The combined balance in the geology alumni funds is about $3500, even after heavy expenditures from the funds this year. We are very grateful to the alumni for the many gifts made specifically to the "Woodford" or "Pomona College Geology" funds. Such gifts count three times: (1) toward the general college campaign, (2) to obtain matching Ford gifts, and (3) toward covering the varied demands on geology department funds. Up to this date, we have been fortunate in pledging alumni funds for emergency use and then avoiding the actual withdrawals. For example, a few months ago we pledged alumni funds for a GMC four-wheel drive Suburban for use by the field class, but finally we were able to pay for this vehicle from another fund. We hope to be able to keep this sort of thing up, but we need a little bigger alumni balance, for safety.

Don Zenger attended the 7th Summer Conference on the stratigraphy and structure of the Appalachians June 6-19, 1966. He found very rewarding the field excursions that featured new stratigraphic and structural developments concerning formations equivalent to those on which he worked in New York. Don has also received a Research Grant from the Petroleum Research Fund of the American Chemical Society for a study of the petrology of dolomitic rocks, to cover three years starting this summer. The research will include thin section petrology using organic stains to distinguish the carbonate minerals; relationships between amount and kind of insoluble residue and the calcite-dolomite ratio (determined by X-ray diffraction); variation of the major elements (Ca, Mg) and minor elements (Fe, Sr) by X-ray fluorescence and electron probe microanalysis. Initial studies will involve the carbonate petrology of the Lost Burro Formation (M.-U. Dev.) in its type area in the Panamint Mountains. As the project proceeds, a wide range of late Precambrian and Paleozoic dolomitic rocks from the various parts of the country will be studied. Don has recently been distributing separates of his Ph.D. thesis, a book of 210 pages on the "Stratigraphy of the Lockport formation (Middle Silurian) in New York State," New York State Museum, 1965, Bulletin 404.

Donald McIntyre gave the 1966 Sigma Xi lectures at the University of Wyoming. He spoke on X-ray Fluorescence, a New Tool for Petrologists.

In the last newsletter we noted that a Philips Electronics electron probe microanalyzer had been installed in the department. Now it belongs to us as the result of generous gifts by the Seaver Institute and the Philips people.

The 1500 tektites from South Viet Nam recently presented to the department by H. H. Nininger (M.A. 1917) are in the process of study with the electron probe.

Donald McIntyre is spending a month vacationing in Britain.

Charles A. Anderson, '24, gave lectures February 28 and March 1, 1966, on "Geology and ore deposits of the Bradshaw Mountains and the Jerome area, Arizona" in the lecture series on the Earth Sciences sponsored by Stanford University.

Manley Natland, '28, and Cortez Hoskins, '53, will collect large samples from all the Pleistocene beds in Lomita Quarry sometime this summer, after the Chandler horse barns are removed and before the place becomes part of a golf course.


George Bellemin, '36, has completed his TV course in Physical Geology over Channel 28 (Educational Television). More than 300 watchers took the course for credit, giving George a lot of work, including the setting of quizzes and examinations and also personal appearances at all seven of the participating junior colleges.

Richard Shelton, '41, is now manager of exploration for Marathon Oil Company for the Los Angeles District, which includes Alasba. Dick travels quite a bit, and visited the campus May 4, 1966, as a guide to Dr. Yost, Director of Research for Marathon, who was in Claremont in connection with a generous grant to the college.

Frank Olmsted, '42, is in Yuma for the U. S. Geological Survey and expects to be there until June 1967. Frank says that he hopes to have several reports in the mill during this year.
George Clark, '46, has been seeing some European and African geology, notably in the Cantabrian Basin of northern Spain, during breaks in his work at the Madrid office of the Atlantic-Richfield Corporation. During the winter he returned to the study of Italian, in preparation for an Italian trip later with his father and mother. His latest postcard, just received, is a magnificent 6x8 colored geologic map of the Island of Elba, and says that he is spending July vacationing at Porto Azzuro, Elba.

Jack Vedder, '48, gave a talk on "Cumulative slip and rate of movement on the San Andreas Fault, SE San Luis Obispo County, California" at the Annual Meeting of the Seismological Society of America, University of Nevada, Reno, April 6, 1966.


Congratulations to the John Formans, '49, on the birth of another son, June 7, 1966, GEORGE HENRY (10 lbs 2 oz).

Warren O. Addicott, '51, is joint author (with David Durham) of another notable stratigraphic paper: "Pancho Rico Formation, Salinas Valley, California, U. S. Geological Survey Professional Paper 524-A (1965)." The formation is sandy and carries marine fossils considered Pliocene in California. It overlies the marine Monterey and Santa Margarita formations and underlies the continental Paso Robles formation. A faunal list shows 141 megafossil species from 37 localities; the more important forms are figured in 58 photographs. This report will have permanent value.


Ivan Colburn, '51, and his students at L. A. State have been working on a National Science Foundation grant, studying grain orientations in Mt. Diablo sedimentary rocks.

Ed Heath, '52, has been transferred by Shell Oil Company from the Los Angeles office, where he has been in charge of offshore exploration, to the main offices in Houston where he will undergo varied training for advancement in engineering or management. This training will take at least two years and Ed is not likely to be in California even at the end of that period. He has sold his house in San Marino.

Jim Richmond is setting up an X-ray fluorescence outfit that includes a Henke tube. Philips Electronics charged L. A. State $17,000 for the assemblage. Jim's first analyses will be on a set of dike rocks from the Ord Mountains. The specimens are prepared for analysis and waiting.
Warren Pedersen, '53, of the California Division of Water Resources, is now supervisor of dam safety in southern California for the State. He spends much of his time in transit between Sacramento and southern parts of the state.

Grant Robbins, '54, has been transferred from Los Angeles to Orange County by the United California Bank and is now field credit man for the bank in an area that includes both Orange County and Claremont. He recently visited Claremont and picked up his Bachelor's thesis which dealt with an area at the west end of the San Joaquin Hills that included the site of his new home. Every building in this part of the San Joaquin Hills has been constructed since 1954.


Neville Carter and George Kennedy have a paper on the "Origin of diamonds in Canyon Diablo and Novo Urei meteorites" in the Journal of Geophysical Research -- one more development in a controversy with University of Chicago scientists on the origin of diamonds in meteorites.

Tom Jeter, '57, has been working on the geology of the San Joaquin Hills and adjacent portions of the southeast Los Angeles Basin for the Standard Oil Company of California.

Pat Muffler, '58, was married on January 22, 1966, to the former Patricia Joan Campbell of Salem, Oregon.

Art Sylvester, '59, received his Ph.D. in June, 1966, from UCLA. His dissertation is entitled "The structural and metamorphic petrology of the contact aureole of Papoose Flat pluton, Inyo Mountains, California." Art will be working with Dave Stearns and John Handin for Shell Development on the Pacific rim project. He will live in Ventura and use the office as base for California studies. He is very excited about the job and says it is exactly the sort of thing he hoped to do. Congratulations, Art!

Barry Watson, '59, is reported to have found so much ore in Peru for American Smelting and Refining Company that they had to bring him home a year early. He will be the chief of all their Mexican operations and work out of Tucson.

Dan Crotty, '59, came by the department in January of this year on his way to Portland, Oregon, to accept a job as Rate Analyst with Pacific Power and Light Company. He expected to be attending their I.B.M. school to study the 360 for a while at first.

Jim Kelley, '63, received his Ph.D. in June, 1966, at the University of Wyoming. He has taken a job on the faculty of the Oceanography Department, University of Washington, Seattle, Washington, which will involve helping students and faculty in statistical sampling schemes and scientific experiments. He is scheduled to take a couple of cruises this summer with the oceanography group.

Barbara Lowe, '63, dropped in to visit with us in March and again in July. She reports that she spent the summer of 1965 in Puerto Rico, and is now working in the mineralogy/geology department of the Los Angeles County Natural History Museum as a Preparator.
Prue Hickman, '64, is in New York working as a proofreader for Consultants Bureau and Plenum Press publishers. She likes her job and is also enjoying the cultural offerings of the big city.

Bob Dickey, '64, found that he did not care for law school at UCLA and has gone over to the geology department to work for an M.A.

Steve Norwick, '65, enjoyed last winter at Dartmouth, snow storms included. He plans to do field work this summer in an area critical for an understanding of the geological structure in the Connecticut Valley.

Dave Copeland, '65, has been doing the work of three previous employees of the Ghana Geological Survey — mineralogist, sample preparer, and X-ray operator. He has an X-ray diffractometer, two Zeiss-Jena stereomicroscopes and a decrepit U-stage, crushers, a Wiffley table, electrostatic separators, and rod mills. He has a good man making thin sections for him, but he does his own mechanical analyses. What he lacks most is spare parts when a machine breaks down. P.C. now stands for Peace Corps with Dave, not Pomona College.

Dave Pollard, '65, has been attending graduate school at Stanford. He intends to spend about 6 weeks this summer in the northern Sierras off Highway 40 near Emigrant Gap, but will be back at the end of July since he is getting married on August 1 to Virginia Corlette. Virginia was a zoology major at Pomona and also graduated in '65; this past year she has been in Medical Technical School at UCLA.

Don Doehring, M.A. '65, has received an NASA Fellowship, to start in September 1966; he will be making a study of alluvial fans and pediments in western U.S. and developing new quantitative methods of landform analysis. He will continue graduate work at the University of Wyoming towards a Ph.D.

Carmen Fimiani, '66, is to go into officer training for the air force of the U.S. Marine Corps.

Hugh Slawson, '66, will be in Europe for the summer. In September he will begin graduate work at Scripps Institute of Oceanography where he has a research fellowship.

Eric Dowty, '66, will go to graduate school in the geology department at Stanford. During his senior year here Eric did some very important research work, under the guidance of Alex Baird, in developing highly precise methods for the analysis of many of the trace elements.

Bob Michael, '66, has been offered an NDEA Fellowship and will attend graduate school at Yale in the fall. Bob is one of 5 students working in the department during this summer under our NSF student research program.

Rick Russell, '66, has a National Science Foundation Fellowship at Stanford. He is taking the Iowa State field course in the Rocky Mountains during the summer. His father, R. Dana Russell, '27, and his mother were visitors in Claremont at commencement time. Dana gave the college's new IBM System 360 computer an expert appraisal; he liked what he saw.
POMONA COLLEGE
Geology Newsletter

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IN MEMORIAM

Oliver (Buck) David Lawrence, of the Class of ’68, fell to his
death from the summit of Mount Hinman, in the Cascades, on the
Labor Day weekend; he had just completed the ascent with his father.
Buck was one of the ablest, as well as one of the best liked, students
in the College. As a pre-freshman he was selected for the N.I.H.
program; and, each year, he was named a Pomona College Scholar for his
outstanding academic record.

Buck loved music. He was a member of the College orchestra and
first violinist in the string quartet. He served as both concert-
master and librarian of the orchestra, and it is appropriate that a
Chamber Music Library has been established as a memorial to him.
Donations should be sent to the Music Department.

At our informal lunch meetings, Buck often delighted the Pomona
geologists with accounts of his climbs in the Cascades. He loved field
work, but he was also a very competent user of the complex equipment
now available for laboratory work; as a freshman he used our neutron
generator to analyse the G1 granite for oxygen.

Last summer, at the end of his sophomore year, Buck received the
Richard E. Strehle Memorial Award. Pomona geologists know that this
prize is a tribute to Richard E. Strehle, ’41, who was killed in
action in the Philippines, in World War II. It is "awarded annually
to a Junior or Senior man with the physical, mental, and moral qualities
desirable in a field geologist." Buck Lawrence was eminently qualified.
One of the best gatherings of geologists ever held anywhere was the San Francisco meeting of the Geological Society of America, November 14-16, 1966. It was held in the new Hilton hotel-motel, where guests with cars park beside their bedroom doors on floors 5-11.

There were 3,000 advance registrations and the number in attendance must have exceeded 4,000. More than 1 percent of the total was made up of persons with Pomona-Claremont connections. The management of the convention was superb. Ward Smith was in charge of entertainment, Ed Bailey ran the field trips (including the big one to Hawaii, where Tom Wright acted as a guide), and Chuck Kundert, '50, was treasurer. Mason Hill, '26, and Ian Campbell worked up an extremely popular and successful symposium on the San Andreas rift.

Papers were presented by Edgar Bailey, Alex Baird '54, Kathleen Baird '62, Neville Carter '56, Jim Kelley '63, Donald McIntyre, Frank Olmsted '42, Bill Quaide, Barry Raleigh '56, Bob Tilling '58, Ed Welday, and Tom Wright '57.

Others present were:

- A O Woodford, '13
- Charley Anderson, '24
- Paul Dudley, '25
- Dana Russell, '27
- John Shelton, '35
- Jane Everest Gregory, 38
- Mel Swinney, '40
- Jack Schoellhamer, '42
- Jerry Winterer, '45
- Don Eberlein
- Jack Vedder, '48
- John Forman, '49
- Bob Yerkes, '50
- Warren Addicott, '51
- Don Wilhelms, '52
- Cortez Hoskins, '53
- Warren Pedersen, '53
- Patsy Beckstead Smith, '53
- Cliff Gray
- Dick Nielsen
- James Parsons, '56
- Pat Muffler, '58
- Art Sylvester, '59
- Norman Hyne, '61
- Rozi Grannell, '62
- Doug Sprague, '62
- Don Doehring
- Dave Pollard, '65
- Eric Dowty, '66

Woody has recently given the Geology Library more than a hundred geologic classics. He began collecting them in the nineteen twenties. Almost all are European and almost all were acquired from European dealers, notably Caxton Head, Sotheran, Max Weg, and Wheldon and Wesley. Most items have increased greatly in value over the years. One is a William Smith 1815 geological map of England, bought from Wheldon and Wesley in 1928 for $100. A recent visitor from Bristol University, England, saw this map on display in the Geology Library and remarked that his university had just purchased a copy of the same map from the same dealers for $2,300.
In addition to his usual duties in the department, Donald McIntyre has major responsibilities as Acting Director of the Computer Center, chairman of the library committee, and Pomona College representative on the Governing Board of the Honnold Library. He is trying to find time to write a book on the design of geological experiments; he has taught a course on this subject for several years, and has applied this knowledge to many aspects of geological research.

Don Zenger is chairman of the Paleontology Committee for the SEPM for meetings at the National AAPG Convention to be held in Los Angeles in April 1967. Don's paper on "Redefinition of the Herkimer Sandstone (Middle Silurian), New York" appeared in the GSA Bulletin of October 1966. Don has also been invited to be a reviewer for the Journal of Paleontology.


Alex recently gave a talk on Light Element Analysis of Rocks by X-ray Spectrography at the combined meeting in San Francisco of the Society for Applied Spectroscopy, the Optical Society of America, and the American Chemical Society.

Mrs A K Baird (K W Madlem), who completed her M.A. thesis at the Claremont Graduate School in 1964, has published the results of her work in Advances in X-ray Analysis Vol. 9 (Plenum Press) 1966, under the title of "Matrix and particle size effects in analyses of light elements, zinc through oxygen, by soft X-ray spectrometry."

Julian Barksdale, from the University of Washington in Seattle, visited his son Tucker (class of '68) during the Homecoming weekend. We had the pleasure of having him with us on a field trip to the Rattlesnake Pluton in the San Bernardino Mountains.
Jerry Harriss ('24) is spending the last months of the year on a water consulting job in Santa Domingo.


Mason Hill ('26) addressed the 1966 Institute on Exploration and Economics of the Petroleum Industry in Dallas on the "Philosophy of oil exploration." Mas made a vigorous and persuasive case for management of exploration by geologists, especially by geologists well acquainted with all the scientific, economic, and political aspects of each particular problem.

Roger Revelle ('29), head of the center for population studies at Harvard University, introduced the Pomona freshmen to higher education in three sessions 9/23-24/66. Roger talked about world problems in such relaxed and entertaining ways that the boys and girls were enthralled. He, in turn, was delighted by their penetrating questions.

Ed Ogier ('32), who is a petroleum consultant in Shreveport, Louisiana, was in Claremont briefly in October. He brought us up to date on oil developments in Louisiana and Mississippi. It was good to learn about some extremely profitable new discoveries that are not offshore.

John Shelton's ('35) long-awaited book "Geology Illustrated" was issued in September by W H Freeman and Company of San Francisco (price $10.00). Its features are aerial photographs by the author and sketches and diagrams by Hal Shelton ('38). Thousands of copies have been sold already and it has been adopted as a text for popular courses by many universities.

Louis Simon ('35) has been 1966 president of the Branner Club. This club put on a special meeting at Occidental College November 1st featuring a talk on the Antarctic by the old master Laurence Gould.

George Bellemin ('36), of LA City College, in November gave a television lecture, via Channel 7, Los Angeles, on the geological history of the Grand Canyon.

Melvin Swinney ('40) has left Richfield and is an area resources geologist for the Edison Company with headquarters in Los Angeles. His duties are varied, primarily long-range planning of fuel resources for the company. He also takes an interest in Catalina Island, whose natural resources are being developed by the company.


George Clark ('46) is still traveling for Atlantic-Richfield in the Eastern Hemisphere.

George Hilton ('48) and wife Carol returned from a European trip in September and are now living in Berkeley.
Howard Stark ('48) has been transferred to Dallas, Texas, where he is staff geologist for Atlantic-Richfield Company, with responsibilities for company activities on the Pacific Coast, in Alaska, and in Canada. He is involved in hiring geologists, but finds that there are only half enough new men to go around.

John Forman ('49) is chairman for the Field Trip Committee for the national AAPG Convention to be held in Los Angeles in April 1967.

Bob Yerkes' ('50) daughter, Neanna, is in the class of 1970 at Pomona.

Willis Burnham ('51) has been transferred from Menlo Park and is now District Chief for the Water Resources Division of the U. S. Geol. Surv. in Idaho. He is looking forward to a long stay in that wonderful area.

Jim Groom ('55) is District Geophysicist for Union at Santa Fe Springs; he was transferred from Bakersfield.

Neville Carter ('56) left Shell Development in Houston in September 1966 to take the position of Associate Professor of Geology at Yale University.

Grant Meyer ('57) spent the early autumn excavating Triassic sandstone slabs 8 miles south of Hartford, Conn., that carry at least 1,000 reptile tracks in exceptionally complex sets of related units. In November, Grant left for Egypt and another season of collecting for the Yale Museum.

Bob Tilling ('58), who has been working on the petrology and chemistry of the Boulder batholith, still has his headquarters in Washington, D.C. Congratulations to Bob and his wife, Susan, on the birth of a daughter, 7/8/66 (Roberta Kim). Mrs. Tilling is the former Susan Greenfield, class of '59.

Dan Crotty ('59) has accepted a job as a management analyst with the U.S. Air Force. He says the work is interesting and challenging; he hopes to do some traveling before long.

Art Sylvester ('59) is now with Exploration & Production Division of Shell Development Company in Ventura. His first project in economic research is a study of an exceptionally interesting sedimentary basin that thus far has yielded no oil.

Barry Watson ('59) disclaims all responsibility for the allegations in our last newsletter that he has found much ore in Peru and is now chief of his company's Mexican operations. He somehow seems to think that our informant was Art Sylvester ('59). Barry's present work for American Smelting and Refining Company keeps him traveling over much of the southwestern U.S. and should soon lead to assignments in Mexico.

Mike Garner ('62) is a Captain in the U.S. Air Force stationed in Thailand; he expects to be in that area for about a year.

Douglas Sprague ('62) is working for the Pacific Rock and Gravel Company in various projects in southern California involving development of deposits of industrial minerals. Doug is also going part-time to USC studying economic geology.
Ken Segerstrom has been assigned to the Branch of Heavy Metals of USGS. He is working westward through the Elkhead Mountains of northwestern Colorado, concentrating on the study of the Tertiary porphyries. He is glad to be back in the mountains studying real geology.

Don Doehring worked near San Juan Mountains of western Colorado last summer, supervising a coal exploration campaign. He and an assistant were kept busy upwards of 18 hours a day. Don continues his graduate studies at the University of Wyoming. In November he visited briefly in Claremont and consulted with Donald McIntyre about mathematical models for studies on sands.

Jim Kelley ('63) is now on the faculty of the Department of Oceanography at the University of Washington in Seattle. He taught no courses in the autumn quarter of 1966 but in the winter quarter he is offering a 3-unit course in the design of experiments. Jim went on two cruises in November and December.

Prue Hickman('64) is continuing her job with Plenum Press in New York.

Congratulations to Steve Norwick ('65) on his marriage last summer to the former Marte Osborne (Scripps '66). Steve continues his teaching and graduate studies at Dartmouth, where his wife is now also enrolled. He is already planning work toward a Ph.D. He is now working on trace elements in microcline and has collected from a New Hampshire granitized gneiss, hoping to detect stratigraphic differences. We have enjoyed Steve's critical, perceptive letters.

Dave Copeland ('65) is still with the Peace Corps in Ghana. He expects to enroll in graduate school somewhere in U.S. when his duty is finished next summer. He wants to learn about economic geology and mining law; then he hopes to go back to an undeveloped country. He has already been teaching field geology to a class of Ghanaians.

HAPPY HOLIDAYS!!