winter, always one of my most rewarding days as dean, we achieved a record number of 74 participants. The meeting rooms were filled with faculty, graduate students and research posters. You could feel the excitement.

It has been a great pleasure to work with all of you during the past three years. I thank in particular Larry Smith, head of the Office of Research Administration, and his able staff; Assistant Dean Barbara A. Phillips, who oversees graduate programs; and Phyllis S. Payne, my personal assistant and talented right-hand.

In our *SMU Research* magazine next spring, Jim Quick will have the pleasure of telling you about another year's achievements. I happily will be writing a new book for a series on Critical Presidential Elections in American history, on the famous "Battle of the Standards," the spirited contest between William McKinley and William Jennings Bryan in 1896. Nonetheless, I will look back fondly on the work of the past three years. I wish you well.



R. Hal Williams
Dean, Research and Graduate Studies

Features



12

12 When Engineering Gets Personal



16

16 A Virtuoso Life



19

19 Reimagining Indians

Departments

2



2 Noteworthy & New



5 Faculty Profiles

7

22 Sponsored Research Awards

23 Faculty Recognition



23

24



24 Portrait of an Artist



UC Berkeley Dean To Lead Academic Affairs At SMU

Paul W. Ludden, dean of the College of Natural Resources at the University of California-Berkeley and scholar in environmental biochemistry, has been named provost and vice president for academic affairs at SMU. He will oversee all aspects of academic life, ranging from admissions and faculty development to supervision of

SMU's seven schools, library system, and international programs. He will join SMU in time for the fall 2007 semester.

Ludden received his B.S. degree in chemistry from the University of Nebraska in 1972 and his Ph.D. in biochemistry from the University of Wisconsin-Madison in 1977. After a Rockefeller postdoctoral fellowship at Michigan State University, he served as an assistant professor at the University of California-Riverside. In 1981 he returned to the University of Wisconsin-Madison, where he rose to the rank of full professor.

At Wisconsin, he directed the Biochemistry Graduate Program for 14 years and taught in the Biocore Program for undergraduates. While pursuing his research interests, he served as assistant chair of the Biochemistry Department and later as executive associate dean for the College of Agricultural and Life Sciences.

In 2002 Ludden joined UC-Berkeley as dean of the College of Natural Resources and professor of plant and microbial biology. He carries a concurrent appointment as a faculty member at the Lawrence Berkeley National Laboratory. An expert on microbial biochemistry, Ludden with his students has published more than 175 peer-reviewed papers and book chapters.

For more information: smu.edu/newsinfo.

HACNet Lab Attracts National Recognition

SMU has been designated as a National Center of Academic Excellence in Information Assurance Education for 2006-2009.

The goal of the program, sponsored by the National Security Agency and the Department of Homeland Security, is to reduce vulnerability in the national information infrastructure by promoting higher education in information assurance (IA) and increasing the number of professionals with IA expertise.

SMU's School of Engineering has been in the forefront of this revolution due in part to the High Assurance Computing and Networking (HACNet) Lab in the Computer Science and Engineering Department. The lab focuses on intelligence gathering, data analysis, and secure command and control necessary for wide-ranging applications, including military operations and transportation security.

For more information: hacnet.smu.edu.

NSF Grant Supports Climate Research In Ethiopia

Geological sciences faculty Bonnie Jacobs and Neil Tabor have received a three-year \$300,000 grant from the National Science Foundation for their paleobotany research in Ethiopia, studying the area's plant life, geological history and climate that existed nearly 28 million years ago.

Ancient biotic response to geographic and climatic events has implications for predicting the effects of current global change on modern ecosystems, says Jacobs, associate professor and director of the Environmental Science Program in Dedman College. The tropical regions are of special concern because that is where Earth's greatest percentage of biodiversity resides.

The project aims to improve documentation of paleoecology, paleoclimate and floral communities in eastern Africa between 28 and 27 million years ago. It will focus on plant fossils in northwestern Ethiopia and include students and specialists in paleobotany, paleosols (fossil soils), isotopes, dating and the rock record.

In addition, Ethiopian students will participate in a field school with paleontologists, geologists and graduate students. This will advance plans for a paleotourism heritage site that will help improve the area's infrastructure and the local economy.

For more information: smu.edu/geology.



One Campaign That Worked

The U.S. government missed an opportunity to improve America's image in the Arab and Muslim worlds when it shut down a public diplomacy television advertising campaign in 2002, according to a new book by Professor Alice Kendrick in Meadows School of the Arts' Temerlin Advertising Institute and her associate, Jami Fullerton of Oklahoma State University.

In the book, *Advertising's War on Terrorism: The Story of the U.S. State Department's Shared Values Initiative* (Marquette Books, 2006), the professors examine the ads' effectiveness, part of a multifaceted communication campaign – the Shared Values Initiative – that the State Department launched in 2002 to convince the Muslim and Arab world that America wasn't waging war on Islam. The five television ads, which depicted Muslims commenting on their happy lives and freedom of worship in America, aired in Indonesia (the nation with the largest Muslim population) and other Middle Eastern and Asian countries for several weeks in late 2002. About 300 million Arabs and Muslims saw the televised ads.



Despite support from Secretary of State Colin Powell, other bureaucrats and journalists criticized the effort and shut it down; however, they had no scientific evidence to back up their criticism, the authors say. "According to internal State Department documents about SVI in Indonesia, the campaign achieved its objectives. It not only got people talking about Muslim life in America, it also produced more positive perceptions of America."

The professors also conducted research in London, Cairo and Singapore with more than 500 international students from 39 countries. After viewing the ads, the students were more likely to believe Muslims are fairly treated in the United States and had more positive attitudes toward the U.S. government and its citizens. The research also found that attitudes toward the United States improved more among Muslim students than among students of other faiths.

The authors conclude that advertising can be an effective tool in public diplomacy and should not be discounted as a strategy.

For more information: www.marquettebooks.org.



Book In Progress: Seeing Stereotypes

In the Middle Ages, Spain was comfortably multicultural for several hundred years longer than the rest of Europe, with Christians, Jews and Muslims coexisting in relative peace. However, by 1200, European influences began to seep into

Spain, and negative stereotypes, particularly of Jews, took hold, culminating in the expulsion of Jews from that country in 1492.

Associate Professor of Art History Pamela Patton, whose research specialty is medieval Spain, is working on a book exploring this transformation from previously untapped sources: works of art produced for the Christian majority during this period.

"Like drama, song and folklore, visual culture provides a view of Jewish-Christian relationships in the era that 'official' royal and legal texts often do not address," Patton says.

She won a grant from the National Endowment for the Humanities to pursue her research last summer in Spain and plans to complete it this summer with the study of Spanish manuscripts in Paris.

Patton says she hopes her book, with the working title *Seeing Stereotypes: Christians, Jews, and Images in Medieval Iberia*, will "help people understand we're still living out the legacy of the Middle Ages in our relationships with other cultures, and shed some light on how and why stereotypes and superstitions develop."

For information: smu.edu/meadows/arthistory/faculty.asp#.

Doctoral Student Makes Royal Discoveries

During the past two field seasons in Guatemala while excavating at the archaeological site of El Perú-Waká, Michelle Rich, an SMU Ph.D. student in anthropology, discovered tombs containing the remains of male and female Maya royals.

Rich's research, conducted over four years, concentrates on an area called the Mirador Complex, comprising two large pyramids and a group of three smaller buildings. To date, she has excavated



one of the large pyramids and the small group of buildings. She is studying ritual behavior of the ancient Maya, which also includes investigating sacred landscapes, elite power structures and gender issues within traditional frameworks of ruling authority.

In 2005 Rich excavated a tomb chamber inside the large pyramid containing the skeletal remains of two adult females stacked back to back. Artifacts discovered in the tomb include seven painted ceramic vessels, jade jewelry and Spondylus shell. She also discovered another female of a more advanced age buried in a less ornate chamber, interred with similar shell artifacts and vessels and a large jade bead in her mouth. The period for the burials of the three women is from A.D. 350-400, and the context of their separate burials indicates a relationship among them, Rich says.

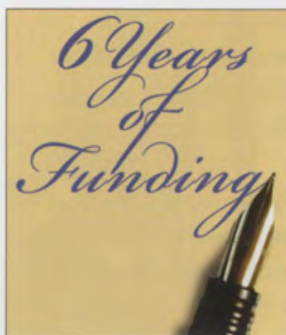
During the 2006 field season she tested the hypothesis that the female burials were related to the interment of a male ruler, possibly his wives and mother, or daughters and wife. She did find a king, but one who ruled nearly three centuries later. Numerous artifacts also were arranged near the remains, including 33 ceramic vessels and various greenstone artifacts, among other items.

Rich is conducting her research under the supervision of David Freidel, the University Distinguished Professor of Archaeology in Dedman College.

English Ph.D. To Fully Fund Candidates

As the English Department recruits its first class of Ph.D. students, it is offering all of them something few other universities can: full funding for up to six years.

"Our financial packages may be, in real dollar terms, the most generous in the U.S.," says Ezra Greenspan, English chair and the Edmund J. and Louise W. Kahn Chair in Humanities. "Most programs don't guarantee every student a fellowship, and certainly not



one that lasts the duration of the program.”

Dennis Foster, director of Graduate Studies, says the English Department could provide a model for funding other Dedman College graduate programs with its stipends, which demonstrate the University’s strong commitment to research.

“Because these candidates won’t have to worry about finances, they’re going to have a moment unlike any other in their lives to read, write, research and take huge strides toward becoming professionals in this discipline,” says Foster, also the D.D. Frenshy Professor of English.

SMU’s Graduate Council has approved the program’s structure and curriculum, which follows a “generalist” philosophy, Greenspan says. That means students will start out broadly with core courses in American and English literary criticism and practice and a teaching practicum, and then specialize in seminars as they begin work on formal examinations and dissertations.

“The seminars will be based on the expertise of the faculty, and that’s where students will learn how to be scholars in their chosen fields,” Foster says. Because only six candidates will be admitted each year, faculty will closely monitor their progress.

In developing the program over the past several years, the department looked at numerous other universities, worked with a consultant from Tulane, and carefully weighed its own strengths, which include close working relationships among faculty and undergraduates, says Greenspan. And although the process has demanded a lot of input from everyone, he says, it also has invigorated the department for the changes ahead.

For more information, visit the English Department’s Web site: smu.edu/english/graduate.

ISEM Trip Observes Geothermal Energy Use In Iceland

A delegation from SMU’s Institute for the Study of Earth and Man (ISEM) visited Iceland last summer to observe that country’s use of geothermal energy. Iceland is the world’s leader in the development of this form of alternative energy.



Because Iceland is located atop the Mid-Atlantic ridge, the spreading center for the Atlantic Ocean Basin, thermal energy is abundant in steamy hot water. Iceland uses hot water to heat its

buildings, keep its streets and sidewalks free of ice, generate electricity, and to provide energy for industrial needs.

The ISEM delegation met with senior representatives of Reykjavik Energy, Shell Hydrogen, Alcoa, Iceland Geosurvey, and Icelandic New Energy, among others. Visits included a field trip to the major geothermal-producing area in the rift valley east of Reykjavik, the geothermal distribution systems in southwestern Iceland, the Shell Hydrogen Busline and system maintenance facilities.

The group included SMU faculty David Blackwell and Bonnie Jacobs (Geological Sciences), and Bijan Mohraz, James Dunham and David Johnson (Engineering); ISEM organizers Louis Jacobs and James Brooks; ISEM Trustees Leighton Steward, Jim Gibbs, Jack Hamilton, Bobby Lyle and Starkey Wilson; ISEM supporters Roy Huffington and Ray Marr; and photographer Adam Dunsworth.

“The ISEM group was able to see and experience a great deal and came away with a high level of appreciation for what Icelanders have accomplished, and the challenges that lie ahead for areas committed to exploring and developing alternative energy sources,” says ISEM President Louis Jacobs.

For more information: smu.edu/isem.

Doctoral Alumni – Where Are They Now?

Susan Vandiver (’06), Systems Engineering Ph.D., works for L-3 Integrated Systems in Waco, Texas, as a senior system engineer II. She leads the Systems Engineering Metrics Action Team project to develop and deploy metrics that measure how well the company performs with its product development. As a member of the Enterprise Process Improvement Group, she assists the organization in implementation of repeatable, standard systems engineering processes. Her work also includes performing systems product development and risk management for military aircraft upgrade and maintenance programs, which support the U.S. armed forces.

Pei-Lin Yu (’06), Anthropology Ph.D., serves as the Power Office archaeologist for the U.S. Bureau of Reclamation’s Pacific Northwest Region. She works with Native American tribes, federal agencies, and state governments to protect archaeological and cultural resources, analyze them to recover information, and help educate tribal and the public on America’s cultural heritage. The program conducts remote sensing, site stabilization, crime scene investigations for looted sites, and the repatriation process for Native American remains recovered from federal lands or housed in federal museums. She also conducts historic preservation work on old dams and power plants. Her work area covers central Washington (Grand Coulee Dam/Lake Roosevelt on what was once the Upper Columbia River) and northwest Montana (Hungry Horse Dam and Reservoir, once the South Fork of the Flathead River), and adjacent lands on national parks, forests and Indian reservations.

Coming To America, Integrating As Citizens

Canadian Caroline Brettell took a long walk in her neighborhood the day before her naturalization ceremony as a U.S. citizen in 1993. “The moment was emotional because you give up a part of yourself when you renounce and abjure your country of birth,” says the anthropologist, who has studied immigration issues for more than 35 years.

Now the Dedman Family Distinguished Professor of Anthropology and dean ad interim of Dedman College, Brettell first entered the United States in 1967 on a student visa to attend Smith College, then transferred to Yale University. She earned her M.A. and Ph.D. degrees from Brown University. Brettell later married an American citizen and obtained a green card, which she owned for 18 years. She decided to become an American citizen to obtain the full rights of citizenship, including not only the right to vote but also the right to serve as executor on a spouse’s estate and to obtain inheritance exemptions that are automatic for citizen spouses, a right being challenged at the time by a proposed law before Congress.

The tug between old and new worlds experienced by all immigrants is familiar to Brettell. She wrote in the September 2006 issue of *American Behavioral Scientist*, “Bridging the divide between reason and emotion, between citizenship (with the rights and responsibilities that accompany it) and identity, and between political belonging and cultural belonging is something that many first-generation immigrants in the United States face.”

Brettell, who joined SMU in 1988, is considered one of the leading cultural anthropologists on the role of women in the migration process, as well as the movement of populations among countries and incorporation as citizens into their new cultures and societies. She began researching the subject for her senior thesis at Yale University, and since has written 48 books or book chapters and 36 articles for scholarly journals.

She has received numerous grants from the National Science Foundation for her research. With a recent \$445,000 NSF grant Brettell has studied various immigrant groups and how they integrate into the economic, social and political fabric of their new communities in the Dallas-Fort Worth Metroplex, considered an emerging gateway city of immigration. The study examines the

populations of Mexicans, Salvadorans, Asian Indians, Vietnamese, and Nigerians who have moved to the area since the 1980s. The research crossed disciplines, drawing on the expertise of SMU professors Jim Hollifield (Political Science) and Dennis Cordell (History), as well as political scientist Manuel Garcia y Griego at the University of Texas at Arlington. Brettell and Hollifield also collaborated on and co-edited a widely used text, *Migration Theory: Talking Across Disciplines*.

Through interviews with the immigrant groups, Brettell found that they become naturalized citizens for pragmatic reasons but identify with and remain emotionally attached to their cultural roots. She asked them to assess what it means to be American on one hand and Indian/Nigerian/Salvadoran/Vietnamese on the other. “Most respondents do not want to choose between being one or the other,” she says. “They believe they can be both, and will emphasize different identities depending on the situation and context.”

A 2005-07 grant from the Russell Sage Foundation is funding research on citizenship practice and civic engagement among Asian Indians and Vietnamese in the Dallas area. Brettell and Deborah Reed-Danahay have co-edited a collection of articles that explore the issues in *Immigration and Citizenship in Europe and the United States: Anthropological Perspectives* (Rutgers University Press, under contract).

Brettell continues to maintain a full research agenda while juggling the responsibilities of dean of Dedman College, an act that is not without its challenges, she says. In fact, Brettell believes that being an active researcher helps her better understand the issues that faculty face when balancing the roles of teaching and research, and the many steps they encounter when applying for research grants. Having participated on

review panels for the National Institutes of Health and the National Endowment for the Humanities, “I know how competitive it is to get these grants,” she says. “It takes patience, mentoring and support, particularly for junior faculty.”

For more information: smu.edu/anthro/SMU_Anthro/Faculty-Pages/Brettell_Page.htm.



(Top) An Indian couple participate in a puja, a blessing for their new house; (middle) Brettell (center) attends an installation dinner of the Dallas Women’s Lions Club, comprising primarily Indian and Chinese women; (bottom) an ethnic strip shopping mall, which can be found throughout the Metroplex.

Medical Matters: Easing Sufferers' Pains

Several SMU faculty members are conducting research into methods that can help ease the symptoms of asthma sufferers, detect glucose levels in diabetics, and take more precise aim at cancerous cells.

Sweet Relief For Diabetics

For Type 1 diabetics, life often is measured by the hours between insulin injections. Less frequent and invasive treatment could improve the quality of life for the more than 20 million adults and children who suffer from the disease.

SMU Assistant Professor of Chemistry Brent Sumerlin is researching polymers that can detect high glucose levels in the blood stream and automatically release insulin, which could free diabetics from a daily injection schedule.

Sumerlin and his team of researchers have designed large, chain-like molecules with two different segments attached to each other at their ends. When these polymers are dissolved in water, they convert themselves into tiny, hollow spheres called vesicles, with one segment inside the other's exterior wall. This segment is not water-soluble and can act as a "molecular handle" that binds to glucose molecules.

"When a high concentration of glucose is present, the sugar molecules diffuse into the vesicle walls, and the molecular handles begin to absorb them," Sumerlin says. "The chemical changes caused by binding to the glucose should cause the vesicles to rupture, similar to a balloon popping." Fill the vesicles with insulin, and when they encounter dangerously high glucose levels in the bloodstream, that pop releases the medication.

Sumerlin's work is supported by a two-year, \$35,000 grant from the Petroleum Research Fund of the American Chemical Society.

For more information: faculty.smu.edu/bsumerlin.

Tiny Lasers, Large Result

SMU's Photonics Group in the School of Engineering is conducting research on photodynamic therapy (PDT), which destroys cancer cells through the use of red laser light in combination with a photosensitizing drug. The drug, administered to a patient hours before treatment, accumulates mainly in cancerous cells. Illuminating the cancerous area activates the drug and kills the cells, with little damage to surrounding healthy tissue.

Assistant Professor of Mechanical Engineering Gemunu Happawana's research uses semiconductor diode lasers – equally powerful as but about 1,000 times smaller than existing PDT lasers – as the optical source for PDT. Semiconductor lasers also are less costly and more efficient. He has developed a self-contained light delivery PDT



system for Barrett's esophagus that positions semiconductor lasers at the end of a thin coaxial cable, which is inserted into a balloon catheter, allowing precise optical, electrical and thermal control at the tumor's location.

"A significant advantage to this design is individual segments or spot locations across the illuminator can be turned on or off and the intensity changed during treatment," Happawana says. "In addition, as new photosensitive drugs become available, semiconductor lasers with the appropriate activation wavelength can be added to the balloon catheter system. In such cases, multiple PDT drugs providing a potent cancer cocktail can be activated in a single treatment."

For more information: engr.smu.edu/ee/smuphotonics.

Breathing Easier

Associate Professor Thomas Ritz and Assistant Professor Alicia Meuret of SMU's Psychology Department are researching the interaction between physiological and psychological aspects of asthma and other diseases.

Asthmatics suffer from a higher rate of panic or other anxiety disorders than does the general population, especially those who develop the disease as adults, Meuret says. Her research into anxiety disorders first showed that breathing exercises were highly effective in reducing panic symptoms in panic patients.

Whether suffering asthma or from anxiety, "patients tend to breathe much too deeply and too fast when they're having difficulty. Their bodies are telling them to get more oxygen, but the problem is they're retaining too little carbon dioxide," Meuret says.

While at Stanford University Medical School, Ritz and Meuret developed a four-week pilot program to teach asthma patients how to breathe more effectively. During the program, supported by the National Institutes of Health (NIH) and the U.S. Department of Veterans Affairs, asthma patients learned through exercises to take slower, shorter breaths. They used devices called capnometers to measure and store data on their oxygen and carbon dioxide levels and respiration rates.

Ritz and Meuret observed stable increases in patients' carbon dioxide levels during the program and a two-month follow-up period. They also noticed reduced frequency and distress of symptoms and an increase in reported asthma control. They have applied for additional NIH funding to expand the study to larger trial groups.

For more information: faculty.smu.edu/ameuret.



Precise Language Only: Avoiding Legal Cliches

Law Professor Beth Thornburg wants to toss the “No Fishing” sign out of courtrooms – metaphorically speaking.

In her research on legal language, she found that civil cases have used the phrase “fishing expedition” as a rhetorical weapon for at least 250 years, and it has become more than a tired cliché. “People think of metaphors as pretty figures of speech,” she says, “but when these phrases become culturally pervasive, they influence the way we think about things.”

In the case of “fishing expedition,” which parties have used to argue against discovery requests, pleadings and entire lawsuits, the metaphor tends to favor defendants, Thornburg says. “When plaintiffs are accused of ‘fishing for information,’ it implies that they’re doing something improper and in bad faith, and probably are incompetent.”

And when an inquiry or lawsuit is condemned as a “fishing expedition,” the metaphor obscures the court’s decision-making process and, worse, can taint the way the courts perceive similar cases. Instead of drawing a difficult line on policy, for example, judges can dismiss something as “fishing” without having to explain why, she says.

Thornburg’s article on the history and impact of “fishing expedition,” which will be published in the *University of Michigan Journal of Law Reform*,

evolved from her earlier work on war and sports metaphors and how they shape the legal adversary system. “Fishing expedition” kept popping up during her research – in a Texas Supreme Court case, and again in Scottish, Australian, and Canadian pretrial procedures. Those common-law countries inherited their legal systems from England, and Thornburg wondered how far back the phrase could be traced.

With the help of Dedman School of Law’s reference librarians and electronic databases, she found her answer: a 1752 English land title dispute, in which a Lord Chancellor criticizes a plaintiff’s “fishing bill.”

The metaphor’s meaning and use evolved, Thornburg learned, but it consistently appears in the “unpopular” lawsuits of its day: the property claims of 18th-century England, debtor-creditor cases in early America, election contests and worker-employer conflicts

during the Industrial Revolution. Today, “no fishing” has made a comeback in cases involving securities fraud, product liability, discrimination, and the environment.

“On the one hand, you want people who have been genuinely wronged to gain relief through the law,” Thornburg says. “On the other, you don’t want frivolous lawsuits. That tension is at the heart of many procedural issues, and they’ll get decided more fairly and thoughtfully if judges and lawyers don’t just slap the ‘fishing expedition’ label on them.”

Thornburg, whose courses include Civil Procedure and Conflict of Laws, will continue researching legal language for her contributions to the

book-in-progress *Law Talk*, by the University of Wisconsin’s Marc Galanter, Yale Law’s Fred Shapiro, and James Clapp, formerly of *Columbia Law Review*.

Among the words she has studied is “boilerplate,” which she has traced to 1860 and sheets of rolled metal that were made into steam engine boilers. The word jumped first to newspapers and, by the 1950s, to law, where it stands for the standard clauses in contracts. Next up: “pound of flesh” from Shakespeare’s “Measure for Measure.”

“The law is a verbal profession,” Thornburg says,

“so the better lawyers and judges use their words, the better off we all are. Cases are more likely to be decided on their merits if the language is precise, and that helps the court system do its job enforcing legal norms.”

Thornburg, who earned her J.D. at SMU and B.A. in history from the College of William and Mary, was an associate with the law firm of Locke, Purnell, Boren, Laney & Neely before joining Dedman School of Law as an assistant professor in 1989. She has published articles on federal and Texas procedure, including “The Story of Lassiter: The Importance of Counsel in an Adversary System” in *Civil Procedure Stories* (Foundation Press, 2004) and “Civil Procedure: Questions & Answers” (LexisNexis, 2003) with SMU Law Professor William V. Dorsaneo III.

For more information: faculty.smu.edu/ethornbu.



Tower Center Fellows Research Public Policy On Global Scale

One of the numerous ways that the John Goodwin Tower Center for Political Studies supports research in public policy and international relations is through providing fellowships to SMU faculty.

"The research that we do as scholars, and that the Tower Center supports, informs all of our teaching," says James F. Hollifield, director of the Tower Center and the Arnold Professor of International Political Economy. "Research is the lifeblood of our business. So the Tower Center isn't just energizing research agendas, but also teaching and scholarship."

The Colin Powell Global Order and Foreign Policy Fellowship, for example, awards up to \$5,000 and is open to SMU faculty members working on issues such as the role of the United States in what former President George H.W. Bush called the New World Order. Stephen Wegren, political science professor and director of International and Area Studies, has been named this year's Powell Fellow for his work on the post-communist transition.

The Tower Center also offers several SMU faculty members annual grants of up to \$2,500 to conduct preliminary research and promote collaborative efforts in areas related to international relations, national security issues, comparative politics, political economy and political institutions.

As the Tower Center welcomes its newest fellow, some current and outgoing fellows are studying the subjects of free trade, Mexican emigration, and political corruption.

Transcending Borders and History

In barrios from Los Angeles to Chicago to Dallas, immigrants from the Mexican federal state of Zacatecas have organized Zacatecan clubs. For an upcoming collection of essays on ethnic



regions, History Professor John Chávez, a Tower Center Faculty Fellow, is researching how migrants form such regional identities within and across national borders and generations.

With funding from the Tower Center and SMU's University Research Council, Chávez traveled last summer to archives in Mexico City, Xalapa in the state of Vera Cruz, and Guadalupe in Zacatecas. He worked with primary sources on the history of federal states and their loss of population to emigration.

"Seeing the landscape, interacting with the people and experiencing the life was as important to me as digging through the archives," he says. "My experiences and research relate directly to my major teaching area, Mexican-American history, which is inherently a transnational field, given migration patterns and the history of the U.S. Southwest as the former Mexican Far North."

Chávez, whose collection is tentatively titled *Imagining Federations*, is the author of *Eastside Landmark: A History of the East Los Angeles Community Union* (Stanford University Press, 1998) and *The Lost Land: The Chicano Image of the Southwest* (University of New Mexico Press, 1984).

The Cost of Political Corruption

Why do voters put corrupt politicians in office? Associate Professor of Political Science Luigi Manzetti, a Tower Center Faculty Fellow, pursued a hypothesis that, until now, lacked supporting statistical evidence: The poorer the country – and the more ineffective its government – the more likely that corrupt leaders are elected by delivering handouts.

"On the one hand, corrupt politicians thrive by manipulating government resources to help their supporters, and corruption thrives when the institutions in charge of political accountability are weak," he says. "On the other, poor people sell their votes to get services that, in principle, they're already entitled to. Corruption deprives them of their rights."

The Tower Center fellowship supported his research with Carole Wilson, assistant professor of government, politics and political economy at the University of Texas at Dallas, which included statistical analysis of World Values Survey data and trips to Latin America and Eastern Europe to interview opinion leaders. His findings will be published in the August *Comparative Political Studies*, and they show it will take more than administrative reforms to end corruption. "As long as countries stay poor, corrupt leaders will stay in power," he says.

Manzetti, who is working on a book about U.S.-backed economic reforms in emerging markets during the 1990s and the corruption it spawned, is the author of *Privatization South American Style* (Oxford University Press, 1999) and the editor of *Regulatory Policy in Latin America: Post-Privatization Realities* (North-South Center Press, University of Miami, 2000).



NAFTA and Mexico, 12 Years Later

Free trade does two things, says Michael Lusztig, the outgoing Powell Fellow: It grows wealth throughout a society and it grows a middle class, which, in turn, demands political freedom.

Now that the North American Free Trade Agreement has been in effect for 12 years, the associate professor of political science is investigating whether Mexico has imported the foundations of democracy: liberal republican values. "I am looking for ways to construct the good society, and one way to do that is through increasing wealth – through free trade, for example," he says. "Another way is to have legitimate restraints on that freedom in the name of community values; you don't want everybody writing their own rules, and this is where republicanism comes in."

Lusztig is analyzing data from the World Values Survey, which has polled citizens of every country since 1981 on issues such as politics, religion, race and education. His early findings are mixed:

Although Mexico held its first democratic election this year and its middle class shows signs of growth, republican values are not as strong as he had hypothesized. "Political cultures change very slowly," he says, "and there has to be some manifestation that liberal democracy is working – that it translates into a better life."

Lusztig, who is beginning a book on the evolution of republicanism, recently co-authored articles on institutionalizing NAFTA and on democracy and economic growth, which were published in *The International Political Science Review*. He is the author of *The Limits of Protectionism: Building Coalitions for Free Trade* (Pittsburgh University Press, 2004) and *Risking Free Trade: The Politics of Trade in Britain, Canada, Mexico and the United States* (Pittsburgh University Press, 1996).

For more information, visit the Tower Center Web site: smu.edu/tower.

Finding Spirit In Womanist Theology

Theologian Karen Baker-Fletcher pauses before answering the often-asked question of whether she is a feminist or an African American woman.

"I like 'womanist,'" says Baker-Fletcher, associate professor in Perkins School of Theology, "because it means you can be a feminist and a woman of color in one body. It answers the obvious – that you can be both and more, that you can embrace the love of God, stand up to senseless violence, and serve the needs of your community. It is a holistic term."

For more than 12 years, through four books and numerous papers and lectures, she has been among those giving breadth and fuller meaning to "womanist," a term first coined in 1983 by Alice Walker, author of *The Color Purple*.

In her latest book, *Dancing with God: The Trinity from a Womanist Perspective* (Chalice Press, 2006), Baker-Fletcher focuses on African American women's struggle for survival and liberation within the meaning of an ever-present God as embodied in the Holy Trinity of Father, Son and Holy Spirit.

"The Trinity helps us overcome the hatred and violence that is an unfortunate part of human existence," she says. "The crucifixion is both literally and metaphorically a hate crime. Through it, Christ overcomes hatred, and by embracing the Trinity, which is rigorous and just love, we can, too."

For victims of extreme hatred and violence, Christ's overcoming of hatred is important because it helps them to avoid becoming like those who have attacked them, she explains.

She received inspiration for her book from a dance performed at St. Luke United Methodist Church in Dallas that depicted the story of Mamie Carthan Till, mother of 14-year-old Emmett Till, an African American youth brutally murdered by two white men in Mississippi in 1954. The mother's decision to hold an open-casket funeral so all could see what had been done to her child helped spark the Civil Rights Movement.

"What she did," Baker-Fletcher says, "was an act of bravery to overcome unjust suffering and violence. It is important for all of us to understand this."

Womanist theology stands apart from African American (male) theology and feminist theology. African American theology is a liberation theology directed at white

racism that would deny people of color equal standing in society. Some African American women see as its shortcoming a failure to appreciate the oppressions they suffer because of both racist and sexist attitudes. Feminist theology, on the other hand, focuses primarily on the oppression of white women without adequately addressing the racial and economic issues that are part of the everyday realities of women of color.

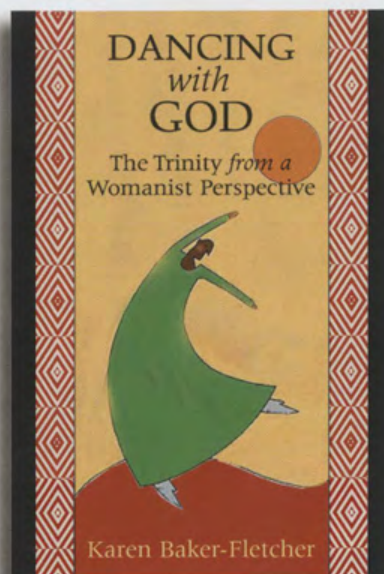
Baker-Fletcher and others seek to fill this void through a theological discourse focused on the spiritual

needs of women of color by addressing their relationships with God, their communities, the economy and the environment.

"Some of my critics have accused me of being more psychological than spiritual," Baker-Fletcher says. "I think, though, that what I bring is a deeper understanding of the emotional needs . . . for love, to be beloved and the spirit of love."

Baker-Fletcher joined SMU in 2001. She received a B.A. in philosophy and French from Wellesley College in 1981, a Master of Divinity in theology and literature from Harvard Divinity School in 1984, and an M.A. in religion in 1990 and a Ph.D. in constructive and historical theology from Harvard University in 1991. Her other books include *Sisters of Dust, Sisters of Spirit: Womanist Wordings* (Fortress Press, 1998), *My Sister, My Brother: Womanist and Xodus God-Talk* (Orbis, 1997), and *A Singing Something: Womanist Reflections on Anna Julia Cooper* (Crossroad, 1994).

For more information: kbakerfl@mail.smu.edu.



Gauging Capital Markets And Terrorism After 9/11



C.PANNELL

Cox Distinguished Professor of Finance Andrew Chen often finds inspiration for a research topic from events of the day. The terrorist attacks of September 11, 2001, provided a valuable resource for his research on contemporary finance and economics.

Chen and co-author Thomas Siems of the Dallas Federal Reserve Bank wrote about the effects of 9/11 and other terrorist and military events in "The Effects of Terrorism on Global Capital Markets," published in the June 2004 issue of the *European Journal of Political Economy*. In the article they illustrated the capabilities and resilience of U.S. capital markets and the federal government's response to highlight a milestone in economic history.

"In the days that followed 9/11, the U.S. Federal Reserve Bank provided massive liquidity to the banking and financial system, virtually at the click of a mouse," Chen says. "The action quickly restored the confidence of U.S. financial markets, which recovered faster than other large international capital markets, including those in London, Tokyo and Hong Kong, among others."

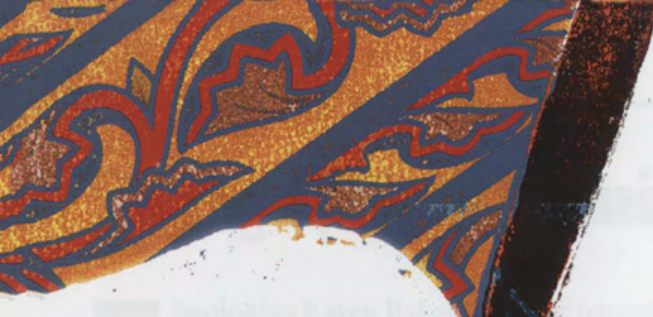
Today, Chen continues to research the long-term effects of ter-

rorism on various sectors. "Five years after 9/11, I found that terrorism no longer causes immediate shock waves to the stock market as it did following the attacks on American soil," he says. Sector differences, however, do affect the overall Gross Domestic Product, including transportation, defense, tourism and insurance."

Chen also studies how global capital markets can be used to aid economic development in India. He analyzes how infrastructure project financing can help overcome obstacles in current financing strategies to further India's role in the global economy.

Chen, who joined SMU in 1983, began formulating his theories on finance nearly 40 years ago while a graduate student at the University of California-Berkeley, from which he earned his Ph.D. His dissertation focused on options pricing at a time when options were not even in the mindset of financial professionals. First published in the *Journal of Financial and Quantitative Analysis*, Chen since has become one of the most prolific authors based on the number of articles published in 72 finance journals – ranking No. 11 in the world.

For information: cox.smu.edu/academic/professor.do/achen.



When Engineering Gets Personal

PROFESSOR RETHINKS HER PHILOSOPHY AFTER NEARLY
LOSING IT ALL IN THE "BIG ONE"

—BY DEBORAH WORMSER

L A U R A J . S T E I N B E R G W A S A N



internationally recognized civil and environmental engineering scholar on combined natural and technological disasters even before she experienced one of the most devastating of modern times.

Hurricane Katrina changed her outlook in many ways, though not in ways one might expect. It did not, for instance, make her think of engineering in more personal terms. The SMU professor of environmental and civil engineering always has

taken engineering personally. The goal of environmental and civil engineering education, Steinberg says, is to create engineers who think deeply about the way people live and who design projects that benefit the communities in which they are built. “In doing so, it is important for engineers to consider how people will interact with these projects and to be sensitive to the local culture and environment.”

“I’m interested in the education of civil and environmental engineers with a broad view of the world,” says the former Tulane University faculty member who joined SMU in fall 2006. “Those are the engineers who will be able to sit down with local leaders to determine what development strategies a city should undertake.”

While acknowledging that specialization is important to some extent, Steinberg believes that her broader view of engineering will shape the future. “The field is catching up with where I am. In civil engineering this viewpoint is becoming more prevalent and there are more proponents of this view,” she says.

The Hurricane Katrina survivor is known as a leader in the emerging field of NATECH disaster research. NATECH – an acronym of “natural” and “technological” – studies the way the effects of natural disasters can be magnified in urban areas when nature and technology interact. The goal of NATECH research is to engineer safeguards that lessen or avoid the problems in the future.

Steinberg’s international stature stems in part from her fieldwork after the 7.4 magnitude earthquake that hit Turkey in 1999. The quake struck particularly hard in a heavily industrialized region near Istanbul. Disruptions in water service, transportation and emergency response contributed to a refinery fire that burned unchecked for several days. It also caused the release of 200,000

kilograms (kg) of anhydrous ammonia gas to relieve pressure and avoid an explosion in tanks at a fertilizer plant and the leakage of 6.5 million kg of toxic acrylonitrile, used in making plastics, from ruptured chemical tanks into the air, soil and water.

A much-in-demand speaker and consultant, Steinberg holds an undergraduate degree from the University of Pennsylvania and Master’s and doctorate degrees from Duke University. In research published in the *Natural Hazards Review*, and later borne out by the Katrina disaster, she warned that hurricanes striking the Louisiana coast could have massively detrimental effects on industrial facilities, which could lead to environmental problems for local communities. In fact, Katrina triggered the release of approximately 1 million gallons of crude oil from a New Orleans oil refinery, necessitating the abandonment of approximately 1,800 houses and resulting in the settlement of a \$330 million class-action lawsuit against the responsible oil company.

Yet, Steinberg contends, studying disasters and experiencing one are very different. She was a homeowner in an area of New Orleans’ Uptown that the locals call “the sliver on the river” when the long-anticipated “big one” met a textbook example of how public policy shortcomings and interdependence of infrastructure can combine to exacerbate the effects of a natural calamity.

“I’VE BECOME INTERESTED IN HOW ONE DEFINES ‘RESILIENCE.’ I’M NOW ABLE TO THINK ABOUT IT IN A LARGER SENSE.”

The experience provided many lessons to everyone in the engineering field, but her most immediate lesson was surprising. “It sensitized me to the fact that just putting out scientific information to the public and thinking you can predict the response to that information is wrong because people are much more complex than that,” she says.

For 10 years Steinberg had warned her friends to evacuate whenever a major storm blew toward the bowl-shaped city, bound on the north by Lake Pontchartrain and on the south and west by the Mississippi River and which sits 8 feet below sea level in some places.

As Hurricane Katrina headed for New Orleans, she says, “they remembered my rant and left. I remembered my rant and still had a hard time believing that the bowl that is New Orleans would fill.” Steinberg recalls that she “didn’t completely commit to the effort,” taking only two days’ change of clothes and leaving her cat behind as she boarded a Southwest Airlines flight to Philadelphia.

“The upshot is that the imagined unimaginable came true,” she says. Although her house stayed dry, she was unable to return to it for five weeks because some areas of the city remained under 10 feet of water and had to be drained with massive pumps. Then the mayor had to make sure the water and sewer facilities worked and



that police and fire personnel were sufficient to ensure health and safety. The city remained under a mandatory evacuation order for several weeks following Katrina. (Her cat survived by hunting, and might have been hunted herself, judging by her new, intense fear of dogs, Steinberg says.)

Her experience led to an ongoing meditation on the term “resilience,” which is used in engineering, urban planning and public policy with slightly different nuances. “I’ve become interested in how one defines ‘resilience.’ I’m now able to think about it in a larger sense. ... I started out thinking about resilience as how to rebuild what had been there previously, and now I recognize that resilience is about how to get back to a highly functioning community, even if that community has different needs, goals and characteristics from before,” she says.



Steinberg is seeing that firsthand in New Orleans, where she watches the public debate over whether whole sections of the city should be rebuilt. She strongly feels the citizens of the community, those who will interact with the new reality, should have a key role in making those decisions.

Steinberg, who in March 2006 was invited to speak on New Orleans and resilience at the National Academy of Sciences in Washington, D.C., emphasizes that in addition to rebuilding the infrastructure, the city must provide encouragement for a stronger community response to future disasters.

“It is a temptation of disaster management planning to focus too much on the role of command and control systems as well as technological needs to manage disasters. It needs to be recognized that citizen response to disasters will be a key element in effective response and that flexibility in the response process needs to be built into the response system,” says Steinberg, who served as a U.S. Capitol page in high school and long has been interested in government and public policy.

From an engineering standpoint, it is obvious that the I-wall design for the hurricane protection system failed and will not be used again. “Importantly, the basic failure mechanism of flooding that occurred for the interior section of the city was water entering the drainage canals from Lake Pontchartrain and the subsequent failure of the I-walls,” she says.

To remedy that problem, in addition to repairing the breaches in the levees and floodwalls, the U.S. Army Corps of Engineers undertook a massive, fast-tracked project to construct temporary floodgates from Lake Pontchartrain to the canal system. When there is no hurricane threat, the gates will stay open so the canals will act as conduits for normal precipitation runoff into the lake.

The gates will be closed during hurricanes to prevent the water from Lake Pontchartrain from entering the canals in an effort to protect them from being breached or overtopped, she says.

Although it is unclear whether global warming had anything to do with the severity of the hurricane, there's no doubt that the destruction of wetlands east and south of New Orleans contributed to the flooding problem, she says.

The hurricane combined with something personal to bring Steinberg to SMU. About three days after the Katrina hit, when everything was chaotic, Steinberg was staying at her sister's home in New Jersey when she received a text message on her cell phone from SMU Assistant Professor of Environmental and Civil Engineering Alfredo J. Armendariz. He wrote: "Hi, Laura, are you okay? We're thinking of you at SMU. From, Al."

"It was one of the kindest gestures I received," she recalls.

A few weeks later, Professor and Department Chair Bijan Mohraz invited her to spend the semester at SMU. However, she already had accepted dual appointments in Washington, D.C. The first was as a fellow at the Department of Homeland Security (DHS) where she worked on the nation's Critical Infrastructure Protection research and development plan, as well as on risk assessment planning and modeling strategy development for disasters. She also provided background information and perspective for the department's post-Katrina efforts to improve the emergency response and to reduce both the number of fatalities and the extent of damage in the future.

In her second appointment, as a visiting scientist at George Washington University's Institute for Crisis, Disaster, and Risk Management, she continued her ongoing research and participated with the institute in briefings with the Dutch Ministry of Water Resources on Hurricane Katrina response issues, with the Mid-America Earthquake Center on disaster response planning and with the Army Corps of Engineers in a series of meetings on how to prepare for the 2006 hurricane season based on lessons from Katrina.

Mohraz persisted, calling to ask if she would consider filling an open slot for a permanent faculty position. During her interview she was attracted by the quality of the faculty as well as their collegiality. "It's hard to find that. I think Dr. Mohraz as the chair has done a terrific job of promoting this culture," says Steinberg, who

will take over as chair of the department at the end of the spring semester. Moreover, that collegiality is fundamental to the interdisciplinary research Steinberg considers necessary to solving the world's most complex problems.

Steinberg was in France recently discussing a possible research collaboration between SMU and L'institute national de l'environnement industriel et des risques (INERIS), the internationally known French institute whose researchers study risks in the industrial environment and work as consultants to governments and industry to manage those risks. In February she spoke at a conference sponsored by the European Commission on "Land Use Plans in Risky Areas" in Milan, Italy. Drawing upon her Katrina work, she talked to social scientists and engineers from throughout Europe about the risks inherent in living and working in hurricane-prone areas.

"The addition of Laura Steinberg to the faculty brings a needed dimension in disaster management and infrastructure protection that I believe an environmental and civil engineering department must provide for 21st-century education and research," Mohraz says, adding that she has the stature to effectively promote strategic partnerships for the University with government and industry.

Steinberg's goals include the concrete, such as adding one faculty member a year for the next five years, and the

more abstract – educating environmental and civil engineers who are competent communicators able to participate in public policy discussions.

From her sunny corner office she says she hopes recruitment of faculty and students will be aided by the new J. Lindsay Embrey Engineering Building – the first university building in the Southwest to be registered for LEED (Leadership in Energy and Environmental Design) gold certification from the U.S. Green Building Council based on stringent air and water quality and conservation standards.

"I love all the light in the building," she says, "the airiness, spaciousness and new lab facilities." All those features plus the LEED designation should help in recruitment, she adds.

"I'm looking forward to leading the department, both in terms of faculty and graduate and undergraduate education."

For information: enr.smu.edu/about/faculty/lauras.html.



A Virtuoso Life

Notes on paper serve as the road map of a musical performance, yet a road map cannot tell a driver everything about a journey, such as how beautiful the scenery is, for example. Cellist Andrés Díaz, who joined the Music Division of Meadows School of the Arts in September, believes in going beyond the printed notes to gain a complete picture of the music he is playing.

“My students sometimes get frustrated because I require them to do so much musical research,” he says. “There’s something about my personality that does not let me play anything unless I understand what I am doing.”

“I don’t feel that I am natural enough as a musician or a player to just learn something and know it’s going to be right. I like to have history behind what I am playing, to understand the composer. I’d like to be able to speak a composer the way I would speak a language – without an accent.”

Díaz cites one of Robert Schumann’s later works, the Cello Concerto, as an example of how knowledge of a composer’s life and the history of a work can provide a performer insight beyond knowledge of the notes. Schumann was mentally ill when he composed it. “It is important to know that at the time he was institutionalized and in very bad shape,” Díaz says. “In a letter that accompanied the piece he complained that he kept seeing angels and dev-

ils. I think at that point in his life his middle personality had completely disappeared. He was either here [Díaz gestures upward] or here [downward].”

Díaz believes the opening of the concerto reflects this emotional chaos. “You hear ‘Schumann’ and you automatically think, ‘This is going to be a great ride.’ And it’s not. You’re dealing with some of the most horrifying feelings and ugliness that could come out of this personality. And then, from one

note to the next, he shifts into this dreamy, wonderful, gorgeous music. This keeps happening; the changes just don’t stop.

“And if you create that and don’t round off the corners, I promise that until the cello lets go of that last cadence [in the opening], you won’t give people a moment to move or breathe.”

Taking music seriously is a family tradition. Last year Andrés’ brother, Roberto, left his position as principal violist of the Philadelphia Orchestra to become president of the Curtis Institute of Music. His sister, Gabriela, is a professional violinist. Another sister, Jenny, is a trained musician but not a professional. Their father, Manuel, is a former violist with the Atlanta Symphony Orchestra. Manuel’s first wife, Pauline, who died in 1976 and is the mother of





Jenny, Roberto and Andrés, was also a musician. Manuel's second wife, Betty Anne, Gabriela's mother, is another musician.

"There was a lot of music around the house," Roberto says. "It wasn't certain that we would be professionals, but with both of our parents being musicians, we were expected to be at least musically educated. We had fun with it always, but we were expected to practice and take it seriously."

Andrés began the study of cello at age 4 with Arnaldo Fuentes, principal cellist of the Chilean Philharmonic in Santiago, where Andrés was born. In 1973, when he was 8, the family emigrated from Chile to Atlanta, where Andrés was taught by Martha Gerschefski.

After high school he entered the New England Conservatory of Music in Boston and studied with Larry Lesser. While still at the Conservatory, Díaz won the prestigious Naumburg International Cello Competition in New York in 1986. "I remember calling Lawrence Lesser and telling him I had just won the Naumburg," he says. "I expected a congratulation, but I didn't get one. He said, 'Oh boy. Your problems have just begun.' And he was right." The Naumburg often leads to a career as a concert artist, and the life of a touring virtuoso can be hectic.

Díaz since has toured internationally as a concerto soloist and chamber music player. He often performs as a member of the Díaz Trio, which includes violinist Andrés Cárdenes, concertmaster of the Pittsburgh Symphony, and the two Díaz brothers. Since joining

SMU, he also has performed with the Meadows Symphony Orchestra and as a soloist in Caruth Auditorium.

In addition, Andrés has taught at the Boston Conservatory and Boston University, as well as with the extension division of the New England Conservatory of Music. Some of his private students have attended Harvard University and the Massachusetts Institute of Technology.

His students gain the benefit not only of Díaz's own skill as a performer and teacher but also his experience as a concert artist. Even more important, however, they are participating in the same learning process as Díaz, which continues even after acquiring a broad knowledge of music in school, he says.

A musician continually must delve into a composer's compositional methods, he says. "You have to develop a new technique for every kind of piece, for every composer, and also for every piece by the same composer. Playing an earlier Brahms sonata is not the same as playing a later Brahms sonata. In his earlier period Brahms would take a theme and develop it for the whole piece. In his later period he would actually take a fully developed theme and break it down throughout the piece – almost the reverse of what he did in the beginning.

"With Beethoven you have the three periods – early, middle



and late – and it’s interesting to see how his style changed throughout. He went from having pieces that were monumentally big with this much information [holding two fingers close together] to having pieces like the last two sonatas that are 12 or 15 minutes long at the most and have 10 times as much information.”

What Díaz looks for in a work, and teaches his students to look for, is “depth,” or a quality

beneath the surface of a piece that exerts a strong appeal to a listener’s psyche even if the work is not obviously attractive on a first hearing, he says. He mentions Lutoslawski’s “Gravé: Metamorphosis for Cello and Piano,” a work he has recorded. He first played it on a program that included a number of cello favorites. To his surprise, the audience seemed to like it best.

“I do push my students to understand these things because if they don’t, it’s the equivalent of taking a test without reading any of the material. When you sit down and start practicing, you have to know what you are doing. Knowing how to play the cello is nothing if you don’t know why a piece is important and what kind of approach you want to have.

“I spend a lot of time when I’m traveling thinking about how I will approach a piece. I don’t like doing that with the cello in my hands because you can so easily start playing and get into habits that you’re going to have to change – and then the learning process becomes so much longer.”

In fact, through requiring his students to conduct research on the composers and their works they will perform, Díaz has encountered reciprocity in the teaching process. “A lot of the information I have learned from asking students to do research, or having a student who’s really into a particular composer come in and exchange information with me. Sometimes the cello doesn’t even come out of the case. I learn as much or more than they do.”

Díaz’s former students confirm his broad-based teaching style and willingness to tailor it to their individual needs.

Jan Muller, who teaches cello at the Phillips Academy in Andover, Massachusetts, studied with Díaz at Boston University from 1994 to 2000. “He helped me grow as a musician not only through the cello lessons but outside them,” says Muller, also a native of Chile. The lessons, however, extended beyond technique to broader considerations, he says. “When certain topics came up, we would discuss those in depth – whatever the need was at the moment.” Muller also says that Díaz “never in-

flicted on me any dogmatic teachings. He helped me improve the ideas I brought in.”

Tobias Werner is a native of Germany who is based in Warm Springs, Virginia, and plays professionally with the Garth Newell Piano Quartet. During his cello studies at Boston University in the mid-’90s, he found that Díaz paid special attention to “what’s behind cello playing, in a musical sense. He was trying for you to be very convincing, musically. There were a lot of conversations. It was not the typical teacher-student relationship, where you play and he tells you what is wrong.” Werner says that Díaz also emphasized the importance of a cellist studying the piano part or the orchestral part in addition to his own music.

Florent Renard-Payen, a native of Paris, studied with Díaz in Boston for five years in the early 1990s. Now based in Clinton, New York, he’s the founder and a member of Tarab, an eight-cello ensemble committed to new music. Renard-Payen says that Díaz focused on the importance of knowing the different editions of a work. “The problem is that sometimes details are altered by well-known cellists versus what the composer’s intention was,” he says. Díaz urges his students to consult the most authentic sources, with a minimum of alteration, to understand the composer’s intentions. One further piece of Díaz advice to Renard-Payen: “Don’t listen to recordings of pieces you are learning. Trust yourself.”



An unfortunate lesson that the teacher and his students have learned is that air travel with a cello is, in Díaz’s word, a “nightmare.” Not only do cellists have to buy a second plane ticket for their instrument (trusting it to the baggage hold is unthinkable), but passing through airport security has become challenging.

Díaz, who owns a rare 1698 Matteo Goffriller, recalls his experience at a checkpoint in Boston’s Logan Airport soon after 9/11. One of the security agents yanked out the cello from its case and began to look inside it by shining his flashlight through the f-hole. He banged the flashlight against the wood and cracked it. Repair of a 303-year-old cello can be very costly because it must be done by the right expert. But Díaz’s Goffriller is in good shape again.

Oh yes, no terrorist device was found inside.
For more information: www.andresdiaz.com.

REIMAGINING INDIANS



Hand-colored engraving by George Catlin, from *Illustrations of the Manners, Customs, and Condition of the North American Indians* (London, 1866), vol. 2, p. 55, plate 157. Courtesy SMU's DeGolyer Library.



HISTORIAN STUDIES NATIVE AMERICANS THROUGH THE EYES OF OTHERS

From western savage to counter-culture icon, generations of white Americans have painted Indians to their likeness. Perceptions of Native Americans and their evolution in U.S. history form the basis of research conducted by Professor of History Sherry Smith. The author of two books on the way the outside world perceives Indians, Smith is writing her third book on the subject, which looks at how hippies and other young white radicals venerated Indians and supported their political and economic goals.

Notions about "Indianness" have shifted over time. During the frontier era, Smith says most Anglo-Americans wanted to conquer and assimilate Indians into the dominant white society. By the turn-of-the-century, however, those attitudes began to change after several Eastern writers published their firsthand accounts of living among the Western tribes.

Smith set the stage for her current research by exploring these champions of Native American culture in her book, *Reimagining Indians: Native Americans Through Anglo Eyes, 1880-1940*. They include Mabel Dodge Luhan and Charles Fletcher Lummis, who spent time with Indians in the Southwest, and Walter McClintock and George Bird Grinnell, who turned their attention to the Indians of the Pacific Northwest and Northern Rockies. They celebrated their Indian experiences in lecture tours, essays, poems, best-selling books and national magazine articles.

"They weren't really academics or anthropologists or ethnographers. They just went out West in the late 19th and early 20th centuries and ingratiated themselves with Indian communities," Smith says. "Because their books were widely read and influential, they helped us understand what I would call modern Anglo-Amer-

ican ideas about Indians.” The ideas paved the way for a new federal Indian policy in the 1930s that scrapped assimilation programs and promoted cultural preservation.

A second revival of white interest in Indians occurred in the 1960s and 1970s, Smith’s focus for her forthcoming book, tentatively titled *Discovering the Nations Within*. During those decades Indian activism exploded on the nation’s consciousness with the 1969 occupation by Native Americans of Alcatraz Island to protest federal Indian policies and the 1973 siege at Wounded Knee in South Dakota. Young whites began experimenting with Native American customs, but Smith says they appropriated more in appearance than in substance. They adopted Indian hairstyles and clothing and were attracted to the tribal communal living arrangements. In their eyes Indians were romantic figures living free of conventional American mores.

Other members of the New Left, however, took the Native American rights movement more seriously and became involved in their political struggles. Taking up the cause célèbre, actor Marlon Brando refused to accept the Oscar in 1972 for his role in “The Godfather,” sending Sacheen Littlefeather, who read Brando’s statement protesting discrimination against Indians in films and in government policy. “The role of non-Indian peoples in advancing Indian affairs was significant, which does not diminish the role that Native Americans played,” Smith says. “But demonstrations of support by celebrities such as Brando as well as student activists became defining moments that helped fuel support from Congress and the courts.”

In the 30 years since, support has increased greatly among non-Indians to restore Indian treaty rights, sovereignty, and self-determination, Smith says. “Given the demographic reality of the number of Indians in this country, how non-Indians perceive Indians has been critical” to their political and economic development, she adds.

While conducting research for this book, Smith says that she was surprised by several findings: The strong involvement of the churches in the movement for Indian rights and the interesting dynamics that emerged between Indians and African Americans. “Some assume there was a natural affinity between the two minority groups, but the relationship was really more complicated,” she says. “Native Americans sometimes felt that their efforts were subsumed by the civil rights rhetoric from African Americans, because with Indians it’s always been about treaty rights and regaining land and control that had been promised by the U.S. government.”

Smith began researching the way non-Indians view Indians while working on her dissertation for her Ph.D. at the University of

Washington. Her adviser suggested that she should investigate Army officers and their wives who were settling the West in the 1800s and what they thought about Indians. The result was *The View from Officers’ Row: Army Perceptions of Western Indians*. Smith also continued that approach with *Reimagining Indians*, attracting the attention of the Organization of American Historians, which awarded her its James A. Rawley Prize for the best book on race relations in 2001.

For her work, Smith has received a grant from the National Endowment for the Humanities. She has been a Fulbright scholar in New Zealand and received awards and fellowships from the American Historical Association, the Beinecke Library at Yale University and the Andrew Mellon Foundation. SMU also named her a 2004-05 Ford Research Fellow.

In addition to her research on Indians, Smith has published *Sagebrush Soldier*, her great-grandfather’s diary from the Indian Wars of the 1870s. She also edited a volume of essays, *The Future of the Southern Plains*, the result of a symposium on the Southern Plains presented in 2002 by the Clements Center for Southwest Studies in Dedman

College (see article on page 21). It featured historians, climatologists, oil economists and geographers discussing the region’s past and future trends affecting its growth. Smith, who serves as the associate director of the Clements Center, is organizing a symposium on “Indians and Energy in the Southwest: Exploitation or Opportunity?” for spring 2008 at SMU.

“The Clements Center seminars are designed to have at their core a question that not only has historical significance but also resonance today and some implication for regional or national policy,” she says.

Smith, who teaches courses on the history of Native Americans, 19th- and 20th-century Western history and women in the American West, says she came to SMU in part because of the Clements Center and its national regard among historians. The other draw was History Professor and Clements Center Director David Weber, an expert on the U.S. Southwest and its borderlands prior to 1848.

“David is highly respected, not only as a great scholar but also a really terrific person,” Smith says. “There’s nothing better than working in an environment with other people who share your interests so you can carry on a meaningful conversation and share your ideas and your network. It adds so much to your scholarship and teaching.”

For more information: faculty.smu.edu/sherrys/index.htm.



Sherry Smith

CLEMENTS CENTER BROADENS SCHOLARSHIP OF SOUTHWEST

Little evidence exists today of Smelertown, a now-extinct Mexican community that existed from 1887-1975 at the base of the American Smelting and Refining Company's copper smelter in El Paso, Texas. Although company and professional photographs record the significant role that Mexican workers played in the plant's daily operations, they reveal male-centered communities defined by work.

Monica Perales, assistant professor of history at the Uni-

versity of Houston, is examining how personal family photographs illuminate how the women of Smelertown articulated and defined meanings of community in their daily lives.

Perales has spent the academic year with SMU's Clements Center for Southwest Studies as a Summerlee Foundation Research Fellow for the Study of Texas History, completing a manuscript on Smelertown for publication. She is one of four Research Fellows currently supported by the Clements Center,

which provides fellowships for senior or junior scholars in the humanities or social sciences who are conducting research on the Southwestern United States and the U.S.-Mexico borderlands. The fellowships enable the scholars to complete book-length manuscripts.

Established in 1996, the Clements Center promotes research, publishing, teaching and public programming in a variety of fields related to the American Southwest. The Center also awards research grants to SMU graduate students to travel and conduct work that focuses on Southwest topics. In addition, through grants and research opportunities, the Clements Center offers support for Ph.D. students in the William P. Clements Jr. Department of History.

Since its creation a decade ago, the Clements Center has increased SMU's regard among historians nationally, as evidenced by its increased faculty and graduate student participation in sessions at the recent Western History Association's annual meeting, says David J. Weber, Robert and Nancy Dedman Professor of History and director of the center.

"One of the joys has been seeing the ways that the Clements Center and the Department of History have worked in tandem to deepen the intellectual life of the SMU community, yet also make an important impact beyond it."

For more information on the Clements Center: www.smu.edu/swcenter.



His-oo-san-ches (the Spaniard), hand-colored engraving by George Catlin, in Illustrations of the Manners, Customs, and Condition of the North American Indians (London, 1866), vol. 2, p. 67, plate 172.

In academic year 2005-06, sponsors awarded \$15,454,165 to SMU for direct and indirect costs of research and sponsored projects. Totals in previous years were \$14,675,605 in 2004-05, \$19,658,689 in 2003-04, and \$13,752,118 in 2002-03.

Funding sources for the \$15,454,165 were federal agencies, \$13,346,356 (86.4%); foundations, \$1,152,456 (7.5%); corporations, \$748,690 (4.8%); state and local governments, \$82,528 (0.5%); and other, \$124,135 (0.8%).

Dedman College received \$9,583,820 in 71 awards; the School of Engineering, \$3,428,675 in 40 awards; the School of Education and Human Development, \$1,576,562 in eight awards; Dedman School of Law, \$742,108 in one award; and Meadows School of the Arts, \$18,000 in two awards. Nonacademic departments reporting to the Provost Office and others received a total of \$105,000.

Of the 86 project directors/investigators, 52 received \$100,000 or more in aggregate funding. They are listed in alphabetical order.

Alfredo Armendariz, Environmental and Civil Engineering, "Control of Workplace Diesel Exhaust Particulate," National Institutes of Health

John Attanasio, Law, "Rule of Law Forum," U.S. Small Business Administration

Bruce Ayati, Mathematics, "Computational Methods and Software for Structured Multiscale Models of Tumor Invasion," National Science Foundation (NSF)

Edward Biehl, Chemistry, "Investigation of Certain Aspects of Benzyne Chemistry" and "Synthesis of New Poly-Sulfur-Nitrogen Heterocycles via the Reaction of Trithiadiazapyne with Heterodienes," The Welch Foundation

David Blackwell, Geological Sciences, "Dixie Valley Nevada Geothermal System Report" and "Geothermal Resource Studies," Department of Energy

Jerome Butler, Electrical Engineering, "Nano-Patterned, Phase Shift Insensitive, 2-Dimensional Photonic Lattice Outcoupler for Grating Surface Emitting Lasers," NSF

Jerome Butler and Marc Christensen, Electrical Engineering, "Quantum Well Intermixing for Reduction of Absorption," Air Force

Jerome Butler and Gary Evans, Electrical Engineering, "SMU Laser Diode Modeling Development," Northrop Grumman; and "Grating Outcoupler and Quantumwell Optimization for GSE Lasers," NSF

John Buynak, Chemistry, "Design and Synthesis of Small Molecule Inhibitors of Medicinally Important Enzymes" and "Rational and Combinatorial Approaches to Protease Inhibition," The Welch Foundation

Marc Christensen, Electrical Engineering, "Quantum Cryptography STTR, Photodigm Inc.," Air Force; "Processing Arrays of Nygiost-Limited Observations to Produce a Thin Electro-Optic Sensor," Navy; and "Quantum Encryption Phase II STTR/ Photodigm Inc.," NSF

Marc Christensen and Jerome Butler, Electrical Engineering, "Dispersion Guided Photonic Crystal Background," Photodigm Inc./Air Force

Scott Douglas, Electrical Engineering, "Source Separation (also, Modification I)," Central Intelligence Agency; "Launching the Texas Engineering Education Pipeline: Deploying the Infinity Project Statewide," Texas Higher Education Coordinating Board

Ping Gui, Electrical Engineering, and **Jingbo Ye**, Physics, "The U.S. Atlas Research Program: Empowering U.S. Universities for Discoveries at the Energy Frontier," NSF

Richard Gunst and William Schucany, Statistical Science, "Gulf War Illness Research Program," Department of Defense; "Biostatistical Research Interns," University of Texas Southwestern Medical Center

Eugene Herrin and Paul Golden, Geological Sciences, "Ongoing Operations and Maintenance of the International Monitoring System Primary Seismic Array PS47 (NVAR) Located Near Mina, NV USA (Sub-contract between University of Mississippi and SMU)," Army; "Operation and Maintenance of the TXAR Array," Air Force; "The Operation and Maintenance of Three IMS Primary Seismic Arrays," Comprehensive Testban Treaty Organization

Richard Jones, Biological Sciences, "Polycomb-Group Genes and Gene Regulation," National Institutes of Health

Ernest Jouriles and Renee McDonald, Psychology, "Domestic Violence and Child Aggression," National Institutes of Health; "Family Violence and the SMU Family Research Center" and "Project SUPPORT: Reducing Mental Health Problems Among Children Exposed to Domestic Violence," Department of Justice

Jeffery Kennington and Eli Olinick, Engineering Management, Information and Systems, "Discrete Optimization Models and Efficient Algorithms for Designing Reliable Optical Networks," Navy

Radovan Kovacevic, Mechanical Engineering, "Collaborative Research Proposal for Industry/University Cooperative Research Center for Lasers and Plasmas for Advanced Manufacturing," NSF; "Development of Multi-Fabrication Manufacturing Technology," National Aeronautics and Space Administration; "Fellowship Program in Lasers and Plasmas for Advanced Manufacturing," Department of Education

Paul Krueger, Mechanical Engineering, "Collaborative Research: Ontogenetic Changes in Swimming Squid: An Integrative Examination of Jet Structure and Muscular Mechanics (collaborating with New York Institute of Technology)" and "Hydro and Aerodynamic Pulsed Jet Micropropulsion," NSF

Patricia Mathes, Institute for Reading Research, "NCEE-English Language Acquisition Evaluation Research Program (Project ELLA)," Department of Education

Patricia Mathes, Jill Allor, and Ian Harris, Institute for Reading Research, "Maximizing Literacy Learning Among Children with Mild to Moderate Mental Retardation (Project Maximize)," Department of Education

Patricia Mathes and Deborah Diffily, Institute for Reading Research, "Texas Instruments Model Demonstration 2005-06," Texas Instruments Foundation

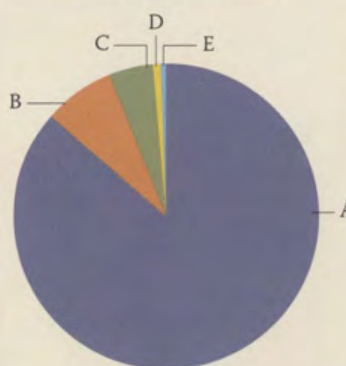
Peter Moore, Vladimir Ajave, Zhangxin Chen, Bruce Ayati, and Johannes Tausch, Mathematics, "Acquisition of Scientific Computing Equipment: Enhancing Research in Applied Mathematics and Computation," NSF

Sukumaran Nair, Computer Science and Engineering, "Nano-Security Initiative with a Focus on Nano-Sensors," Department of Commerce; "Traffic Engineering and Security for Metro-Ethernet," Alcatel USA

William Orr, Biological Sciences, "Thioredoxin Peroxidases, Oxidative Stress, and Aging" and "Glutathione, Oxidative Stress, and Aging," National Institutes of Health

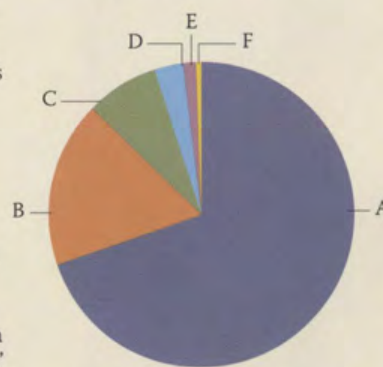
Geoffrey Orsak and Tammy Richards, Electrical Engineering, "To Create a Larger, More Diverse, and Better Prepared Pool of Students Pursuing and Completing Engineering Degrees," National Instruments Foundation; "To Create a Larger, More Diverse, and Better Prepared Pool of Students Pursuing Math, Science, and Engineering Degrees," Houston Indowment Inc.

Funding Sources



- A Federal \$13,346,356 (86.4%)
- B Foundations \$1,152,456 (7.5%)
- C Corporations \$748,690 (4.8%)
- D State Local \$82,528 (0.5%)
- E Other \$124,135 (0.8%)

Distribution Of Funds



- A Dedman College \$9,583,820
- B Engineering \$3,428,675
- C Education and Human Development \$1,576,562
- D Law \$742,108
- E Provost Office \$105,000
- F Arts Local \$18,000

Geoffrey Orsak and Betsy Willis, Electrical Engineering, "High Heels-High Tech Workshop," Dallas Women's Foundation

William Pulte, Literacy/Language Acquisition, "Master's Program in Bilingual Education with Gifted and Talented Focus" and "Supplemental Certification in Bilingual Education," Department of Education

Svetlana Radyuk, Biological Sciences, "The Role of Peroxiredoxins in Immunity and Aging," National Institutes of Health

Dinesh Rajan, Electrical Engineering, "Power efficient design of wireless networks with delay guarantees," NSF

Lawrence Ruben, Biological Sciences, "TRACK Regulates Cytokinesis in *Trypanosoma brucei*," National Institutes of Health

David Son, Chemistry, "New Multi-Purpose Reagents for the Synthesis of Conjugated Polymers and Macrocycles" and "Multidentate Tioether and Ethynylpyridine Ligands for Supramolecular Assembly," The Welch Foundation

Jerrell Stracener, Stephen Szygenda, and Richard Barr, Engineering Management, Information and Systems, and **Mitchell Thornton**, Computer Science and Engineering, "Re-engineering Not-for-profit Technical Organizations for Transition to Market-Driven Enterprises: Strategies, Models, and Application to the Technical Information Center," Army

Jerrell Stracener and Stephen Szygenda, EMIS, and **Mitchell Thornton**, CSE, "Product Development Process Improvement Research," Lockheed Martin Aeronautics Company

Ryszard Stroynowski, Physics, "High Energy Physics (Experimental)," Department of Energy; "The U.S. Atlas Research Program: Empowering U.S. Universities for Discoveries at the Energy Frontier," NSF; "ATLAS Commissioning Maintenance and Operations" and "G-Link System," Brookhaven Science Associates, LLC

Ryszard Stroynowski and Ping Gui, Physics, "Development of Fast Optical Data Links (Memorandum of Understanding between SMU and U.S. ATLAS Project Office for Upgrade R&D for April through September 2005)," Department of Energy

Ryszard Stroynowski and Fredrick Olness, Physics, High Energy Physics (Theory)," Department of Energy

Brian Stump, Geological Sciences, "Field Studies to Quantify Natural and Man-Induced Events in NE China and Korea Using Seismic and Infrasonic Observations" and "Seismic Acoustic Monitoring (AF/AFTAC)," Air Force

Brian Stump and Christopher Hayward, Geological Sciences, "Seismic and Infrasonic Energy Generation and Propagation at Local and Regional Distances: Active Experiments in the Western United States," Air Force

Steven Vik, Biological Sciences, "Interactions of Membrane Proteins" and "Analysis of Supercomplexes of Membrane-Bound Enzymes," The Welch Foundation; "Structure-Function Studies of *E. coli* Fo-ATPase," National Institutes of Health; "Quinone Binding Sites Complex I and their Possible Role in Disease," American Heart Association

Pia Vogel, Biological Sciences, "The Stator Subunits of the ATP Synthase," NSF; "Investigating the Structure and Functions of the Nucleotide Binding Sites of the Ryanodine Receptor Using ESR and Photoaffinity Approaches," American Heart Association

James Waddle, Biological Sciences, "Longevity and Metabolism Mediated by Fasting," National Institutes of Health

R. Hal Williams, Research and Graduate Studies, "Graduate Research Fellowship Program (for three students)," NSF

Patty Wisian-Neilson, Chemistry, "Cyclic Phosphazenes," The Welch Foundation

Jingbo Ye, Physics, and **Ping Gui**, Electrical Engineering, "The U.S. Atlas Research Program: Empowering U.S. Universities for Discoveries at the Energy Frontier," NSF



Compiled by Larry Smith, Director of Research Administration and Technology

Christopher Anderson, Theology/Sacred Music, was awarded the 2006 Max Miller Book Prize from Boston University School of Theology for his book *Max Reger and Karl Straube: Perspectives on an Organ Performing Tradition*.

José Bowen, Meadows Dean/Music; **Robert Frank**, Music/Theory and Composition; and **Simon Sargon**, Music/Composition, were awarded 2006 ASCAPPlus awards by the American Society of Composers, Authors and Publishers in New York.

Jaime Clark-Soles, Theology, received a 2005-07 Wabash Center for Teaching and Learning in Religion grant for "Teaching Biblical Exegesis in Theological Schools," a collaborative project involving 12 participants from North American seminaries and divinity schools.

Mel Coffee, Journalism, was named a 2006 Educator in the Newsroom Fellow by the Radio and Television News Directors Foundation. His host station was KSBW-TV in Salinas, California. He was the only professor from a Texas university to receive the honor.

Craig Flournoy, Journalism, received a 2006 James Madison Award from the Freedom of Information Foundation of Texas. He gave the award to his journalism students to honor their work on the Light of Day Project, which he has helped to lead.

Amar Gande, Finance, received the 2006 Addison-Wesley prize for co-authoring the best paper – "Enhancing Security Value by Ownership Restrictions: Evidence From a Natural Experiment" – published in *Financial Management* during 2004-06.

Samuel Holland, Music/Piano, was named the Texas Music Teachers Association's 2006 Collegiate Teacher of the Year.

Benjamin Johnson, History, was a finalist for the Hiatt Prize in the Humanities, given by the Dallas Institute of Humanities to honor work by an early-career humanist that has significance beyond the University.

David Karp, Music/Piano, was honored by the new music ensemble Voices of Change at its 2006 spring gala benefit for his lifetime participation in and promotion of new music composition, teaching and performance.

Peter Raad, Mechanical Engineering, was elected a Fellow of the American Society of Mechanical Engineers in 2005, received the Best Paper Award at the 2006 IEEE Semi-Therm Conference in Dallas, and was elected a Senior Member of the Institute of Electrical and Electronics Engineers.

Robert W. Richter, History, has written a book, *The Battle Over Hetch Hetchy: America's Most Controversial Dam and the Birth of Modern Environmentalism*, Oxford University Press, 2005.

Alan Wagner, Music Education, received The Adele Mellen Prize for Distinguished Scholarship, 2005, for *A Bio-Bibliography of Composer Warren Benson* (Edwin Mellen Press).



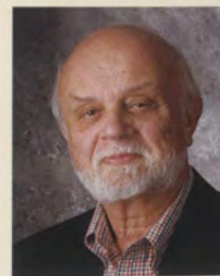
Ben Johnson



Mel Coffee



Jaime Clark-Soles



David Karp

PORTRAIT OF AN ARTIST



Internal Shield



Shadows for Bells

For sculptor Vanessa Paschakarnis, space and form serve as a means to the desired end in her work: They encourage viewers to “re-evaluate their existence as physical beings.” Her works, she says, allude to the “essence of an encounter – an encounter with form as a thing – and the thing as equal companion. This essence seems to be desire – the human desire to interact with inhuman form.”

Although such an exercise can seem abstract at first, she ultimately engages the viewer by using designs that borrow from simple forms in nature. Working in stone and bronze, the assistant professor of art in Meadows School of the Arts creates pieces on a scale of the human body. A shark’s tooth enlarged takes on centurion-like proportions. A sand dollar lends its shape to a human shield.

Her sculptures, Paschakarnis says, “are beings in and of themselves autonomous objects that occupy space – in the room and in the viewer’s head.”

Paschakarnis, who joined SMU in 2004, is a native of Germany who also holds Canadian citizenship. She earned an M.F.A. degree from Kunsthochschule Berlin-Weissensee in Germany and an M.F.A. degree from the Nova Scotia College of Art & Design in Canada. She has



Shadow for a Guardian

exhibited her work, sculpture and drawings in Europe, the United States and Canada. Since 2002 Paschakarnis has worked for three extended periods on large-scale sculptures in Pietrasanta, Italy.

To view more of her work: www.v-paschakarnis.com.



The Black Shield



Southern Methodist University
Office of Research and Graduate Studies
PO Box 750240
Dallas, TX 75275-0240

Non-Profit Org.
U.S. Postage
PAID
Southern
Methodist
University

For more information about *SMU Research*:
214-768-4345
smugrad@smu.edu
www.smu.edu/newsinfo/research



Manal Hour, a doctoral student in computer science, discusses her project on power and performance management in large-scale data centers with Hesham El-Rewini, professor and chair of SMU's Computer Science and Engineering Department, at the Annual Research Day Fair in February.