



Unprecedented Opportunities

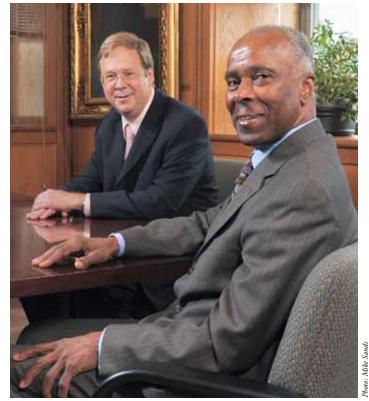
A MESSAGE FROM THE DEAN

The College of Arts and Sciences recently welcomed six new assistant professors, adding to our strengths in art history, chemistry, English, history, mathematics and music. During the next few months, we will be moving ahead with faculty searches in a number of departments.

If you have been following the news in higher education, this may surprise you. Many universities, contending with drastically reduced endowments and cuts in public funding, have imposed hiring freezes. As a result, the academic job market across disciplines has contracted significantly.

Case Western Reserve University hasn't been immune to the effects of the global recession. Nonetheless, our comparative position is strong, and we find ourselves with an unprecedented opportunity to compete for the very best researchers and scholars. We all recognize that this is no time for complacency—or hubris. The economic recovery may be slow and uneven, and we must proceed with care. Still, I am convinced that with the support of our alumni and friends, the university is poised to become the institution we all believe it can and should be.

This fall, we celebrated the arrival not only of our newest faculty members, but also of an outstanding entering class: 982 undergraduates from 41 states and 13 foreign countries. These students brought records of achievement that would be commendable for people twice their age. They have demonstrated excellence not only in their academic pursuits, but also in their research activities, creative endeavors and service to their communities.



Dean Cyrus Taylor (left) and Harold McRae, founder of the "Doc" Kelker Scholarship Fund

Many of these students are able to attend Case Western Reserve thanks to scholarships established and supported by our alumni. And many will benefit from experiential learning opportunities that would be unattainable if not for our donors' generosity. In this issue of *art/sci*, we honor both kinds of philanthropy. I invite you to read about the "Doc" Kelker Scholarship Fund, endowed by **Harold McRae** (page 8), and the Wellman Hill Political Science Internship Program, endowed by **Elizabeth Hill** (page 2). Please celebrate with us what one student called the "life-defining" experiences made possible by benefactors of the university and the College of Arts and Sciences.

Cyrus C. Taylor Dean and Albert A. Michelson Professor in Physics

studentnews

A Call to Public Service

STUDENTS ENTER THE WORLD OF POLITICS AND POLICY THANKS TO THE WELLMAN HILL INTERNSHIP PROGRAM

Elizabeth Michelle Hill '97 knows how valuable internships can be in preparing students for careers in public service. The summer she graduated from Case Western Reserve University with a bachelor's and a master's degree in political science, she completed an eight-week internship at the Federal Judicial Center in Washington, D.C., which publishes studies of court procedures and offers continuing education for legal professionals. "I was responsible for doing research into state laws on victim restitution and how those laws were applied in different states," Hill recalls. She saw her findings incorporated into bench manuals for judges. That fall, when she entered Stanford Law School, she already had a solid grounding in legal research.

But Hill also knows the obstacles that undergraduates face in pursuing such opportunities. Until her senior year, she never applied for a summer internship, and neither did most of her fellow political science majors. They needed paying jobs, and most public service internships are unpaid. Hill's situation changed by the time she graduated; the Truman Foundation, which awarded her a law school scholarship, also supported her during her two months as a Washington intern. But until then, she'd spent most of her summers working at Kentucky Fried Chicken. "Like a lot of my friends, I would have loved to do something more substantive," Hill says. "But I needed the summer to earn money for the following year."

Now, thanks to an endowment gift that Hill made to the political science department in 2007, undergraduates are getting a chance "to do something more substantive." The Wellman Hill Political Science Internship Program provides up to \$4,000 to five students each year so they can accept unpaid internships with the government or with policy-oriented think tanks and advocacy groups. Just as important,

it motivates students to consider applying for internships, says assistant professor of political science **Elliot Posner**.

Hill named the program for her grandfather, a onetime Navy draftsman who worked for the government his whole life. "He was a patriot," Hill says, "and he always believed that government service was honorable and one of the best things you could do for your country. He really instilled that in me." She adds, "He always loved meeting my friends and dealing with young people; he felt that it kept *him* young. He would have been proud to have his name on something like this."

Intrinsic Motivations

Until recently, most students didn't count on having internships as undergraduates. But as any career counselor can tell you, expectations have changed. Today's college students have heard that in order to compete for entry-level positions, they will need real-world experience. Many want to try out a field before they make a commitment. And for students attracted to public service, there are strong intrinsic motivations for getting an internship: They get to see the actual workings of law and government, engage in the political process, work alongside influential policy analysts and contribute their talents to institutions and causes they believe in.

That list also describes the experiences of the first Wellman Hill interns, who received their grants in the summer of 2008.

Clockwise from the top: Nicholas Hilgeman, Alexandra Klyachkina and David Mattern all worked a short walk or Metro ride away from the U.S. Capitol during their summer in Washington.



Jane Kaminski compiled research on U.S. defense policy and the military budgeting process at the Center for Strategic and International Studies in Washington. Sarah Tolbert monitored political developments in Africa and South Asia for the Carter Center in Atlanta, which observes elections around the world and assists national governments in developing or improving their election laws. Hema Krishna organized legislative briefings for Genetic Alliance, which seeks to influence law and policy related to genetic conditions and health information technology. Komal Patel, pursuing her interest in global health policy, assisted patients at a free eye clinic in Dhenkanal, India, as an intern for the nonprofit organization Unite for Sight. And Nicholas Sachanda confirmed his ambition to become a prosecutor after 13 weeks with the Cook County State's Attorney's Office in Chicago.



David Mattern was one of two undergraduates selected by the Supreme Court's Judicial Internship Program for the summer of 2009.

Posner, who chairs the Wellman Hill selection committee, says these students had two things in common: "They were dazzling candidates, and they got terrific internships." Yet their interests were remarkably diverse—a reminder of the many forms a career in public service can take. And this was equally true of the students selected in the program's second year.

"These are completely different individuals, with different resumés," Posner says. "They are having unique college experiences. And once they graduate, they will go off to do interesting and important things, I'm very sure." The three students who obtained Washington internships this past summer illustrate his point.

New Experiences

David Mattern, a senior majoring in mathematics, English and political science, is the first Case Western Reserve student ever accepted into the Supreme Court's Judicial Internship Program, which selects only two undergraduates from a national pool of candidates each summer.

In an essay accompanying his application, Mattern examined the influence of Roman constitutionalism on the American system of government. He had studied this topic in one of four courses on constitutional law and history he took with his advisor, political science instructor **Laura Y. Tartakoff**. He would later learn that Tartakoff was also one of Elizabeth Hill's favorite teachers.

As a judicial intern, Mattern didn't work on pending cases; that is a function reserved for law clerks. Instead, his task was to help promote "domestic and international awareness of the Court." Mattern conducted background research for the chief justice's public speeches and for information sessions the Court provides to foreign dignitaries. Attending those sessions, he says, was among the most interesting parts of his summer; he was fascinated by the visitors' questions about the American legal system.

Whereas Mattern is thinking of a career as a district attorney or Justice Department lawyer, **Nicholas Hilgeman** intends to join the U.S. Foreign Service. A senior with a double major in political science and international studies, Hilgeman became the second Wellman Hill grant recipient, after Jane Kaminski, to obtain an internship with the Center for Strategic and International Studies (CSIS). Such positions, says Posner, "are extremely competitive, and the fact that both Jane and Nick got these internships is very impressive."

Hilgeman has long been interested in the Arab world, both in itself and as it is perceived by Western countries. In the summer of his junior year, not yet knowing a word of Arabic, he spent two months in Morocco, where he completed a year's worth of language study at Al Akhawayn University. "I fell in love with the area," Hilgeman says. "It has such a rich history—politically, religiously. It is such an interesting and

often misunderstood part of the world. And I think that is probably the biggest drawing factor to me."

As an intern with CSIS's Middle East program, Hilgeman contributed to briefings where staff members reported on developments across the region. "The point was to find off-the-main-road stories—stuff that wasn't covered in *The New York Times* or *The Washington Post*," he explains. For two larger research projects, he studied the impact of public health programs in Egypt over the past three decades and traced that country's history as a regional power.

In addition to lectures and panel discussions at CSIS, Hilgeman attended public events at other Washington think tanks. And on his daily walk to work, he was constantly reminded that he lived in a city of "national and international importance." Hilgeman had rented a room in a Sigma Nu fraternity house not far from the State Department. Each morning, he passed the headquarters of the International Monetary Fund and the World Bank, and then crossed Pennsylvania Avenue in view of the White House. That in itself, he says, was "a new and very exciting experience."

LOCAL IMPACT

Although recipients of Wellman Hill grants have accepted internships in Washington, Chicago and Atlanta, students are not required to go elsewhere in search of public service opportunities. Mirela Turc, who grew up in Cleveland and is interested in state and regional issues, spent this past summer at Policy Matters Ohio, a local think tank that focuses on economic development and education. A junior majoring in political science and history, Turc studied the economic impact of tax abatements for businesses that locate in enterprise zones and community reinvestment areas. She assembled a database of trade apprenticeships available to Ohio youth. In her favorite assignment, she went out as a "secret shopper" to payday lenders, inquiring about their interest rates and loan terms to see whether they were in compliance with a recently enacted state law. Turc plans to attend law school and hopes to work as a litigator in Cleveland.

Madeline Van Gunten, a junior majoring in political science and sociology, wants to be a public defender but is also interested in policy. As an intern with the Cleveland Department of Public Health, she helped write grants, studied proposed legislation and attended meetings with city council members and state officials. In the area of HIV/



Clockwise from the top: Elliot Posner, assistant professor of political science and internship coordinator; interns Mirela Turc and Madeline Van Gunten

AIDS prevention, she learned how the department interacts with nonprofit groups and with state and federal agencies to operate programs and address failures to provide critical services. Through her internship, Van Gunten says, she developed "a broader understanding of the multiple organizations that are involved in every aspect of public health."

Finally, a Wellman Hill grant enabled Alexandra Klyachkina to devote her summer to human rights advocacy. A junior majoring in political science and international studies, Klyachkina became an intern with the Genocide Intervention Network (GI-NET). Founded in 2004 in response to the crisis in Darfur, GI-NET monitors conflicts in several countries where atrocities are being committed against large numbers of non-combatants. By publicizing these abuses and generating support for civilian protection, it hopes to make "genocide prevention an important and relevant political priority for elected officials and policy makers."



Elizabeth Hill hosted a dinner in Cleveland for this year's Wellman Hill interns and alternates. From left: Michael Hill (Elizabeth's father), Alexandra Klyachkina, David Mattern, Mirela Turc, Nicholas Hilgeman, Madeline Van Gunten, Nikolay Kanazirev and Elizabeth Hill

Klyachkina first became active in the anti-genocide movement as a high school junior in Glenview, Illinois. After learning about Darfur in a religious studies class, she joined her school's chapter of STAND (Students Taking Action Now Darfur). Two years later, when she arrived for her first year at Case Western Reserve, she discovered that a few students had just founded a campus chapter. Soon she was working alongside future Wellman Hill grantee Sarah Tolbert, the group's first president, to attract additional members and organize events.

"All of them strike me as very serious students, very focused on their goals," Hill says.

In GI-NET's national office last summer, Klyachkina assisted with outreach and membership development. She studied the guidelines that companies follow in deciding whether to curtail or cease their activities in countries

committing genocide. She also helped plan a national student conference for the fall, working with peers from several colleges and universities. "It was very empowering," she says, "to see students—people my own age or a couple of years older—organizing this huge national movement."

A Sense of Certainty

Today, Elizabeth Hill is a deputy district attorney in San Mateo County, California. But each spring since the grant program began, she has hosted a dinner in Cleveland to honor the Wellman Hill interns. "All of them strike me as very serious students, very focused on their goals," Hill says. "And I am impressed by how much work they put into their applications." To be considered for a grant, students must do research on internship opportunities, apply for several positions and explain their choices in a personal statement. This past year, 14 students requested grants from the Wellman Hill program, and their applications were so strong that the selection committee decided to interview all of them.

Two students from the program's first summer wrote to Hill after they graduated. Krishna and Kaminski had just landed positions in the policy fields they had explored during their internships. "They wanted me to know," says

Hill, "that the unpaid internships they were able to take because of the Wellman Hill grant had given them a leg up in their interviewing process for their first out-of-college jobs." Just as important, both of them said that "the chance to have a specific experience in their chosen field had given them a sense of certainty that this was their calling." Like Hill and her grandfather, these students had found their vocations.



Alumni often wonder whether their gifts to the annual fund are significant. We cannot overemphasize the importance of every gift received. Every student and faculty member highlighted in this issue of *art/sci* has benefited from annual fund support. And everyone who gives has a direct impact on our students' success.

Take three steps make a difference

REFLECT on the investment the College of Arts and Sciences makes in its students. An optimal learning experience requires access to an outstanding array of faculty, resources and opportunities. At the same time, it is important to keep the cost of a Case Western Reserve education within our students' reach.

SUPPORT today's students and faculty. Your gift to the annual fund makes it possible for us to provide scholarships and other support to our students, as well as to implement and sustain programs that provide a comprehensive educational experience.

CONNECT with us to see how your gift makes a difference.

Because every annual fund dollar is expended in the year it is received, the results of your giving are evident immediately. We invite you to visit cwru.edu/giving to hear from Gregory Wu, a fourth-year biochemistry major, about how he benefits from donations to the annual fund.

Please use the enclosed envelope to make your annual fund gift today. You can also visit giving.case.edu to make your gift online. Gifts made prior to December 31 may provide tax benefits for 2009. Thank you!

alumninews

A Barrier Removed

"DOC" KELKER SCHOLARSHIP LINKS THREE GENERATIONS OF AFRICAN-AMERICAN ALUMNI

In the spring of 2001, **Alicia Graves** '05 knew she would be going to college, but she didn't think she would ever be a student at Case Western Reserve University. A topranked senior at Cleveland's East High, Graves had been accepted by every school she'd applied to, including several public universities in Ohio and an historically black college in Atlanta. Nearly all of these schools had offered her full scholarships. To attend Case Western Reserve, however, she would have had to take out loans. And this was something that Graves, like many first-generation college students, was reluctant to do.

It's not that she was unaware of the opportunities she would find here. Graves had participated in a program that brought Cleveland high school students to campus for academic and enrichment activities. That experience, and the relationships she'd developed with staff in the Office of Multicultural Affairs, had prompted her to apply. But none of her friends from East High would be going to CWRU, and the other schools on her list enrolled greater numbers of African-American students.

"I was afraid to come here," Graves admits now. "The people here didn't necessarily look like me, and in my high school, they did. I didn't know whether I was just smart in my high school, or whether I would be smart wherever I was." So although the loan portion of her financial aid offer was relatively small, Graves made it significant: "I used it as an excuse to say I wouldn't come." She didn't respond to her



Alicia Graves has just completed a year as a Cleveland Executive Fellow.

acceptance letter. When teachers, relatives and neighbors told her she belonged at Case Western Reserve, she had a ready answer: "I have to pay to go to this school, and I can go to these other schools for free."

Then she got a call from a CWRU admissions counselor who took her excuse away. "What if I told you," he said, "that there was a 'Doc' Kelker Scholarship you're eligible to get, and that we want to offer it to you? Would you come then?" With this additional funding, her entire education would be paid for. Graves faltered a little but didn't give in at once. She said she'd think about it. Undaunted, the admissions counselor mailed her a new award letter and waited.

At that point, Graves recalls, there was an uproar in her community. Everyone, it seemed, thought she should go to Case Western Reserve. Teachers she didn't even know stopped her in the hallway to ask about her plans. On

Sunday mornings at Sanctuary Baptist Church, members of the congregation weighed in. Graves's father had been an advocate for CWRU all along. And though

Today, it is hard to imagine Graves shying away from a challenge.

her mother had always professed neutrality, Graves overheard her telling a friend she would like to see Alicia at Case Western Reserve. For some reason, the opinion her mother had withheld for so long carried more weight than all of the outright advice she'd been given. Graves accepted the offer and became one of the university's first "Doc" Kelker scholars.

Many Villages

Today, it is hard to imagine Graves shying away from a challenge. Planning on law school and a career as a juvenile court judge, she majored in psychology, which allowed her to study the dynamics of eyewitness testimony, and American studies, which gave her the chance to pursue her interests in history, English and political science. In her senior year, she took a research trip to the Netherlands, where she examined differences between Dutch and American criminal justice policies. She also completed a leadership development program called LeaderShape, based on a national model and instituted at Case Western Reserve by the Office of Student Affairs.

After graduating in 2005, Graves went on to earn a law degree at the University of Akron. Her field experience included eight months in the Cuyahoga County prosecutor's office, where she worked in the divisions of juvenile justice and children and family services. Before she finished law school, Graves also became involved in two international humanitarian projects: a youth development program in Haiti and an initiative to provide economic opportunities to women in Rwanda. She visited both countries as a community service volunteer in 2007-2008.

Graves sees a thread of continuity between her public school years and her career in college and law school: At every stage, she was fortunate in her mentors. "You know the saying: 'It takes a village to raise a child.' It took many villages to raise me." At Case Western Reserve, her mentors included **Renée Sentilles**, associate professor of history and director of

American studies; English department lecturer **Terri Mester**; and **Marcy Levy Shankman**, a LeaderShape facilitator who has since become a Presidential Fellow in the SAGES program. Graves owes part of her success to her habit of

keeping such people in her life.

It was Shankman, for instance, who first told Graves about the Cleveland Executive Fellowship

(CEF), a program that gives rising community leaders handson experience in the nonprofit, educational, corporate and government sectors. Once she looked into the program, Graves couldn't wait to apply. "Only a person who knows you well can suggest something that would fit so perfectly," she says.

Actually, Shankman was thinking of CEF as something Graves could add to her list of future options; she knew that candidates usually had at least five years of professional experience. But Graves saw no reason to disqualify herself: "Let *them* tell me I'm too young," she thought. Instead, the Cleveland Leadership Center chose her as one of six executive fellows for 2008-2009.

Graves began her fellowship year at Citizens' Academy, a high-performing charter school on Cleveland's East Side, where she created a recycling program and researched funding opportunities. In subsequent placements, she launched four regional newsletters for the Ohio governor's office, worked with Team NEO to attract minority businesses to this area, helped the Heights-Hillcrest Regional Chamber of Commerce develop a strategic plan, and supported media outreach by All Aboard Ohio, an advocacy organization calling for improvements in passenger rail service. The year also included weekly professional development activities and a visit to Germany, where the fellows sought out lessons in postindustrial urban planning that they could bring back to Cleveland.

"Alicia has always been out there in terms of wanting to know more, learn more, observe more," says **Harold D. McRae** (ADL '65), the donor who established the "Doc"

Kelker Scholarship Fund. McRae first met Graves in the spring of her freshman year, when she spoke at a luncheon for scholarship donors and recipients, and he has been a mentor ever since. "She has me on her list of people that she e-mails when she ventures to Africa, for example," McRae

says. "So I know what's going on in her life most of the time." They generally meet for lunch once or twice a year—

McRae's fundamental purpose was

scholars and their potential."

"to remove the barriers between young

whenever Graves makes it out to Chicago, where McRae has lived since 1997.

"I'm very thankful to have been a recipient of the scholarship that Harold McRae

funded," Graves says. "I'm happy to have had the chance to meet him, learn about him and take counsel from him." She adds, "People often wonder about scholarship recipients and what happens to them after they go on—if they really benefited from it, if they're successful. I can certainly attest to what opportunity does for students."

A Spirit of Excellence

When McRae endowed the Kelker fund in 1997, he wanted to promote diversity by helping Case Western Reserve compete with other top schools for minority students. He also wanted to help these students meet the costs of a CWRU education without going into debt. But his fundamental purpose, he says, was "to remove the barriers between young scholars and their potential."

In declaring his commitment, McRae was acting on a resolution he'd made when he was a student himself. The youngest of 12 children, McRae grew up in Youngstown, Ohio, and graduated from that city's East High School as valedictorian in 1961. At that time, a local trust fund awarded scholarships to two Youngstown seniors each spring, covering tuition, room and board for their first two years of undergraduate study. When McRae received one of these scholarships, he became the only member of his family to go to college. He remembers meeting the donor who created the fund and being impressed by her generosity.

"Her name was Sara deFord, and she was an English professor at Goucher College," McRae says. "She established the scholarship in honor of her father, who was a judge in Youngstown. And because I was a recipient, I always felt that when I was in a position to do so, I would do something quite similar."

At Adelbert College, McRae majored in chemistry. Looking back on those years, he mostly remembers "studying hard all the time," but he did represent his residence hall in the student government. After his scholarship expired, the university came through with a combination of grants and

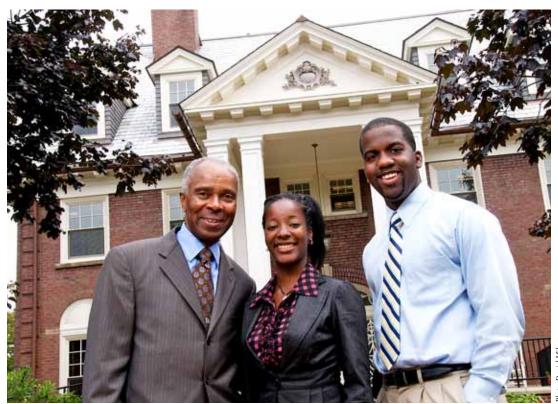
loans, which he supplemented with a part-time job at the Millis Center's science library. McRae was planning on medical school, but in his senior year he decided against

it and started taking business electives. After graduating in 1965, he found a job as an information chemist and then as a chemical salesman; by 1969, he had enrolled in a management degree program at Harvard Business School. "The workload was just incredible," he recalls. "But certainly I was up to the challenge, because Western Reserve had prepared me well."

McRae went on to executive positions in the financial services and insurance industries. Among other posts, he served as vice president for international operations at American Express and as head of new product development for the Travelers Insurance health care group. Later, he entered the pharmacy benefits industry, first with Chicago Caremark and then with Glaxo Wellcome's London office. Seven years ago, he retired from what had become GlaxoSmithKline and returned to Chicago, where he does volunteer work for several nonprofit organizations.

In a letter he wrote to CWRU President Agnar Pytte in December 1997, McRae noted that the "spirit of excellence and healthy competition" he remembered from Western Reserve had contributed to his success. "It is that same spirit," he explained, "that I would like to see continued in the development of other African-American students at Case Western Reserve University."

At first, McRae hadn't considered naming the scholarship for anyone. But then a trustee who'd learned of his intended gift told him about "Doc" Kelker. McRae did some research and discovered "a star athlete and a very good student" who later became a renowned community leader (see page 12). McRae felt that Kelker would be "a wonderful example" to a new generation of students: "He had gone to Adelbert College back in the 1930s, and I could just imagine the kinds of issues he had to deal with at that time."



On a recent visit to Cleveland, Harold McRae (left) caught up with alumna Alicia Graves and senior Duwain Pinder, two recipients of the "Doc" Kelker Scholarship.

By 1998, Kelker and his wife Audrey (SASS '41) were living in retirement in Henderson, Nevada, just outside Las Vegas. That spring, they traveled to Cleveland to attend the scholarship luncheon where the fund's creation was announced, and Kelker himself became one of the first donors. "After I met them," McRae says, "I was even happier that I had decided to name the scholarship for him. He was a wonderful man, a kind man. I could see why he had been such an influence on so many people."

A Gift for Leadership

Once McRae became national chair of the Kelker fund, he began to assume other leadership roles at the university. As a trustee from 2002 to 2006, he led the reorganization of the alumni association and advocated further measures to increase minority enrollment. In addition, McRae has cochaired the visiting committee for the College of Arts and Sciences, volunteered for the Alumni Fund and served as a reunion chair.

Current Kelker scholar **Duwain Pinder** has already begun establishing *his* leadership credentials. A business management student with a minor in economics, Pinder was recently elected president of the Undergraduate Student

Government. He has previously served as vice president of the African American Society and of Case Western Reserve's undergraduate chapter of the National Black MBA Association.

This past summer, while Pinder was working as an intern with Ameriprise Financial in Minneapolis, McRae gave him a call. The two men have a lot in common. Pinder is heading for a career in financial services. When he applies to MBA programs in a few years, Harvard Business School will be on his list. And it so happens that McRae once worked for a predecessor of Ameriprise Financial, Investors Diversified Services.

When Pinder mentioned that he had been elected student body president, McRae was reminded how much the world and the university have advanced since his college days. But their conversation imparted another lesson, too. It indicated that McRae himself, along with "Doc" Kelker, has become a wonderful example.

For information about contributing to the "Doc" Kelker Scholarship Fund, please contact Sharon Jordan-Davis, executive director of constituent relations, at (216) 368-6913, (800) 360-5308 or sharon.jordan-davis@cwru.edu.

REMEMBERING "DOC" KELKER

Frank Leon Kelker (ADL '38) was born in Woodsville, Florida, in 1913. He acquired his nickname from his twin brother, Fred, who began calling him "Doc" when they were both just learning to talk. Kelker's father, determined to provide his sons with an education that would have been denied them in the South, moved the family to Dover, Ohio, in 1918. Kelker first achieved athletic fame at Dover High School, leading the football team through two undefeated seasons and the basketball team to a state championship.

Ohio State reportedly tried to recruit Kelker, but only as a football player; in those years, the Big Ten basketball teams excluded African-Americans. Kelker knew he would face no such restriction at Western Reserve, but that wasn't his only reason for coming here. He hoped to play for football coach Sam Willaman, who had just left Ohio State to take over the Red Cats. And his father, impressed by the university's academic reputation, wanted him to attend Western Reserve.

Kelker enrolled at Adelbert College with a full-tuition scholarship. To cover his room and board, he worked as a janitor at Flora Stone Mather College, sweeping the floors of Haydn Hall for three hours each morning and sifting ashes in the power house at night. He was paid 40 cents an hour. Long afterward, a classmate remembered Kelker buying a five-cent ice cream and calling it lunch.

Since freshmen were not permitted to play varsity sports, the Kelker era at Western Reserve didn't begin right away. But during his sophomore year, Kelker earned three varsity letters—one each in football, basketball and track—and he repeated this performance in his junior and senior years. He never got to play for Willaman, who died unexpectedly in 1935, but he thrived under the guidance of Willaman's replacement, Bill Edwards.

Nearly a quarter century later, university President John Millis described Kelker's achievements on the gridiron as if they had happened yesterday:

"Doc" played left end in coach Bill Edwards' single wing offense and displayed such versatility as a pass receiver and runner that much of Reserve's attack was geared to his talents. At 6'1" and 190 pounds, "Doc" was a combination of speed, maneuverability and ruggedness that was too much for the opponents to overcome.

During Kelker's three years on the team, the Red Cats enjoyed a 28-game winning streak and were invited to the Sun Bowl. The sports editor of *The Cleveland Press* called him "not only one of the finest defensive ends in the history of football in this section," but also "one of the finest receivers of forward passes who ever lived." Meanwhile, Kelker was named an All-American in basketball, and in track he broke



"Doc" Kelker posed for this photograph in 1965, while serving as executive secretary of the YMCA's Cedar Avenue Branch.

school records in the 100-yard dash (9.9 seconds) and the quarter-mile (49.1 seconds).

Kelker graduated with a bachelor's degree in social administration. He was awarded an Honor Key and a Warion Society Key, and his class selected him as the Outstanding Senior Student for 1937-1938. That spring, the university mistakenly announced that he'd also been elected to Phi Beta Kappa. Appearing on WGAR radio, Western Reserve Dean W. D. Trautman acknowledged the error but then made it the occasion for a testimonial.

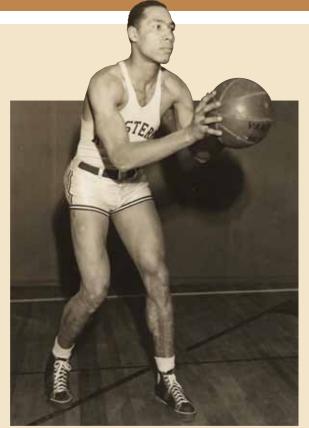
"No student," the dean said, "could do all that 'Doc' has done, earning his board and room expenses and participating in football, basketball and track, and still keep his scholarship up to the requirements of Phi Beta Kappa." Yet "in character,"

Trautman continued, "Frank Kelker qualifies for any organization":

Again and again I have admired the calm under pressure, which can come only from an adjusted mind and soul....Kelker's steadfastness, his fineness of understanding, his willingness to give all he has, not blindly, but intelligently, his perseverance, his dependability and his courage are qualities of character that are fundamental and lasting. What he has done has made a permanent impression on his classmates and a lasting impression on his college. His personality is planted deep in our hearts, and we are pulling for him.

Most listeners would have recognized this as a tribute, in part, to Kelker's courage and self-restraint on the playing field, where he had been taunted with racial insults and even assaulted by members of opposing teams.

In later years, Kelker missed no opportunity to reaffirm his connection to the university. While serving overseas as a Red Cross field director during World War II, he subscribed to a campus magazine and corresponded with Karl Davis, Western Reserve's athletic director. In a letter dated February 12, 1944, Kelker wrote, "It's refreshing and stimulating to think back to those peaceful days at school and to the friends I made there. War and all of



Kelker was an All-American basketball player and earned three of his nine varsity letters in that sport.

the evils attached cannot kill those memories."

Because of the color bar in professional sports, Kelker could not advance to an NFL career. It was said that several alumni offered him jobs "with interesting futures," but he had decided he wanted to work with young people. After graduating, Kelker was hired as a cadet teacher and assistant coach at Cleveland's Central High School. Two years later, he accepted a position with the YMCA, the organization to which he devoted the rest of his career. He was the longtime executive secretary of the Cedar Avenue Branch. where the brothers Louis and Carl Stokes were among the youths he mentored. By the time he retired in 1981, he oversaw all of Cleveland's urban branches.

Among his many civic contributions, Kelker served as a founding trustee and board chair of Cuyahoga Community College. In 1962, he was elected to the Sports Illustrated Silver Anniversary All-American Football Team in recognition of his achievements since his graduation. Kelker was the first African-American to receive this honor, and indeed the first ever to be nominated. After the awards ceremony in New York City, Kelker sent a letter thanking President Millis for the nomination. "It was a pleasure," he wrote, "to represent Western Reserve University and to see the banner of our great school hanging in the Grand

Ballroom of the Waldorf Astoria."

Frank "Doc" Kelker died in May 2003 at the age of 89. Reflecting on his commitment to education and public service, he once told a reporter, "My ambition has always been to direct young people toward meaningful lives and help them become productive citizens. Many people have helped me. I'm trying to pay them back by helping others. I want the lives of these kids to be better because I touched them."

Published sources: Hal Lebovitz, The Plain Dealer (February 16, 1970); Richard M. Perry, The Plain Dealer (May 31, 2003); Dennis Rubright, "Doc Kelker: Portrait of a Gentleman," Dover Football (2001).

facultynews

Searching for Dark Matter

PHYSICIST TOM SHUTT AND COLLEAGUES AWARDED NATIONAL SCIENCE FOUNDATION SUPPORT

By Kevin L. Mayhood

A team of researchers led by physicist **Tom Shutt** has received a \$3.2 million grant from the National Science Foundation to design the world's largest, most sensitive experiment to detect dark matter.

"Some 30 percent of the universe is in the form of a dark matter fundamentally different from ordinary matter," says Shutt, the Agnar Pytte Professor of Physics in the College of Arts and Sciences. For decades, physicists have recognized that dark matter exists; without it, galaxies would lack the mass to form, cluster and rotate as they do. But at this point, no one has ascertained anything more about it. As Shutt observes, "We know there's dark matter; we just don't know what it is."

One of the most promising ideas suggests that dark matter consists of Weakly Interacting Massive Particles (WIMPs). These particles could have been formed in the Big Bang that gave rise to the universe. They are hard to detect because they don't give off radiation. They don't interact with regular matter but pass through it unimpeded, scientists believe.

Shutt's research group, which recently merged with a group led by physics department chair **Dan Akerib**, will design a 20-ton liquid xenon detector (LZD) to find WIMPs. The group proposed LZD as the flagship experiment for the Deep Underground Science and Engineering Laboratory, a national lab planned for the abandoned Homestake Gold Mine in Lead, South Dakota.

Increasing the Chances

Even before the NSF grant was announced this fall, Shutt was already at work on a related project. With Brown University physicist Rick Gaitskell, he is leading a



Tom Shutt is at work on the LUX detector prototype.

collaboration of a dozen labs and universities on the Large Underground Experiment (LUX), a 300-kilogram detector that will begin operating next year. LUX will be located in South Dakota's Sanford Underground Science and Engineering Laboratory, also in the former Homestake mine.

Akerib notes that LZD will be 13.5 times larger than LUX and 2,000 times larger than XENON 10, the largest liquid xenon dark matter experiment to date.

Why build bigger? "It's like using a larger light collector in a telescope," Akerib says. "It increases your chances of seeing what you want to see."

Thanks to LZD's greater size, sensitivity and longevity, it will be 150 times more likely than LUX to detect a WIMP. Compared to XENON 10, a 10-kilogram prototype experiment in San Grasso, Italy, it will be 30,000 times more likely to yield results.

Shutt and Akerib say that liquid xenon is the right stuff to catch a WIMP. The element is almost completely inert, unpolarized and hard to polarize. Only dark matter particles can penetrate into the inner region of the xenon liquid without being detected elsewhere, Shutt says.

What each experiment looks for is a chance strike: a WIMP knocking into a xenon atom. The collision would produce a minute flash of light that supersensitive detectors would locate, amplify and analyze. In tests, LUX has detected the collision of single neutrons with liquid xenon atoms. LZD would be even more sensitive, by three orders of magnitude, giving the experiment an acuity akin to that required to see an ant in the span of the Milky Way, Akerib says.

When LUX is lowered underground in 2010, the researchers will field test their equipment and master the technology they expect to use in the 20-ton model. Before attempting to build LZD, however, they want an interim step. They are seeking funding for a 1.5-ton detector, which would operate in the same South Dakota lab as LUX.

Avoiding Interference

These experiments are buried deep in the earth for the same reason the Hubble Space Telescope was launched into orbit: to avoid interference. In orbit, Hubble is freed of Earth's obscuring atmosphere. Underground, WIMP experiments are shielded from the hundreds of billions of charged particles that strike the surface of the earth daily, leaving the detector with a clear view should a WIMP strike.

"The discovery of a WIMP would provide evidence for a new state of matter, similar to what an international team is trying to produce at a new collider in Geneva," Akerib says. At the same time, he adds, the research "is connected to big philosophical questions: What are we made of? What did we come from?"

The researchers also say the technology could lead to a new class of supersensitive detectors for medicine and global security, including particle detectors that can tell what's happening in a distant nuclear facility and whether a country has or is building nuclear weapons.



Dan Akerib, chair of the physics department

In the race to detect WIMPs, the LUX and LZD are competing with other technologies, such as germanium crystals frozen to nearly absolute zero and liquid argon. And various research groups are all competing for funds to mount bigger experiments.

Masahiro Morii, a physics professor at Harvard University who helped build electronics for LUX, is among a growing number of researchers joining Shutt's project. "Liquid xenon has a distinct advantage: It's straightforward to scale up," Morii says. "It's ahead of the other technologies by three to five years."

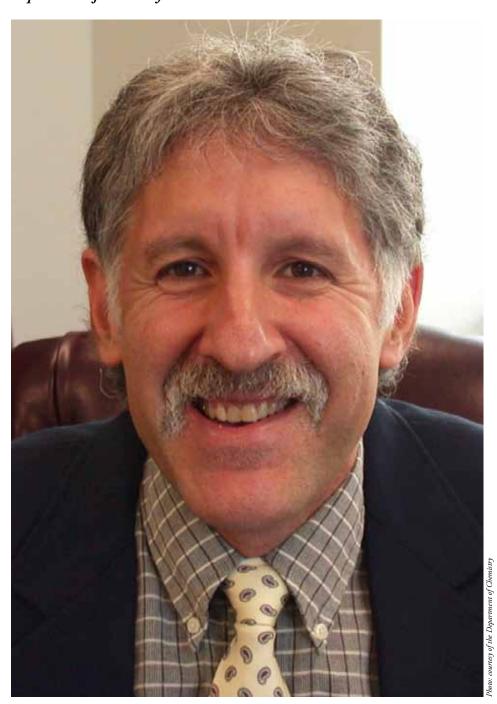
Other institutions participating in the liquid xenon program are Lawrence Livermore and Lawrence Berkeley National Laboratories, the University of Maryland, Texas A&M University, the University of California at Davis, the University of Rochester, the University of South Dakota and Yale University. Scientists from the California Institute of Technology, the University of California at Santa Barbara and the South Dakota School of Mines have recently joined the program as well.

In addition, as Shutt and his colleagues look toward building larger detectors, they are collaborating with European scientists from the Imperial College of London; the Moscow Institute for Theoretical and Experimental Physics; the University of Coimbra, Portugal; Rutherford Appleton Laboratories, a United Kingdom national laboratory; and the University of Edinburgh.

An Irreplaceable Scientist

COLLEAGUES PAY TRIBUTE TO LAWRENCE M. SAYRE (1951-2009)

By Robert Salomon and Michael Zagorski Department of Chemistry



Our friend and colleague, Larry Sayre, died May 8, 2009, at the age of 57. He will be deeply missed as a friend, a scientist and a pillar of Case Western Reserve University.

Larry received his undergraduate degree with highest honors from the University of California, San Diego, and his Ph.D. from the University of California, Berkeley. After spending a year with Vega Biochemicals and three years as a postdoctoral researcher in medicinal chemistry at the University of Minnesota, he joined our chemistry department in 1981. Larry rose through the ranks to become the Frank Hovorka Professor of Chemistry in 2000, and he served as department chair from 2001 to 2008. In addition, he held professorial appointments in pathology and environmental health sciences in the Case Western Reserve University School of Medicine.

Larry was a brilliant and hard-working scientist. During his 27 years at Case Western Reserve, he published more than 190 papers. In addition, he served on a number of study sections for the National Institutes of Health (NIH), on the editorial board of the journal Chemical Research in Toxicology, and on the Long-Range Planning Committee for the Medicinal Chemistry Division of the American Chemical Society. His grants and honors included a five-

16

year Research Career Development Award from NIH (1987) as well as the Sigma Xi Research Award (1988) and the Mortar Board "Top Prof" Award (1997) from CWRU.

Among his most significant discoveries, Larry showed how protein molecules are modified or damaged by chemical reactions in the human body. His findings have had far-reaching consequences for research into the mechanisms of aging and disease.

Larry's influence was multiplied by his knack for engaging other chemists and biomedical researchers in collaborative endeavors. His work with faculty members in the Department of Pathology, including Mark Smith, Vincent Monnier, George Perry, and Pierluigi Gambetti, revealed the role of protein damage in aging, diabetes and neurological diseases such as Alzheimer's. In other collaborations with researchers at the School of Medicine and the Cleveland Clinic, Larry applied his insights to the study of cardiovascular disease, end-state renal disease and the formation of cataracts.

His discoveries also led to breakthroughs in our understanding of age-related macular degeneration (AMD). Researchers at the Cleveland Clinic's Cole Eye Institute found that modified proteins accumulate in the retinas of people with AMD, triggering a destructive immune response and the pathological sprouting of capillaries into the retina. Other Cleveland Clinic

scientists are applying Larry's findings to the investigation of cancer growth and wound healing.

Many Cleveland researchers were successful in obtaining NIH grants

His findings have had far-reaching consequences for research into the mechanisms of aging and disease.

because of Larry's participation in their work, Monnier says. This illustrates "how pivotal and literally irreplaceable he was as a scientist."

"I will always remember, and continue to strive for, his insistence on rigor and thoroughness, which ultimately results in excellence," Smith says. "What I loved about Larry—aside from his summer wardrobe of garish Hawaiian shirts and requisite humor to wear such stuff—was his willingness to listen to completely and utterly nonsensical chemistry talk from me and gently set me straight." Echoing these sentiments, Gambetti says, "Larry had a relaxed attitude but invariably accurate knowledge."

Vernon Anderson, a former chemistry faculty member who is now an NIH program officer, adds, "There was always the unspoken guidepost: 'Will Larry be convinced?' His support, suggestions, collaboration and friendship during my years at CWRU will remain with me forever as the prime example of what a university community could and should be."

Larry was a talented pianist and an avid jazz lover, and our evenings out with him generally focused on establishments with live musical entertainment. We had the privilege of developing lasting friendships

with him, and we often traveled together and spoke of our families. A genuine and very approachable person, Larry cared about the people with whom he worked. His impact on the lives of his colleagues, ents and friends was profound,

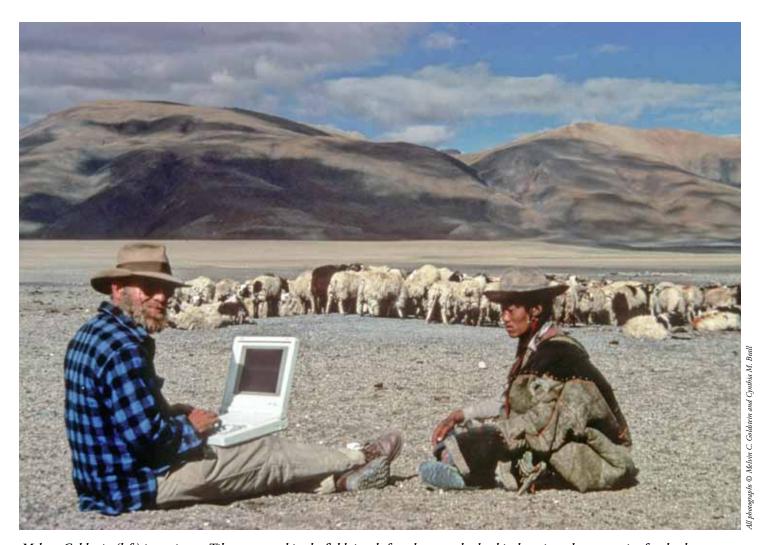
students and friends was profound, and the memory of this gentle man inspires us all.

A version of this tribute appeared in Chemical Research in Toxicology (August 2009). We thank the journal's editor, Lawrence J. Marnett, for permission to adapt the original essay for art/sci.

In Larry Sayre's memory and in accordance with his wishes, the Department of Chemistry has established a fellowship to be awarded to outstanding graduate students in their third year of study. For information about contributing to the Lawrence Sayre Graduate Fellowship in Chemistry, please contact the college's development and external relations office at (216) 368-0097, (800) 360-5308 or cassupport@cwru.edu.

Voices from Tibet

ANTHROPOLOGIST MELVYN GOLDSTEIN ELECTED TO THE NATIONAL ACADEMY OF SCIENCES



Melvyn Goldstein (left) interviews a Tibetan nomad in the field, just before the nomad takes his sheep into the mountains for the day.

In the summer of 1985, **Melvyn C. Goldstein**, the John Reynolds Harkness Professor of Anthropology, was crossing northern Tibet in a borrowed jeep. It was his first journey to the Changtang, a vast plateau as high and forbidding as any human habitation on earth. At an elevation of 15,000-18,000 feet, and with winter temperatures reaching minus 35 degrees Fahrenheit, the Changtang has grasslands but no trees or shrubs; its growing season is too short to sustain

agriculture of any kind. But for centuries, nomadic herders have thrived there, consuming most of what their livestock produce and trading the rest for tea and grain, ironware and other necessities.

At the time of his visit, Goldstein had been studying Tibet for more than two decades. While still in graduate school, he had started to compile the first Tibetan-English dictionary devoted to modern Tibetan, not to the classical language in which Tibet's sacred texts were written. In his early fieldwork, he had spent two years in a refugee camp in India, interviewing Tibetans who had fled their homeland with the Dalai Lama in 1959, after a failed revolt against Chinese rule. Since joining the Case Western Reserve University faculty, he had published articles on kinship, marriage and fertility in rural Tibet and assembled a collection of the politically satiric "street songs" of Lhasa, the Tibetan capital.

Yet until the summer he traveled to the Changtang, Goldstein had never actually been to Tibet. The country had been closed to foreigners since China incorporated it in 1951. And like his fellow scholars in the field of Tibetan studies, Goldstein had not, until then, focused on developments in contemporary Tibet. Instead, he had sought to reconstruct the traditional social system that

China had destroyed but that the Tibetan exiles still remembered. In the years immediately following the Dalai Lama's flight, the Rockefeller Foundation had created seven research centers around the world in order to train scholars

Election to the National Academy of Sciences is a rare honor; Goldstein is one of only two current faculty members in the college to achieve this distinction.

for this purpose. One of those centers was at the University of Washington, where Goldstein completed his doctorate in 1968 after receiving his B.A. and M.A. from the University of Michigan.

Back then, Goldstein says, most people assumed that "Tibetan culture was finished," that "China had ended everything of value." That assumption seemed even more warranted after the Cultural Revolution of the late 1960s and 1970s, when traditional beliefs and practices were brutally suppressed throughout China. Goldstein and his colleagues shared the prevailing view of Tibet's fate, and this view provided the impetus for their research. "We were engaged in salvage work," he explains. "We were interested in trying to preserve knowledge of Tibet for the history of the world."

In the early 1980s, however, when China expanded its contacts with the West and began to pursue economic

modernization, Goldstein saw an opportunity to gain access to Tibet. Through a cultural exchange program between China and the United States, he obtained permission to visit Lhasa under the auspices of the Tibet Academy of Social Sciences. After he had spent two months conducting research on linguistic change, the academy offered him a jeep to go anywhere in Tibet he wanted. Goldstein immediately asked to travel across the Changtang.

He was astonished at what he found: encampments of nomads in traditional dress, tending their sheep, goats and yaks on the remote highlands, their way of life apparently intact. The harsh measures imposed during the Cultural Revolution—abolishing private ownership of livestock, forcing the nomads to work for communes—had been reversed, and restrictions on private religious practice had been lifted. Goldstein noticed prayer flags flying from the

nomads' black, yak-hair tents.

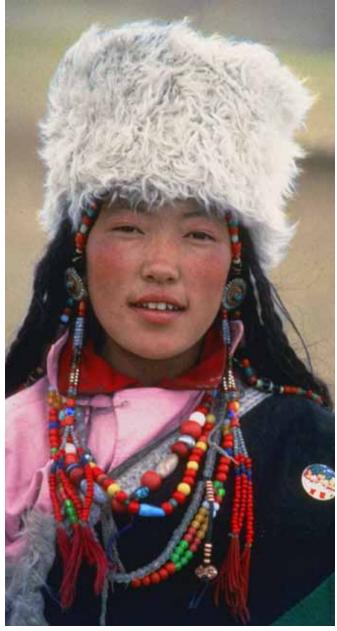
"We thought that was all gone," he says. "But it was still alive. So when I got back to Lhasa, I said to my hosts, 'We should do a joint study of this.' And the Tibet Academy, which until then had never

collaborated in research with any foreign scholar, said, "That's a great idea.' So that's when we started to prepare a detailed agreement."

Goldstein recalls that the negotiations, all held in Tibetan, were tough. "For example, the academy thought that our fieldnotes and research data should be left in Tibet. When I demurred, they assured me it was no problem because if I needed anything, I could contact them and they would send it to me in Cleveland." Goldstein insisted that his university's president would never allow him to sign such an agreement; he had to be able to take the data home with him. After much discussion, the academy consented. In turn, Case Western Reserve agreed to bring Tibetan researchers to the university for further training. As a result, CWRU became "the first university in the world to sign a collaborative agreement for anthropological research in Tibet."

Goldstein's initiative had a profound impact on the field, according to Robert J. Barnett, director of modern Tibetan studies at Columbia University.

"He was among the very first people in the West to realize, and to act on the realization, that China had changed after 1978, and that scholars could start trying to go to do research within Tibet instead of just among exiles, where he'd worked for many years," Barnett says. "But, more importantly, he was someone who realized that some aspects of Tibetan culture had survived the atrocities, the catastrophes, of the 1960s and the 1970s. Whereas most people had a view that Tibet no longer was there, that it was just a clone of Chinese society, Professor Goldstein looked at the reality on the ground. He went there and saw that many things had survived, in terms of culture and identity, and he tried to describe what he found there. This was a revelation of immense importance, and many of us have tried to emulate it in succeeding years."



Goldstein photographed this young nomad girl, wearing traditional dress and hair ornaments, during his first in-depth ethnographic field study in Tibet in 1986-1988.

There is no question, Barnett adds, "that Professor Goldstein is the outstanding person in the field of modern Tibetan studies. He is the most productive of anybody in this field, beyond almost anybody else's imagination, in terms of the amount he's been able to do and the quality he has been able to achieve. You could even say that, largely, he created or shaped this field himself."

A Rare Honor

This past spring, in recognition of his "distinguished and continuing achievements in original research," Goldstein

was elected to the National Academy of Sciences. This is an honor so rare that he shares it with only one other faculty member in the college: **Cynthia M. Beall**, the Sarah Idell Pyle Professor of Anthropology. Beall has collaborated with Goldstein in his studies of Tibetan nomads and villagers, and they codirect the university's Center for Research on Tibet.

The first phase of their indepth ethnographic study of the Changtang nomads took place in 1986-1988, when they spent a total of 10 months living in a nomad community about 200 miles due west of Lhasa. Located in a district called Pala, the community consisted of 57 households, distributed among 10 home-base encampments and spread across several hundred square miles. Having persuaded the Tibet Academy to let them conduct fieldwork in all seasons, Goldstein and Beall were able to observe the nomads' entire annual cycle: sheep shearing in the late summer, hay-cutting in the fall, the winter slaughter of selected

livestock, and the 50-day trek in the spring to collect salt from a distant lake bed.

Some of their research was purely quantitative—calculating milk and wool production, weighing the nomads' food intake in different seasons, conducting household surveys. But many of their most striking findings and insights emerged from what anthropologists call "participant observation." Goldstein and Beall lived in tents beside the nomads, went along on hunting and herding trips and collected life histories through extensive interviews. The nomads,

"Professor Goldstein is the outstanding person in the field of modern Tibetan studies. He is the most productive of anybody in this field, beyond almost anybody else's imagination."

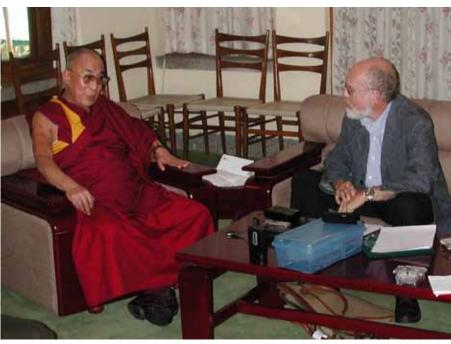
—Robert J. Barnett, Columbia University

Goldstein says, "were always extremely gracious and welcoming—in part because that is the way their culture is, and in part because we showed that we valued their culture by speaking their language, eating their food and acting in accordance with their norms and traditions."

To Goldstein and Beall, the nomads' lives seemed full of hardships. They photographed women bent over at the waist, milking long lines of sheep and goats—a task performed twice daily in the summer, when dairy production is at its peak. Traveling with the men in cold, rain and hail, they watched them "repeatedly load and unload the rambunctious yak, wearing no gloves, yet tying and untying knots in sub-zero temperatures." Goldstein points out that because the herds subsist entirely on natural vegetation, they must be taken out to graze every day of the year, regardless of the weather.

Yet the nomads insisted that, compared with farmers, they led an easy life, since their livestock provided for all their needs. And though they had a sophisticated system for managing animals and pasture—making careful judgments about when and how far to travel with their herds—they typically described their role humbly, saying that "the grass grows by itself and the animals breed by themselves."

Many scenes the anthropologists witnessed—boys guiding herds with slingshots, elders counting their rosaries and reciting Buddhist prayers—were identical to scenes that Western explorers could have observed in Tibet 70 or 100 years before. To Goldstein and Beall, the survival of this way



For his multi-volume history of modern Tibet, Goldstein has interviewed the Dalai Lama several times. This photograph was taken in Dharamsala, India, in 2005.

of life was an "unexpected, but heartening, victory for all of humanity." Yet they also emphasized that the nomads were not immune to historical change. In their 1990 book *Nomads of Western Tibet*, they described how the inhabitants of the Pala district experienced the transition from the traditional society to Chinese rule. They collected accounts of the deprivations the nomads had suffered during the Cultural Revolution, and they examined the impact of China's decision to end communes and return the nomads to a household-based economic system.

Today, their taped interviews from the mid-1980s and 1990s are part of the Tibet Oral History Archive, an immense repository currently housed in the Center for Research on Tibet. Fully half of the archive—nearly 1,000 hours—consists of recordings in which ordinary Tibetans speak about their lives. Roughly another quarter contains interviews with former Tibetan government officials, as well as a subset of interviews with Chinese military and civil officials who worked in Tibet. Finally, the archive preserves Goldstein's interviews with Buddhist monks who once lived in Drepung, formerly Tibet's largest monastery. During the traditional period, Drepung was home to 10,000 monks, and Goldstein's work provides the only firsthand account of the lives they led in the era of "mass monasticism."

With support from the Henry Luce Foundation and the National Endowment for the Humanities, the center is now digitizing the archive and producing roughly 30,000 pages of transcripts in English. These materials will eventually enter the permanent collection of the Asia Division of the Library of Congress, which will make them available to scholars and students on its website starting next year.

Beyond Stereotypes

The archive is a key source for a massive history of modern Tibet that Goldstein began publishing with the University of California Press two decades ago. The first volume opens in 1913, when the Tibetans, after centuries of loose subordination to China, expelled Chinese troops from their territory and attained de facto independence. Goldstein examines conflicting views in that period about Tibet's place in the world and the desirability of modernization. In particular, he describes the contention over whether to create a modern army—a step that the government never took, leaving the country vulnerable when China's new Communist rulers lay claim to Tibet in 1950. The second volume, covering the period 1950-1955, reconstructs the negotiations leading to the 17-Point Agreement, which compelled the Dalai Lama to accept Chinese sovereignty over Tibet, and documents the early years of Chinese control.

In these books, Goldstein says, his goal was to move "beyond stereotypes," to show that neither the Tibetans nor the Chinese are "homogeneous entities." For instance, he traces a long contest between hardliners and moderates in China's Communist Party over how much cultural autonomy and religious freedom to allow within Tibet. In tracing the course of Sino-Tibetan relations, Goldstein says, historians must "unravel the internal debates, disagreements and conflicts, interpreting how these interacted to drive goals and strategies on both sides—just as we would do for American or European history."

The political strife over the fate of Tibet complicates this task. In his 1995 book *The Snow Lion and the Dragon*, Goldstein observed that the conflict between Tibet and China is a struggle to control not only territory, but also "the *representations* of history and current events." And the vigorous debates sparked by his work have validated his perception of history as a "battlefield." Goldstein's books, as Barnett points out, "undermine some of the Chinese government's claims about the history of Tibet." But they

also counter some of the claims made by the Tibetan exile community and its foreign supporters. Acknowledging this, Goldstein says, "This is the way scholarship should be—rigorous and nonpolitical."

Amazing Changes

When Goldstein embarks on a new project, he doesn't relinquish his earlier ones; instead, he adds it to the mix. He is still an active lexicographer: The latest edition of his Tibetan-English dictionary runs to 1,200 pages, and he hopes to undertake an even more extensive edition in the near future. He is finishing the third, 1,000-page volume of *A History of Modern Tibet*, covering the years 1955-1959. And he continues his anthropological fieldwork in rural Tibet.

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A History of Modern Tibet, 1913-1951: The Demise of the Lamaist State. Melvyn C. Goldstein. 1989. With support from the Henry Luce Foundation and the National Science Foundation, Goldstein has conducted the first independent research assessing how Chinese political and development policies, and modernization in general, are affecting rural villagers, who make up 80 percent of the Tibetan population. His colleagues on this project include Beall, Washington University anthropologist Geoff Childs and three former graduate students from Tibet who attended CWRU and are now working at the Tibet Academy in Lhasa.

Summarizing the conclusions from their fieldwork in 1997-2007, Goldstein says, "Although there are many political and religious problems in Tibet, the standard of living for rural farmers has improved significantly, and they are not in danger of losing their culture."

Meanwhile, his research on farm communities hasn't kept Goldstein from following up on his initial study of the Pala nomads. During the past 23 years, he has recorded and analyzed the "amazing changes" these nomads have experienced. "In 1995," he notes, "just a few nomad families had acquired bicycles and small houses. A mere decade later, almost half of the families were driving motorcycles, trucks or tractors and had solar electricity. And the changes are still racing ahead."

On a visit this past summer, Goldstein found that many of the nomads had just begun to use cell phones. He recalls his surprise and amusement when a young man he had known as a boy in 1986 politely asked if it was okay to take his picture. This was a courtesy Goldstein had always extended to the nomads before taking *their* pictures. "When I said, 'Of course,' the young man whipped out his mobile phone and shot a few photos," Goldstein recalls. "I don't know what he's going to do with them."

Developments in transportation and communication have ripple effects, Goldstein says. Parents, for instance, are increasingly willing to send their children to the district's boarding school now that it is easier to call or visit. Traders from other parts of Tibet, traveling on new roads and bridges across the Changtang, are linking the nomads to global markets. In Goldstein and Beall's next book about

While Goldstein was visiting Tibet in 2005, this nomad family traveled five miles by motorcycle to spend an afternoon with him.

the Pala nomads, which they hope to finish in the coming year, they will analyze such changes and document them through hundreds of photographs reflecting the earlier period and the present.

Goldstein acknowledges that the rapid pace of change poses challenges to the nomad community. Some less affluent households have gone into debt to buy their motorcycles and cell phones. And as exporters of wool, cashmere and skins, the nomads are now vulnerable to drops in global commodity prices.

Still, Goldstein's latest visit to the Changtang left him hopeful. "Even as the nomads accept new technologies and customs, they are not abandoning their core identity," he says. "They are still proud of their way of life. They all speak their language, they all herd animals, and they all perform traditional religious and social rites." Goldstein has preserved the nomads' stories of how they survived the Cultural Revolution. Now, he believes, they will also survive "the onslaught of economic development and modernization."



art/sci

Goldstein, Andrew Lucker, Daniel Milner,

Many thanks to Lisa Chiu and Joseph Drungil for their editorial assistance.

art/sci is a semiannual publication produced by the staff of the College of Arts and Sciences and University Marketing and Communications.

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We'd like to hear from you! Email us at artsci@cwru.edu or call us at (800) 360-5308.

Dan Whalen, an English major at Case Western Reserve University, has guided the nationally ranked Spartan football team to 25 consecutive regular season wins dating back to 2006. The senior quarterback has also led the team to backto-back NCAA postseason appearances and two consecutive University Athletic Association (UAA) titles (2007 and 2008). He is a two-time UAA Offensive Player of the Year (2007 and 2008) and a 2008 finalist and 2009 nominee for the Gagliardi Trophy, which is considered NCAA Division III's version of the Heisman Trophy.