

[Obituary: Bruce Curtis](#)<sup>[1]</sup>

Bruce Curtis, center, helped dedicate the building named for him in 2002. As a student, President Bruce Benson (with wife Marcy, right) was mentored by Curtis. (File photo by Larry Harwood/University of Colorado)

Curtis

CU-Boulder Geological Sciences professor emeritus **Bruce Curtis** died Feb. 5, 2012, in Boulder after a short illness. He was 93.

Following baccalaureate work at Oberlin College, he received his master's degree from the geological sciences department in Boulder. After service in the Army Air Corps during World War II, he enrolled for doctoral studies at Harvard and received his doctorate in 1949. He worked as the Rockies Regional Exploration Manager for Conoco until 1957, when he began three decades of teaching and research at CU.

Curtis profoundly affected the careers and lives of generations of geologists. Through decades of service at CU and in the petroleum industry, he educated, mentored and led hundreds of students and professionals, including CU President Bruce Benson, who cites Curtis as his most influential professor. During that time he taught subsurface methods, geology of organic fuels and related subjects. He was widely recognized for his contributions in editing, having served as associate editor of the Mountain Geologist and GSA Bulletin. Curtis served as chairman of the department from 1960 to 1967.

He retired in 1983 after 26 years of service to the department and the university. His passing represents the loss of an inspiring scholar and an extraordinary individual.

[Nominees sought for Service Excellence Award](#)<sup>[4]</sup>

The University of Colorado Staff Council (UCSC) is seeking nominations of classified staff and professional exempt employees for the annual Service Excellence Award. The honor is presented to one qualified individual from each campus and system administration who has provided outstanding volunteer service to the campus, community/civic/professional activities, and the university as a whole through involvement in staff issues, committee work, teamwork, professional development of peers, and community relations.

The Service Excellence Award, including a \$1,000 cash prize, will be presented to honorees during the All Staff Council Conference on April 13 in Colorado Springs.

Any active, certified, classified staff or professional exempt employee of the university, excluding the current members of UCSC, is eligible to receive this award. Nominations will be accepted from any staff, faculty, student or administrator within the university.

Nominations will be judged on the candidate's service not directly related to the employee's job duties: Service to the employee's home campus (50 percent), service to the community/civic and professional organizations (30 percent), and service to the university (20 percent).

Nominations packets of no more than 10 pages must be received by Friday, March 9, and must include a completed nomination describing the nominee's service, a description of the nominee's job, and a letter from the nominator and one additional letter of support from a staff member, a faculty member, or an administrator, based on the award criteria.

The nomination form and eligibility and judging criteria can be found on the UCSC website at <https://www.cu.edu/content/2011serviceexcellenceaward><sup>[5]</sup>. The staff council will review and verify nomination

information before choosing recipients.

Nomination packets should be submitted to UCSC campus representatives:

Boulder: <http://www.colorado.edu/StaffCouncil/>[6]

Colorado Springs: Jen O'Connell, 719-255-4444, [joconne3@uccs.edu](mailto:joconne3@uccs.edu)[7]

Denver | AMC: Deborah Makray, 303-623-1888, [Deborah.Makray@ucdenver.edu](mailto:Deborah.Makray@ucdenver.edu)[8]

System: Teena Shepperson-Turner , 303-860-5712, [Teena.Shepperson-Turner@cu.edu](mailto:Teena.Shepperson-Turner@cu.edu)[9]

[CAM dean resigns](#)[10]

Dynak

David Dynak announced his decision Tuesday to resign as [dean of College of Arts and Media](#)[12] (CAM) effective May 31.

Dynak has been dean for five years and has led the college through many important accomplishments.

"Family issues make this a particularly timely move for me," Dynak wrote in a letter to the college.

Provost Rod Nairn will meet with college faculty and staff Friday, Feb. 17, to discuss the process of selecting CAM's next dean.

"We will announce a reception and opportunity to thank Dean Dynak for his service to the university sometime in the near future," Nairn said. "He has increased the College's visibility and engagement in the community and supported many projects that have brought increased recognition to the faculty and students. Just this week a recent graduate won a Grammy Award, for example."

[Study: To perform with less effort, practice beyond perfection](#) [13]

Whether you are an athlete, a musician or a stroke patient learning to walk again, practice can make perfect, but more practice may make you more efficient, according to a surprising new University of Colorado Boulder study.

The study, led by CU-Boulder assistant professor Alaa Ahmed, looked at how test subjects learned particular arm-reaching movements using a robotic arm. The results showed that even after a reaching task had been learned and the corresponding decrease in muscle activity had reached a stable state, the overall energy costs to the test subjects continued to decrease. By the end of the task, the net metabolic cost as measured by oxygen consumption and carbon dioxide exhalation had decreased by about 20 percent, she said.

"The message from this study is that in order to perform with less effort, keep on practicing, even after it seems as if the task has been learned," said Ahmed of CU-Boulder's integrative physiology department. "We have shown there is an advantage to continued practice beyond any visible changes in performance."

A paper on the subject was published in the Feb. 8 issue of the Journal of Neuroscience. Co-authors on the study include postdoctoral fellow Helen J. Huang and Professor Rodger Kram, both in CU-Boulder's integrative physiology department. The study was funded by the National Institutes of Health.

The study involved 15 right-handed test subjects who used a handle on a robotic arm, similar to a joystick, to control a cursor on a computer screen. The tasks involved starting from a set position to reach for a target on the screen and involved both inward and outward arm movements, Ahmed said.

As part of the study, test subjects had to exert more energy in some reaching movements when the robotic arm created a force field, making subjects "push back" as they steered the cursor toward the target. With repeated practice of moving the robotic arm against the force fields, the subjects learned the task by not only cutting down on errors, but effort as well, according to Ahmed.

The test subjects first performed a series of 200 reaching trials with no force field to push against, then two sets of 250 trials each when pushing back against the force field. The experiment ended with another 200 trials with no force field, said Ahmed. A metronome was used to signal the test subjects to move the robotic arm every two seconds toward the target during the trials.

Each of the test subjects wore a nose clip and breathed through a mouthpiece to chart the rates of oxygen consumption and carbon dioxide production, a measure of metabolism. The research team also collected surface electromyographic data by placing electrodes on the six upper limb muscles used during reaching tasks: the pectoralis major, the posterior deltoid, the biceps brachii, the triceps long head, the triceps lateral head and the brachioradialis.

"What is unique about our study is that we are the first group to measure metabolic cost in addition to muscle activity while performing a physical reaching task," said Huang, who performed most of the research and was first author on the Journal of Neuroscience paper. "The results are very surprising and challenge the widely held assumption that muscle activity entirely explains changes in metabolic cost."

The study suggests that efficient movements ultimately involve both efficient biomechanics and efficient neural processing, or thinking. "We suspect that the decrease in metabolic cost may involve more efficient brain activity," Ahmed said. "The brain could be modulating subtle features of arm muscle activity, recruiting other muscles or reducing its own activity to make the movements more efficiently."

The results could be applicable, for example, to stroke patients who have to re-learn to walk, Ahmed said. "The rehabilitation process should not necessarily stop if the patient reaches a plateau in performance," Ahmed said. Continued practice reduces the metabolic cost of the task, an indication the brain still may be learning something," she said.

"Using the robotic system, we can understand the principles underlying the control of human movement and can apply those ideas to design rehabilitation programs that may allow stroke patients to re-learn their movements faster, to retain that learning and to transfer that learning to other tasks as well," she said.

So whether it is playing a musical piece over and over again even after you have the notes and timing down cold, or throwing a ball or swinging a racket after your coach tells you things look great, there appears to still be a benefit to practicing, Ahmed said. "Just because someone can perform the task well doesn't mean there is not added benefit to continued practice."

For more information on CU-Boulder's integrative physiology department visit <http://www.colorado.edu/intphys/welcome/index.html>[14].

[Fine arts a draw for CU designer's support](#)[15]

**Editor's note:** Faculty and staff efforts are the heart and soul of CU -- and the inspiration for donors who are helping to achieve goals for the Creating Futures fundraising campaign.

Philanthropy from faculty and staff also has made a substantial impact -- increasing resources, recognition and goodwill for myriad programs, and underscoring why CU's work is worth supporting.

This issue, CU Connections debuts a new feature series, Philanthropy at Work. Each installment will highlight faculty and staff who have made gifts to CU. To suggest a subject for this series, please contact [jeremy.simon@cufund.org](mailto:jeremy.simon@cufund.org) [16]

[17]

As a senior designer for University Communications on the Boulder campus, Barbara Diehl has helped CU look good -- on paper and other media -- for more than 37 years. And as a donor to several CU programs, Diehl has found novel ways to improve how CU looks on stage.

Diehl describes moving her parents to an assisted-living facility recently, and finding custom 1940s and '50s suits in pristine shape in her father's closet. Because theater is a passion of hers, she decided to donate them to CU's costume shop. Not only did Diehl provide needed assets to a worthy CU organization, she says, "I got a kick out of seeing 'To Kill a Mockingbird' a few years ago, and there was my dad's white Panama suit up on stage!"

Diehl is one of hundreds of CU faculty and staff who have found ways to support CU people, places and programs. While some choose to make gifts to their home academic unit, others reach out to engage with diverse CU programs beyond their occupational realm.

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Diehl has supported programs at the College of Music, the Colorado Shakespeare Festival and the CU Museum of Natural History -- serving in advisory roles for the latter two institutions. The father of a colleague founded the Shakespeare Festival, and she describes herself as a "sucker for volunteering."

For Diehl, a former fine arts major whose small East Campus office is stacked with original artwork, it presents an opportunity to employ her passion for the arts. At the College of Music, she has supported both the Takacs Quartet, a renowned chamber ensemble with a CU-Boulder faculty residency, and a Castleman Quartet program that introduces aspiring chamber musicians to the genre's nuances and repertoire.

Despite limited means, Diehl gets great joy from giving at levels she can manage.

"It's amazing what a small contribution, \$25 or \$50 or \$100, can do -- it can make a difference in tangible ways," she says. "My \$25 can buy enough electricity to power the house lights for a few nights, or buy props for the costume shop. If you're in an audience of 400 and each of them gives something, that adds up to a lot."

Community and culture assets -- ranging from libraries to lecture series to exhibitions -- strengthen CU's foundation of arts and ideas. As CU pursues its Creating Futures fundraising campaign goals, faculty and staff gifts can help CU continue to offer strong programs, often for free or subsidized cost, to the public.

For information on making a charitable payroll deduction toward a CU program of your choosing, visit <http://www.cufund.org/guide-to-giving/information-for/faculty-staf/> [19]. Estate gifts also provide a critical pipeline of support -- for more information on bequests and other planned gifts, go to <http://www.cufund.org/guide-to-giving/information-for/planned-giving/> [20].

[Reminder: CU Women Succeeding is next week](#) [21]

A reminder to those who registered: CU Women Succeeding is set for Feb. 23-24 at CU-Boulder. The CU Faculty

Council Women's Committee planned two days of learning, networking and celebrating.

The 10th annual professional development symposium is free for members of the CU community who registered in advance. For more information, go to <https://www.cu.edu/facultycouncil/women/symposium/index.html>[22].

### [Documentary photography a 'complex, deeply emotional' process](#)[23]

The gripping wonder of a snapshot in time - and the sobering moral freight that often comes with it - took the spotlight during a recent presentation at the Anschutz Medical Campus.

"Moral Dilemmas in Documentary Photography," hosted by professor Daniel Teitelbaum, M.D., was an Arts in Medicine program, part of the Arts and Humanities in Health Care series. About 75 people attended the session in Education 2 North.

Teitelbaum, an adjunct professor in the Colorado School of Public Health, showed the audience some of the most iconic documentary photos taken in the 20th century - of war, Nazi operatives, famine, campus shootings - and gave insight into the people behinds the lens. His presentation included audio clips of the photographers talking about their work and historians who explained the circumstances of particular photographs.

Moral dilemmas are infused in the daily work of a war photographer. Vietnam war photographer Larry Burrows contemplated his work in an somber audio clip. He said he often caught himself wondering if it's right to capitalize on the grief and suffering of others. He concluded, "If I can contribute to the understanding of what others are going through then there's a reason for doing it."

Teitelbaum also highlighted famous photos by World War II photographer Robert Capa, whose mantra was, "If your pictures aren't good enough, you're not close enough."

"Is it OK to send someone to dangerous places to get these pictures or have a photographer want to get these?" Teitelbaum said, noting that both Capa and Burrows were killed while on assignment. "What are we feeding when we do this?"

Other iconic photos included chilling portraits of Joseph Goebbels, Hitler's propaganda chief, and Alfred Krupp, famed industrialist and condemned World War II criminal. The Goebbels photograph is a favorite because of its impact, Teitelbaum said. "I wanted to put it in a vault and show it to my grandchildren, so they could see what evil is all about."

The stark reality is that photographers wouldn't choose this very dangerous profession if not for the demand of people to "eat these photographs with our morning breakfast," Teitelbaum said.

"I think it's clear that the whole process of making a documentary photograph is complex, it is deeply emotional. It presents a dilemma for the photographer and for the subject," he said. "Then the editor comes along and shows us one frame. ... In a single frame, much of what happens is we read the picture and bring our own emotional baggage into it. The dimensions are hundreds."

[Faculty, staff give strategic plan input](#)[24]

Suzanne Scott, budget operations manager, Resource Management Division, studies a series of goals at a campus strategic planning session. (Photo: Tom Hutton/University Advancement)

More than 250 faculty and staff attended a strategic planning update session last week in Berger Hall to offer thoughts on the direction the university will take the next eight years.

The hourlong sessions began with overviews from Chancellor Pam Shockley-Zalabak, Peg Bacon, provost, Brian Burnett, vice chancellor, Administration and Finance, and Homer Wesley, vice chancellor, Student Success and Enrollment Management. Following the brief presentations by UCCS leaders, participants shared their thoughts on 12 overall goals as well as individual actions and outcomes for each goal by various divisions of the university. Following a format used at an October 2011 strategic planning search conference, individuals offered hand-written comments on index cards.

The comments will be compiled and available at [www.uccs.edu/chancellor](http://www.uccs.edu/chancellor)[26].

The 12 overall strategic goals are:

Foster academic programs that serve diverse communities and develop intellectually curious and globally, culturally competent graduates. Provide excellence in leadership and execution of economic, environmental and social sustainability. UCCS will actively seek responsible enrollment growth that enhances both the achievement of our mission and values and our financial viability. Cultivate a vibrant, healthy and engaged campus community that unites students, faculty, staff, alumni and friends of the university to support the educational goals of the institution. Build a diverse and inclusive UCCS educational community to advance learning and scholarship for a changing world. Build mutually beneficial economic, cultural, civic and system-wide collaborations to enhance UCCS and advance UCCS and the southern Colorado region. Grow and diversify revenue through the expansion of business enterprise, investment in research and innovation, intentional stewardship and philanthropy, and responsible management of revenues and expenses. Cultivate an environment that sustains and extends quality research, scholarship and creative work. Provide an infrastructure of enhanced technologies, collaborative learning spaces and effective facilities. Develop the global, cultural competencies of the UCCS community while substantially increasing the number of international students and scholars on campus. Grow and diversify communication and marketing programs to help the university achieve premiere status. Provide a transformative educational experience that engages students both in and out of the classroom.

Amy Sutz, assistant director, Office of Student Financial Aid, receives clarification from Provost Peg Bacon during a campus strategic planning session. (Photo: Tom Hutton/University Advancement)

The goals were developed after receiving input from faculty and staff at an October planning session. Additional input was received from local business and community leaders and from interviews with members of the CU Board of Regents and staff members at the CU System.

Later this month, the goals will be reviewed by UCCS governance groups. In March, a draft will be submitted to the CU Board of Regents. The CU Board of Regents is expected to vote on the plan in April.

[CU-Boulder professor elected to National Academy of Engineering](#)[28]

McKnight

**Diane McKnight**, professor of civil, environmental and architectural engineering and a fellow of the Institute of Arctic and Alpine Research at the University of Colorado Boulder, has been elected to the National Academy of Engineering.



McKnight is among 66 new members and 10 foreign associates of the academy. She joins 16 other faculty from the campus who have been elected since the academy's formation in 1962.

Election to the National Academy of Engineering is among the highest professional distinctions accorded an engineer. Academy membership honors those who have made outstanding contributions to "engineering research, practice or education" and to the "pioneering of new and developing fields of technology, making major advancements in traditional fields of engineering, or developing/implementing innovative approaches to engineering education."

McKnight was recognized for making clear the interrelationship between natural organic matter and heavy metals in streams and lakes. Her research expertise is in the interactions between freshwater biota, trace metals and natural organic material in diverse freshwater environments, including lakes and streams in the Colorado Rocky Mountains and in the McMurdo Dry Valleys in Antarctica.

In the Rocky Mountains, she has focused on the impact of metal contamination in acid mine drainage streams and the influence of climate change and nitrogen deposition on alpine lakes and wetlands. McKnight has interacted with many state and local groups involved in mine drainage and watershed issues in the Rocky Mountains.

"Diane is a worldwide leader in the interactive effect of metals in our water system with natural organic matter," said professor Ross Corotis, who was dean of the College of Engineering and Applied Science when McKnight joined the faculty and the Institute of Arctic and Alpine Research in 1996. "In addition to her advanced research for protecting environments from the Antarctic to the Rocky Mountains, she is a leader in developing books for children to help them learn about the water cycle."

McKnight has been working in Antarctica since 1987, and is a leading investigator studying extreme life at the McMurdo Dry Valleys Long Term Ecological Research site funded by the National Science Foundation. In the harsh polar environment, stream channels flow only a few weeks out of the year and the only life forms inhabiting the area are microorganisms, mosses, lichens and a few groups of invertebrates.

She wrote and published a children's book, "The Lost Seal," in 2006, that tells the true story of a wayward seal discovered near the research camp in 1990 and its eventual rescue. The story gives children an understanding of Antarctica's extreme environment and the work of scientists there.

She earned three degrees from the Massachusetts Institute of Technology, including a bachelor's degree in mechanical engineering in 1975, a master's degree in civil engineering in 1978, and a doctorate in environmental engineering in 1979.

She was a research hydrologist with the U.S. Geological Survey's National Research Program for 17 years before she came to CU-Boulder. She was named a fellow of the American Geophysical Union in 2004 and of the American Association for the Advancement of Science in 2009. She is a former member of the National Research Council's Water Science and Technology Board and Polar Research Board, and she received a Meritorious Service Award from the U.S. Geological Survey in 1995.

Other CU-Boulder faculty who have been elected to the National Academy of Engineering, and their years of election, are: **Bernard Amadei**, 2008; **George Born and Kaspar Willam**, 2004; **Ross Corotis and Fred Glover**, 2002; **Frank Barnes**, 2001; **Delores Etter**, 2000; **Martin Mikulas**, 1999; **Valerian Tatarskii**, elected a foreign associate in 1994; **Earl Gossard**, 1990; **Don Hearth and Richard Strauch**, 1989; **Jacques Pankove**, 1986; **Richard Seebass** (deceased), 1985; **Klaus Timmerhaus** (deceased), 1975; and **Max Peters** (deceased), 1969.

[State's economic future the topic of CU Advocates presentation](#)[30]

Phyllis Resnick, University of Denver, Center for Colorado's Economic Future

"Financing Colorado's Future" is the topic of a free event presented at a CU Advocates educational forum set for 8 a.m. to 9 a.m. March 2 at 1800 Grant St., Denver. Registration and continental breakfast precede the event at 7:30 a.m.

Phyllis Resnick – a CU alumna, managing director of R2 Analysis and lead economist at the University of Denver's Center for Colorado's Economic Future – will discuss the state's structural budget imbalance of the widening gap between the state's forecast expenditures and revenues. The findings are from a DU study commissioned by the Colorado Legislature, "Financing Colorado's Future: An Analysis of the Fiscal Sustainability of State Government."

The talk will discuss challenges Colorado faces into the year 2025: The study found that in 2025 "there will be no tax revenue for public colleges and universities, no money for the state court system, nothing for child-protection services, nothing for youth corrections, nothing for state crime labs and nothing for other core services of state government." A question-and-answer session will follow the presentation.

Resnick holds a doctorate and master's from the University of Colorado in public affairs and economics, respectively, and a bachelor's from the University of Michigan.

Space is limited for this event, so please [register](#)[32] by Feb. 22. For questions, contact Michele McKinney at 303-860-5622 or [michele.mckinney@cu.edu](mailto:michele.mckinney@cu.edu)[33].

#### [Boudreau promoted to associate director of Sport Management Program](#)[34]

Boudreau

**Charlene Boudreau** has been promoted to associate director of the Sport Management Program in the College of Business at the University of Colorado Colorado Springs. She previously served as an instructor and field work coordinator for the program.

**Eric Olson**, director of the program, also announced the appointment of Olympian **Garrett Klugh** and **Dave Askinas**, the former CEO of USA Taekwondo, as instructors.

Boudreau has 15 years of experience in the Olympic movement and also owns a small business that specializes in strategic planning for sporting organizations. She teaches courses in Olympic, international and non-profit sport management, international sport tourism, and sport science for sport administrators. As associate director she will also launch the college's first certificate in business education for sport this summer.

Boudreau earned an MBA from UCCS and a master's from Indiana State University. She chairs the USOC's task force on marketing coach education. She will compete in her fourth Ironman Triathlon this summer in British Columbia, Canada

Klugh was a member of the 1999 World Champion United States National Rowing Team. He represented the United States at the Olympic Games in Athens. Previously, he served as a member of the board of directors for the United States Rowing Association and was selected to participate in the United States Olympic Committee Management Development Program where he worked in international games preparation, coaching, and stakeholder relations. He also participated in the 48th International Olympic Academy in 2008.

Additionally, Klugh served as a venue manager for the Vancouver Organizing Committee for the 2010 Olympic and



Paralympic Winter Games. His specific responsibilities included managing event services and a staff of more than 500 full-time and volunteer personnel at the competition venue for women's ice hockey and sledge hockey. Most recently, Klugh worked as the marketing director for 776 Original Marketing where he managed a number of client relationships and served as an agent for Olympic champion Rulon Gardner. Klugh is a graduate of San Diego State University and a student in the George Washington University MBA program.

Askinas previously served in various positions for the United Soccer Leagues of Tampa, Fla., including chief executive officer, associate commissioner, chief operating officer and general counsel.

He served on the board of directors of U.S. Soccer and on various committees of the U.S. Soccer Federation, receiving the Presidential Award for service to U.S. Soccer in 1999. In addition, Askinas serves on the Court of Arbitration for Sport based in Lausanne, Switzerland where he specializes in soccer arbitration cases. In 2006, Askinas was appointed chief executive officer of USA Taekwondo and was elected vice president of the Pan-American Taekwondo Union. He served on various committees and arbitration panels for the World Taekwondo Federation.

He previously served as an adjunct faculty member at Manchester (Conn.) Community College and Florida Atlantic University, Fort Lauderdale, Fla. He earned a bachelor's degree from Washington University, St. Louis, and a law degree from the University of Connecticut.

#### [Multidiscipline research makes big impact](#)<sup>[36]</sup>

Computer science Professor Liz Bradley (left), meets with Rhonda Hoenigman (center) and their collaborator, Assistant Professor in Ecology and Evolutionary Biology Nichole Barger, to discuss an algorithm that lets the plants decide where they will grow best.

Liz Bradley is a great professor because she loved being a student. The computer science professor graduated from MIT with three degrees – a bachelor's master's and doctorate -- in electrical engineering and computer science. And, while earning these degrees would be more than enough to earn bragging rights, Bradley earned her two graduate degrees while training as an Olympic rower. She took fifth place in the 1988 Olympic Games.

"I was lucky that I had a graduate adviser who understood that I had 11 Olympic workouts a week," she says of her graduate experience. "But, being at MIT was a fire hose of fabulous things to think about."

Bradley acts as an adviser on the [Biofrontiers Institute's IQ Biology Interdisciplinary Quantitative Biology graduate program](#)<sup>[38]</sup> because cross-discipline work is something she is passionate about. Computer science now plays a huge role in managing the massive data sets in the biosciences.

"Computers, by default, are cross-disciplinary. They are used everywhere in scientific discovery. We solve equations with computers because we can't solve them with pencil and paper," she says. "And it is because I am open to working across disciplines that I tend to be the home in the department for the student projects nobody else will supervise."

Rhonda Hoenigman is pursuing a doctorate and, with Bradley's encouragement and advice, she has created a computer algorithm that aids in the design of efficient landscapes: those that offer the best growth, with the most shade, using the least amount of water. This "agent-based" algorithm allows the plants to move themselves in a virtual world, and find the places they would grow the best. Hoenigman has a vision for the algorithm to help building planners save water while cooling structures with shade—a necessity for water-starved areas like the American Southwest.

Caleb Phillips created Boulder Food Rescue as part of his work with Bradley. He delivers food to organizations in Boulder County using his bike, a trailer, and a computer algorithm.

Caleb Phillips, another student who works with Bradley, also created a new algorithm that addresses sustainability: one that can show us how to redistribute food waste. Phillips' algorithm takes into account how much food is being thrown away across a given region, like Boulder County, and also calculates the cost of rescuing it and redistributing it to organizations in need across that region.

Most food rescue organizations use a warehouse model, which usually prevents them from handling fresh produce and other perishables. In addition, transportation costs are higher when trucks are needed to deliver food from a central warehouse.

With the help of this algorithm, the organization that Phillips founded, [Boulder Food Rescue](#)[40], takes surplus foods from stores and restaurants, and delivers them immediately to organizations that will use them. The kicker: Boulder Food Rescue picks up and delivers food using bikes and trailers, keeping costs at their lowest.

"About 70 or 80 pounds a day is a normal delivery, but we rescued 950 pounds the day after Thanksgiving," says Phillips, who has to notch his belt a little tighter because of all the bike deliveries he now makes. On days where food donations are too heavy, or the snow is too deep, Phillips' organization has access to trucks via Boulder's CarShare program. "There is definitely enough food in Boulder County to feed everyone," he says.

"It's not about us faculty, it's about them, the students," Bradley says. "That's what grad school is about." And it must be that old Olympic discipline she has that allows her to mentor incredible students, while still producing amazing work of her own.

Bradley studies chaos theory and computer performance dynamics. In her work, dropping the last decimal place off of a number that has six places after the decimal may seem insignificant—not even enough to worry about in a huge data set. But those insignificant numbers can have huge impacts across a large collection of data or across a long period of time. This theory is also known as the "Butterfly Effect," referring to the flapping of an insect's wing that could cause enough atmospheric change, over time, to create a devastating hurricane. Bradley is using this theory to work toward learning to predict and manage how computers and data interact.

You don't have to look too hard to see that there is another "Butterfly Effect" going on in Bradley's world. If chaos theory is predicting how a small change can equal a large effect, you only need to look as far as Bradley's students to see how her interactions are exactly that: the butterfly's wing creating a hurricane of change.

#### [Greenblatt receives national award for online education](#)[41]

**Ellen Greenblatt**, associate professor and scholarly communications librarian at Auraria Library, recently was presented the Excellence in Online Teaching Award from the Web-based Information Science Education (WISE) consortium. The national award recognizes accomplishments of online educators.

Greenblatt teaches courses in library resources and information services, where students explore methods of enhancing services and evaluating resources for traditionally underserved groups of library users. Greenblatt teaches courses through the School of Library and Information Science at San Jose State University.

"Communication and collaboration are core components of my teaching style, and I strive for both active and authentic learning experiences," said Greenblatt. A student in one of her recent courses is grateful for Greenblatt's emphasis on challenging students to "consider the many facets of librarianship."

Auraria Library serves the University of Colorado Denver, Metropolitan State College of Denver, the Community College of Denver, and the Auraria Higher Education Center.

[Feldheim awarded Gates grant](#)[42]

Feldheim

**Dan Feldheim**, a professor in the Department of Chemistry and Biochemistry at the University of Colorado Boulder, was one of 10 researchers and entities that were awarded grants by the Bill and Melinda Gates Foundation's Grand Challenges in Global Health program.

The grant enables Feldheim and his collaborators to develop new modified DNA reagents to detect certain tuberculosis biomarkers, according to the Gates Foundation. In 2010, Feldheim was awarded foundation funds to explore how small molecule-coated gold nanocrystals could be tailored to circumvent many viral and bacterial evolutionary drug resistance mechanisms.

Grand Challenges in Global Health grants totaled nearly \$7.7 million, with the foundation contributing \$7.3 million and the Canadian Institutes of Health Research contributing \$374,493, officials for the Bill and Melinda Gates Foundation said.

[Dropping names...](#)[44]

No Regrets Parenting, by Harley Rotbart

Krizek

**Harley Rotbart**, M.D. and professor at the School of Medicine, has written a blueprint for parents -- from diapers to family dinners, helping with homework to college goodbyes -- titled "No-Regrets Parenting: Turning Long Days and Short Years into Cherished Moments With Your Kids" (Andrews McMeel Publishing, LLC, \$14.99). The book considers the challenges and joys parents experience as they watch and participate in their child's growth. **Kevin J. Krizek** -- professor of planning and design at the University of Colorado Denver, co-director of the Active Communities / Transportation (ACT) Research Group and Director of the Ph.D. program in design and planning -- published an article, "Higher Education's Sustainability Imperative: How to Practically Respond?," in the International Journal of Sustainability in Higher Education (Vol. 13 No. 1, 2012, pp. 19-33). Co-authors are colleagues at CU-Boulder **Dave Newport**, director, Environmental Center; **Jim White**, director of INSTAAR; and **Alan Townsend**, director, Environmental Studies. ... Colleague **Peter Park**, associate professor adjunct of planning and design, and director of Planning and Community Development, City and County of Denver, is spending the year at Harvard Graduate School of Design as a Loeb Fellow, one of 10 annual post-professional awards for independent study. In addition, he was the one Fellow selected to be the 2011 Lincoln Loeb Fellow and to work with the Lincoln Institute of Land Policy's Department of Planning and Urban Form. ... **Yuk Lee**, professor of planning and design and associate dean of Academic Affairs-Denver, is the lead author (with Michael McCracken) of "Centripetal and Centrifugal Movement: Shopping Centres in Denver, USA, and Brisbane, Australia," in Urban Studies, OnlineFirst version (forthcoming articles published ahead of print) in September 2011. The journal version is scheduled to appear in Volume 49, June 2012. ... **Ping Xu**, professor of architecture studies has published an article, "The Mandala Model, Infused with Indigenous Beliefs, Systematically Structures and Sustains the Tibetan Buddhist Landscape above 3000 Meters" in a peer-reviewed referenced journal, the International Journal of Environmental, Cultural, Economic & Social

Sustainability (Volume 7, Number 2, 2011, pp.401-428). This paper examines the spatial structure and religious meanings of Tibetan temples and their surrounding landscape.

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## Links

[1] <https://connections.cu.edu/people/obituary-bruce-curtis>[2] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/curtis-top.png>[3] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/curtis.png>[4] <https://connections.cu.edu/stories/nominees-sought-service-excellence-award>[5] <https://www.cu.edu/content/2011serviceexcellenceaward>[6] <http://www.colorado.edu/StaffCouncil/>[7] <mailto:joconne3@uccs.edu>[8] <mailto:Deborah.Makray@ucdenver.edu>[9] <mailto:Teena.Shepperson-Turner@cu.edu>[10] <https://connections.cu.edu/stories/cam-dean-resigns>[11] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/ucd-dynak.png>[12] <http://www.ucdenver.edu/academics/colleges/CAM/faculty/dean/Pages/deanbio.aspx>[13] <https://connections.cu.edu/stories/study-perform-less-effort-practice-beyond-perfection>[14] <http://www.colorado.edu/intphys/welcome/index.html>[15] <https://connections.cu.edu/stories/fine-arts-draw-cu-designer%E2%80%99s-support>[16] <mailto:jeremy.simon@cufund.org>[17] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/diehl-f.png>[18] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/diehl21.png>[19] <http://www.cufund.org/guide-to-giving/information-for/faculty-staf/>[20] <http://www.cufund.org/guide-to-giving/information-for/planned-giving/>[21] <https://connections.cu.edu/stories/reminder-cu-women-succeeding-next-week>[22] <https://www.cu.edu/facultycouncil/women/symposium/index.html>[23] <https://connections.cu.edu/stories/documentary-photography-%E2%80%98complex-deeply-emotional%E2%80%99-process>[24] <https://connections.cu.edu/stories/faculty-staff-give-strategic-plan-input>[25] [https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/uccs\\_scott.png](https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/uccs_scott.png)[26] <http://www.uccs.edu/chancellor>[27] [https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/uccs\\_sutz1.png](https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/uccs_sutz1.png)[28] <https://connections.cu.edu/people/cu-boulder-professor-elected-national-academy-engineering>[29] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/p-mcknight.png>[30] <https://connections.cu.edu/stories/state%E2%80%99s-economic-future-topic-cu-advocates-presentation>[31] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/resnick-f.png>[32] <https://www.cusys.edu/cuadvocates/edu-forum.html>[33] <mailto:michele.mckinney@cu.edu>[34] <https://connections.cu.edu/people/boudreau-promoted-associate-director-sport-management-program>[35] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/p-boudreau.png>[36] <https://connections.cu.edu/stories/multidiscipline-research-makes-big-impact>[37] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/bradley1.png>[38] <http://biofrontiers.colorado.edu/education/iq-biology>[39] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/bradley2.png>[40] <http://www.boulderfoodrescue.org/>[41] <https://connections.cu.edu/people/greenblatt-receives-national-award-online-education>[42] <https://connections.cu.edu/people/feldheim-awarded-gates-grant>[43] <https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/p-feldheim.png>[44] <https://connections.cu.edu/people/dropping-names-129>[45] [https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/pdn\\_no-regrets-parenting.png](https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/pdn_no-regrets-parenting.png)[46] [https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/pdn\\_krizek.png](https://connections.cu.edu/sites/default/files/wp-content/uploads/2012/02/pdn_krizek.png)