The science of climbing

Mines teams up with a dinosaur named “Sue”

The Andes family: United by the generosity of one man
The science of climbing

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### CSM 2023

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Dr. John U. Trefny  
President, Colorado School of Mines

Where are the students?

I remember very clearly attending my freshman assembly more than 60 years ago. There was a slide on the overhead showing the organization of the university. The scene was filled with connected boxes starting at the top with the Board of Trustees and the president and then branching out into many rows of vice presidents, deans, department heads, service-unit directors and the like. Although I found out later that no one was expected to ask any questions in that assembly, I nevertheless raised my hand from about the fifth row, and the dean asked me what I wanted. I bravely pointed to his organization chart and asked, “Where are the students in your picture?” Since he had forgotten to include them, this led naturally to quite a commotion among the 1,000 or so new freshmen. I nearly had my college career forgotten to include them, this led naturally to quite a commotion among the 1,000 or so new freshmen. I nearly had my college career ended on my very first day.

Mines, of course, has organization charts too. However, I can assure you that in the organization chart that really counts here, students are prominently in the center. They are why Mines exists.

You’ve been at Mines for 23 years. How would you characterize the School?

This is a truly unique institution. Unique in our programs, focusing on engineering and applied sciences as related to the development of the Earth and its resources. Unique in quality, attracting an outstanding student body, exceptional academic and administrative faculty, and superior staff. Unique in size, allowing us to easily work across departmental and divisional lines to achieve the extraordinary in education and research.

What is CSM’s role in education?

For all our students—from K-12 programs, to undergraduate, to graduate, to professional outreach—we must continuously evolve to meet changing circumstances and societal needs, constantly providing an education that works.

What is the fundamental purpose of the School?

To have all students graduate with the skills and knowledge and character to have successful careers, to lead lives of great fulfillment, and to make a difference for the betterment of the world. Working together as a community, we foster that goal.

What is the theme of your presidency?

My presidency is focused on making a difference, to have successful graduates who go on to make a difference to the betterment of the world. Working together as a community, we foster that goal.

What is the primary purpose of Mines?

To have all students graduate with the skills and knowledge and character to have successful careers, to lead lives of great fulfillment, and to make a difference for the betterment of the world. Working together as a community, we foster that goal.

Where is Mines located?

Mines is a truly unique institution. Unique in our programs, focusing on engineering and applied sciences as related to the development of the Earth and its resources. Unique in quality, attracting an outstanding student body, exceptional academic and administrative faculty, and superior staff. Unique in size, allowing us to easily work across departmental and divisional lines to achieve the extraordinary in education and research.

What is the theme of Mines?

The theme of Mines is the extraordinary in education and research. This is a truly unique institution. Unique in our programs, focusing on engineering and applied sciences as related to the development of the Earth and its resources. Unique in quality, attracting an outstanding student body, exceptional academic and administrative faculty, and superior staff. Unique in size, allowing us to easily work across departmental and divisional lines to achieve the extraordinary in education and research.
To prepare graduates for dealing with scenarios such as the one above, the CSM Division of Engineering now offers an environmental engineering specialty in conjunction with the Division of Environmental Science and Engineering.

Some 20 engineering majors are currently studying water and wastewater engineering, hazardous site remediation, solid and hazardous waste management, and environmental law and regulatory analysis. As with the other CSM undergraduate programs, the students are required to participate in a summer field session.

"It is in the Mines tradition to have a rigorous and enriching field camp experience," explained ESE Division Director Dr. Philippe Ross. "The Division of Engineering and the Environmental Science and Engineering Division are continuing this tradition in our new engineering track."

So this summer, for the first time, a three-week session introduced environmental engineering track students to laboratory and field skills used in the characterization and remediation of environmental problems. Students spent the first week on campus, refreshing their basic laboratory skills and developing analysis and monitoring techniques.

The CU Mountain Research Station near Nederland, Colo., was the site of the second week's activities, where the students conducted on-site environmental characterizations, including an assessment of the facility's wastewater treatment system.

Immediately after arriving at the Research Station, the team of professors, a graduate assistant and students hiked for four hours to survey the study area using Global Positioning System (GPS) equipment to supplement published map data. The additional information provided the students with a more quantitative picture of the area and its features.

Over the week, the students performed a number of activities connected with their field project, including setting up a weather station and monitoring meteorology data, analyzing samples from the station's wastewater treatment lagoons, and sampling streams...
The combined 120 hours of classroom, laboratory and field treatment centers. They were also able to have a close look at an advanced wastewater treatment facility and several on-site treatment sites. Students received a firsthand look at a number of other wastewater processes. Several other trips during the final week of field camp gave them an opportunity to wrap up the three-week session.

The Mines winners are:

A bioweapons detector based on the research of Dr. Kent Voorhees of the CSM Department of Chemistry and Geochemistry, who developed the detection protocol for this instrument, which is now mounted on United Nations and U.S. Army vehicles.

A material modeling software program that accurately predicts how metal parts change during processing and eventually fatigue or fail during use. It has applications in a wide range of fields from automotive design to earthquake and volcano to microelectronic systems. Dr. Mark T. Lusk, associate professor of engineering at Mines, was part of a team of researchers that developed this software.

Three Mines graduates are among the award-winning Microstructure-Property Model Software—a simulation tool that accurately predicts how metal parts deform and change phase during processing and eventually fatigue or fail during use. The microstructure property software allows for improved design through weight savings, higher fuel efficiency, and greater safety. It can be applied to crashworthiness analysis for all types of vehicles, including trains and planes. The software is also being applied to better understand how upper mantle convection relates to seismic activity.

"The material modeling capability is just one way to improve design and reduce weight. By understanding material behavior, we can improve fuel efficiency and reduce costs," said Voorhees. "We can even predict how parts might fail. It's part of a larger effort to understand the working properties of the part."

"The microstructure-property code simulates part production, so it is able to predict physical and structural properties before implementing a potential manufacturing process. Within the automobile industry, this allows designers to accurately explore ways to reduce weight, increase engine efficiency, and mechanically optimize parts," said Lusk.

Voorhees has focused more on bacteria and viruses, including more exotic ones from the common ones, so we have looked at both," he explained.

The product of his research is an identification protocol used with a mass spectrometer-based detector developed for the U.S. Army Soldier and Biological Command by a team including CSM, Oak Ridge National Laboratory, Orbital Sciences Corporation, and MSP Corporation.

The first generation of these detectors came on line shortly after the Gulf War and have been installed on U.S. Army and United Nations reconnaissance vehicles.

Battlefield detection is just one use for these specialized mass spectrometers. Voorhees sees application in other areas, such as rapid medical diagnostics, detection of bio-terrorism, and even food inspection. Two Ph.D. candidates at CSM are continuing the work, expanding the identification protocol.

Dr. Lusk developed a phase transformation model that is part of the award-winning Microstructure-Property Model Software—a simulation tool that accurately predicts how metal parts deform and change phase during processing and eventually fatigue or fail during use. The microstructure property software allows for improved design through weight savings, higher fuel efficiency, and greater safety. It can be applied to crashworthiness analysis for all types of vehicles, including trains and planes. The software is also being applied to better understand how upper mantle convection relates to seismic activity.

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Lusk was part of a 12-member microstructure-modelling team headed by Sandia National Laboratories that also included academic researchers from the Georgia Institute of Technology and the University of California-Berkeley.

Lusk's project contribution was to model the phase changes that occur within steel. During the process of making a part, the material goes through several changes in crystal structure. Lusk's code predicts these changes and relates them to the evolution of the working properties of the part.
CSM moves up in U.S. News rankings

Colorado School of Mines has again been named one of the "Top National Public Universities" by U.S. News & World Report in its "America's Best Colleges" guidebook released in September.

CSM ranked in the second tier of "Best National Universities," placing it among the top 100 schools in the country. (Second tier schools are not ranked within the tier.)

CSM also ranked #26 in the "Top National Public Universities" category and #31 in the "Best Undergraduate Engineering Programs with Ph.D. Programs" category.

Earlier in the year, the FR Department's graduate program was ranked #4 in the U.S. News graduate rankings.

"In our view this is an exceptional ranking, especially considering that we are a small, specialized institution competing with large, comprehensive universities," said Dr. Phillip R. Rusnak, CSM dean of graduate studies and research.

For more information about the ranking process, access the U.S. News web site at http://www.usnews.com.

Millennium freshman class also largest ever

The first freshman class of the new millennium is also the largest ever at Mines, with 649 students. This cohort brings the percentage of females up to 25.2 percent of the student body, a record.

The 2000-2001 statistics for entering freshmen include:

• average ACT/SAT scores of 27/1230 (national averages are 21/1000)
• average GPA of 3.8
• 56 percent in the top 10 percent of high school graduating classes.

New graduate student enrollment is also up, by eight percent.

JW attes

Dr. John Warner

ESE Admitted to Regional Program

CSM's Environmental Science and Engineering program has been admitted to the Western Regional Graduate Program (WRGP). Through WRGP, graduate students who are residents of the 14 participating states may enroll in participating programs in public institutions on a resident-tuition basis.

In addition, the master's degree programs of CSM's Petroleum Engineering Department have now been accepted into the WRGP. The department's Ph.D. program was previously admitted.

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Public Affairs,
SPACE, win publications awards

CSM's Office of Public Affairs won a first-place award for its National Concrete Cure Competition Media Campaign at the Higher Education Association of the Rockies conference in July.

The campaign resulted in 21 news segments over four days of coverage by three local television channels, as well as unrestricted $15,000 award in recognition of his work on plasma-enhanced chemical vapor deposition of electronic oxides. The 3M award, which may be renewed for up to three years, is intended to support research endeavors in plasma-enhanced deposition for future technologies.

Professor H. Peter Dohmen, professor of chemical engineering and petroleum refining, was instrumental in the development of the Multidisciplinary Engineering Laboratory sequence of courses, which has won numerous awards and national recognition.

Middleton earned his Ph.D. at the University of the Witwatersrand in Johannesburg, South Africa. At CSM he has served as associate professor of engineering and assistant director of the Division of Engineering.

"Middleton is absolutely the best teacher I have ever known," said Joan Gosink, director of the Division of Engineering.

Among his accomplishments, Middleton:

• has instituted significant improvements in the curriculum
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Colorado School of Mines has again been named one of the "Top National Public Universities" by U.S. News & World Report in its "America's Best Colleges" guidebook released in September.

CSM ranked in the second tier of "Best National Universities" placing it among the top 180 schools in the country. (Second tier schools are not ranked within the tier.)

CSM ranked #26 in the "Top National Public Universities" category and #3 in the "Best Values: National Universities" category.

CSM's Petroleum Engineering program ranked #3 in the "Best Undergraduate Engineering Departments with Ph.D. Programs" category.

"In our view this is an exceptional ranking, especially considering that we are a small, specialized institution competing with large, comprehensive universities," said Dr. Phillip B. Reing, CSM dean of graduate studies and research.

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"Dr. Middleton is absolutely the best teacher I have ever known," said Joan Goetink, director of the Division of Engineering.

CSM moves up in U.S. News rankings

Board of Trustees Out-standing Faculty Award

Board President Frank Erisman presented the award, which recognizes a faculty member who has made a significant positive impact on student learning. Not intended to be given each year, the award is an occasional recognition of truly exceptional achievement. Erisman described Middleton as "an extraordinary, visionary leader."

Among his accomplishments, Middleton:

- has instituted significant improvements in the curriculum
- has helped guide the Mines Honors Program

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In addition, the master's degree programs of CSM's Petroleum Engineering Department have now been accepted into the WRGP. The department's Ph.D. program was previously admitted.

ESE's Office of Public Affairs won a first-place award for its National Concrete Canoe Competition Media Campaign at the Higher Education Association of the Rockies conference in July.

The campaign resulted in 21 news segments over four days of coverage by three local television channels, as well as coverage in the Denver Business Journal, the Denver Rocky Mountain News, The Denver Post, and the Sentinel and Transcript newspapers.

Hosted by Mines and its American Society of Civil Engineers student chapter June 24 to 26, the national contest included teams from 26 colleges across North America.

A brochure on CSM's National Geophysics Department, hope: "exploration, geology, mining, and academic institutions."

Giobai Resources Policy and Geophysics Department, hope: "exploration, geology, mining, and academic institutions."

Faculty Notes: John Warne, professor of geology and geological engineering, will be a 2000-2001 distinguished lecturer for the American Association of Petroleum Geologists. He will offer three different lectures, ranging from giant asteroid impact beds in Nevada to limestone and sandstone petroleum reservoir types in basins of Morocco and California. Two-week lecture tours in North America are scheduled for October and February.

Colin Welden received the 3M Non-tenured Faculty Grant. He is an assistant professor of chemical engineering and petroleum refining. The unrestricted $15,000 award was in recognition of his work on plasma-enhanced chemical vapor deposition of electronic oxides. The 3M award, which may be renewed for up to three years, is intended to support promising young faculty and promote closer ties between 3M and academic institutions.

Rockef Seidler visited several corporations and research institutions in Japan to explore the possibilities of future collaborations with the Geological Survey of Japan, University of Tokyo, Japanese Port and Harbor Authority, Oyo Corporation and University of Tokyo. Seidler, who is the W.M. Keck Foundation Distinguished Chair in Exploration Science in the Geophysics Department, hopes these contacts will forge the way for new research collaborations as well as strengthen CSM's current relationships with Japan.

James Otto, director of the CSM Institute for Global Resources Policy and Management, addressed the World Business Council for Sustainable Development this summer in Geneva, Switzerland, on sustainable development in mining.
Campus construction update

- Ben Parker Student Center: A 15,500 square-foot addition is anticipated to be completed July 2001. The new addition will house most student service offices and additional banquet facilities.
- Building Controls Systems Upgrade: Plant Facilities is in the process of upgrading existing temperature controls and energy management systems software for all buildings on campus.
- Center for Technology and Learning Media (CTLM): A 15,500 square-foot classroom building, will be completed summer 2001 and contain six classroom/labs and six student-team working areas.
- Chauvenet Remodeling: The high bay area is currently being renovated for an environmental sciences laboratory and Room 120 is being renovated for a mathematics computer lab.
- Coolbaugh Room 321: Remodeling began in October.
- Guggenheim Hall Classroom Asbestos Abatement and Debris Removal: A $198,000 state-funded cleanup will be completed late fall in preparation for future HVAC replacement and fire sprinkler installation projects.
- Hill Hall: With completion of the final phase of three capital construction phases, totaling $23 million, Hill Hall was occupied in September.
- Intramural Field: By December the Intramural Field will have lights, restrooms and a storage facility.
- Master Planning: Preliminary planning for campus parking is currently in progress.
- Mines Park: Following the completion of the Intramural Field project, the expansion of the Mines Park area includes fencing, lighting, restrooms and parking.
- Residency Halls: Remodeling of the halls began in May with an anticipated completion date of May 2001. The four halls—Morgan, Thomas, Bradford and Randall—are scheduled for asbestos upgrades and beautification of the dining areas.

Future phases include Brown Hall, Chauvenet Hall and shop buildings.

Fraternity Houses: Remodeling of the Sigma Nu house is expected to be completed by December and the Phi Gamma Delta house remodeling began in October.

Classified Employee of the Year

Barby Halliday, program assistant for the Division of Engineering, was named the CSM Classified Employee of the Year. She was awarded this honor for her "dedication, cheerful demeanor, ability to solve complex problems and willingness to multi-task," according to Division Director Joan Gosink. Halliday has been a state employee for 15 years and with CSM for the past two years.

Classified Employee of the Year Contd...

August for an addition to Brown Hall for the Division of Engineering, a multi-discipline lab addition to Coolbaugh Hall, and Lower level renovation to the Green Center for the Department of Geophysics.

Public Safety: Remodeling of the new Public Safety building, 1812 Illinois Street, was projected to be complete by November.

Residence Halls: Remodeling of the halls began in May with an anticipated completion date of May 2001. The four halls—Morgan, Thomas, Bradford and Randall—are scheduled for asbestos upgrades and beautification of the dining areas.

(continued top of next page)
Freshman John Klish is a good listener. He listens with his eyes.
A lip reader, he was born with a profound hearing loss. Reading lips is a skill he acquired at a young age. His mother, an occupational therapist, knew soon after his birth that John was not hearing with his ears. He began speech lessons at three months of age. 

By Jane Raunikar Taylor

Through six years of learning at Clarke School for the Deaf in Northampton, Mass., John became proficient in communicating with the "hearing" majority by reading lips and using hearing aids to help decipher sounds. He then returned home to Grand Junction where he completed fifth grade through high school.

John used his lip-reading skills solely until four years ago when he began to learn sign language as another form of communication.

Through his high school years at Grand Junction High School, where he graduated with a 3.9 grade point average, John had interpreters that signed with him in about half of his classes. At Mines, several steps have been taken to support John as he begins his freshman year. He has two interpreters who alternate days to signing his college classes.

A special telecommunications device for the deaf (TDD), also known as a TTY (telepywriter), was installed in his room. The TDD allows him to have phone conversations with anyone else that has a TDD.

Another system in place alerts John in case of a fire. This unique fire alarm system has a strobe light and a device that shakes his bed in case he is sleeping.

With such assistance, John is able to experience college in the same way as hearing students.

He has pledged the Sigma Nu fraternity and is taking 17 hours his first semester. With plans to purse a degree in mechanical engineering, he hopes to put his degree to use in support of two of his favorite sports - mountain biking and skiing. He would like to design new, innovative mountain bikes and ski lifts upon graduation.

Another favorite sport is soccer. John is training for the 2001 Deaf Olympics, which will be held in Rome next June, as a member of the defense on the USA Deaf Soccer Team. When you wish him well before the competition, he will listen - with his eyes.
Mines teams up with a dinosaur named Sue

Last May Chicago's world-renowned Field Museum of Natural History unveiled Sue, the most complete T. rex ever discovered. By Leah McNeill

Sue, who hails from South Dakota, is also the largest T. rex ever found. She has a skull the size of a refrigerator and 12-inch teeth – an amazing dinosaur specimen the Museum wants to share.

So they contracted with Colorado School of Mines to collaborate on designing and teaching a K-12 teacher's institute “Sue and Paleontology” this past summer.

Why would a museum in Chicago, an international leader in evolutionary biology and paleontology research, select an engineering school in Colorado to help with teacher enhancement training?

The K-12 teacher enhancement program at Mines may be its best-kept secret. For over 25 years, the Office of Special Programs and Continuing Education (SPACE) has been training thousands of teachers around the country in numerous curriculum-rich programs.

For example, the Denver Earth Sciences Program alone has trained hundreds of teachers in five instructional modules covering energy, oil and gas, radiation, paleontology, and groundwater.

Teachers who select such rigorous Mines courses say they do so because of the focus on content. Rapid advances in science and technology – coupled with new criteria for evaluating learning in many states – have teachers feeling the need for updating and increasing their knowledge.

"It takes away the fear of science, especially for teachers who are concentrating in other areas," says high school biology instructor Anne T. Koshuta of Tamaqua, Penn.

The courses provide real information about topics in a way that gives them the history, math and geography of the concepts, as well as the science, she added.

"The Mines K-12 courses are also unique because they are developed by content specialists who are also likely to be engaged in leading-edge research in their fields," according to SPACE Director Gary Baughman.

In addition, the content experts work side by side with K-12 teachers to fine-tune the curriculum for the classroom.

"Off-the-shelf and easier courses are available, but participants say they find in our workshops the in-depth and current information they need to feel confident and prepared for teaching in today's demanding K-12 environment," Dr. Baughman explained.

This theory is supported by the 12 teachers who came from around the country to attend CSM's first National Science Academy this summer, which focused on earth resources.

For more information on the museum and the paleontology course, check their Web site at: http://www.fmnh.org/education/teacher_more.asp.

For more information on CSM's teacher enhancement programs, go to http://www.mines.edu/Outreach/K12.
Get to know Mines athletics

With seven new members on board, the 2000 athletics staff looks a different than in years past. Four new football coaches, a new sports information director, and new swimming and golf coaches combine to form the additions to the 2000 athletics season.

Bob Stitt was officially named CSM head football coach Jan. 19, marking the start of his head-coaching debut. Stitt most recently served as an offensive coordinator at Harvard University. Stitt brings new faces to the Golden community. Paul Capriotti previously worked with Stitt at Harvard and coaches the offensive line for the Orediggers. Shannon Smith hauls from Concordia Uniersity in Illinois, where he was defensive coordinator for one year and offensive line coach for another. Smith coaches the special teams and the secondary unit at Mines and will stay on staff as a CSM track assistant in the football off-season. Finally, Sharon Weigel joins Oredigger football after a one-year stint at West Texas A&M where he worked as the secondary coach. Weigel has also coached as an assistant at Austin College and as head coach overseas in the Finnish American Football League. Vince Slepiensau, Simon Weigel, Scott Sveen (part-time assistant), Bob Stitt, Koby Sarge (part-time assistant), Paul Capriotti, and Shannon Smith also have the good fortune to share the playing field with him.

Kacey Kingry, Sports Information Director

By Kacey Kingry, Sports Information Director

For the fifth year in a row, CSM began its athletic season by honoring past athletes and friends of the athletic program. Four athletes, a former coach, four years' worth of swimming teams and two supporters of the School were enshrined into the CSM Athletic Hall of Fame during ceremonies Sept. 1 in Golden.

Tom Carroll PE ’60

It took Tom Carroll a few years to get his degree. His first athletic award was in 1953, his last was in 1959. (But it is hard to miss his name among the list of athletic achievements in Orediggers' history. Carroll was a tackle and a center on the football teams. He earned four wrestling letters and he earned a pair of letters in basketball. Carroll was a second-team, all-Rocky Mountain Athletic Conference choice after his last three seasons of play. He also found time to be a catcher on the baseball team. He was named a second-team, all-conference performance for three years and also earned spots on the school's basketball and boxing teams. During his acceptance speech, Carroll thanked his coaches, his professors and his friends. "One of the things I learned is that the athletic connections you make can go deep and span many years," Carroll said.

Mike Collodi BSc PE ’72

It's been almost 30 years since Mike Collodi suited up for the CSM football team, but he still holds four school records (most receptions in one game with 10; most touchdown receptions in one game with three; most touchdown receptions in one season with 10; and most touchdowns scored in one game with three). Aside from being a first-team, all Rocky Mountain Athletic Conference choice in 1972, Collodi was a baseball player, where he won letters four times. The Pittsburgh Pirates noticed his talents, too, since they made him a draft choice.

"One of the things I learned is that the athletic connections you make can go deep and span many years," Carroll said.

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The Andes Family:
United by the generosity of one man
By Krys Strzelec

Within the greater Mines community exists a special "family" of 16 young men and women whose lives have been touched by the extraordinary generosity of one man, J. Robert Maytag. The "family"—nine Bolivians, five Peruvians and two Chileans—were all awarded CSM Andes Scholarships to pursue undergraduate degrees, return to their native countries, and apply their science, technology and engineering skills.

Maytag, a former CSM trustee and frequent Bolivian traveler, established the current restricted scholarship fund in 1989 for Bolivian, Peruvian and Chilean students who have limited resources for college from any other source. His monetary gift to the Andes family borders on $1.5 million, and is being repaid by the "family" in heartfelt appreciation, close bonding, and frequent Bolivian travel. A former CSM trustee and international student advisor, he served as marriage counselor to two of the first Andes scholars, director of admissions and international student advisor. She received a check to fund an additional Andes Scholarship in 1989 for Bolivian, Peruvian and Chilean students who have limited resources for college from any other source. His monetary gift to the Andes family borders on $1.5 million, and is being repaid by the "family" in heartfelt appreciation, close bonding, and frequent Bolivian travel.

Maytag wrote Olsen, "We met with Olker, Gloria and Cecilia in July, 1994. Olker and Gloria's, wedding. They are flanked on the inside by Francisco Cerna and Cecilia Suazar, and on the outside by Terry and Trudy Tanison, alumni missionaries for Bolivian international students.

The scholarships—roughly $27,000 per student per year—pay for tuition, intensive academic training in English if needed, room and board, living expenses and one three-week trip home a year. No restrictions are placed on chosen field of study or grade point average. Award recipients must, however, remain in acceptable academic standing with the institution. To date, six members of the Andes family have graduated.

The international office, which selects the candidates, has received 60 applications a year.

Surrogate mother to the Andes scholars is Leslie Olsen, assistant director of admissions and international student advisor. She served as marriage counselor to two of the first Andes scholars, Gloria Gonzales, BSc Geol'97, and Olker La Torre, BSc CPR'97.

Gonzales and La Torre met, married and had a son while they were at Mines, and now are back working in their native Bolivia. Olsen, who affectionately refers to their son Olkerito as "our first Andes grandbaby," advised the young couple to have Gonzales' mother in Bolivia look after the baby so they could concentrate on their studies. Gonzales graduated in the top third of her class. La Torre in the top 25 percent of his.

In July, Maytag was in Bolivia and visited the La Torres. In a letter accompanying a check to fund an additional Andes Scholarship, he wrote, "We met with Olker, Gloria and Olkerito to visit the zoo in Santa Cruz. Olkerita is growing up very fast, very mannerly—quite the little gentleman."

Following are vignettes on the other 14 members of the Andes family, grouped by country of origin.

Edvin Peralta, the second Andes scholar, graduated in 1995 with a degree in mining engineering. Peralta is now back at Mines as a graduate student and will receive his master's in mining engineering in December. Teaching assistantships and now an adjunct professorship have helped fund his graduate studies, but not to the degree the Andes Scholarship funded his undergraduate work. "You don't realize until you're working how much the scholarship means, and how much a degree and the name of the School mean. You are taking care of yourself. You have left your family and you can't go back to living the life you were leading," he said.

Peralta worked in Boston for Healy Modern-Continental IV, in Venezuela for Gold Reserve Corporation, and for Corriente Resources, Inc., in Bolivia. Before coming to Mines as an Andes scholar, he studied mechanical engineering at the local university in Sucre. His father is a chauffeur and his mother is a homemaker. All his siblings have graduated from universities.

Juan Carlos Madeni graduated in May in metallurgical and materials engineering and was awarded a research assistantship to pursue a master's degree. He studied civil engineering at the university in Potosi and almost completed his degree there. The Andes Scholarship opened a whole new world for him. "It's very difficult to get financial aid in an undeveloped country like Bolivia. The Andes Scholarship gave me a chance to get a degree that's accepted anywhere in the world, because it's from an American university. I now have more opportunities, globally and nationally." Graduation was the high point of Madeni's Mines' experience. "The professors were always willing to help and, even if it wasn't during scheduled office hours, you could knock on the door and they would invite you in." Madeni has four sisters and a brother. Two of his sisters received degrees from the university in Potosi, and a third is studying in Sucre. His father is a schoolteacher and his mother is a homemaker. All his siblings have graduated from universities.

Cecilia Suaznahar was the first Andes scholar. She graduated in December 1994 with a degree in chemical engineering and petroleum refining, and today is working in Bolivia as environmental coordinator for the Empresa Petrolera Chaco S.A. division of BP Amoco PLC—London. Suaznahar wrote from Bolivia, "The Andes Scholarship has changed the lives of all of us in many ways. Mines was a great place to study. The School was small enough that you truly got to know other students in your class. That, I found, was the best thing about the School. Mines also gave me a chance to meet a very diverse group of people. The international student population at Mines is large, and it opened the door for me to see other cultures. But when you talk about any fondest memories, that's hard to answer. I truly enjoyed the McBride Program, our great discussions, our trip to Sweden, E-Days, and International Days. The Andes scholarship gave me a chance to get prepared for the future and helped me assume responsibility for my actions."

After leaving Mines, Suaznahar joined an environmental consulting firm in London, where she gained experience in environmental problems facing today's industry. Of her current job, she said, "It is a great environment, full of challenges and opportunities to minimize the negative impacts of the oil industry on the environment, while benefiting and improving the standard of living of our employees, our neighbors, and Bolivia as a whole."

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Alexandra Wylie will graduate May 2002 in civil engineering. She learned about the Andes Scholarships at the university in order to graduate in 2004 and would like to major in business. Their mother, a schoolteacher, raised them. She has a sister, who graduated from a public university in La Paz in Santa Cruz, and worked full time during the day. For Shirley, studying computer engineering nights and weekends for two years in Bolivia coincides with calendar years. Their fondest memories of Mines are E-Days and International Scholarship was an opportunity of a lifetime. "It gave me a chance to learn a new language, meet a lot of people, major in a field different from other systems I've studied in. You get help from the teachers, tutoring sessions. Yes, the work requires dedication, but it's really fun, something I like to do." After she graduates, Wylie plans to work helping Bolivia build its infrastructure. If she can afford to, she'd also like to return to Mines and get a master's degree. Wylie has a sister, who graduated from a public university in La Paz. Their mother, a schoolteacher, raised them.

Shirley Ribera is a freshman in petroleum engineering. She plans to graduate in 2004 and would like to major in business. Ribera studied computer engineering nights and weekends for two years in Santa Cruz, and worked full time during the day. For Shirley, the scholarship is "a dream come true. My father is a taxi driver and my mother is a secretary. They were always saying that the most important thing a person can have is an education. So I grew up with that dream. Even though my parents didn't have much money, they always managed to pay for a private school."

Freddy Nota came to Mines in the spring of 2000 and entered CSU's INTERLINK program, which provides intensive academic training for international students with little or no English language knowledge. This summer he was enrolled as a freshman, majoring in petroleum engineering. Nota was notified he had been awarded an Andes Scholarship in December during his last month at high school. School years in Bolivia coincide with calendar years. Freddy, whose English written and verbal skills are strong, plans to graduate in four or five years and use his degree to benefit Bolivia's oil and natural gas industry. Both his parents are high school teachers. Of the Andes Scholarship, he said, "It's the best thing that has happened in my life and a great opportunity to get to know many people from different cultures."

Francia Fabiana Sivila arrived the beginning of August and is in the INTERLINK program. When he successfully completes all levels of the program, he will enroll as a freshman in civil engineering. He took four semesters of civil engineering in Potosí and wanted to come to Mines because he was impressed with its reputation. "If I end my studies in your prestigious university, I would have a better background for working as a civil engineer and for solving the different problems in my professional career." Sivila's mother is a teacher and his father is a taxi driver. He has two younger sisters and one younger brother.

From Peru

Jeremy Cabrera graduated in 1998 with a degree in mining engineering. For him, the Andes Scholarship was an opportunity of a lifetime. "It gave me the chance to learn a new language, meet a lot of people, major in a career that uses high technology, and graduate from a school that had the highest standards." Since graduation, he has worked for Edfici Construction in Puerto Rico and Cemex in Mexico. His fondest memories of Mines are 8-Days and International Days. "At first, I didn't understand what was expected of me. It was new, but as I joined in, I won with the flow, and as I got to know more people, I learned more about the American culture." Cabrera's mother is deceased; his father is retired from the Peruvian Air Force.

Marisela Ticona graduated in December 1999 with a degree in mathematics and computer science and now is working as a database analyst for a Colorado-based software company. She learned about the Andes Scholarship in high school and was one of five students encouraged to apply. "It changed my life totally," said Ticona, whose father worked for a mining company in Peru. "It's like being born again, a different country, a different culture." Ticona has longed to study computer science, but the state university in Ticona didn't offer such a course, and private university was not within the financial reach of her family. Ticona is the first member of her family to study abroad. She has four sisters and two brothers.

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From Chile

Fernando Corda graduated in 1996 with a degree in geophysics and is now pursuing his master's at the University of Texas in Austin. Since graduating from Mines, he has worked in Texas, the North Sea, Egypt, Brazil, Bolivia, Colombia and Oklahoma.

Monica Arancibia is also studying geophysics and will be graduating in 2002. Her parents are divorced, and she has two Polish professors conducting a student's level class in organic chemistry. She translated their Polish and Spanish text. In effect, the "teacher." For Martinez, his first day of classes at Mines was an eye-opener on cultural differences. "I remember I had a question I wanted to ask one of the professors, so after class I started chasing him. He stopped, answered my question, and told me I could come and ask him questions anytime during office hours. In Peru, you don't have opportunities to ask questions in class, so you chase the professors." Martinez learned about the Andes Scholarship through Ila Reocint de Quintanilla, educational adviser for the Fulbright Commission in Lima, Peru. De Quintanilla is a big proponent of the Andes Scholarship Program.

Edwin Chau is a freshman and will be studying chemical or civil engineering. He is in the Andes Scholarship Program and sees it as a great chance to get a job and pursue a master's degree. "I think that the United States is a great industrial development country, and I think that this development is due to the higher qualifications of your professionals and the institutions in which they studied. That is why I wanted to learn and take a higher preparation to help the development of my country." Chau's father is an accountant and his mother is a teacher. He studied English for many years in Peru and has a head start on some of his Andes colleagues.

From Bolivia, continued...

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By Misti Brady

I have climbed over 40 peaks in the range from 14,000 to 18,000 feet in the former Soviet Union and U.S., as well as more than 200 peaks in a total of four countries.

Vladimir Grechka, Associate Research Professor of Geophysics

Favorite climbing area: North Table Mountain in Golden, Colo. I consider it my outdoor gym, because there is a large variety in the difficulty of routes.

Favorite type of climbing: Mixed – combines ice, multi-pitch climbing, which takes a full day or may take several days, and that demands you sleep on the rock face.

What about climbing appeals to you: I want to prove to myself that I can still do it and to live an active lifestyle.

How long have you been climbing? 18 years ... I have climbed over 40 peaks in the range from 14,000 to 18,000 feet in the former Soviet Union and U.S., as well as more than 200 peaks in a total of four countries.

Where have you climbed? The former Soviet Union, Canada, Venezuela, and the United States.

Most difficult route ever climbed? In 1991 I climbed Chapdara Peak in Tajikistan with five other climbers. It was 6,000 vertical feet, 46 pitches and a mixture of ice and rock climbing – took us six days and on the fifth day we ran out of food. We were the first party in three years to climb this route.

Climbing and Engineering: There are many similarities between geophysics and climbing. In each you have to choose which problems to solve. It's the same in science as in climbing. If you are solving problems that you or maybe no one else has ever solved before, it's an adventure!
France Honors Kiersch '42

The French Minister of Culture awarded the Palms Academiques decoration to George A. Kiersch (G'42) for advancing the cause of French culture, education and the arts for "services rendered to the culture of France."

The French Palms Academiques was established in 1881 by Napoleon and is the most prestigious award given to an academic case received from the French Government. The award is seldom given to foreign. Kiersch was involved with several major engineering projects in Europe that began while he was a visiting professor on leave from Cornell University. The French Minister of Culture has recognized my contributions over 55 years to the application of geoscience theory/principles and practice for guidance to the sitting operation of major civil, mining, military and environmental engineered works," Kiersch said.

Kiersch is professor emeritus from Cornell University.

Alumnus Publishes Ground-Breaking Articles

Halden I. Smith PE'53 has articles in the May and July 2000 issues of World Oil magazine. The articles discuss ground-breaking technology, a Pasachiner analysis to a Modified Isochronal Test technique, which allows quantitative analysis of early, or unstimulated (fracture) flow data on "light" gas reservoirs. "In practical terms, it allows an operator to test a very low permeability gas well in a maximum of 24 hours and to achieve therefrom usable results," explains Smith.

"This has never been done before," Smith says the work flows from his close association with the late Dr. Fred Postthum, a former Mines professor, and from a great deal of practical experience. Smith is an oil/gas consultant in Columbus, N.M. and is associated with Geo-Consultants Ltd., Palma de Mallorca, Spain.

Pool '68 is mining poet laureate

Thomas "Fume" Pool EM'68, a mining engineer from Golden, Colo., received first-place honors in the Second Annual Miner's Poetry Jamboree, a mining poetry contest conducted by the National Mining Hall of Fame and Museum in Leadville, Colo.

The museum named Pool "2000 Miner's Poet Laureate." He recited his winning poem, "Brothers," at the Hall of Fame's 11th annual induction ceremonies in Las Vegas in October.

Pool's winning entry was selected from a field of 34, submitted by 28 poets from 13 states and the District of Columbia.

Pool has worked in mining and construction for more than 30 years and currently is vice president — engineering, for Nuclear Fuels Corp. of Denver, an affiliate of General Atomic. He also is director of Intermountain Resources, Inc., a small public company with interests in several western gold and silver prospects. Saying he has "dabbled in a lot of things," Pool has composed poetry since high school and is currently writing song lyrics. The Poetry Jamboree is designed to promote new poetry about miners and mining.

BROTHERS by Tom Pool

Jim and I were brothers, we came from way back east. We lost no love between us, fightin' was our part. But we came out west together where the money wasn't least.

So now I'm quick on the piano and passin' quiet days. I wonder if I have a soul, or only flesh and bone.

The breeze that blew was cool and fresh, it brushed my cheek real light.

A few more days, though still and son, I'll be runni' up that raise. But it won't be right with Jimmy gone and hurled in the ground.

I hope my soul is right. It's all right.

We threw our stoppers down the chute and scrambled for the floor. We were drivin' up a finger raise to pull the blasted ore. We were goin' for a record, we'd do it if we could.

We were drivin' a finger raise to pull the blasted ore. When the timbers started crackin' and the ground began to roar, we threw our stoppers down the chute and scrambled for the floor. But the ribs began to cavin' and darkness shut the door.

I'm thinkin' 'bout the miner game and if it ever pays. So now I'm quick' on the piano and passin' quiet days.

I'm thinkin' 'bout the miner game and if it ever pays. But it keeps on pumpin' through my veins: a movin' blood-red haze.

But it keeps on pumpin' through my veins: a movin' blood-red haze. It won't be right in Leadville or any other town. I'll think about the friendship two brothers finally found.

I'd think about poor Jimmy every time the cage goes down.

I'm thinkin' 'bout the miner game and if it ever pays. The breeze that blew was cool and fresh, it brushed my cheek real light.
Call for Nominations for 2001 CSMAA Awards

Each spring, the Colorado School of Mines Alumni Association honorees have included individuals who have made outstanding contributions to the School and/or the Alumni Association.

Your help in identifying these persons will be greatly appreciated. Nominations may be made by anyone, not just alumni of CSM. All nominations must be made in writing and accompanied by substantive background information.

You may nominate one person for each award. Please copy the nomination form below as necessary.

The following awards will be presented at the All Alumni Banquet in May in conjunction with Reunion Weekend.

OUTSTANDING ALUMNUS AWARD
Awarded to an alumnus and a member of the Alumni Association who has contributed meritorious service on behalf of the Alumni Association.

Based on the above criteria, 1 nominator

Address of nominee:

Business:

Title:

Phone:

Background information (attach additional pages if necessary):

Nomination submitted by:

Address:

Phone:

Fax:

Business:

Title:

Please return to Ed Warren '56, Awards Committee Chairman, CSMAA, P.O. Box 1418, Golden, CO 80402-1418 by Jan. 15.

CSMAA 2001 Board of Directors Ballot

Several positions on the CSMA Alumni Association Board of Directors will be filled February 2001. Candidates for the open positions are profiled below. The only contested position is secretary.

CSMA Foundation Director (two-year term beginning June 2001)

Gary Hatchinson BSc '82, MS Min '90 has been a minerals management consultant since 1981, starting an oil and gas company, DynOil Inc., and a mining company, Rocky Carriers Mining Company, while managing and consulting on mineral properties for several major clients. Prior to starting his own business, he was president of Western States Minerals Corp. and vice president of Eastern Star Oil and Gas Exploration until 1980. Before 1975, Hatchinson worked in the heavy construction industry. He has served as president of the Alumni Association, as a charter member of the CSMAA Foundation's Investment Committee. During his eight years of involvement, the $474,000 committee started in investments has grown to $598,000 and, in addition, $137,000 in cash has been given to the Alumni Association from the growth of the investments without any cash flowing into the invested funds. Also during that time, CSMA's invested funds have grown from $40 million to more than $100 million. In May, Hatchinson was awarded the Mines Medal for his exemplary service to the School.

President-Elect (one-year term)

William M. Zisch BSc '79 is director of business planning and development for Newcastle Corp., in Denver. Zisch has coal mining operations experience in southwest Wyoming and has gained mining expertise in Pennsylvania since 1996. As an active member of CSMAA since graduation, Zisch assisted the east region director of CSMAA in Philadelphia. He earned an MBA from The Wharton School of Business, University of Pennsylvania in 1996. An active member of the Alumni Association, he served as a student representative to the Alumni Association, supported the school by attending college fairs in the Houston area as a TGS-NOPEC Geophysical Co. petroleum supply officer in Korea, Virginia, Kansas and the Persian Gulf. He is licensed to practice geology in the State of Kansas and specializes in environmental assessment and drillcut strategies. Zisch has been active with the Alumni Association since 1995 hosting section events, serving as a student/parent liaison, serving as a local section coordinator, and as the central regional representative on the CSMAA Board of Directors. He lives in rural Riley County, Kan., with his wife Joanna and niece Courtney.

Secretary (one-year term)

Steve P. Antony BSc Met '71 is an independent business development consultant working for Addikron Construction in Lakewood, Colo. He has been in the mining and construction business for over 25 years, and has worked with such companies as Montoria Konrad, Energy West Corporation, Mobil Oil and Cyprus Minerals progressing through both technical and management positions throughout his career. Antony has been active in the Alumni Association and currently serves on the CSMAA Foundation Property Board, the Athletic Department Hall of Fame selection committee, and has been the Sigma Alpha Epsilon fraternity alumni treasurer for the past 16 years. Antony's own pool is currently in his third year at Mines.

Art Biddle Met '64 is executive director of Conciliation Ministries of Colorado, an organization that provides dispute resolution education and services. Previously he served in a number of legal and management positions involving mining exploration and development projects for Amca, Inc., several of which won national environmental awards. More recently he was a senior attorney with the Denver city attorney's office where he was involved with the design and construction of Denver International Airport for more than eight years. Biddle has been a member of the Alumni Association since graduation and was an applicant for the executive director position several years ago. He recently served on a CSMAA committee headed that evaluated opportunities for improving CSMAA's organizational structure. Biddle also stays in touch with campus activities through his work as chapter counselor for the Sigma Phi Epsilon fraternity.

Regional Directors (three-year term)

Central
Blase A. Leven BSc Geo '90 is the technology transfer and outreach programs manager for the Great Plains/Rocky Mountain Hazardous Substance Research Center at Kansas State University. Previously, he worked with Terracon, Inc., environmental engineering consulting firm, in Tulsa, Okla., and Topeka, Kan., and for the U.S. Army as a petroleum supply officer in Korea, Virginia, Kansas and the Persian Gulf. He is licensed to practice geology in the State of Kansas and specializes in environmental assessment and drillcut strategies. Leven has been active with the Alumni Association since 1995 hosting section events, serving as a student/parent liaison, and serves as the central regional representative on the CSMAA Board of Directors. He lives in rural Riley County, Kan., with his wife Joanna and niece Courtney.

Gulf Coast
Melissa Haller Stowe BSc Geol '93 is a marketing representative for TGS-NOPEC Geophysical Co, in Houston. Since graduation, she has supported the school by attending college fairs in the Houston area as an alumnae representative. She was well suited for this position because while attending Mines, she served as a student ambassador. Until recently, Stowe was also Education section leader.

Southwestern
Robert Kendrick EM '54, Harvard AMP '79, worked 32 years for AMAX, Inc. in areas of increasing responsibility and retired as senior vice president of operations. Then spent four years as president and chief executive officer, Monarch Resources, Inc., a British company mining gold in Latin America. He has also consulted on various mining projects in the Russian Far East and Latin America. Kendrick is a member of AIM, SME, CMAA and Rambard Club. For 10 years, he presented a course on mining methods with "Total Concept of Mining Industry" for teachers K-12 at CSU and University of Nevada, Reno. He is a founding member of the National Mining Museum and Hall of Fame and is responsible for its location in Leadville, Colo. Kendrick has two sons and a brother who are also CSM alumni.

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HONORARY MEMBERSHIP AWARD
Awarded to one who has rendered distinguished service to the Alumni Association and/or the Colorado School of Mines. The recipient must be of good moral character and in good standing professionally. The nominee does not have to be a graduate of Mines.

YOUNG ALUMNUS AWARD
The criteria for this award are based on service and potential to Mines and the Alumni Association. The nominee must be an alumnus of CSM who has received his or her degree no more than 15 years prior to the date of the award and is no more than 40 years old at the time of the award.

MELVILLE P. CROALLAUGH AWARD
Awarded to a living alumna or non-alumnus who has made an outstanding contribution toward improving the image and enhancing the reputation of the Colorado School of Mines.

For the award, the address of the nominee:

Name:

Address:

Phone:

Fax:

Other:

Note: Each person receiving an award will be asked to select a scholarship in the name of the recipient to be established in their honor and will be asked to submit a 250-word essay in support of the selection.
Philanthropy

by Krys Strzelec

Following is a sampling of gifts received between July 1 and September 30, 2000.

Individual Gifts
A frequent distribution of $1,564,269 from the Allen Kaplan estate will be used to support the Geology Museum. A gift of $164,632 from the Helen Ryan De Laat Trust has been added to the Bart and Helen Ryan De Laat Scholarship Fund.

Hugh W. Evans '49 contributed $50,174 in appreciated securities to the Simon Guggenheim Society, which honors alumni and students for their cumulative contributions to Mines. The funds were used to build Guggenheim Hall, which serves as the administrative and academic center of the Mines campus.

Today, Mines recognizes individuals who exemplify Guggenheim's foresight and philanthropic achievements by honoring them at the highest level of the President's Council: the Simon Guggenheim Society. Fifty-three individuals attained that level in 1999-2000, contributing in excess of $14 million. They were collectively recognized at a Mines Century Society Simon Guggenheim Society reception and dinner Oct. 6 at the Student Center. Mines Century Society members are honored for their lifetime support.

The Simon Guggenheim Society's membership list now includes the following members:

Sylvia F. Hochsheid took out an insurance policy with a face value of $50,174 in appreciated securities to the Hochsheid Memorial Fund.

Hugh W. and Ann G. Evans charitable remainder trust. His gift made him a member of the Hughes Hughes, Inc. gave $25,000 to the Department of Petroleum Engineering and Geology majoring in the Denver Earth Science Project. Funds received for the Department of Geology and Geological Engineering's project supports scholarships for Geology majors.

Fifty-three individuals exemplify Simon Guggenheim's foresight. Simon Guggenheim, Colorado's U.S. Senator from 1907 to 1913, was one of the earliest contributors to Colorado School of Mines. When his son, John, Simon was in 1909, Guggenheim celebrated the event by giving $40,000 to CSM. The funds were used to build Guggenheim Hall, which serves as the administrative and academic center of the Mines campus.

Today, Mines recognizes individuals who exemplify Guggenheim's foresight and philanthropic achievements by honoring them at the highest level of the President's Council: the Simon Guggenheim Society. Fifty-three individuals attained that level in 1999-2000, contributing in excess of $14 million. They were collectively recognized at a Mines Century Society Simon Guggenheim Society reception and dinner Oct. 6 at the Student Center. Mines Century Society members are honored for their lifetime support.

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Don’t hang up!

CSM students calling

During the day, 28 employees man the Office of Institutional Advancement. In the evening, seven to 10 CSM students occupy partitioned booths in the O&A's phonathon room. Their managers are fellow Mines students, Ryan Hill and Steve Passmore.

Save for a winter break, the students and managers will be calling alumni from now through the end of April to update them on the School, gather current employment and residential information, and ask alumni to contribute or make a pledge of support to their alma mater.

"The phonathon gives us a chance to network with alumni, find out what they've been doing since graduation, and let them know what's happening on campus," said Hill, a junior majoring in physics. "We look forward to visiting with them and asking them to show their support for Mines by making a gift to the Mines Annual Fund."

Alumni participation in the annual fund is a factor in Mines' national ranking. The ranking, in turn, influences individual, corporate and foundation gifts; plays a role in preserving the prestige of a CSM degree; and draws students and recruiters to the School.

The resources of the Arthur Lakes Library, upgrade the School's technology and laboratory facilities, augment scholarships and further the professional growth of the faculty. In addition, they are used to enhance graduation ceremonies, support the Career Center, improve campus grounds and enrich the curriculum.

"When I graduated, I was paying back student loans and was low on funds," said Megan Hessee BSc Geol '96. "I began donating regularly to the School in 1997 and have steadily increased my contributions because I know how these restricted contributions are to a progressive science and engineering institution."

To take a peek at phonathon operations and our fall semester student callers, visit our annual fund website at http://www.csm.mines.edu/annual_supports/annual_fund.html and follow the link to "Meet the 2000-2001 Phonathon Callers."

"We're grateful to the many alumni and friends who visit with the students on the phone and decide to make a gift," said Laura Mesick, assistant director of annual giving. "We try very hard to make the phonathon a vital experience, both for the callers and the supporters. If you get a call, I hope you'll take the opportunity to talk to them."
The flute choir, open to players at all levels, was organized a program March 30. The group is now developing a music library for strings and hopes to obtain instruments so that more students can participate.

During spring. Collecting enough music and securing the part-time help Kelso, a civil engineering sophomore, began rehearsing in the student center. Music theory, music history and composition. The 100-member Studies division (LAIS), which also provides instruction in science major. The choir has an extensive and growing music library. It owns a bass flute and hopes to acquire an alto flute and other instruments.

The low brass/trombone choir formed in 1994. It has played at many functions including the Christmas tree lighting ceremony at the student center, an art show at the Higher Grounds Cafe, and the Christmas Decade of Lights in downtown Golden.

Jazz bands have formed and dissolved over the years as student interest waxed and waned. Last year, an enthusiastic group got together, but problems finding a rehearsal site where equipment could be stored securely frustrated their efforts. With the help of the Music Committee, a group of faculty and students advancing music programs, that problem was solved and the group has reassembled.

Keil was active in USGA Optimist, Sigma Phi Epsilon, ASQC, ASM, ASME and Phi Epsilon, ASQC. He served in the U.S. Navy, he went to work for the U.S. Army and a cartographer for the U.S. Geological Survey. He is survived by his sister.

Michael F. Duncan
Michael F. Duncan BSc-Geol '74 died June 30 at the age of 53. He was a sergeant in the U.S. Army and a cartographer for the U.S. Geological Survey. He is survived by his sister.

Walter C. Keil
Walter C. Keil Met E '42, MSc Met '47 died June 1 at his home in Bakersfield, Calif. After receiving his first degree from Mines, Keil served as a captain in the U.S. Army Corps of Engineers. He also directed the U.S. Army Topographic Engineers in India during World War II. He then returned to Mines for a second degree. In 1946, Keil married Barbara Campeote and lived in New Jersey for several years. The Keils then returned to Denver, where he worked for Stratand Aviation until his retirement in 1972, when he began a second career. Keil was an engineering consultant and also obtained a real estate license.

William E. Laspe
William E. Laspe PhD '44, MSc PRE '48 died Dec. 20 at the age of 77.

For Ohio Oil Company. In July 1952, he moved to Denver to work for Staunton-Roger Corp. That same year he married Martha Richardson and they raised three daughters.

Roald A. Marin
Roald "Andy" Marin Geo '45, died August 7, at his home in Bakersfield, Calif., after a long illness. He was 76. Born in Paris, Marin lived in and attended schools in France, Switzerland, England and Kenya before migrating to the United States during the World War II. After graduation, his job with the Tropical Oil Company took him prospecting up uncharted rivers in Colombia. He later worked for Anaconda Mining Company in Montrouge, then for Gulf Oil Corp. In Bakersfield until he became an independent petroleum geologist. He was a member of the American Association of Mining Engineers and the American Association of Petroleum Geologists. Marin and his wife of 36 years, Thelma, were active members of the Bakersfield Rauket Club for 25 years, and he was a classical pianist.

Eugene L. Sterrett
Eugene L. Sterrett PRE '48 died June 29 in Chattanooga, Tenn., where he resided. Sterrett was a petroleum engineer and had worked for Marathon Oil. He served as a captain in the Army Air Corps during World War II. He was preceded in death by his first wife, Lonna. Survivors include his widow, two sons, two daughters, 11 grandchildren, and 10 great-grandchildren.

James E. Castle
James E. Castle MSc Met '43 died July 7, 1999. He was 84.

After graduating from high school in Salem, Mass., Castle entered the Massachusetts Institute of Technology and graduated in 1945. He began his career with Utah Copper Co., and then went to Korea with Overseas Consolidated Mining Co. In 1939 he married his wife, Ernie, in Japan.

Following graduation, Laspe went to work for Ohio Oil Company. In July 1952, he moved to Denver to work for Staunton-Roger Corp. That same year he married Martha Richardson and they raised three daughters.
Gulf Coast

Austin

Faithful Miners gathered in Aug. 13 for a send-off party for several CSM entering freshmen from the Austin area. The meeting welcomed and congratulated the new freshmen and their families, while providing a forum for having their questions answered and listening to our experiences. Miners-to-be also met and talked with fellow students. Good fun and value was had by all. We veteran Miners should have had it so good!

Five entering students attended the event including Nathan Anglin from Brenham High School (Nathan's brother and parents also attended), Cory Brymer (and parents) from Pflugerville High School, Nicole Stalker (and father) from Kileen High School, Ellen Taylor (and sister) from James Madison High School and Phil Vaughan (and father) from St. Mary's Hall High School.

Thanks to all 22 people who attended and to Dan "The Man" Krygowski MSc Geop '75, PhD Geop '78 and his wife Monica, for hosting the event, The Krygowski's daughter just graduated from Mines, which proved to be a grand topic of conversation. Thanks also to Steve KJimowski BSc Geop '91 and his companion Helena for answering questions of the Miners-to-be.

Chuck McLendon BSc Min '76, Section Coordinator

Southwest Region

Arizona

"A really good function"
"I'll be here next year"
"Thanks a lot"
"This was really good"

So said incoming freshmen and their parents in response to the send-off party held Aug. 13 for those coming to attend Mines from the Phoenix area. And folks, these are some sharp young people. The attendees were Gabe Flores (Desert Valley High), Kristina Greenberg (Saguaro High), Ryan Jones (Apollo High) and Jess Ouieni (Mountain Ridge), and their parents.

After introductions and a little background information from the alumni, everyone headed for the refreshments where it seemed like a family reunion. The young people compared notes in one area, while the parents and alumni discussed such things as empty nest syndrome and the cost of sending a student to Mines. Everyone enjoyed reviving the good old days by reviewing students from the Phoenix area headed for Mines this fall were able to attend, and folks, these are some sharp young people. The attendees were Gabe Flores (Desert Valley High), Kristina Greenberg (Saguaro High), Ryan Jones (Apollo High) and Jess Ouieni (Mountain Ridge), and their parents.

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Southwest Region, contd....

Prospectors from the 1950s.

It was a pleasure to see these young people excited about their new adventure. We wish them well, and plans are in the works for next year's party, as several of these new students agreed to come back next year and clue the next "new guys" about life as a Miner.

Andy Juratn Geol E '54, Regional Director

East Region

Raleigh, N.C.

East region director Kim Leals BSc CPR '92 and husband Matt hosted a picnic for Raleigh, N.C. area alumni and members of the Mines track team Sunday, May 28. Eric Stellman, Dayen Johnston, Jim Bideleman and Ben Legender each earned All-Americas honors by placing in the top eight in their events at the NCAA Division II national track meet.

Metro Denver

Golden

More than 80 alumni, family and friends attended this year's alumni picnic, held Aug. 26 at the Coolbaugh House on campus. Dick Geol E '58 and Mary Beth PE '69 Beach helped barbecue burgers and hot dogs. Games included an egg toss, water balloon toss and a three-legged race.
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is a web site coordinator
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University in San Diego.
1995
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MSc Eng '95 received a
doctor of medicine degree
to Mayo Medical School in
May. He will spend a year
in Presbyterian/St.
Luke's Medical Center in
Denver and will begin
growth training in
dermatology at University
of Texas Southwestern
Medical Center in Dallas.
1990
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He lives in San Francisco.
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He lives in Lawrence, Colo.
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Geol '99 is a coordinator
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is a computer consultant in
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is president of Renaissance
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Michelle "Shelly" Shusten
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Whitney A. Tigh BSc Cpr,
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doctor of medicine degree
to Mayo Medical School in
May. He will spend a year
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Denver and will begin
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Lakes I. Isanidllis BSc Eng
is a computer consultant in
Littleton, Colo.
1997
Carol L. (Holmes) Butero BSc CPR is a production engineer for Archer Daniels Midland Co in Lincoln, Neb.

Christopher Michael Goss (Milbo) BSc Eng and Terianna Mercedes Dauro BSc CPR '90 were married June 24 at St. Joseph's Catholic Church in Golden, Colo. The wedding party consisted of mostly Mines alumni Earl Hixson BSc Met '78, Brian Geoff BSc Geol '90, Brad Wolf BSc CPR '97, Patrick Stevens BSc CPR '94, Bsc Chem '96, Tammy Stevenson BSc Met '96, Dawn Kerr BSc CPR '80, Bernadette Prydzowski BS CPR '99, CIS alumni guests included Karen Jennen Bsc Eng '96, Steve Pulliam BSc CPR '99, Laura Schafer BSc CPR '06, Charles Foree MSR Math '97, Arthur Ashworth BSc Eng '96, Jennifer Ashworth Bsc Eng '86, Tracey Coop BSc Chem '99, Jake Goodall BSc Math '96, Byron Poots BSc Econ '90, Bobby Poots BSc Min '99, Tom Roussel, David Stokowski BS Chem '94, Tony Vasey Bsc CPR '92, Sharmar Baker MSC Earth Sci '00, Gillion Harrisson Bsc Eng '94, Jeff Calhoun BS Eng '90, Michelle DaDae Bsc CPR '99, and Andy Marscer BSc Eng '94. After a fabulous honeymoon in New Zealand, Christopher and Tatiana returned to Golden. Tatiana has started working for Anderson Consulting. Christopher returned to Mines to finish his dissertation for a PhD in mining engineering.

Sean A. McCormick BSc Eng is a manufacturing engineer for AcuRay Inc. in Milpitas, Calif.

Tavis D. Minke MSc Math is a technical staff member for Luxon Technologies in Denver.

Gay-Ming Moffatt MSc PhD Chem is a project manager at Los Alamos National Laboratory in Los Alamos, N.M. Bryan O. Nekoba BSc Eng is an applications engineer for GEA and lives in Golden, Colo.

Joseph W. Nielsen Bsc Phys is an nuclear engineer for Idaho Engineering Laboratory in Pocatello, Idaho.

Bryan T. Persson BSc Eng is a pilot for Airservices in Tucson, Ariz.

Joseph J. Reynolds MSc Env Sci is a quality assurance associate for Los Alamos Technology Association and lives in Arvada, Colo.

Michael D. Rod BSc CPR is an independent consultant and lives in Littleton, Colo.

Satoshi Sasaki BSc Geol, MSc Env Sc '98 is a graduate student at CSU.

Valerie L. Salcedo BSc Geos is a geographical analyst for Western Geophysical in Denver.

Anthony K. Staley BSc CPR is a graduate student at CSU.

Jeremiah B. Workman BSc Geol is a geologist for the U.S. Geological Survey in Denver.

1998
Wesley C. Butero BSc Eng is an assistant engineer for Olson Associates in Lincoln, Neb.

Vincent S. Carabao Bsc Eng is a manufacturing engineer for Ball Corp., metal beverage container operations in Broomfield, Colo.

Saleh H. Hasemi Bsc Eng is a development engineer for Abu Dhabi Gas Co. He lives in Al-Ain, U.A.E.

Dawn M. Lathner BSc CPR is an assistant engineer for Stone and Webster Consulting in Renton, Wash.

Matthew T. Pisha BSc Math & Comp Sci is a network services design engineer for Qwest Communication International and lives in Golden, Colo.

Jennifer L. Skowlo BSc Math Eng is a software engineer for Kellogg, Brown and Root Inc, in Houston, Texas.

Brenton G. Williams MSc Env Sci, Min Ec is a consultant for Landmark Graphics in Houston, Texas.

1999
Trevor Raves Bsc Phys is a test engineer for Lockheed Martin Astronautics. He lives in Golden, Colo.

Adam E. Winfield Bsc CPR is an associate for BHA in Golden, Colo.

Edward F. Drew Bsc Phys is an associate for BHA in Golden, Colo.

Mark R. Salazar Bsc Eng is an operations manager for Noah's Ark White Water Rafting Company in Buena Vista, Colo.

Matthew J. Sands BSc Eng is an associate engineer for Equanum Enterprises LLC in Houston.

Jennifer L. Pulse Bsc Geol in an associate for the Adolph Coors Co.

Andrew Gambardella Bsc Eng is an engineer with Power Engineers. He lives in Littleton, Colo.

Tim M. Paella BSc Eng is a graduate student at CSU.

2000
Ahmed S. Al-Ghamde Bsc CPR works for Saudia Aramco.

Hasan A. Al-Musilmi PhD Applied Chem is an assistant professor of chemistry at the King Faisal University of Petroleum and Minerals in Dhahran, Saudi Arabia. His home e-mail is musilmi@hotmail.com.

Matthew A. Anderson MSc Min Ec is a graduate student at the University of California—Davis.

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Jacob W. Rumsey BSc Pet is an engineer for Anadarko Petroleum Corp.

Halee D. Somerville BSc CPR is a process engineer for Sunoco Energy Development Co.

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Thomas B. Settner PhD Eng Sys is senior member, technical staff, for Sandia National Laboratories in Livermore, Calif.

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Mike Devloo, one of the CSM male cheerleaders, is tossed into the air by his fellow fraternity brothers during the powderpuff game at Homecoming weekend. Photo by Douglas Baldwin