GEOLOGY DEPARTMENT

NEWSLETTER

UNIVERSITY OF COLORADO

Hogbacks

JANUARY 1964

COVER:

The editor wishes to thank Julian W. Low, '35, for contributing the cover sketch.

LETTER TO GEOLOGY ALUMNI

Dear Geology Alumnus:

What's going on here in C.U.'s geology department is the subject of another Newsletter that we're glad to send to each of you. If you should ask for a general statement about what we're doing, I'd most likely answer that we're simply continuing to teach geology. We're surely not teaching it in quite the same way over the years--it would be a shameful thing if we were, because science has been anything but static. But teaching geology as well as we can to as many people as we can continues to be our single aim.

Sometimes we have visitors who ask what big research projects we have going on. This question may be a natural one. It reflects familiarity with an obvious and powerful current in science with this country's plunge into an era of large scale research. Geology has, perhaps, felt the effect of this movement a bit less than some other sciences, but it certainly has been strongly affected, as our geological journals prove. Some of these imposing projects have produced important scientific results, and many more of them have filled the literature with accumulated data of dubious significance. Nevertheless, big research efforts are a prominent part of twentieth-century life.

In our geology department we've had to find our own answer to the question of how much of this sort of thing a university science department should become involved in. Obviously we can't forget the whole thing with the glib answer that research and teaching don't mix, because they certainly do--so long as the proportions are suitable; and, quite contrary to any such idea, we faculty members feel most strongly the need to study and keep abreast of geology insofar as anyone can these days. Furthermore, we feel the need to carry on special study and original investigation in our own particular fields of the science. We're quite cognizant that many science departments in this country have been swept along with the flood tide of preoccupation with research. It's when this happens, I think, that a real and a serious conflict develops between teaching and other activities. It's here that the student may become a forgotten man.

C.U.'s geology department has built its reputation not as a center of million-dollar researches, but rather as a good place for a student to learn geology. Our primary concern is unchanged. Our objective is to turn out the strongest and most modern geological education we can, and our research work must serve this end.

Because we who work in the department agree on this basic aim, you'll not find prodigious projects described in this Newsletter. You <u>won't find</u> that our professors have left their teaching in order to administer big laboratories or extensive field projects, that they're preoccupied with advising people in Washington, that they're concerned mainly with budgeting and staffing of immense endeavors, nor that they're spending most of their time writing progress reports aimed at infusing additional money into tired but unending investigations. You <u>will find</u>, I think, that most of the professors have research studies going. By some standards of the day these are small in scale, but we believe they're sizeable in their importance.

The investigations involve at most a few graduate students working with a professor in the summer, and some are being done by the professor alone. This, I think, is a safe level at which to operate--a level at which we teach first and do research in the remaining time rather that the other way around. The loyal support of our alumni has helped us stay this way and yet stay completely modern. We intend to keep it up. We intend that you can continue to say: "That's a good place to study geology."

Sincerely,

Bruce Curtis

Bruce F. Curtis, Chairman
Department of Geology

LETTER FROM GEOLOGY DEVELOPMENT FOUNDATION

Dear C.U. Geologist:

During another year the Geology Development Foundation has worked to support the varied activities of the Geology Department. Many of you have given of your efforts and funds to further this work. We would like to extend our thanks in print and tell something about what the Foundation's contributions accomplished last year.

Fourteen graduate students received help in buying aerial photographs, thin sections, well logs, etc. for their theses. Grants to 10 faculty members helped in preparing manuscripts for talks, for publication, or presentation, aided attendance at important geological meetings, and supported the collection of specimen material for teaching collections. Twenty-four theses, much in demand both by practicing geologists and those inside the department, were microfilmed in order to preserve the tattered originals. Twenty-five badly needed books and journals were added to the library. A tiny microscope stage, an electronic device to measure rock color, and a soil testing kit were supplied for the work of students and faculty.

Once more the Geology Foundation was pleased to present its annual award to the student who is utilizing his mental and physical capacities to the fullest in his geologic studies. Finally, and perhaps most important, was the wonderful gift of $1,000 from an anonymous donor to support work in field geology. As a result the department was able to provide expense money which allowed 5 selected undergraduate students to spend parts of their summers doing field work with graduate students. The tremendous value of this arrangement for both groups of students would be hard to overestimate. All who participated felt the program brought forth a lot of fine geologic work and sound learning of the basic geologic techniques.

The Development Foundation can justly take much pride in having provided these educational improvements which simply could not have been achieved by the regular departmental budget--and, yes, a lot more help could be used in making our department even better.

Sincerely yours,

John Rold

John Rold, Board of Directors
Geology Development Foundation

SUMMER FIELD GEOLOGY (1931)

This is the story of a small group of "intrepid" students of geology at the University of Colorado who rose from obscurity to positions of prominence in industry and public service. It is the summer of 1931. We still suffer from the big crash of 1929. There are no jobs. Neither Roosevelt nor fringe benefits have yet become internationally famous; the Colorado Geologic Survey has folded for lack of funds and with no jobs there seems to be no way for these budding geologists to get practical experience.

Dean Durham, then Dean of the Summer Session, insists that we cannot have a class in advanced field geology to provide such experience unless we have six students. We have Robert Emmett (Squatlow) Murphy M.A. '32, Edwin (Roundy) Kimball M.A. '32, Walter (MacHosenose) Nygren M.A. '35, George (Fuzzy) Worden A.B. '33, and a ready and willing instructor who needs a summer teaching job. We are two men short of having the minimum six requirement so the Summer Session will pay the instructor's salary. Julian (Virgie) Low A.B. '35, at this time is working 18 hours a day, sleeping 5 (nobody ever found out what he did with the other hour). He is janitor at the Geology Building, washes dishes at a local cafe, and goes to school. We try him. No money. I lend him $50 (which he paid back at the end of the summer). Now we have 5. Finally in desperation we resort to sharp practice. Louie (Curlie) Quam M.A. '32, and Howard (Howdy) Stagner M.A. '33, each put up half of the $30 fee it cost in those days and Louie signed up. Louie never did go and neither did Howard but both felt, and rightly, they had helped to make the course possible. I had a '27 four-cylinder Chevy touring car and Julian a vintage Model T roadster. This was our transportation.

We stayed in Boulder for 10 days and mapped the Haystack Anticline. Then took off. We spent 3 days in Coal Creek Canyon looking at the metamorphics. Later we mapped the Alaska Mine up near Ward and went to Box Elder Creek in northern Colorado where we mapped and measured sections. Murphy spent a lot of time chasing young rabbits up there so that we could save on the meat bill. After several days camping we made a "wild goose chase" to Alcova, Wyoming to look at a dinosaur skeleton and to take in some Wyoming geology. Five and a half weeks from the start we left Casper for Boulder. Each car was full of gas, and jointly we raised $1.26 for eating money and additional gas, for the trip home. In Cheyenne we had a cup of coffee for dinner and spent the rest on gas. Got to Boulder at midnight but with 5½ weeks of practical experience under our belts.

Where are these guys today? "Virgie" Low is Senior Research Geologist and Technical Specialist in New Orleans for the California Company. Along the way he has worked for the Park Service, for the USGS, and for the State Engineer in Utah. He has written two well-known books, PLANE TABLE MAPPING and GEOLOGIC FIELD METHODS, not to overlook numerous additional articles on a variety of subjects. His latest, "How to Play the Mandolin." He has made several mandolins by hand and has dabbled in leather, wood carving, violin-making (one which rivals a "Strad") and heaven only knows what else. He's a master with a pen when it comes to expressing ideas with drawings. He's a cook, mechanic, hunter, and camper par excellence.

"Squatlow" Murphy is no less than Division Geologist for Magnolia (Mobil) in Roswell, New Mexico. In 1934 he worked on a government project mapping topographically the Canyon de Chelly in company with "Roundy" Kimball and "Virgie" Low; then just stayed on. Murphy reported that he got 80 miles to the "pint" for 18 hours out of a Model T Ford. Made the drive from Austin, (where he had gone to work in the Hormel Meat Plant) to Denver in order to take the deChelly job. He probably has risen beyond what is given here, but like Kimball, Nygren and Worden, he never bothers to write us here so that we can keep up to date.

"Roundy" Kimball when last heard from was Division Geologist with Continental Oil Company in Shreveport. When he first started with Continental he actually received no salary and was paying his own expenses or living on Charley Lavengton's (A.B. '21) expense account just for the privilege of hanging around to learn.

Walter (MacHosenose) Nygren went back to the ranch at Nucla (no uranium boom then), finally migrated into foreign work and spent many years in various parts of South America. When last heard from Walt enjoyed the reputation of being THE authority on South America for his company.

"Fuzzy" Worden went back to his ranch in Woodland Park near Colorado Springs, avoided ulcers, and has not been heard from since.

Lou Quam, one of the guys that put up $15 to help make the course possible is now Director of all Earth Science Research for the Office of Naval Research. He has been all over the world. Now spends a lot of time in both Antarctica and the Arctic Ocean, in fact you name most any place in the world and Louie has been there or near there in job connected travel. Lou acquired a Ph.D. at Clark University along the line.

Howard Stagner spent many years as Ranger-Naturalist in various National Parks. He's been in Ranier, Petrified Forest, and Yellowstone, just to name a few. He ended up in Washington, D. C. as head Ranger Naturalist. No jobs? Ha!!

Very truly yours,

"Doc"

Warren O. Thompson

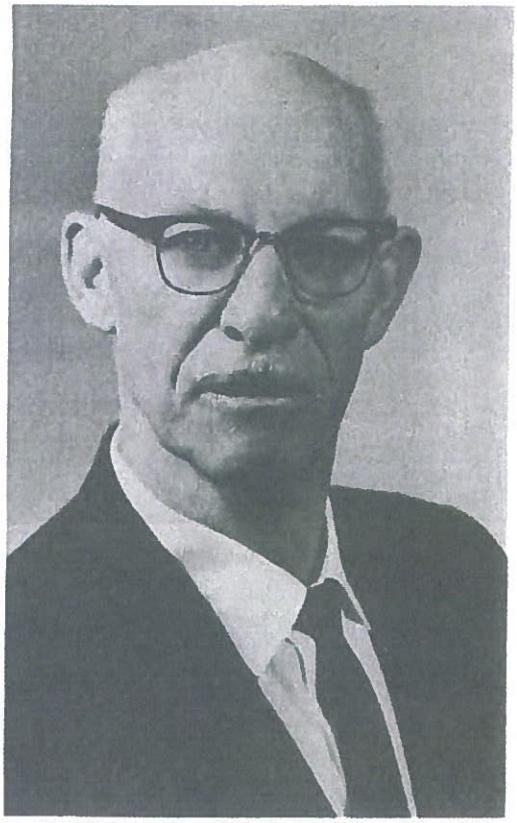
GEOLOGY DEPARTMENT NEWS

New Improvements in the Department

Matched grants from the National Science Foundation and the University to the Geology Department have paved the way for major strides towards the departmental goal of more progressive geological education through the increased use of modern technology. Dr. Bradley and Dr. Longley have received half of these grants for upgrading the freshman lab equipment while Dr. Strangway has received the rest to procure modern geophysical equipment for advanced study. Some of the improvements and new additions to the department are summarized on the following page:

ALUMNI

DENVER ALUMNI AWARD LUNCHEON

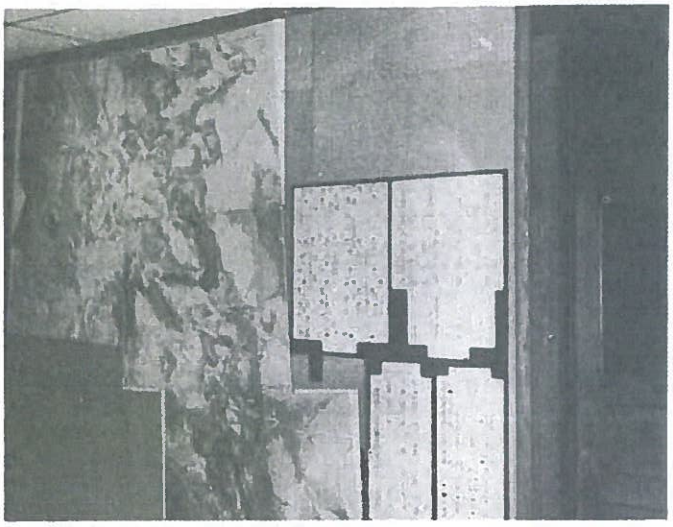


JULIAN W. LOW

SUMMER FIELD GEOLOGY 1931

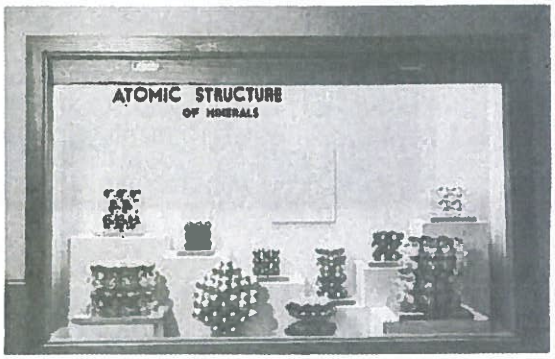
FLORISSANT SUMMER 1957

IMPROVEMENTS



STATE MAPS

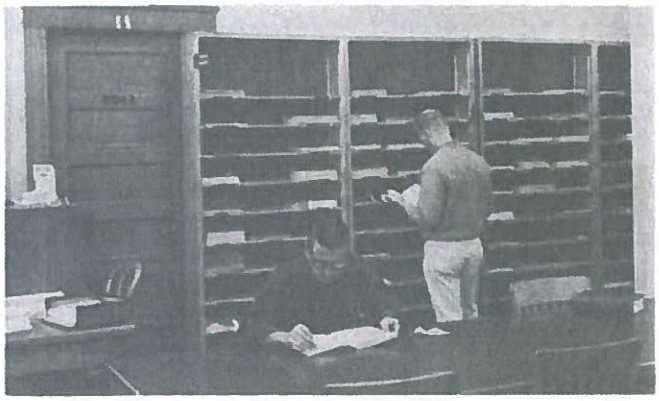
PHYSIOGRAPHIC DIAGRAM OF SOUTH ATLANTIC



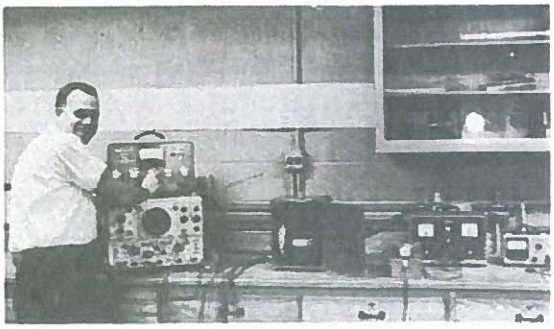
DISPLAYS

FRESHMAN LAB EQUIPMENT

BOOKS



AND SHELVES



GEOPHYSICAL EQUIPMENT

Freshman Geological Equipment

The freshman equipment obtained thus far includes 25 binocular microscopes, 10 polarizing microscopes, 200 stereoscopes, and 4000 air photo stereopairs. Before the project is completed, additional microscopes of both types, thin section projectors, more air photos, and two small stream tables will be installed for use in the freshman labs.

Geophysics

The science of earth physics is one of the most rapidly expanding fields in the earth sciences. In keeping with this trend the department has instituted a rigorous program in earth physics, in conjunction with the Physics Department. Already operational is laboratory equipment used in the study of the magnetic properties, conductivity, and induced polarization of rocks and minerals; and model seismology. It is planned that the one-semester course in earth physics now being offered under Dr. Strangway will soon be expanded to two semesters so that the expanding lab facilities can be more fully utilized.

Library

Our library presently has over 14,000 volumes; approximately 1400 volumes are added each year. Particular emphasis now is on acquiring back files of foreign journals of great value to graduate study. Last summer the new system of library classification was instituted, and a monthly listing of all new books and selected periodicals is distributed throughout the department.

Miscellaneous Improvements

Several new state geologic maps have been installed in the ground floor hallway of the department. One of the most impressive of these, a large mosaic map which includes Colorado, Wyoming, Montana, and Idaho, clearly shows the major structural trends in the Rocky Mountain area and, incidentally, shows some interesting "state line faults." Other types of maps also have been emplaced; one of the more unusual is a generalized map of the South Atlantic seafloor, published by Lamont Observatory.

Generous gifts to the department were made by Kirby Petroleum Company and the Hydrocarbon Division of Monsanto Chemical Company. Kirby donated a valuable collection of well samples from various states and many rare uranium minerals from North Cardlina; Monsanto contributed cores from some of their wells and an oven for drying samples.

Course News

Since the beginning of last summer the University has been sponsoring the Academic Year Institute (AYI) for secondary school teachers. The Geology Department has taken an active interest in the program in an attempt to encourage more instruction of the basic earth sciences in secondary school curricula. Last summer Dr. Warner and Dr. Eicher were members of the Institute faculty and this academic year Dr. Honea and Dr. Eicher are continuing the drive to acquaint high-school teachers with the principles of physical and historical geology.

As a result of the Geology Department's program of expansion of course work in the basic earth science curriculum, Dr. Honea's one-semester course in geochemistry has been expanded into a full year course. The first semester will cover the broad principles of geochemistry (Geol. 529) and the second semester will concentrate on environmental geochemistry (Geol. 530). Environmental Geochemistry will cover such subjects as ore deposition, the chemistry of weathering, sedimentary geochemistry, and atmospheric and hydrospheric geochemistry.

Last summer we were privileged to have four distinguished guest professors offering courses in the department. Dr. E. H. Timothy Whitten, Associate Professor of Geology at Northwestern University, taught a course entitled Minerals and Rocks (Geol. 106); Dr. Richard C. Kucera, Assistant Professor of Geology at the University of South Dakota, taught a course in principles of physical geology; Dr. M. William Pullen, Associate Professor of Geology at Purdue University, offered a course entitled Groundwater (Geol. 425); and finally, in line with the department's attempts to expand its horizons, a course in recent sedimentation (Geol. 534) was offered by Dr. Melvin N. A. Peterson, Assistant Research Geologist at Scripps Institute of Oceanography.

Next summer (1964) the department will again be pleased to have Dr. Pullen and, in addition, two new professors: Dr. Konrad B. Krauskopf, Professor of Geology at Stanford University, who will teach a course during the second summer term entitled Physical Geochemistry (Geol. 533), and Dr. Seymour Mack, Associate Professor of Geology at Fresno State College, who will offer a first-term course in minerals and rocks (Geol. 106).

Faculty News

Dr. William A. Braddock - Assistant Professor

Last summer Dr. Braddock continued field work on the Northeast Front Range project. This is a joint project with the USGS including Precambrian geology, petrology, and the relation between Precambrian and Laramide structure. The 450 square-mile project area is located west of Fort Collins. Graduate students are aiding Dr. Braddock in this work. Previous grad contributors were J. T. O'Connor, John Connor, Gordon Swann, Steve Gawarecki, and Ronald Calvert; current contributors are Duane Wohlford, David Eggler, Prinya Nutalaya, and Gary Curtin.

In June, 1963, Dr. Braddock attended the convention on "The State of Stress in the Earth's Crust," a convention presented by the Rand Corporation in Santa Monica, California.

During the 1963-64 academic year Dr. Braddock is teaching Field & Structural Geology, Igneous Petrology and Advanced Petrography.

Dr. William C. Bradley - Associate Professor

A paper entitled "Large Scale Exfoliation in Massive Sandstones of the Colorado Plateau" appeared in the May Bulletin of the Geological Society of America. He also gave a talk, "Secrets of the Ice," to the Planet Earth Series, an adult education series. During the summer, he completed

the field work for a study of marine terraces on the California coast, a project sponsored by NSF grant. In his spare time, he is writing a paper detailing results of this study and directing the activities of the local committee of the International Quaternary Association interscience group which will meet at the University in August of 1965. Most of the rest of his time has been spent revamping the freshman labs.

Dr. and Mrs. Bradley's second child, Mark, was born in May of this year.

Dr. B. John Chronic - Associate Professor

Dr. Chronic is currently engaged in a study of the newly discovered early Paleozoic outliers in southeastern Wyoming. A paper, "Two Early Paleozoic Outliers in South Laramie Range, Wyoming" was published in the Rocky Mountain Association of Geologists Field Trip Guidebook for 1963. Another paper, "Nature and Variability of Cyclic Sedimentation in the Pennsylvanian of Colorado," will be published shortly in the Kansas Geological Society's Symposium on Cyclic Sedimentation.

During the past year Dr. Chronic attended the Geological Society of America meeting in Houston and the Rocky Mountain Sectional meeting in Albuquerque. He was elected district representative of the American Association of Petroleum Geologists. Dr. Chronic attended the Geological Society of America meeting in New York this fall.

Dr. Chronic has spoken to the Colorado Scientific Society and directed a portion of the RMAG Field Trip during the past year. He is on the Board of Directors and is Treasurer of the Boulder Philharmonic Society.

In addition to the paleontological courses he teaches during the two-semester school year, Dr. Chronic taught the Summer Advanced Field Course in the South Mosquito Range; emphasis was on the early Paleozoic stratigraphy and structure of the area.

Dr. Bruce F. Curtis - Professor and Chairman

During the past year, Dr. Curtis has served on several committees for the GSA and the RMAG and was recently made an honorary member of the RMAG. During the summer he vacationed at Vancouver Island in British Columbia, completed three subsurface consulting jobs for industry, and conducted a series of exploration schools for oil company geologists.

In addition to his administrative and teaching duties, Dr. Curtis has completed a number of writing projects recently. He has written two papers for the American Association for the Advancement of Science symposium "Arid Lands" which has just been published in Spanish and which will soon be published in English. The papers are "Energy from Wind," and "Petroleum and Gas in Arid Lands." He has also written a paper for the RMAG guidebook entitled "Jurassic Stratigraphy in the North Denver Basin," and is presently engaged in writing the geological portions of a general science textbook for the Virginia Public Schools.

With Professor Bradley, Dr. Curtis will soon begin editing a quarterly publication of the RMAG entitled, "The Mountain Geologist." The first issue is to appear in January.

Dr. Don L. Eicher - Assistant Professor

Dr. Eicher is presently finishing up his study of the microfauna of the Graneros Shale and its equivalents in the western interior. In addition to teaching Physical Geology and Micropaleontology, he is actively engaged in various micropaleontology studies. Last summer, he and Dr. Warner taught the summer institute for high school teachers.

In September, Dr. Eicher participated in the annual field trip of the Rocky Mountain Association of Geologists by preparing the road log and talking on various aspects of the geology of the Front Range. This fall, Dr. Eicher attended the GSA convention in New York City.

Dr. and Mrs. Eicher are the proud parents of a new son, Clayton Paul, born February 23, 1963.

Dr. Russell M. Honea - Assistant Professor

Dr. Honea, besides his regular teaching activities, is teaching Geology 201 for the NSF academic year program for high school teachers. He also has given a talk, "Modern Mineralogy," to the NSF Summer Institute for high ability high-school students at Colorado College. He has written a paper for the American Mineralogist on the silver telluride minerals empressite and steutzite. During November, 1963 he attended the GSA convention in New York. Dr. Honea continues his work as a consultant for Bear Creek Mining Company.

Dr. Harold E. Koerner - Professor

Dr. Koerner served as acting chairman of the department during the first term of the summer session. The rest of the summer he spent in the field collecting vertebrates from the Miocene of central Montana.

This fall, besides teaching courses in historical geology and vertebrate paleontology, he is continuing research on the Miocene vertebrates of Montana and Colorado. Last spring he attended the AAPG-SEPM convention in Houston.

Dr. W. Warren Longley - Professor

Dr. Longley continues to teach elementary geology for nonscience majors and Geologic Interpretation of Aerial Photographs at the Boulder campus and elementary geology and Groundwater Geology at the University's Denver Extension Division. There are currently 580 nonscience majors taking the elementary courses in geology at Boulder, of which more than half are instructed by Dr. Longley.

He has continued as Secretary of the Colorado Chapter of Sigma Xi. His biography is included in the 1963 International Yearbook and Statesmen's Who's Who published by Burke's Peerage in London.

Dr. Longley conducted a questionnaire survey for the U. S. Coast and Geodetic Survey to determine the exact epicenter of the recent earthquakes in the Denver area. The strongest of the earthquakes was of 4.6 magnitude on the Mercalli scale. As a result of this survey, the location of the epicenter was established just north of the Denver city limits in the Platte River Valley. The focus is thought to be at a depth of 10 miles.

Dr. David W. Strangway - Assistant Professor

This spring, Dr. Strangway presented a film and talk entitled "The Hidden Earth" to the Pueblo Alumni Club. He worked during the summer as consulting geophysicist for the Bear Creek Mining Company and attended the International Union of Geodesy and Geophysics convention held at Berkeley.

This fall, he is teaching the new graduate geology course "Rock Physics" and a physical science course in the General Education department. He has recently finished setting up equipment for lab experiments in rock magnetism, induced polarization conductivities, and seismic scale modeling. Dr. Strangway attended the convention of the Society of Exploration Geophysicists at New Orleans in late October where he presented the paper, "Complete Analysis of the Magnetic Profiles from some Precambrian Dikes." Currently, he is engaged in writing four papers for a symposium to be published by the SEG and completing assembly of equipment for gamma ray spectrometry and for producing an electromagnetic scale model.

Dr. Warren O. Thompson - Professor

In addition to his normal teaching duties Dr. Thompson has served, in the past year, as a member of the RMAG committee established for the purpose of determining the feasibility of the Ruedi Dam site, as speaker for the RMAG field trip group in Cheyenne, Wyoming, and as leader of the 1963 Academic Year Institute field trip. He also attended the GSA "Cordilleran Section" meetings in Berkeley and made trips to both Grand Cayman Island and the Gulf of Lower California to study geologic features.

"Doc" continues as faculty representative to the Big 8 conference, where he served as the 1963 president, and somehow still finds the time to be active in such campus organizations as the Conservative Club and Young Americans for Freedom.

Dr. and Mrs. Thompson have a new granddaughter, their ninth grandchild, born in July 1963.

Dr. Ernest E. Wahlstrom - Professor

Dr. Wahlstrom continues as consulting geologist for the Denver Water Board on the Dillon Dam project. He is also investigating the geochemistry of the Morrison Formation in the area around Dillon. Recently his paper on the Roberts Tunnel, "Geology of the Harold D. Roberts Tunnel: West Portal to Station 468+49," co-authored with Quentin Hornback, was published in the GSA Bulletin (vol. 73). Dr. Wahlstrom presently consults for the Engineering Geology Branch of the USGS in addition to his usual teaching duties.

The Board of Regents have appointed him as Acting Dean of Faculties of the University of Colorado. He began these duties the first of January.

Dr. Theodore R. Walker - Associate Professor

Dr. Walker returned to Colorado this September after a year's leave of absence on a National Science Foundation Postdoctoral Fellowship at Scripps Institution of Oceanography. Dr. Walker spent most of this past year working with Pliocene, and Quaternary sediments in Baja California. He is currently working on a manuscript presenting the conclusions of his work entitled "Post-depositional Formation of Red Beds in Arid and Semi-arid Environments."

He believes, as a result of this and other combined work, that many of the classic red bed sequences were deposited in dry climates. Some of the other results of the Baja California work are to be presented with Robert Thompson in a paper on the "Quaternary Geology of the San Felipe Area, Baja California, Mexico."

During his stay in California, Dr. Walker presented talks on silica and the sedimentation and formation of red beds to the Geology Department at the University of California at Berkeley. Dr. Walker presented a paper on "In Situ Formation of Red Beds in an Arid to Semi-arid Climate" at the Geological Society of America meeting in New York this fall. He is presently teaching courses in Sedimentation, Sedimentary Petrology, and Groundwater Geology.

Dr. Lawrence A. Warner - Professor

Dr. Warner is continuing his work on the geology of the Harold D. Roberts Tunnel. He is preparing a USGS Prof. Paper on the engineering geology of the tunnel with Dr. Wahlstrom and C. S. Robinson of the Geological Survey. He also has a paper in press with the GSA Bulletin on the geology of the Roberts Tunnel from Station 468+49 to the East Portal. This paper was written with C. S. Robinson and takes up where Dr. Wahlstrom's report left off. At the GSA meetings in Berkeley last April Dr. Warner presented a paper on "Fracture Patterns in the Harold D. Roberts Tunnel."

At the commencement ceremonies last June Dr. Warner was one of four members of the C.U. faculty and staff to receive the Robert L. Stearns Award. This award is presented annually by the Alumni Association to members of the faculty or staff of C.U. who have made outstanding contributions or given great service to the University.

Dr. Philip G. Worcester - Professor Emeritus

During the past year, Dr. Worcester has been busy cooperating in the preparation of a book on the area around Basalt, Colorado. His contribution is that of writing up the geology. The book will contain both the history and the geology of the Basalt area.

Dr. Worcester also is teaching a very well attended extension course entitled the Geology of Colorado which is offered in Boulder, He is working with the National Science Foundation Institute for Elementary Teachers. In this connection he has been offering lectures and full-day field trips for elementary school teachers.

Dr. and Mrs. Worcester's third grandchild was born in September.

Flatirons Mineral Club

This local organization, working in ccnjunction with the Geology Department, is now sending minerals and fossils to all parts of the country and some foreign lands. Since 1957, 133 requests have been answered by the club, some specimens traveling as far as France.

Sigma Gamma Epsilon

Membership of the Alpha Eta Chapter now stands at 25. Dr. Thompson is the chapter's faculty adviser. Officers for the 1963-64 year are Mel Harper, President; Tom Prather, Vice-president; Tom Heidrick, Secretary-Treasurer; and Steve Burrell, Corresponding Secretary. Bruce Benson is editor of the Newsletter.

Initiation during 1963 added the following members to the chapter: Tom Anderson, Steve Burrell, Dave Eggler, Bob Gilbert, and Bruce Benson. Paul Graziade was lost through his untimely death in a traffic accident in August.

The chapter has had a very active fall. The first activity was a late September evening tour of the Coors Brewery in Golden, which included a Dutch Buffet dinner and dancing, and, of course, lots of beer drinking. Approximately 70 people attended.

The annual fall picnic was held at Chautauqua Park on the third Sunday of October. The day was rainy and cold, but it did not dampen the spirits of the approximately 60 adults and children who gathered to "stuff" themselves on hamburgers, baked beans, salad, ice cream, pop, and beer. A good time was had by one and all.

Sig Gam and the department hosted geology alumni and families who attended the Homecoming game at a reception in the Harvest House.

The spring dinner dance was held at Jayne's Cafe for the second straight year. About sixty couples attended the swinging affair.

The chapter had a baseball team last spring and summer. During the summer they played in the Industrial League under the sponsorship of a local realty company and finished in the middle of the league standings.

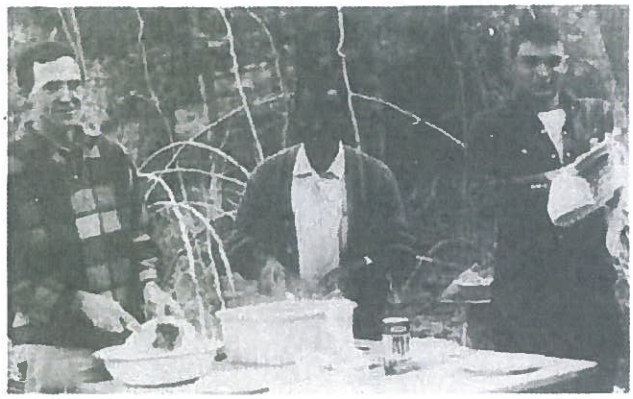
Sig Gam is working on a project to familiarize geology students with the scientific equipment available in the department. It is sponsoring a tour for all interested geology students to show and explain all equipment available for research. The faculty member responsible for each specific set of equipment will conduct that phase of the tour.

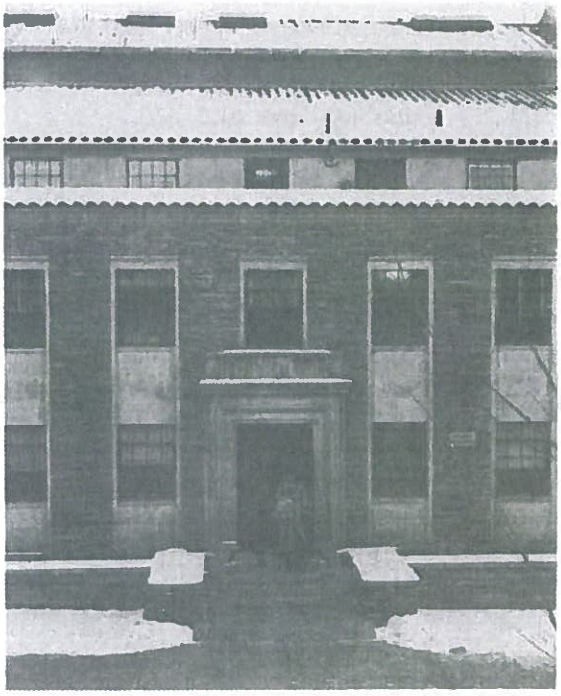
The lecture program, last year under the very able guidance of George Stone and George Ulrich and this year under the able guidance of Tom Prather, is continuing to be very successful. Lectures given the past year are described in the section on lectures.

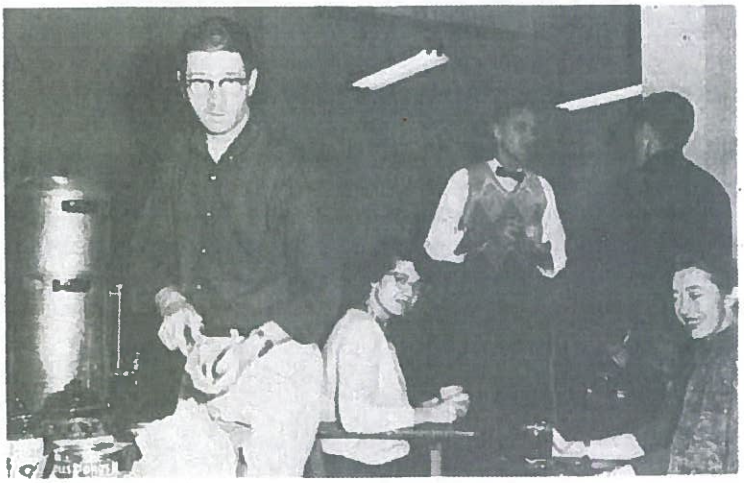
Lectures

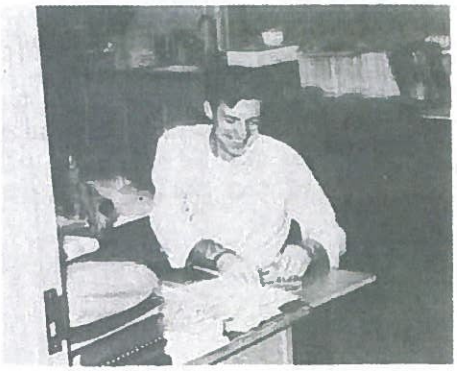
During the past year, there have been a number of high quality lectures sponsored by Sigma Gamma Epsilon and the department. In the spring, Dr. Robert Heimer, of the Colorado School of Mines, spoke on "Shoreline Features of the Central Georgia Coast and Criteria for Recognition of Similar Features in the Cretaceous of the Rocky Mountains." Dr. Gerald Richmond, Denver branch of the USGS, presented a lecture entitled, "Glaciation of the Rocky Mountains."

FACULTY and STUDENTS









Dr. Warren B. Hamilton, Denver branch of the USGS, gave a lecture on the "Nappes in Southeastern California." Dr. Omer B. Raup, Denver branch of the USGS, talked on "Some Problems in Red Bed Genesis." Dr. Ogden Tweto, Denver Branch of the USGS, spoke on "Problems in Colorado Geology." Dr. Rudolf Trumpy, Institute of Technology and Zurich University in Switzerland, gave three lectures on alpine geology and a fourth lecture on "Permian and Triassic of East Greenland and the Permian-Triassic Boundary Problem." Dr. C. F. Davidson, University of St. Andrews, Fife, Scotland, lectured on "Scottish Pioneers of Geology." Dr. L. U. deSitter, University of Leiden in Holland addressed the department on fold tectonics. Under the cosponsorship of the department and the C.U. Institute of Arctic and Alpine Research Dr. George P. Rigsby, Arctic Institute of North America, gave lectures on "Fabrics of Glacier Ice," and "Recrystallization of Ice." Also last spring under the sponsorship of the C.U. Museum, Dr. George G. Simpson, Harvard University, conducted a seminar for geology and biology students and staff and gave a lecture on "Life on Other Worlds or the Nonprevalence of Humanoids." Dr. R. W. Girdler, King's College in Newcastle-Upon-Tyne, Great Britain, gave three lectures on rift valleys and continental drift during the summer session.

This fall, Dr. Walker gave a talk on "In Situ Formation of Red Beds in an Arid to Semi-arid Climate." Professors Honea, Eicher, and Bradley gave one lecture each to the Academic Year Institute. Dr. Robert Kleinpell, University of California, gave a lecture on "Some Forgotten Relevancies in the Natural Sciences." Bob Thompson, Dr. Thompson's son, gave a talk on his Ph.D. thesis subject, "Tidal Flat Sedimentation in the Northwestern Gulf of California."

Sigma Xi

The Society of the Sigma Xi elected one student and three former students to membership and ten students to associate membership at the spring meeting. A student who has shown marked aptitude in independent research and has made substantial progress on a research problem is eligible for election as an associate. Eligibility for membership is stated as: "Noteworthy achievement as an original investigator in some branch of pure or applied science, as evidenced by published research."

The following received full membership: Donald L. Baars, John A. Randall, Robert E. Riecker, and Betty Skipp, while newly elected associate members are Ronald H. Calvert, Paul R. Fenske, Steven J. Gawarecki, Edwin E. Larson, Paul M. Merifield, Frederick N. Murray, Peter E. Power, George T. Stone, Gordon A. Swann, and George E. Ulrich.

Each year Sigma Xi awards grants-in-aid to "The most promising scientists at critical points in their research careers." Thirty-eight of the 173 awards made last year were to geologists. One of these went to Pete Power to assist him in his thesis "An Investigation of Molas Regolith." The University of Colorado received several other awards in addition to the one in geology.

Fellowships, Scholarships, and Awards

Outstanding geology major Paul A. Graziade was elected to Phi Beta Kappa last spring. He graduated "With Distinction" from the College of Arts and Sciences last June.

Last spring several outstanding students were recognized by various groups in this area. Paul Graziade was awarded an engraved geologist's pick by the University Geology Development Foundation which honors the outstanding Senior geology major at Colorado. Paul was also given the departmental Brunton Award. Tom Heidrick received the annual Tarr Award given by Sigma Gamma Epsilon. He also received the RMAG senior award in recognition of his leadership and academic excellence in geology.

Ed Larson, Fred Murray, George Stone, and David Eggler received NSF Fellowship renewals this year. In addition, Sam Boggs, Mel Harper, and Tom Prather received NSF Summer Fellowships. Honorable mentions were awarded to Tom Prather, Sam Boggs, and Beverly McMahon.

Duane Wohlford was awarded a 1963 summer graduate fellowship. Roderick Tillman, Giorgio Pannella, and Sam Boggs were awarded graduate fellowships for the 1963-64 academic year. Travis Hughes was awarded a scholarship for the summer and academic year. Margaret Larsen has also been awarded a scholarship for the academic year.

This year the Department of Geology granted a new award of Department Teaching Associate. The recipient teaches a Geology 101-102 lecture section. This year John Campbell was the first recipient of this award.

The Socony-Mobil Oil Fellowship was awarded this year to Donald L. Baars. Ed Larson was awarded the Pan American Fellowship in competition with the Department of Mechanical Engineering.

Departmental assistantships this year include: Thomas Anderson, George Armbrust, Donald Baars, David Baker, Patrick Barosh, Frederick Barnard, Bruce Bartleson, Thomas Berg, Arthur Bookstrom, Stephen Burrell, Robert Cody, Jerome Eyer, Frederick Files, Robert Gilbert, Robert Hall, Melvin Harper, Thomas Heidrick, William Hiss, Arden Horstman, Travis Hughes, Arthur Jacob, William Keighin, George Lamb, Beverly McMahon, Thomas Prather, Albert Ward, Wilbur Williams, and Duane Wohlford. George Lamb and Beverly McMahon also were awarded a remission of tuition by the Graduate School.

Enrollment

Undergraduate

Enrollment figures from the Admissions Office show that there are 46 undergraduate geology majors this year, categorized as follows:

Freshman	7
Sophomore	10
Junior	14
Senior	15

Graduate

A total of 58 graduate students are enrolled in geology this year. This figure corresponds to the faculty ruling of 1958, when it was decided that they should undertake to work with no more than 60 graduate students. Of the 58 grads, there are 25 declared Master's candidates and 33 working toward the Ph.D. degree.

Ph.D. Candidates and Proposed Thesis Topics

Donald L. Baars, Pre-Pennsylvanian Paleotectonics in Southwestern Colorado
Patrick J. Barosh, Permian Stratigraphy of East-Central Nevada
Bruce L. Bartleson, Stratigraphy and Sedimentation of Pennsylvanian Rocks of the West Flank of the Central Colorado Basin
Maximilian H. Bergendahl, Undecided
Sam Boggs, Jr., Stratigraphy of Upper Minturn Formation, Eagle Co., Colorado
John Campbell, Petrology and Paleoecology of the Devonian of Central Colorado
Robert Cody, Depositional History of Pennsylvanian Cycles near Salida, Colorado
Marshall Corbett, Tertiary Intrusives and Extrusives of the Mt. Richthofen-Iron Mountain Region of North-central Colorado
David Eggler, Precambrian Granite Rign Structure; Virginia Dale, Colorado
Jerome Eyer, Micropaleontology and Environmental Study of the Gannett Group of Western Wyoming and Eastern Idaho
Paul Fritts, Lower Cretaceous-Upper Cretaceous Boundary in Northern and Central Colorado
Melvin Harper, Basement Deformation, Glenwood Canyon, Colorado
William Hiss, Undecided (Sedimentation)
Arden Horstman, Correlation of the Lower Cretaceous of the Thrust Belt and the Green Rover Basin, Southwestern Wyoming.
Travis Hughes, Undecided (Isotope Geology)
C. William Keighin, Phase Relations in the System S-Ag-Sb-Pb
Harry Kent, Biostratigraphy of the Mancos Shale in Northwestern Colorado
George Lamb, Stratigraphy and Paleontology of the Lower Mancos, San Juan Basin
Margaret Larsen, Undecided
Edwin Larson, Tectonics of the Fault Block Region in South-Central Oregon
C. Sumner Long, Basal Cretaceous Stratigraphy of Southeastern Colorado
Frederick Murray, The Structural Geology of the Grand Hogback Monocline, Colorado
Beverly McMahon, J. Sandstone of the Denver Basin
Giorgio Pannella, Palynology of the Dakota Group
Thomas L. Prather, Structural Geology of the Elk Mountains
K. Lee Shropshire, Shinarump Conglomerate of Northwestern Colorado
Louis Simmen, Micropaleontology of the Pierre Shale
Howard Stafford, Undecided
George Stone, Petrology and Petrography of Basalts, Snake River Plains, Idaho
Roderick Tillman, Sedimentary Petrology and Paleoenvironments of the Robinson Limestone Member, Minturn Formation
Albert Ward, Jr., Stratigraphic Study of the Devonian of the San Juan Region, Colorado
Duane Wohlford, Structure and Petrology of the Precambrian between Poudre Canyon and Livermore, Larimer County, Colorado
Helmut Ziemand, Ohio Creek and Ruby Conglomerates

Master's Candidates and Proposed Thesis Topics

Thomas B. Anderson, Lower Paleozoic Rocks on the West Side of South Park, Colo.
Thomas A. Berg, Marble Mountain Reef Complex in the Sangre de Cristo Range
Arthur Bookstrom, Geology of the Yellowjacket Anticline, Rio Blanco County, Colorado
Stephen Burrell, Geology and Structure of an area Southwest of Silverton, Colorado
Gary Curtin, Precambrian Structure Northwest of Masonville, Colorado
John Cys, Pre-Curtis Jurassic Stratigraphy of Northwest Colorado

Walter Duke, Micropaleontology of the Frontier Formation of Southwestern Wyoming and East-central Utah
Frederic Files, Mapping Project in Lefthand Canyon
Robert Gilbert, Glacial History of the East End of Caribou Park, Caribou, Colo.
Thomas Heidrick, Geology of the Ward Mining District, White Pine County, Nevada
Prinya Nutalaya, Geology of the Carter Lake-Cottonwood Ridge Area
Wilbur Williams, Geology of Eastern Half of the Engineer Mountain Quadrangle

George Armbrust, William Armstrong, Fred Barnard, Saleh Billo, Robert Bucknam, Don Gustafson, Robert Hall, Mary-Margaret Hepp, Arthur Jacob, Kim Tae Yul, John O'Donnell, and Paula Worstell are as yet undecided.

Graduate Students

Geology 512, the advanced field course, was held this year in the mountains southwest of Fairplay, Colorado. Tom Anderson, Tom Berg, Saleh Billo, Bob Cody, Don Gustafson, and Paula Worstell took the course which was lead this year by Dr. Chronic. The students and Dr. Chronic and his family lived in tents for the five-week course and despite the rain and hail which greeted the avid geologists on their arrival, everyone survived. The area, formerly noted for its mining activities, contains many interesting geological problems, some of which were left unsolved by the students.

The most common summer occupation of graduate students, other than thesis work, seems to be employment by the USGS. Fred Barnard was with a field party on Kodiak Island, Alaska. Max Bergendahl worked on the Kokomo-Tenmile project and finished a USGS Professional Paper entitled, "The Principle Gold-Producing Districts of the U.S." Art Bookstrom was associated with a stratigraphic project in the Triassic and marine Jurassic of northwestern Colorado and southern Wyoming. Lee Shropshire worked on a mapping project in the Bannock Overthrust Zone in southeastern Idaho.

Saleh Billo, Jack Campbell, Marsh Corbett, and Fred Murray attended the regional meeting of the GSA in Albuquerque, New Mexico last spring. Fred presented a paper entitled, "Pennsylvanian Conodonts from the Minturn Formation of Northwestern Colorado."

Attending part of the RMAG this fall to the northern Denver Basin were Tom Anderson, Tim Brown, Bruce Benson, Tom Berg, Walt Duke, Bob Hall, Mary-Margaret Hepp, Bill Hiss, Bill Lee, John O'Donnell, Joe Shearer, and Howard Stafford. Included in the guidebook was an article by Jack Campbell entitled, "Permo-Triassic Redbeds, Northern Denver Basin."

Three of the new graduate students have returned to school after serving as employed geologists for various periods of time. Hill Hiss has been working for Texaco for the last three years. C. William Keighin has returned to Boulder after three years in Peru with the Cerro de Pasco Corporation. Mary-Margaret Hepp comes to Boulder after a year with the Phillips Petroleum Company in Denver.

Max Bergendahl was a speaker on the Wyoming Geological Association-Billings Geological Society joint field conference on the northern Powder River Basin, Wyoming in August.

Don Coates presented a talk and mineral identification program for the sixth grade class at Burke School on February 14. The teacher in charge of the class is the wife of a geology alum, Vern Berry.

Marsh Corbett attended the Flagstaff Museum Symposium in Flagstaff, Arizona during August.

Harry Kent, while working on his thesis, is teaching at the Colorado School of Mines.

Wilbur Williams has been picked Hunter-of-the-Year in the Geology Department for his exploits in the San Juans during the summer. Not being content with shooting a "Large, black bird" which "attacked" him, he proceeded to polish off a huge black bear that he found caught in a TRAP. All this and geology too?

The department was saddened by the death of Paul Graziade during the summer. Paul was involved in an automobile accident on August 2 near Silver Plume, Colorado. Paul was the recipient of the Brunto Award and the Alumni Award last spring and was also elected to Phi Beta Kappa. He was to have entered the Graduate School this fall.

Mr. and Mrs. Tom Heidrick have a new child. (Again?) Born on September 27, Jeffery Brian brings their total to five.

Mr. and Mrs. Don Baars' second child, Jodi Megan was born on January 26.

Tom Berg and his wife are the parents of a girl, Anne Elizabeth, born on May 16.

Mr. and Mrs. John A. Campbell are the parents of their third child, Karyn Lea, born December 15.

Mr. and Mrs. Bob Hall are the parents of a son born on July 27.

Mr. and Mrs. C. William Keighin became the parents of their first son, Karl William, born on March 27 in La Oroya, Peru.

Art Bookstrom and Julia Lloyd were married on November 2 in Georgetown, Colorado.

John Cys was married on June 23 to Julie Kathleen Cummings in Dallas, Texas. The new Mrs. Cys is a junior at the University of Colorado and is majoring in Fine Arts.

Art Jacob was married to Brenda Behan on July 27 at Upper Saddle River, New Jersey.

Bruce Benson, our editor, was married to Nancy Lake on September 7th in Grand Junction, Colorado. Nancy is a junior majoring in Education at the University of Colorado. Tom Anderson, Steve Burrell, and Wilbur Williams were on hand to assist the groom in his great endeavor.

Alumni News

All alumni are urged to fill out the form on the back cover of the NEWSLETTER and to send it to the department so that we can report any news items in next January's issue. If you need the address of an alumnus not listed under "Alumni News," drop a card to the department and we will let let you know of the address if we have it listed in our files.

All alumni are listed under the year in which they last attended the University of Colorado. We hope it will allow you to easily locate your classmates.

At the GSA convention in New York in November, the Geology Department sponsored a cocktail party for alumni. The following people attended: Alden Carpenter, Diana Chapman, Bruce Hanshaw, John Harms, John Hubert, John E. Kick, Ralph Langenheim, Duane LeRoy, Chuck Masters, Joe O'Connor, Bob Riecker, Bill Siapno, Betty Skipp, Marty Slason (Toulmin), Dick Tagg, John Thrailkill, Priestly Toulmin, John Trammel, Newell Trask, George Ulrich, August Goldstein, Gordon Swann. We hope that we haven't missed anyone.

Zena Hunter Andrews who represented the Department of Geology at the Rocky Mountain section of AAPG in Casper last April reports that about 35 C.U. alumni and friends attended a C.U. luncheon. She noted the presence of the following: Bob Blaha, Jim Blaha, Whitney Bradley, Verne Berry, Frank Bateman, Chet Abrassart, Don Foster, Hal Dunn, Larry Fundingsland, Art Gilbert, Bill Goodin, Galen Helmke, Leonard Heiny, Bob Jones, Dennis Irwin, Anson Mark, Roger Markham, Ed Horan, Dick Sanders, John Stauffer, Leo Wanek, and George Shepard.

Rowland A. Miller, C.U. 1904-1906, is working for Adhesive Metals Company, Long Beach 6, California. He studied under the late Dr. R. D. George, as he says, in the days of the local triceratops. He sent in a newspaper clipping on J. T. Wilson and Continental Drift and would like an argument either pro or con.

John T. Donovan, B.A. '16, retired after 29 years with the Phillips Petroleum Company in Bartlesville, Oklahoma. He is now doing part-time consulting in mining and oil His present address is P. O. Box 1058, Palo Alto, California.

Matthew J. Wilson, Jr., M.S. '20, died May 4 at St Joseph's hospital in Scotsdale, Arizona. Wilson is survived by his widow the former Anne Coughlan, ex '21, in whose honor he established the Anne Coughlan Wilson Scholarship Fund in 1961 for C.U. chemistry students.

George Gaylord Simpson, Ex '22, gave a lecture entitled, "Life on Other Worlds, or the Nonprevalence of Humanoids," in April, 1963, at the University of Colorado. Simpson is a world-famous specialist in the evolution of fossil mammals. He is the recipient of numerous scientific prizes and a member of many honorary societies. Dr. Simpson is a noted Harvard paleontologist. He was a student in general geology taught by A. J. Tieje in 1922.

Harry S. Coulson, B.A. '26, died March 14 in a Boulder hospital. Coulson was one of the chief engineers for Camp Wolters at Mineral Wells, Texas. In 1946 he came to Boulder as head engineer for the Federal Housing Authority on erection of emergency units for the students at the University. He has been a partner of Milne-Coulson, Inc. Coulson later became a representative for Sica Corp, of New Jersey. He is survived by his widow, his father and two sons.

James D. Tatum, B.A. '29, heads the farm and ranch mortgage field of the Barnes Company, Boulder.

Class of 1932

C. Max Bauer, Ph.D. '32, died February 6 in Arcadia, California. He was formerly chief of the geologic branch of the U. S. National Park Service. He retired in 1953.

Edgar W. Kimball, B.A. '29, M.A. '32, exploration manager for Continental Oil Company's southern region for the past ten years, retired on February 1, 1963, to become a consulting geologist in Houston.

Robert J. Watson, Ph.D. '33, formerly geophysicist on the exploration staff of Humble Oil & Refining Company's central region office in Tulsa, Oklahoma, has been transferred to the geophysical research group in Houston. Here he will conduct studies in gravity and magnetic interpretation. Watson is married to the former Gretchen Warren, '31.

William Gardiner, B. A. '41, is a staff geophysicist with Shell Oil Company in Casper, Wyoming.

Clark M. Shimeall, B.A. '43, formerly with the Ohio Oil Company of Guatemala, is now a staff geologist with the Marathon International Oil Company in Ohio. The Shimealls have five children, and now live at 1000 S. Main, Findlay, Ohio.

Class of 1944

Mr. and Mrs. Wallace R. Griffits (Mary L. Oswald, Ph.D. '44) are the parents of a daughter born in Boulder on February 25, 1962. The Griffitses have three other children.

Leland M. Knapp, B. A. '44, was transferred in February, 1963, from the Denver to the Houston offices of Superior Oil International. His new address is P. O. Box 1521, Houston, Texas.

Class of 1947

Zena Hunter Andrews, Ph.D. '47, former professor of geology at the University of Colorado, and Mrs. John Avery, headed the newest project for the Boulder branch of Community Hospitality for International Visitors. The project was a compilation of a resource book about Boulder and this region, for use of international visitors and for Boulder hosts of the visitors. The purpose of the Community Hospitality for International Visitors is to assist communities in their work of international cultural and educational exchange programs. The project was completed in May of 1963.

Frank W. Foster, B.S. '42, Graduate work '45-47, now a geological consultant on oil and groundwater, recently gave a talk on the "Geology of the Boulder Area."

Robert L. Langenheim, Jr., M.S. '47, is an Associate Professor of Geology, University of Illinois, Urbana. He has been elected National Secretary of the Paleontological Society, 1962-63, and nominated for '63-'46, is Chairman, Geology Section, Illinois Academy of Science, 1963-64, and Chairman, Eastern Nevada Geological Association, Stratigraphic Correlation Committee. His recent publications are on Nevada paleontology and stratigraphy, in the AAPG Bulletin, the Journal of Paleontology, and GSA Special Paper 68. In addition, he was married to the former Virginia McCutcheon in June of 1962.

Scott J. Putnam, B. A. '47, is an independent oil and gas producer in Kingsville, Ontario, and claims to be the best curler produced by the state of Oklahoma. He also handled the arrangements for the alumni cocktail party at the GSA Convention in New York.

John M. Ziegler, B.A. '47, Ph.D. Harvard '54, continues his work as a research associate at the Woods Hole Oceanographic Institute. He and his wife Marilyn, '48, have three children, David, Anne, and Mark, and their new address is 9 Maury Lane, Woods Hole, Massachusetts.

Class of 1948

Fred D. Douglass, B.A. '48, has joined Adobe Oil Company, Midland, Texas as vice-president in charge of exploration and development. He was previously a geologist with Forest Oil Corporation, then a geological consultant. Most recently he has been a consultant in Buenos Aires, Argentina.

Paul J. Dunn, Jr., B.A. '48, is a geologist with Home Oil Company, Ltd. He and his wife now have three children. His present address is 2504 Toronto Crescent, Calgary, Alberta, Canada.

Victor H. Howard, B.A. '48, is district geophysicist for Sinclair in Alaska. His address is Box 584, Anchorage, Alaska.

Charles Iglehart, M.A. '48, and his wife visited the department last fall. He is presently employed by Pan American in Houston.

Karl E. Krill, M.S. '48, is special assistant to the president of the University of Wisconsin.

Helen Herald Woodard, B.A. '48, attended the 1963 GSA convention in New York with her husband, Dr. Henry H. Woodard (Chief) who is head of the Geology Department at Beloit College, Beloit, Wisconsin.

Class of 1949

Dr. Donald Baird, M.S. '49, has been promoted to Associate Curator of Vertebrate Paleontology, Department of Geology, Princeton, University. His wife, Lucy, died May 2, 1963, after a long intermittent illness.

Dr. John R. Coash, M.A. '49, has been appointed as assistant to the provost at Bowling Green State University. He will continue as chairman of the department of geology and teach part-time.

Frank H. Gower, Jr., B.A. '49, has been promoted to General Manager of the Gower Oil Company in Denver. He, his wife Patricia and their children Steve, Mike, Mark, Jeannette and Mathew are residing at 2553 S. Dexter, Denver 22, Colorado.

L. William Lease, grad. student '48-'49, is vice-president of the Rustler Oil Company, Basin, Wyoming. He was married to the former Peggy Hawkey in July of 1961. Their address is 400 S. 16th Street, Worland, Wyoming.

John J. Magee, M.A. '49, has been transferred from his position as senior staff geologist for Mobil in Paris to Tripoli, Libya, where he will be cheif geologist for Mobil Oil Libya. Mr. Magee is married to the former Jane L. Snyder.

Elwin M. Peacock, B.A. '49, was transferred in December, 1962, to a position as assistant to the area exploration manager for the Gulf Coast area of Sohio Petroleum Company, Houston. At the time of his transfer he was president of the Oklahoma City Geophysical Society. The new address is 10038 Bordley, Houston 24, Texas.

Class of 1950

James Richard Beerbower, B.A. '50, was named in April, 1963, a candidate for election as a Fellow of the Geological Society of America. Mr. Beerbower is the Director of Research Programs, Lafayette College.

Charles R. Butler, B.A. '49, M.S. '50, is presently a consultant in Durango, Colorado specializing in public land matters, mining claim status reports, etc. His address is P. O. Box 435, Durango, Colorado.

Class of 1950

Nicholas J. Chamberlin, B.A. '50, is now with the American State Bank, Osawatomie, Kansas.

Roy C. Kepferle, B.A. '50, M.S. (S.D. School of Mines '54), is with the USGS mapping quadrangles in the Elizabethtown, Kentucky, area. He reports that other C.U. alumni in Kentucky include Mark Cattermole in Columbia, Dewey Sample in Princeton, Frank Moore in Elizabethtown, all with the USGS, and Jim Poteet with the Kentucky Geological Survey. The Kepferles have six children.

Henry Repp, B.A. '50, is now an exploration geologist with Humble Oil. The Repps' address is 1117 Ponca, Enid, Oklahoma.

John W. Rold, B.A. '48, M.S. '50, has been elected the 1964 president of the RMAG.

Howard Schwalb, B.S. '49 (Ill.), grad student '49-'50, formerly a geologist with the Phillips Petroleum Company, is now an independent consultant in Evansville, Indiana, and has published several papers with the Illinois Geological Survey. He and his wife Phyllis have two sons.

Jerald W. Thomas, M.A. '50, has been named manager of the tire division of the MFA Oil Company. The Thomases and their four children are living in Columbia, Missouri.

Class of 1951

Ernest R. Bush, B.A. '51, is District Geologist for Sinclair in Alaska. His address is 2600 Capt. Cook Drive, Anchorage, Alaska.

Wayne S. Cavender, B.A. '49, M.S. '51, received his Ph.D. in engineering geology from the University of California in 1963. He is Assistant Chief Geologist with U. S. Borax Company in Los Angeles.

Richard Harp, B. A. '51, after having spent a year in Ireland and three years in Venezuela, has been transferred to New York as a staff geophysicist with Continental Oil Company. His present address is 350 Monroe Avenue, Wyckoff, New Jersey.

Harold J. Hyden, B.A. '51, B.A. '51, M.S. '56 (Tulsa), is with the U. S. Geological Survey in Denver, Conservation Division, and has had two recent papers on uranium deposits published in Survey Bulletins.

Harold W. Knudsen, B.A. '51, has been named district exploration geologist for Cities Service Oil Company at Amarillo, Texas.

Robert L. H. Regout, M.S. '51, is now a geologist with EURAFREP in Paris. He was formerly with the Shell Oil Company in New Orleans. The Regouts and their three children reside at 29 Rue Victor Bart, Versailles, France.

David S. Sheridan, B.A. '48, M.A. '51, district geologist, Texaco, Inc., Corpus Christi, Texas, reports enjoying seeing Dr. Koerner and many alumni at the AAPG meeting in March. He is also program chairman for the local Geological Society and is looking for speakers coming his way.

Alexander Sisson, B.A. '51, was promoted in April, 1963, from Esso Standard (Guatemala), Inc., to a position as Senior Geologist, International Petroleum (Colombia), Ltd. The Sissons, who have three children, now may be written at Int. Petroleum (Colombia), Ltd., Apartado Aereo 3533, Bogota, Colombia.

Loren E. Smith, B.A. '51, is a geologist with the Gaddis Mining Company in Denver. He was formerly employed as an AEC geologist, also in Denver. The Smiths have six children.

Class of 1952

Walter R. Baird, graduate student '51-52, resigned from Gulf Oil Company after being with them for 10 years, to become an independent petroleum geologist. He is located at 403 Wilkenson-Foster Building, Midland, Texas.

Verne P. Berry, B.A. '52, is a geologist with the Kewanee Oil Company, Denver, Colorado. He reports the birth of his 4th child, Colin, in December, 1962.

Paul H. Dawson, B.A. '52, is now teaching geology and engineering at College of the Siskiyous, Weed, California. He received a M.S. from Oklahoma State University in 1961. His present address is P. O. Box 1135, Mt. Shasta, California.

Robert L. Duncan, B.S. '48, M.S. '51, is Southern Division Manager for Kerr-McGee Oil Company in New Orleans.

Will Fowler, B.S. '50, M.S. '52, was in Denver recently to promote his biography of his father, the late Gene Fowler. The book, THE YOUNG MAN FROM DENVER is on the best seller list.

Mark L. Hamilton, B.A. '52, is working for the real estate department of Connecticut Light and Power Company. The Hamiltons and their two daughters, Jean Louise, 3, and Shelley, 6, reside in Meriden.

Sumner Hixon, B.A. '52, expects to recieve his Ph.D. degree from the University of Michigan in the near future. Daughter Nancy Jeanne was born October 3, 1962. His address is 1696 Cram Circle, Ann Arbor, Michigan.

Mike Horn, B.S. '52, has been promoted to Senior Research Geologist for Pure Oil Company in Crystal Lake, Illinois. He has published several papers on the use of computers in log interpretation. He is also working on his Ph.D. thesis for Rice University.

George A. Newmarch, B.A. '52, is a groundwater and engineering geologist in California, and has had several publications on groundwater. New address: 3452 Vougue Court, Sacramento, California.

Class of 1953

James A. Blaha, B.A. '53, has been elected the 1964 councilor for the RMAG.

Jack M. Flynn, graduate student '52-53, is now Staff Log Analyst with Sinclair Oil and Gas Company in Tulsa, Oklahoma. His present address is P. O. Box 521, Tulsa, Oklahoma.

Glenn E. Hunter, B.A. '63 (left in '53) has been transferred to Midland, Texas where he is District Geophysicist for Cities Service Oil Company.

Veryl E. Larsen, B.A. '48, Ph.D. '53, is a geologist, F.M.C. Mineral Development Department, Pocatello, Idaho. The Larsens have three children.

William D. Siapno, M.S. '53, is employed as a research engineer at North American Aviation Space and Information Systems Division. He took a course in lunar geology at the University of Southern California, the first such course ever given in an American university.

John E. Stauffer, M.S. '53, is a geologist for Marathon Oil out of Salt Lake.

Class of 1954

Lt. James W. Glendenning, USN, B.A. '54, was attending San Diego State College, San Diego, California, taking a U.S. Naval Postgraduate Program; he expected to be transferred to sea duty in June, 1963. His address was 6370 Lake Alamor Avenue, San Diego 19, California.

James B. Ridlon, B.S. (New Hampshire) '50, M.A. '54, is a geologist with the U.S. Naval Ordnance Test Station, China Lake, California. He and his wife, Genevieve, have three children.

George E. Welder, M.S. '54, is working for the U.S. Geological Survey.

Class of 1955

Willard J. Guy, Jr., B.A. '55, has been transferred by the Pure Oil Company from Newark, Ohio to Casper, Wyoming.

John F. Kick, B.A. '55, M.A. (Toronto) '62, is now an engineering geologist with the New York State Department of Public Works, Bureau of Soil Mechanics, Albany. His master's thesis was on the bottom sediments of Lake Erie.

James Mackey, B.A. '55, M.A. (Ed. Admin.) '61, and Bette Mikkelson Mackey, B.A. '51. James is now principal of the School for Mene Grande Oil (a subsidiary of Gulf Oil) in San Tome, Venezuela. The Mackeys have one son, 11. Their new address is Apartado 45, Barcelona, Venezuela.

John Weber III, B.A. '55, is now vice president of Benson Company Builders. He and his wife Janet (B.S. '53) have a new daughter, Rhonda Janelle, born February 19, 1963. They are living at 4505 Verone, Bellaire, Texas.

Class of 1956

John W. Baugher, B.A. '56, has been transferred by Humble Oil & Refining From Morgan City, Louisiana to New Orleans. His present address is P. O. Box 61812, New Orleans, Louisiana.

E. L. Fundingsland, B.A. '54, M.S. '56, formerly with Skelly Oil Company in Albuquerque has accepted a position as Exploration Manager of Sunrise International Corporation in Denver. He now lives at 7170 Normandy Circle, Littleton, Colorado

Max Gilpin, graduate student '55-56, who was formerly with the California Company in Jackson, Mississippi and New Orleans has taken a position with Texas Eastern Transmission Company in Shreveport, Louisiana. He was married in 1958 and now has three sons.

Nancy Easley Ise, B.A. '56, is now living in Lakewood with her husband Tom (Mines '55). After leaving Calexco in Bolivia, they toured Europe for three months, and Tom is now with an independent producer in Denver. The Ises reside at 11755 W. 17th Avenue, Lakewood.

James H. Nicholson, Jr., B.A. '56, formerly with the Montana Minute Man Survey, is now with the Security Trust and Savings Bank in Billings. He and his wife have two daughters, Sarah Jean, and Rebecca Ann, born October, 1962.

Arthur G. Randall, grad student '55-56, has been promoted to Staff Regional Geologist, Sunray-DX Oil Company in Denver. His new address is 3255 S. Williams Street, Englewood, Colorado

Charles S. Robinson, Ph.D. '56, presented an illustrated lecture entitled "Engineering Geology Research of the Straight Creek Tunnel, Colorado" on February 6, 1962 on the University campus. Robinson is a geologist with the Engineering Geology Branch of the U.S. Geological Survey at the Federal Center in Denver. In April, 1963, he was named a candidate for election as a fellow of the Geological Society of America.

Class of 1957

Edward Francis, B.S. '57, self-employed as a rancher, ghost-authored an article on the surface and groundwater supplies of Cheyenne. He, his wife, Shirley, and their two children can be reached at P. O. Box 375, Cheyenne, Wyoming.

James W. McKee, B.A. (N.D.) '53, grad. student, '56-'57, continues as field party chief, Esso Standard Libya Inc., Tripoli.

Capt. Lawrence E. Mullins, B.A. '55, grad student '57, is company commander of Co. C, 802nd Engineering Battalion, located at Kunsan, Korea. Following his return to the United States, he will be assigned to the ROTC unit at Missouri School of Mines at Rolla, Missouri.

Marsh W. Nottingham, A.B. (Oberlin), M.S. '57, is now an exploration geologist with the Continental Oil Company, Roswell, New Mexico. He appears to be quite active there, geologically in the Roswell Geological Society and as a teacher at Eastern New Mexico University Branch College, and otherwise as a ski patrol leader and television performer on his own ski show. He has recently presented papers to conventions of the S. W. Federation of Geological Societies.

James W. Nyland, B.A. '57, is a geologist with the Union Texas Petroleum Company in Denver.

Class of 1958

Allen T. Carey, B.A. '58, was married to Constance L. Peterson on September 29, 1962 in Austin, Minnesota. The Carreys are living in Boulder.

Belva Hudson Clement, Ph.D. '58, and her husband, Gordon, announced the birth of a son, Wesley Hudson, on December 28, 1962.

Robert L. Friedenwald, B.A. '58, Captain, Corps of Engineers, U.S. Army expected to receive a M.S. degree in civil engineering from Texas A & M in May, 1963. At that time his address was 907 Foster Street, College Station, Texas.

Bruce Hanshaw, M.S. '58 has reported with other members of the Geological Survey, the successful use of a radio isotope, Carbon-14, as a means of spotting a salt water source which had been contaminating the drinking water near Brunswick, Georgia.

Thomas E. O'Conner, M.S. '61, was transferred in May of 1962 from the Fleet Intelligence Center at Kenitra, Morocco, to the Office of Navel Intelligence at the Pentagon in Washington. Lt. (j.g.) O'Connor is in the U.S. Naval Reserve. He was married in June of 1962 to Jeannette Canuel.

Richard Pearl, B.A. '58, and his wife climbed Mt. Vesuvius in August, 1963. Professor Pearl is on a study and travel leave of absence from teaching at Colorado College, Colorado Springs. The Pearls also descended into the crater of the 3,877-foot volcano on the Bay of Naples.

John A. Randall, M.S. '58, continues as a mine geologist with the Minas de San Luis, Tayoltita, Dgo., Mexico.

Edwin H. Ross, B.A. '58, continues with the Minnesota Department of Conservation, Division of Waters. His family resides at 1943 Lexington Avenue, N., St. Paul 13, Minnesota.

Chris Scurto, B.A. '58, is a foremen for Ford Motors and is living in Livonia, Michigan.

Capt. Geoffrey A. York, B.A. '58, is a jet pilot with the Marine Corps, stationed at Coronado, California. He resides with his wife and daughter in Chula Vista, California.

Bradford B. Van Diver, B.A. '57, M.S. '58, expects his Ph.D. in June from the University of Washington. He presented a paper on "The Origin of a Leucocratic Gneiss in the Wenatchee Ridge Area, Central Northern Cascades, Washington" at the April, 1963, GSA Cordilleran Section meetings.

Class of 1959

Gordon Bernius, B.A. '59, received a B.A. in Asian Studies from the University of British Columbia in '63. His present address is 4664 W. 8th Avenue, Vancouver 8, B.C., Canada.

William H. Edens, B.A. '59, is now with the Oil Loan Department of Denver U.S. National Bank in Denver. His address is 1380 South Stuart Way, Denver 19, Colorado.

Harry D. Goode, Ph.D. '59, resigned his position last year with the U.S. Geological Survey and is now an associate professor in the geology department at the University of Utah. This past summer Goode worked on a research problem on water resources in Kane County, Utah.

Richard Hepworth, B.A. '59, received an M.S. in Geological Engineering from the University of Utah in 1963 and is now working as a Materials Engineer, Foundations Department, Utah Department of Highways.

Lt. (jg) Richard P. Hurd, B.A. '59, joined the navy in 1959 and is currently flying as a bombardier/navigator with Heavy Attack Squadron Ten aboard the USS Constellation. His address is Heavy Attack Squadron Ten, c/o FPO San Francisco, California.

Class of 1960

Ernest H. Carlson, M.S. '60, is a Ph.D. candidate at McGill University, Montreal, Quebec. His address is Department of Geological Sciences, McGill University, Montreal, Quebec, Canada.

Alfred R. Conroy, Jr., M.S. '60, is a project engineer in the chemical division of the Colorado School of Mines Research Foundation in Denver.

H. Stanley Dempsey, B.A. '60, is now in his second year at C.U. Law School where he is a Research Assistant for the Rocky Mountain Mineral Law Foundation. He was Director of the Ninth Rocky Mountain Mineral Law Foundation Institute held last summer.

Robert C. Foulk, B.A. '60, is sales engineer for Ingersoll-Rand Company, Denver.

Richard Holm, B.A. '60, recieved an M.S. degree from the University of Idaho in 1962 and is now working on his Ph.D. at the University of Washington. His address is Geology Department, University of Washington, Seattle 5, Washington.

Victor J. Mayer, M.S. '60, teaches geology at Boulder's Fairview High School. He is also working on his doctorate at the University's School of Education.

Charles D. Wasson, B.A. '60, is a Lieutenant (jg), USNR, and Boilers Officer, U.S.S. Oriskany (CVA-34), San Diego, California. His new address is 517 "F" Avenue, Apt. 2, Coronado, California.

Class of 1961

Norman A. Foster, B.A. '61, was commissioned a 1st lieutenant in the Air Force. He is now stationed at Altus, Oklahoma.

Mr. and Mrs. Ben M. Irvine, B.A. '58, M.S. '61, are the parents of a child, Julia Louise, born September, 1962. The Irvines reside in Midland, Texas, where he is employed by Robert H. Ray Company, geophysical engineers.

2nd Lt. Chester B. Mason, graduate student '59, is a weapons controller at England Air Force Base, Louisiana. Chester's wife is the former Karen S. Allison of Colorado.

Robert E. Riecker, 1st Lt., USAF, B.A. '58, Ph.D. '61, is presently working for the Terrestrial Sciences Laboratory, Geophysics Research Directorate. He has written articles entitled "A High Pressure-High Temperature Shear Apparatus for Upper Mantle Investigations" and "A Single Phase-Single Crystal Diopside," both of which stem from work he is doing.

Class of 1962

Robert R. Curry, B.S. '61, M.S. '62, spoke to the Earth Science Journal Club at the University of Alaska on October 8, 1962. His subject was "Geobotanical Correlations as Exemplified by a Study of the Timberline Region of Colorado." Bob is currently studying at the University of California, Berkeley.

William G. Hemple, B.A. '62, having completed courses in cartography has been assigned as a cartographer with the U.S. Air Force, Aeronautical Chart and Information Center in St. Louis. His first baby, Terri Lee, was born February 21, 1963. His address is 7931 Hildesheim Avenue, St. Louis 23, Missouri.

Orer B. Raup, Ph.D. '62, announces the birth of a son on November 9, whom they have named Bruce Hamilton.

Harry Waldrop, M.S. '62, is mapping the Nipple Butte quadrangle in south-central Utah for the U. S. Geological Survey.

Class of 1963

Michael Addison, M.S. '63, and his wife, Helen, announce the birth of a son, Michael Pennington, on April 17, 1963. The Addisons also have a 1½-year old daughter.

Stephen J. Gawarecki, Ph.D. '63, is doing research on the remote sensing project of the U. S. Geological Survey Branch of Theoretical Geophysics in Washington, D. C.

Paul A. Graziade, B.A. '63, was killed in an automobile crash near Silver Plume Colorado on August 2, 1963.

Jim Jones, B.A. '63, is presently working for Anaconda in Butte, Montana. His address is 1039 Missoula Avenue, Butte, Montana.

Robert B. Laughon, M.S. '63, has been awarded a safe driving commendation. He competed in June, 1963, for the Highway Safety Award presented by the Denver Post and the Denver U. S. National Bank. Bob is now working on a Ph.D. degree at the University of Arizona.

Paul D. Lowman, Jr., Ph.D. '63, works in the theoretical division of NASA's Goddard Space Flight Center, Greenbelt, Maryland. Dr. Lowman examined photographs taken by Astronaut Leroy Gordon Cooper during his 22-orbit flight in May of 1963, and identified anticlines, faults, and one dome in one photo. The picture is of an area of northern Tibet and western China, and was taken from an altitude of 100 to 150 miles. Dr. Lowman is convinced that space photography will prove economically useful, and he says, "for example, the domes and anticlines represent potential oil-bearing areas."

William D. Page, M.S. '63, is now working with the Bureau of Reclamation, Department of Agriculture, Spokane, Washington.

Carol and Stan Mann are the proud parents of their third child, Lisa Renee, born on December 12. Carol is a former department secretary.

Acknowledgements

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Bruce D. Benson
Editor

ATTENTION ALUMNI: Please fill out the following form, telling what you are doing or news of any other alumnus you know. Mail the form back to the department as soon as you can, so that it won't be forgotten later on in the year. Your fellow readers would like to know what you are doing, as would we here in the department. Thank you very much.

NEWSLETTER Editor
Department of Geology
University of Colorado
Boulder, Colorado

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