

CONFLUENCE

THE COLLEGE OF LETTERS AND SCIENCE • MONTANA STATE UNIVERSITY • 2005 - 2006 • VOLUME 2



World View
L&S Scholarship Spans the Globe



LETTER FROM THE DEAN

Colleagues and friends of L&S,

In the previous issue of *Confluence*, we shared with you the many ways in which Yellowstone National Park plays a role in the research of L&S faculty and the education of our students. Yet our scholarship isn't bounded by regional or national borders. Faculty and students from all fifteen L&S departments are studying, writing, lecturing, and conducting research across the globe. And they are bringing that worldview back to our campus and classrooms, enhancing the teaching and learning that goes on every day here at MSU.

In the following pages, you'll read about professors doing ecological, anthropological, geological, and microbiological research in Africa, India, Iceland, and Antarctica. You'll learn about student exchange programs with schools in Morocco, Turkey, and New Zealand. You'll discover student researchers who accompany their faculty mentors to Israel, Brazil, and France. And then there are new study programs in Japanese and Arabic, L&S alumni coordinating relief efforts in Southeast Asia, professors receiving international honors and awards, and the hundreds of conferences and publications to which our faculty and students contribute around the world.

At the same time, we continue to take pride in the excellent mentoring of students that takes place here on our Bozeman campus, the hands-on research opportunities offered in both undergraduate and graduate programs, the diverse accomplishments of our alumni, and the vital support of parents, friends, and donors, who make many of these accomplishments possible.

As we choose what to feature in this issue of *Confluence*, we are constantly reminded of how much we are leaving out. While you read and enjoy these glimpses of faculty, staff, student, and alumni achievements, we hope you'll be inspired to learn more about what is happening across the college. Log onto our website—www.montana.edu/lettersandscience—for frequently updated news, join us for any of our public lectures, discussion groups, and learning opportunities, or visit us on campus to meet our faculty and students.



Sara Jayne Steen

Dean, College of Letters and Science

TABLE OF CONTENTS

2	World View: Scholarship Across the Globe	15	Outreach
6	MSU Reaches Out to the Middle East	16	Alumni
8	New Travel Study Courses	18 - 26	Department Highlights
10	Students	27 - 28	Philanthropy
12	Faculty and Staff		
14	Research		

COLLEGE OF LETTERS & SCIENCE

Dean Sara Jayne Steen Associate Dean George Tuthill Associate Dean Adele Pittendrigh
Director of Communications Sarah Guggenheim Alexander Assistant to the Dean Kathy Griffith
CLS 101 Program Director Valerie Holzngel Information Systems Manager Gary Bummer
Administrative Associate Diane Arnold Special Projects Coordinator Linda McGurk

COLLEGE OF LETTERS & SCIENCE ADVISORY BOARD

Dorothy Bradley Susan J. Edsall Joseph B. Gary Marshall Gingery Bob Hawks Susan Heyneman
Stephen A. Luckey Richard Roehm Steve Rovig

DEPARTMENTS AND DEPARTMENT HEADS

Agricultural Economics & Economics Richard Stroup Cell Biology & Neuroscience Gwen Jacobs
Chemistry & Biochemistry David Singel Earth Sciences David Lageson Ecology David Roberts
English Michael Beehler History & Philosophy Robert Rydell Mathematical Sciences Kenneth Bowers
Microbiology Timothy Ford Modern Languages & Literatures Michael Myers Native American Studies
Walter Fleming Physics William Hiscock Political Science Jerry Johnson Psychology Richard Block
Sociology & Anthropology Susan Monahan

We thank the following people for the use of their photographs:

Andy Hansen, Susan Cohen, Seth Feinberg, Jack Fisher, Steve Hamner, Linda McGurk,
Mark Skidmore, David Varricchio, and Franke Wilmer.

COLLEGE OF LETTERS & SCIENCE

Montana State University
2-205 Wilson Hall
Bozeman, Montana 59717
406-994-4288
406-994-7580 (fax)
lands@montana.edu
www.montana.edu/lettersandscience

Confluence is published by the College of
Letters and Science, Montana State University.

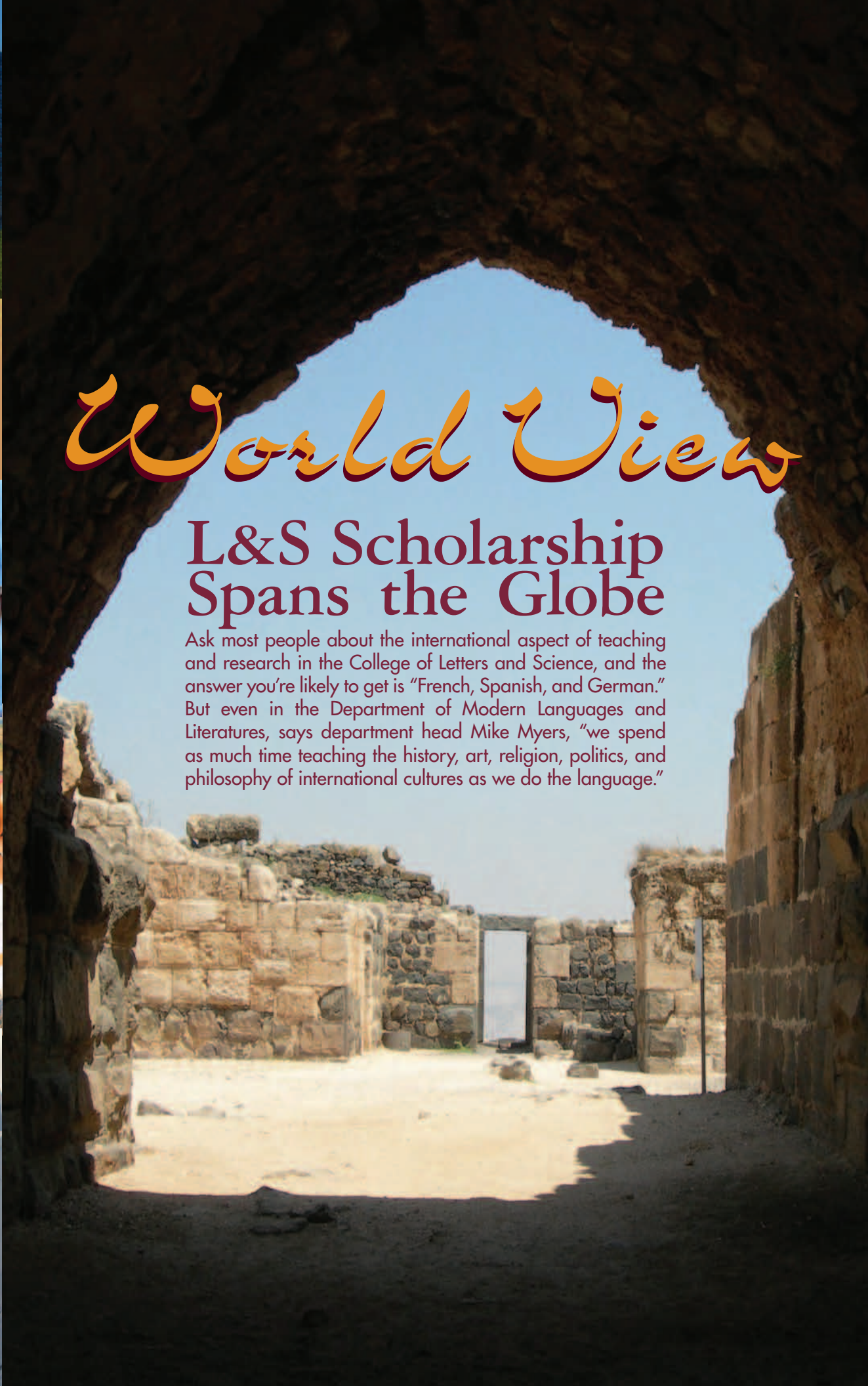
Editor, Sarah Guggenheim Alexander
Design, Ixtla Vaughan, '91, Steve Apple, '06,
www.getidesign.com
Printing by ColorWorld, Bozeman



World View

L&S Scholarship Spans the Globe

Ask most people about the international aspect of teaching and research in the College of Letters and Science, and the answer you're likely to get is "French, Spanish, and German." But even in the Department of Modern Languages and Literatures, says department head Mike Myers, "we spend as much time teaching the history, art, religion, politics, and philosophy of international cultures as we do the language."



TALE OF TWO COUNTRIES

In fact, faculty from each of the fifteen departments in the College of Letters and Science are involved in far-reaching research and teaching, involving countries and cultures that range from Ghana to Israel to the far reaches of Antarctica. "Despite Montana's seeming geographically isolated," said Dean Sara Jayne Steen, "our faculty members are making extraordinary contributions to international research."

In some cases, their work makes them better known abroad than here at home. John Thompson, professor of Spanish, for instance, is a local hero in Galiza, a small region of northwest Spain. After Spain's 1936-39 civil war, the fascist regime of Generalissimo Francisco Franco repressed the Galizan language and culture. Thompson's research on Galizan Civil War literature has been lauded as analogous to presenting the Native American view of U.S. history.

In other cases, faculty members collaborate with their peers at international conferences, participate in research in remote locations, do lab research at home that has profound impacts on countries abroad, and are recognized with honors and awards from international organizations. "Students at MSU are able to study and participate in research that literally spans the globe," boasted university president Geoff Gamble.

Professors Linda Young and Franke Wilmer (see page 25), from the Department of Political Science, took three students to the World Social Forum in Porto Alegre, Brazil, in January 2005. The forum, which raises awareness of social justice issues in international relations, hosted over 155,000 registered participants from around the world. Undergraduates Dan Huebner, Markie Hoffman, and Stacey Parenteau were able to conduct research on topics such as non-governmental organization (NGO) activism, child labor in Brazil, and educational opportunities for children in Brazil. Wilmer conducted her own research on ethics and international violence, which she presented at the International Studies Association conference in March 2005.

...continued on page 4

Her research into Honduran immigrants in the U.S. led sociology professor Leah Schmalzbauer to study the growing trend of transnationalism, when families are split between two countries. She reported her findings in an article published recently by the *Journal of Marriage and Family*.

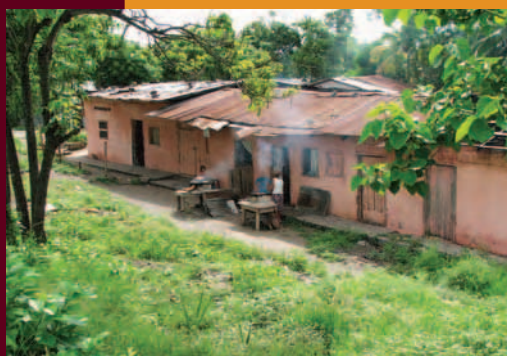


MSU News

Schmalzbauer studied 157 Hondurans over two years, interviewing the immigrants as well as the family members left behind. She found that the changes for Latin American families are more pronounced now than an increasing number of women are leaving their children in the care of proxy mothers while they migrate to the U.S. in search of a better living.

"Millions of families are living in a permanent, transnational limbo," said Schmalzbauer. "I heard thousands of stories about these people being separated from their families." Many of the migrants lived in "very, very tough circumstances,

packed in small apartments to cut costs." She said Honduran parents were very devoted to their children as well as to their extended families and were in agony over their finance-mandated separations.



Nearly all of the income that the immigrants make in the U.S. while working at low-paying jobs is wired back to their native countries. "Their goal is to send back every available penny except those spent for necessities," she said.

Schmalzbauer added that while the subjects all spoke of the day that their families would be reunited, long-term reunion of transnational families is rare. "I call this 'the Myth of Return,' the notion that keeps you going that you are going to be united sooner or later."

Excerpted from MSU News/Carol Schmidt



World View ...continued

Mark Skidmore, professor of geology in the Department of Earth Sciences, conducts his research in remote field sites from the Swiss Alps and Iceland to Alaska. Often bringing along graduate student Scott Montross, Skidmore conducts research that explores the role of microbes in the chemical weathering process of glaciated systems. In addition to conducting research abroad, Skidmore presented results of his research at conferences in Canada, Finland, and Belgium.

Professor Walter Fleming, head of the Department of Native American Studies, along with Professor Wayne Stein, spent five weeks in 2004 meeting with scholars in Peru and Guatemala. As a result of that trip and continued research, they will be presenting a paper at the 7th World Indigenous Peoples Conference on Education in Hamilton, New Zealand in November 2005. The topic, "Development of a Framework for an Indigenous Ethnic Studies Exchange Project," reflects their interest in looking at the religious, cultural, and philosophical similarities among the Incas, the Mayas, and the North American Indians. They hope to develop an exchange project that would include Montana State University, Fort Belknap College, and similar colleges and universities in New Zealand.

These examples only begin to illustrate the depth and breadth of international research in L&S. Other work includes psychology professor Richard Block's international collaborations on the Study of Time; English professor Sharon Beehler's research on "Global Shakespeare Pedagogy"; the archeological fieldwork of anthropology professor Jack Fisher at the Dunfield Midden site on the southwest coast of South Africa; the faculty research highlighted in this article's three sidebars, and innumerable other examples.

"It's important to realize that our faculty members and students are not at all isolated," emphasized Dean Steen. "Intellectually, this campus is very connected, very involved, and incredibly influential when it comes to global issues and research."



MICROBIOLOGIST JOINS FIGHT AGAINST GANGES POLLUTION

Virtually all the sewage from Varanasi, India runs untreated into the Ganges River, says Steve Hamner, research scientist at Montana State University. Corpses float down the river, as do chemicals and factory waste. Meanwhile, children play in the river. People drink the water, bathe in the river, and wash their dishes there.

"It's one of the most highly polluted bodies of water possible," said Hamner, whose first reaction after seeing it was "I'm a microbiologist. How can I help?"



Hamner visited Varanasi three years ago to learn more about Indian culture and the activities of the Sankat Mochan Foundation. The foundation was formed by Dr. Veer Bhadra Mishra, an engineer and Hindu priest who has long lobbied the Indian government to clean the river that's considered a living goddess.

Since his initial visit, Hamner helped compile into graphs 12 years of water quality data that the foundation collected. He returned to India to survey the ways that people use the river and how diseases may be related to these uses. Hamner described his findings in a manuscript that will be published in the *International Journal of Environmental Health Research*. He is now examining diarrhea-causing microbes from the river.

by Evelyn Boswell



NEW BOOK GIVES FRENCH IMMIGRANTS A VOICE

Immigration is nothing new to Ada Giusti, and neither is France. The professor of French was born to Italian parents who immigrated to France and later to New York City. When Giusti was a teenager, they lived in an immigrant neighborhood.

Her background allowed her to feel comfortable while interviewing immigrants and French natives for her new book titled *Why Don't They Just Go Home?*, Giusti said. The book that addresses the issue of immigration in France was published this summer and has brought her national attention in the French media.

Written in French, the book fills a gap in the national debate by allowing immigrants to tell their own stories, Giusti said. People from Algeria, Armenia, and ten other countries explain why they decided to leave their countries, how they escaped, how they've been received in France, and how they see their futures. The French explain their wide-ranging convictions about immigration. Immigrants and nationals alike suggest solutions.



The idea for the book grew from her experiences as a researcher and volunteer in France, Giusti said. Even before that, her background had spurred her to start a service-learning program for MSU exchange students. She found French organizations where the students could volunteer. Then, as the students helped others, they learned more about the country while becoming integrated into its culture.

by Evelyn Boswell

MSU REACHES OUT TO THE MIDDLE EAST

"I will never forget 'The Last Best Place,' Montana," said a Palestinian student, after she and 20 other students from the Middle East and North Africa visited MSU this past summer. The trip was sponsored by a grant from the US Department of State's Middle East Partnership Initiative (MEPI) and the Bureau of Educational and Cultural Affairs, and allowed top students from 14 countries to learn about the US and gain leadership skills during a 47-day long program. MEPI was created after the 2001 Twin Towers bombing as a way to generate good will and promote democracy in the Arab world. MSU was one of only three universities in the US to be selected as a host institution.

"There's an increased sensitivity for and interest in what's happening in that part of the world right now, and on a political level, it's important for people from the US and the Middle East to understand each other. We're all in this together," said David Engberg, director of special programs at MSU's Office of International Programs and coordinator of the grant.

The academic program was designed by the Department of English and focused on the processes of globalization, both on a national and regional

scale. In addition to attending lectures, the students learned about volunteerism by working for Habitat for Humanity and the Gallatin Valley Food Bank, visited with community leaders, and went on field trips to local sites like Yellowstone National Park, the Berkeley Pit, and Bannock. While here, the students tried to straighten out some American misconceptions about the Arab world, but also learned a lot about each other's countries and bonded "like a nice big family," according to the same Palestinian student, who is planning to write about her experiences for a youth group journal and start discussion groups about the US at her university.



Engberg said that MSU likely received the MEPI grant because of its extensive focus on US-Arab relations. Other initiatives to bridge the cultural gap between the US and the Middle East include the Arabic language program (see sidebar) and the State Department's PLUS scholarship program, which allows distinguished students from Arab countries to study in the US for two years and get a degree from an American university.



by Linda McGurk

MSU students who are interested in Arab countries can also participate in the Model Arab League (MAL), a student leadership program based on the real League of Arab Nations. This year, MSU sent 29 students divided in five delegations representing Bahrain, Morocco, Qatar, Sudan, and Syria. MSU brought home ten individual awards and was named "Outstanding School" for the second year in a row. "I think this is one of the best ways to learn about the Arab world," said Houssna Jabir, a PLUS student from Morocco who received an honorable mention after a tough debate on how to stop drug smuggling across Morocco's borders and prevent nationalist fighters from entering Iraq.

Before going to the MAL, the students prepare by studying their assigned country's economic, political, and social structure. Once at the conference, their job is to represent the country faithfully and act in character while trying to solve problems in a diplomatic setting. And even though negotiations sometimes break down and alliances are formed and broken, the most important part for the students is to practice their communication skills and gain new perspectives on current issues for the Arab world. Eric Peterson, a political science major who has gone to the MAL for the past three years, said that the conference exposes people to a lot of new ideas that don't appear in the media coverage of the Arab world. "I think Americans have a fear of Arab culture itself and this lack of knowledge results in a lack of understanding. It's a different culture but that doesn't mean it's bad," said Peterson.

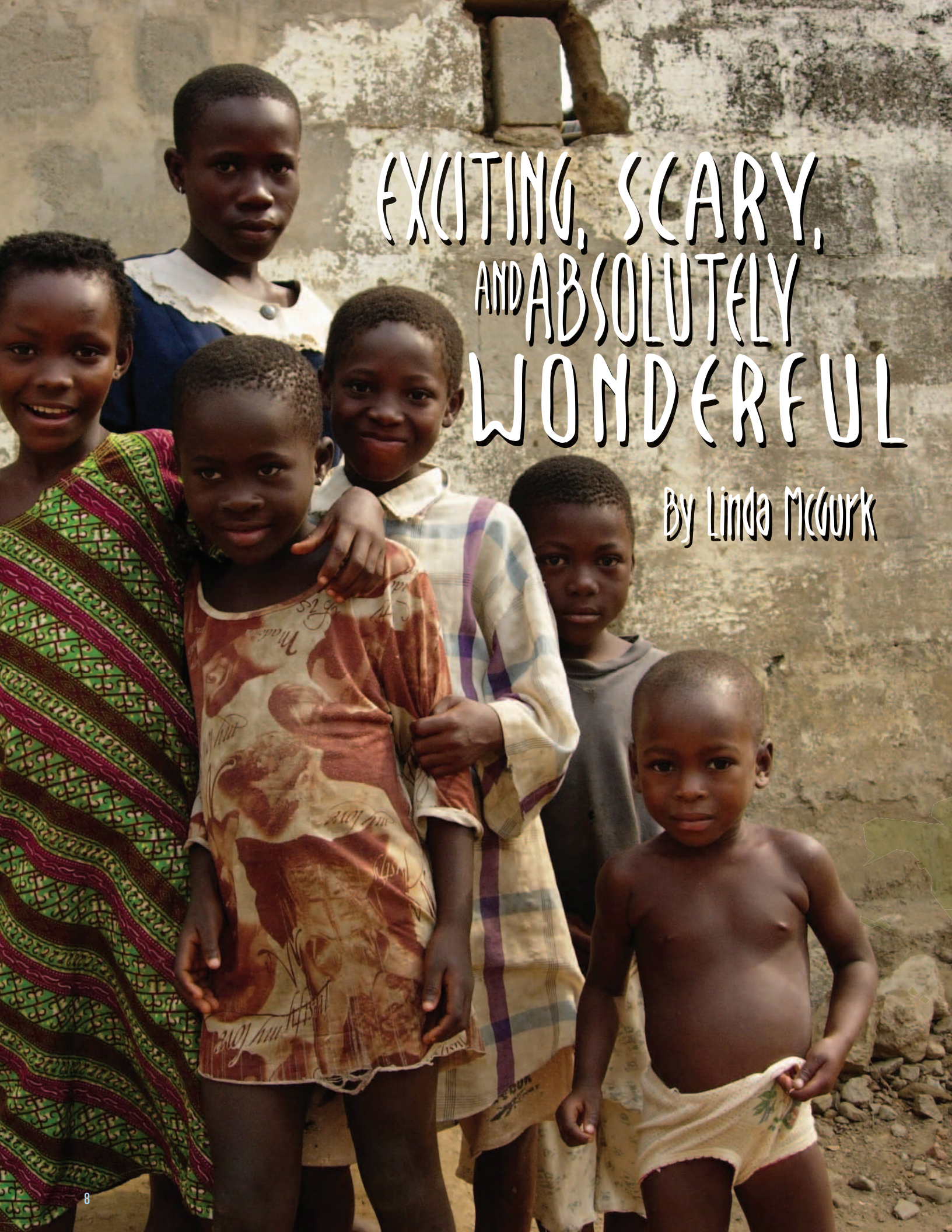


MSU STUDENTS LEARN ARABIC THROUGH INTERACTIVE COURSES

Thanks to a unique instructional model developed by the Office of International Programs in collaboration with the Department of Modern Languages and Literatures and the Burns Telecom Center, MSU offers its students top-notch Arabic language instruction. The US Arabic Distance Learning Network, a program funded by the US Department of Education, enables MSU and seven partner universities to teach Modern Standard Arabic through interactive video instruction paired with on-site teaching assistant (TA) sessions. Yvonne Rudman, director of the network, said students have shown a keen interest in the program since it started seven years ago. "The students are hungry for the opportunity to learn Arabic and they're grateful that we can offer it," she said.

Currently, 25 MSU students and an additional 124 students network-wide are enrolled in the program and meet twice a week with an Arabic professor via two-way video links offered in multiple sections. They also meet twice weekly with their local TA, who is a native Arabic speaker. After the first year of the program, the students can opt for a second year of language learning as exchange students at Al Akhawayn University in Ifrane, Morocco.

More information about this program can be found on the web at: www.arabicstudies.edu



EXCITING, SCARY, AND ABSOLUTELY WONDERFUL

By Linda McGurk

TRAVEL STUDY COURSES TAKE THE CLASSROOM ABROAD

They read the heart-wrenching novel *Roots* and other books about Africa, took classes on the horrors of slavery, and wrote papers on colonialism. But nothing could have prepared MSU students Leslie Baldus and Christopher Murfitt for the distress they felt when they stood crammed with a dozen other people in a pitch-black dungeon at a slave fort in Ghana. "It hit hard. A lot of people got really emotional," said Murfitt, a senior with a justice studies major. Fortunately, the slave forts are now relics of the past and one of many things that Murfitt, Baldus, eleven fellow MSU students, and their professor Seth Feinberg explored during a two-week trip to this West African country.



Photos by Seth Feinberg

Ghana is one of many existing Travel Study Course destinations for MSU students who are curious about other cultures, and the College of Letters and Science is working actively to explore more options. "Studying abroad is a really valuable opportunity for our students. It could be an eye-opener and provide you with perspectives that you can't get without visiting other countries and cultures," said Adele Pittendrigh, associate dean of the College.

Murfitt thought the three-credit course would be a neat alternative to studying abroad for a whole semester, and Baldus, a justice studies major in her fifth year, had always dreamed about going to Africa. Neither of them had ever left North America before. In collaboration with MSU's Office of International Programs (OIP), Feinberg worked out an ambitious itinerary for the group, but one of the first things the students learned was to be flexible and adjust to what the locals refer to as "Ghana Maybe Time" (GMT). "The itinerary was usually shot after breakfast," contended Murfitt and chuckled when he thought of the times when their guide took them on hour-long detours because he didn't know the way and of dinners that would often drag on for two

hours. "But we did a lot of impromptu things that weren't on the schedule, too," Murfitt continued.

The touring students were constantly reminded of Ghana's rampant poverty, but during a trip to a rural village they got a chance to give something back to the country. After being greeted by the chief of the tribe and taking a tour of the village, they all rolled up their sleeves and got to work on a health clinic that was under construction. That, in combination with donating the group's \$200 of emergency funds to the village, is what Murfitt and Baldus consider one of the most rewarding parts of the trip. And their efforts were sincerely appreciated. Before they left, the village

chief even declared them honorary citizens of Ghana and gave them all Ghanaian names during a special ceremony.

Murfitt and Baldus both describe the trip as a life-changing experience. "I grew up in Montana where there are few minorities and I always thought that was kind of sad," said Baldus. In Ghana, she got to be a minority herself and thinks that the experience has made her "a better person." Murfitt, who also grew up in Montana, agreed: "I think I developed greater tolerance for other cultures."

Next year, the College of Letters and Science, in collaboration with the OIP, will offer new Travel Study Courses, including a literary and cultural exploration of Great Britain and a research journey to the Marshall Islands. David Engberg, OIP's director of special programs, encourages adventuresome students to consider a Travel Study Course. "It's going to broaden their horizons and make them understand the world beyond their place. And it will make them more responsible and courageous travelers."

After going to poverty-stricken Ghana, Baldus cautions that some travel is not for comfort-prone people who expect everything to be like in the US. But for those who are tolerant and appreciative of other cultures, "it's worth every penny," she said.



BIOMED STUDENT RESEARCHES FRAGILE X

Marie DeBernardis, a senior from Gallatin Gateway, Montana, with double majors in biomedical science and studio art, spent two summers at Stanford University helping researchers study Fragile X Syndrome. As a result of her research, she'll be listed as a co-author in an article to be published in the *Journal of Autism and Development Disorders*. A second article has been submitted to the *American Journal on Mental Retardation*.

Fragile X is the most common form of inherited mental retardation. Symptoms vary by person, but they occur because one gene can't produce enough of a protein that's needed by cells. In one of DeBernardis' studies, she experimented with teaching basic math and geography skills to children

with Fragile X. In the other, she watched videotapes of children with Fragile X and coded their behaviors as they tried to escape social interaction.

Stanford researchers normally don't involve undergraduates from other schools, but both of Marie's projects were funded by the National Fragile X Foundation. Marie has an older sister who was diagnosed with Fragile X at the age of twelve.



WOMEN'S STUDIES CLASS GATHERS ORAL HISTORIES OF MONTANA WOMEN

When Jill Eliel first met the man who would become her husband, she thought he was a snob. He thought she was fat.



Senior Abby Johnson

One of Eva France's most vivid childhood memories was sleeping in a tepee in the summer with her auntie who dipped their drinking water from a nearby creek.

These recollections and others like them mark the beginning of a new oral history collection created by a group of undergraduates taking history professor Mary Murphy's Integrative Seminar in Women's Studies.

Nineteen MSU students chose female neighbors, relatives, church friends, or other acquaintances to interview for the research seminar. Most of the women were from Montana, and each had to be at least a generation older than the student interviewing her. The oldest woman interviewed was 90.

"There's so little about women's history that we know," said Abby Johnson, a psychology major and women's studies minor from Bozeman, Montana. "It's ridiculous."

Johnson said that when she first interviewed Janice, who was born and raised on her parents' farm outside of Bozeman, it seemed that "one woman's life history was insignificant in the context of the world." Later, Johnson said, she realized that "she must be like a drop of water, which falling into a pool forms a ripple."

MSU history professor Mary Murphy said a recent Oral History Association meeting inspired her to create the class project. "I think in the end it was very valuable," said Murphy, the author of *Hope in Hard Times*, an award-winning book on photographs of the Depression in Montana. "As a teacher, I'm just wowed by what they've done."

The collection will be housed in the MSU Renne Library, where others can add to it, Murphy said.

Excerpted from Annette Trinity-Stevens, MSU News

L&S STUDENTS EXAMINE FLYING SUITCASES

Two open suitcases, their contents exposed to the elements, clung to the outside of the International Space Station. Radiation bombarded them. Particles struck. After losing their ride home, the suitcases orbited 2 1/2 years longer than expected. Scientists and Montana State University students wondered what they'd find when the suitcases finally returned to Earth.

After 47 months in space, the suitcases and materials inside landed Tuesday, August 9, in California. Three L&S students had already been preparing for their arrival.

Barrett Sakow, a chemistry major from Bozeman, Tanner Horne, a physics major from Elliston, and Curtis Small, a biochemistry major from Butte, are involved in a project to see how the materials survived the space environment. Those that performed well could wind up on the outside of future spacecrafts.

The students won summer internships with the Montana Space Grant Consortium (MSGC), a component of NASA's National Space Grant College and Fellowship Program, to study some of the space-exposed materials. They'll also compare materials eroded at MSU with samples eroded in space.

"This is a very unique and exciting opportunity," said Donna Minton, deputy director of the MSGC. "The International Space Station has proven to be an important test bed for the durability of spacecraft materials in the low-Earth orbit environment."



In 2001, researchers with the National Aeronautics and Space Administration sent up approximately 400 materials inside two containers that looked like suitcases, Minton said. Attached to the outside of the International Space Station, the containers and materials stayed in space much longer than expected after the Space Shuttle Columbia exploded and NASA stopped sending shuttles into space. Scientists started gearing up for the return of their luggage, though, when NASA announced plans to resume the flights, Minton said. The "suitcases" returned to Earth on the shuttle.

Small said he was involved in "space stuff" as a kid, so when the internship became available, "It was kind of like, 'Wow. I can do a research project doing something I enjoyed as a kid.'"

Sakow, Horne, and Small received an overview of the project when they visited NASA and Boeing personnel at the Johnson Space Center in Houston in early June, Minton said. Now that the shuttle has landed, they'll have the opportunity to travel to NASA-Langley Research Center in Hampton, Virginia, to help remove samples from the experiment trays. They will then bring some of the materials back to Bozeman for analysis.

Excerpted from Evelyn Boswell, MSU News



Left to right: Horne, Small, and Sakow (MSU News)

PHYSICS GRAD STUDENT MEETS WITH NOBEL LAUREATES

Keith Gilmore, a doctoral student in physics, received a U.S. Department of Energy and National Science Foundation Graduate Student Award to attend the June 2005 meeting of Nobel Laureates in Lindau, Germany. Gilmore attended lectures and interacted informally with Nobel laureates and some of the world's top graduate students in the sciences.



Gilmore (MSU News)

Over 45 Nobel winners and 700 graduate students from 56 countries attended the annual assembly that encourages international conversations among scientists.

"Out of all the people I know in the physics department, he thinks about the big problems very deeply," said Yves Idzerda, professor of physics and Gilmore's advisor, who nominated him for the award. "I thought he would appreciate these people who also think about these problems on a deep level."

HUMAN RIGHTS SCHOLAR CHAIRS STATE COMMISSION

Governor Brian Schweitzer recently appointed political science professor Franke Wilmer as the chair of the Montana Human Rights Commission. The commission, which has four other members and meets every other month, reviews appeals of reports by human rights investigators and decisions made by hearing examiners in Montana.

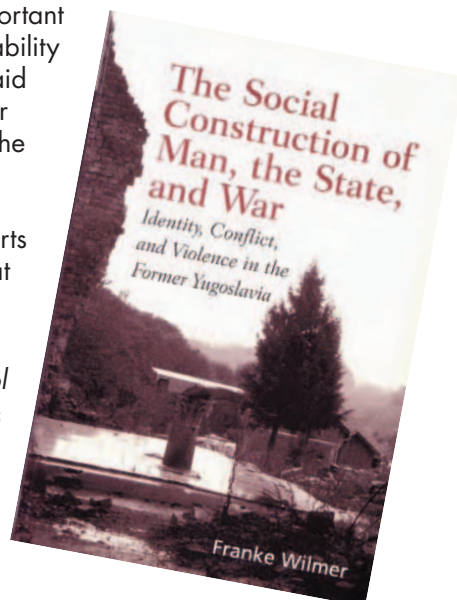
Wilmer, an international authority on indigenous people and international human rights, cut her professional teeth as a human rights investigator in North Carolina. She earned her Ph.D. in government and politics from the University of Maryland, and has been a professor at MSU since 1991. She's taught international human rights, international relations theory, international law, Native American politics and governments, and women and world politics, among other courses. Wilmer stepped down this summer as chair of the Political Science Department.

She is a member of the Gallatin Human Rights Task Force and has served on the Montana Committee for the Humanities. Wilmer also travels throughout the world to speak on the

rights of the world's indigenous peoples.

Wilmer said she was honored that the opportunity presented itself. "I'm the sort of person that thinks public service is important when you have the ability and background," said Wilmer, peering over boxes of cases that the commission was set to hear this month. "Serving on these sorts of committees is what democracy truly is all about."

Excerpted from Carol Schmidt, MSU News



MSU News

ECONOMIST APPOINTED TO PRESIDENT'S COUNCIL OF ECONOMIC ADVISERS

When Dino Falaschetti says he's a microeconomist, few people understand what he does. However, when he says he will be on the Washington, D.C., team that studies Social Security for President George W. Bush, the interest level definitely heightens.

On July 25, 2005, Falaschetti began a one-year appointment to the President's Council of Economic Advisers and will work in Washington, D.C. for a year. The council monitors and analyzes the economy and advises the president on economic developments, trends, policies, and the economic implications of policy alternatives.

Falaschetti earned his Ph.D. in economics from Washington University in St. Louis, and has been a professor at MSU since 2002. He has a book forthcoming titled *Money, Capital Markets, and Governance*. Among other courses, he teaches Health Economics, and Economics and the Politics of Strategy.

The experience in Washington D.C. should enliven his classes in subsequent years back at MSU, he said. "It will be great to bring my experiences back here. Now I won't be studying from afar but will be in the middle of it. Meeting people in D.C. will open opportunities for my students. It will add to the network for their placements in internships, graduate studies, and professional careers."

Excerpted from Carol Flaherty, MSU News



MSU News

ECOLOGY PROFESSOR RECEIVES NATIONAL AWARD

Chris Guy, affiliate professor of ecology and assistant leader of the Montana Cooperative Fishery Research Unit, received the American Fisheries Society Education Section's Excellence in Fisheries Education Award. The award is the section's highest honor and recognizes Guy for his excellence in organized teaching and advising in fisheries science or management.

Guy, who received his Ph.D. from South Dakota State University, specializes in research on the ecology and management of coolwater and warmwater fish species. Current projects include understanding the relationship between angler movements from stream to stream and the spread of whirling disease, and the assessment of threatened bull trout populations in Glacier National Park. In both cases, data will be useful in developing monitoring and management strategies.



Photos by: Chris Guy

2005 AWARDS

President's Excellence in Teaching Award

- Marvin Lansverk, English

Cox Family Fund for Excellence Award

- Gwendolyn Morgan, English

Charles & Nora L. Wiley Faculty Award for Meritorious Research

- Neil Cornish, Physics
- Trevor Douglas, Chemistry and Biochemistry
- Franke Wilmer, Political Science

James and Mary Ross Provost's Award

- Greg Francis, Physics

MSU Excellence in Outreach Award

- Gordon Brittan, History and Philosophy

Provost's Award for Undergraduate Research/Creativity Mentoring

- David Klumpar, Physics
- Kimberly Myers, English

Phi Kappa Phi Distinguished Teaching Award

- Larry Carucci, Sociology

Betty Coffey Award

- Wendy Stock, Agricultural Economics and Economics

MSU Employee Recognition Award

- Genevieve Burmeister, Native American Studies
- Dallas Johnson, Chemistry and Biochemistry

L&S Dean's Award for Meritorious Research

- Yves Idzerda, Physics

L&S Outstanding Teaching Awards

- Michael Reidy, History and Philosophy (Tenure Track)
- Angie Sower, Chemistry and Biochemistry (Adjunct)
- Julia Sharp, Mathematical Sciences (Graduate Teaching Assistant)

L&S Staff Excellence Awards

- Rose Waldon, Physics
- Jim Burns, Native American Studies

RETIRING FACULTY

(and the year they joined MSU faculty)

- Tom Diamond, Psychology (1993)
- Joan Henson, Microbiology (1984)
- Jack Jelinski, Modern Languages & Literatures (1973)
- Jim McMillan, Cell Biology and Neurosciences (1973)
- Mary Pohl, Mathematical Sciences (1979)

MONTANA T. REX YIELDS TWO BIG DISCOVERIES

A *Tyrannosaurus rex* discovered in eastern Montana—and the oldest *T. rex* on record—has produced two major discoveries in dinosaur paleontology, said Jack Horner, Regents Professor of Paleontology in the Department of Earth Sciences and curator at Montana State University's Museum of the Rockies.

Mary Higby Schweitzer, who received her doctorate in biology from MSU while working with Horner, led a research team that found soft tissues preserved in the hind thigh bones of the dinosaur. They announced the discovery in an article in the 25 March issue of the journal *Science*. Two months later, the team announced another important find: the same specimen yielded bone tissue that is common in female birds, proving that the dinosaur was female.

The dinosaur, the oldest *Tyrannosaurus* on record, is believed to have died 68 million years ago. Known as B. Rex, it was named after Bob Harmon, chief preparator of paleontology at the Museum of the Rockies, who found the dinosaur north of Jordan.

The first discovery, of soft tissue, was the most surprising and controversial. "I am quite aware that according to conventional wisdom and models of



Jack Horner with a cast of the B.Rex skull (MSU News)

fossilization, these structures aren't supposed to be there, but there they are," said Schweitzer, now an assistant professor at the University of North Carolina in Raleigh. "I was pretty shocked."

Horner, part of the research team, said, "I see this as a really important discovery that will change our methods of collecting and study. The discovery means that our preconceived ideas about preservation were wrong."

He continued, "With these new discoveries of cellular preservation, we move to a new kind of paleontology: cellular and molecular paleontology."

Excerpted from Evelyn Boswell, MSU News



\$17.9 MILLION GRANT ADDRESSES CLIMATE CHANGE

The U.S. Department of Energy awarded \$17.9 million to a multi-state partnership headed by Montana State University to further develop ways of capturing

and storing greenhouse gases, especially carbon dioxide, in underground geological formations, cropland, and forestland.

The coalition, called the Big Sky Regional Carbon Sequestration Partnership, includes public and private sector research institutions, businesses, and state agencies. Professor Susan Capalbo, Department of Agricultural Economics and Economics, directs the partnership, which includes scientists from Wyoming, South Dakota, Idaho, Oregon, and Washington, tribal nations, and international collaborators in Norway, India, and the Netherlands.

"By facilitating the move of carbon sequestration technologies into the field, this grant will help America

take a huge step toward significant greenhouse gas reduction while using our coal and other fossil fuel resources," Capalbo said. "These fuels are important for meeting America's energy needs and economic development in the region."

Capalbo said this grant shows that MSU is becoming known as a leader in energy research.

Extensive storage of carbon dioxide in basalt rock formations is possible. Capalbo said the carbon dioxide storage capacity of the Columbia River Basalt alone would exceed the emissions of all U.S. coal-fueled power plants for the next 20 to 30 years. The research will also look at next-generation energy power plants that produce electricity and hydrogen without emissions of carbon dioxide.

More information about this project is available at <http://www.bigskyco2.org>.

L&S LAUNCHES SPEAKER SERIES AT ASPEN POINTE

Mary Murphy, history professor, talked about Montana during the Depression. At the next lecture, Dave Lageson, earth sciences, spoke on the causes of tsunamis, followed by Tim Ford, microbiology, who informed his audience about the public health issues that accompany such events. A few weeks later, Jerry Calvert, political science, made a modest proposal for reforming the state legislature.

No, it's not a new interdisciplinary course offered by L&S. This series of talks was designed for the residents of Aspen Pointe, an active retirement community in Bozeman. In a new program launched last spring, L&S faculty members regale the enthusiastic audience with accounts of their current research interests in a monthly lecture series.

Michael Sexson, professor of English, kicked off the lecture series again in September 2005. "This is a class teachers only dream of," said Sexson.

"The sense of complete engagement permeates the room....If it were possible to rent out an audience, this one would be the one to rent."

Jessie Bloss, the program director at Aspen Pointe, says that's not surprising. "These are active, intellectually-curious folks. They want more than bingo."

Sara Jayne Steen, dean of the college, said, "It's great for our faculty members to get into the community to share the incredible research they are doing. We know that busy schedules often keep folks from coming up to campus for lectures and talks."

Other speakers slated for the fall schedule include physics professor Yves Idzerda, who will speak about the nanotechnology revolution, and French professor Ada Giusti, who will share stories from her recently published book on French immigration.

DINOSAURS, MINING TOWNS, WINE: SUMMER WORKSHOPS CONTINUE

For the second year in a row, MSU students, alumni, and other participants from as far away as Kenai, Alaska, spent a weekend in Choteau, Montana, searching for dinosaur bones among the rock outcroppings of the Two Medicine Formation. Led by Frankie Jackson, adjunct professor of geology and Museum of the Rockies researcher, the course—Dinosaur Paleontology at Egg Mountain—was one of several offered by Letters and Science's Landscapes of the Mind Summer Workshops series.

The series offers one- and two-day workshops that span the subjects of L&S disciplines and are taught by Montana State University's world-class researchers and outstanding teachers. They are open to everyone: MSU students, alumni, community members, out-of-town visitors, and anyone else interested in an exciting Montana learning experience.

Other well-attended workshops included a repeat of Professor

Mary Murphy's "Mining Town Women," in which participants enjoyed a day-long visit to historic Virginia City and Nevada City, Montana, followed by a day of classroom instruction with photographs, texts, and films on the subject. A new course, taught by Professor Dave Lageson, head of the Department of Earth Sciences, focused on the complex interaction of geology, climate, weather, soil, culture, and time in the making of wine. During the one-day workshop, titled "The Terroir of Wine," students spent time both in the classroom and out in the field learning about how geological factors affect the flavor of wine. They finished the day with a mandatory wine tasting.



Workshops will be offered again during the summer of 2006, with anticipated courses to include Western Women Writers, Super Volcanoes of Yellowstone, Dinosaur Paleontology, and more. For more information, or a brochure, contact L&S at (406) 994-4288 or email:lands@montana.edu.

L&S GRADS ORGANIZE TSUNAMI RELIEF

A friendship that began 15 years ago at Montana State University has resulted in a multi-cultural relief effort for victims of the Pacific Rim tsunami disaster. Brock Albin (English, '92), a Bozeman attorney now living and teaching in South Korea, and Dr. Robert Lame Bull McDonald (Biomedical Science, '95), an emergency room physician in Browning, organized an emergency medical relief mission that sprang into action following the tsunami last winter.

Albin and his family were vacationing in northern Thailand during the Christmas break when disaster struck. Albin said that he and his family felt the hotel shake when the earthquakes hit that resulted in the devastating tsunami. He said that the family was vacationing in northern Thailand because the hotels in the area of Phuket raise their rates during Christmas.

"It was a decision that probably saved our lives," Albin said.

McDonald, who has experience providing emergency medical services to remote areas of Indian reservations in the U.S., was

asked by the World Health Organization how soon he could be deployed to help with the tsunami rescue work. McDonald immediately thought of Albin as someone who could help him with the effort.

"I thought he was in Korea when the tsunami hit. I also had a gut instinct that he would want to join me to volunteer in the disaster. When I contacted him about it, he said, 'Dude, I'm here.'"

Albin said that he and his family immediately flew from northern Thailand to the southern part of

the country when they learned of the magnitude of the disaster. The Albin family spent three days in the hardest hit areas of Thailand, including Phuket, Kao Lok, Phangnga, and Rachi Island.

At the same time, he and McDonald were organizing a more sustained volunteer effort through the Youth Imperative, Inc., a Bozeman-based non-profit that Albin organized in 1995 to provide international relief and legal, professional, and human rights services to youth.

By early February 2005, fifteen volunteers from China, Korea, America, Canada, Thailand, France, Australia, and Malaysia were on the ground in Thailand. The group, which included teachers and medical professionals, a professor, a nurse, an EMT, a lawyer, a contractor, and others, provided services

in and around Nam Khem Village in southwest Thailand, the hardest hit area of the country. They provided medical, educational, psychological, media, construction, and other services to the traumatized community.

A third volunteer mission is currently in the planning and funding stages. Youth Imperative hopes to create an educational institute to provide English language instruction for all ages, specialized education for pre-school children, and additional education services for Nam

Khem Village and the surrounding residents. Nam Khem Institute plans to include a school, library, technology center, and volunteer clearinghouse.

McDonald said that while the disaster may seem very far socially and geographically, our wired world has shrunk the globe. "Montana is a fingertip away from anywhere in the world," McDonald said.

To learn more about Albin and McDonald's efforts, visit the organization's website at www.youthimperative.us.

Excerpted from Carol Schmidt, MSU News

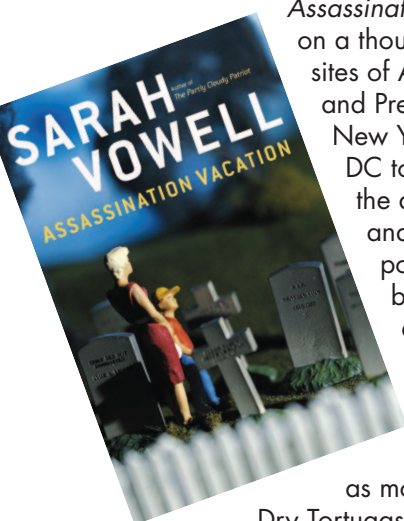


Brock Albin, right, at work in Thailand (Courtesy of Brock Albin)

"Montana is a fingertip away from anywhere in the world."

NEW BOOK ON DEAD PRESIDENTS FOR SARAH VOWELL

Sarah Vowell (Modern Languages and Literatures, '93) thinks that she may have begun to develop her irreverent writing style while working at the Pickle Barrel Restaurant during her college years. "I was a quiet person before that, but I found I had to stand up for myself among a pretty rowdy crew there." Combined with her passion for dead presidents, this style has earned Vowell rave reviews for her new book, *Assassination Vacation*, published in April 2005 by Simon & Schuster.



Assassination Vacation takes readers on a thought-provoking journey to sites of American political violence and Presidential assassination. From New York to Alaska, Washington DC to Florida, Vowell examines the deaths of Lincoln, Garfield, and McKinley, noting how politically important blood has been used for fun and profit, as well as for political and cultural advantage. She visits landmarks such as the assassination spot of Abraham Lincoln, as well

as more obscure locations such as Dry Tortugas Island, where several Lincoln assassination conspirators were sentenced to life in prison.

Assassination Vacation is simultaneously an exploration of America's past and an examination of contemporary culture. Rich, quirky, and thoughtful, Vowell's book manages to address the country's shortfalls and also convey pride in the nation.

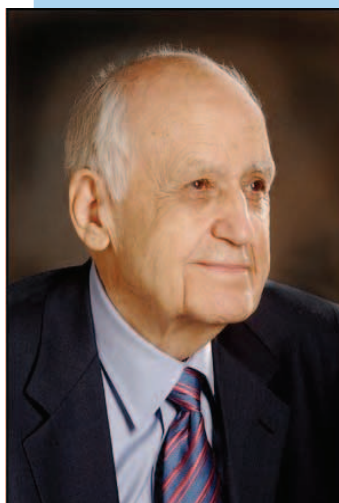
Vowell is perhaps best known for the National Public Radio program "This American Life" for which she is a contributing editor, as well as for her appearances on late-night television (David Letterman, Conan O'Brien). Her previous books include *The Partly Cloudy Patriot* (2003) and *Take the Cannoli* (2001).

IN MEMORIAM

The man credited with saving more lives than any other scientist in the past century, microbiologist Maurice R. Hilleman, died April 11, 2005 in Philadelphia. He was 85.

Hilleman, a Miles City native and a 1941 graduate of what was then Montana State College, credited his Montana education for part of his success. His dual majors in microbiology and chemistry eased his entry into the University of Chicago for graduate studies. There he found that his background was

extensive enough for him to cut off two of the five years needed to get a Ph.D.



In a talk he gave at the Museum of the Rockies in September, 2000, Hilleman said, "I would say to you that you have much to be proud of here at MSU."

Dr. Hilleman and his team at Merck & Company developed about three dozen experimental and licensed animal and human vaccines, including 8 of the 14

routinely given to young children in the U.S. today. His work is credited by scientists for virtually wiping out many of the dreaded and deadly childhood diseases that remained common just 40 years ago. His MMR vaccine protects children against three different diseases—measles, mumps, and rubella.

The World Health Organization and many other organizations have honored his work, as did former President Ronald Reagan, who awarded Hilleman the National Medal of Science in 1988.

In an article on his death, *The Times* (U.K.) declared that Hilleman "did as much for the human race as any medical scientist of the 20th century. He saved tens of millions of lives, and preserved the health of yet more millions around the globe."



LETTERS & SCIENCE DEPARTMENT HIGHLIGHTS

CELL BIOLOGY AND NEUROSCIENCE

Until now, neuroscientists have been unable to image the network activity of the brain because they could only record information from one neuron at a time. An invention by undergraduate researcher Robbie Mealer, a senior in Cell Biology and Neuroscience (CBN), promises to solve this problem, and his discovery is in the process of being patented by MSU.

Supported by the Hughes Undergraduate Biology program (HUB), Mealer joined the Molecular Motion Lab of Professor Thom Hughes during his junior year. Building on the discovery that fluorescent proteins could be split into two parts to produce fluorescence, Mealer reasoned that if these fragments could be placed on two different portions of a voltage gated ion channel, their activity could reveal voltage changes, or neuronal signaling, far better than any previous invention.

Robbie is one of many talented students doing undergraduate research in the department. Some students, for instance, engage in a progressive research experience which begins in the freshman summer through a program funded by the National Science Foundation and directed by Anneke Metz. This program focuses on minority and first-generation college students and provides two weeks of hands-on laboratory experience. Other students are supported throughout their undergraduate years through continuing funding from the HUB program.

Many students present and publish their work: Seniors Katie Newell and Lisa Sun Rhodes are co-authors on publications submitted to peer-reviewed journals with faculty members Roger Bradley and Christa Merzdorf, respectively. Lisa presented her work at the NIH Minority Trainee Forum in Washington D.C.; Katie's work was presented at the Society for Neuroscience in San Diego; and Robbie Mealer will present his ground-breaking discovery at the annual Biophysical Society meeting in Salt Lake City in February.



Seniors Kelsey Bock and Robbie Mealer.



CHEMISTRY AND BIOCHEMISTRY

The cornerstone for the new Chemistry Research Building, with a quote from Aristotle, was unveiled on September 30, 2005. This building will provide needed space for chemistry and biochemistry research programs, enabling the department to offer a rich laboratory experience for undergraduate and graduate students working beside faculty and staff. In addition, it will provide a safer, healthier environment in which to conduct complex research on anti-cancer, anti-bacterial, and anti-fungal drugs, laser and optical advances, nanotechnology, proteomics and more. The centerpiece of the brick, glass, masonry, and metal building will be cutting-edge laboratories that will line the outside of the building, with a stately four-story atrium and staircase. Also at the center of the design is a lecture hall "think tank" where scientists will be able to interact with other specialists about their work.

Professor Tim Minton became senior editor of the *Journal of Physical Chemistry* on May 1, 2005, a position he will fill in addition to his duties at MSU. One of 14 senior editors at the journal, Minton hired MSU graduate Nicole Megaard (Sociology, '04) as his full-time editorial associate to help run the journal office. The office will be moved to MSU's new chemistry/biochemistry building once the building is completed. Minton's own research uses gas phase and gas-surface molecular beam scattering techniques and various surface analysis tools to understand the interaction between fast atoms or molecules and surfaces. Such interactions may affect the outcome of processes such as materials growth, etching, materials degradation in space, and surface-chemistry modification.

EARTH SCIENCES

Mark Skidmore is a new faculty member in the Department of Earth Sciences who investigates the biogeochemistry and geomicrobiology of glaciated systems. Until recently glaciated systems were considered to be abiotic; however Skidmore and his colleagues have demonstrated that microbes play an important role in mineral weathering and nutrient cycling in these systems. Field sites include glaciers in Antarctica, the Swiss Alps, Alaska, the Yukon, and Washington. The field research is complemented by low temperature laboratory studies of microbial activity at near freezing/subfreezing temperatures. He has recently been funded by the National Science Foundation to conduct experiments on artificial ices to investigate whether microbes can produce carbon dioxide at subfreezing temperatures since microbial activity within glacial ice could potentially help explain anomalies in the gas composition of some ice core records.



Skidmore in Alaska.

The summer paleontology fieldwork of David Varricchio has yielded evidence of two new species of small, herbivorous dinosaurs. The skeletons, discovered by Varricchio and graduate students Josh Bonde and Mike Knell, were collected among the mid-Cretaceous rocks of southwest Montana. These strata represent rare terrestrial environments during a time of unusually high sea level. Once reassembled, the dinosaur skeletons should provide important clues into past biogeographic and evolutionary events during a time when rising seas shrank available habitat space for terrestrial animals. Thirteen teens from Chicago also participated in Varricchio's excavations. The 'junior paleontologists' were participants in Project Exploration, a non-profit organization promoting science among inner city youths.



Varricchio and students in the field.

ECOLOGY

East Africa supports the largest, most diverse assemblage of terrestrial mammals in the world.

Professors Andy Hansen and Jim Robison-Cox, along with collaborators from East Africa, recently studied large mammal populations in a portion of the greater Serengti ecosystem and the effects of human population and land use changes in the region since 1977. By looking at data for both human factors (population density, agriculture, livestock densities) and biophysical factors (climate, plant productivity) the researchers determined that the transition from the traditional nomadic lifestyle of the Maasai people in this region to agriculture and permanent settlements is having a strong negative effect on several large mammal species. This effect is not only in unprotected areas that are experiencing land use intensification, but also in protected areas such as Massai Mara Reserve and Amboseli National Park. Researchers conclude that maintaining this globally significant mammal community will require regional scale management that better integrates ecological and human factors.



Florida Manatees, also called sea cows, are the unlikely subject of graduate student Lisa Schwarz's doctoral research. The endangered species suffers from boat collisions and the loss of the warm water springs that manatees need to survive the winter. Over one-quarter of observed manatee carcasses show that the manatees died from boat injuries, and many more carry old scars. Old style, water-cooled electric power plants in Florida actually helped the species, by providing warm water, but these plants are scheduled to be replaced by more efficient designs that do not warm the water. The State of Florida Wildlife Research Institute collects manatee carcasses, conducts autopsies, and sends the results to Schwarz for analysis of mortality rates. Schwarz's advisor, professor Daniel Goodman, directs the Environmental Statistics Group at MSU and specializes in studies of endangered species and population dynamics.

AGRICULTURAL ECONOMICS AND ECONOMICS

Professors Robert Fleck and Andy Hanssen are looking to ancient Greece for insights into the links between politics and economics. In a paper to be published in the *Journal of Law and Economics* next spring, they examine how economic conditions affect the incentive to establish democratic institutions. In a more recent paper, "Rulers Ruled by Women: An Economic Analysis of the Rise and Fall of Women's Rights in Ancient Sparta," they examine the extraordinary rights possessed by the women of ancient Sparta. More than 2000 years before the modern rise of women's rights, the women of ancient Sparta controlled 40% of its agricultural land, were educated alongside men, and allowed to move about freely. Fleck and Hanssen point out that while we normally view women's rights as an indicator of progress and enlightenment, Sparta was the least enlightened of the Greek city states. They conclude that these rights resulted from Sparta's unusual political and economic circumstances, which rendered the use of women's time in non-traditional tasks very valuable, and caused a decline in population that eventually led to Sparta's downfall.



Stroup (MSU News)

Department head Richard Stroup was named the holder of the 2005-2006 Hayek Endowed Chair. Hayek Professors are internationally renowned scholars placed on a rotating basis in Austria's universities to teach in the tradition of the Austrian School of Economics, with an emphasis on the ideas of F.A. Hayek, who received the Nobel Prize in economics in 1974.

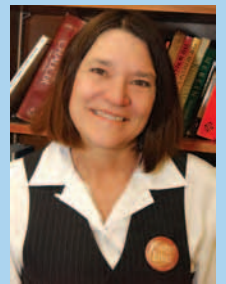
In addition to a public lecture in Vienna, Stroup will present a series of lectures at the University of Graz this fall on "Incentives and the Environment" for environmental science majors. Stroup has written extensively on environmental topics, including the 2003 book, *Eco-nomics: What Everyone Should Know about Economics and the Environment*.

ENGLISH

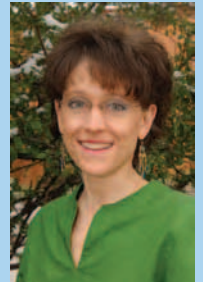
Three English Department faculty members won prestigious university awards last year. Marvin Lansverk, who teaches 18th- and 19th-century British literature, won the President's Award for Excellence in Teaching. Lansverk has designed and taught distance learning courses in introductory literature, supervised student internships, and sponsored a wide range of undergraduate student research. He is an adviser to 25 undergraduate majors and to the MSU English Club. Gwendolyn Morgan, specialist in Anglo-Saxon literature, won the Cox Award for Creative Scholarship and Teaching. Morgan integrates ancient themes into contemporary issues in ways meaningful to today's students. For example, she teaches courses on Joan of Arc through the ages, medieval authority in pop culture, and sexual politics in the vampire fiction of Anne Rice. Kimberly Myers won the Provost's Award for Undergraduate Research/Creativity Mentoring, recognizing her innovative scholarship and teaching, especially in the field of medical humanities.



Lansverk (MSU News)



Morgan (MSU News)



Myers (MSU News)

Expanding its commitment to undergraduate student writing, the English department opened a new satellite of the Writing Center in the Renne Library. Called the "Writing Center at the Library," the new program makes a professional tutor available to help students in the library setting with essay and research design and development. Since 1983, the Writing Center has been a free service for MSU students working on university writing assignments. Tutors help undergraduate writers brainstorm, organize, and develop their ideas. The Center provides services to over 6000 students a year and employs 30 to 40 tutors.

HISTORY AND PHILOSOPHY



Professor Susan Cohen completed archaeological investigations at her Gesher site in Israel and is developing a new excavation project at Tel Zahara, located in the central Jordan Valley. Cohen, who has excavated at various sites in Israel since 1987, focuses her work on understanding the forces of urban development in Canaan ca. 1950-1750 BCE. The material culture from Tel Zahara will provide a representative data set about the site's economic and cultural history; the architectural elements will add to understanding of the organizational patterns of a rural village and provide evidence regarding spatial organization and land resource use. At her Gesher site, Cohen drew on the talents of several MSU students and is laying the groundwork for building a team of students and professionals for the upcoming summer.

A partnership with the new Yellowstone Heritage and Research Center in Yellowstone National Park offers new research

opportunities for faculty and students. The new \$7 million building, which opened in May 2005, contains the second largest archival collection in the National Park Service. It houses a 5.3 million-item collection cataloguing Yellowstone's history, as well as its natural and cultural resources, including materials that date back to the park's U.S. Army administration, as well as a large, rare book collection. The partnership will lead to new opportunities for faculty members with research interests in Environmental History and the Philosophy of the Environment, as well as hands-on experience for students in digitizing, cataloguing, and working with exhibits. Already, thanks to the generosity of the Yellowstone Park Foundation and Jack and Susan Davis, the department has been able to offer research internships to two undergraduate and two graduate students.



MATHEMATICAL SCIENCES

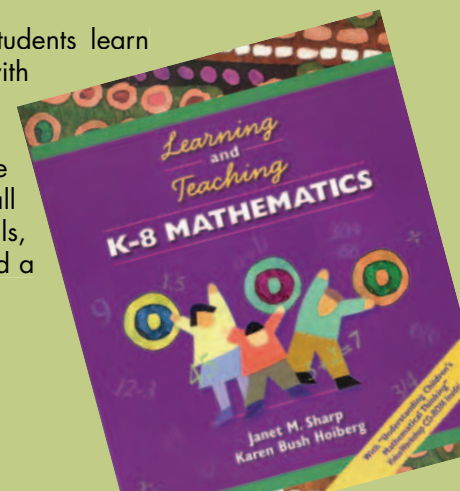


Numerous mathematical sciences faculty are now working in the area of mathematical biology, collaborating with scientists across campus and around the world on problems inherently biological in nature. One such project focuses on the understanding of cricket neural systems, a first step in studying those of far more complex organisms. With the Center for Computational Biology, researchers developed a data-mining technique that was applied to neural input-output data from a cricket's sensory system. In

another project, researchers developed a comprehensive model of a cricket mechanoreceptor system, a system that allows the cricket to translate wind motion to neural spike patterns. A similar mechanism is used in mammalian hearing, so findings will have far-reaching implications.

Other biology-related projects include developing models of hantavirus infection in deer mice in order to design strategies that will prevent the infection from jumping to humans; analyzing cellular processes; modeling the regulatory gene circuit that controls nitrogen intake in yeast cells; and studying genetic algorithms.

Faculty in mathematics education are expanding the way that teachers teach and students learn mathematics. Faculty have been at the leading edge of mathematics education reform with federally funded projects such as the Center for Learning and Teaching in the West (CLTW), the Six Through Eight Mathematics Curriculum Revision Project, Creating Opportunities in Mathematics for Exemplary Teaching (COMET), and GK-12: Collaborative Learning in the Greater Yellowstone Ecosystem. These outreach efforts provide training for teachers at small and large schools throughout the region and have led to the publication of many materials, such as a textbook for K-8 teachers entitled *Learning and Teaching K-8 Mathematics*, and a series of four books for high school teachers.





Cooley Laboratories entrance in 1959. (MSU Special Collections)

MICROBIOLOGY

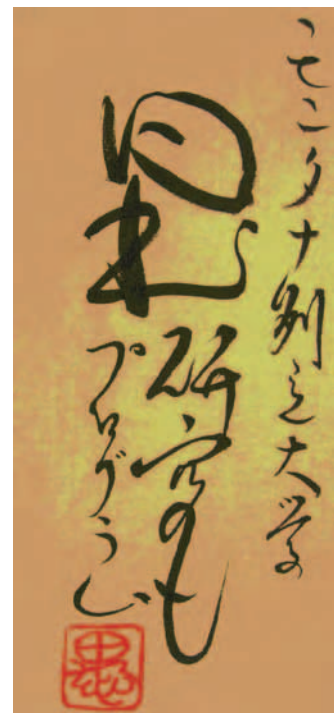
Microbiology received a \$4 million award from the National Institutes of Health in September 2005 to renovate the Cooley Microbiological Laboratories. This grant represents the first NIH major facilities grant ever received at MSU and will provide state-of-the-art facilities for cutting-edge faculty and student research.

Key upgrades include a new elevator to meet federal and local code requirements; partial renovation of the basement to allow installation of utilities to the building, including cooling requirements for a shared genomics facility and bioinformatics research and training center; a 300-square-foot bio-safety level 3 laboratory to be used by research programs from all floors of the Cooley Laboratories, from other MSU departments, and as a resource for the State of Montana at times of disease outbreak emergencies; and faculty and student offices, equipment rooms, a tissue culture room, microscope room, walk-in cold rooms, electrical closets and chemical dispensing rooms. Design and construction are expected to begin in 2006.

Five microbiology undergraduate students received prestigious awards for this academic year. Gwen Peterman, from Helena, Montana, received the American Society of Clinical Laboratory Science Montana Student Member of the Year award; Jessika Hinz, from Miles City, Montana, won an INBRE scholarship; Brian Meyer, from Whitefish, Montana, and Kerry Williamson, from Belgrade, Montana, both received Undergraduate Scholars Program scholarships; and Tai Takenaka, from Carter, Montana, was awarded an Alumni/Chamber of Commerce Award of Excellence.

MODERN LANGUAGES AND LITERATURES

The Board of Regents recently approved a new major in Japan Studies, and this spring the department will have its first graduate, Bonnie Robertson, of Livingston, Montana. Japan Studies majors learn Japanese language, literature, and history, as well as general Asian history and culture. They are also required to do a "capstone" research project. Professor Marilyn Bolles Guggenheim, who received her doctorate in Japanese Language and Literature from Berkeley in 2001, directs the program. Guggenheim's research focuses on the role of Japanese writers and intellectuals in imagining a national literature following Japan's defeat in World War II. She is also working on a book about the relationship between politics and literature as seen in the lifelong friendship between Enchi and Hirabayashi, two Japanese women writers.



Logo for new Japan Studies program.

Coordinated by professor Bridget Kevane, 16 MSU Spanish students currently spend weekly sessions teaching the romance language to Bozeman elementary school children. "The purpose is twofold," says Kevane. "First, they help the community by keeping alive foreign language in the public schools, and second, they receive invaluable experience on what it is like to teach a foreign language. From what students have told me, it is one of the best, if not the best, experiences they have had at MSU because it combines their major with a hands-on experience." It's also great for the kids, according to Morning Star School principal Nonnie Hughes, who notes that research on the developing brain suggests that the earlier children are introduced to a foreign language the better.



NATIVE AMERICAN STUDIES

In early 2005, the Montana Board of

Regents and the Montana State Legislature approved the creation and construction of a Native American Student Center on the Montana State University campus. A site for the center, located just off the Centennial Mall on the eastern edge of campus, was chosen in June 2005. The Center will fulfill a long-recognized need on campus for a space where American Indian students can gather for learning, support, and cultural interaction. It will enhance the recruitment, retention, and graduation of American Indian students. In addition, the Center will serve the entire university community, providing opportunities for cross-cultural dialogue, learning, and sharing.

According to department head Walter Fleming, "The Student Center sends a message that Native students belong on campus and are a part of the university community. It represents a permanent and visible presence of Native people and culture at Montana State University." In August 2005, over 50 American Indian students will enter Montana State University, estimated to be the largest Native freshman class in MSU history. Since 1992, MSU's Native student enrollment has increased nearly fifty percent, from 186 to 261. While MSU has an active Native student body, including an American Indian Council as well as other Native student organizations, currently no adequate space exists to meet the needs of these students.

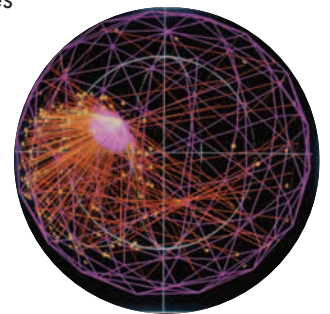
As currently envisioned, the center will feature classroom space, meeting rooms, study areas, exhibit areas, a computer lab, and a "Great Room" modeled on the council lodge of the Plains Indian tribes. Outside, a sculpture garden designed by nationally-recognized sculptor and MSU alum Jim Dolan will feature works by Native American artists.

Concept artwork by Dennis Sun Rhodes

PHYSICS

Physics professor Bennett Link's cutting-edge research on neutron stars and neutrinos may reveal new clues about the universe. In a paper recently published in *Physical Review Letters*, Link suggests that hot neutron stars could be a source for neutrinos, tiny particles that normally elude detection.

Neutron stars, which can have surface temperatures of more than one million degrees (compared to 6,000 degrees for the sun), act like super generators, creating an enormous voltage that strips charges from the surface. Particles then fly off the star and produce detectable radiation, usually as radio beams. Link has shown that high-energy neutrinos might also be produced with detectable intensities.



The neutrinos would be roughly coincident with the radio beam, so that if the star is detected as a radio pulsar, the neutrino beam will sweep the earth. These emissions from young neutron stars will provide a valuable gauge of the flow of energy from a neutron star.

Two physics professors are trying out new technology in their classrooms. Larry Kirkpatrick and Greg Francis began using individual remote keypads, which they call "clickers," last fall to make sure their students understand the material being presented. During class professors ask multiple-choice questions that show up on a screen in front of the room. The students typically have several minutes to respond. When the time is up, a graph appears on the screen to show the percentage of students who gave each possible answer. If necessary, the instructor reviews the material or asks students to discuss the problem before presenting the question a second time. The use of the clickers has increased attendance and class participation.

POLITICAL SCIENCE

Faculty members Franke Wilmer and Linda Young accompanied three undergraduate researchers to the World Social Forum in Porto Alegre, Brazil, last January. The Forum attracted over 150,000 people from all over the world and was intended to allow participants to examine and influence the policies of institutions such as the World Trade Organization, the International Monetary Fund, and the World Bank. The students—Dan Huebner, Markie Hoffman and Stacey Parenteau—investigated their respective research questions through interviewing participants and attending lectures. Each student received research grants from EPSCoR and the College of Letters and Science to attend the meeting.

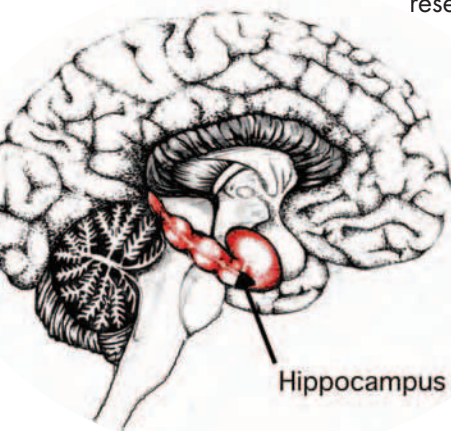
Three new faculty members joined the Department of Political Science this year. Eric Austin is the new Masters of Public Administration director. Eric received his doctorate from the Center for Public Administration and Policy at Virginia Polytechnic University. His research interests include collaborative governance and the role of public agencies in fostering the emergence of civil society. Elizabeth Shanahan's research seeks to model environmental policy using language that reflects the core belief systems of competing interest groups. She completed her doctorate in Political Science at Idaho State University. Linda Young received her doctorate from UC-Davis and works on issues of international trade policy, WTO export competition issues, and global agricultural policy and climate change.



Banners at the World Social Forum, Brazil (Wilmer).

PSYCHOLOGY

Behavioral neuroscience, which combines the disciplines of psychology and biology, focuses on the biological basis of human behavior. In Professor Mike Babcock's psychology laboratory, for instance, research is being conducted on the causes of stroke by looking at the brain's center of memory, the hippocampus. The human hippocampus is particularly sensitive to blockage of the blood supply to the brain, as happens during a stroke. In his lab, Babcock produces protein changes in the hippocampi of rodents, and then observes the biochemical and behavioral results to see how they simulate the effects of stroke. Ultimately, Babcock and his colleagues hope to better understand how brain cells are damaged by stroke and how to prevent that damage. Babcock has several student researchers working with him on this and other projects. Last year, two students in his laboratory won national research awards at the Society for the Advancement of Chicanos and Native Americans in Science conference.



Every day we encounter messages designed to influence our attitudes toward issues, people, and products. Professor Ian Handley, who joined the psychology faculty in 2005, runs the Persuasion and Affect Lab, which investigates message factors that influence our attitudes, as well as the way attitudes and expectations influence our experiences with products. His research has revealed that people enjoy a product more if they were initially led to believe the product would make them feel negatively as opposed to positively. Handley's lab, comprised of graduate and undergraduate researchers, will soon investigate whether this finding has societal implications for jury-decision making and health behavior. For example, it may be that jurors notice more positive attributes of a defendant when initially led to believe the defendant is unlikable rather than likable.

SOCIOLOGY AND ANTHROPOLOGY

Anthropologist Jack Fisher spent five weeks in July and August 2005 at the University of Cape Town (UCT), South Africa, carrying out nearby archaeological investigations. Collaborating with John Parkinson of UCT, he analyzed archaeological materials from the Dunefield Midden (DFM) archaeological site, located on the southwest coast of South Africa. This site was occupied briefly several times by hunting-and-gathering peoples about 600-700 years ago. Fisher studies the animal bones and artifacts recovered during excavations at



DFM to reconstruct how ancient peoples lived, specifically their hunting and butchery



Fisher, right, at the Dunefield Midden site in South Africa.

practices, and to attempt to determine the seasons of year that the site was occupied. He also studies the spatial distributions of hearths and other fire-related "features" to reconstruct the spatial organization of site activities.

Professor Beth Quinn's work on how organizations translate law into policy is gaining national recognition. Specifically, she is looking at the implementation of equal employment opportunity (EEO) law and other civil rights laws by human resources personnel within organizations. A National Science Foundation-funded project of Quinn's looks at the role these human resource professionals play as legal decision makers and at their ability to affect social change. She presented some of her initial research at the meeting of the Law and Society Association in Las Vegas in June 2005. Quinn teaches primarily in the Justice Studies option, with courses such as Law and Inequality, Law and Society, and Criminology.



FORMER SECRETARY OF THE INTERIOR PROMOTES STEGNER CHAIR

Speaking against the backdrop of Grand Teton National Park, former Secretary of the Interior Stewart Udall spoke of his friendship with writer Wallace Stegner. He described Stegner as a great teacher, writer, and thinker. At the end of his talk, Udall received a spontaneous standing ovation from the audience.

The event, a luncheon sponsored by the College of Letters and Science, was in support of the Wallace Stegner Endowed Chair in Western Studies. Approximately 45 Jackson Hole residents gathered at the Amangani Resort to meet and hear Stewart Udall, and to learn more about the chair that Stegner himself envisioned.

Udall was appointed in 1960 by President Kennedy to serve as Secretary of the Interior, a position he held for nine years. During his Cabinet career Udall helped establish the Wilderness Bill; develop the Wild and Scenic Rivers Act; expand the National Park System; and create the Land and Water Conservation Fund. He continues to contribute to the nation's affairs as an author, historian, scholar, lecturer, environmental activist, lawyer, naturalist, and citizen of the outdoors.

Udall championed Stegner as one of the three environmental giants of the second half of the 20th century, and spoke about the importance of community and philanthropy.

Wallace Stegner (1909-1993), a nationally important figure in American letters and winner of both the Pulitzer Prize and the National Book Award, served as special assistant to Secretary of the Interior Udall in 1961, working on matters pertaining to wilderness and national parks. He



Susan and Jack Heyneman with Stewart Udall (center)



Photos by Joseph Bourque

encouraged Udall to write the book *The Quiet Crisis*, which was published in 1963 and remains a benchmark of environmental philosophy.

Shortly before his death in 1993, Stegner wrote, "The West is waking up to itself. A chair in Western American Studies at Montana State University is a splendid way to inform the West about itself." The Wallace Stegner Endowed Chair furthers understanding of the American West and addresses concerns facing the region. The chair is dedicated to teaching and research in history, literature, and philosophy with a focus on important Western issues.

For more information about the Wallace Stegner Endowed Chair, contact Dean Sara Jayne Steen, (406) 994-4288.

TWO NEW ENDOWED PROFESSORSHIPS

The College of Letters and Science announced two new endowed professorships this fall.

Michael Franklin is the first Ferguson Professor of Microbiology, and Mary Murphy has been named the second Michael P. Malone Professor of History.

Dean Sara Jayne Steen said, "It is a pleasure to recognize outstanding faculty members who have contributed so much to the University through their research, teaching, and professional achievements."

An endowed professorship is one of the highest honors a faculty member can receive, and one of the most important gifts a donor can make to the college.



MSU News

Franklin, associate professor in the Department of Microbiology, received his doctorate from the University of Tennessee, Knoxville, in 1991, and joined the faculty at MSU in 1996. He has established an active research laboratory studying the molecular genetics of the medically and environmentally significant microbe *Pseudomonas aeruginosa*, a bacterium that causes lung infections in patients with cystic fibrosis. As a faculty researcher at the Center for Biofilm Engineering, he works with multidisciplinary research teams to find solutions for industrially relevant problems. His most recent work focuses on the novel response of neutrophils to biofilms and may result in new approaches to treating biofilm-related disease.

Murphy, professor in the Department of History and Philosophy, received the Montana Book Award for her most recent book, *Hope in Hard Times: New Deal Photographs of Montana, 1936-1942*, published in 2003. The book, drawing on more than 140 Farm Security Administration photographs, looks at Montana during the Great Depression. Murphy is also the author of *Mining Cultures: Men, Women, and Leisure in Butte, 1914-41* (1997), and co-editor of *Montana Legacy: Essays on History, People, and Place* (2002), as well as dozens of book chapters and articles. She has lectured across the country on western mining history, women in the West, and the history of the Great Depression, and has served as a historical advisor on a number of films and museum exhibits.



MSU News

THE DEAN'S CIRCLE
We are grateful to all of our alumni and friends who have supported the programs, faculty, and students in the College of Letters and Science with lifetime gifts that total \$10,000 or more as of June 30, 2005.

- Abbott Labs
- Glenn and Lee Allinger
- American Indian Education Foundation
- ASARCO Incorporated
- John and Marilyn Asbridge
- Beverly F. Bacon
- Bell Jones Quinlisk & Palmer
- Estate of James Belsey
- Big Sky Western Bank
- Lila M. Bishop
- William and Corrine Bryant
- David and Marjorie Burgan
- Harlan and Terri Byker
- Cinnabar Foundation
- Liz Claiborne & Art Ortenberg Foundation
- R. A. and Margaret Craig
- Patrick and Vicki Davison
- Judson and Elisabeth Dayton
- Elise R. Donohue
- Dow Chemical Company Foundation
- Dow Corning Corporation
- John and Patricia Drumheller
- Richard and Ann Dye
- Energy Laboratories
- William H. Fay
- First Interstate BancSystem Foundation
- Arthur Fry
- Margaret and Paul Gessaman
- Irene and Arthur Grad
- Robert H. Graham
- Greater Montana Foundation
- Karen L. Greytak
- Grieco Foundation
- Barbara and Gerald Hand Clow
- Margaret M. Hausser
- William Randolph Hearst Foundation
- John and Susan Heyneman
- Susan Scott Heyneman Foundation
- C. Lester and Audrey Hogan
- Larry Johnson, ILX Lightwave Corporation
- Algirdas and Ellen Jesaitis
- Charlotte Johnson Fund
- Johnson & Johnson

William and Andrea Johnstone
 Lucy R. Jones
 Sheldon and Audrey Katz
 The Sheldon and Audrey Katz Foundation
 Robert S. & Grayce B. Kerr Foundation
 Julie J. Kidd
 Joan B. Kitchens
 Mary Kopriva
 Roger Lang, Jr.
 Donald L. Larson
 Mary J. Larson
 Rob and Kim Larson
 Anadel S. Law
 William and Colleen Lee
 Chi-Tang and Yen Li
 Whitney and Elizabeth MacMillan
 Mrs. Robert W. Martin, Jr.
 Thomas and Laurie McGuane
 Microsoft Giving Campaign
 John and Phoebe Montagne
 Montana Community Foundation
 Laura Jane Musser Fund
 New England Aquarium
 Ortho Pharmaceutical
 Andrea L. Pagenkopf
 Ione J. Parkin
 Pew Charitable Trusts
 Piper Family Fund-Minneapolis Foundation
 PPV
 Stuart and Marjory Robertson
 John and Sandra Roe
 Phil and Lee Rostad
 Joseph and Miriam Sample
 James and Christine Scott
 Homer A. and Mildred S. Scott Foundation
 Simms Fishing Products
 Clara M. Splittstoesser
 Edmund A. Stanley, Jr.
 Mary P. Stegner
 Sun Ranch, LLC
 Anne E. F. Sweeney
 Robert and Janet Swenson
 Tektronix Company
 William and Gwen Tietz
 Tordik Wildlife Foundation, Inc.
 Unocal Company
 Virginia M. Walker
 Edward S. Walsh
 Mary H. Walter
 Irving L. Weissman
 Albert and Susan Wells
 WEM Foundation
 Charles A. Weyerhaeuser Memorial Foundation
 Charlotte & Edward Wheeler Foundation
 James H. Wilder

ANNUAL GIVING

Thank you to all
 of our alumni and
 friends who have
 supported the
 College of Letters
 and Science in the
 past year between
 July 1, 2004, and
 June 30, 2005.

\$10,000 AND OVER

*Abbott Labs
 American Indian Education Foundation
 Beverly F. Bacon
 Estate of James Belsey
 Karen L. Greytak
 Margaret M. Hausser
 William and Andrea Johnstone
 Sheldon and Audrey Katz
 The Sheldon and Audrey Katz Foundation
 William and Colleen Lee
 Microsoft Giving Campaign
 Clara M. Splittstoesser

\$5,000 AND OVER

Dorothy M. Bradley
 William H. Fay
 *Margaret and Paul Gessaman
 Grieco Foundation
 Charlotte Johnson Fund
 Julie J. Kidd
 The Rhode Island Foundation

\$1,000 AND OVER

Altera Corporation
 American Indian Institute, Inc.
 John and Marilyn Asbridge
 Clay and Mari Baker
 Earl and Alma Baker
 Robert and Kathryn Buckles
 Cataract & Laser Institute
 Crow Tribe
 *Susan L. Dougherty
 Exxon Mobil Corporation
 Exxon Mobil Foundation
 First Interstate BancSystem
 *Arthur Fry
 General Electric Company
 John and Gerd Gilbert
 Lawrence and Anne Hambly
 Johnson & Johnson
 *Jeffrey and Belinda Johnson
 Mary L. Lukin
 Miccosukee Indian Gaming
 The Minneapolis Foundation
 Iris M.L. Model
 Mohegan Sun
 Clifford and Joan Montagne
 Harold D. Picton
 John and Sandra Roe
 Steven Rovig and Brian Giddens
 Bonnie Sachatello
 Paul N. Schultz
 Sealed Air Corporation
 Denys and Jane Slater
 Sara Jayne Steen and Joseph Bourque

Elizabeth A. Stoddard
 Michael P. Theisen
 *Charles and Dorothy Tordik
 *Tordik Wildlife Foundation, Inc.
 Arthur and Mary Tynes
 *Virginia M. Walker
 *Irving L. Weissman
 *James H. Wilder
 *Bruce and Sandra Wilkins
 Thomas W. Zadick

\$500 AND OVER

*Kurt L. Alt
 Michael J. Amdahl
 *David and Marjorie Burgan
 *Robert D. Chew
 *Ingrid and Leo DeGreef
 Robert and Martha Eng
 *Irene and Arthur Grad
 David and Vicki Johnson
 Richard and Marjorie Johnson
 *Lori S. Layman
 Lockheed Martin Corporation
 Sue Monahan
 Montana Environmental Health Association
 The Wildlife Society (Montana Chapter)
 Mary and John Palmer
 Sam and Wanda Pearce
 Pfizer Inc
 Gerald and Jennifer Rahn
 Beverly J. Rose
 *Paul J. Schuele
 William and Cheryl Schwarzkopf
 John and Judith Weigand
 Western Energy Company
 *Robert F. Williams
 Vivian and Michael Zabrocki

\$250 AND OVER

*Richard and Virginia Bell
 Keith and Rebecca Bortnem
 *Kenneth and Sandra Bowers
 Gordon and Vanessa Brittan
 James C. Burns
 *Jeffrey B. Carpenter
 Christine and John Clark
 John M. Collins
 Brian Colony and Shelly Whitman
 ConocoPhillips
 Ted M. Dawson
 Gloria J. Garrison
 *Narciso J. M. Gomez
 Carol and R. Greer
 David and Marilyn Haas
 Timothy W. Hanks
 *Chester and Margaret Haun
 David J. Haughland
 Philip A. Ilg
 Janet Johnson
 *Mary J. Kujawa
 Terry and Martha Lonner
 Moritz Wildlife Consultants, Inc.
 William E. Moritz
 Procter & Gamble Company
 Robert and Diane Reklis
 Tiffany and Jeffrey Sandholm
 SBC, Inc.
 V. and Shirley Schmidt
 Maisie Sharp
 Eugene and Diane Spranget
 Thomas A. Thompson
 Daphne F. White

UP TO \$250

3M Company
 David C. Adams
 Frank W. Adams, Jr.
 J. A. Adams, Jr.
 Jeff Adams
 James and Carolee Adamson
 *Perry and Kimberly Adkison
 *Virginia L. Aho
 Roger and Marcia Ala
 Katherine and Richard Aldrich
 Charles and Tracey Allen
 Eugenie L. Allen
 Marcee J. Allen
 Michael and Pamela Alvord
 *Edward and Stella Anacker
 William and Carrie Ancell
 Carl and Andree Anderberg
 Bruce Anderson and Kathleen Brunke
 Gary and Alice Anderson
 Shiell and Kendra Anderson
 *Thomas Anderson and Hazel Lutz
 Timothy and Leesa Anderson
 Virginia K. Anderson
 Bonnie R. Andrew
 Ryan and Amy Archer
 Michael and Patricia Archibald
 Tawny S. Arensmeyer
 Doris Armstrong
 *Scot L. Armstrong
 Ronald and Kayl Arthun
 *Kenneth and Elaine Baarson
 *L. B. Bachman
 *Jeffrey and Colette Bailey-Darland
 Jeffrey F. Baken
 Gary L. Baker
 George H. Baker
 *Graeme L. Baker
 *Vaughn L. Baker
 Ball Corporation
 Daniel P. Bancroft
 Farrell and Bernice Bandow
 Susan M. Banet
 Shigeo Banks
 Craig and Patricia Barfoot
 William and Bonnie Barger
 *Thomas W. Barnhart
 Susan and Lowell Bartels
 *Karen E. Bartelt
 Darryl B. Barton
 Carl and Janet Basballe
 David Bayless and Shelly Henry
 Boyview Dental
 Gerald and Lila Beard
 Helen M. Bechtel
 *Marjorie F. Beckman
 Daniel and Nancy Belk
 Linda L. Bell
 R. E. Bell
 Kevin D. Benge
 Scott F. Bennett
 William R. Bentley
 James and Janet Bergum
 Edith R. Best
 John T. Best
 Carol J. Bibler
 Kathleen D. Biehl
 Scott A. Billets
 Kevin M. Billingslea
 Jacqueline S. Bischoff
 *Gary K. Bissonnette
 Kristi V. Blackburn
 John and Ilene Blanchard
 Thomas and Elaine Blanshan
 Robert K. Blasing

* denotes those individuals who have faithfully supported the College of Letters & Science every year for five years or more.

DONOR RECOGNITION

Richard and Virginia Blevins
 Andrew W. Boehm
 *Shawn R. Bohannon
 Marleigh A. Bollinger
 Carol M. Bondy
 Daniel and Rebecca Bornhoff
 Helen G. Bosch
 Eleanor O. Bossert
 Cherie and Thomas Bowman-Lyons
 *Michael J. Boyd
 Steven and Pamela Boyer
 Bruce A. Braaten
 Ronald Braff
 *Michael D. Brand
 Diane Brawer and Daniel Goodman
 Robert F. Brebrick, Jr.
 Trudy J. Brenc
 Scott and Anne Bream
 Doris P. Brinck
 *Ruth Bracklebanc
 Charles and Sally Broughton
 Don L. Brown
 *Donald J. Brown
 Geraldine R. Brown
 Richard and Drea Brown
 Robert and Susan Brown
 James Brug
 Arney E. Buchanan-Kadri
 Richard A. Burtis
 Craig and Dee Ann Buehler
 David and Connie Bull
 Ronald and Sharon Burghard
 Maurice and Polly Burke
 Kris and Genevieve Burmeister
 Rachel A. Burner
 *Corlann G. Bush
 Andrea L. Corbett
 Paul and Jane Butkay
 *Dorothy E. Butkunas
 *Tommy and Nancy Butler
 Patrick and Susan Byorth
 Patrick and Tanya Call
 James and Marty Campbell
 *Milton and Marguerite Campbell
 Kari L. Cargill
 Edith G. Carlson
 *Tim and Debbie Carlson
 Lynda M. Carroll
 Gloria H. Cartan
 Richard and Mary Carter
 Carvi Collectibles
 Bourck D. Cashmore
 Kathryn and Christopher Catlett
 John and Judith Cauhorn
 *David and Maria Caussyn
 *Joseph E. Cavanaugh
 Julie and James Cerenzia
 Robert R. Chesterfield
 Jack and Vanessa Childress
 Carol Christensen and Karl Drake
 John and Ellen Christensen
 Leo and Carolyn Clabaugh
 Terri L. Clairmont
 Patrick T. Clancey
 Amy J. Clark
 Malcolm and Leta Clark
 Julie C. Clay
 Franklyn and Janice Clikeman
 Patrick and Sally Coghlan
 Richard L. Cole
 Leonard G. Collins
 Byron W. Collison
 Bradley R. Colman
 Duane C. Colmey
 Stanley and Chyrel Coloff

Bradley B. Compton
 *Mary Ann and R.A. Comstock
 Gary M. Connelley
 Willis M. Conover, Jr.
 Thomas and Nancy Cook
 John and Patricia Cookson
 Gerald M. Cooper
 Erin B. Corcoran
 Sandra L. Corey
 L. J. Corn
 Ann and Joseph Castello
 Robert B. Cotner
 *Thomas and Judy Cowan
 Chauna Craig and Anthony Farrington
 Laurel H. Crary
 Cristina J. Cravens
 Rhonda and Thomas Craver
 Jason and Jody Creasman
 Karelee M. Creek
 *Wayne and Judith Croft
 Wendall and Floy Cross
 Eddy A. Crowley
 Larry and Kathy Curran
 *William J. Dakin
 Dennis M. Daley
 Michael and Julie DalSoglio
 *Dorothy C. Dannis
 Robert E. Danskin
 Paula F. Darejeh
 *George and Shirley Darragh
 Jason and Katie Daughenbaugh
 David and Diana Davallou
 Leslie and Betty Davenport
 Clifford N. Davis
 Merrell C. Davis
 Michael and Candy Davis
 Christina G. Decco
 Kathryn A. Decker
 Jodie and Scott DeLay
 Harry and Jenette Denson
 Jennifer Devoe and Alton Straub
 Jonathan K. DeYoe
 Robert and Lynne Dillon
 Stephen and Connie Dilts
 Cynthia A. DiMarco
 Danielle DiRe and Mark Baum
 MaryKay Dissel
 Dana P. Dixon
 Stewart A. Dixon
 David and Jacquelyn Dobb
 Rebecca Dobrowski
 Mark A. Dockter
 Phyllis and Steven Gilreath
 Matthew J. Domek
 Robert and Wanda Domrose
 Jessica Doney
 David A. Donohue
 Arnold and Terri Dood
 John and Vera Doull
 Martha A. Dow
 Vance and Deborah Drain
 Anne E. Draper
 Patrick and Page Dringman
 Jerry and Nancy Driscoll
 Sandra I. Dunkel
 *Lawrence and Mary Durland
 Drew and Sharyn Dye
 Josh Earhart
 Robert and Cathy Eastwood
 Emil E. Ebner
 Jacey and William Edwards
 Maurice and Donna Edwards
 Joseph and Clara Egan
 Thurston and Suzanne Elfstrom
 Lon M. Eliason

Katherine A. Ellsworth
 *Mark A. Engen
 Glenn and Janet Erickson
 Jeffery and Jennifer Erickson
 Richard and Linda Erickson
 Charles D. Eustace
 Sharon and Thomas Eversman
 *Mobil Retiree Matching Gift Program
 Bruce and Leslie Farris
 Mark Ferestad and Lisa Brickner
 Stephen and Constance Ferguson
 *William G. Fillian
 Richard J. Fink
 First Interstate Bank Foundation
 Rodney D. Fischer
 Theresa and Donald Fischer
 John W. Fisher, Jr.
 Richard and Kay Fladstol
 Walter and Rochelle Fleming
 Gyda and John Flint
 Sandra and David Follette
 *Jolene R. Forbes
 Barry and Margaret Fox
 Larry D. Fox
 Christopher J. Francis
 Perry G. Francis
 Robert P. Frantz
 W. and Charlotte Frantz
 *Eugene and Paula Freeman
 James S. Freeman
 Leslie and Susan Freeman
 Mark Freeman
 Kevin L. Frey
 *Joseph N. Fritz
 Ronald and Julie Furstenuau
 Brian and Teresa Gallik
 Mary M. Garfield
 Olga C. Geranios
 David S. Gesko
 James and Danielle Gilbert
 Debra and Michael Gill
 Thomas J. Gill
 Robert L. Gillespie
 Patricia E. Gillis
 Richard and Shaun Gillis
 Patrick and Collett Gilmore
 GlaxoSmithKline Foundation
 Timothy A. Gleason
 *Pati M. Glee
 Laura Konen
 Malcolm H. Goosey
 Mark W. Gorges
 James and Susan Gough
 William and Peggy Gould
 Kate J. Graham
 Tony and Joy Grainger
 *Allen and Kim Grammens
 James and Karen Gransbery
 Jeffrey S. Green
 Michael and Kiely Green
 *Steven and Julie Gregoryk
 Ellis and Mary Greiner
 Earl and Dorothy Griffith
 Grose Construction
 Kenneth and Elizabeth Grose
 *Terry and Lorrie Grotbo
 Stephen D. Gullings
 Donald R. Gunderson
 *Melanie K. Gustafson-Ropski
 H Bar R Ranches
 Marla I. Hall
 Sarah L. Hall
 Loris and Louise Hamlin
 James and Mary Jo Hamling
 Dale and Rebecca Hamman

Rodd Hamman and Robin Wolff
 Bruce and Beth Hammell
 James and Dawn Hampton
 *James and Sharon Hansen
 Mayme A. Hansen
 Michael and Krystel Hansen
 Clifford and Sheila Hanson
 Deborah D. Hanson
 Thomas J. Hanson
 Janet and Douglas Hardy
 Samuel J. Hardy
 Robert M. Harney
 David L. Harpster
 Edward J. Harri, Jr.
 Traci H. Hart
 Mark and Ava Harwood
 Cheryl L. Hattton
 *Michael L. Haupt
 Kevin A. Hayes
 *H.B. Fuller Company
 Patricia and John Healow
 Healthy Smiles Dental Group
 Heart of Montana Realty Services
 *Donald and Ardythe Hedges
 Hedrick Enterprises, L.L.C.
 *Marlene J. Hedrick
 Doris S. Heffner
 *William F. Heinecke
 Lisa and Richard Held
 Gary A. Hellenga
 Kathryn and Richard Helzer
 Gordon and Janet Henneford
 Mark D. Henry
 Jill M. Henton
 Molly J. Hepper
 James F. Hereford
 John and Mary Herndon
 Vicki A. Herren
 Nicholas Hether and Carol Belohlavek
 Hewlett-Packard Company
 Lorraine Hilleman
 Clarice J. Hinman
 Steven N. Hinman
 Ruth J. Hippely
 *John C. Hoff
 Frederick K. Holdbrook
 Jefferson and Marita Holder
 Hollywood Pet Hospital
 Scott and Sarah Holmes
 Stefania J. Holstun
 William and A. Holt
 *Laura L. Holte
 Tom and Mae Hom
 Charles and Vicki Hone
 *Jeffrey and Dianna Hooker
 *Thomas and Laurie Hornung
 Rebecca L. Houck
 Clifford and Evelyn Houk
 Tammy L. Hovland
 Kary D. Howard
 Michael and Ella Howard
 Raymond H. Howard
 Thomas and Michele Howard
 Christine and Rod Howell
 Michael S. Hudson
 Catherine A. Hughes
 *Gary and Lorie Hughes
 Ruth and John Hughes
 *Jeffrey Hunt and Cheryl Flynn
 Susan K. Hunter
 *David and Elsie Hurst
 Robert and Elaine Hurst
 *Mary C. Imhoff
 Indoor/Outdoor Environmental LLC.
 Yokichi and Marion Itoh

Sten K. Iversen
 Bonnie and Lee Iverson
 Wayne D. Iwen
 Karen J. Izbicki
 *Gordon M. Jackson
 Julie A. Jackson
 Michael J. Jakober
 Scott L. Janni
 Michele J. Janota
 Edwin and Kari Jenkins
 Bonnie J. Jerke
 Carl and Victoria Johnson
 Coburn R. Johnson
 Corey and Monica Johnson
 Dorothy R. Johnson
 Gordon and Linda Johnson
 *Howard and Janece Johnson
 Joseph and Teresa Johnson
 Kevin and Leya Johnson
 Roger and Lynda Johnson
 *Willis and Dorothy Johnston
 Janelle and Harley Jones
 Scott and Janice Jones
 William and Elizabeth Jones
 Roger L. Jordan
 *Ronald and Geraldine Jovanovich
 Melissa S. Jurica
 Gerald and Connie Kaiser
 Michael J. Kalsher
 Stephen and Diane Kane
 Paul A. Kanning
 Kelley and Connie Kantner
 Gregory and Wendy Kastelitz
 Wayne F. Kasworm
 Henry and Marilyn Kathrein
 Martha H. Kauffman
 Kimberly and Rosemary Keating
 David and Linda Keller
 Dale M. Kellogg
 Karen and Bryan Kelsey
 *William and Doris Kelson
 Kern D. Kemmerer
 Darrin and Leann Kenelly
 Gregory and Teri Kennedy
 Scott D. Kerr
 Kenneth S. Keyes
 Amy L. Kieke
 Kiesling Dental Associates
 Roger and Linda Kiesling
 Mary K. Kimmet
 Tanna M. Kincaid
 Constance and Dale King
 *Jerry and Judy Kinkade
 David and Elaine Kinnard
 Daniel R. Kinshella
 Richard and Michele Kinshella
 Todd and Julie Kipter
 William and Maureen Kirchhoff
 Traci L. Kirksey
 Lester A. Kish
 Robert and Elizabeth Kissell
 Gail D. Klostad
 W. B. Knighton
 *Amy S. Knisely
 Jack and Mildred Knadle
 Rebecca E. Marshall
 Pamela K. Shaw
 *Thomas J. Komberec
 Berna and Thomas Koski
 Nicola M. Kouttab
 Kimberly Kradoffer and Richard Misplon
 Rita M. Kraus
 James and Marilyn Krause
 Bradley and Patricia Kremensek
 Walter and Fay Krichling

Lori G. Kronebusch
 Quentin J. Kujala
 Kevin F. Kundert
 Jane and Steven Kurzer
 Janice K. Lacey
 *Robert and Grace Lacy
 Carol S. LaFrance
 Emily E. Lagiglia
 Cindy K. Lamb
 Renee M. Lance
 Peter J. Landerdahl
 George L. Landle
 Esther Lanford
 Kathleen and John Langenheim
 John and Jody Larned
 *Elizabeth and John Larsen
 *Leif J. Larson
 Bonnie P. Latham
 Patricia J. Lauer
 William and Patricia Law
 Delano R. Lawin
 Erys C. Lawlor
 Morgan Leach and Mindy Sterner
 Travis A. Lee
 Richard W. Leep
 Carl J. Legleiter
 Carl H. Lehfeldt
 Diana J. Lehfeldt
 Noreen L. Lehfeldt
 *David and Betty Lehwaldter
 *Margaret and Tony Lekse
 *Russel and Susan Leland
 Jack and Mary Lentfer
 David C. Lentz
 Scott and Teresa LeProwse
 Julie A. Lethert
 James and Ruth Ley
 Karen and Calvin Lien
 Mandy A. Lineback
 Melvin and Virginia Linnell
 Alan and Carol Lizotte
 Vivian L. Locke
 Luann G. Lockwood
 David and Sarah Loen
 Barbara and Stephen Loewen
 Sharon R. Loftsgaarden
 Susan K. Logsdon
 Marc A. Long
 Daniel Loran and Julie Stoughton
 Allan and Nancy Lovaas
 Rock J. Lovec
 William M. Lowney
 Milton W. Loyer
 Arthur W. Luedeke, Jr.
 Deborah S. Luft
 Renee and Ernest Lundberg
 Samuel N. Luoma
 *Dennis J. Lutz
 Leon and Mary Lyle
 *Jean B. MacInnes
 *Richard and Barbara Mackie
 Janice K. MacPherson
 Jane D. Madison
 Jacqueline H. Magnant
 *Brenda and Jerry Majdic
 John W. Majerus
 Kathleen M. Makarewicz
 Meagan K. Malchow
 Bridgid and Ronald Malee-Rubin
 Jerry A. Malmo
 Susan B. Mammel
 Management Solutions & Services, Inc.
 Betty and Jean-Paul Mandler
 *Kirk P. Manfredi
 Douglas D. Mann

Lee A. Manning
 James and Peggy Marantette
 *William A. Marchese
 *Lois M. Martin
 Neil S. Martin
 *Steve and Mary Martin
 Richard and Karen Martoglia
 James and Elizabeth Masuoko
 Ronald M. Matelich
 Jackie L. Mathews
 Sarah L. Mathews
 Edmund J. Mathison
 Franklin and Lois Matsler
 Dennis E. Matzinger
 *Gary and Melissa Maxfield
 Janel J. May
 *Jill and Tibor Mazar
 *Teri and Jeffrey Mazer
 Stephen and Kathy McArthur
 John J. McCarthy
 Daniel and Lisa McCauley
 Kathy M. McCleary
 *Katharine G. McConnell
 Mary and Michael McCormick
 Aaron P. McCracken
 Jacqueline R. McDonald
 Randall and Annette McDowell
 Richard and Tami McFate
 Eric J. McGehee
 *James and Marilyn McGinnis
 Christopher J. McIntyre
 Kerry J. McMenus
 *JoLouise and Jerry McNally
 *Peter and Patricia McNamee
 Allen and Susan McNeal
 Daniel J. McRoberts
 Donald E. McRoberts
 Mark A. Mehring
 Jonathan A. Mellon
 Gregory A. Mendell
 *Elizabeth and Raymond Mentzer
 Merck Company
 James Mickelson and Mindy Carver
 Gary and Sandra Mihelish
 David and Brenda Mikelson
 Benjamin and Irene Miles
 *Camille A. Miller
 John and Debra Miller
 *Kirk and Donna Miller
 Penelope and Brent Miller
 Roland R. Miller
 Susan E. Miller
 Barbara A. Miner
 James and Mary Mitchell
 *Rex Moats and Eliza Whitman
 Kristi and Paul Mobley
 *Christopher and Daphne Maffett
 William and Lou Ann Montgomery
 David J. Moody
 Joann L. Moore
 Kathryn and Jack Moore
 Lillian H. Moore
 Jerold R. Morgan
 Janel A. Motichka
 Stuart C. Moulton
 Raymond and Mary Mountain
 Clark and Lelani Mozer
 John and Louise Mudie
 Jeri and Edward Mulrow
 *Paul and JoAnn Muneta
 Nickolas C. Murnion
 George P. Murphy, Jr.
 Kelly and Mary Murphy
 *Susan and Robert Murphy
 Donald Murray and Diana Shellenberger

Thomas W. Mussehl
 K. L. Myers
 *Karen M. Myers
 Cristine L. Myrystal
 David and Nancy Near
 David and Linda Nelson
 Ione and Nels Nelson
 Lowell and Yvonne Nelson
 Norman and Joann Nelson
 Roy and Becky Nelson
 Jerry L. Ness
 Francine G. Nettesheim
 Mary and Jim Newby
 Todd and Kimberly Nichols
 Alan and Nancy Nicholson
 *Dalene C. Nickelson
 Bonnie L. Nickol
 Stephen C. Nold
 Laura and Timothy Horton
 Molly L. Nardstrom
 Novartis US Foundation
 *H. L. Nyquist
 Karen A. Nyrop
 Oak Tree Animal Hospital
 Thomas E. Oakberg
 Thomas and Celia O'Connor
 Brian G. Olsen
 Donald O. Olson
 Gerald and Leanna Olson
 *Robert E. Olson
 Shari A. Olson
 Don and Jeanne Ormudson
 *Judith and Terry Onslow
 Maureen C. O'Rourke
 Mark and Sheryl Oursland
 Janice M. Ozimek
 David F. Pac
 George and Patricia Palagi
 Mark G. Papich
 Wayne and Sally Park
 Judy M. Parke
 Susan A. Parke
 *Phillip K. Parker
 Andrea B. Parmenter
 Carol A. Partlow
 Robert and Diana Paulus
 Steven and Stephanie Peace
 Roger F. Pearson
 Stanley V. Peck
 Russell and Mary Penkal
 Megkian A. Penniman
 *Amy and Steven Perdoems-Martodam
 Donald and Patsy Peretti
 *Stephen F. Personius
 Joan and Larry Petersen
 *James and Gladys Peterson
 Joel and Lucy Peterson
 Michael R. Peterson
 *Raymond M. Peterson
 Ly-Minh T. Pham
 James and Nancy Phillips
 Natalie F. Phillips
 Frank and Donna Pickett
 Melodie L. Pike
 *J. Michael and Annette Poston
 Potlatch Corporation
 Lane and Kathryn Poulsen
 Loraine and Charles Powell
 Lisa K. Powers
 *Matthew E. Poynter
 Scott and Leah Pozder
 William and Lucille Prenevost
 *David Quammen and Betsy Gaines
 Christopher and Vranna Quinn
 Thomas G. Quinn

DONOR RECOGNITION

Jacqueline Quisno and Davin Camden
 Allan D. Rabbitt
 Ronald and Jane Rada
 Jay R. Radke
 *Cynthia L. Rakowski
 Benjamin and Rhonda Rangel
 Jodi and Ray Rasker
 Catherine A. Ray
 *Marjorie Reed and Doug Derryberry
 Norman and Sharon Reed
 David and Debra Reiland
 *Albert and Jo Ann Reinauer
 Patricia E. Rend-Orlich
 Curtiss and Julia Renn
 Karen E. Rice
 Susan and Robert Riehl
 Bruce and Peggine Riley
 Kyle L. Riley
 Jennifer L. Robb
 Brian and Louisa Roberts
 Vernon and Paula Roberts
 *Carley C. Robertson
 John and Betty Robertson
 Lois M. Roby
 Allen W. Rodgers
 Scott R. Roehrich
 Samuel and Carolyn Rogers
 John and Beverly Rose
 Kenneth D. Rose
 Ryan W. Roseleip
 Donald R. Ross
 *Janet L. Rossmiller
 *Hope and Gary Roszell
 Robert and Mary Rothweiler
 Todd D. Rowen
 Robert and Jeanne Rowland
 *Donna Rudiger
 Stephen and Janlee Ruff
 Kathleen E. Ruh
 *Clarence and Patricia Ryan
 Jennifer M. Ryan
 Walter A. Ryder
 Carolyn J. Ryffel
 Peter and Marcia Sadowski
 Hugh and Mary Safford
 Jean E. Sandberg
 *Robert and Patricia Sandbo
 Steven K. Sando
 Sather Eye Clinic and Optical, P.C.
 Thomas and Jackie Sather
 Jack and Marilyn Saunders
 Tillman D. Saylor
 Matthew J. Scanlon
 Barry M. Schaplow
 Harold H. Schatz
 *Thomas G. Schmalz
 Donalee and Kirk Schmidt
 Roland and Leslie Schmidt
 Ben and Susan Schmitt
 Jennifer Scholes
 James and Jorja Schreiber
 Larry and Joanne Schrupp
 Lisa M. Schuma
 Lynne T. Schumacher
 Wilbert O. Schwenk
 *Anita Schwenneker
 Jess Schwidde and Cynthia Moulton
 Kenneth and Margaret Scott
 J. Ronald and Ereign Seacord
 Doris and Edward Seel-Hames
 David and Bernice Seibel
 Thomas and Ann Seitel
 Uthaya K. Selvanayagam
 Eric E. Semerad
 *Susan and Kenneth Senn

Settle Ranch Company
 Scott A. Settle
 Roland G. Severson
 John L. Sheldon
 Thomas Shellenberger
 Kurt N. Shevalier
 Marylyn J. Shovlin
 *Edward and Constance Shunk
 Reynold A. Shunk
 *Michael and Mary Ann Sierz
 Sonja S. Stewert
 Charles J. Sih
 Robert F. Sikonina
 *Del S. Simon
 Christine Simonsen
 Linda M. Simonsen
 Donald A. Singer
 Partia Sipes and Paul Thompson
 William and Betty Sippel
 *Linda M. Skaar
 George B. Skaer
 Kathryn E. Skinner
 George C. Slinger
 Duane K. Slater
 Gene and Sallie Small
 *Howard and Susan Small
 Cynthia and James Smith
 Garth R. Smith
 John M. Smith
 *Mark and Debbie Smith
 Karen L. Snow
 JonEllen Snyder
 Stuart and Connie Snyder
 William and Lisa Speare
 *Karen and Thomas Spencer
 Ramanujan Srinivasa
 Carole and K. Srinivasan
 *Judy A. Staigmiller
 Marla and Richard Stanich
 Star Tribune Foundation
 Connie Staudohar
 Michael and Marie Stears
 Ralph W. Steele
 Cora L. Steffes
 Wayne J. Stein
 Gary V. Stephenson
 William and Patricia Steven
 David R. Stevens
 *Otto and Shirley Stevens
 Quentin J. Stober
 *Jonathan P. Storvick
 Paul and Jane Strasser
 Denise M. Struznik
 Liz Stuber
 Thomas J. Stuber
 Jack L. Sutton
 *Joseph R. Svoboda
 Ann M. Swan
 Wendy Swanson and Randall Ryti
 Doris J. Swarthout
 Frank and Eva Swenson
 Scott and Julie Swenson
 Edward and Karen Tabacco
 Craig and Carla Taff
 Santo and Kathleen Tartivita
 Marie R. Tatarka
 *Deborah C. Taylor
 *Texas Instruments Foundation
 Malcolm and Carol Theisen
 *David and Kim Thiel
 Michael T. Thiel
 Anthony and Lesley Thiessen
 *Lisa R. Thievin
 *Susan Thomas and Curt Kochner
 Suzanne Thomason

Brent and Kathryn Thompson
 David and Kathi Thompson
 David and Sherri Thompson
 John and Julie Thompson
 Patrick J. Thomson
 Garry W. Timm
 Paula M. Tindall
 Sean C. Tippett
 *Dale J. Tischmak
 Margaret M. Todd
 William and Lorene Tolbert
 Mark and Heidi Traeger
 Jill M. Trimble
 Triplepoint Inc.
 Eugene and Shirley Turner
 Randy and Deanna Tymofichuk
 Russell G. Tysdal
 UPS Foundation
 Lawrence J. Urban
 Herman E. Utiger
 Debra D. Vahe
 Sarah C. Van Arsdale
 Gregory Vandeberg and Lara Dando
 Diane K. Van Gorden
 *William H. Van Horn
 Thomas and Joann Vanisko
 Timothy and Joan Van Natta
 *H. Lee and Helen Van Nice
 Larry W. Vegge
 Daniel D. Verwolf
 Michael and Susan Violet
 Lawrence and Betty Visocan
 Timothy and Christina Visscher
 Helen and John Volk
 David and Marianne Vugteveen
 Ronald and Adrienne Vyse
 Michael S. Wagner
 Marion A. Wainwright
 Cindy M. Walker
 Jane C. Wallace
 Annika S. Wallendahl
 Karen Walmsley and Kirk Koepsel
 Charles K. Wang
 *Richard and Shirley Ward
 Robert and Donna Ward
 William and Kathleen Warden
 Peter and Virginia Ware
 *Billie J. Watkins
 Thompson and Joan Webb
 *Gertrude Weishaar
 M'iss A. Weisner
 Richard and Julie Welding
 Wells Fargo Matching Gift Program
 Mark A. Welsh
 Leon and Billie Welty
 Richard and Paula Wenham
 Amanda V. Werner
 Robert and Sheree West
 Weyerhaeuser Co Foundation
 Richard and Amy Wharton
 William and Lisa Wheeler
 Mark D. Whisler
 Kristy and William Whitsitt
 John and Linda Whittingham
 Maureen B. Wicks
 Jenny K. Wickum
 Robert and Dianna Widhalm
 Kenneth L. Wiggins
 Wallace and DiAnne Wilder
 Wildlife Photo Art Gallery
 Floyd S. Wilson
 Joan E. Wilson
 Ronald L. Wilson
 Dennis N. Winslow
 Randle and Pamela Winter

John and Joyce Winters
 Alfred H. Wippermann
 Richard and Elsie Wodnik
 *Kay A. Wohlhuter
 Juliann and Jeffrey Wolf
 E. J. and Janet Wolff
 Kevin and Jereen Wolverton
 Kay D. Woodworth
 *Timothy J. Worley
 Glen and Cathy Wyatt
 *Barbara J. Yeoman
 Lloyd and Mae Yonce
 *Melinda and Kenneth Young
 Ronald E. Young
 Donald and Mary Youngbauer
 Gerald Youngworth
 Youngworth Trucking
 M. Yuhas
 William and Virginia Zelezny
 Ping Zhou
 Caroline Zimmerman
 James and Carolyn Zimmerman
 Mark G. Zipperer
 Walter W. Zobell, Jr.
 *James and Jolette Zumbrennen
 Cheryl and Brian Zwang

We apologize for any errors that may have occurred in recognizing our donors. Please contact the L&S development office to report any such errors in order that we may recognize you accurately and appropriately in future publications (406) 994-2092.



UNDERGRADUATE DEGREES

- Bachelor of Science in Anthropology
- Bachelor of Science in Biological Sciences
 - Biology Teaching
 - Ecology and Evolution
 - Fish and Wildlife Management
 - Organismal Biology
- Bachelor of Science in Cell Biology and Neuroscience
 - Biomedical Sciences (includes Premedicine, Predentistry, Preoptometry)
 - Cell Biology & Neuroscience
- Bachelor of Science in Chemistry
 - Biochemistry Option
 - Chemistry / Chemistry Teaching
- Bachelor of Science in Earth Sciences
 - Geography
 - Geohydrology
 - Geology
 - Paleontology
 - Snow Science
- Bachelor of Science in Economics
- Bachelor of Arts in English
 - English Teaching
 - Literature
- Bachelor of Arts in History
 - History / History Teaching
 - History and Religion
 - Science, Environment, Technology, and Society
- Bachelor of Science in Mathematics
 - Applied Mathematics
 - Mathematics / Mathematics Teaching Option
 - Statistics
- Bachelor of Science in Microbiology
 - Environmental Health
 - Medical Laboratory Science
 - Biotechnology
 - Microbiology
- Bachelor of Arts in Modern Languages and Literatures
 - Commerce
 - French/French Teaching
 - German/German Teaching
 - Japan Studies
 - Spanish /Spanish Teaching
- Bachelor of Arts in Philosophy
 - Philosophy
 - Philosophy and Religion
- Bachelor of Science in Physics
 - Physics/ Physics Teaching
 - Interdisciplinary Option
- Bachelor of Arts in Political Science
 - International Relations
- Bachelor of Science in Psychology
 - Applied Psychology
 - Psychological Science
- Bachelor of Science in Sociology
 - Justice Studies
 - Sociology

UNDERGRADUATE MINORS

- (in addition to most majors)
- English: Writing
 - G.I.S. Earth Sciences
 - Japanese Language
 - Museum Studies
 - Native American Studies
 - Public Administration
 - Religious Studies
 - Water Resources
 - Women's Studies

GRADUATE DEGREES

- Master of Science in Applied Economics
- Master of Arts in English
- Master of Arts in History
- Master of Arts in Native American Studies
- Master of Public Administration (M.P.A.)
- Master of Science in Applied Psychology
- Master of Science in Biochemistry
- Master of Science in Biological Sciences
- Master of Science in Chemistry
- Master of Science in Earth Sciences
- Master of Science in Ecological and Environmental Statistics
- Master of Science in Fish and Wildlife Management
- Master of Science in Mathematics
- Master of Science in Microbiology
- Master of Science in Neuroscience
- Master of Science in Physics
- Master of Science in Statistics
- Doctor of Philosophy in Biochemistry
- Doctor of Philosophy in Biological Sciences
- Doctor of Philosophy in Chemistry
- Doctor of Philosophy in Earth Sciences
- Doctor of Philosophy in Fish and Wildlife Biology
- Doctor of Philosophy in History
- Doctor of Philosophy in Mathematics
- Doctor of Philosophy in Microbiology
- Doctor of Philosophy in Neuroscience
- Doctor of Philosophy in Physics
- Doctor of Philosophy in Statistics

AFFILIATED CENTERS AND RESEARCH FACILITIES

- American Indian Research Opportunities
- Big Sky Institute
- Center for Computational Biology
- Center for Biofilm Engineering
- Center for Bio-inspired Nanomaterials (CBIN)
- Geographic Information & Analysis Center (GIAC)
- Humanities Institute
- Local Government Center
- Montana INBRE-BRIN
- Montana Space Grant Consortium
- Optical Technology Center (OpTeC)
- Spectrum Lab
- Thermal Biology Institute
- Wheeler Center for Public Policy
- Writing Center
- WWAMI Medical Education Program



The proposed site of the new Native American Student Center, south of Hannon Hall (pictured) and east of MSU's Centennial Mall. For more information, see page 24. (Photo by Erin Raley, MSU News)



COLLEGE OF LETTERS AND SCIENCE

Montana State University

2-205 Wilson Hall
Bozeman, Montana 59717
406-994-4288
406-994-7580 (fax)
lands@montana.edu
www.montana.edu/lettersandscience

Non-Profit Organization
U.S. Postage PAID
Permit No. 69
Bozeman, MT 59715