

INSIDE INSIGHT

New appointment

ASU taps Hesse as vice provost

2

Silver Quills

University communicators earn 6 awards

3

Darwinfest

E.O. Wilson headlines ASU event

5

Way down under

Biosphere research sniffs out petroleum

10

Academic Bowl

A rousing first round of competition Oct. 14 launched ASU into its third annual Academic Bowl.

The game: two 12-minute halves of rapid question-and-answer play. The players: undergraduate students across all four campuses. The goods: up to \$4,500 in scholarship money along with bragging rights.

In the first match of the night, the Cronkite School Maroon team went head-to-head with the returning champions from the College of Liberal Arts and Sciences (CLAS). Backed by a cheering crowd of spectators, CLAS took an early lead, displaying a certitude in Greek mythology. Cronkite's vast knowledge in pop music and current events proved otiose in catching up with the bowl veterans, who clinched the match with 485 points to Cronkite's 145.

The second match featured the Fulton Engineering Gold team competing against the W. P. Carey team. Both teams correctly answered questions that challenged their biblical knowledge, but the business students were able to gain substantial ground, despite an increasingly raucous crowd. W. P. Carey sustained their lead in the second half to win the match 255-145.

The final matchup of the evening pitted the College of Human Services against the College of Design team that was able to rack up bonus points by answering the names of several of William Shakespeare's plays, but lost five points when they could not determine which of the Bard's plays dealt with three male characters who take an oath not to give into the company of women. The answer? "Love's Labour's Lost."

After a close first half, Human Services emerged victorious with a final score of 205-125.

For more results, visit the Web site www.asu.edu/academicbowl.



TOM STORY PHOTO

Katherine McCausland, left, and Aubrey Roberts of ASU's College of Human Services confer during the first round of the 2008 Academic Bowl at the Memorial Union's Pima Room Oct. 14. Their team triumphed over the College of Design squad in a closely matched contest.

Mexico startups put SkySong in rare air

Arizona accelerator 1 of just 6 worldwide

By Sharon Keeler

ASU has signed a major deal to bring a technology business accelerator (TechBA) for Mexico's most innovative startups to SkySong, the ASU Scottsdale Innovation Center.

SkySong will work in partnership with the U.S.-Mexico Foundation for Science and the Ministry of the Economy of Mexico to operate TechBA Arizona. The joint venture will bring representatives of knowledge-based Mexican busi-

nesses to Arizona and provide them with office space and support for accelerating their businesses in the U.S. or international markets.

Additionally, TechBA Arizona will work with companies based in Mexico that are preparing for expansion but are not yet ready to open a U.S. office. These "pre-acceleration" companies receive training and support, via seminars and consultations, in Mexico and the United States.

"Mexico is Arizona's largest trading partner, and TechBA provides a new mechanism to create mutually

beneficial economic linkages," says ASU President Michael Crow.

The Arizona accelerator is the sixth TechBA program worldwide. Others are located in Austin, Texas; Silicon Valley, Calif.; Detroit; Montreal; and Madrid, Spain.

A focus of TechBA is to promote and support entrepreneurship to top-tier Mexican startups. In recent years, ASU has built its entrepreneurial portfolio into one of the largest and most diverse in the United States, and SkySong is the focus point of the university's entrepreneurial activities.

According to Julia Rosen, ASU associate vice president for innovation and entrepreneurship, SkySong is working with more than 40 firms from 11 countries, and TechBA will provide an opportunity to create a sustained focus on Mexican knowledge-based enterprises.

"At SkySong, these Mexican businesses will gain access not only to the SkySong companies, they will also gain access to ASU's deep relationships with universities and incubators across the world," Rosen says. "In Europe, for example, ASU (See INNOVATIVE on page 11)



Although ASU's Tempe campus is peaceful these days, there have been some memorable moments over the past 50 years since Proposition 200 led to the establishment of Arizona State University. In the 1970s, Old Main was the site of Vietnam War protests.

Homecoming Block Party equals fun times, activities for all ages

By Adriana Elektra Sanchez

The 2008 ASU Homecoming celebration will be one of the most memorable in the university's history, as it celebrates the university's 50th anniversary with an exciting football game between ASU and Washington State at Sun Devil Stadium Nov. 15.

The celebration will offer attendees the opportunity to reconnect with the university's past and look forward to its future – and children will get a chance to see that a college campus can be one of the best places to have fun and learn at the same time.

Aside from the football game, the week of Nov. 7-15 offers the community dozens of activities designed to entertain and educate current, future and visiting Sun Devils. Among the most



popular events are the Homecoming Parade and the Block Party, an event that transforms the university Alumni Lawn and the surrounding area along University Drive into one of the biggest celebrations of the year. It attracts thousands of visitors to ASU's Tempe campus each year.

(See BLOCK on page 11)

ASU's Yan uses living cells as nanotech factories

By Joe Caspermeyer

In the tiny realm of nanotechnology, scientists have used a wide variety of materials to build atomic scale structures. But just as in the construction business, nanotechnology researchers often can be limited by the amount of raw materials.

Now, researcher Hao Yan at the Bidesign Institute at ASU has avoided these pitfalls by using cells as factories to make DNA-based nanostructures inside a living cell.

The results were published in the early online edition of the *Pro-*

ceedings of the National Academy of Sciences.

Yan specializes in a fast-growing field within nanotechnology – commonly known as structural DNA nanotechnology – that uses the basic chemical units of DNA, abbreviated as C, T, A or G, to self-fold into a number of different building blocks that can further self-assemble into patterned structures.

"This is a good example of artificial nanostructures that can be replicated using the machineries in live cells," Yan says. "Cells are really good at making copies of

double-stranded DNA, and we have used the cell like a copier machine to produce many, many copies of complex DNA nanostructures."

DNA nanotechnologists have made some very exciting achievements during the past five to 10 years. But DNA nanotechnology has been limited by the need to chemically synthesize all of the material from scratch. To date, it has strictly been a test-tube science, where researchers have developed many toolboxes for making different DNA nanostructures to attach and organize other mole-

cules, including nanoparticles and other biomolecules.

"If you need to make a single gram of a DNA nanostructure, you need to order 1 gram of the starting DNA materials," says Yan, who also is a professor in the Department of Chemistry and Biochemistry at ASU. "Scientists have previously used chemical methods to copy branched DNA structures, and there has also been significant work in using long-stranded DNA sequences replicated from cells or phage viruses to scaffold

(See SCIENTIST on page 11)

ASU lights up solar research with advanced testing facility

By Karen Leland

TUV Rheinland Group has joined forces with ASU to create TUV Rheinland PTL, the most comprehensive, sophisticated, state-of-the-art facility for testing and certification of solar energy equipment in the world.

This unique collaboration, which is a private venture, will be based in Tempe. It combines the powerful reputation, technological sophistication, management expertise and international reach of TUV Rheinland Group – the global leader in independent testing and assessment services – with ASU's more than 50 years of research on solar energy and extensive solar testing know-how.

ASU's Photovoltaic Testing Laboratory (PTL), established in 1992, has long been the only lab in the United States accredited for photovoltaic (PV) design qualification and type approval.

ASU's legal involvement in this venture was made possible by Arizona Technology Enterprises and its wholly owned subsidiary, Commercial PTL Ventures Inc.

TUV Rheinland's collaboration will connect ASU's PTL facility to the company's global network. The new company substantially expands PTL's testing capabilities in volume and scope by adding state-of-the-art test equipment, as well as the capacity to test and certify PV panels and electrical components for Europe, Asia and North America.

PTL, in turn, provides TUV Rheinland (See COLLABORATION on page 11)

Hesse appointed vice provost for community college partnerships

By Julie Newberg

Maria Hesse, president and chief executive officer of Chandler-Gilbert Community College, has been appointed ASU's vice provost for community college partnerships.

Hesse, who serves as chairwoman of the ASU Alumni Association's board of directors, will assume her new post effective July 1.

"For decades, ASU has worked closely with the state's community colleges to advance the cause of higher education in Arizona," says ASU President Michael Crow. "This year, 5,446 college students transferred into ASU; of that number, 3,166 were from the Maricopa Community College District (MCCD).

"As we move forward, Maria Hesse, because of her years of experience with MCCD and several of its colleges and her knowledge of ASU, is the ideal person to expand and enhance those connections."

ASU also is committed to graduating more students to enhance the nation's work force.

"In response to the state's need for more baccalaureate degree recipients, ASU is committed to improving articulation with the community colleges in the state," says Elizabeth D. Capaldi, ASU's executive vice president and provost. "As an ASU alumna and well-respected community college president, Dr. Hesse is the ideal person to lead our partnerships with the community colleges that will achieve this aim."

Hesse says there were several reasons why she was delighted to accept ASU's offer.

"This position will allow me to continue working with all of the

Maricopa Community Colleges, as well as other community colleges in the state, helping many students to transfer and complete baccalaureate degrees," she says. "ASU has some exciting new plans toward this end, and I am enthused about playing a part in dramatically increasing student baccalaureate degree completion in this state."

Hesse earned her bachelor's and MBA degrees at ASU, and she has been active with the ASU Alumni Association for 20 years. She says she is happy to be returning to the university, where she has many friends.

Hesse has a long and varied background in education, especially at MCCD, where she has worked for the district and held positions at many of the system's institutions. Since 2002, Hesse has been president and chief executive officer of Chandler-Gilbert Community College, where she oversees overall operations of the community college that serves about 15,000 students and has more than 600 employees.

Programs and services offered by the community college include general education, university transfer programs, developmental education and work force development.

"Maria will provide exceptional leadership for our community college partnerships, and her long-term service to the Maricopa Community Colleges will be a significant asset to ASU," says David Young, ASU senior vice president for academic affairs.

Hesse served as vice president of academic affairs at Chandler-Gilbert Community College from 1998 to 2002.

Other positions she has held at the community college include:

- Business and computer information systems faculty member, 1989-1998.

- Associate dean of student development, 1988-1989.

- Supervisor of admissions and records, 1987-1988.

- Adjunct faculty member, 1987-1989.

In addition to her two ASU degrees, Hesse earned a doctorate in educational leadership and a master's degree in education from Northern Arizona University. She also is a graduate of the Institute for Educational Management at Harvard Graduate School of Education.

From 1984 to 1986, Hesse worked as the director of the Ford Foundation Transfer Opportunities Program, and directed student activities and services at South Mountain Community College. She was principal of Judson School in Scottsdale, where she also served as a teacher, dean of girls and dormitory counselor from 1977 to 1984.

Awards that Hesse has won include the Alumni Hall of Fame Award from the College of Public Programs at ASU; Outstanding Doctoral Student from Northern Arizona University; Ardeth Cropper Award in Educational Leadership; Woman of Distinction Award from Soroptimist International of the San Tans; and Women Leaders Distinguished Achievement Award from Maricopa Community Colleges. She has provided consulting services to numerous educational institutions in states such as Arizona, California, Ohio, Texas and Florida.

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Economic club's speaker series sports big names

By Debbie Freeman

Valley audiences will get a chance to hear from some major players during the Economic Club of Phoenix's speaker series this year.

Retired Supreme Court justice Sandra Day O'Connor and the head of Eli Lilly and Co. are among the headliners.

The Economic Club of Phoenix (ECP) was founded by a group of prominent business executives called the Dean's Council of 100, in conjunction with ASU's W. P. Carey School of Business. The group is now the pre-eminent Arizona forum for the exchange of ideas about business and the economy. Its monthly luncheons and other activities offer Valley business leaders and others opportunities to network and engage.

This year's speaker lineup (subject to change) is:

- Oct. 22 – Roger Dow, president and chief executive officer of the Travel Industry Association.
- Nov. 19 – Sidney Taurel, chairman of the board of Eli Lilly and Co.
- Jan. 15 – Sandra Day O'Connor, retired U.S. Supreme Court justice.
- Feb. 26 – Gary Loveman, chairman, CEO and president of Harrah's Entertainment Inc.
- March 26 – Michael Ahearn, CEO of First Solar Inc. and Dean's Council of 100 Executive of the Year.
- April (date and details to be announced).
- May 20 – Annual Economic Outlook Luncheon.

All of the events take place from 11:30 a.m. to 1:30 p.m. The first two luncheons will be held at the Arizona Biltmore Resort & Spa. Guests are welcome for a \$100 luncheon fee. The Executive of the Year luncheon cost is \$150. Funds in excess of the cost of the lunch are used to support student scholarships and faculty research at the W. P. Carey School of Business.

For more information, or to reserve seats, contact Amber Hadvab at (480) 965-1709 or amber.hadvab@asu.edu. For sponsorship opportunities, or to register groups of nine or more, contact Rhett Wilson at (480) 965-2333 or rhett.wilson@asu.edu.

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W. P. Carey School of Business

Some hospitals slow to adopt life-saving information technology tools, ASU study finds

By Debbie Freeman

The recent drug overdose given to actor Dennis Quaid's newborn twins has placed new attention on major hospital mistakes.

Thousands of Americans die from preventable medical errors each year, with the number of deaths equivalent to a jumbo jet crash once a day. Now, new research shows some hospitals may be much riskier places to become the victim of a medical error because certain types of hospitals have been slower to adopt life-saving information technology (IT) tools.

"Health information technology is regarded as an essential tool to improve patient safety, but progress in adopting these tools remains slow," says assistant professor Michael Furukawa of the School of Health Management and Policy at ASU's W. P. Carey School of Business.

He and his colleagues – professor Ajay Vinze, associate professor T. S. Raghu and doctoral student Trent Spaulding – analyzed nationally representative data that show patterns in which hospitals have adopted IT for medication safety. The study examined eight IT systems that reduce medication errors, including electronic medical records, computerized entry of physician orders and bar coding of medications administered. They found striking variation in the rate of adoption at hospitals.

"First of all, the percentage of hospitals adopting these important technologies is very low overall," Furukawa says. "Even though President George W. Bush has already issued an executive order to have the majority of Americans' health records online within the next few years, only about a third of hospitals have electronic medical records. In 2006, hospitals, on average, had adopted less than three of the eight IT processes that we examined."

For example, the study found that about 14 percent of hospitals had a system that allowed doctors to order prescriptions via computer. That particular method helps to cut down on handwriting errors, as well as to ensure the right doses and check for interaction with other drugs the patient in the database is taking.

The study also examined which types of hospitals have been quicker to adopt these IT tools. They include larger hospitals, teaching hospitals, hos-

"This means we need to target policy to the hospitals that have been slow to adopt (information technology). This is a matter of saving lives and ensuring better care."

– Assistant professor Michael Furukawa of the School of Health Management and Policy

pitals that belong to a multihospital system and hospitals with joint commission accreditation. Also, hospitals on the East Coast have higher health IT adoption rates than those in the western and mountain regions.

"This means we need to target policy to the hospitals that have been slow to adopt IT," Furukawa says. "This is a matter of saving lives and ensuring better care."

To combat the problem of slower adoption at some hospitals, the study authors recommend targeting intervention to specific facilities, such as those that are smaller or located in rural areas. They also recommend government-sponsored financial incentives for these providers to help them pay for the cost of the systems. Some states already have formal patient safety coalitions and centers dedicated to this issue. Similar initiatives could be established in other areas.

More results of this study were published in *Health Affairs*, a journal about health policy. To read the article, visit the Web site <http://content.healthaffairs.org/cgi/content/abstract/27/3/865>.

Freeman, with the W. P. Carey School of Business, can be reached at (480) 965-9271 or debbie.freeman@asu.edu.

Lodestar Center earns PR award

The ASU Lodestar Center has received the 2008 Public Relations Society of America (PRSA) Phoenix Chapter Copper Anvil Award for Government Special Events/Promotions.

The center's entry was for the 15th annual (2007) Nonprofit Conference on Sustainability Strategies, titled "Mission and Messaging: Cutting Through the Noise."

The Copper Anvils are sponsored each year by the Phoenix Chapter of PRSA, and recognize complete public relations programs that incorporate sound research, planning, execution and evaluation. The awards reflect the highest standards of performance in public relations in both for-profit and nonprofit settings.

"It's quite an honor to receive an award of excellence in a media market as large and diverse as Phoenix," says Amy Cox O'Hara, marketing and communications specialist for the ASU Lodestar Center. "We're thrilled our efforts were recognized by PRSA."

Scoring for the awards is based on a 100-point system. An entry must score above 85 to earn the Copper Anvil Award, and above 75 to earn the Award of Merit. Only one winner is

selected for the Copper Anvil in each category, unless there is a tie. The next-highest-scoring entry earns the Award of Merit.

Entries scoring above an 85 that do not receive a Copper Anvil Award or Award of Merit due to higher-scoring entries in the category are recognized with a certificate of achievement.

"We are in the business of advancing effective and innovative practice for those who lead, manage and support nonprofits," says Robert Ashcraft, the center's director and a professor of nonprofit studies in ASU's School of Community Resources and Development. "It is therefore encouraging to be recognized in this way, since we certainly want to practice what we teach in helping organizations achieve the highest level of performance in meeting their mission."

This year's Nonprofit Conference on Sustainability Strategies, titled "Philanthropy and Fundraising in a Changing World: Voluntary Action for the Common Good," will take place Dec. 4-5 at the Desert Willow Conference Center. More information is available online at <http://nonprofit.asu.edu>.

ASU Insight

ASU Insight is published by Media Relations, a department within the Office of Public Affairs. ASU Insight is published on Fridays, except during university holidays and other times as deemed necessary by the Insight editorial board. Submit items typed, double-spaced. The editor reserves the right to edit for style and space. Send an e-mail to asu.insight@asu.edu, fax (480) 965-2159 or send campus mail to 5011 – ASU Insight. To reach ASU Insight by telephone, call (480) 965-9689.

Deadlines: Submit all articles, notices and calendar items as early as possible. **Deadline is Friday before noon for the following Friday's paper.**

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Printed on paper from Sustainable Forestry Initiative (SFI) certified mills and forests.

Spirit of Enterprise awards presentation set to air on Eight

By Susan Soto

ASU Spirit of Enterprise Center, part of the W. P. Carey School of Business, will present the annual awards honoring local businesses that best demonstrate ethics, energy and excellence in entrepreneurship in a program airing at 7:30 p.m., Oct. 22, and 2 p.m., Oct. 26, on Eight/KAET-TV.

The awards program, now in its 12th year, is acknowledged as a premier recognition of business leadership. Spirit of Enterprise 2008 profiles the five winning Arizona organizations: ATS Electric, American Traffic Solutions, Community Tire, Sundt Construction and Televerde.

The Eight production is made possible by Edward Jones, Rich Dad Co. and the Arizona Lottery. The Spirit of Enterprise awards luncheon took place Sept. 25 at the Arizona Biltmore Resort and Spa.

Soto, with Eight, can be reached at (480) 965-0579 or susan.soto@asu.edu.

Ward bids fond farewell to ASU after 17 years as general counsel

By Sharon Keeler

Paul Ward, vice president for university administration and general counsel at ASU, has been named vice president for legal affairs, general counsel and secretary to the board of trustees at Southern Methodist University, effective Jan. 1.

"We are pleased to welcome Paul Ward to SMU," says SMU President R. Gerald Turner. "As an SMU law alumnus, he knows the university, and his extensive background in legal affairs at other universities gives him the knowledge and experience to lead SMU's legal affairs division."

At SMU, Ward will oversee legal services to the university, including the supervision of three staff attorneys, and selection and management of outside counsel. Additionally, as secretary to the board of trustees, he will work closely with the president and senior administrative officers in coordinating the board's activities.

"It is with mixed emotions and utmost respect for Arizona State University and President Michael Crow's vision for ASU



Paul Ward

as a New American University that I have decided to accept an appointment as vice president for legal affairs, general counsel and secretary of the board of trustees at Southern Methodist University," Ward says. "It has been an honor to serve as the chief legal officer of ASU since June 1991. I will always treasure the friendships established at ASU and in Arizona."

Ward became vice president for university administration and general counsel at ASU in September 2004. He has served as general counsel at ASU since June 1991.

In the role of vice president for university administration his areas of responsibility include the police department, university audit and advisory services, and the environmental health and safety department. Ward also serves as an adjunct faculty member in the Sandra Day O'Connor College of Law and the Mary Lou Fulton College of Education at ASU.

"Paul Ward has been an integral part of the ASU administration for 17 years," Crow says. "His accomplishments and leadership have strengthened many areas of the university as it has grown immensely in size and complexity. Paul is irreplaceable, and he will be greatly missed."

Keeler, with Media Relations, can be reached at (480) 965-4012 or sjkeele1@asu.edu.

ASU communicators take home 6 Silver Quills

Two ASU publications, a School of Life Sciences' podcast, and six writers and designers were recognized by the International Association of Business Communicators (IABC) at the Southern Regional Silver Quill award ceremony in Denver Sept. 29.

The ASU winners were chosen over submissions from 27 IABC chapters in 14 states and 15 countries.

ASU's *Chain Reaction*, created by Conrad Storad and his staff at ASU's Office of Research Publications for young readers in elementary and middle schools, and *School of Life Sciences Magazine*, produced by managing editor Margaret Coulombe and designer Jacob Sahertian, were singled out for excellence in writing and design. This was *School of Life Sciences Magazine's* first submission to IABC.

"The magazine is a highly collaborative publication, pulling from the combined efforts of our graduate students and staff," Coulombe says. "It's nice to have validation from the professional community that we are doing a good job, creating a valuable tool to train our graduate students, and developing the appropriate vehicle to showcase the contributions made by our researchers, students and alumni to the global community."

Diane Boudreau, staff writer for *ASU Research Magazine* and *Chain Reaction* in Storad's group, earned special recognition from IABC. She was awarded two Silver Quills for her writing. One was for her 2007 piece "Fuels of Green," which brought to life research by Milton Sommerfeld and Qiang Hu on algal biofuels. Her second article, "Cosmic Playground," featured Paul Davies, director of the Beyond Institute.

"Paul Davies is so interesting, who wouldn't win an award writing about him?" she asks.

Since 1987, Storad and his group at Research Publications have won more than 150 Silver Quills for writing, editing, illustration, photography, publication design and Web site design.

ASU picked up a win in a new category this year, for excellence

in audio and visual communications. School of Life Sciences' Charles Kazilek, creator of the children's educational science Web site "Ask a Biologist," received a Silver Quill Award for his innovative podcast series. Twice a month, listeners are taken on an audio journey, from the Tibetan Plateau, to a scorpion's lair, to deep within the structure of a feather, experiencing along the way the excitement that scientists feel for their work, their lifestyles and their hobbies.

Each of ASU's submissions was graded on effectiveness of communication in print, design, Web or audio; creative and innovative approach in communicating with the target audience; and a review of a documented measurement of objectives.

The metrics for ASU's award-winning communications are notable. Kazilek's Web site tallies up more than 420,000 student, 140,000 teacher, and 140,000 adult visits per year. Combined with *School of Life Sciences Magazine*, *Research Magazine* and *Chain Reaction*, these award-winning publications contribute to a substantial educational footprint.

The audience for *ASU Research Magazine's* print version includes more than 50,000 readers spread across all 50 states and 49 countries. Issues of *Chain Reaction* are distributed to more than 175,000 students and teachers at thousands of schools in Arizona and across North America.

"This magazine is unique," Storad says. "No other university in the United States has anything like it at all. It's a beautiful tool for putting stories of science and learning directly into the hands of young readers and their teachers."

The IABC Silver Quill judges seemed to agree. One wrote: "It's a perfect publication for the target audience. I want a subscription for my own kids." Another added: "More universities should take ASU's lead and reach out to younger readers with science information that is fun to read and fun to look at. *Chain Reaction* is very cool."

Barrett Speaker Series focuses on childhood obesity

By Marshall Terrill

Trends in child obesity and how health care providers plan to address the problem will be the subject of the next Barrett Downtown Speaker Series.

Bonnie Gance-Cleveland's "New Findings from the Field on Child Obesity" starts at 12:30 p.m., Oct. 22, in room 480A of the University Center, located at 411 N. Central Ave. in Phoenix.

The event is open to the public.

Gance-Cleveland is the director at the Center for Improving Health Outcomes in Children, Teens and Families, and she also is an associate professor at ASU's College of Nursing and Healthcare Innovation at the Downtown Phoenix campus.

"The United States has an epidemic of childhood obesity, and now we're starting to see Type II obesity in our young people," Gance-Cleveland says. "The long-term health consequences for these children will be lifelong, and the cost to our health care system will be astronomical."

The Barrett Downtown Speaker Series brings cutting-edge faculty research to Barrett students

and the ASU community. The series, which started Aug. 26 with School of Public Affairs faculty and Fulbright fellow Chris Herbst analyzing U.S. and Danish social policy regimes, conducts a monthly lunchtime speaker in varied fields.



Bonnie Gance-Cleveland

Future faculty presenters come from the Cronkite School of Journalism, the College of Nursing and Health Care Innovation, and the College of Public Programs. They will address interdisciplinary topics, including "Neuroscience and Journalism," "The Art of Living Mindfully" and media coverage of Latinos in the Southwest.

Gance-Cleveland says there has been an increase in overweight youths in the United States for the last four decades, and these youth are more likely to develop diabetes, hypertension, heart disease, orthopedic and respiratory problems. She says that using collaborative methods

such as motivational interviewing and Community Based Participatory Research has been helpful in addressing the problem.

"The current recommendations from the experts includes the use of motivational interviewing that involves collaborating with families to plan for healthy eating, discouragement of unhealthy eating and increasing exercise behavior," Gance-Cleveland says. "In addition, school-based obesity interventions that include exercise, nutrition and coping skills have shown significant improvements in middle school and show promise for combating childhood obesity."

Gance-Cleveland, who earned her doctoral degree in nursing from the University of Colorado Health Sciences Center in Denver, Colo., was a member of the expert writing group of the American Medical Association obesity recommendations and the National Association of Pediatric Nurse Practitioners obesity prevention guidelines. She has recently been inducted as a fellow into the American Academy of Nursing.

Terrill, with the Downtown Phoenix campus, can be reached at (602) 496-1005 or marshall.terrill@asu.edu.

In THE NEWS

ASU experts frequently are called upon by the local and national news media to provide insight and opinion on current events and issues of public interest. Following are excerpts of recent news articles featuring ASU representatives.

Children who never escape the watchful eye of a parent may not develop the independence they'll need to negotiate the world, says **Anni Damgaard**, an ASU sociology instructor. However, there's not really a single answer to the question of when your child should be allowed to do certain things, because "it depends on your child," Damgaard says. She adds that parents will know when their children are ready to take on certain responsibilities. *Arizona Republic*, Oct. 6.

NASA's next big mission hopes to send a robotic rover the size of a small sport-utility vehicle to Mars. **Kip Hodges**, a professor of earth and space exploration at ASU, says that "one of the things they wanted our opinion on is, is this a critically important mission? And the answer to that is absolutely yes." However, Hodges also wonders what opportunities might be lost to the Mars Science Laboratory's growing costs. "At some time, when you're on fixed income, you have to think how far you can go, even if it's an excellent mission," he says. *New York Times*, Oct. 10.

Some critics are blaming business schools for the nation's financial crisis, saying the curriculum focuses too much on profit and the bottom line, and not enough on ethics. "Not all business schools are alike in this," says **Gerry Keim**, associate dean for MBA programs at ASU. "Lots of people have codes of ethics. Enron used to publicize its code of ethics at great length. Actions are much more important than words." *Phoenix Business Journal*, Oct. 10.

It is rare for TV stations to refuse to run an ad, including political attack ads, says **Craig Allen**, an associate professor of journalism at ASU. "For them to turn away any kind of advertising is a sacrifice to their operation," Allen says. "The problem with this form of communication is that it can be hurried into the public eye, into the community domain, without truth, and accuracy, and contemplation and thought. Most TV stations will run anything – and, after the elections, will wash their hands of it." *Arizona Republic*, Oct. 11.

As Arizona's economy has slid over the past year, lottery revenues have remained relatively steady, the figures show. **Timothy James**, an economics professor at ASU, says lottery tickets can be more attractive to some people in a bad economy than in a good economy. "So maybe there's a bunch of people out there who are buying lottery tickets in the desperate hope that they might win some money that would get them out of their financial malaise," James says. *Tucson Citizen*, Oct. 11.

Professors explore social impact of evolving technologies

By Joe Kullman

What are the next stages in the evolution of information and communication technologies for the everyday consumer, and how will the advances affect society? How will an expanded virtual-reality realm shape the way commerce is conducted, how workplaces function and public infrastructure systems are used? What are the environmental implications when people obtain newer electronic devices and dispose of older models, adding to an already large accumulation of electronic waste – or “e-waste”?

Answers to such questions will be sought by ASU faculty members Brad Allenby and Eric Williams in research supported by a \$25,000 grant recently awarded through the AT&T Industrial Ecology Faculty Fellowship Program. AT&T Inc. is the largest provider of local and long-distance telephone services, wireless services and Internet access in the United States. The company’s industrial ecology grant program funds research to seek solutions and decision-making guidelines for the telecommunications industry that are economically efficient and environmentally responsible.

Meshing physical and virtual reality

Allenby, a professor in the Department of Civil and Environmental Engineering in ASU’s Ira A. Fulton School of Engineering, will work on formulating a deeper understanding of the complex interaction between urban transportation infrastructure and next-generation information and communication technologies.

As such technologies enable more people to telework from their homes, or conduct meetings in “virtual-reality spaces” instead of participating in person, it affects workplace environments and the patterns of use of transportation systems, Allenby says.

Social behavior patterns and transportation use also are affected, for instance, by the fact the many young people today congregate not in physical spaces – like shopping malls as their parents once did – but in virtual spaces such as Facebook and other social networking Internet sites.

There also will be increasing economic effects as well, Allenby says, as retail sale and e-commerce options begin to integrate into mixed systems. While some publications, music and video offerings are now delivered electronically rather than as physical products, at the same time online browsing stimulates consumption of other products, such as clothes or books.

How such integrated systems can be designed for environmental and economic efficiency, while responding to consumer needs, is not just an interesting research question but of vital importance to today’s businesses.

“Our first step will be to understand the economic, social and environmental impacts of the shift from physical activity, like traveling by car, to virtual activity, like working or conducting business on the Internet,” Allenby says. “That understanding forms a basis for decisions about the capabilities that should be provided by the next advances in information and communication technology.”

New designs and combinations of functions provided by such technologies as cars, cell phones and computer networking sites are important to the social fabric of communities, because these are “technologies of freedom,” Allenby says.

“They are important to people not just physically, but psychologically,” he says. “People associate what the technology allows them to do with a sense of participation in daily life and a connection to the social environment.”

It’s all about multifunctionality

Williams, an assistant professor in the civil and environmental engineering department and ASU’s School of Sustainability, will research the implications of the proliferation of new high-tech products such as smart phones, iPods and flat-screen televisions on use impacts and waste management.

Multifunctionality of devices is on the increase. Cell phones, for instance, are capable of not only voice communication, but also video, music playing, digital photography and e-mail.

The rapid change in devices with such multifunctionality can be expected to drive up demand for increased production of newer and newer models. Williams says that, because of the increasing amount of energy and materials required to make the advanced components in high-tech devices, recycling of materials from the devices recovers only a relatively small part of the total environmental investment in the manufacturing process.

It’s also possible that new devices will substitute for older ones, leading to reduced demand. For example: Are people buying fewer film and digital cameras because of the new multifunctional devices?

It’s important to look at the evolution of the full portfolio of electronics people are buying, rather than taking a product-by-product view, Williams says.

One key aspect of the project will survey consumers about their purchase, usage and disposal patterns of electronics “as a holistic package,” he says.

Kullman, with the Ira A. Fulton School of Engineering, can be reached at (480) 965-8122 or joe.kullman@asu.edu.

11th annual African Festival set for Oct. 18 at West campus

By Steve Des Georges

A celebration of Africa will feature music, dance, vendors, food, live performances, children’s games, a fashion show and more at ASU’s West campus Oct. 18.

The 11th annual “African Festival ’08” will be presented by the African Association of Arizona (AFASA) from 10 a.m. to 6 p.m. at the Delph Courtyard. The festival is AFASA’s largest community outreach event each year.

Included on the schedule of events are live performances throughout the day by Nigerian talking drummer “Agalu,” led by Akeem Ayanniyi; master djembe drummer Amadou Kienou from the country of Burkina Faso; Arizona Drum and Dance, with master dancer Mabiba Baegne from the Congo; and Kawambe-Omawale Drum and Dance Theatre, including performances of drumming, dancing, storytelling and singing.

Among the activities scheduled are an African marketplace, fashion show, African arts and crafts, masks and home décor, paintings and sculptures, and African children’s games.

The mission of AFASA, a 501(c)(3) founded in 1992, is to bring people in Arizona together to promote African awareness through educational and cultural activities. The organization works to be an educational resource to the surrounding community and to serve as a new contact for African immigrants to Arizona.

Other festival sponsors include the city of Phoenix, the Arizona Commission on the Arts, the National Endowment for the Arts and myspace.com/africanfestival.

African Festival ’08 is free to the public. Call (623) 247-4869 or (623) 215-2507 for more information.

Schedule of events

- 10-10:15 a.m.: Opening ceremonies.
- 10:30 a.m.: AGALU – Akeem Ayanniyi.
- 12:30 p.m.: Amadou Kienou/Mabiba Baegne/AZ Drum and Dance.
- 1:15 p.m.: Motherland Soul Reggae Band.
- 2 p.m.: African Fashion Show.
- 2:30 p.m.: Amadou Kienou/Mabiba Baegne/AZ Drum and Dance.
- 3:30 p.m.: Motherland Soul Reggae Band.
- 4:15 p.m.: AGALU – Akeem Ayanniyi.
- 4:45 p.m.: Kawambe Omowale Drum and Dance Theatre.
- 5:30 p.m.: Motherland Soul Reggae Band.

Des Georges, with Public Affairs at the West campus, can be reached at (602) 543-5220 or stephen.desgeorges@asu.edu.

Regents’ Professor Glass paints grim picture of public education in 21st century America

By Verina Palmer Martin

ASU Regents’ Professor Gene Glass paints a grim picture of public education in 21st century America. He sees an economically strapped society moving more toward cheapening education, resegregating students and focusing on the end result rather than the learning experience.

His new book, “Fertilizers, Pills & Magnetic Strips: The Fate of Public Education in America,” is an eye-opening analysis of how education policies in the United States are degrading public education and quasi-privatizing education for the white middle class at public expense.

His research explains how contemporary education debates are the result of demographic and economic trends that occurred throughout the last century. He also envisions a challenging future for public education as the minority segment of the general population grows and the baby boomer population ages.

“All of the big movements and debates in education – charter schools, vouchers, virtual schools, tax credits, open enrollment – allegedly are about quality education and international competitiveness,” Glass says. “In fact, they are not truly about that at all. They are about the aging middle class trying to cut support for public institutions that increasingly are serving people not like themselves.”

Academics and education policymakers are lauding the book for examining the consequences of current policies that Glass contends are more about cutting costs than improving public education. Professor Patricia Gandara, co-director of the Civil Rights Project at the University of California-Los Angeles, says Washington policymakers listen when Glass talks.

“He is a respected scholar who has been at the forefront of designed methodologies to test the strength of the evidence for educational outcomes,” she says. “His blunt critique of the blinders that education policymakers have had on over the last few decades as they have shaped policy, largely in a knowledge vacuum, has to be heard.”

David Berliner, ASU Regents’ Professor of Education and author of “The Manufactured Crisis,” hails “Fertilizers, Pills & Magnetic Strips” as “the first credible book of the 21st century to anticipate the future of public education.”

At first glance, the book’s title appears to have nothing in common with education. Glass takes a historical perspective on how social change in the 20th century altered the course of public schooling. He was inspired by Pulitzer Prize-winning author Jared Diamond’s book “Guns, Germs and Steel,” which called upon only basic material and biological forces to explain why Western European civilization dominated the world.

Glass, an expert in educational leadership, policy studies and psychology in education at ASU’s Mary Lou Fulton College of Education, began looking for the underlying causes of the country becoming a rapidly aging population with an explosive Hispanic underclass.

He found that the advent of fertilizers and other agricultural technologies in the early 20th century caused a huge increase in agricultural productivity that ultimately led to America’s transition from a rural to an urban society. Later, advancements in medical technologies and pharmaceuticals, such as birth control pills, allowed people to determine the size of their families as they also extended peoples’ lifespans. Finally, the development of magnetic strips altered the spending and saving habits of

Americans with the easy swipe of a plastic card.

“It was kind of an eye-opener to me that we can talk on and on about ideas and political movements and, in the final analysis, things like economics and demographics will prevail in determining what happens to culture and public institutions such as education,” Glass says. “Today, Americans are living longer with little savings and a lot of debt. All of these things have very big implications for public education.”

In his book, Glass explains that retiring baby boomers want to hold down property taxes, one of their few non-discretionary expenses. However, this also is the largest source of funds for public education, so as these dollars dwindle, education policy makers seek more ways to cut costs. Some parents then use publicly funded options to benefit only their own children’s education, such as charter schools, private schools and home schooling.

Arizona’s education tax credit, for example, can be used for private school tuition. Rather than providing low-income students the opportunity to attend private schools, the tax credit is cutting the cost of private education for the wealthy and resegregating students, Glass says.

“The white middle class is trying to find a quasi-private school experience for their children to remove them from the schools with minorities in them,” he says. “Charter schools in no way reflect the ethnic composition of the community they are in. Even the charter schools located in mixed-ethnicity suburban areas tend to be largely white. They are even resegregating the student populations inside the school building. The majority of advanced placement students are white.”

Arizona, which ranks next to last in per-student public expenditures, also implemented high-stakes testing, which Glass condemns as a step backward academically.

“Everywhere you look, the middle schools and secondary schools are collapsing the curriculum down to basic skills,” Glass says. “It’s cheaper. They see the whole curriculum as preparing the children for these high-stakes tests. High-stakes testing cheapens education.”

He adds that the fastest-growing trends in education – virtual school and home schooling – are a lucrative business that have “degraded education and created an empty experience for children.” He points to a remote Colorado town with a population of about 300 people that is the site of a virtual school. He said the online venture has enrolled about 5,000 students and is collecting millions of dollars in tuition.

“I don’t think any of this has to do with quality education at all,” Glass says. “It’s all about saving money. Arizona is the microcosm of what the whole country is going to be in 20 to 30 years: a third Hispanic and an old, retired and financially strapped middle class.”

Gandara says she still has hope that the nation will not embrace Arizona education policies and treatment of minorities, but she acknowledges that the state is “an example of how badly things can go if we do not wake up and heed Glass’s call.”

Glass readily admits his pessimism for the future of public education.

“What happened to a richer concept of what education could be?” he asks. “All of these trends are going to continue to grow in the United States. It’s a very grim outlook for public institutions of all kinds. The only hope that exists is in the production of quality teachers.”

Martin, with the Mary Lou Fulton College of Education, can be reached at verina.martin@asu.edu.



Gene Glass

Insight *On campus*

October 17, 2008

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Artwork adds light, motion to Cronkite's new building

The state-of-the-art television studios and computer labs are getting a lot of attention from visitors to the new Walter Cronkite School of Journalism and Mass Communication building in downtown Phoenix.

But it's the building's artwork – an unusual experiment in light and motion – that captures their fancy.

The artwork – designed by Paul Deeb of Vox Arts, Baltimore – is a five-story light sculpture that replaces what would be ordinary windows in the main stairwell on the south side of the Walter Cronkite School of Journalism and Mass Communication's building on ASU's Downtown Phoenix campus.

Deeb used clear thread and metal fragments sandwiched between sheets of frosted glass to create what he calls a passive solar light engine. As the sun heats up the space between the panes, the thread and fragments move, creating an effect like clouds or waves swirling between the panes of glass. At night, the windows are lit from within, offering dramatic views to passers-by on Central Avenue and First Streets.

Christopher Callahan, dean of the Cronkite School, says the art is beautiful and practical.

"It's a beautiful piece of art that is constantly changing," he says. "But it also serves as a kind of shade, so that the sun coming in the windows doesn't heat up the building so much."

Cronkite student Robert Lundberg is equally appreciative.

"I especially like the way it makes you feel like it might be raining outside," he says. "It has the aesthetic of a waterfall, but you're not wasting water."

Deeb says the windows move hot air away from the building through convection.

"It's cooling the building in a really green, eco-friendly way," he says. "Art is a byproduct of that."

Deeb was chosen from among 178 applicants from around the world who submitted proposals for artwork for the 1,200-square-foot stair tower that faces Taylor Mall, ASU's downtown student residence hall. Four were chosen to appear before the Phoenix Arts Commission to present their proposals. The panel recommended Deeb.

Terry Abair of Sundt Inc., the general contractor for the building, says Deeb's piece was the clear choice because of how well it integrates into the building.

"We're usually trying to figure out, if art is a part of the project, how to get the person to see it as part of the building," Abair says.

In many cases, public art becomes just an add-on, he says. Deeb's work fits seamlessly into



Paul Deeb of Vox Arts, Baltimore, designed the artwork for the new Walter Cronkite School of Journalism and Mass Communication building in downtown Phoenix. Deeb used clear thread and metal fragments sandwiched between sheets of frosted glass to create what he calls a passive solar light engine. Installation of the piece took about five weeks. The cost of the artwork was included in the \$71 million price tag for the building, in compliance with a state law that stipulates that 1 percent of the money spent for construction of public buildings must be used for public art.

the space.

Abair says he also liked the fact that, unlike statues or murals, the window art changes daily and seasonally.

"A metal sculpture would be the same every day; pretty soon, you'd stop looking at it," he says. "Most stairwells that you would walk up and down at ASU are pretty utilitarian. This one is pretty unique."

Deeb is known for using unconventional materials in his art. For the Cronkite School piece, he used German-made metal reflectors that hang from Teflon thread – the same kind used on the International Space Station, Deeb says.

When he was searching for materials to use in the glasswork, Deeb says he contacted scientists and engineers.

"I started talking to them, and they thought that I was just a lunatic," he says. "Now ... they want to see how the piece turned out."

Deeb says the artwork will display the most intricate patterns during the winter months, and in the late afternoons when the sun is lower in the sky and the sunlight shines more directly into it.

Because Arizona's sun is so intense, Deeb had to take special care to ensure that the temperature inside the glass doesn't get too high. A fan was

installed at the top of the windows to suck hot air out, and an exhaust vent closes if winds get too strong.

Installation of the piece took about five weeks. The cost was included in the \$71 million price tag for the building, in compliance with a state law that stipulates that 1 percent of the money spent for construction of public buildings must be used for public art.

Deeb's company has designed a number of art pieces, including a large-scale light installation in the lobby of a Dallas business and the lighting of the Art Basel International Art Show at the Miami World Trade Center in 2004. In addition, he has designed environmentally interactive landscape lighting for a five-acre residential setting in Northern Virginia and the illumination of numerous civic projects.

His company's work with light and motion has won an International Illumination Design Award and has been recognized in the International Design Competition.

"The types of things that I prefer to work with are things that are based more on natural phenomena than technology," Deeb says. "The only rule of thumb is we don't do anything really that's ordinary."

E.O. Wilson to appear at ASU's Darwinfest

By Margaret Coulombe

When a luminary such as Edward O. Wilson states publicly that his accomplishments rest on the shoulders of another, it has heightened meaning.

Wilson, a Pulitzer Prize-winning author and Harvard research professor emeritus, has pioneered seminal works in evolution of social behavior and organization. He also has a commitment to conservation that has shaped the face of science, philosophy, ethics and activism for more than a half-century.

The object of his admiration? Charles Darwin, whose audacious ideas on natural selection, evolution and the nature of human origins turned a Victorian public and scientific establishment on its collective ear.

Whether you agree with Darwin's conclusions and insights, the concept of bold ideas resonates well with ASU, and the students and faculty in the College of Liberal Arts and Sciences.

On Nov. 4, Wilson will kick off ASU's Darwinfest, a series of events and speakers that will tap into what Darwin set in motion when he stepped outside of the box 150 years ago to publish "On the Origin of Species." Wilson will speak about "Darwin and the Future of Science" at 7 p.m. at the Tempe Center for the Arts.

Wilson calls Darwin a "revolutionary" who challenged the social and cultural fabric of his time. But the Darwinian legacy is as much revered as revered – and this concerns Wilson as it time draws nearer to this grand old man of evolutionary fame's 200th birthday. The debate about evolution in the public realm, unlike in scientific circles, is far from over.

As Wilson writes: "The revolution in astronomy begun by Nicolaus Copernicus in 1543 proved that Earth is not the center of the universe, nor even the center of the solar system. The revolution begun by Darwin was even more humbling: it showed that humanity is not the center of creation, and not its purpose either. But in freeing our minds from our imagined demigod bondage, even at the price of humility, Darwin turned our attention to the astounding power of the natural creative process – and the magnificence of its products."

Darwin's four best known works are "Voyage of the Beagle" (1845), "On the Origin of Species" (1859), "The Descent of Man and Selection in Relation to Sex"

(See E.O. WILSON'S on page 8)

ASU Family Weekend Oct. 24-26 offers fun, food for thought

By Sarah Auffret

The barbecue-and-football tradition of ASU Family Weekend has evolved into a three-day celebration for the whole clan – and a chance for younger siblings to dip their toes into the campus waters.

On ASU Family Weekend Oct. 24-26, sisters and brothers of current students are offered a whole schedule of activities, including games at the Student Recreation Complex, a residence hall tour, and a special tour of Sun Devil Stadium with Sparky and ASU athletes. Siblings must be in the sixth through 12th grade.

Mom and Dad can go to class with their student, attend different tours and open houses, and sample workshops on helping and understanding their student, and on sustainability. ASU President Michael Crow will share with parents the new developments in ASU's efforts to be a green campus.

As always, there'll be plenty of fun: a hike up "A" Mountain, planetarium shows and a tailgate party before the Saturday night football game with the Oregon Ducks. But parents who want a chance to tickle their gray matter won't be disappointed.

The College of Liberal Arts and Sciences will conduct an interactive faculty forum and debate on issues of current national and global concern at 3:15 p.m., Oct. 24. The W.P. Carey School of Business will offer a faculty panel discussion on "Wall Street Meets Main Street: Straight Talk on the Financial Crisis from Experts Who Are Not Running for President," at noon, Oct. 25.

At Barrett, the Honors College, parents even have advance homework before attending a Mock Human Event class at 10 a.m., Oct. 25. Faculty have assigned required reading to parents, from Dante's "Inferno" to Plato's "The Allegory of the Cave" and Montaigne's "Of Cannibals."

Most ASU faculty members will allow family to visit

their classrooms with their students during Family Weekend. At the West campus, professors Brian Sullivan and Andrew Kirby have invited parents to their classes on "Natural History of Arizona" and "Honors ASU 101: The ASU Experience."

Welcome receptions will be held at all four campuses. Shuttles will transport students and families from West, Polytechnic and Downtown campuses to Tempe Oct. 25 for the tailgate party on Old Main Lawn and football game at Sun Devil Stadium.

Sustainability efforts for the weekend's activities include using recycled paper products, catering with food from local distributors and choosing gifts such as water bottles and tote bags that are earth-friendly and reusable.

For information on registration and schedules, visit the Web site <http://students.asu.edu/familyweekend>.

Auffret, with Media Relations, can be reached at (480) 965-6991 or sauffret@asu.edu.



Events are free, unless otherwise noted. Items in the "Exhibitions" section run at exhibit opening and on the first of each month only. Building abbreviations are listed according to the official ASU phone directory. Send information to Judith Smith at jps@asu.edu or fax (480) 965-2159. For information about ASU events, visit the Web at <http://events.asu.edu>.

Meetings

■ Tuesday, Oct. 21

Public Art and Design Review Council, 8-10 a.m., University Services Building (USB) conference room 2105. (480) 965-1855.

Lectures

■ Friday, Oct. 17

"Energetics of Oxide Nanomaterials," noon, Bateman Physical Sciences Center (PS) H-151. Speaker: Alexandra Navrotsky, Department of Chemistry, University of California at Davis. Sponsored by Department of Chemistry and Biochemistry. Information: (480) 965-2093.

Life Sciences Lecture, 2-3 p.m., Life Sciences Center (LS) E-104. Speaker: Nancy Fossett, University of Maryland, School of Medicine, Center for Vascular and Inflammatory Diseases Department of Pathology. Sponsored by School of Life Sciences. Information: (480) 965-2705.

"Direct Engineering Analysis via Distance Sampling," 2-3 p.m., PS H-153. Speaker: Vadim Shapiro, University of Wisconsin-Madison. Sponsored by Mechanical and Aerospace Engineering Department. Information: (480) 727-0476.

Anthropology Lecture, 3:30-4:30 p.m., School of Human Evolution & Social Change (SHESC) room 340. Speaker: Peter Ungar, Department of Anthropology, University of Arkansas. Sponsored by the School of Human Evolution and Social Change. Information: <http://shesc.asu.edu/colloquia>.

"Sex, Gender and the Journey to Wholeness," 7 p.m., Neeb Hall. Speaker: Actress Jane Fonda. Sponsored by the Women and Gender Studies Program. Information: (480) 965-2358.

■ Saturday, Oct. 18

"The Care of Paper Documents and Photographs," 2-3 p.m., Deer Valley Rock Art Center, 3711 W. Deer Valley Road, Phoenix (about two miles north of Highway 101 and two miles west of I-17). Speaker: Steve Hoza, archivist, Hoo-hookam Ki Museum, Salt River Pima-Maricopa Indian Community. Reception follows lecture. Information: (623) 582-8007 or www.asu.edu/cas/shesc/dvrc.

■ Monday, Oct. 20

"How Culture Transformed Human Evolution," 4-5:30 p.m., College of Design North (CDN) room 60. Speaker: Robert Boyd, Department of Anthropology, University of California-Los Angeles, and MacArthur Research Network. Co-sponsored by the School of Human Evolution and Social Change and the Institute of Human Origins. This is the kick-off lecture in the "Origins of Human Uniqueness" series. Information: <http://shesc.asu.edu/colloquia>.

■ Tuesday, Oct. 21

"Green Independence: A Green Solar Strategy to End Oil Imports and Use of Fossil Fuels," 12:10-1 p.m., Armstrong Hall (LAW) Great Hall. Speaker: Mark Edwards, Morrison School of Management and Agribusiness, ASU. Sponsored by Center for the Study of Law, Science and Technology. Information: (480) 965-2490

"Meso Scale Discovery: Quantitative Multiplexed Immunoassays," 2 p.m., Biodesign Institute Auditorium. Speaker: Joe Barco, applications scientist, Meso Scale Discovery. Sponsored by Biodesign Institute. Information: (480) 727-9386.

"Men and Money: Negotiating Masculinity in Early Modern Italy," 3-4:30 p.m., Durham Language and Literature Building (LL) room 165. Speaker: Juliann Vitullo, associate professor of Italian, School of International Letters and Cultures. Part of the SILC Work-in-Progress Lecture Series. Information: silc@asu.edu or (480) 965-6281.

■ Wednesday, Oct. 22

"Finding Calcutta: What Mother Teresa Taught Me about Meaningful Work and Service," 11:30 a.m., University Club. Speaker: Mary Poplin, professor, Claremont Graduate University. Luncheon cost: \$10. Sponsored by Aslan Society, an interdenominational Christian fellowship for ASU faculty and staff, and Veritas Forum at ASU. R.S.V.P.: aslan@asu.edu.

Faculty Seminar Series, "Race Ethnicity and the Humanities," noon-1:30 p.m., Social Sciences Building (SS) room 109. Presenters: Daniel Bernardi, Film and Media Studies: "The Aesthetics of Whiteness in Film and Television: Historical Patterns of Representation," and Keith Miller, English: "Understanding Race in America Through Martin Luther King's Final and Greatest Speech." R.S.V.P. required: (480) 965-300 or ihr@asu.edu.

"Convincing Yourself You can Be Physically Active," 1:30-3 p.m., Student Union Cooley Ballroom A, Polytechnic campus. Presented by Teresa Abraham, a doctoral candidate in ASU's physical activity, nutrition and wellness program. Sponsored by Osher Lifelong Learning Institute. R.S.V.P.: (480) 727-1153 or lois.lorenz@asu.edu.

"Discovering Complexity in the Early Stages of Protein Folding," 3:40 p.m., Barry M. Goldwater Center (GWC) room 487. Speaker: Lisa Lapidus, Michigan State University. Refreshments at 3:30 p.m. Sponsored by Center for Biological Physics. Information: (480) 965-4073.

"Oxidation and Reduction of Organic Matter in the Earth System," 4:10-5 p.m., PS F-101. Speaker: Carrie Masiello, Rice University. Sponsored by the School of Earth and Space Exploration. Refreshments served at 3:45 p.m. in PS F lobby. Information: (480) 965-5081.

"Jesus and the University," 7:30 p.m., Murdock Lecture Hall (MUR) room 101. Speaker: Mary Poplin, professor, Claremont Graduate University. Sponsored by Veritas Forum. Information: (4880) 968-3663.

■ Tuesday, Oct. 23

"The Voice of the People in the Middle Ages: Studies in the Medieval Notion of Public Opinion," 3 p.m. Coor Hall room 4403. Speaker: Charles Connell, Northern Arizona University. Sponsored by Arizona Center for Medieval and Renaissance Studies. Information: (480) 965-9323.

"DNA: A Powerful Tool for Exonerating the Innocent," 5:30-7 p.m., Coor L1-20. Speaker: Vince Miller, vice president and chief technical officer, Chromosomal Laboratories, Phoenix. Part of the class JUS 465 "The Death Penalty in the United States." Free and open to the public. Sponsored by the School of Justice and Social Inquiry. Information: (480) 965-7682.

"Jesus and Government," 7:30 p.m., MUR room 101. Speaker: the Rev. Jon McHatton, chaplain of the Arizona Legislature. Sponsored by Veritas Forum. Information: (4880) 968-3663.

■ Friday, Oct. 24

"Insights into the Molecular Mechanisms of Insulin Resistance: Lessons from Proteomics," noon, PS H-151. Speaker: Zhengping Yi, Center for Metabolic Biology, ASU. Sponsored by Department of Chemistry and Biochemistry. Information: (480) 965-2093.

Life Sciences Lecture, 2-3 p.m., LS E-104. Speaker: Hannah Landecker, Rice University. Sponsored by School of Life Sciences. Information: (480) 965-2705.

"Strategic Global Significance of China's Coke and Steel Supply Chains," 3 p.m., College of Design North (CDN) room 60. Speaker: Karen R. Polenske, professor of regional political economy and planning, Department of Urban Studies and Planning, and director, multiregional planning research team, Massachusetts Institute of Technology. Part of the Wrigley Lecture Series sponsored by Global Institute of Sustainability. Information: (480) 965-2975 or <http://sustainability.asu.edu>.

"Cooperation: Reciprocity versus Sharing," 3:30-4:30 p.m., SHESC room 340. Speaker: Charles J-H Macdonald, Centre National de la Recherche Scientifique, Marseille, and Institute for Advanced Studies, Princeton. Sponsored by the School of Human Evolution and Social Change. Information: <http://shesc.asu.edu/colloquia>.

"Jesus and Science," 7:30 p.m., MUR room 101. Speaker, genomics and cancer researcher Michael Berens. Sponsored by Veritas Forum. Information: (4880) 968-3663.

■ Wednesday, Oct. 29

"Label-free Imaging of Monocyte-lipolysis Product Interactions - Precursors to Foam Cells and Atherosclerosis," 3:40 p.m., GWC room 487. Speaker: Thomas Huser, University of California-Davis. Refreshments at 3:30 p.m. Sponsored by Center for Biological Physics. Information: (480) 965-4073.

"Seismic Waveform Tomography at the Global and Continental Scale: Inferences on Mantle Dynamics," 4:10-5 p.m., PS F-101. Speaker: Barbara Romanowicz, University of California, Berkeley. Sponsored by the School of Earth and Space Exploration. Refreshments served at 3:45 p.m. in PS F lobby. Information: (480) 965-5081.

"The World Without Us," 7 p.m., MUR room 101. Speaker: Alan Weisman, author of "The World Without Us." Book-signing follows lecture. Presented by the Wrigley Lecture Series on Sustainability; co-conducted by Barrett, the Honors College, and Integrative Graduate Education and Research Training (IGERT) in Urban Ecology. Information: (480) 965-2975 or <http://sustainability.asu.edu>.

■ Thursday, Oct. 30

Physics Colloquium, 4 p.m., PS F-123. Speaker: Joshua Erlich, College of William and Mary. Sponsored by Department of Physics. Information: (480) 965-9075.

"Co-evolutionary Ecology of Leafcutter Ants," 4 p.m., Interdisciplinary Science and Technology Building 1 (ISTB) room 401. Speaker: Ulrich Mueller, University of Texas-Austin. Sponsored by School of Life Sciences. Information: (480) 965-965-2705.

Bioethics Film Series, 5:40-8:30 p.m., LS E-104. The film "The Diving Bell and the Butterfly" will be shown. Elle France editor Jean-Dominique Bauby, who, in 1995 at the age of 43, suffered a stroke that paralyzed his entire body except his left eye. Using that eye to blink out his memoir, Bauby eloquently described the aspects of his interior world, from the psychological torment of being trapped inside his body to his imagined stories from lands he'd only visited in his mind. MPAA rating: R. Discussion follows film. Information: (480) 965-8927.

■ Friday, Oct. 31

"The Presidential Campaign and the Media, Old and New," 10-11:30 a.m., Student Union Cooley Ballroom A, Polytechnic campus. Presented by Steven Elliott, founding director of ASU's Cronkite News Service's print journalism program. Sponsored by Osher Lifelong Learning Institute. R.S.V.P.: (480) 727-1153 or lois.lorenz@asu.edu.

"Towards Synthetic Biology: Functional de Novo Proteins from a Designed Artificial Proteome" and "Alzheimer's Disease: Molecular Underpinnings and the Search for New Therapeutics," noon, PS H-151. Speaker: Michael Hecht, Department of Chemistry, Princeton University. Sponsored by Department of Chemistry and Biochemistry. Information: (480) 965-2093.

"Biodiversity and Global Warming: Will Triage be Needed?" 2-3 p.m., LS E-104. Speaker: Terry Root, Stanford University. Sponsored by School of Life Sciences. Information: (480) 965-2705.

Conferences

■ Saturday, Oct. 18

"Until I Fail in Old Age: Performance and Ritual in Celtic History," 9 a.m.-4 p.m., Scottsdale Civic Center Library Lower Auditorium. Panelists: Joseph Nagy (UCLA); Karen Overbey (Tufts); Morgan Davies (Colgate); Ron Newcomer (ASU). Sponsored by Arizona Center for Medieval and Renaissance Studies and Scottsdale Public Library. The annual ACMRS Symposium. Information: (480) 965-9323.

Miscellaneous

■ Saturday, Oct. 18

African Festival '08, 10 a.m.-6 p.m., Delph Courtyard, West campus. There will be music, dance, vendors and food. Presented by the African Association of Arizona. Information: (623) 247-4869.

ASU on the Lake, 10 a.m.-1 p.m., Tempe Town Marina. The ASU Hawaii and Pacific Islander Club teams up with the Tempe Town Dragon Boat and Outrigger Canoe Clubs to bring ASU out onto Tempe Town Lake. Experienced coaches will teach participants to paddle in Chinese dragon boats and Polynesian outrigger canoes. Free and open to the public. Equipment provided. Information: margaret.coulombe@asu.edu; 480 727-8934.

■ Monday, Oct. 20

"Classroom Assessment Techniques: The Pro-Con Grid and the One-Sentence Summary," 12:15-1:30 p.m., Discovery Hall room 212. Sponsored by the Center for Learning and Teaching Excellence. Information and registration: <http://clte.asu.edu>.

■ Tuesday, Oct. 21

Adoption and Foster Care Information Session, noon-1 p.m., West Hall (WHALL) room 120. Sponsored by ASU School of Social Work Child Welfare Training Project, and Arizona Adoption and Foster Care. Information: Katie Reck, (480) 345-9555.

■ Wednesday, Oct. 22

"How to Find an Internship," 4-5 p.m., Student Services building (SSV) room 329. Sponsored by Career Services. Information: (480) 965-2350 or www.asu.edu/career.

■ Thursday, Oct. 23

"Coming Full Circle: Assessment and Feedback in a Large Class," 12:15-1:30 p.m., Discovery Hall room 212. Sponsored by the Center for Learning and Teaching Excellence. Information and registration: <http://clte.asu.edu>.

■ Friday, Oct. 24

Ollie's Storybook Adventures, 10-11 a.m., Deer Valley Rock Art Center, 3711 W. Deer Valley Road, Phoenix. "Spiders" is the theme. Admission: \$2.50 per child; \$2 older siblings; \$2 additional adults; and no charge for accompanying adults. Reservations required: (623) 582-8007.

Hybrid Course Development: Part 4: Managing Groups & Discussion Boards, 2-4 p.m., Coor L1-72. Sponsored by

the Center for Learning and Teaching Excellence. Information and registration: <http://cte.asu.edu>.

■ Saturday, Oct. 25

PBS Kids Raising Readers Family Literacy Showcase, 9 a.m.-noon, Wesley Bolin Memorial Plaza, Phoenix. A community celebration to promote literacy for the youngest learners and their parents. Information: (480) 965-2823.

■ Monday, Oct. 27

"Classroom Assessment Techniques: Concept Mapping & Directed Paraphrasing," 12:15-1:30 p.m., Discovery Hall room 212. Sponsored by the Center for Learning and Teaching Excellence. Information and registration: <http://cte.asu.edu>.

■ Tuesday, Oct. 28

ASU Retirees Association Fall Luncheon, 11:30 a.m.-1:30 p.m., Karsten Golf Course Clubhouse, 1125 E. Rio Salado Parkway, Tempe. ASU Archivist Rob Spindler will speak on "The Long Road to Excellence: 123 Years of Arizona State University." Luncheon cost: \$26. Information: (480) 965-7668.

"Designing Good Test Questions," 12:15-1:30 p.m., Discovery Hall room 212. Sponsored by the Center for Learning and Teaching Excellence. Information and registration: <http://cte.asu.edu>.

"STAR in the Employment Interview," 3-4:30 p.m., Student Services Building SSV room 329. Sponsored by Career Services. Information: (480) 965-2350 or www.asu.edu/career.

"Let's Talk About It: Jewish Literature," 7 p.m., room C6A/East of Hayden Library. The discussion focuses on Bernard Malamud's "The Assistant." Information: Rachel Leket-Mor, (480) 965 2618.

■ Wednesday, Oct. 29

Blood Drive, 8 a.m.-12:30 p.m., Carson Student-Athlete Center. Sponsored by Intercollegiate Athletics. To sign up, go to www.bloodhero.com (sponsor code is asu). Sponsored by Intercollegiate Athletics. Information: (480) 965-5788.

■ Thursday, Oct. 30

"Making the Most of the Grad School and Internship Fair," 4:30-5:30 p.m., SSV room 329. Sponsored by Career Services. Information: (480) 965-2350 or www.asu.edu/career.

■ Friday, Oct. 31

"Designing Good Test Questions," 12:15-1:30 p.m., Discovery Hall room 212. Sponsored by the Center for Learning and Teaching Excellence. Information and registration: <http://cte.asu.edu>.

Astronomy Open House, 8-10 p.m., roof of the Bateman Physical Sciences Center (PS) H wing (fifth floor). Come anytime during the evening and take a peek through the telescopes, see a poster display, take an astronomy quiz and see a slide show. Information: (480) 965-7652 or <http://homepage.mac.com/agfuentes/openhouse.html>.

Entertainment

*Indicates tickets are available at Herberger College of Fine Arts Box Office, Nelson Fine Arts Center, (480) 965-6447.

**Indicates tickets are available at ASU Gammage, Mill Avenue and Apache Boulevard, (480) 965-3434; ASU Kerr Cultural Center, 6110 N. Scottsdale Road, Scottsdale, (480) 596-2660.

■ Friday, Oct. 17

"The Rat Pack – Live at the Sands," 7:30 p.m., ASU Gammage. The musical recreates a legendary evening at the Sands Hotel with the most famous performers of our time: Frank Sinatra, Sammy Davis Jr. and Dean Martin. Also at 2 and 7:30 p.m., Oct. 18; 2 and 7 p.m., Oct. 19.**

■ Saturday, Oct. 18

ASU Chamber Singers and Symphonic Chorale, 7:30 p.m., La Casa de Cristo Lutheran Church, 6300 E. Bell Road, Scottsdale.

■ Sunday, Oct. 19

Horn player John Ericson, 2:30 p.m., Katzin Concert Hall. Ericson performs the works of Bozza, Rheinberger, Bach and others.*

■ Monday, Oct. 20

Latin Jazz Band, 7:30 p.m., Evelyn Smith Music Theatre.

■ Wednesday, Oct. 22

Jazz Repertory Band, directed by Sam Pilafian, 7:30 p.m., ASU Kerr Cultural Center, Scottsdale.**

■ Friday, Oct. 24

Friday Conversations in the Gallery, noon-1 p.m., ASU Art Museum. Collector Mikki Weithorn is the special guest. Information: (480) 965-2787.

Emerging Artists Series, 5 p.m., Dance Studio Theatre. Performing: Sara Malan-McDonald and Holly Woodridge. Also at 7:30 p.m., Oct. 25; 2 p.m., Oct. 26.*

ASU Choral Union and Symphony Orchestra, 7:30 p.m., ASU Gammage. A program of American music, including Howard Hanson's "Song of Democracy."

"Don Coyote," 7:30 p.m., Lyceum Theatre. Daniel S. Frey's story about an American Mexican coyote who run a successful human-smuggling business at the Arizona-Mexico border. But one day, a car accident, a brutal killing and a beautiful young woman named Rosa threaten to unravel the fabric of their partnership. Part of the Festival of New Work. Also at 2 p.m., Oct. 26; 7:30 p.m., Oct. 30 and Nov. 1. Contains violence and strong language.*

■ Saturday, Oct. 25

"Buddy Bolden's Blues," 2 p.m., Studio 133, Nelson Fine Arts Center. The life and times of the reputed "Father of Jazz" are deconstructed in this "work-in-progress" by Gus Edwards. Part of the Festival of New Work. Also at 2 p.m., Oct. 26; 7:30 p.m., Oct. 30 and Nov. 1. Contains strong language.*

Women's and ASU Men's Choruses, 7:30 p.m., First United Methodist Church of Tempe, 215 E. University Dr., Tempe. A program of folk song-themed works.

"Secrets of Gardenias," 7:30 p.m., Studio 133, Nelson Fine Arts Center. Part of the Festival of New Work. Also at 7:30 p.m., Oct. 29 and Oct. 31; 2 p.m., Nov. 2.*

■ Sunday, Oct. 26

Faculty artist Robert Mills, 2:30 p.m., Katzin Concert Hall.*

"Oktoberfest," 3 p.m., ASU Kerr Cultural Center, Scottsdale. Presented by Duo West-cellist Ian Ginsburg and pianist Sherry Lenich. A program of music by German composers.**

■ Monday, Oct. 27

Studio 303 voice recital, 7:30 p.m., Organ Hall.

■ Wednesday, Oct. 29

The Tokyo String Quartet, 7:30 p.m., Katzin Concert Hall. Free, but tickets required: call the Herberger College Box Office at (480) 965-6447.

■ Thursday, Oct. 30

"A (Sun) Devils Night Spectacular!" 7:30 p.m., ASU Gammage. The ASU Wind Ensemble and Symphonic Chorale perform.*

Exhibitions

ASU Art Museum, Nelson Fine Arts Center—Regular hours: 11 a.m.-9 p.m., Tuesday; 11 a.m.-5 p.m., Wednesday

—Saturday; 1-5 p.m., Sunday. Summer hours: 10 a.m.-5 p.m., Tuesday-Saturday. Information: (480) 965-2787.

Opens Oct. 18, "ASU Herberger College School of Art Faculty 2008-2009 Exhibition." Opening reception: Oct. 17, 7-9 p.m. Recent works created by the faculty will be exhibited in the biannual ASU Herberger College School of Art Faculty Exhibition at the ASU Art Museum.

Opens Oct. 18, "Nadia Hironaka: The Late Show." Opening reception: Oct. 17, 7-9 p.m. Friday Conversations in the Gallery: Oct. 17, noon, with artist Nadia Hironaka. In her multichannel video installation, "The Late Show," Hironaka expands the cinematic experience into the realm of the gallery environment, and asks us to reflect on how mood and emotion are constructed within the context of film.

ASU Gammage—1-4 p.m., Monday. Information: (480) 965-6912.

Through Oct. 19, watercolors and acrylics by Jennifer Campbell; sculpture by Traci A. Los; c-print photography by Keith Stanton.

Opens Oct. 22, Photography by Rhet Andrews; acrylic on canvas by PSA Art Awakenings.

Deer Valley Rock Art Center—9 a.m.-5 p.m., Tuesday-Saturday; noon-5 p.m., Sunday, 3711 W. Deer Valley Road, two miles west of I-17. Information: (623) 582-8007.

Opens Oct. 18, "The Rock Art Paintings of Hueco Tanks." Opening events, Oct. 18: lecture 2-3 p.m. and reception 3-5 p.m. An exhibition of 19 photographs by artist Clay Martin, the 1997 winner of the American Rock Art Research Association's Oliver Award. Martin's photo essay aims to educate visitors about Hueco Tanks, a spectacular site of 3,000 pictographs. Information: (623) 582-8007.

Gallery 100—1-5 p.m., Monday-Thursday; 1-3 p.m., Friday. Tempe Center, suite 199. Information: (480) 965-2380.

Opens Oct. 20, Fourth Annual Printmaking Student Association's Members' Show. Opening reception: Oct. 20, 7-9 p.m.

Harry Wood Gallery—9 a.m.-5 p.m., Monday-Thursday; 9 a.m.-3 p.m., Friday, Art Building, first floor. Information: (480) 965-3468.

Opens Oct. 20, MFA thesis exhibition in ceramics by Corrine Cole. Opening reception: Oct. 20, 7-9 p.m.

Interdisciplinary Arts and Performance Gallery—11 a.m.-2 p.m., Monday-Thursday, University Center Building, room 228, West campus. Information: (602) 543-ARTS. Tours: (602) 543-8152.

Opens Oct. 21, "DISORIENTALISM." A multimedia installation that studies the disorienting effects of technologized labor, junk culture and consumerism as forces that mediate bodies and establish body knowledge, this exhibit features the work of faculty artist Marianne M. Kim and guest new-media artist Katherine Behar of New York. Information: (602) 543-ARTS.

Step Gallery—noon-5 p.m., Monday-Thursday; noon-3 p.m., Friday, Tempe Center, 10th Street and Mill Avenue. Information: (480) 965-3468.

Opens Oct. 20, "Breathe, Eat and Shelter," sculpture by Jessica Nahom. Opening reception: Oct. 20, 7-9 p.m.

Defenses

Mary Sunderland, PhD, Bio., 9 a.m., Oct. 20, GIOS 101

Alison Wenhart, EdD, High. and Postsec. Ed., 10 a.m., Oct. 20, ED 108B

Sherri Rinker, PhD, Biochem., 2:45 p.m., Oct. 20, BDB 105

Shibo Wu, PhD, Comp. Sci., 10 a.m., Oct. 21, BYENG 210

Ismail Karatas, PhD, Civ. Engr., 9:30 a.m., Oct. 23, ECG 252

Bongseong Seo, PhD, Civ. Engr., 1:30 p.m., Oct. 23, ECG 250

Matthew Milliron, EdD, High. and Postsec. Ed., 1:30 p.m., Oct. 23, ED 108B

EMPLOYMENT

The following positions are available as of Oct. 17 and are subject to change. All positions will be advertised in *Insight* only once. The staff requisition or job order number for each position is indicated by the (#) sign. ASU is an equal opportunity-affirmative action employer.

ASU POSITIONS

A complete job announcement for classified, administrative and service professional positions at the Downtown Phoenix, Polytechnic, Tempe and West campuses is available on the Human Resources Web page at www.asu.edu/asujobs, or the Telecommunications Device for the Deaf at (480) 965-3002.

For complete position descriptions and application requirements for academic positions, contact the appropriate department listed below. Faculty, academic professional and graduate assistant positions are also listed on the Human Resources Web sites and details must be obtained from the hiring department. Application deadlines are listed.

Dates listed are application deadlines, and application material is due by 11:59 p.m. on that date. Positions are 100 percent, full-time employment (FTE) unless otherwise noted. Code below is: (O) – position is open to the public.

STAFF POSITIONS

TEMPE CAMPUS

Professional

Academic Success Specialist (Part-time) (O) #21301 – School of International Letters & Cultures (SILC) (Nov. 3).

Accountant (O) #21259 – Financial Services (Oct. 27).

Accountant Senior (O) #21252 – Office of the President – Alumni Association (Oct. 22).

Developer Web Application-Drupal/PHP (O) #21302 – School of Life Sciences (Oct. 30).

Physician (O) #21262 – Campus Health Service (Nov. 21).

Process Engineer (O) #21249 – VP Research and Economic Affairs (Oct. 24; every week thereafter until search is closed).

Technical Director Senior (O) #21199 – Public Events (Oct. 22; every week thereafter until search is closed).

Visual Merchandise Manager (O) #21264 – ASU Bookstore (Oct. 26; every week thereafter until search is closed.)

Administrative support

Administrative Assistant (O) #21155 – VP Research and Economic Affairs (Oct. 22).

Administrative Associate (O) #21245 – W. P. Carey School of Business (Oct. 22).

DOWNTOWN PHOENIX CAMPUS

Professional

Developer Web Application-(IT) (O) #21281 – Walter Cronkite School of Journalism and Mass Communications (Oct. 24).

POLYTECHNIC CAMPUS

Service/field craft/maintenance

Materials Handler (O) #21254 – Facilities Management (Oct. 29).

ACADEMIC POSITIONS

TEMPE CAMPUS

Assistant Professor #9236 – College of Liberal Arts & Sciences-Psychology (Nov. 14; every two weeks thereafter until search is closed).

POLYTECHNIC CAMPUS

Graduate Research Assistant (50%) G – School of Educational Innovation & Teacher Preparation (Oct. 22).

Student film contest to focus on humanities, sustainability

By Ashley Lange

The study of the humanities – how human beings behave toward and interpret themselves and the world – is as important to the issue of sustainability as recycling, alternative energy sources or biodiversity.

Humanists contribute to the study of sustainability by rethinking culture and cultural diversity, civilization, humans' ethical relationship to the natural world, religious attitudes toward nature, beliefs about nutrition and food, and a host of other transdisciplinary topics.

Using digital filmmaking to examine the connection between the humanities and sustainability is the challenge presented by a student documentary film contest sponsored by ASU's Institute for Humanities Research, and the Film and Media Studies program in the College of Liberal Arts and Sciences.

"The contest is an opportunity for ASU students in any field of study, and on any campus, to examine critical approaches to the humanities and sustainability, and to offer their ideas and perspectives to the community through

documentary filmmaking," says Daniel Bernardi, an associate professor and director of the Film and Media Studies program.

The contest is open to all ASU undergraduate and graduate students, individuals or teams.

Submissions are due by Dec. 9. Information about how to submit films can be found online at film.asu.edu/studentcontest2.

An e-board also is on the Web for students to connect with others who are interested in forming teams; it can be found at tcls-boards.asu.edu/eboard30.

Professor Sally Kitch, director of the Institute for Humanities Research, says some specific concerns the film entries might consider include not just what threatens the environment, but how human beings have created those threats; not just what has happened to the climate or to ecosystems, but what we need to rethink about human beings' relationship to nature; and not just who can survive the extremes of global warming, but who cannot.

The documentaries must be three to seven minutes in

length from beginning to end of credits. When submitted, the documentary should be formatted for posting to YouTube.com and streaming on the ASU Web site. Films will be judged on quality, appropriateness to guidelines and relevance to the theme.

Five winners will be announced Feb. 12, with the top three awarded \$500 to \$1,500, and two honorable mentions awarded \$250. The student works will be screened and the awards presented that day. The film competition screening will wrap up a three-day film festival related to the theme of humanities and sustainability.

Several exemplary humanities-focused documentary films on sustainability will be shown starting Feb. 5, with the screening of "Sizzle," a global warming documentary that combines science and comedy, for the first time in Arizona. Screenings of exemplary films will continue Feb. 10-11. Discussions led by ASU scholars will conclude each evening. All events are open to the public.

Lange, with the College of Liberal Arts and Sciences, can be reached at ashley.lange@asu.edu.

E.O. Wilson's presence adds weight to this year's Darwinfest at ASU

(Continued from page 5)

(1871) and "Expression of Emotions in Man and Animals" (1872). Before thinking it's all dusty old concepts, the bold ideas that Darwin laid bare before an astonished public have deeply influenced philosophy and shaped the path for modern medical discoveries and research in psychology.

There is not a single field in biology that is not affected by Darwinian evolutionary theory. Darwinian concepts have even been adopted in economics, technology and engineering.

So why should people with daily concerns peel themselves away from the television set to attend Wilson's lecture, especially on what will likely prove to be one of the most

exciting nights in recent political history? Because, like Darwin, Wilson has wrought fundamental change in the world, and he has a message of hope – regardless of what side of the political spectrum one falls on – that each of us can be instrumental in preserving our planet or the "Creation," as Wilson terms Earth, without irony.

Wilson has spent considerable time building bridges between those that look askance at Darwin and those who embrace his perspective, and he invites people of all faiths to remember that this home we have, this "cradle of life," deserves to be treasured, respected and preserved.

Wilson will speak about Darwin's life, his publications (about which Wilson has himself written, "From So Simple a Begin-

ning: Darwin's four great books") and our shared future on Earth. And while more than half of the American public struggle with Darwin's theories about evolution and natural selection and embrace the notion of intelligent design, Darwin's theories – like those of Copernicus or Galileo before him – set the stage for new understanding of what make us human, and unite us.

Wilson is the recipient of innumerable honors, including the National Medal of Science, the gold medal of the World Wildlife Fund, and the Crafoord Prize, the Swedish equivalent to the Noble Peace Prize for ecology. He sits on the boards of the Nature Conservancy, Conservation International and the American Museum of Natural History.

Two of his more than 25 books have received Pulitzer Prizes: "On Human Nature" (1978) and "The Ants" (1990) – written with ASU's School of Life Sciences professor Bert Hölldobler. Hölldobler and Wilson will unveil their latest collaborative venture, "The Superorganism: The Beauty, Elegance and Strangeness of Insect Societies" at Darwinfest's companion event, a national book launch and book signing that will take place Nov. 5 at Phoenix's Desert Botanical Garden.

For more information, visit the Web site <http://darwin.asu.edu>.

Coulombe, with the School of Life Sciences, can be reached at (480) 727-8934 or margaret.coulombe@asu.edu.

In BRIEF

ASU Health Center to offer flu shots Oct. 19

The ASU Health Center at the Downtown Phoenix campus will begin providing flu shots to students and the general public beginning Oct. 19, the date recommended by the Arizona Department of Health as the first day for vaccinations.

The ASU Health Center, located at 500 N. Third St., will offer flu shots as long as the supply of flu vaccine is available. Entrance to the building is on Taylor Avenue. The downtown health center also plans to offer a special flu vaccination clinic at the ASU Health Center from 1 p.m. to 5 p.m., Oct. 24.

Students from all Arizona public universities who are enrolled in the Aetna Student Health Plan offered by the three universities can obtain a flu shot free of charge with identification. Students who have other insurance or who are uninsured, university employees and the general public can receive flu shots during the Oct. 24 flu shot for \$25.

Vaccinations also are available by appointment at the ASU Health Center Monday through Friday, 9 a.m. to 5 p.m.

The flu vaccine that the ASU Health Center routinely stocks is for persons over the age of 18. On special clinic days, flu vaccine for younger persons will be provided by the Arizona Vaccines for Children Program for \$15. The dates for those clinics will be announced soon.

For information on other primary services provided at the ASU Health Center, visit the Web site <http://nursing.asu.edu/nmhc/asuhc/services.htm>, or call (602) 496-0721.

Gene-culture theory expert to speak at ASU

As part of the "Origins of Human Uniqueness" lecture series, ASU's School of Human Evolution and Social Change and Institute of Human Origins are bringing Robert Boyd to the Tempe campus for a public lecture on "How Culture Transformed Human Evolution."

Boyd will speak at 4 p.m., Oct. 20, in room 60 of the College of Design North.

Boyd has been called the "theoretical father" of gene-culture co-evolution (dual inheritance). His book with Peter Richerson, titled "Culture and the Evolutionary Process," is considered a seminal tome on the subject and won the 1989 Staley Prize.

Boyd is an anthropology professor at the University of California-Los Angeles, and he co-directs the MacArthur Research Network on the Nature and Origin of Preferences. His research focuses on the evolution of the psychological capacities that create human culture, and on the consequences of cultural transmission for human evolution.

Lecture focuses on 'Green Independence'

Mark Edwards, a professor of food marketing and sustainability at ASU's Morrison School of Marketing and Agribusiness

will present a lecture, titled "Green Independence," from 12:10 p.m. to 1 p.m., Oct. 21, in room 114 of Armstrong Hall at ASU's College of Law.

This free event is sponsored by ASU's Center for the Study of Law, Science, & Technology. For more information, contact Sandy Askland at (480) 965-2465 or sandy.askland@asu.edu.

Dispute Resolution Conference set for Oct. 24

The Association of American Law Schools will conduct the AALS Dispute Resolution Conference from 8 a.m. to 6 p.m., Oct. 24, at ASU's Sandra Day O'Connor College of Law.

Sign-in is at 7 a.m., with lectures and discussion from 8 a.m. until 6 p.m. in Armstrong Hall's faculty center and rooms 109 and 110.

This conference will provide an opportunity for dispute-resolution scholars from across the country to present projects in their early stages, and to get input from others who teach and do research in the dispute-resolution area.

The conference is co-sponsored by ASU's Lodestar Dispute Resolution Program.

For more information, and to register, visit the Web site www.law.asu.edu/AALS-DRconference.

Collegiate Learning Assessment academy set

ASU will conduct a Collegiate Learning Assessment (CLA) in the Classroom Academy Nov. 6-7. It is a faculty workshop focused on teaching, learning and assessment.

The CLA in the Classroom Academy, assisted by the Council for Aid to Education (CAE) and sponsored by the Office of the Executive Vice President and Provost of the University, is a two-day intensive workshop focused on curricular and pedagogical work that complements assessment practices across the university.

ASU first-year students are participating in the assessment developed by CAE. The CLA is an assessment program that measures how an institution as a whole contributes to learning and student intellectual development. Students are assessed on important measures such as critical thinking, analytic reasoning, problem solving and written communication skills based on their responses to real-world tasks.

The CLA in the Classroom Academy provides an opportunity for faculty members to create performance tasks for assessing students' skills in critical thinking, analytic reasoning, problem-solving and written communication.

The workshop is designed to benefit faculty who serve on curriculum and assessment committees, or who are interested in assessing their students' critical thinking skills.

A limited number of registrations are still available. To register, send an e-mail to oue@asu.edu by the Oct. 29 deadline.

For more information, visit the Web site www.claintheclassroom.org/about or contact Shelly Potts at (480) 965-9291.

Book-collecting contest gets under way

The University Libraries is looking for ASU undergraduate and graduate students who are book collectors to participate in an annual student book collecting contest.

The contest, which began this month, runs through Feb. 12. Judge-student interviews will take place March 5-6.

Contest winners will be notified the week of March 9. The top prize is \$600, and cash prizes will be awarded at a donor reception April 8.

Entries will be judged by a panel of judges on the extent to which the collection represents a well-defined field of interest – either focused on the works of one author or on a particular subject.

Brochures are available at all of the ASU Libraries on all campuses, as well as the Memorial Union, the Undergraduate Academic Services Building, Barrett, the Honors College, the Graduate College and campus bookstores.

In addition to this contest, Fine Books & Collections Magazine is again sponsoring a national Collegiate Book Collecting Championship, with a top prize of \$2,500. Top ASU book contest winners meeting the criteria of the college national championship contest will automatically be eligible to compete.

For more information, call Rosa González at (480) 965-3956, or visit the Web site lib.asu.edu/bookcontest.

Office aims to create cancer support group

Officials with ASU's Employee Assistance Office (EAO) are interested in establishing a support group to help those individuals that have been directly or indirectly affected by a diagnosis of cancer in their families.

The EAO officials hope to create an environment on campus that supports the needs of those embarking on this difficult journey by creating a group for mutual support, encouragement and education.

The office aims to conduct a six- to eight-week professionally facilitated support group for patients, their spouses, their partners and their primary support providers. Those interested in participating or finding out more information are encouraged to contact the EAO at (480) 965-2271 for details of this group.

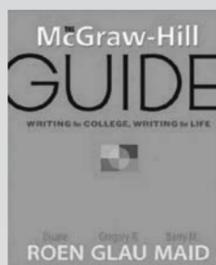
The Employee Assistance Office is a free and confidential behavioral health program for ASU faculty and staff, as well as spouses, dependents, family members and committed partners. There is no cost associated with participation in this group.

In PRINT

In Print highlights books written by ASU employees. To submit a summary of a recently published work, send it via e-mail to asu.insight@asu.edu. A reproducible cover of the book may accompany the submission.

“McGraw-Hill Guide: Writing for College, Writing for Life,” by professor of English Duane Roen, Gregory Glau and Barry Maid, McGraw-Hill, 2008

This guide is designed to help students learn to write more effectively, not only in their college courses but also in their professional, civic and personal lives. By combining a flexible reader, rhetoric, research guide and handbook, The “McGraw-Hill Guide” shows students how to set goals for their writing, to use effective composing strategies to reach those goals and to assess their progress toward achieving them. Based on the idea that effective writers are strong communicators in any context, the guide emphasizes the skills established by the Writing Program Administrator’s Outcomes Statement that form the foundation of assessment practices at writing programs throughout the country: rhetorical knowledge, critical thinking, writing processes and conventions. These skills form the basis of the instruction in each assignment chapter and throughout the text.



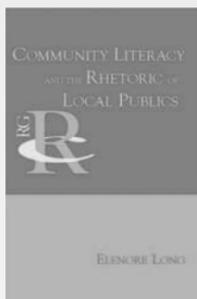
“Catching the Ebb: Drift-Fishing for a Life in Cook Inlet” by professor emeritus of English Bert Bender, Oregon State University Press, 2008

Bert Bender started fishing Alaska’s Cook Inlet in 1963 with a 30-foot sailboat converted to gas power, and with no equipment for pulling in a net. “Catching the Ebb” recounts his 30 summers of gill netting for salmon and describes his parallel career as a professor of American literature. Drawing on his academic specialties – American sea literature, and the influence of evolutionary biology and ecology in American writing – Bender celebrates the fishing life and traces the fishery’s path of change, from shifts in the market and the demise of canneries, to the effects of the Exxon Valdez disaster of 1989, to the rise of the farmed salmon industry. “Catching the Ebb” will appeal to readers interested in Alaska, the sea and the fishing life. In addition to its stories of people, boats and fish, Bender’s compelling memoir addresses the critical question: Can we restrain our heedless pollution of the sea and avoid depleting ocean resources?



“Community Literacy and the Rhetoric of Local Publics,” by Elenore Long, visiting professor of English, Parlor Press, 2008

Offering a comparative analysis of community-literacy studies, “Community Literacy and the Rhetoric of Local Publics” traces common values in diverse accounts of “ordinary people going public.” Long offers a rich theoretical framework for reviewing emergent community-literacy projects, examines pedagogies that educators can use to help students to go public in the course of their rhetorical education at college and adapts local-public literacies to college curricula. A glossary and annotated bibliography provide the basis for further inquiry and research.



“Engaged Romanticism: Romanticism as Praxis,” by Mark Lussier, professor of English, and Bruce Matsunaga, associate research professional in English, et al., Cambridge Scholars Publishing, 2008

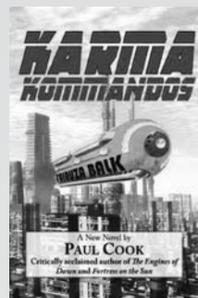
In November 2006, the International Conference on Romanticism convened for its annual conference at ASU and explored a wide range of work identified as “engaged romantic” as a mode and a practice, rather than simply as a literary historical period defined by a specific temporal spectrum (circa 1750-1850). As the introduction to the volume suggests, most writers during the period were engaged in the cultural articulation of the aesthetics, criticism, ethics, poetics



and politics of the age, and a large number of writers deployed their talents to help transform the public sphere, whether shaping responses to the practices of slavery or resisting the emergence of a crystallized form of Newtonianism at the foundation of Enlightenment epistemology. The intellectual and disciplinary range of the essays included in this volume pay tribute to this often-neglected aspect of the revolutionary dictates of what has come to be called “Romanticism,” and the following critical essays, offered by both thoroughly established and relatively new voices within romantic studies, examine virtually every aspect of this approach to romantic thought and writing. Whether focused on the formal and intellectual practices at the foundation of the novel, the philosophical resonance of William Wordsworth within emergent forms of eco-criticism, the play of the transatlantic romantic imagination, the aesthetic commitments of romantic art and music, or the current process of pedagogical engagements, the essays sound the depths of what engaged practice can accomplish, both in the age of romanticism itself as well as our own moment.

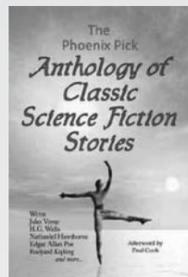
“Karma Kommandos,” by Paul Cook, lecturer in English, Phoenix Pick/Arc Manor, 2008

“Chuckle” has just hit the streets of 21st century Los Angeles with devastating results. As a member of L.A.P.D.’s “Protean Set” – special detectives who can change their appearances – Rory Koestler sets out after Bob Thermopylae, L.A.’s main dealer in chuckle. Problem is, someone else is after him as well: assassins who step out of walls or just appear out of nowhere. Soon, they turn their sights on Koestler and several other citizens. Who are they? Where do they come from? They are the “Karma Kommandos” ...



“The Phoenix Pick Anthology of Classic Science Fiction Stories,” by Paul Cook, lecturer in English, Phoenix Pick/Arc Manor, 2008

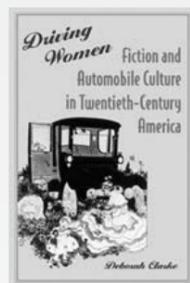
“The Phoenix Pick Anthology of Classic Science Fiction Stories” is a collection of stories taken from across the 19th century and into the early 20th century that showcases many of the genre’s early attempts. “Science Fiction” of this period is rich with new ideas that reflect the concerns and the imagination of the society and writers of its time. Each of the stories included in this volume has stood the test of time, and many of the themes reflected by these authors are still relevant today.



“Driving Women: Fiction and Automobile Culture in 20th century America,” by Deborah Clarke, professor of English, Johns Hopkins University Press, 2007

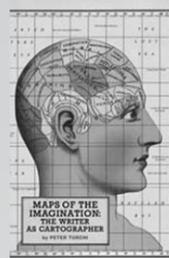
“Driving Women” examines the intersection of American fiction – primarily but not exclusively by women – and automobile culture. Clarke argues that issues critical to 20th century American society – technology, mobility, domesticity and agency – are repeatedly articulated through women’s relationships with cars. Women writers took surprisingly intense interest in car culture and its import for modern life, as the car – replete with material and symbolic meaning – recast literal and literary female power in the automotive age.

Clarke draws on a wide range of literary works both canonical and popular to document women’s fascination with cars from many perspectives: historical, psychological, economic and ethnic. Authors discussed include Wharton, Stein, Faulkner, O’Connor, Morrison, Erdrich, Mason, Kingsolver, Lopez, Kadohata, Smiley, Senna, Viramontes, Allison and Silko. By investigating how cars can function as female space, reflect female identity, and reshape female agency, this engaging study opens up new angles from which to approach fiction by and about women, and traces new directions in the intersection of literature, technology and gender.



“Maps of the Imagination: The Writer as Cartographer,” by Peter Turchi, professor of English, Trinity University Press, 2007

“Maps of the Imagination” takes us on a magic carpet ride over terrain both familiar and exotic. Using the map as metaphor, Turchi considers writing as a



combination of exploration and presentation, all the while serving as an erudite and charming guide. He compares the way a writer leads a reader through the imaginary world of a story, novel or poem to the way a mapmaker charts the physical world. “To ask for a map,” Turchi writes, “is to say, ‘Tell me a story.’” With intelligence and wit, the author looks at how mapmakers

and writers deal with blank space and the blank page; the conventions they use (both the ones readers recognize and those that often go unnoticed) or consciously disregard; the role of geometry in maps and the parallel role of form in writing; how both maps and writing serve to re-create an individual’s view of the world; and the artist’s delicate balance of intuition with intention.

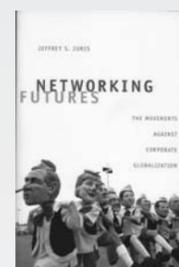
“Keçi Köprüsü” (Turkish translation of “The Goat Bridge,” 2005), by T. M. McNally, professor of English, Odtü Yayıncılık, 2008.

American photographer Stephen Brings has fled a troubled relationship in Chicago – and the painful memory of a kidnapped and still-missing son – only to stumble into the Balkans at the outbreak of the civil wars. As he drifts through the countryside, Brings struggles to resolve the trauma and sorrow of losing his son, and soon the landscape begins to mirror his own inner battles. After a return trip to America fails to heal the rift between himself and the mother of his child, Brings returns to Sarajevo, where he begins a project to document images of the Bosnian people – not war images, but personal portraits of an embattled nation. There he finds himself falling in love with a German journalist, who helps to heal his ailing body and to overcome his tragic loss. “The Goat Bridge” is an unforgettable tale of memory and oblivion, a probing story of loss and redemption, of letting go and holding on, and of the universal human search for meaning. In the end, it also is a love story about finding the wisdom and courage to surrender to one’s own – and another’s – heart.



“Networking Futures: The Movements Against Corporate Globalization,” by Jeffrey S. Juris, assistant professor of anthropology, Duke University Press, 2008

In an account full of activist voices and on-the-ground detail, Juris provides a history of anti-corporate globalization movements, an examination of their connections to local dynamics in Barcelona, and an analysis of movement-related politics, organizational forms and decision-making. He further explores how activists have used e-mail lists, Web pages and free software to organize actions, share information, coordinate at a distance and stage “electronic civil disobedience.” Based on a powerful cultural logic, anti-corporate globalization networks have become models of, and for, emerging forms of radical, directly democratic politics. Activists not only are responding to growing poverty, inequality and environmental devastation; they also are building social laboratories for the production of alternative values, discourses and practices.



“Strategies to Address Gang Crime: A Guidebook for Local Law Enforcement,” by professor of criminology Scott Decker, U.S. Department of Justice’s Office of Community Oriented Policing Services (COPS), 2008

Decker, professor and director of the School of Criminology and Criminal Justice at ASU’s West campus, says flexibility is critical for police agencies in devising anti-gang strategies. “The reality is that most responses to problems such as gang crime do not succeed, at least in their first design,” he says. “It is therefore important to document the process of designing and implementing a response so that the responding jurisdiction – and others – can be more successful.”

Decker’s guidebook describes the SARA model (scanning, analysis, response and assessment), a strategic problem-solving process that originated in the private sector. “All four components of SARA are critical; the model requires careful analysis before creating interventions,” says Decker, who visited some three dozen cities as he conducted research to write “Strategies to Address Gang Crime.” The guidebook is being distributed to police departments across the United States.

ASU grad receives Fulbright Intercountry Lecturing Award

By Verina Palmer Martin

Wayne Wright, a doctoral graduate of ASU's Mary Lou Fulton College of Education, has received the Fulbright Intercountry Lecturing Award in educational leadership and administration to support the Royal University of Phnom Penh's Master in Education program in 2009.

Wright, an associate professor in the College of Education and Human Development at the University of Texas-San Antonio, has worked with Cambodian refugees in the United States since 1986, and he is proficient in the Khmer language. At UTSA, Wright was granted early tenure and promoted at the end of his fourth year. This summer, he mentored his first doctoral student through to graduation. His student's dissertation compared literacy practices in U.S. and Chinese heritage schools.



Wayne Wright

"Wayne Wright has been on a very fast trajectory," says professor Terrence Wiley, director of the Division of Educational Leadership & Policy Studies in the Fulton College. "Among all the students I have worked with, he has been the most productive and prolific and has done consistently excellent work."

The Royal University of Phnom Penh is still recovering from the devastation of civil war and genocide during which schools were decimated and teachers were systematically executed. There were few educated people left to rebuild the country's school systems. As a Fulbright lecturer, Wright will teach two classes and support the university's graduate education program, which is only two years old but a milestone in the rebuilding effort. The program addresses the critical need for training education professionals in Cambodian government and nonprofit organizations.

Martin, with the Mary Lou Fulton College of Education, can be reached at verina.martin@asu.edu.

Editor named to Cronkite Alumni Hall of Fame

The executive editor of the *Arizona Republic*, Nicole Carroll, is the newest member of the Cronkite Alumni Hall of Fame.

Carroll, who graduated from the Cronkite School in 1991, was named to the *Republic's* No. 2 newsroom position earlier this year. At age 40, she is one of the youngest executive editors of a major metropolitan newspaper.

"It's remarkable how much Nicole Carroll has accomplished in journalism already," says Christopher Callahan, dean of ASU's Walter Cronkite School of Journalism and Mass Communication. "She's a rising star in journalism, and we're honored to include her in the school's Hall of Fame."

Carroll says she fell in love with journalism in middle school in Canyon, Texas, when she decided to start a school newspaper. She reported, typed up the stories, made the copies and delivered them.

While serving as yearbook editor at Deer Valley High School, she and other promising journalism students toured ASU. Carroll decided that ASU was for her, but says she was reluctant to declare a major in journalism.

"I thought it was too competitive," she says, so she decided to major in education instead.

But a tryout for the *State Press*, ASU's independent student newspaper, changed her mind.

The paper sent Carroll and a regular staff member to cover the same event. The editors liked Carroll's story so much that they ran it instead of the staff member's and hired her on the spot.

"I thought, 'Maybe I can do this,'" she says.

Carroll went on to become editor of the opinions page, the *State Press Magazine* and the ASU yearbook. She also was an intern at the *Phoenix Gazette* and the *East Valley Tribune*.

After graduation, she took a job covering the police beat for the *El Paso (Texas) Times*. Two years later, she was loaned to *USA Today*, where she covered teen issues for the features section. She then moved to Gannett's national newspaper for

children and began working on her master's degree in liberal studies at Georgetown University.

She later worked as a graphics reporter for *USA Today*, gathering information that was turned into some of the paper's signature graphics. Carroll said she ended up working on big stories, including the crash of TWA Flight 800 and the bombing at the summer Olympic games in Atlanta.

In 1997, Carroll moved back to Phoenix and began working for the *East Valley Tribune* newspaper as assistant city editor, metro editor and assistant managing editor for news. A year later, just after she gave birth to twins, the *Republic* hired her as an assistant city editor.

At the *Republic*, Carroll moved up the ladder quickly. After a succession of jobs ranging from city editor to managing editor for features, she was named executive editor in February, a job that puts her in charge of enterprise, local news, features and entertainment, online and new product development.

Carroll says she never planned to become an editor of her hometown newspaper, "but I'm happy to be here."

She says some of the most important journalistic lessons she learned were while a student at the Cronkite School – which is why she's thrilled to be named to the school's Hall of Fame.

"I remember getting failed in (beginning news writing) if you misspelled a name," she says. "That's something I carry with me to this day."

If she's found success, it's because she has "always found ways to make things happen."

"I look for ways to help people meet their goals," she says.

Carroll is the 41st member of the Cronkite Alumni Hall of Fame. She joins ABC sportscaster Al Michaels, *Washington Post* assistant managing editor Don Podesta, *Wall Street Journal* correspondent Pamela Sebastian, Fox11-Los Angeles anchor Christine Devine, ABC News correspondent Bill Redeker and *USA Today* travel reporter Jayne Clark, among others.

Biosphere research helps sniff out petroleum deep within Earth

By Nikki Staab

Miles below us, deep within Earth's crust, life is astir.

Organisms there are not the large creatures typically envisioned when thinking of life. Instead, thriving there are microbes, the smallest and oldest form of life on Earth.

Although the biological diversity of these deep biosphere microorganisms may surpass that of the more familiar surface biosphere, much about them is still unknown, including the origin of the organic compounds they consume.

ASU researchers are using a novel approach that integrates physical organic chemistry with organic geochemistry and biogeochemistry to uncover the source of these organic compounds.

Carbon, the building block of organic matter, is one of the most dynamic elements on the planet. It responds to biological, physical and chemical processes in many ways and on many timescales. Understanding how carbon is formed, where it comes from and how much of it exists is important for a more detailed and coherent picture of the global carbon cycle.

But a complete understanding of how carbon is produced and consumed in the environment still evades researchers because much of what is known is based on processes that act on short time scales and at Earth's surface.

Deep biosphere microbes, like any living organism, require energy to survive. For many, their sustenance comes in the form of organic compounds. Over time, organic compounds are buried and pushed deeper into the Earth's crust.

Harsh conditions on the journey to the deep Earth cause the organic compounds to become "recalcitrant," meaning they are no longer in a form that microbes can use. Some of the consumable organic compounds are produced by other subsurface microbes, but a large portion is most likely the end product of a mysterious geochemical process.

Theoretical biogeochemist Everett Shock, a professor in ASU's School of Earth and Space Exploration and the Department of Chemistry and Biochemistry in the College of Liberal Arts and Sciences, leads an interdisciplinary group of researchers who are investigating how this geochemical transformation from recalcitrant matter to usable organic compounds occurs deep in Earth's crust.

"The secret appears to lie in how temperature and pressure affect the reactivity of organic compounds – and, maybe more importantly, how the properties of water change deep in sediments and

"Evidence suggests that hot water at high pressures – conditions we'd find in the subsurface – is actually a very good solvent for organic reactions."

– Hilairy Hartnett, an assistant professor in the School of Earth and Space Exploration and ASU's Department of Chemistry and Biochemistry

sedimentary rocks," Shock says. "The transformation in how water behaves is so enormous that we would hardly recognize it as the same stuff that comes out of our kitchen taps."

Most organic reactions at the Earth's surface do not work very well in water. Either they need an organism that has evolved the mechanisms to promote organic reactions in water, or they need an organic solvent, hexane or benzene, for example. The very deep Earth, below where microbial life has been shown to exist, has lots of rocks but no organic solvents.

It does, however, have very hot water.

Hilairy Hartnett, an assistant professor in the School of Earth and Space Exploration and ASU's Department of Chemistry and Biochemistry, is part of Shock's interdisciplinary group examining the mechanisms of the subsurface carbon cycle. The team hypothesizes that conditions deep in the Earth might be good for complex organic reactions.

"Evidence suggests that hot water at high pressures – conditions we'd find in the subsurface – is actually a very good solvent for organic reactions," Hartnett says. "It might be possible for these reactions to occur without biology if the conditions are right."

"Biological processes can promote reactions to generate complex organic molecules, even at unfavorable low temperatures and pressures. The difference for the deep Earth is the high temperature and pressure."

Spurred by a \$1.5 million grant from the National Science Foundation, the team will apply new theoretical models of how water at high temperatures and pressures can transform organic compounds in unexpected ways. Through a series of high-temperature and pressure experiments involving organic compounds, water and common minerals found in sedimentary rocks such as iron oxides and clays, the team plans to reveal how organic transformation reactions

occur in natural geologic conditions.

Team member John Holloway, an emeritus faculty member in the School of Earth and Space Exploration and ASU's Department of Chemistry and Biochemistry, designed and built the hydrothermal reaction vessels necessary for testing. At ASU's new Omni-pressure Lab, simple compounds such as water and carbon dioxide are placed in the inert gold capsules and then tested.

"The samples are held at temperatures up to 300 degrees Celsius and pressures of 250 atmospheres, equivalent to the bottom of the ocean (2,500 meters) or slightly higher, for periods of hours to weeks," Holloway says. "They are then quenched to ambient conditions, and we analyze the products using gas chromatography and mass-spectrometry."

The results of past similar experiments have shown that the concentration, variety and complexity of compounds all increase with time, and are strongly influenced by contact with minerals during the experiments.

"It will be important to find out if the mixture of compounds we make in the lab looks anything like the organic compounds that are found in the deep subsurface," Hartnett says. "If they do, then maybe this is how they formed: just rocks, hot water and simple carbon compounds. If they don't – well, we need to figure out what else is required. Lots of researchers have looked at individual aspects of the questions we're asking, but this is one of the first – or maybe the first – attempt to look at these high-temperature water-rock-organic processes from an integrated experimental and theoretical standpoint."

A project of this caliber requires a team with a wide range of expertise from thermodynamic modeling, reaction mechanisms, and organic characterization, to clay minerals and high-temperature and pressure experiments. Many different techniques and backgrounds are necessary to understand the complexities of the process.

"Some of the known organic reactions under hydrothermal conditions are fascinating to me as an organic chemist," says chemistry professor Ian Gould. "But this is a not a research field that I can enter in my own. I don't know how to do the experiments, and I don't know which are the important observations, but I can bring expertise in the area of choosing useful and informative reactions to study."

"No one person is an expert in all aspects of the project," Hartnett says. "As a team, we all think about the same questions, but we each bring a different set of skills and ideas to the forum. That often means we can find answers more quickly, or find answers that come from a direction any one of us by ourselves might have overlooked."

"What we're learning may be applied to hydrocarbon exploration, carbon dioxide sequestration, environmental reclamation, and microbial sustainability," adds team member Lynda Williams, an associate research professor in the School of Earth and Space Exploration who focuses on the chemical composition of clay and sedimentary minerals. "It could also lead toward understanding primordial conditions on Earth and similar planets where carbon-based life has evolved."

This interdisciplinary approach to exploring organic reactions in hot water also could have important implications for "green" chemistry. By learning more about how to promote organic reactions in hot water, other researchers may be able to take that knowledge and develop new chemical processes that don't have to use environmentally unfriendly, toxic solvents.

With the research, which is funded through NSF's Emerging Topics in Biogeochemical Cycles program, Shock and his team will be the first to link organic geochemical reactions deep in the Earth's crust to the support of microbes in the deep biosphere.

In the process, the researchers plan to test new ideas about how petroleum forms from deeply buried organic matter, including the direct involvement of deep biosphere microbes. That deeply buried organic material is the precursor to petroleum, but it may also be the food that many microbes need to survive.

"By understanding organic synthesis reactions in the deep biosphere, we may find better organic and inorganic tracers to aid in finding petroleum resources and recovering them in more environmentally friendly ways," Williams says.

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Collaboration begets solar testing facility at ASU

(Continued from page 1)

with its university knowledge base, immediate entry to the U.S. solar testing market, and the lab's long experience testing PV panels in simulated and real outdoor environments. Central Arizona receives an average of 325 days of sunshine annually.

A collaboration between the new company and Arizona's largest electric provider, Arizona Public Service (APS), will extend the industry impact of TUV Rheinland PTL. The utility will provide five acres of outdoor testing space at its renowned Solar Test and Research (STAR) Center for use by the venture to conduct outdoor endurance testing.

The STAR Center, a pioneering facility among U.S. public utilities, was established in 1985. It has earned an international reputation as a leader in the commercial development and proof of operation for emerging solar energy technologies, including Dish-Stirling arrays, high-concentration photovoltaic systems and innovative solar tracking systems.

TUV Rheinland will be the principal investor in the new company and will develop a new facility near ASU's Tempe campus equipped with the latest, most advanced test technologies and equipment in the world.

"We are excited to participate in this globally significant joint venture," says Stephan Schmitt, president and chief executive officer of TUV Rheinland North America Holding Inc. "The potent combination of business, university and utility solar test assets will enable TUV Rheinland PTL to be the first in the world to offer full-scale PV testing and certification across the entire component chain of photovoltaic systems. By adding this unique new capacity in the United States to TUV Rheinland's existing PV laboratories in Europe and Asia, we are establishing a laboratory network that will deliver unprecedented service to the crucially important and rapidly growing solar industry."

In addition to the venture's worldwide implications, the new testing facility is expected to produce local economic impacts by attracting solar energy manufacturers and entrepreneurs to Arizona, boosting the state's solar energy credentials, and increasing employment in the solar energy industry.

"This innovative public-private collaboration in state-of-the-art solar energy technologies, research and test facilities

makes Arizona the best place to be for solar energy," says ASU President Michael Crow. "Joining the business acumen of a top international testing firm with the capabilities of a major research university and the knowledge created by APS' leadership on solar energy is a strategic move that will have significant payoffs for renewable energy users worldwide – and for the world's climate."

"From our plans to build Solana, one of the world's largest solar power plants, to making solar rooftop systems more affordable for customers, APS is dedicated to making Arizona the solar capital of the world," adds Bill Post, chairman of Pinnacle West Capital Corp. "The work to be done at the STAR Center by ASU and TUV Rheinland will help Arizona achieve that goal and will create long-term value for our customers, our state and our industry."

The unusual new joint venture was assembled and coordinated with the help of ASU's Global Institute of Sustainability (GIOS), which oversees sustainability initiatives in research, education and application at the university. Expansion of the solar energy industry and the use of solar energy is an economic priority of Arizona and Gov. Janet Napolitano, as well as Science Foundation Arizona.

"Science Foundation Arizona was established to invest in purpose-driven research and innovation that advances the growth of Arizona's knowledge economy," says William Harris, president and CEO of Science Foundation Arizona, and the former director of Science Foundation Ireland. "This world-class collaboration between TUV Rheinland and ASU is a perfect example of how research can lead to economic activity, and yield benefits and opportunities."

"In a time of declining oil supplies, increasing greenhouse gas emissions and growing demand for clean, renewable energy worldwide, this joint venture will blend the strengths of two of the world's leading test and certification organizations, and a major U.S. public utility, to create the most respected, sophisticated and efficient place for manufacturers to assure their solar energy products meet international standards before going to market," says Jon Fink, the Julie Ann Wrigley Director of the Global Institute of Sustainability.

The kickoff of TUV Rheinland PTL will culminate in mid-November with a series of significant global events.

Leland, with the Global Institute of Sustainability, can be reached at (480) 965-0013 or karen.leland@asu.edu.

Gammage exhibit features photography, mixed-media works

Photography by Phoenix resident Rhet Lee Andrews and mixed-media works by 23 artists from PSA Art Awakenings will be featured at ASU Gammage Oct. 22-Dec. 15.

Andrews will show photos with two themes: travel and historic automobiles.

"Many of the scenic photos were shot throughout Europe," he says. "The automobile shots include trips to the Mille Miglia in Italy, the Grand Prix Historique de Monaco, and the Pebble Beach Concours d'Elegance."

Andrews began taking pictures in high school for his school newspaper in Alliance, Ohio. After graduating from Miami University, he embarked on a three-month photography odyssey throughout Europe.

For the next 20 years, he was a stockbroker. In 1999, he returned to his passion and has been taking pictures ever since. Andrews works out of the Phoenix Center for the Arts darkroom and has won several awards at the First Friday Art Show in Phoenix.

PSA Art Awakenings, born out of PSA Behavioral Health Agency, presents 30 works by 23 artists, titled "Mind Fields." The exhibit includes watercolors, acrylic paintings and mixed-media works.

Two common threads unite the artists: All are affected by serious behavioral issues, and all possess an abundance of creative talent. Through their work, the artists find therapeutic opportunities for self-discovery, wellness, confidence and communication.

Exhibit hours at ASU Gammage are Mondays from 1 p.m. to 4 p.m., and by appointment. Because of rehearsals, event set-up, performances, special events and holidays, it is advisable to call (480) 965-6912 to ensure viewing hours, since they are subject to cancellation without notice.

Parking is available at meters around the perimeter of Gammage, and visitors can enter through the east lobby doors.

For more information, call Brad Myers, art coordinator, at (480) 965-6912.

Innovative Mexico startup companies find place to call home at SkySong

(Continued from page 1)

has a strategic partnership with Dublin City University. We also work with universities and business accelerators in Singapore and Turkey."

ASU SkySong staff and their partners will participate in the company selection process in Mexico this fall.

The Greater Phoenix Economic Council, the Arizona Technology Council, the Arizona Hispanic Chamber of Commerce, the Arizona Department of Commerce, the Arizona-Mexico Commission and several other organizations played key roles in attracting TechBA to SkySong by conveying the benefits of the greater Phoenix metropolitan area, as well as the access to research and technology at ASU.

"SkySong continues to make great strides in elevating the profile of greater Phoenix and Arizona as a hub for global innovation," says Barry

Broome, president and chief executive officer of the Greater Phoenix Economic Council.

Marco A. López Jr., director of the Arizona Department of Commerce, adds that "as Arizona continues its efforts to increase foreign direct investment, SkySong is an important global landing platform that provides a new way for Mexican and other global entrepreneurs to access the U.S. market."

Steve Zylstra, president and CEO of the Arizona Technology Council (ATC), says TechBA Arizona also provides a unique opportunity for the state's technology-based companies.

"Innovation occurs globally," Zylstra says. "Council members will benefit from access to up-and-coming innovation from a neighboring country that is 109 million people strong."

Harry Garewal, president and CEO of the Arizona Hispanic Chamber of Commerce, says he is

excited about the opportunities TechBA presents to the greater Phoenix metropolitan community.

"We look forward to creating new, value-added, cross-border relationships to promote economic prosperity," he says. "We hope that this will lead to more and better jobs, as well as procurement opportunities for companies on both sides of the border."

This most recent partnership builds on ASU's rapidly developing relationship with Mexico's knowledge-based enterprises. ASU has a long-standing strategic alliance with Tecnológico de Monterrey. This summer, Arizona Technology Enterprises (AzTE), the technology venturing arm of ASU that is located at SkySong, entered into an agreement to market technologies in the United States that are developed by Tecnológico de Monterrey.

SkySong, the ASU Scottsdale Innovation

Center, is home to more than 40 enterprises from 11 countries, with clusters of companies in e-learning, information communications technologies, and sustainability. SkySong is an interactive business environment in which individual entrepreneurs, global and U.S. enterprises, ASU researchers and community members connect to bring new services and technologies to the marketplace. Two buildings located at the intersection of Scottsdale and McDowell Road are open, with 300,000 square feet between them.

SkySong ultimately will consist of 1.2 million square feet of research, office and retail space in addition to residential units. Higgins Development Partners and Plaza Cos. are co-developers of the project in partnership with the ASU Foundation and USAA Real Estate Co.

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Block Party promises fun for all

(Continued from page 1)

Among the many activities available during the Block Party are animal and insect exhibits, plus other interactive and educational activities for children, where they can expand their knowledge in areas such as sustainability, physics, English, art and science.

Collin Smith, an ASU student of design, is eager to work with the children at the Block Party. This year, Smith and other design students will conduct a product design competition using recyclable materials such as water bottles and cardboard. The participants then will create furniture, buildings, clothing and other products using the materials available to them.

"Interaction is a great way to learn, as it allows students to apply their knowledge and teaches kids to see recyclable materials in different ways," Smith says. "Projects like this make learning fun, and teach future generations about commitment to the environment and sustainability while reminding designers of their responsibility to educate society."

"The Block Party is a great opportunity for children and parents to discover the different options that ASU has to offer," adds Lambert Yazzie, senior coordinator for Club ASU. "The event also is a great opportunity for parents to get involved in their children's education and learn about different programs available for the children in the summer or other times of the year."

To find more information about Homecoming, the Block Party, and other children's activities at the events, visit the Homecoming Web site www.asu.edu/studentaffairs/ASASU/homecoming/index.html.

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Scientist uses living cells as nanotech factories

(Continued from page 1)

short helper DNA sequences to form two-dimensional or three-dimensional objects.

"We have always dreamed of scaling up DNA nanotechnology. One way to scale that it up is to use the cellular system because simple DNA can be replicated inside the cell. We wanted to know if the cell's copy machine could tolerate single-stranded DNA nanostructures that contain complicated secondary structures."

To test the nanoscale manufacturing capabilities of cells, Yan and his fellow researchers – Chenxiang Lin, Sherri Rinker and Yan Liu at ASU, and their collaborators Ned Seeman and Xing Wang at New York University – went back to reproducing the very first branched nanostructure made up of DNA: a cross-shaped, four-arm DNA junction and another DNA junction structure containing a different crossover topology.

To copy these branched DNA nanostructures inside a living cell, the ASU and NYU research team first shipped the cargo inside a bacteria cell. They cut and pasted the DNA necessary to make these structures into a phagemid, a virus-like particle that infects a bacteria cell. Once inside the cell, the phagemid used the cell just like a photocopier machine to reproduce millions of copies of the DNA. By theoretically starting with just a single phagemid infection and a single milliliter of cultured cells, Yan found that the cells could churn out trillions of the DNA junction nanostructures.

The DNA nanostructures produced in the cells also were found to fold correctly, just like the previously built test-tube structures. According to Yan, the results also proved the key existence of the DNA nanostructures during the cell's routine DNA replication and division cycles.

"When a DNA nanostructure gets replicated, it does exist and can survive the complicated cellular machinery," he says. "And it looks like the cell can tolerate this kind of structure and still do its job. It's amazing."

Yan acknowledges that this is just the first step, but he says there are many interesting DNA variations to consider next.

"The fact that the natural cellular machinery can tolerate artificial DNA objects is quite intriguing, and we don't know what the limit is yet," he says.

Yan's group may be able to change and evolve DNA nanostructures and devices using the cellular system, and the technology also could open up some possibilities for synthetic biology applications.

"I'm very excited about the future of DNA nanotechnology, but there is a lot of work to be done," he says. "An interesting research topic to pursue is the interface of DNA nanostructures with live cells. It's full of opportunities."

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Mars scientist Christensen earns distinguished award

By Robert Burnham

Philip Christensen, Regents' Professor of Geological Sciences in ASU's School of Earth and Space Exploration, has been given the G.K. Gilbert Award for 2008 by the Planetary Sciences Division of the Geological Society of America.

The prestigious award, given annually for outstanding contributions to the solution of fundamental problems in planetary geology, commemorates geologist Grove Karl Gilbert (1843-1918), one of the first scientists to study the geology of the American West.

This year's award, bestowed at the GSA's annual meeting in Houston, recognizes Christensen's work in the field of remote sensing of minerals on Mars using instruments that operate in the infrared part of the spectrum.

"The award is especially meaningful to me, because I have long admired Gilbert and have been intrigued by many of the same scientific questions that he pursued throughout his career," says Christensen, who in addition to being a professor in the College of Liberal Arts and Sciences is also director of ASU's Mars Space Flight Facility.

Mars explorer

In 2000, Christensen's Thermal Emission Spectrometer (TES), launched on NASA's Mars Global Surveyor, discovered a large deposit of the iron mineral hematite on Mars. Four years later, NASA sent Opportunity, one of its two Mars Exploration Rovers, to the site in Meridiani Planum found by TES.

Upon landing, the rover confirmed the hematite discovery and explored sediments repeatedly soaked by shallow pools of water.

In addition, both rovers carry identical miniature versions of TES, which are used to scout for new rocks and minerals for the rovers to examine. Recently, the Mini-TES on the Spirit rover (which is exploring the Columbia Hills in Gusev Crater) pointed the way to a discovery of silica minerals. These appear to be relics of an ancient hot spring like those in Yellowstone National Park.

Christensen also is the designer and principal investigator for the Thermal Emission Imaging System (THEMIS), a multiple-band infrared camera working on NASA's Mars Odyssey orbiter. Among this instrument's discoveries are beds of chloride minerals in the ancient Martian highlands. These may be salt deposits laid down during a time when Mars was wetter and warmer than today, and they may offer clues about the existence of a Martian biosphere.

Says ASU professor Ronald Greeley: "I believe it's un-



TOM STORY PHOTO

ASU's Phil Christensen has been given the G.K. Gilbert Award for 2008 by the Planetary Sciences Division of the Geological Society of America.

precedented in planetary science for a principal investigator to be operating four instruments concurrently: TES on Mars Orbiter, Mini-TES on Spirit and Opportunity, and THEMIS on Mars Odyssey."

Reading the scenery

Studying landscapes began early for Christensen.

"I grew up in the West, having been born in Utah and lived in Kansas and California," he says. "Each summer my family would drive across the West to visit our scattered relatives, and during those long drives I spent many hours looking out the window of our car at the mountains and landforms. I didn't realize it at the time, but I was becoming a geologist."

As with Gilbert decades before, Christensen was fascinated by western scenery and wondered at its formation and history.

"My family liked to explore out-of-the-way places, and we probably traveled many of the same routes that Gilbert did, seeing landscapes that have not changed much since his time," he says.

While Gilbert's career involved terrestrial geology almost entirely, he had links to what is now called planetary science. A hundred years ago, Gilbert was about the only geologist in the world arguing that craters on the moon were caused by the impacts of meteorites. The overwhelming consensus of geologists of his time and long afterward held that lunar craters were volcanic in origin, an idea that didn't finally disappear until the mid-1960s.

"When I was 12, my parents gave me a telescope – and, again, like Gilbert, I spent countless hours looking at the moon," Christensen says. "The only features I could see with my small telescope were the craters, and in reading the few books about the geology of the moon I quickly learned of his early hypothesis for crater formation and his role in shaping our understanding of the moon's history."

As a graduate student in the late 1970s, Christensen's interests ranged far beyond the moon: He worked on NASA's Viking project, which sent two orbiters and two non-roving landers to Mars.

Christensen earned a doctorate in geology from the University of California-Los Angeles and came to ASU in 1981.

Impact in Arizona

Arizona had drawn Gilbert as well, nearly a century before. Besides lunar craters, Gilbert also studied northern Arizona's Meteor Crater, then known as Coon Butte, making the first geological survey of it in 1891. Because Meteor Crater is surrounded by millions of fragmentary nickel-iron meteorites, Gilbert had a strong hunch it might be a terrestrial counterpart of the moon craters he saw by telescope.

Ironically, however, Gilbert's survey led him to conclude, mistakenly, that Meteor Crater was not the result of an impact.

Despite weeks of fieldwork, Gilbert could find no large remnant of the impacting body, which he thought should have survived the impact. Thus he decided reluctantly that Meteor Crater was an explosion hole blown open when volcanic heat turned groundwater to steam. It wasn't until the 1920s, after Gilbert had died, that scientists realized the shock of impact would vaporize most the impacting object.

"While Gilbert's volcanic interpretation was wrong, he did what every scientist should do," Christensen says. "He threw away a favorite theory when the data didn't back it up."

Christensen says he gets excited when considering the future of planetary geology.

"In my lifetime, our perception of Mars has changed from a point of light in the night sky to a complex planet we are coming to know as well as our own. The past 30 years have been a remarkable period in planetary exploration, and I consider myself to be very fortunate to have participated in this modern age discovery. The images we have of Mars now rival the views I had out the window of our family car."

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School of Global Management and Leadership

Making a difference: Professor, students turn service into success

By Steve Des Georges

Phil Mizzi and his quantitative business analysis students should be familiar with the so-called "butterfly effect." The phrase refers to the idea that a butterfly's wings might create tiny changes in the atmosphere that might ultimately alter the path of a tornado – or delay, accelerate or even prevent the occurrence of a tornado in a certain location.

The flapping wing represents a small change in the initial condition of the system, which causes a chain of events leading to large-scale alterations of events.

Not that the associate professor in ASU's School of Global Management and Leadership and the students are altering global climatic conditions. The team, however, has had a tornado-like impact on the Phoenix conference of the Society of St. Vincent de Paul, a Catholic charitable organization serving homeless and economically disadvantaged populations across the Valley.

Since 1994, Mizzi, who has taught at the West campus school for 20 of its 25 years, has had a connection with St. Vincent de Paul.

It began with an evening spent serving meals to those in need and has moved forward from that point like a warm front rushing up from the Gulf.

"At the time, I thought it would be a good idea to get some of our students involved," remembers Mizzi, who earned his doctorate in economics at Texas A&M in 1984. "I felt maybe our students could perform this community service while at the same time breathe some new life into the organization."

Breathe new life, indeed. Mizzi turned the good deeds into classroom assign-

"I felt maybe our students could perform this community service while at the same time breathe new life into the organization."

– ASU associate professor
Phil Mizzi

ments, asking students to write reflections of their service. What he learned impressed him.

"Many said it was their first time doing something like this," he says. "They said it was eye-opening, and that they had been afraid to get involved because of the uncertain environment. Many also said this type of service should be a course requirement, so we made it so."

As Mizzi got further involved with St. Vincent de Paul, he learned the Phoenix conference was one of the largest in the country. Soon, he and his students were in the middle of organizational duties for the conference's annual appreciation day fundraiser.

And this was just the beginning. In 1997, Stephen Zabilski, a senior vice president at Transamerica Insurance Group, was named executive director of the Phoenix conference, bringing a professional business perspective to the organization. Upon learning that Mizzi and his business students were involved with

the society, he looked for more meaningful ways to expand their service.

Zabilski's direction has been evidenced by the Phoenix center's growth. In 1998, the conference took on 50,000 pounds of donated food items, while today it accepts 5 million pounds annually.

"The conference board of directors determined it would take \$2.5 million to build a new warehouse to take in that much food," Mizzi says. "They also wanted to see a business plan before moving ahead. They called on us; this was the first time it wasn't about serving meals or organizing a fund-raiser. We said, 'Hey, we can do this.'"

In the meantime, Mizzi made his board rounds, meeting with members face to face, gaining their confidence and learning more about their ideas. He turned to Mohan Gopalakrishnan, a global management associate professor of operations management, for assistance, and understandably so: Gopalakrishnan is an expert in applied research with industries in the areas of capacity, process, performance, inventory, quality and supply chain risk management. He determined a new warehouse was not necessary, but that a more efficient way of accepting, inventorying and distributing the food was.

"The students took this on as a project and came through with flying colors," says Mizzi, who has won ASU's "Excellence in Service" three times as well as the 1996 Martin Luther King Jr. Community Service Award. "We doubled the loading docks, doubled the scanners, doubled the length of the conveyor belts. We even looked at the conference's adjoining thrift shop and redesigned

its layout to make its use of space more efficient, giving us more room in the warehouse.

"We went from serving meals to becoming part of the management team. We are contributing in business engineering ways, in information-flow areas, and we are using our students to make a difference in the success of the conference's ability to serve more of the community than ever before."

So successful has the impact been on the Phoenix conference of St. Vincent de Paul that others are seeking the expertise of Mizzi's budding professionals. Among those at the receiving end of the students' efforts – which have become capstone projects on the way to management and leadership degrees – are the Phoenix Public Library, From the Heart (formerly the Glendale Human Services Council) and the Phoenix Music Conservatory.

On the private side, SGML students are analyzing the best locations for a restaurant chain, and how much homebuyers will spend to have solar energy-efficient designs. There also is work with a national grocery association to look at ways to reduce the 200 billions pounds of food that is wasted, preconsumer, annually.

"There are so many positive things that can come from the work our students are doing – work that is centered on real-world challenges being met with real-world solutions," Mizzi says. "All of this comes from the success we have had with St. Vincent de Paul. When we're successful, we're very successful."

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