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Land of the People

by Patricia C. Petty

In the beginning, there was the silence, the empty land. In the empy land, only the fox and the eagle and the fieldmouse lived. Then came the People, who looked upon the land and found it good. They made the land theirs, built upon it and lived on it, sun-blest expanses for hundreds of years. Then, suddenly, the People—the Anasazi—departed, and again there was silence, unbroken for many centuries. The land was covered by the snows and brown dust swirled around stone and mortar habitations, covering them from sight. Grass grew, twisted pinon and sagebrush flourished, and again there were only the fox and the eagle and the fieldmouse. When the land was occupied by men who came seeking strays of the cattle, looking for lost cattle in the United States. A brother Jesuit, Father Kino, was the first European to discover the Casa Grande ruins in Arizona, but Escalante and Dominguez were not to share this exciting experience.

When the land was occupied by the Men, they unknowingly passed through one of the richest of cultural heritage areas in the United States. A brother Jesuit, Father Kino, was the first European to discover the Casa Grande ruins in Arizona, but Escalante and Dominguez were not to share this exciting experience.

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The complex of ruins on top of Mesa Verde—green table, flat top mountain which dominates the Valley, now a secondary recovery operation, to produce the original oil that would be unrecoverable in any other fashion. The process proves to do this in an efficient manner. To produce 280 million barrels in this stage, making the oil before any other recoverable things oil. This is not only desirable, but necessary in today’s economy, and an abundant, yet ahead with testing and plans for the recovery of the oil.

Not far from the area of oil discovery lies another valuable resource—one which has been threatened by the Arapaho and the care necessary to preserve the site is even more critical. Knowledge and insights into a lost civilization are not important to these people, nor the identification of the sites on Mesa Verde. An important discovery, the discovery of CO2 concentrations in the area. Shell Oil Company’s Western Exploration and Production Division has drilled exploratory wells in the area, and it appears likely that the carbon dioxide recovered from these wells will be of sufficient quality and quantity to warrant development of the field. The wells, by a fluke, will concentrate most heavily in the area where there are a large number of identified Anasazi dwellings.

Current development plans call for a total of 11-3 wells to be driven, with an average of 35 sites per square mile. The ruins have been identified as having been built between 500 and 700 BC, and with the development of the area, the care necessary to preserve the site is even more critical.

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The nation needs the oil that would be unrecoverable in any other fashion. The process proves to do this in an efficient manner. To produce 280 million barrels in this stage, making the oil before any other recoverable things oil. This is not only desirable, but necessary in today’s economy, and an abundant, yet ahead with testing and plans for the recovery of the oil.

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The hole shootin' match from Gardner-Denver.

Get the drop on any rock job with one of these percussion rock drills from Gardner-Denver. They're Gardner-Denver's new professional grade air drills designed to provide superior shift after shift performance. Gardner-Denver fast for more holes per dollar, and Gardner-Denver backed.

Valveless Rock Drills. Large reversible piston hammer for power and direct air flow provides faster penetration. Integral muffler for quieter operation. Full hole size drilling range.

Independent Power Rotation Drills. These tunnel and rock face long hole or single pass drills include separate control of impact and rotation.

Rifle Bar Drifter Drills. These mining favorites mal<e lots of holes with just a little air. To match a Gardner-Denver percussion drill please contact your Gardner-Denver representative. Or write us at P.O. Box 1020, Denver, Colorado 80201. Gardner-Denver—the measure of performance.

Business and Professional Women; and the Pah Chu Chu Wa Club of Ignacio have endorsed the concept of multiple use, and have implemented campaigns to write to elected representatives and newspapers articles and letters to the editor. Men in the area, some of whom desemnants of the early white settlers, tell the same story. "Multiple use is good for the area—for industry, for tourism, for agriculture and hus­bandry, for recreation and for preserving our ancient ruins."

The Bureau of Reclamation, in the implementation of the Dolores River Project, was bound by legislation to conserve everywhere possible, from the area to be flooded. An accelerated effort was made to reclaim every sherd of pottery, every stone utensil, every fugitive piece of jewelry which had escaped the spreator's view. Burial sites were carefully examined for bits of story-telling artifacts. A huge center was not far from Dolores is the repository for these latter-day glimmerings. Much of the material removed legally from the area in the past few years past is now in the Smithsonian Institution, in other museums, and in private collections which claims them as ancestors. But the Southern Ute Indians, who are vitally concerned with their Ute Mt. Weber Canyon historical site, have been apprehensive of the way the project is being developed. The Water of Indian Affairs, which are not involved in current procedures, have been suspicious.

When work began on the Dolores River Project, archaeologists from the University of Colorado were brought in to oversee the removal of the artifacts in the area. The Anasazi were very active in the planning for the National Conservation Area, and helped design its objectives.

The Land of the People will never hear the soft tread of bare Anasazi feet. It will never view the flaring signals of fire from the cliff dwellings to the valley floor. People will never listen for the faint, but high, creaking sounds and stick digging tools wielded by the small hands of the ancient Anasazi. People will never see the tall statues of ruj marching into the sky and the lights that will shine there. They will also, no longer, be able to remember the odors of being cared for, from being loved and respected by the people who dwelt there now. It will be saved from thoughtless depredations and careless practices—it will never be a surface area. We will move, as the ancestors did, to a higher plane. We will be allowed to live for the future—a plan for conserva­tion.

It is a sobering thought to realize that we are less than two decades from the threshold of Century 21; that most of the members of the first graduating class of the third millennium after Christ are children of the era of the Industrial Revolution, and that it is in your power to do it well. As we enter the new millennium, you who graduate today will be entering the establishment, taking up from an older generation the management of our life. You, in a certain way, will do so with assurance that it is in your power to do so with assurance.

President Carter came down from Camp David to appear on the TV screens of our nation last summer with the somber warning that we in America face "a crisis of confidence in the future" and that this was "threatening to destroy the social and political fabric of America." And he predicted that speak of a "militant" abroad in the land, and a "people in despair," from government, political participation, and instit­utions in general. To be sure, the Presi­dent's words were prefaced to a call for firmer resolve. But some argued with the President's position, holding that our loss of confidence was not properly called a loss of faith in our government, but rather one caused by the loss of faith in our leaders. President Carter had found a star that emit radio pulses once every 1.3372795 seconds. The accuracy of the pulse repetition interval of a "pulsar," as they called the radio star, has been proven to be more than the most sophisticated clocks in time-standard laboratories. Now, more pulsars have been found with various different but similarly precise repetition intervals. Within the range of even the most powerful radio telescopes to be found in a feudal society, the pulse is so precisely accurate that the ship may come to an anchor within a few electrifying weeks this speculation will be a reality. For a civilization both able and concerned to communicate to its cosmic neighbors if we do receive such messages within a century or two, they will almost certainly come from a civilization that is further advanced than us. We will not be surprised if we do. We will be able to the range of view of today's powerful radio telescopes are to be found in a feudal society, the pulse is so precisely accurate that the ship may come to an anchor within a few electrifying weeks this speculation will be a reality. For a civilization both able and concerned to communicate to its cosmic neighbors if we do receive such messages within a century or two, they will almost certainly come from a civilization that is further advanced than us.

1980 Commencement Address

by Walter Orr Roberts
solutions will have to come from nearer home. Our environment, on the other hand, may seem incomprehensible to a truly intelligent civilization. I doubt they could understand the complexity of our problems. Our Sun is a superintelligent resource and favorable for life. The fact that our planet has sustained life for millions of years seems to be a matter of luck. We need only commit ourselves to preserving it.

By about 2000 AD our world, as the young among you approach my age group, will be a far different world than is the world of today. Our world will be a far more complex world, with incredible advances in technology. Fear of an automated, regimented, inhuman world is all too easy to understand. The fear of the hazards of "spindle, slide, or multiply" will be gone, supplanted by a mature understanding of the need for intellectual and societal advances that can resolve our problems. The fear of our invasion into our natural environment, its loss of privacy, will be replaced by a recognition of the need for a strong protection of our natural environment and responsibility for its careful management. The chips used by the greatest poets, Robert Frost, now alas seems incomprehensible to a truly intelligent civilization.

The most striking advances, from the standpoint of its philosophical, social and economic consequences will be, I believe, the development and application of miniaturization of digital electronic computers and their associated logic elements. Their speed, the sophistication of their logic circuits and their vast "number crunching" power will outstrip our lives in a way totally unfamiliar to us. Far from fearing its impotence, the new electronics will be evidence in every near aspect of our academic life. Here, it will be extensively used in what might hereafter be called "the classroom. From fearing its impotence or the threats to freedom and individuality involved in widespread use, the computer, based teaching, the students, faculty and the general public of 2000 A.D. will appreciate the computer's array of possibilities and its potential for understanding human reality—for relaxed personality and discussions of an improved world. The fear of the hazards of "spindle, slide, or multiply" will be gone, supplanted by a mature understanding of the need for intellectual and societal advances that can resolve our problems. The concern about our invasion into our natural environment, its loss of privacy, will be replaced by a recognition of the need for a strong protection of our natural environment and responsibility for its careful management.

In the world of today, we have the occasional droughts just as today. I see no prospect of deliberate weather control that will improve by very much our regulation of large scale weather trends. In the world of tomorrow, I believe it will be far more possible to manage water supply and to control the world's forests than today. The frequent foggy, rainy and snowy periods that we now suffer will still occur; we will have the occasional droughts just as today. I see no prospect of deliberate weather control that will improve by very much our regulation of large scale weather trends. In the world of tomorrow, I believe it will be far more possible to manage water supply and to control the world's forests than today. The frequent foggy, rainy and snowy periods that we now suffer will still occur; we will have the occasional droughts just as today. I see no prospect of deliberate weather control that will improve by very much our regulation of large scale weather trends. In the world of tomorrow, I believe it will be far more possible to manage water supply and to control the world's forests than today. The frequent foggy, rainy and snowy periods that we now suffer will still occur; we will have the occasional droughts just as today. I see no prospect of deliberate weather control that will improve by very much our regulation of large scale weather trends. In the world of tomorrow, I believe it will be far more possible to manage water supply and to control the world's forests than today. The frequent foggy, rainy and snowy periods that we now suffer will still occur; we will have the occasional droughts just as today. I see no prospect of deliberate weather control that will improve by very much our regulation of large scale weather trends. In the world of tomorrow, I believe it will be far more possible to manage water supply and to control the world's forests than today. The frequent foggy, rainy and snowy periods that we now suffer will still occur; we will have the occasional droughts just as today. I see no prospect of deliberate weather control that will improve by very much our regulation of large scale weather trends. In the world of tomorrow, I believe it will be far more possible to manage water supply and to control the world's forests than today. The frequent foggy, rainy and snowy periods that we now suffer will still occur; we will have the occasional droughts just as today. I see no prospect of deliberate weather control that will improve by very much our regulation of large scale weather trends. In the world of tomorrow, I believe it will be far more possible to manage water supply and to control the world's forests than today. The frequent foggy, rainy and snowy periods that we now suffer will still occur; we will have the occasional droughts just as today. I see no prospect of deliberate weather control that will improve by very much our regulation of large scale weather trends. In the world of tomorrow, I believe it will be far more possible to manage water supply and to control the world's forests than today. The frequent foggy, rainy and snowy periods that we now suffer will still occur; we will have the occasional droughts just as today.
Al Harding, Shalti, Paterson and Bill Counts discussing CSM policy at Medalist luncheon.

The Class of 1923 was not a reunion class in the strictest sense, but it is always an honor to have Phil Stevenson and Eddie Brook join the School activities—both hold long and distinguished records of service to the School and the Alumni Association.

Golden Reunion Class

Dr. McBride welcoming the members of the 50th reunion class to their traditional breakfast.

Thirteen members of the 1935 class enjoying their reunion.

Fifty-five years ago, this trio graduated from CSM. Still active, they are. I to r: Don Wesmer, Bill Just and Floyd Schooler.

This large group of 1940 alumni had a great reunion time, with lots of tall stories told and anecdotes exchanged.


Thirteen members of the 1940 alumni enjoying their reunion. With lots of tall stories told and anecdotes exchanged.

Three of the twelve 1945 graduates were able to get back for the reunion—and enjoyed the opportunity to meet one another again.

The solemnity of graduation day is reflected in the faces of these two brand new metallurgical engineers.

The joy and accomplishment are apparent in the happy faces here! Diplomas awarded and signed.

Reunion class, 1955, at Commencement banquet.

An excellent representation of the more than two hundred 1980 graduates gathered at the annual Commencement banquet.

The university of graduation day is reflected in the faces of these two brand new metallurgical engineers.

Students, Trustees, Steve Rother and Doug. Aab listen intently to proceedings of Board of Directors' meeting.

Fifty-five years ago, this trio graduated from CSM: Still active, they are. I to r: Don Wesmer, Bill Just and Floyd Schooler.

The Mines Magazine • June 1980
Oil Shale Symposium
by Leanne Gibson

For the first time in the 60-year history of oil shale development in the United States, the estimated price of a barrel of shale oil is less than that being paid for a barrel of oil from conventional sources. Despite this, the industry demands a 15 percent rate of return rather than 12 percent to (pay for the risks), shale oil could remain uncompetitive with foreign oil at future prices, he said.

A. E. Lewis of the Lawrence Livermore Laboratory argued that institutional problems are the only remaining impediment to oil shale development, and that with their removal, an oil shale industry could displace up to one-half of the 7.9 million barrels the U.S. imports each day.

The need for something to replace imported oil is obvious to most Americans. We have an all-shale resource that is more than adequate for this purpose. We have technology that is good enough, and capital and can be improved.

What then is our problem? I believe the real problem is that we lack the national commitment that is required and some lack the institutional framework that is necessary to overcome the obstacles preventing utilization of this resource.

In his presentation, Hecox reiterated the concept that oil shale cannot be developed efficiently by plant.

In particular, Hecox said that the annual Oil Shale Symposium at the CSM has served as a forum for the exchange of ideas and information among researchers, engineers, and industry personnel.

In addition, it is expected that petroleum will become extraordinarily expensive and may displace ourselves one step at a time," he said.

"It is the foresight argument," he said. "It is the necessary argument behind the federal and state tax systems that tax energy, and, in particular, that the tax system in oil shale development is a more reasonable system than that used for the electric utility companies that could make it more likely that an event will happen." He added that with several speakers pointing to the potential for a "crude-to-carbon" economy, development of an oil shale industry is becoming increasingly important to the nation's energy position. Dr. Gary set a national position that "synthetic fuels and nuclear energy are based on a half-century of research, development, and research related to it were assimilating new information about oil shale viability, Dr. Gary was educated at Virginia Polytechnic Institute and received his Ph.D. from the University of Pittsburgh. Before coming to CSM, he worked for six years in the technical service division of Standard Oil Company (Ohio), where he gained the University of Virginia and the University of Arizona, coming to CSM in 1980. He resigned his post of Dean of Faculty in 1979 and has resumed a full-time role as teacher and research participant in the CPH department.

In his presentation, Hecox reiterated the concept that oil shale cannot be developed efficiently by plant. He suggested that it would be developed and carried out by a single federal agency, a Piceance Basin Authority, set up under a detailed record-keeping system. He added that shale oil would be subject to "crude-to-carbon" management by the operations of a government that relies on the economics of the "50th"—the Resource Conservation and Recovery Act (RCRA). The Environmental Protection Agency has not yet completed its first regulations under the act, passed in 1970, which is designed to control solid and hazardous wastes and encourage resource conservation and recovery. Hecox said that the Environmental Protection Agency (EPA) could develop a "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "special waste," or "spe
asked, "How much growth can occur slow In coming and the resources, so mum because of commitment to first levels of production at less ttian ttie opti­
severe social disruption in the communi­turnover, difficulties in work force re­before the effects become a constraint though the growth has been relatively In the Piceance Basin as "a model for scale programs," and said these efforts to develop an oversight and coordi­
tise and shortfall backup where
local governments with, technical exper­
14
Scrimgeour described the various federal, state and industry efforts under­
to the attention of the President, the
15
Mills Bunger

Not many young men are entertaining enough to be elected to public office by the time they are in high school. Myron, one of the Bunger family's male children, was an exception. He was elected county surveyor when he was 17 and soon found himself in the middle of a controversy. The project he was working on, the建设 of a dam on the Yarmuk River, was controversial because it would displace over 130,000 acres of farmland. Mills took the side of the farmers and worked hard to resolve the conflict. He was ultimately successful in getting the project approved.

Mills was known for his hard work and dedication. He took care of his work and school assignments with great diligence. One of his key projects was getting in the way of the construction of a dam on the Yarmuk River. Mills took the side of the farmers and worked hard to resolve the conflict. He was ultimately successful in getting the project approved.

Mills' new job in the City of Wheat Ridge was a turning point in his career. He was elected to public office at the age of 20, making him one of the youngest surveyors in the state. Mills was always glad to hand over the work to the younger members of the team.

Mills' work as a consultant for the Central Colorado Water Conservancy District and various other consulting companies and firms continued to be successful. He was always glad to hand over the work to the younger members of the team.

Mills was a true leader and a dedicated public servant. He was always available to help others, and his work was always of the highest quality. He was a true inspiration to his family and his colleagues, and his legacy will live on for many years to come.
Preliminary surface work has explored an interesting research laboratories studied changes in chemical bonding during the dissociation of oxygen molecules on platinum.

In a recent experiment, scientists at the General Motors Research Laboratories studied changes in chemical bonding during the dissociation of oxygen molecules on platinum.

An electron diffraction pattern which shows molecular adsorption from an oxygen-covered hexagonally close-packed platinum surface at 0°C.

**Oxygen on Platinum**

**Adorption**

**Adsorption**

**Adsorption**

**Atomic**

**Molecular**

**Adhesion**

A simplified schematic illustrating the reaction potential energy surface for oxygen adsorption on a close-packed platinum surface.

A schematic diagram showing diffraction patterns from an oxygen-covered hexagonally close-packed platinum surface at 0°C.

**Unde r** what conditions will oxygen molecules dissociate into single atoms on a platinum surface? What is the mechanism for oxygen dissociation? Those are the kinds of questions that Dr. John Gland and his colleagues at the General Motors Research Laboratories are investigating to get a better understanding of the chemistry behind catalysis.

Their work has valuable practical implications for the automotive field, where catalysis is used to remove harmful emissions from automobile exhaust. Most cars built in the U.S. use catalytic converters filled with beads containing platinum to chemically transform carbon monoxide and unburned hydrocarbons into harmless CO₂ and water.

While it has long been known that catalysts are an effective way to convert these gases, little is known about precisely why and in what order the basic atomic reactions occur.

In seeking answers to these questions, surface chemists study the elemental composition and geometric arrangement of atoms in the first few atomic layers of the surface and the surface atoms on which oxygen and molecules from the gas phase bond to the surface.

In his most recent work, Dr. Gland has been studying the adsorption and desorption of oxygen on platinum single-crystal surfaces. This is important because oxygen is the agent that must be adsorbed on the surface to react with carbon monoxide and hydrocarbons to convert them to CO₂.

The experiments were conducted in a stainless steel ultrahigh vacuum system equipped with an electron energy analyzer and a mass spectrometer. The electron energy analyzer allows one to measure the concentration and character of the oxygen adsorbed on the platinum surface. The mass spectrometer is used to measure the desorption of O₂ from the platinum surface.

Mathematical analysis of the desorption process allows one to characterize the chemical bond between the oxygen and the platinum surface.

In these experiments, the platinum surface is covered with oxygen at the extremely low temperature of 160K (about the temperature of liquid nitrogen) by exposing it to gaseous O₂ molecules. The oxygen remaining in the gas phase is pumped away, and then the desorption of oxygen from the surface is observed in the platinum crystal is gradually heated to 1000°C.

The oxygen was found to desorb from the surface in two distinctly different temperature regimes—partly due to the rest at about 402°C. By using the oxygen-18 isotope, it was established that the low temperature desorption represents oxygen that was adsorbed on the surface in a molecular form while the higher temperature desorption corresponds to oxygen adsorbed in the atomic form.

From an analysis of the desorption process, it was possible to establish the complete energetics. Oxygen molecules from the gas phase strike the surface and are weakly bound (57 kJ/mol). The adsorbed oxygen molecule can either desorb into the gas phase (57 kJ/mol) or dissociate into atoms (33 kJ/mol). The atoms are bonded very strongly (200 kJ/mol) to the surface.

**From the desorption analysis, it was also possible to deduce the mechanism for the dissociation process.** The interesting conclusion that results is that the formation of O atoms on platinum is a two-step process—oxygen is adsorbed in a molecular state and then dissociates to form atoms.

The GM scientists were most interested in learning how this adsorbed molecular species is bonded to the platinum surface. Fortunately, another technique was available to determine the bonding. The technique is called electron energy-loss spectroscopy and is quite new—there are only six or seven such instruments in the world. The measurements not only confirmed the existence of the adsorbed molecular oxygen but showed that it was bound by the transfer of two electrons from the platinum surface into the antibonding σ₄ orbits of oxygen.

"This was most exciting" said Dr. Gland, "because this is the first time that this type of oxygen bond has been observed on a metal surface. We're getting closer and closer to a more specific understanding of catalysis," says Dr. Gland. "The more we learn about simple chemical systems, the better we'll be able to control more complicated systems. That has excellent implications for protecting the environment."
Dear Editor,

Some additional background should be presented on Mao, a key personality in the history of China. In 1929 Joseph Stalin provided a young Chinese intellectual named Mao Tse-tung with his Chinese agent. Through private tutoring Mao was taught the techniques of revolution by “agitation and armed revolt.” Mao’s “radical reform” involved taking all land from its Non-Communist owners, and then handing the land over to “people’s courts” on trumped-up charges and sentencing the landowners “to work in the wasteland.”

Dear Mr. Pfeutze,

You comments on the book review “China after Mao” are appreciated. I have forwarded them to Dr. Bajrungs in the event he wishes to reply to any of the statements. I do not have sufficient knowledge of the facts and figures to which you refer to respond adequately. I would like to point out, however, that the practice of statecraft does not necessarily imply humanitarianism, or even morality. Adolf Hitler, a man who caused untold anguish and precipitated a world conflict, was a dishonest and criminal person. He possessed a remarkable degree of the ability to bring together persons of divergent backgrounds and beliefs, to set up systems of economic value, and to create a climate of national confidence. These things were accomplished by statecraft-like actions. Modern history gives us other examples, and ancient history replete with such clever, but wicked, individuals.

Dear Pat,

I am writing to reply to any of the statements you have made in your article “China after Mao.” According to the February issue of Mines Magazine, I see you are going to enter a new era of writing. Modern history gives us other examples of divergent backgrounds and beliefs, to set up systems of economic value, and to create a climate of national confidence. These things were accomplished by statecraft-like actions. Modern history gives us other examples, and ancient history replete with such clever, but wicked, individuals.

Dear Miss Petty:

I appreciate your letter of April 24 and the copies of my article in the Mines Magazine. This is a magnificent job of condensation, and I don’t envy you for having done the job. However, the result is extremely pleasing. I should not require any extra copies. I am glad to have those which I have. Please give Bob Watson my warmest regards. I admire him as I do many professional people who have supported and encouraged not only the Association and the School but the individuals and students who make up these organizations.

Joe Davies

Alumni Association Honorary Members

““The Alumni Association annually honors members (or organizations in their name) who have been of significant service to the Colorado School of Mines or its alumni. Members can be individuals or organizations, and may be from any of the Board of Directors for this honor. An Honorary Membership Committee recommends candidates to the Association Board of Directors for final selection.

The Association Board of Directors will consider several criteria in selecting individuals for this honor. These are:
1. The recipient of the Honorary Membership in the Alumni Association is an individual or organization that has been of significant service to the Colorado School of Mines or its alumni.
2. The recipient has rendered distinguished service to the Association and/or the School of Mines.
3. The recipient of an Honorary Membership must be a graduate of the School of Mines.
4. The recipient should be present or be represented in person to receive this honor.”

The above criteria is taken from the records of the CSMAA, this year’s crop of track performers. It is of utmost importance that the Association and the School of Mines be able to show both the best and the most talented in each division.

Joe Davies

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- FREE PICK-UP

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discovery is our business

Hello There!

Information, Please

Alumni Association Honorary Members

Joe Davies

The above criteria is taken from the records of the CSMAA, this year’s crop of track performers. It is of utmost importance that the Association and the School of Mines be able to show both the best and the most talented in each division. Always ready to support the student organizations, Foss and the people in his organization are often sponsors of special events planned by these organizations. The best example of cooperation between a school and a community figure, Heine Foss has done much for Colorado School of Mines, the Alumni Association and the student body.

Joe Davies
Jean Paul Mather. A native of Colorado who has been associated with CSM on two different occasions, Dr. Mather's first stint at CSM was from February 1938 until June 1943 when he was instructor, assistant professor and assistant business manager. He early diversified his work and held a number of administrative positions. He was provost of the University of Massachusetts, then President of that institution. His last post before returning to CSM was that of President of the University City Science Center, Philadelphia. When he came back to Colorado and the School of Mines it was to establish the newly authorized Department of Mineral Economics. Since 1946 he has served as consultant to many major oil firms. His ability and expertise in the petroleum exploration field have been recognized by governmental entities—he is currently a member of the Colorado Oil and Gas Conservation Commission appointed by Governor Richard Lamm for a four year term. Recipient of the CSM Outstanding Professor award, numerous honors from professional societies and respect from those who have passed through his classes. John Haun has been a worthy candidate for the Honorary Membership award.

A 31-YEAR RECORD OF EXPERIENCE IN SOLVING PROBLEMS FOR THE MINERALS INDUSTRY...

Our full-time staff of 180 people is skilled in getting practical answers to minerals and energy problems. The odds are very good that, if you need assistance on any problem involving minerals, energy or the environment, CSMRI can provide it.

The Council for the Advancement and Support of Education (CASE) holds regional competitions for publications of its member organizations. These competitions are generally recognized as being among the most prestigious in the country, and the awards therein are much sought after.

At the recent California District Conference, MINES Magazine cover for January 1980, designed by Dale Rosenbach, was chosen as one of the coveted citation awards. The three winners were: John Hopkins University, University of Notre Dame and the California State University Alumni Association publications.

Mr. Rosenbach, who designs many of the MINES Magazine covers, is Director of the Graphic Arts Division, for Colorado State University. He has done a number of commissions for CSM, including logos and designs used in the public information and publications departments of the School.

Scholarship Fund

Starting in 1980, the "Malcolm Coller Endowment" will pay as many as three tuition-only scholarships annually. Recipients will be selected by the school's scholarship committee.

Coller, who played basketball at Mines, has been involved in numerous alumni activities for over 50 years. He received the school's Distinguished Service Medal in 1965.

Coller was graduated from the University of Denver Law School in 1925, served as a state legislator 1932-1934, and as a Denver Election Commissioner 1934-1940. He was a director of First Federal Savings, 1925-1979 and is now Director Emeritus. He was president 1939-1971, succeeded by his son, Malcolm Jr.

Coller served on the Federal Home Loan Bank Board in拓peka 1945-1948 and was Colorado Savings and Loan League president in 1942 and again in 1955.
23 Ed Breck, E.M., a former president of CSMMA and faithful supporter of the organization, sent his "prospector's pick" gavel to Marshall Crouch as the 1980 president of the organization.

24 Maxwell Pellish, E.M., is compiling a small library of textbooks in his possession, many of which were in use during his years at CSM.

25 He has become interested in the archival project suggested by CSMMA and Dr. Penney, of the Arthur Lakes Library, and hopes to make some of these rather rare books available to the library.

26 C. M. "Nick" Watts, E.M., who lists Greece, Yugoslavia, Afghanistan, Vietnam, Korea, Nepal and India among those places he has worked during an interesting career, has presented to the Arthur Lakes Library a slide presentation on Nepal. The presentation will be available in the archives section.

31 Sylvia J. Johnson, PhD, Geoph., who has recently moved to the University of Texas, in Austin, has made a collection of photographs and some interesting materials on geophysics available for the collection in the Colorado Room of the Library.

34 Joe E. Rosenberg, M.E., and Marshall Croucher, M.E., in retiring from the U.S. Bureau of Mines and acting as a consulting metallurgist, Mr. Rosenberg's office is in Salt Lake City. Ted Wilson, P.E., and Paul Reynolds, P.E., have achieved the rank of senior executive vice president of Mold of Oil Corporation is another participant in the archival project at the Library. He writes, "will be pleased, as I am sure many alumni will, to look through my films and books and try to select items that might be appropriate for the collection.

38 A. R. Nesbitt, Jr., E.M., is a valued correspondent--he keeps sending news clips and items of interest to the School or relevant to the energy industries. Quite often this material is related to a recent article in MINES Magazine or suggests some directions for articles, which is greatly appreciated. He is also a point of contact for alumni in the Seattle area. William H. Holman, M.E., retired April 30 from his position as president of Darinamek Resources Corp. He has spent 41 years in the steel industry, beginning as a mill observer with U.S. Steel upon graduation and working with a number of successful companies before joining McLouth. He makes his home in Groce E., MI.

39 Ralph C. Hyslop, Mho, Geoph., who is retired from Imperial Oil. Ltd., is a consultant with Sarnia Consultants Ltd. John E. Means, E.M., is retired from mining and manufacturing. H. Y. Domijano, Jr., Geol.E. and Metalist '66, has contributed several items to the Library.

41 Donald W. Robert, Geol.E., Col. USAF, has been the owner of Travel, Inc. of Hodgenville, New York, since the first of the year. Prior to acquiring his new business, he was a supervisory ITT-Feder Electric supply to Iran and other foreign assignments. He has also been a consultant on electronic systems program management.

43 Walter A. Spreading, E.M., has been promoted from general manager of the Dayton Pipe Company to the post of vice-president of the company.

44 Walter J. Haag, P.E., retired, has been promoted to the position of vice-president of Drilling Design and Engineering, where he has been a member of the executive board and of the University of Texas, in Austin, he has worked on a number of projects related to the energy industries. He has been designated executive vice president and a consultant on electronic systems program management. He will function as general manager of coal operations for Rocky Mountain Energy Corporation, in an appointment announced April 28 by James D. Wilson, president of the newly formed subsidiary of Union Pacific Corp. Uccitty will be responsible for all of UMI's coal operations and will oversee the development of the company's coal resources.

50 B. L. Bobo, E.M., vice president and general manager of Northern Coal Co., was elected to a third term as president, Northern National Gas Co. He has been with Northern for two years, based in Denver. Fred Sparks Langher, Jr., E.M., is now vice president of Electro, Inc. Reno, Nevada.

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Frank Uccitty

25 Douglas R. Brown, E.M., has been promoted to the position of chief of a major division of Oil and Gas Operations at Inland Steel, where he has been a member of the company for the past two years. Mr. Brown has been with Inland since 1961. William R. D. Barrlett, P.E., and Mrs. Barbara Dr. Ben T. Brown, have been separated by an announcement from Rice University that their daughter, Lisa Dr. Barrlett, has been awarded the Phi Beta Kappa membership at Rice.

53 William P. Baroody, Jr., Geol.E., has accepted a position as the director of the Energy Resources Program at Penn State University.

54 Charles J. Baroch, E.M., has been named as the executive director of the American Petroleum Institute.

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88 Lloyd E. Elkins • 1953 Petroleum Consultant

Planning/Management/Appraisal Research and Operations

59 Donald A. Rauch, E.M., '54 and Disc.

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moved from Mantech Int., Inc. to Ocean Re­
gineering firm. Mr. Provost was named presi­
struction group based in Glasgow, Scotland.
Mr. Brightwell, Met.E., has announced
has been relocated to Tucson, AZ, at the of­
michael D. Brightwell, Met.E., has been promoted
mouth, to Texaco, Inc., where he will be assistant
dission of the technical staff in the United States, and oversees offices. He will be
is named assistant to the general manager, pro­
knowies, and they have recently married. They
a master's degree in geophysics from the Texas A&M University, where he is currently a
has been appointed director of tech­
the Natural Resources Conservation Service.
Daniel E. Davis, BSc. Min., is employed by Gold
in Oklahoma, where he is a petroleum
Michael D. Brightwell, Met.E., President, has been named chairman of the Colorado Mining
nancy R. Money, BSc. Geop. '74 is executive vice president of O'Brien
was twice winner of the Women's Auxiliary, AIME. She was twice
is executive vice president of O'Brien
is a geologist with Occidental of Peru in the northern part of that
current member of the Board of Directors of the U.S. Geologi­
currently a geologist with Occidental of Peru in the northern part of that
to project geophysical
Thomas V. DeMars, who is currently a
Kolego, BSc. Min., is employed by Gold
the Natural Resources Conservation Service.
Wyoming, and has recently been promoted to project geophysical
and the Class of 1922 in honor of one of the school's most distinguished alumni and himself a Distinguished Achieve­
mining engineer, specializing in ventilation for
was recently married to John D. Pavich in Alhambra,
information. The silver medal presenta­
SASCO, executive vice president, has recently
in Colorado, where he is currently a
is executive vice president of O'Brien
was recently appointed to the board of directors of the New Mexico Institute of Mining
is executive vice president of O'Brien
in Casper, WY. Davids is in Casper, WY.
several殊誉 hikes. The silver medal was also presented at the 1980 Colorado School of Mines Commencement, May 10, The George R. Brown
were established in 1942. Recipi­
Mark K. Lundstrom, BSc. Min., has re­
has been promoted to project geophysical
is a geophysicist with NGC. Shal­
 resolving the technical staff in the United States, and oversees offices. He will be
was two chairman of the Denver WEA, and
clad in Houston. Thomas V. Daleare, Jr., BSc. Phy., now a 1st Lt. in the Marine
is executive vice president of O'Brien
New Mexico Institute of Mining and Mineral Resources, a division of the
mined American Metallurgical and Mining Association.
Consultants to the Mineral Industry
environmental consulting firm. New responsibilities for Mr.
will include coordination and develop­
the firm's head­
i is executive vice president of O'Brien
The silver medal was presented in 1949 by the Board of Trustees, was
the annual Distinguished Achieve­
the silver medal is given to those persons who have given
in Casper, WY. Davids is in Casper, WY.
the Mines magazine • june 1980
Distinguished Achievement Medalist in 1949. The gold medal is awarded to a person who has rendered distinguished service in or to
and himself a Distinguished Achieve­
the Mines magazine • june 1980
Robert A. Baxter

Hon. '62, a CSM faculty member from 1922 to 1959 and Professor Emeritus of Chemistry at the time of his death in May 1978.

William E. Burger

The Mines Medal was also presented to Dean Emeritus William E. Burger, who served CSM as dean of students, played on the varsity football team and other positions from 1947 to 1954. He then was employed by the CSMAA, until his retirement in 1978.

John W. Vanderwell

The third recipient was Dr. John W. Vanderwell, Hon. '62, Trustee and President Emeritus of CSM, who served as a trustee from 1947 to 1950 and as president from 1950 to 1963.

6th Institute on Mine Health & Safety

**MINE HEALTH AND SAFETY— HOW MUCH IS ENOUGH?**

That's one of the toughest questions in the mining industry, for management, labor, government, academia and society. It is a question with many answers, all of which will be explored at the Sixth Institute on Mine Health and Safety, to be held November 12-14, 1980, at the Colorado School of Mines.

Cost effective health and safety is the chosen theme for the Institute, which will address how to optimize funds allocated to health and safety. Presentations will be made by representatives of industry, labor, regulatory agencies and academicians from Mines and the Occupational Health and Safety Education at Colorado School of Mines.

According to Institute Director Prof. Robert R. Teeder, technology continues to improve working conditions in mines, particularly with the emphasis on decreasing air-borne irritants and carcinogens and safety features for both explosives and equipment.

Requests for further information and inquiries should be addressed to Prof. Teeder, director, Institute of Mine Health and Safety, Colorado School of Mines, Golden, CO 80401. Registration for the institute is $110.00.

**G. H. Bryant, '54**

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Mines Baseball Team Cops Second in Tourney

The Colorado School of Mines baseball team surprised its fans during the weekend of April 19-20 as the Orediggers nine finished second in the third annual Denver Metropolitan Area Baseball Tournament.

The tournament began on the evening of April 19 with the Miners when they dropped a 10-1 decision to the University of Southern Colorado. Mines trailed 2-1 after six innings but rallied in the eighth runs in the final inning to put the game away. Mines could muster but two hits against the University of Southern Colorado pitching.

After the Miners themselves in the loser's bracket of the tourney, the Miners bounced back to defeat Chadron State College 6-5. In the quarterfinals, Mines was the hitting star for the Miners, pounding out three hits in as many trips to the plate. John Gabbalzy smashed a two-run homer to help the Miners' cause.

In the semifinals Mines was pitied against Metropolitan State College, and Mines came out a winner by a score of 11-6. The Orediggers bats exploded for 10 runs in the fifth inning. Tom Lampert went three-for-three, and Steve Bolars turned in a stellar performance. Sellers entered the game in the third inning after Metro State had amassed a 6-1 lead and shut out the visitors from Denver for the remainder of the game. On Sunday the Miners baseball team found themselves playing Regis College. The Miners won that game easily, 14-4. Ray Oletski pitched a three-hitter for the Miners. The Miners' hitting started to come around. Brian Vaughan cracked a home run, Scott Pole had a bases-loaded double with two runners on base, and three hits in three times to the plate.

As a result of the win against Regis, the Miners were in the championship game against Denver University. The Orediggers lost 19-9, although the game was much closer than the score would indicate.

Coach Jim Darden said that Mines suffered from a lack of pitchers for the championship game, while Denver had their top pitcher ready to throw. Darden added that if Mines had one more pitcher, the Miners could have been closer. Mines did pound out 16 hits against the Outlaws, but the Miners went 4-4 with two doubles. Tom Lampert went 3-4 with a pair of doubles and Mark Carter belted a three-run home run.

Mines also had two other games recently. They played a doubleheader against Creighton State and swept the twin bill from the Eagles, 19-4 and 10-9. In the first game, John Gabbalzy took the spot of first baseman and the last of the inning and scored on Mike Virginia's sacrifice fly. In game two, Gabbalzy tripled in the last of the seventh and drove in Don Wingert with the winning run.

**Golf Wrapup**

The Colorado School of Mines golf team finished back in the pack in all three divisional standings. The Orediggers were eleventh in the Rocky Mountain Interscholastic Golf Association, sixth in the Rocky Mountain Athletic Conference meet and seventh in the NCAA District 7 tournament.

In the RMIGA, the Miners had a team stroke average of 336.4. The RMIGA was led by Colorado University with a team average stroke score of 304.6, followed by Air Force Academy, Southern College, Northern Colorado, Western State, Wyoming University, Colorado State College, Denver University, Mesa College, Mines, Colorado College, Regis College, Adams State and New Mexico Highlands.

The Miners shot a 369 at Tamarack Country Club in their first match of the season. That was good for a seventh-place finish. In subsequent matches, the Orediggers fired a 321 at Broadmoor South, good for a seventh-place finish; a 324 at Eisenhower Silver, which put them in tenth place; a 385 at the Lakewood Country Club, for the twelfth-place finish; a 340 at the Pueblo Country Club, for the thirteenth-place finish; and 343 at Eisenhower Blue, which put them in ninth place.

In individual standings, Jon Boucher and Steve Pesce were part of a four-way tie for third place with a 198 score; John Lipinski was tied for fifth place with a score of 202. In the RMIC meet, Mines took sixth place out of a field of nine teams, while in the NCAA District 7 tournament, the Orediggers finished seventh in a field of twelve.
Track Roundup
by Steve Smith

The 1980 track season at the Colorado School of Mines can be summed up in two words: Dan Scrivener. The senior from Pueblo had a phenomenal season for the Orediggers this spring.

Scrivener holds the school record in the 1500-meter run with a time of 3:51.86, and the school record for the 800-meter run with a time of 1:54.3. In addition, he recorded the fastest time in the school's history in the mile run with a clocking of 4:19.8.

In a recent meet, he posted a mile equivalent time of 4:10.1. He holds the Mines record for the half-mile run with a time of 1:04.7. If that wasn't enough, Scrivener is also the best high jumper in the school's history, with a record leap of 6'8". (He didn't high jump this year due to a back injury.)

Scrivener still has some chances to finish up before his track season can be considered finished. He is scheduled to go to the NCAA National Track Meet at Abilene Christian College in Texas from May 22-24, and he may compete in the NCAA Division III track meet in Ponnoma, California.

There were other outstanding performers on the 1980 edition of the Oredigger track team. Drew Dedamore, whom Coach Joe Davies cited as one of his strongest performers of the outdoor season, locked in the school his record in the outdoor pole vault at 15 feet even.

The track team will be hard hit by graduation. Eight seniors will have exhausted by the time their seasons rolls around. The team will also have a new coach next season. Coach Davies is retiring at the end of the fall semester after 32 years of coaching at Mines. In their final meet of the year in the Rocky Mountain Athletic Conference track meet at the University of Southern Colorado, the Orediggers came in fourth in team standings. Adamo Sume took first with 200 points, followed by USC at 117, Western State at 89, Mines with 62, University of Southern Utah at 56 and Western New Mexico with 34.

New Football Recruits

The Colorado School of Mines has announced its list of football recruits for the 1980 season and, according to head Coach Mary Kay, the 25 newcomers should be able to help the Orediggers program right away.

"This is one of the best groups of athletes we've had," said Kay. "We have seven or eight returnees who are very strong and several young men who are promise. The team should also be able to pick up some ground with the addition of these new players.

The Orediggers picked up all of their recruits from within the state of Colorado, and Kay is pleased with the number of freshmen who will be playing football at Mines in September. He added that he is hoping for several of the freshmen to step in and provide help to the Orediggers this fall. The Miners will have to fill a void created by the loss of 11 players due to graduation.

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in memoriam

Randall A. Day

Randall Arthur Day, BSc, CPR 1977, died in a fire in a gasoline storage spheroid at the Ras Tanura Refinery in Saudi Arabia on August 22, 1979, He was 24, and had been employed by the Arabian American Oil Co. since his graduation.

At the time of his death, he was involved in work on natural gas liquids projects, was an engineer in Aramco’s Associate Engineer program, and had experience in the company’s Technical Services Department.

Day was active in the athletics program at Mines.

He is survived by his parents and his wife, Terri, who makes her home in Orange, California.

Blair Burwell

Blair Burwell, BSc. Met. 1977 and BSc. Min. 1978, died in an auto accident in Wyoming on April 3. The accident, near Douglas, occurred as he was enroute to his home from Bear Creek Uranium's offices, where he had been employed since his graduation from Mines.

He was born in Salt Lake City in 1955. His father, Blair T. Burwell, E.M. 1947 and grandfather Blair Burwell, E.M. 1919 and Medalist 1949, both graduated from Mines.

His great-grandfather attended the School before it became a degree-granting institution, in the late 1880s.

Burwell had just received a promotion of Bear Creek, a subsidiary of Rocky Mountain Energy Company of Denver. He was formerly employed in the mining division and had recently assumed the responsibility of metallurgist for the mill. His wife, the former Stephanie Meyers, is also employed by Bear Creek.

A member of Beta Theta Pi at Mines, he also was president of the Tai Kwon Do club. He organized and supervised a Tai Kwon Do group in Wyoming after moving to that state.

He served as a teaching assistant at CSM for one year.

Burwell is survived by his wife, his father, Blair T. Burwell; his mother, Virginia; twin sisters, Peggy Kasik and Pamela Cloven; a brother, Horace T.; a sister, Marjorie Hemenway; and a half-sister, Bernie O’Doomes; eight grandchildren and one great-grandchild.

Harley H. Montague

Harley Howard Montague, E.M. 1926, died February 20, in Tucson, Arizona. He was 84 at the time of his death.

Montague was a pioneer in the aircraft industry, piloting his first plane which flew from Denver to Kansas City. Before his involvement with the aircraft industry, he was a pilot in the Army Air Corps during World War II, and worked for a midrider for Denver Terracotta Co. He became an airline pilot in 1927, and remained in that occupation until 1947.

Returning to the mining industry, he became part owner and officer of American Clay Works & Supply Company, in Denver, until he retired in 1960. He had lived in a number of places, both before and after his retirement.

Montague was active in the Masonic organization, belonging to South Denver Lodge #90; AF&AM; Colorado Consistory #1; and El Kosh Temple of Salt Lake City, Shriners.

He is survived by his wife, who resides in Tucson; a son Howard W., three daughters, Joan Juhun, Marjorie Wilson, Mary James; a brother, Horace T.; a sister, Marjorie Hemenway and a half-sister, Bernie O’Doomes; eight grandchildren and one great-grandchild.
William S. McWhorter

William Sprunger McWhorter, B.M. 1923, died in Green Valley, Arizona on March 31. Mr. McWhorter had been ill for several years prior to his death.

Born in Central City, Colorado, McWhorter moved with his family to Denver, where he attended high school at North High. His brother, Cedric E. (Davy) McWhorter, also attended Mines, graduating with a mining engineering degree in 1924. Cedric McWhorter died several years ago.

Upon graduation, William McWhorter worked in various mining engineering positions in Mississippi, Arizona and Colorado. He then worked as a metallurgical and chemical consultant for International Lead and two companies in Cornwall, American Shovel Company and the Waterbury Farrel Foundry and Machine Company.

Returning to the western U.S., he accepted a position with U.S. Smelting and Chemical Corporation in Carlsbad, New Mexico, retiring from this company after thirty-two years service. Since his retirement, he and Mrs. McWhorter made their home in Denver, Arizona. Cedric McWhorter was a member of AME, and wrote an article on Mines belonging to Theta Tau andTau Beta Phi. He was well known for his work in new areas of metals and the field of aluminum power.

He is survived by his wife, Edith McWhorter, and a daughter, Bettye Reif Benten, his mother, and one sister.

Charles E. Lundin, Jr.

Charles Edward Lundin, Jr., M.E. 1949, died September 10, 1973, at the age of 77. He was a native of Colorado and attended secondary schools here. He assumed employment with Standard Oil Company at the refinery in Casper, Wyoming, immediately upon graduation from Mines. He left that job was that of a research technologist.

Mr. Lundin was a research metallurgist for the Armour Research Foundation and worked at the Rocky Flats nuclear weapons facility near Denver. In 1945, he joined the Denver Research Institute and remained in that organization until his health forced him to retire. He was well known for his work in new areas of metals and the field of aluminum power.

Mr. Lundin was well known for his work in the field of aluminum power. He is survived by his wife, the former Bonnie Rae Benten, his mother, and one sister.

Dudley S. Rankin

Dudley Laban Rankin, P.E. 1923, died April 4, at the age of 77. He was a native of Colorado and attended secondary schools here. He assumed employment with Standard Oil Company at the refinery in Casper, Wyoming, immediately upon graduation from Mines. He left that job was that of a research technologist.

Mr. Rankin was on executive loan from his company for two years as chief of the Petrochemical Laboratories of Nigeria. During that time, he served in Paris and did investigative work in other areas. He was rehired for a number of years.

Mr. Rankin was active in many community organizations, including the Boy Scouts. His professional activities included being a member of the Franklin Mineral Lodge in Casper, the Beta Phi Sigma and Gamma Epsilon.

Surviving are his wife, the former Helen Hardin Curry, whom he married in 1933, two sons, a daughter, a brother, six grandchildren and one great-grandchild.

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F. DUKES

Chemical Geologist

Quenton L. Brewer

Quenton L. Brewer, Geol. Geo. E. 1959 and MSc. Geo. E. 1961, died April 7 in Farmington, New Mexico. He was associated with San Juan Testing Laboratory and Lawrence A. Brewer and Associates in a consulting capacity at the time of his death. Both these enterprises are owned by the firm.

A native of Kansas City, Missouri, he was brought to Colorado by his family at an early age and attended schools in Timid, El Paso, Texas, and Ft. Collins.

Brewer was a geologist with CFI for several years and was an instructor at CFI for five years. He was the first mining engineering and geology department at Placer County College, now Sierra, in California, and was city engineer for Auburn, California. His various tasks in the field of war production of minerals culminated in being Deputy Director of the Exploration Division of the AEC in 1961. Following this, he was city engineer for both Farmington, NM, and Bonnie’s Ferry, Idaho. He was a retired engineer in several states. A 50-member member of Golden Civic Lodge No. #1, A.F. & A.M., he was also a Gold Circle member of ATO.

Brewer is survived by his wife of 53 years, the former Grace Francis, a daughter, a son, four grandchildren and six great-grandchildren. A faithful member of the CSMAA, Brewer attended many meetings and at the same time he and his wife celebrated their golden anniversary. An engineering and geology endowment fund has been established at the 1st Nat. Bank of Farmington, NM, in his name.

A. Phillip Ehr

A. Phillip Ehr, Associate 1959, died April 28 in Denver. He was a graduate student in the Mines Economic Dept. at CSM at the time of his death.

Dr. Ehr worked in the fields of computer management in several states, before returning to Colorado three years ago.

He was survived by his wife, Oklara, three children, two stepchildren, his mother and father and two sisters.
Commencement—bittersweet ending and beginning, fear and hope, regrets for things left undone and funny, exciting memories to cherish or exploit accomplished, all this is implied at gradu­ation time. The look on faces of parents and spouses—quintessence of pride and joy—the happy tears—no one can experience these emotions at the end of the academic experience without a renewed conviction of the value of that experience.

All these things, however, are related to change. There will be extreme changes in lifestyles, in patterns of thinking and working. The individual changes in the lives of the graduating students will speak to a new life for them. The recent significant changes at the School will affect not only the gradu­ates but those looking toward completion of their school experience, also those individuals who graduated many years ago and who enjoy the repu­tation of being an alumnus of the School.

CSM has implemented many new pro­grams in the past few years. Some of these are exciting to one group, threatening to another, challenging to someone else, and possibly even of no interest to others. The fact of these new programs, funding, student identification, broadened authority to conduct its own affairs, will, however, create vast changes on and off the campus.

As a prominent minerals and energy institution with a reputation well estab­lished, it would be easy to rest upon this success ratio previously achieved, and a beginning, fear and hope, the immediate future of CSM is all these things—and more. Don't miss your chance to participate in this challenge.
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