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The CSM Alumni Association takes great pride in affirming the official Colorado School of Mines Lamp. This beautifully designed commemorative lamp symbolizes the excellence, tradition and heritage we have cultivated at CSU.

You can choose either the Oval Seal of the University or the Spherical Triangle Lamp for your lampselves; both have been precisely recreated on the thick, polished base. The lamp can be personalized with the addition of an engraved brass plaque which is offered in the enable time.

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- Solid marble base and lampbase - brass components throughout
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- Lamp price $169
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TO ORDER THE LAMP, PLEASE CALL 1-800-341-1835 AND ASK FOR OPERATOR CSM7.

Letters to the Editor

A Lifetime of Sports

I enjoy reading of the exploits of the Mines athletes in the Mines magazine (especially of last year’s football championship), as it reminds me that my athletic life at Mines was really fun and was made possible by an alumni scholarship. We won the 1961 RMAC football title and I was able to box for Fritz [Brennike], wrestle for Hirsch McGraw, do track weights for Joe Davis and get the Dave Johnson outstanding athlete award.

But after four kids, Navy duty and 15 pounds, I realized I needed to get some physical activity. Luckily I found the activity and, more importantly, a real challenge in the handball court. For the past 40 years I’ve averaged three matches per week and I’ve never been bored. I’m always anxious to play and I’m quite convinced the handball has kept me mentally alert, as well as at my college weight. I calculated I’d gain 35 pounds per year eating as I do if I didn’t play.

Bottom line, I recommend handball or other aerobic sport to all Mines athletes and non-athletes as a great way to stay fit, be challenged, lose weight, remain mentally alert and have a great time. Handball can provide the challenge Miners need. You’ll find there is always someone better than you to challenge.

In this regard I’ve played in many state and national tournaments, getting to the finals in four national tournaments only to lose. So at the age of 75, I’m still challenged.

Another thought for the Mines Athletic Department, University of Minnesota offers handball classes for credit and we have over 100 kids that sign up each year and about one third of the students are women. (I’m privileged to help teach.) Mines, with a great intercollegiate athletic program might be wise to consider introducing its students to lifetime sports activities such as handball as few of us can handle football or basketball as years go by. I think we all realize staying active in this computer world is essential to good health.

Top Bergstrom Met E ’54

Peak Oil

As a follow on to letters, including my own, on “Peak Oil and Global Warming,” I think that it is important to note a major sink for CO2, regardless of source, are the oceans. Dr. John Martin once made the statement, “Give me a half a tanker of iron and I will give you the ice age.” His statement was based on his own ocean experiments with seeding iron to cause phytoplankton blooms near the Galapagos Islands and subsequent trapping of carbon in the sediments accumulating on ocean bottoms. His hypothesis was proven again by the SOIREE project. Why aren’t CERI and other organizations like the Global Carbon Project taking a more committed interest in a full understanding of the Iron Hypothesis and beginning now to implement the process of sequestering carbon in the bottom of the oceans and at the same time promoting alternative energy production, as noted in my previous letter, that will result in major reductions in “anthropogenic” CO2?

The importance of the Iron Hypothesis looms even larger if one considers the recent articles on the melting of the Siberian permafrost bog beds and the environmental carbon “landslide” (in the form of methane and/or CO2) that is about to occur. The methane stored in this melting mass is estimated to be equivalent to a quarter of all the methane stored underground around the world (see the Guardian, August 11, 2005, Warning hits “tipping point!”) If the Guardian article is correct, the CERI measures will not be enough to offset global warming. What is needed are major efforts to go beyond modeling and theorizing to using proven science to achieve major reductions in atmospheric carbon levels, both methane and CO2, i.e., nuclear energy and implementation of the C02 sequestration concepts proven by the SOIREE demonstration of the Iron Hypothesis.

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continued on page 12

Willard C. Gekler PRE ’54
New Fuel Cell Center Coming to Mines

The Colorado Governor's Office of Energy Management and Conservation (OEMC) selected the proposal by CSM and its partners because it allows Colorado to meet its goal of expanding fuel cell related research, development, education, and commercial application in the state. The proposal also meets the requirement of a $1 million match to OEMC’s $2 million investment. This $1 million was provided by the four team members. The CSM portion of the matching funds will be used for construction on the fuel cell laboratory within the CSM Geology Museum building with an estimated completion date of mid-March 2006. Much of the equipment will come from Versa Power Systems Inc.

“The CSM administration was most helpful in providing its share of the cost share,” said Tony Dean, W.K. Coors Distinguished Professor of Chemical Engineering and member of the research team. “This is consistent with energy research being an important focus area of Mines’ strategic plan for the future.”

GTI will manage the daily operations of the center for the two-year period and will provide technical advice on fuel cell research, development, demonstration and commercialization, as well as provide public education.

Governor Bill Owens said in his State of the State address in January 2005 that “Job creation in the 21st century economy can’t be business as usual. Competition is global and it’s fierce. We are proceeding with the formation of the Colorado Fuel Cell Center, which is designed to make Colorado a world leader in research, development and deployment of this cutting-edge technology.”

Rick Grice, the OEMC director, said locating the future fuel cell center at Mines “…will build from the solid reputations of its partners and provide a strong research, economic and educational platform for fuel cell and hydrogen technology development and will help put Colorado in the game for this important and emerging energy technology of the future.”

Extensive research on electrochemical technology, materials and fuel processing will be performed by the partners, as well as CSM students and faculty. CSM will add fuel cell courses to the existing curriculum and oversee all student and faculty research programs. At the completion of this two-year project, operation of the center will be self-sustaining through research and development contracts and consulting agreements. The center will emphasize the development of the Colorado fuel cell industry as it actively responds to national solicitations in fuel cells.

Why the excitement about fuel cells?

According to Dean, “A fuel cell is especially attractive in a time of high worldwide energy demand since it can provide increased power from the same amount of fuel. Thus existing fossil fuel supplies will last a longer time.” Neal Sullivan, assistant professor of engineering, who is coordinating the fuel cell center construction, added “You get twice the horsepower from a fuel cell from the same amount of gas.”

A fuel cell is an electrochemical engine (no moving parts) that converts the chemical energy of a fuel, such as hydrogen, and an oxidant, such as oxygen, directly to electricity. The principal components of a fuel cell are catalytically activated electrodes for the fuel (anode) and the oxidant (cathode) and an electrolyte to conduct ions between the two electrodes.

This means that someone could power everything, including the family car, with a fuel cell. As an alternative to combustion, fuel cells generate power—like batteries—on the principle of electrochemical reaction. Typically, the reaction is between oxygen and hydrogen. The technology still has to overcome significant hurdles, beginning with the current high capital cost of construction. However, it has the potential to impact on a variety of levels, from powering PCs to large-scale generation of power for cities.

Before the selection was announced, Mines and its partners had already attracted positive attention for the fuel cell center. In a 2004 opinion piece the Rocky Mountain News stated, “High-tech firms like to go where the action and the traffic already are. That Colorado is already home to the National Renewable Energy Laboratories is a big plus.”

A fuel-cell applications and technology conference in Denver in 2004 focused on how companies can bootstrap themselves from small markets in which they are already commercially viable into huge ones where they compete with existing energy systems. The conference compared the emergence of the fuel cell industry to the emergence of the personal computer in a mainframe-dominated industry. “As personal computers got cheaper and better, of course, they eventually conquered a lot of mainframe turf,” Fuel Cell magazine said.

The Rocky Mountain News opinion piece concluded: “If something similar happens with fuel cells, Colorado wants to be in at the start.” That day has come to the Mines campus and with it the opportunity to be the leader in fuel cell technology, create new jobs for Colorado, and promote education in fuel cell technology.

By Ellen Glover
Help Wanted

For 2004 and 2005 Mines graduates, the job market got brighter. Seventy-three percent of the bachelor of science degree students graduating in that time period are reportedly placed, the highest placement in the past four years.

Master of science and professional degree graduates also experienced the highest placement rate in four years at 87 percent. Doctoral degree graduates were placed at 88 percent, a two percent increase over last year.

The Mines Career Center defines placement as graduates finding jobs—with industry, government or the military—in their field of study or continuing their education in graduate/professional school.

Salary offers also went up. The average bachelor of science degree offer increased by 1.1 percent over last year to $50,167, while the average master’s and professional degree offer jumped 11.8 percent to $60,746, and the average doctorate degree offer was up 4.6 percent to $71,805.

The good news for Mines students continues. At the 2005 Career Day held in September, a record 144 companies were represented.
By Royal Decree
Max Peeters has a new title, in addition to Distinguished Chair of Petrophysics and Borehole Geophysics. Appointed by royal decree on July 1, he is the Honorary Consul of the Kingdom of the Netherlands for the three Rocky Mountain states, Colorado, Wyoming and New Mexico. His responsibilities will include routine consular duties and attendance at official functions, as well as assisting Dutch tourists who encounter difficulties.

Lectures from the Best
Jerry D. Higgins, Geology and Geological Engineering, has been named the 2006 Jahns Distinguished Lecturer in Engineering Geology. The Association of Engineering Geologists and the engineering geology division of the Geological Society of America (GSA) jointly established the Richard H. Jahns Distinguished Lectureship in 1988 to promote student awareness of engineering geology through a series of lectures offered at various locations around the country throughout the year.

U.K.’s Best
Mines Ph.D. student Simon Davies won the British Oxygen Company (BOC) Group Award for the Best Chemical Engineering Student in the United Kingdom, judged by the Institution of Chemical Engineers, for his research on the engineering of artificial blood for transfusions.

South American Connections
When President John Trefny and Mrs. Trefny visited Chile and Peru in September, they met with heads of corporations, leaders of universities, the Peruvian Minister of Energy and Mines, and alumni in Santiago and Lima, where active alumni sections will be developed. “In all cases, there was great interest in Colorado School of Mines as an institution of international importance in our focus fields,” said President Trefny.

Fore!
A par 6 disc golf course, located around the grassy areas of the Mines Park residence halls, has been designed and constructed by a senior design team in conjunction with the School’s Plant Facilities. The course is available to students, faculty, staff and visitors, and the Intramural Sports Office will organize tournaments and leagues for Frisbee™ play.

Society Fellow
The American Society of Civil Engineers (ASCE) has honored Tissa Illangasekare with Fellow designation, considered one of the most esteemed honors that civil engineers can receive from their peers. Illangasekare is the AMAX Distinguished Chair in Environmental Science and Distinguished Chair in Environmental Science and Technology.

Eileen Poeter, Geology and Geological Engineering and director of the International Ground Water Modeling Center, has been selected as the 2006 Darcy Lecturer, sponsored by the National Ground Water Research and Educational Foundation. The Henry Darcy Distinguished Lecture Series was established in 1986 to foster interest and excellence in ground water science and technology.

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Surprised and saddened by the letters that you received challenging Dr. Nummedal’s statement about the direct linkage between global warming and manmade CO₂ emissions. Their insistence on ignoring overwhelming evidence reminds me of the many years of denials by tobacco company executives and scientists that smoking caused cancer. I expect better critical reasoning skills from M ines graduates.

Ian Berke Geol E ’64

Correction: In the Summer issue of the magazine, Dan and Megan Lewis were inadvertently left out of the Golden Golf Tournament acknowledgement of sponsors. Our apologies.

Lewis were inadvertently left out of the Golden Golf Tournament acknowledgement of sponsors. Our apologies.

While logic, observation, and science would properly tell us that man’s ability to affect long-term climate change is miniscule, Dr. Nummedal’s job description is to secure grants. If Dr. Nummedal can turn the biggest fraud ever perpetrated on the world into dollars for Colorado, I commend him. P. T. Barnum would be proud!

Greg Staff BSc CPR ’73

The Board of Trustees invites nominations and applications for the position of President of Colorado School of Mines in Golden, Colorado. Colorado School of Mines is a public research university recognized globally for its unique mission in engineering, applied science and related disciplines, with a special emphasis on its four focus areas of Earth, Energy, Materials, and Environment. Small and select by design, Colorado School of Mines enrolls 3,100 undergraduate and 900 graduate students. Admission standards are among the highest in the country for a public university. Mines alumni hold positions of leadership in their fields worldwide, and each year new graduates enjoy an exceptionally high placement rate, as well as starting salaries well above the national average.

Mines has a high persistent endowment for a public institution. The next President shall have extraordinary vision, building on the School’s strong foundation in the extractive and energy fields, while providing leadership during an era of change in engineering and applied science education. With demonstrated expertise in management and exceptional skills in interpersonal relations and communications, the President will interact effectively with all constituencies, enhancing the School’s 131-year tradition of excellence. Nominations and applications will be accepted until a new president is selected. However, no applications will begin on November 22, 2005.

Colorado School of Mines Presidential Search Committee

P.O. Box 547, Golden, CO 80402-0547

For more information, including a complete position description, please refer to our Web site at: http://www.mines.edu/Admin/president/search/.

Professor Publishes Energy Book

Energy in the 21st Century by John R. Fancher, CSM professor of petroleum engineering, was written for a general audience and considers questions such as what kind of energy do we want to use in our future and what will be the consequences of our decisions? The book examines how society can make the transition from a reliance on fossil fuels to energy independence. The reader is exposed to a broad range of energy types and will develop an appreciation of the role that each energy type may play in the future. The book is available at Barnes & Noble and Amazon.com.

Colorado Cougars Featured in New Book

Ramon Brique, CSM professor emeritus, has published Lions of the Lyons about his and his family’s personal observations of cougars on their land near Golden, Colo., over the past 30 years. Brique’s land is in the Lyons Formation, which produce the rugged terrain favored by mountain cats.

Smith Named Raytheon Fellow

Steven J. Smith BSc Math ’80 has been named a member of the Raytheon Fellows community. He was recognized for his “unique combination of technical and project execution accomplishments that are essential skills for information technology (IT) today.” Smith has been with Raytheon for 22 years. The Fellows program was designed to recognize technical achievement within the company. To be nominated as a Fellow, one must exhibit an exceptional degree of ingenuity, creativity and resourcefulness, be responsible for developing advanced information architectures and evaluate emerging IT technologies and create effective new solutions.

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Four Miners Ride for Charity

Four alumni participated in the 2005 Team Evergreen cycling club’s Triple Bypass fund-raising event. The route, which covers more than 120 miles and more than 10,000 feet of elevation gain over three major mountain passes, makes this an event only for the fittest cyclists. The first ride began in 1988 with just a handful of Evergreen, Colo., cyclists. It is now one of the nation’s top single day recreational cycling events and raises funds for a number of beneficiaries. A percent of the proceeds is distributed annually to community groups both in the cycling community and other local community organizations. Last year, Triple Bypass participants and sponsors helped generate more than $50,000 in charity support. Pictured from left, Alan Mencin BSc CPR ’79, Rick Kedir BSc Met ’70, McS Met ’71, David Scriven EM ’70 and Ralph Newman BSc Met ’70 atop Vail Pass.

Pearson ’59 Coaches Senior Ballplayers

Retired Mines coach, Bob Pearson PE ’59, coached two senior women’s basketball teams that made it to the national championships held in Pittsburgh in June. Here he is pictured with the team members from the 55-59 age group, who came in sixth in the nation. Pearson also coached the 70+ women’s team.

Sixth in the nation. Pearson also coached the 70+ women’s team.
Tim and Bernadette Marquez Give Record $10 Million to Mines

Timothy Bsc Pet '80 and Bernadette Marquez have pledged $10 million, a record gift in School history, for the construction of a new petroleum engineering building on the Mines campus. Along with their gift, the Marquez's have challenged Mines and its supporters to raise an additional $10 million, which is needed to build the educational facility.

"This incredible gift is a tribute to the passion that Tim and Bernadette Marquez have for education. We, of course, share that passion and will apply their generosity to providing our students with the best, leading-edge, technical education possible in the finest facilities we can design for that purpose," said Mines President John U. Trefny.

Mines graduate Timothy Bsc Pet '80, chairman and CEO of Venoco, Inc., an independent energy company primarily engaged in the acquisition and development of oil and natural gas properties in California, with functional headquarters in Carpentaria, Calif., and corporate headquarters in Denver. Venoco operates three offshore platforms in the Santa Barbara Channel, has non-operating interests in three other platforms, and also operates two onshore properties in Southern California and approximately 140 natural gas wells in Northern California.

Van Kirk said. Graduates of Mines' petroleum engineering department are in high demand, with full placement upon graduate. Enrollment in the department has been increasing significantly.

John and Erika Lockridge Give $3 Million to Recreation Center

John Geol E '52 and Erika Lockridge have given $3 million toward the construction of the School's Recreation Center. The School will honor their gift, the largest in contribution to athletics and recreation made in Mines' history, by naming the School's 2,500-seat competition gymnasium "Lockridge Arena.”

"John and Erika Lockridge have been tremendously generous benefactors to Colorado School of Mines," says Mines President John Trefny. "With this landmark gift, the Lockridges will help create a magnificent events venue within the recreation center. The facility will not only benefit the Mines community and the City of Golden, but will also be a prime location for state, local and national tournament competition."

From his own experience as a varsity basketball player and geology major at Mines, John Lockridge understands first-hand how rewarding it is for students to participate in athletics as well as academic pursuits. "Erika and I are very pleased to be able to make this gift to the School," he notes, "knowing that both varsity and recreational athletes will reap great personal rewards from this brand new facility." He continues, "It is my hope that this gift will inspire other alumni and friends of Mines to contribute to the future of this outstanding institution and its remarkable students." His wife, Erika adds, "We are so proud to be able to have our name associated with Colorado School of Mines, and envision Lockridge Arena as a vital center of campus activity that will showcase Mines’ hard-working and talented student-athletes.”

Mines donators, in addition to making this significant gift to the recreation center, in 2001 the Lockridges established the Blaster Basketball Scholarship Fund with a $1 million gift that helped to launch Transforming Resources: The Campaign for Mines. Over the years, the Lockridges have also contributed to the School’s Department of Geology. John was awarded the Mines Distinguished Achievement Medal in 1983 in recognition of his professional accomplishments, and he and Erika were recognized as Outstanding Supporters of the School’s athletic program in 2003.

Mines Acknowledges Individual, Corporate and Foundation Donations

Mines extends its sincere gratitude to Steve Geol E '56 and Gayle Moonen for their $1,000,000 gift to the School. Mr. Moonen is chairman of Thompson Creek Metcals Company, a privately-owned company and a leading global supplier of molybdenum. The gift will establish an endowment fund for athletic scholarships.

Other recent gifts of $25,000 or more to Colorado School of Mines include:

- Dr. Lonnie L. Abernethy, retired dean of engineering at UTEP, contributed $50,000 as initial funding for the Lonnie & Gertrude Abernethy Scholarship in the Department of Geology. Dr. Abernethy and his wife, Gertrude Abernethy, are members of the President's Council at Mines.
- Dr. Jeff Squier '84, '86 in the Physics Department.
- Marshall C. III '67 and Jane Crouch will name the Outdoor Recreation Center Reception Area in the CS&M Recreation Center with a gift of $100,000.
- Hugh '49 and Ann Evans gave $52,050 by donating appreciated securities to their charitable remainder trust.
- The Torrey Foundation contributed $120,000 to benefit several academic departments, student groups, the WISEM (Women in Science, Engineering, and Mathematics) program, and the WISEM (Women in Science, Engineering, and Mathematics) program.
- The Adolph Coors Foundation contributed $25,000 for its endowed scholarship fund for Petroleum Engineering students.
- The Torrey Foundation contributed $36,000 to support a graduate student fellowship.
- St. Mary Land & Exploration Company contributed $25,000 toward its endowed scholarship fund for Petroleum Engineering students.
- The Denver Community Foundation contributed $30,000 to support research conducted by Dr. Jeff Squires '84, '86 in the Physics Department.

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Groundbreaking Ceremony Kicks Off Construction of Recreation Center

The new 86,000 square-foot facility will more than double the space available for student recreational activities on campus. In addition to a competition arena, recreational gymnasium and aquatics center, the building will incorporate much needed multi-purpose meeting space where study groups and student organizations can gather. The center also will feature a climbing wall, indoor running track, rooms for aerobics, yoga, weights and conditioning, and a juice bar. With its location just south of the Ben H. Parker Student Center, the structure will extend the campus common area, contributing to the vitality of campus life.

One of the recreation center’s most important functions, according to student trustee Laurie Cornell, will be revitalizing students after a hard day of classes. She foresees that the center’s wide range of athletic opportunities will encourage more Mines students to participate in intramural and intramural teams has skyrocketed, but their opportunities have been limited by the scarcity of indoor facilities. The students who participate in club and intramural sports are tremendously excited about the potential to expand the School’s overwhelming popular recreational sports program.

Not only will the recreation center accommodate Mines’ fitness devotees and offer an extensive variety of extracurricular activities, it will also provide a boost to the Oredigger athletic teams. For example, basketball and volleyball teams will benefit from having a regular daily practice schedule, which might not seem like a luxury for collegiate athletes. However, the men’s and women’s basketball teams and the women’s volleyball team currently share a less-than-ideal rotating practice schedule in Volk Gymnasium. With two new gymnasiums available in the recreation center along with the volleyball gym, each team will be able to practice at more convenient times. Men’s basketball coach Pryor Orser expects that having a new facility and greater options for team workouts will help enhance his athletes’ success, both as students and as athletes.

Like Orser, volleyball coach Shelly Johnson and women’s basketball coach Paula Krueger look forward to having ample time and space for practice upon completion of the new facility. All of the coaches have added the promise of a brand new facility to their list of selling points as they talk with potential Oredigger recruits. The entire Mines community eagerly awaits the impact that the new competitive arena and aquatics center will have in attracting greater numbers of spectators and ratcheting up the excitement level for Mines volleyball, basketball, and swimming and diving teams.

Swimming and diving coach Dave Hughes pointed out the importance of the larger, more functional practice space. Furthermore, the aquatics center will include essential diving equipment — namely, a three-meter board. The team’s current facility has a single one-meter board, so the team has to travel to local recreation centers to practice the high dive. Upon completion of the recreation center, Hughes and his athletes will truly appreciate having an all-inclusive practice venue on campus.

The state-of-the-art facility will undoubtedly enhance campus recruiting, attracting both varsity athletes and students who are looking to become part of a vibrant campus community. The recreation center will also enable Mines to expand its summer camp program, which already brings hundreds of K-12 students to campus each year. Enjoying a rich summer camp experience at Mines could influence a prospective college student’s likelihood of applying to the School.

The recreation center project is the key piece in the comprehensive campus master plan to create a physical environment that enhances the overall educational experience at Mines. Increased enrollment, a more diverse student body and dynamic co-curricular programs demand updated facilities. The construction of the recreation center, along with many other changes to the campus landscape, reflects the School’s vision for the future and commitment to excellence. In addition to the many amenities and improvements to student life the recreation center will bring, notes Coach Krueger, this “beautiful building will be a perfect complement to our already beautiful campus.”


*Philanthropy at Mines*

Completion of Mines’ new recreation center won’t come soon enough for the School’s active student body. But the building’s groundbreaking ceremony August 18 gave the campus a clear sign that the project is well on its way.

Students, varsity athletes, School administrators, benefactors and architects donned sky-blue hard hats as they turned the first shovels of dirt at the recreation center site near 16th and Maple Streets. The ceremony honored the contributions of many individuals and organizations involved in the project, including the recreation center volunteer fundraising committee, benefactors John Geol E ’52 and Erika Lockridge, the Adolph Coors Foundation and other major donors to the project. As the largest capital construction project in the School’s history, the recreation center project is the key piece in the comprehensive campus master plan to create a physical environment that enhances the overall educational experience at Mines.

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Hurricane Horror

With at least 81 CSU alumni and their families living along the Gulf Coast of Louisiana and Mississippi, many Mines graduates were affected by Hurricane Katrina. Another 1,314 alumni families live in the area affected by Hurricane Rita. As an initial response to the disaster, the Association set up a message board on its Web site to help alumni in the stricken region locate one another. In addition to getting the word out that various people were safe, the message board revealed the kindness and generosity of our graduates.

Many offered their homes as temporary shelters.

The photos of hurricane damage on these pages came from alumni and their friends, family and coworkers.

John Chapman M Eng Chem Mineral ’69 and his wife, Jacqueline, run a bed and breakfast in Centerville, Miss., about an hour north of Baton Rouge, La. By noon on Sunday, Aug. 29, all their rooms were reserved by people planning to evacuate from Hurricane Katrina. The Chapmans’ house was filled with people and their pets including four dogs “of varying sizes, a diabetic cat, a macaw and a cockatiel.” Centerville was well over 100 miles from the eye of Katrina, yet was battered.

“This would be equivalent to having a weather event go through Pueblo and the wind/rain associated with it knocking out the power in Denver,” Chapman notes.

He continues, “On Monday August 30, I awoke early to see what was happening with Katrina. As we watched the events unfold with the vivid imagery that television provides, the weather was worsening outside the house with increasing winds and heavy downpours that came at closer and closer intervals. Shortly after 9 a.m., a heavy wind gust came by and the power went out. Jacqueline broke out the candles for later and I found the flashlight. Luckily, one of our guests had a wind-up portable radio that we could follow what was happening in New Orleans and Baton Rouge. We did not have phone service at that time so I reported the outage and was told it would be a week to 10 days before power would be back. We learned later that Katrina knocked out power across all of southeast Louisiana and 75 percent of Mississippi.

“We watched the events through and sucked all the moisture out of the air.

“Our Monday, August 29, the eye of Hurricane Katrina made landfall. We sat mesmerized in front of several television sets. Anxiety, confusion, and fear filled my guests’ minds. What about my house? What about my job? When will we be able to return? What about my school?”

“The true extent and extensive damage of the storm was not realized until the following Tuesday. It quickly became apparent that the immediate response to the situation was grossly inadequate. Too many storms had approached in the past and then veered off leaving the region with a false sense of invincibility. The result was a disaster-within-a-disaster. Procedures were not followed or thoroughly thought out, leadership by the city, state and federal government was slow, individuals made poor choices. Systems were overwhelmed and a sense of panic and urban anarchy briefly set in. Security evaporated and urban anonymity briefly set in.

“But over the following days, the true American heroes emerged. The Red Cross and Salvation Army appeared and church doors swung open. Thousands of homes opened to the homeless, individuals left their jobs and schools, hitched up their bass boats and set out to rescue the stranded. The rest of the country heeded the call to help and poured out their hearts and resources. If there is one shining moment in this catastrophe, it was this call to arms by the many unsung heroes and organizations.”
The destructive path of Katrina was nearly 500 miles wide. That’s like taking every stream and river on Colorado’s Front Range from Ft. Collins to Colorado Springs and putting them into a flash flood stage of 36 feet high at the same time and observing the subsequent destruction.

This hurricane scooped out the land in Lower Louisiana and moved the mouth of the Mississippi River upstream some 30 miles. The surge up the Mississippi moved a ship repair dry dock that weighed hundreds of tons upriver nearly 10 miles. Three small towns were wiped off the map and the Gulf of Mexico reclaimed over 200 square miles of land from Louisiana over 200 square miles of land from Mexico reclaimed. The map and the Gulf towns were wiped off the map. The evacuation of the greater New Orleans area is equivalent to having to evacuate the City of Denver and its immediate suburbs (i.e., Arvada, Wheat Ridge, Lakewood, Littleton, Englewood, Westminster and Aurora west of I-25) to the Arkansas River Valley and the only routes allowed are I-70 West, I-25 South, and US 28.

John Chapman

This magazine finds alumni scattered across the globe. They live alongside rivers, volcanoes, earthquake zones, tornado zones, beaches and hills. All of them are vulnerable to some force of nature. I close with these questions for the reader: In regards to your region, please ask yourselves the following questions: "How prepared are you and your family?" "How prepared is your local and state government?" "How prepared is your national government?" -Barry Gidman

Photos were submitted by Amy BSc Geol ’93 and Brandon Scheiner BSc Chem Eng ’02, Alas Broadhurst BSc Engr ’03 and Microwave Schmidt BSc Phy ’03. Background photos courtesy of Natural Ozonic and A Mephoteric Administration. If you’re interested in purchasing a copy of the book, see the form on page 27.
22 tackles for loss and three sacks.

The defense with 30 tackles, six

linebacker Jared Heath is tops on

two scores, while senior

catcht 29 passes for 383 yards

yards and three scores. Senior

touchdowns and has run for 161

football.

its first win of the season, 45-13,

and Division I-AA Northern

to MIAA foe Washburn (28-17)

team began the season with losses

12 seconds behind the first-place

junior Michael Rooney was 10th

classmate Heather Beresford

with a time of 22:56, while

opening CU Time Trial, senior

in the North Central Region and

CSM.

leads the team with 196 digs. Earlier

libero Sarah Alsbrooks is tops on

and 17 service aces, while senior

Colorado, has amassed 371 assists

transfer from Northern

first nine matches, including

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CSM won the first two

Senior outside hitter Samantha Bauer

games of the match. Senior

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best starts in School history. The

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The volleyball

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Going for the Gold on the Guggenheim Dome

Photos by Tom Cooper

Not since 1987 had the gold dome atop 99-year-old Guggenheim Hall received a new coat of gold leaf. Hailstorms had taken their toll, so it was re-gilded during summer 2005.

Financed by a $46,000 insurance claim for hail damage, the work began with removal of the old bronze panels around the 6-foot-9-inch-diameter half hemisphere dome that is framed in wood and covered with metal.

Finally the panels were gilded. Jay Otto did the work. His father, Glenn Otto, applied the last gilding in 1987.

Guggenheim Hall was built in 1906 with a $70,000 donation from Simon Guggenheim, then a U.S. senator from Colorado. How much gold does it take to cover the dome? Records from 1987 show that it took just four-tenths of an ounce of gold. The thickness of the gold leaf is .025 inch.

And new bronze was added, then given a sizing treatment to make the gold leaf adhere.

The bronze panels that cover the wood frame were removed.

Photos by Tom Cooper
Listen Up!
Mines Takes to the Airwaves

Opportunities for the humanities are increasing at Mines. This semester, a group of students, headed by junior math major Justin Regina, created an internet radio station.

Justin, who has been announcing basketball, volleyball and soccer games for Mines for the past several years, is the mastermind behind the project. "The idea came to me when I saw how often the opponent team would have a radio station following them, but we had nothing of our own," he says. "And considering football's success last year, I imagined that there could be quite a need to be able to listen to the away-games live. In the past, it was the only way to know what was happening to wait until the game was over."

In January, Justin began asking his friends what they thought about a Mines radio station. "They were supportive and said they would join," he recalls. "I started the project, and the idea took off."

Mines Internet Radio, MIR, began broadcasting this fall. Justin explains, "We became a CSM club back during the spring semester, founded under the name Colorado School of Mines Broadcasting Club, CSM BC. It is a 24-hour-a-day, 7-days-a-week broadcast. At the moment, it consists primarily of randomly chosen music that the computer selects. However we have more DJs beginning to host shows and we have a nice variety."

During the summer, the broadcasting club applied for money from CSM's technology fee revenues and received $11,500. With that money the club purchased broadcasting equipment including a CD player, a server, microphones and headphones. "Our technology and equipment needs are fairly well met thanks to the tech fee, but we have other expenses associated with running the station," says Justin. The club needs to raise money for broadcasting license fees to purchase the rights to broadcast music and for promotional items and advertising to increase listenership. "We fund these through underwriting, where businesses have a chance to purchase underwriting spots on the air," Justin continues. "We have raised about $700 through this; however, we are looking for just a little bit more. Also the athletics department has been generous. They provide the transportation for our broadcasters on the away games and also cover the expenses of the long-distance phone calls we are required to make so we can get their signal back to our studio and out to the public."

The new station, which can be accessed from your computer at radio.mines.edu, broadcasts some Mines sports events live including all home and away football games. In the future, the hope is that all athletic events can be covered. The Mines athletic department hosts a weekly show Mondays at 7 p.m. (Mountain Time) to give updates on all Oredigger sports. "We also have a comedy show one night a week," Justin says, "and have been broadcasting the Anonymous Right Brains shows. There is a lot more in the works."

By Maureen Keller

Events Calendar

November

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Order of the Engineer, 5:15 p.m., Student Center Ballroom A, 126, RSVP to Janet, 303-273-3255.</td>
</tr>
<tr>
<td>19</td>
<td>Arizona Alumni Olympics, Details TBA.</td>
</tr>
</tbody>
</table>

December

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>01</td>
<td>Roving Metro Mix, first Thursdays, see Web site for details.</td>
</tr>
<tr>
<td>02</td>
<td>Houston: 11:30 a.m. Third Annual Holiday Luncheon, Petroleum Club, 800 Bell Street, Suite 4300. Cost and reservation information TBA.</td>
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</table>

January

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<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>06</td>
<td>Denver – Holiday Dinner, 6 p.m., University Club, Denver. See Web site for details.</td>
</tr>
<tr>
<td>07</td>
<td>7 a.m., Alumni Breakfast at the Northwest Irving Conference, Red Lion Hotel in Spokane, Wash. 509-944-1132 or <a href="mailto:s1harv3y@comcast.net">s1harv3y@comcast.net</a> for details.</td>
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</tbody>
</table>

February

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<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>01</td>
<td>Golden, Colo., Lunch Bunch: second Thursdays at Buffalo Rose, 1119 Washington, 11:30 a.m.</td>
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March

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</tr>
<tr>
<td>09</td>
<td>Golden, Colo., Lunch Bunch: See Dec. 8 for details.</td>
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</table>

For the most up-to-date information on what's happening in your area, check the website at www.alumnifriends.mines.edu and click on "News and Events" (top of page). Scroll down to the calendar.

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Frontier-Kemper Constructors, Inc.
CSM has a wealth of interesting geology on campus and now there’s a marked trail that shows it off. “I’ve taught all over the world, but I’ve never seen this much geology on a campus,” says Bob Weimer, CSM professor emeritus, and the force behind the trail. Weimer has been taking people on geology walks through campus since the 1960s because Mines has one of the best examples showing the uplift of the Front Range.

Weimer explains, “The story of the Front Range uplift comes from rocks exposed on the campus, the Table Mountains and Green Mountain, three miles to the south. This walking tour visits outcrops of the Pierre, Fox Hills, Laramie and Arapahoe formations. The younger volcanic-rich Denver Formation, once visible in campus excavations, is now exposed only on the slopes of the Table Mountains. Environments of deposition and ancient landscapes are described with emphasis on the mined clay, coal, water aquifers, log imprints and dinosaur tracks. The mountain terrain to the west is held up by resistant Precambrian crystalline rocks that were uplifted along the Golden Fault (64 to 55 million years ago). The uplift rotated the once horizontal formations in the campus area to a near vertical tilt. Volcanic lava flows cap the Table Mountains to the east and overlie low-dipping strata of the Denver Basin. The Golden-Green Mountain area may be regarded as the type locality for the record of events that built the Rocky Mountains, referred to as the Laramide Orogeny, a name derived from the Laramie Formation.”

When the geology museum moved to its new building in 2003, Weimer thought the geology trail should become more formalized. More than a year and many volunteer hours later, the trail is marked and brochures are provided so that one can do a self-guided tour. Better yet, sign up for a guided tour led by Bob Weimer during special events, such as reunions.

The trail starts at the geology museum, heads south for a block and then turns up the driveway beside the residence dorms. A large sign on the corner at Maple Street points the way. Stop 2 (the first after the museum) is a prominent sandstone ridge with visible dinosaur tracks, ancient animal burrows and leaf and wood imprints. The tracks were made about 68 million years ago when the land was flat and marshy, before it uplifted.

Stop 3 shows gray to tan fine-grained sandstones and gray, red, yellow and black claystones from freshwater deposits on the margins of major river channels that were located two to three miles north of Golden circa 68 million years ago. Both claystone and sandstone are typical of those mined by the Parfet family beginning in 1877. The clay was used to make bricks and tiles for construction.

At Stop 4, a prominent sandstone ridge from the Laramie Formation ends abruptly at a fault contact with marine shale of the Pierre Formation, showing how beds extend laterally until they reach a fault or pinch out.

Weimer has assembled a rock garden at Stop 5. Rock samples, many taken from the nearby CSM drilling lab, describe the geologic formations in the north Golden area and are aligned according to their age: the oldest Precambrian rocks are to the west, the Paleozoic and Mesozoic are in the middle and the Cenozoic lava flows of the Table Mountains are to the east. Eventually, Weimer hopes to obtain and display samples of all the major mineral deposits that contribute to Colorado’s history and wealth.

At Stop 6, the gray shale of the Pierre Formation, deposited in an ancient shallow marine seaway, meets the yellow, fine-grained shoreline sandstones of the Fox Hills Formation. Stop 7 is at the monument, near Brooks Field, to the 10 miners who died in the White Ash Mine when it flooded in 1889. The old mine was being used to mine a 6- to 8-foot coal seam along 12th Street in the late 1880s. From that spot, one can see sandstone ridges between the mined-out clay seams.

The final stop, just west of the Geology Museum, shows contact between the claystone of the Laramie Formation and the conglomerate of the Arapahoe Formation. The conglomerate was deposited by braided rivers draining eastward from an uplifted core of the Front Range. The Arapahoe Formation extends under the Denver Basin to the east and is the source of well water for metro Denver residents.

In February, CSM’s geology trail became an Earthcache site. Earthcache is an adventure game for Global Positioning System (GPS) users. Cache notes are recorded on a Web site, www.geocaching.com, and include details on how to find various sites using GPS. There are nearly 99,000 sites within the United States and about 500,000 players.
In 1940, I was a high school junior and decided to attend the Colorado School of Mines. I didn't know what engineers did, but I liked and was good at math and science. I considered other schools in the area, but Mines' tuition was only $35 a semester and I could live at home and commute.

After graduating from high school in 1941, I prepared to register in the fall but came down with equine encephalitis (sleeping sickness). It was months before I could do anything. I worried I would never be able to go to college. My parents were upset and couldn't believe I would go through this. They thought I was the only one affected by this disease.

By William R. Smith PE '48

Inset: Bill PE '48 in his cap and gown. Right back row from left, Brian ESC PE '81, Bill, Erik ESC Eng '83 with Jennifer in the foreground.

In 1949, after graduating from Mines, I joined the Army Air Corp. I served and then joined the Army Air Corp. I served in World War II and served until 1946. In the meantime, I married Joyce Burk and had two daughters. Although I was tough, I got through and graduated in 1948.

My grandfather Bill, uncle Brian, and cousin Erik taught me the Mines song and asked if he could use it. They responded by making him the sole person with rights to the Mines song. He then contacted Shell geologists. He then contacted Shell and developed new techniques of mapping with stereo aerial photos and developing new techniques of exploration such as the surface gamma-ray logs and gamma-ray, rapid precision mapping with a GPS on derrick, and mapping with stereo aerial photos on computer. Presentations of some of these discoveries at AAPG (American Association of Petroleum Geologists) conventions have netted him two coveted Levorsen awards (American Association of Petroleum Geologists) conventions have netted him two coveted Levorsen awards.

The biggest challenge for Chamberlain to overcome is keeping positive and optimistic during the 'dog days' in the oil and gas business. He has said that he has a great time "discovering geological features such as the Alamogordo thrust faults, thrust faults and folds, fossil, depositional settings, and developing new techniques of exploration such as the surface gamma-ray, rapid precision mapping with a GPS on derrick, and mapping with stereo aerial photos on computer." Presentations of some of these discoveries at AAPG (American Association of Petroleum Geologists) conventions have netted him two coveted Levorsen awards and a Bed Poller Award at a National Convention. Chamberlain expects drilling to begin next year.

The Legacy of the W. R. Smiths at Mines

By William R. Smith PE '48

Inset: Bill PE '48 in his cap and gown. Right back row from left, Brian ESC PE '81, Bill, Erik ESC Eng '83 with Jennifer in the foreground.

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Dear Alumni,

The big news on campus is that President John Trefny will retire in July 2006. The Alumni Association will surely miss one of its most prominent supporters. The board of Trustees announced that, unlike the last presidential search, they wish to conduct the search themselves rather than rely on an outside executive search firm. They say that alumni are key to their efforts in finding the most qualified candidate who will lead Mines to the next level. We agree.

The Association Board believes there is no issue more important to the future of the School than the selection of a new president to replace Dr. Trefny. The School faces unprecedented challenges with respect to the funding of its operations and the level of oversight and control exercised by the State of Colorado. It also faces extraordinary opportunities to extend its global reach and become a player on the world stage. We believe there is no institution more qualified than Mines to address the world's growing energy problems. We can lead our nation's effort to become energy independent and to identify and resolve the complex economic, environmental, and policy issues that will confront us every step of the way. There is no more pressing need or exciting opportunity.

Many of our alumni are already engaged in this critical effort in industry, government, or academia. It will take a special person to lead the School and to successfully surmount these challenges and pursue these opportunities. The new president must have vision, courage and stamina and be able to assemble the right team. He or she must also be able to "walk the walk" and "talk the talk" and communicate with business leaders, politicians, scientists and engineers, environmentalists and members of the community. In addition, he or she must have the full backing and support of the Mines community. These are no small tasks!

We believe that the Association and the alumni can (and should) assist the trustees in the selection process. We can also be instrumental in creating the critical acceptance and support required from the Mines community. On behalf of the Association, we sent a letter to the Board of Trustees expressing these views. We believe that our role is consistent with and an intended consequence of the joint operating agreement between the School and the Association.

We have also been wrestling with our own governance issues. As a result of the execution of the joint operating agreement with the School, we decided it was time to review our bylaws and make necessary changes to bring them up to date. A governance committee was appointed by the board to review bylaws and propose necessary changes. The committee suggested substantive changes to the CSMAA bylaws and the board adopted them earlier this year. The key changes are as follows:

• The members vote for directors in their respective regions (as they always have done). However, the bylaws were changed so that the elected board appoints the officers based on the recommendations of the nominating committee. This procedure is consistent with corporate practice, particularly with respect to nonprofit organizations, such as the Association.

• While it has been a tradition for officers to “go through the chairs” from secretary to president, there is no longer an automatic progression from secretary to treasurer to president-elect. Those positions are now elective, renewable one-year terms. This will ensure that the board has the power to appoint the best person for each position and it will also reduce the burden on the elected officers, many of whom may be unable to make a long-term commitment to serve as an officer of the Association.

• Members of the executive committee, including the president, are not required to be residents of the Denver-metro area. So long as the board is satisfied with the person’s ability and commitment to fulfill his or her duties, any alumnus/na is eligible to serve.

• The board has increased its size with the addition of three new directors. This will enable us to be more inclusive and provide greater opportunities for interested alumni to serve on the board.

• The composition of the board’s nominating committee has been changed to include three alumni chosen by the board, a School designee appointed by the School president, and the executive director of the Alumni Association. This will enable us to reach out to a broader pool of potential candidates for participation in the activities of the Association.

• The immediate past presidents is an ex-officio, nonvoting member of the board. This will ensure continuity of experience and leadership.

The joint operating agreement (JOA) was signed nearly two years ago. The JOA specifies one person to fill the dual role of an executive director of the CSMAA and the director of the Office of Alumni Relations. After Dr. Trefny’s retirement, the School president will appoint the director of the Office of Alumni Relations. This structure is utilized by many colleges and universities and it’s working very well for us. We are very pleased to have Anita on board (no pun intended!).

In the past two years, many of the benefits anticipated by the JOA have been realized. There are ever-growing efficiencies between the School and Alumni Association on awards committees, financial aid for students, student programming and the like. The one area of the JOA that has not yet been adequately resolved is the issue of funding for alumni career services. I am hopeful that the School can and will pitch in and resolve this issue during the next few months. Another purpose of the JOA is to give the alumni, through the Association, a “seat at the table” with respect to important issues facing the School. The selection of a new president is precisely such an issue. We are hopeful that the Board of Trustees will involve the alumni in a meaningful way in the selection process.

Best wishes for the happiest of holiday seasons. After weathering hurricanes, floods and tsunamis this past year, I wish all alumni safety, peace, prosperity and happiness, wherever you may be.

Respectfully,

Alan Menein
President, CSMAA

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BS Geol ’79
President-elect Kathleen A. Altman
BS Geol ’81
President Roger Newell
MSc Geol ’71
Treasurer Lori Stucky
BS Geol ’79
Secretary Maureen Keller
Editor/Publications

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BS Geol ’61
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MSC Geol ’61
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Secretary

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Administrative Assistant
Kathy Bredt
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Boo Pearson
MSC Geol ’79

Director of Sections and Geographic Programs

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Records Mgr
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CSM Alumni Association
Move-in Day
The Alumni Association section hosted its annual move-in day picnic for incoming freshmen and their parents. It was held at the Coolbaugh House on a beautiful August afternoon.

Metro Denver
A group of Mines alumni, CSMAA staff and friends attended a Rockies baseball game at Coors Field in July. The Rockies stunk, but everyone else had a good time.

Homecoming
Homecoming was held in October, and this year included a pre-game picnic at Lion’s Park in Golden.

New Life Members
Gary R. Abbott '94
Natalie A. Abbott '95
Douglas E. Baldwin '03, '04
John H. Benton '78
Brett K. Brunk '92
Debra K. Brunk '92
Darren A. Buck '94
Kristan K. Buck '92
Bryan J. Burinda '94
Christine G. Burdina '96
Kevin D. Creel '95
Leslie K. Creel '96
W. Grover Coors '96, '01
Vanessa A. Davies-Pappas '99, '01
Andrew R. Depperschmidt '02, '04
Sara J. Depperschmidt '03
Dennis G. Downing '94
Randy G. Edelen '97
Cheryl J. Foster '97
Robert C. Foster '97
Paul R. German '10
Melanie D. Gipe '81
Kendall J. Janowski '02
Jennifer W. Jessup '05
Michael S. Metzler '97
Lawrence S. O'Connor '76
Randall B. Ollmann '88
Andrew L. Olson '90
Paul E. Patten '89
Robert W. Pease '59
Karen E. Phelps '86
Randall L. Phelps '96
J. Jason Pinto '96
J. Douglas Pitts '89
L. Douglas Poole '79, '87
Colleen T. Pinto '94
Stephen E. Randolph '82
Terrill W. Ray '90
Perry E. Reiber '99
Michael D. Ringler '88
Kamal A. Sandrusi '82
Stanley E. Shaw '83
Howard A. Steidtmann '86
Jon R. Taylor '77
Giuliano G. Verdin '86
Randall S. Worwag '82

Central
Chicago, IL
The Chicago section met at a Cubs-Rockies game in August.

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Extraordinary in Nature
Announcing a one-of-a-kind travel-study opportunity through the Colorado School of Mines Alumni Association
July 22-27, 2006
Our adventure begins in Calgary, Alberta, where we will gather for our first journey through the foothills of the Canadian Rockies. We pass through Banff National Park en route to the spectacular setting of the Emerald Lake Lodge. Following a welcome dinner we will meet with the Burgess Shale Foundation for a two-hour interactive presentation on the world’s most significant fossil discovery. Take advantage of a full-day opportunity to hike the notable Burgess Shale or sightsee in Yoho National Park, Lake Louise and along the Icefield Parkway to Peyto Lake and Crawford Glacier. Leaving Emerald Lake, we set our sights on the remote Selkirk Range of the Columbia Mountains and helicopter to the Adirondack Lodge for two and a half days strolling, hiking and exploring with knowledgable mountain guides. Evening lectures by Mines geologist John Warme complement the days’ hikes through the Adirondack intiations, one of the largest intrusions of black granite. This area is home to some of the oldest rock on earth – some theories date it back 5.8 billion years – and holds prime examples of both syncline and hom mountain structures. Following our exploration of the Adirondaks, we return to Calgary and then home on your own.

Call Audrey at Canadian Mountain Holidays directly for more information on this unique experience for the Mines community at 1.800.661.0252. Don’t delay as space is limited: the CSMAA/RMAG Grand Canyon River Rafting Trip for 2006 sold out in a flash.
EDWARD E. BENNETT ME ’42 died May 31 in Bartlesville, Okla., from a condition related to pancreatic cancer. He was 93. A Denver native, Bennett followed his brother, Robert, in 1940, to MInes. At CSM he participated in ROTC and worked for a professor on campus. After graduation, he joined the U.S. Army Engineer Corps as a second lieutenant and served in Europe until the end of the war. After the war, he was employed by Public Service of Colorado and served in the Colorado National Guard. In 1951, Bennett began a 34-year career with Phillips Petroleum and started at the ammonium nitrate facility in Cactus, Texas, followed by a transfer to Oklahoma. He retired in 1985 as director of the material’s testing laboratory of Phillips. Bennett was active in Bartlesville youth baseball for many years and was an avid gardener, golfer and stamp collector. He is survived by his wife of 63 years, Jean, two sons, Stuart PRE ’66 and Bruce, seven grandchildren and six great-grandchildren.

BENJAMIN E. BINKLEY GOE ’52 died peacefully at home in San Anselmo, Calif., June 6 at age 77. The Denver native was a member of the Tau Beta Pi honor society while at Mines. After 30 years at San Francisco International Airport, he retired as a project manager in the engineering department. Binkley was an experienced and adventurous traveler to exotic locations, a passion he shared with his wife of 44 years, Arnette. Binkley is survived by his widow, a brother, nieces, nephews and cousins.

DAVID R. BOYDSTUN BS Eng ’30 died on Lummi Island, Wash., while going fishing, his daily run June 8, one day before his 77th birthday. He was an exceptional athlete, competing in his first marathon in Dublin, Ireland in January. Recently he participated in Bellingham’s Sky to Sea as the runner. Boydstun was employed by Chevron-Texaco and worked in Bakersfield and Ventura, Calif., Ferndale, Wash., Aksai, Kazakhstan and, most recently, Al-Zour, Kuwait. When he died, Boydstun and his family were in Washington for their summer home leave. Boydstun met his wife, Anne Madisen, at a triathlon in Bakersfield, Calif., and they married in 1993. Their daughter, Bryn, was born in March 2002 and son, Dylan, was born in Kuwait in January. Boydstun loved the outdoors and learning and studied Russian and Arabic. His favorite quiet time was spent playing the guitar. Boydstun is survived by his parents, his widow, two children and a sister.

ROBERT D. DECKER BS DE Ge E ’53 of Mariposa, Calif., and Kawahawe, Hawaii, died June 11 at age 78. In addition to his Mines degree, he also held a master’s degree from Massachusetts Institute of Technology. A geophysicist and volcanologist, Decker taught at Dartmouth College for 24 years, then served as director of the Hawaiian Volcano Observatory for the U.S. Geological Survey. He studied volcanoes all over the world, especially in Central America, Iceland, Indonesia and Hawaii. Together with his wife, Barbara, he wrote 15 books about volcanoes and about U.S. national parks and authored more than 100 scientific papers. Decker is survived by his widow, sons Eric, Rand, Jeffrey and Greg, a daughter, Stephanie, and four grandchildren and three great-grandchildren.

CHARLES B. "Chuck" DUGGER JR. ME E ’66 died July 27 in Reno, Nev. He was 61. He spent his entire career in the mining industry and traveled extensively throughout six continents during the course of his professional life. Dugger was president and owner of ACP Equipment and was still calling on customers a month before he was hospitalized. In addition to his business endeavors, the hard rock miner was also an expert at the propagation of African violets. Dugger was an avid learner always ready for a challenge. Documenting his family history through his photography was a favorite pursuit. Dugger is survived by his wife of 23 years, Pat, four sons, a daughter, two brothers and seven grandchildren.

ALAN FERGUSON GeE ’55 of Sugar Land, Texas, died of prostate cancer July 29. He was 74. Ferguson was born in Niagara Falls, N.Y., and was an Eagle Scout. He first attended University of North Carolina and Cornell University before enrolling at Mines. While at Mines, he was a member of Tau Beta Pi, Sigma Gamma Epsilon and AIMME and was on the CSM safety team for two years. His first job after graduation was with Humble Oil and he spent 10 years in Louisiana and Mississippi. He then moved to Houston. Between 1984 and 1988, Ferguson was an independent contractor developing oil and gas prospects along the Louisiana and Texas gulf. In 1988, he joined Arkla as a consultant. In 1994, the company was sold to Seagull, and Ferguson retired a short while later. He worked from home as an independent contractor. Ferguson was also an artist and his wife, Phyllis, sells her watercolors at (Watercolors@hotmail.com) on eBay. Ferguson and his wife had lived in Sugar Land for the past 15 years where they enjoyed playing tennis, sailing, and working crossword puzzles together.

LEROY "LUKE" Fournier GeO E ’50 of Moody Beach, Me., died May 14 after a long illness. He was 82. In 1942, Fournier joined the U.S. Navy and served in the South Pacific during World War II. He was a quartermaster second class on the destroyer USS Guard and was involved in the battle for Iwo Jima and the liberation of the Philippines. Afterward, he used the GI Bill to attend Mines where he was a member of Sigma Nu. While in Colorado, he met and married his wife, Elinor Anderson. During his career, Fournier explored for oil in Texas and Indonesia and always had his family with him. “Life for the kids was an adventure,” his son said. After retirement, Fournier taught geology at Saint Joseph’s College. He was vice commander of the Leroy Hanson Post of the American Legion and helped organize local Memorial Day parades. He was a member of the Knights of Columbus, the Wells B.P.O. W. #2736, the American Association of Petroleum Geologists and the American Institute of Professional Geologists. Fournier is survived by his wife of 57 years, a son, two daughters, two grandchildren, a brother and a sister.

JERRY LEE FULLER EM ’77 died July 13 at age 53. He grew up in Dawson Springs, Ky. At age 22, Fuller decided to pursue mining engineering at CSM. In 1979, he began working for MSHA in the ventilation department. When the division closed in 1996, he went to work for OHSAM inspecting government office buildings and job Corp sites. He retired in 2003 to spend more time with his family and to tend his garden. After retirement, he volunteered for Habitat for Humanity in Evergreen, Colo. He helped build homes and gave lectures on safety. He loved his work, and was a pioneer in his field. At CSM, he taught classes for mine rescue and safety. Fuller is survived by his wife, Vickie, their son, David, and grandchildren, Kasen and Gavin, his mother, sister and brother.

P. L. GODDARD JR. GeE ’47 died of cancer at home in Swan Lake Mont., May 2. He was 82. At Mines, Goddard was a member of the Tau Beta Pi fraternity, Sigma Gamma Epsilon and participated in intramural sports. His junior year he was called into service during World War II and served in Navy aviation. Afterward, he returned to Mines and graduated. While in the service, Goddard married Martha Ekiss in 1944. His professional career took him to Texas, Colorado and California. He was the West Coast representative of A.R. Wilfley Dodge before his retirement in the mid 1980s. Goddard enjoyed flying and would frequently fly to Baja California, land on a beach, camp out and fish. He also was a skilled woodworker and built fine furniture. His widow, Mary, daughter Diane Paulson and three grandchildren survive him. A son, Paul, preceded him.

STANLEY C. HOLMES EM ’53 died June 5 in Scottsdale, Ariz., at age 75. Holmes developed his musical talent early, learning to play saxophone, clarinet, trumpet and trombone. By age 13, he owned and operated two dance bands that played at military bases. Holmes attended University of Alabama before transferring to Mines. While in Golden, Holmes met and married Ladine. By age 22, he became an underground miner for Phelps Dodge in Bisbee, Ariz. He and Ladine raised three children. Holmes was a leader in safety and fought several difficult underground fires. In 1974 he transferred to a developing underground mining project in Arizona and eventually became general superintendent of the Safford project and the Morenci Mine, and was vice president of Western Nuclear. He retired from Phelps Dodge in 1984 and moved to Scottsdale, Ariz., to work at the Beaverhead Mine before retiring for good in 1987. Holmes was a accomplished pilot and was active in the Civil Air Patrol. He was an avid watercolorist and painter of South Central America, Australia, Asia and Europe. He especially loved the Hawaiian Islands, South Pacific and the Caribbean, where he became an avid supporter of University of Arizona women’s softball and
Robert G. "Bob" Jacobson Geol E '53, a retired petroleum engineer with Mobil Oil Co., died April 27 of congestive heart failure at his home. He was 79. Born in Roselle, N.J., Jacobson had lived in Metairie, La., for the past 40 years.

At Mines he was a member of Tau Beta Pi. He was an exploration geologist for more than 30 years and contributed to the discovery and application of hydrocarbon indicators. He was a naval aviator and veteran of the Korean War, served in the Navy Reserve and was awarded the Distinguished Flying Cross. Jacobson was a member of St. Augustine Episcopal Church, the Blanton-Malted Downs Country Club and Beach Club, the Elwood Pointcharlton Basin Foundation and CSM AA. He also supported several charitable organizations, Jacobson is survived by his widow, Anne, a son, a daughter, a brother and two grandchildren.

Lytle R. Jenkins Met E '49 died peacefully at home in Decatur, Ill., May 11. He was 85. Jenkins was weather forecaster and in-flight observer of submarine activity and navigational flights in the U.S. Navy. While in the Navy, he studied geology at Stanford University and then earned a master's degree in geological engineering from University of Tulsa. Jenkins was employed by Pan American Petroleum Corp. from 1947 to 1954. He later worked for Stanolind Oil & Gas Co., now Arco, as a research geologist, area geologist and geophysical coordinator. From 1954-1958, he was a technical editor for the company. In 1960, he became advertising manager for the Bulletin of the American Association of Petroleum Geologists. He was also a founder and executive vice president of GeoData Corp., a leader in acquisition, sale and interpretation of seismic and geophysical data. In 1978, he became an independent geologist. An avid skier, Morrisey co-founded the Tulsa Ski Club and later the Tulsa Racquet Club. He was a member of the Tulsa Alumni Society. Morrisey is survived by his widow, Mary, and two sisters.

James "Jim" Perkins Geol E '40 died July 15 in Oklahoma City at age 84. His schooling at Mines was interrupted in 1942 by World War II. He served as B-24 navigator, 15th Air Force and was discharged in 1945 and returned to Mines. After graduation, Perkins became a geological engineer for Magnolia (later Mobil) until his retirement in 1981. Perkins was an avid rock hound and his favorite hobby was lapidary work. He is survived by his wife, 52 years, Elaine, one son and one daughter.

In Memoriam

Robert E. Olson Grp E '91
Robert E. Phelps MSc CPR '75, PhD CPR '78
Donald S. Quirk E '53
Charles D. Sands Geol E '37
William S. Smith EM '33
Edward M. Villareal EM '40

January 2005
2005
April 27, 2005
May 5, 2005
November 4, 2004
Dec. 3, 2003

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I first met Del Tolbert PRE ’57 in Korea sometime early 1953. He was assigned to Company A, 5th Infantry Regiment, 5th Regimental Combat Team. I, too, was a member of Company A. Being a young second lieutenant, Del was given the job to lead the Third Platoon.

My initial impression of Del was that he had unusual leadership qualities. Also, he seemed to have the qualities of a warrior. The men in his platoon immediately liked him and followed his instructions. He had a sense of humor that broke through during the worst of times and never, to my knowledge, showed any signs of weakness under fire.

I had been the executive officer of Company A when Del joined the company and when I was promoted to company commander, I promoted Del into my former job. That turned out to be one of the best decisions I ever made. Our defense of "Outpost Harry" will explain why.

On June 12 and 13, 1953, Company A, with attachments, was ordered to defend a combat outpost known as Harry. We were ordered to hold this hill at all costs. Harry was too small to allow all four platoons to be placed in a defensive position. Therefore, Del was ordered to keep one platoon of approximately 40 men at the bottom of the hill and be prepared to counterattack if we were overrun by the Chinese communist forces.

The Chinese attacked the hill in waves with 3,600 soldiers. Tremendous artillery bombardment hit the hill for hours on end. The Chinese overran our position, so I called Del for help. Without hesitation, he led his counterattacking force up the trenches, engaged in hand-to-hand combat and destroyed the enemy. There is no question in my mind that Del's leadership, valor and courage stopped the Chinese. He saved my life and allowed us to hold Harry.

After Korea, it was many years before I got to see Del again. When I did, the spark was still in his eyes, his bearing still strong. In fact, at our last reunion in San Diego, a member came up to me and stated, “That Tolten fellow would be someone I could follow into battle. He acts like a leader.” I explained that his observation was correct.

I regret that it took so many years for us old combat soldiers to get together. I am honored to have served with Del Tolten. He exhibited the essence of being an infantryman.


By Jim Evans
Aarggh! Who are these pirates storming into downtown Golden on a cardboard ship?

They’re Mines students, celebrating homecoming during the traditional parade down Washington Avenue in October. This year’s theme was “Yo Ho, Yo Ho! A Miner’s Life for Me!”