Work has begun on a new building to house the Geology and Zoology departments of the College. The site is on the north side of Sixth Street immediately west of College Avenue and the building will appear externally as a mirror image of the new Mathematics-Physics building on the other side of College Avenue. Geology will be housed on the top (second) floor with considerable storage and work space in the basement. The heart of the department will continue to be the library which will at last find the accommodation it deserves. The details of the equipment are not yet worked out but we have every reason to expect that it will be the finest available.

John Christie, who has been with us through a National Science Foundation research grant, will join the UCLA faculty and teach structural geology in the fall. His work in the Oroclopia Mountains, east of the Salton Sea, has demonstrated evidence for two major deformations in the Oroclopia Schists and raised a number of important questions regarding the basement rocks in southern California in general. Dr. Christie has lectured to the Geology Clubs at UCLA and CalTech. He has helped us out by teaching petrography and advanced petrography; this part of our program will be conducted in future by Alex Baird who has had an N.S.F. fellowship at Berkeley and been Howell Williams' teaching assistant. Alex Baird, who is a doctoral candidate at Berkeley and who served on the Pomona College faculty in 1956/57, will return to Pomona in the fall.

For six months we have been privileged to have Dr. Christoph Exner with us. Dr. Exner is an eminent Alpine geologist, a leading member of the Geological Survey in Austria, professor at the University of Vienna, and an authority on feldspars in metamorphic rocks. His work with us has been possible by grants from the Fulbright Commission and the National Science Foundation. Dr. Exner has studied the petrography of the Oroclopia and Pelona Schists and also suites from Santa Catalina, San Benito, and Cedros Islands. He has given advanced seminars at U.C. in Berkeley and at CalTech.

Barry Raleigh, holder of a Richfield Oil Corporation Fellowship, has been working closely with Dr. Christie and Dr. Exner. He spent the summer mapping in Richfield and, like John Christie, was married in the fall.

Gerhard Oertel conducted a small but successful summer field course near Sonora Pass. He has completed a report (in Portuguese) on the geology of Goa, and has continued his theoretical studies on rock deformation. In January he moved to a beautiful new home north of Foothill.

Donald McIntyre spent the summer in Scotland and in the Alps, returning via Ottawa and Toronto where he attended the IUGG meetings and presented a paper, jointly with John Christie, on the kinematics of faulting from seismic data. A paper on the geometry of superposed deformations, written jointly with Lionel E. Weiss, was published in the Journal of Geology in November. Encouraged by the example of Jack Vedder, Dave Durham (USGS, lately Mason Hall Branch), John Christie and Barry Raleigh, Donald McIntyre was married (in Edinburgh) at Christmas.
Olaf van West, who had been working with John Christie and Barry Raleigh in the Oroclipsa Mountains, and with Donald McIntyre on the rocks from the San Benito Island and Codros Island (Baja California), is now with Shell Research at Delft in Holland.

George Lloyd, Stan Hudson, John Killen, Bill Roeth, and Pete Newman (all '57) went to UCLA for graduate work. Tom Wright, '57, is at Johns Hopkins; in the fall he had a visit from Tom Jeter, '57, who is with the Counter-Intelligence Branch of the Army at Fort Baltimore. Bob Ward, '57, is doing graduate work at the University of Southern California.

In December John Killen arranged a most successful and interesting trip to Santa Catalina Island for Jack Schoolhamer, Bob Yorkos, John Christie and Donald McIntyre.


Grant Meyer, '57, married Martha Sue Henderson in Berkeley, August 9, 1957.

Mr. and Mrs. Gordon Bolton's second child and first daughter, Gail Christine, was born on June 30, 1957.

John A. Leversen, '53, is out of the Army and is working for his Ph.D. at Stanford.

Cortez W. Hoskins, '53, is at the Research Lab, Carter Oil Company, Tulsa, Okla.

Jim Parsons, '56, is enjoying a change of geology; he is now working on the State's South Bay Aqueduct (Tracy-San Jose-Gilroy).

George V. Owens (grad) is mapping for Shell north of Coalinga.

Jack Welden (grad), with Shell at Bakersfield, is due back from a short tour at Shell's school in Houston.

Frank Capra, '56, has an unusual Army appointment; he is teaching motion picture photography. Frank managed time off to attend the Atlantic City meeting, Nov. 4-6, 1957, of the G.S.A. Others who attended included A. O. Woodford, '13, (member of Council of Min. Soc. Amor.), Mason L. Hill, '26 (member of Council of G.S.A.), C. A. Anderson, '24, Franklin Olmsted, '42, and Wayne Burnham, '51, who gave a paper.

It is impossible, of course, to keep up with Roger Revello, but we should report that he is President of the Oceanography section of the A.O.U. and has been playing a leading role in the work of the I.G.Y.

Loring Sneddon is geological manager of Hancock Oil Company in Long Beach.

Joe Ernst, '49, has been promoted by the Texas Company to district geologist at Santa Maria.

T. F. Harris, '24, has been spending the winter in Calgary, Alberta, working with J. C. Sprules & Associates, the leading consultants of the region.

George H. Clark, Jr., '43, of Richfield Oil in Bakersfield, has been transferred to Edmonton, Alberta, for a 3-month work tour.

(con't)
In addition to his other duties Rollin Eckis, '27, is now mayor of Bradbury, California, and a member of the Alumni Council.

Mrs. Mason Hill has succeeded Mason as a member of the Council.

Jack Vedder, Bob Yorkos, and Jack Schoellhamor's map of the San Joaquin Hills-San Juan Capistrano area has been issued as OM-193 by the U.S.G.S.

Many thanks for the notes we have received from some of you. Please continue to send any items of interest or changes of address to Geology Dept., Mason Hall.
The new building is progressing fast and the walls of the second floor (geology) are now being poured. During the year a very large sum of money was made available by a generous donor for the purchase of equipment for the geology department in the new building. Orders amounting to $60,000 have already been placed, but most of the equipment to be purchased will not be delivered until the building is completed. A recent acquisition for the library was the reprint collection of the late Dr. L. F. Spath. This contains more than 2,000 items, and once we have these properly catalogued, Pomona will be the place to come if you wish to look up literature on ammonites.

Three seniors graduated in June: L. J. Patrick Muffler, Robert I. Tilling, and Jeremy C. Wire. During the year Clarence Chittenden and Frank Esterlin completed the requirements for graduation.

Two M.A. degrees were granted: Patsy J. Smith, '53, wrote a thesis entitled "Recent Foraminifera off Central America: quantitative and qualitative analysis of the sub-family Bolivinae." Olaf van West's ('55) thesis was entitled "Geology of the San Benito Islands and southwestern part of Cedros Island, Baja California, Mexico."

Rollin Eckis, '27, has been appointed a Trustee of Pomona College. His work for Richfield recently took him to the middle East.

Barry Raleigh, '56, was the holder of the Richfield Oil Corporation Fellowship at the Claremont Graduate School. In the fall Barry will be at UCLA where he has accepted a teaching assistantship. Mrs. Raleigh (Sheila Montgomery) graduated from Pomona in June.

Pat Muffler, '58, won the James A. Lyman Prize, a General Petroleum Scholarship, the Phi Beta Kappa Scholarship, a National Science Fellowship, and a Woodrow Wilson Fellowship. Pat will be going to Princeton in the fall. He is spending the summer in the field with the U.S.G.S. and expects to be working for part of the time with Jim Gilluly.

Bob Tilling, '58, was the holder of the Richard Strehle Memorial Scholarship and a General Petroleum Scholarship. He has been awarded a research fellowship at Yale.

Neville Carter, '56, has been a teaching assistant at UCLA where he is completing his Master's degree. He has been awarded a Fulbright Fellowship and will be studying in Norway next year.

Donald McIntyre talked on "The structure of the Western Alps" and "Modern methods of tectonic analysis" at CalTech, Redlands, and the Scripps Institution of Oceanography.

John Christie lectured on "Structures and movement along the margin of the Caledonides in North-West Scotland" at UCLA and at CalTech.

Christof Exner gave lectures on "Feldspars from different tectonic environments" at Cal Berkeley, UCLA, CalTech, and the Geophysical Laboratory, Washington, D.C.

Mason Hill, '26, has written a paper on the nomenclature of faulting, bringing up to date his well-known paper "Classification of faults" Bulletin Amer. Assoc. Petrol. Geol., 1947, vol. 31, No. 9, pp. 1669-1673. The new paper has not yet been published but has been presented to the GSA at Eugene, and Mason was good enough to come to the department for a seminar on the subject. It was our best meeting of the year. Mason's son, Bob, graduated from Pomona in June.

A small group of students joined Donald McIntyre and Bob Yerkes, '50, on a trip to the bottom of the Grand Canyon at Easter. Since then Bob has been working in the Confusion Range (Utah-Nevada) for the U.S.G.S. (fuels).

John Shelton, '35, organized a unique aerial field trip for the AAPG convention in March. John also gave a talk on Switzerland to the Branner Club.

Patsy Smith, '53, with her husband, G. I. Smith of Minerals Branch USGS, is moving from Claremont to Menlo Park this summer.


Olaf van West, '55, is working for Shell in the Netherlands. We hear that he has been seen a good deal in Paris on weekends but the last report is that he was "relaxing in Switzerland" (which doubtless means running up and down the mountains in his usual manner).

Grant Meyer is at the Artillery School in Arkansas for a six months spell; he is said to have lost upwards of 30 pounds.

George Owens (grad student), who has been mapping at Coalinga for Shell, passed through Claremont in June on his way to Houston, Texas, for a spell at the Shell school.

Roger Revelle, '29, is a founding member and guiding spirit of the American Miscellaneous Society which is sponsoring a drilling project aiming to reach the Noho. He estimates the cost at 10 millions; contributions should be sent to the Geology Department, Pomona College, where they will be invested until the project is under way.

Bill Monroe (grad student), with Phillips Petroleum Company, has been doing seismic work in Muscogee, Okla., Carlsbad, N.M., and is now in Cortez, Colo.
Jess Parsons, '50, and his wife, looked in at the geology department recently. Jess continues to look as prosperous as ever. We also had a short visit from C. A. Anderson, '24, early in June.

Jim Groom, '55, spent two years in the army and attended the school of motion picture photography. He plans to join United Geophysical.

Cortez Hoskins, '53, is now with Jersey Production Research Co., Tulsa. His research seems to be about the sort of thing he would do in a university.

Please send us your news!
IN MEMORIAM

Richard A. Bramkamp 1910 - 1958

Dick Bramkamp was born in Richmond, Indiana, and came as a small boy to Banning, California. He soon learned about the animals, plants, rocks and fossils of the desert, especially in the course of many trips with a burro. He came to Pomona College to study chemistry but transferred to geology, graduated in 1930, and took a Ph.D. in paleontology at Berkeley in 1933. In 1936 he went to Arabia for Standard Oil Company of California and spent his working life there. For the eight or ten years before his death he was chief geologist for the Arabian-American Oil Company. He died in New York on September 1, 1956, after many months of painful illness with cancer of the spine. Memorial services were held in Christ Church, New York, September 4, and in the Methodist Community Church, Banning, September 8.

Dick leaves his wife, Crystal, his father and mother in Banning, a brother, Dr. Robert G. Bramkamp, ’26, and a sister, Ann Bramkamp Booth, Scripps ’33.

Two important Bramkamp publications are a summary of the geology of Arabia (with Max Steineke, followed by a paper on the Jurassic ammonites by W. J. Arkell) in the Philosophical Transactions of the Royal Society of London, B236:241-313, 1952, and the geological maps of Jebel Tuwaiq and vicinity recently published by the U. S. Geological Survey. Bramkamp and his Aramco associate, R. W. Powers, also issued in July 1953 an important company pamphlet entitled "Syllabus for the study and description of Arabian carbonate rocks," in which carbonate rocks are classified by grain size just like silicate rocks. This paper was republished in the Bulletin of the Geological Society of America, October, 1958.

Two new science buildings on the Pomona Campus were dedicated on December 6; the Robert A. Millikan laboratory, which is already in use by the departments of mathematics, physics, and astronomy, and the Seaver laboratory, which will be ready for the geology and biology departments during the second semester. These magnificent buildings, which with their superb equipment are valued at $3,250,000, have been made possible by the generosity and vision of Dr. Frank R. Seaver, ’05.

Surely nowhere will a geology undergraduate find such equipment available for him as in the Seaver laboratory! A complete list is impractical, but the following are amongst the items we expect to be included:

16 of the latest and most complete petrographic microscopes of Leitz and Zeiss, 8 being equipped with U-stages. Half of these microscopes have already been received.

Other optical equipment includes goniometers, refractometers, Leitz and Zeiss "junior" and "student" microscopes, stereomicroscopes, stereopolarizing microscopes, and a Zeiss microprojector which can even project interference figures from grains mounted on a U-stage.
X-ray facilities will include a complete recording X-ray spectrograph which will enable us to run chemical analyses, as well as powder, single crystal cylindrical, and flat plate cameras.

Differential thermal analysis equipment has already been received and used to good effect in a study of the Claymont clay, Santa Ana Mountains.

Separation equipment such as a Rotap sieve shaker, a Frantz electromagnetic separator, and a Bendix ultrasonic separator are already ordered.

There will be two thin section labs, one for students and the other for work on departmental collections. An automatic device to saw rocks nearly to final thickness is already at work.

Gerhard Oertel has supervised the construction of apparatus for clay model experiments to simulate rock deformation. A special advanced structure laboratory is provided for this equipment in the new building.

A superb collection of crystal structure models has already been received and models to illustrate crystal morphology will be received shortly.

Equipment for field work will include a Zeiss stereotope, and both K & E and Kern alidades and transits. We expect to be able to include a Worden gravimeter.

The library, which has recently increased its already notable holdings of periodicals, will continue to be the heart of the department.

Alex Baird, '54, has returned to the department as an instructor. He has nearly completed his Ph.D., Cal Berkeley, on the petrology and structure of an area immediately east of the Mother Lode. The Bairds have bought a home in Claremont.

Donald McIntyre spent the summer with the Gravity Division of the Dominion Observatory, Ottawa, and saw nearly 500,000 square miles of the shield east of Hudson Bay and James Bay. This fall he lectured on "folded rocks" to the A.I.M.E. at Whittier and the Geology Club at U.C., Riverside.

In the summer Gerhard Oertel, now an expert on the operation of helicopters, mapped a very large area in Alaska for Richfield. Over Thanksgiving he took a field class to Red Rock Canyon.

John Christie, after spending two years at Pomona, is now on the geology faculty at U.C.L.A.

Barry Raleigh, '56, successfully completed his M.A. at the Claremont Graduate School. His thesis was on the structure and petrology of the Orocopia Schists. Barry is now a teaching assistant at U.C.L.A. where he is working towards his Ph.D.

Bob MacColl, '56, is the holder of the Richfield Oil Corporation Fellowship at the Claremont Graduate School.
Tom Wright, '57, is working for his Ph.D. at Johns Hopkins where he holds a Junior Instructorship. He is teaching crystal optics and optical mineralogy in place of Dr. Donnay who is on leave. He spent a profitable and interesting summer working with the U.S.G.S. in Montana on the Bearpaw Mountains project. Tom was married on September 20.

Don Wilhelms '52, Bradley Sauters '54, Jim Groom '55, and Jeremy Wire '58, have joined the large Pomona group at the U.C.L.A. Graduate School. Don Wilhelms spent the summer in southeast Vermont working for the Vermont Geological Survey. George Lloyd, '57, is working along the north edge of White River Valley SW of Ely, Nevada. Stan Madsen, '57, and Pete Newman, '57, are mapping in the Cuyama Region. Pete married Mary Stone, '59, in Claremont on September 7. John Killen, '57, has an area in the Santa Ana Mountains.

George Hilton, '48, has completed a report on his last two years work on ground water in the Bakersfield area. He is planning to go to Stanford in September 1959 to work for a Ph.D.

After a long spell of petrographic work on clays for Shell in Delft, Holland, Olaf van West, '55, has returned to the study of harder rocks--this time in Austria. After consultation with Dr. Exner in Vienna he has chosen an area SE of the Brenner Pass and expects to work under Dr. Ladurner in Innsbruck. Dr. Exner spent six months in Claremont last year and examined Olaf's M.A. thesis; their meeting in Austria may lead to the founding of a "friends of P.C. geology department" club in Vienna!

Neville Carter, '56, successfully completed his M.A. at U.C.L.A. and is now in Norway with a Fulbright grant studying with Dr. T.F.W. Barth in Oslo. The Carter's first child, a boy, was born in Norway. Neville shares an office with an old friend of the McIntyres, J. P. Schaer, assistant to Professor Wegmann.

Woodfordite, a hydrated calcium aluminum sulphate-silicate-carbonate from Crestmore, has been recognized as a new mineral and named by Joseph Murdoch and Robert A. Chalmers after Dr. Woodford who observed it some years ago and called it 'mineral K.' While we are delighted about this, we hope that the mineral is stable enough to do justice to Woody, for it certainly sounds complex!

Ivan Colburn, '51, married Patricia Thorne on July 26, 1958.

Frank Capra Jr., '57, married Priscilla Anne Pearson of Elberon, N. J. on October 4, 1958.

Thane and Eve McCulloh rejoiced in the birth of their second son, Kenneth, on August 31, 1958.

At the G.S.A. meeting in St. Louis, Wayne Burnham, '51, gave two papers (jointly with Dick Jahns) on experimental studies of pegmatite genesis. Mason Hill, '26, gave a paper on fault names and symbols.

Cliff Gray spoke on the geology of the Corona South Quadrangle at the A.A.P.G. Pacific Section meeting in November.

Warren Addicott, '51, (with William K. Emerson) published a paper on "Pleistocene Invertebrates from Punta Baja, Baja California, Mexico" in American Museum Novitates, #1909.
F. H. Olmsted, '42 (with G. H. Davis) has completed a report on "Geologic features and ground-water storage capacity of the Sacramento Valley, California." The report has been placed on open-file by the U.S. G.S. pending publication as a water-supply paper.

Two crystal structure papers by R. M. Douglass, '50, have appeared; one is on Sanbornite, BaSi₂₀₅, (Amer. Miner. May-June 1958), and the other on HCrO₂ (Acta Crystallographica, June 1957).


Roger Revelle, '29, director of the Scripps Institution of Oceanography, has been appointed director of the new Institute of Technology and Engineering at the La Jolla Campus of the University of California.

Paul H. Dudley, Jr., '53, with Humble Oil and Refining, is secretary of the A.A.P.G., Pacific Section.

Jerry Winterer, '45, was the 1953 President of the Pacific Section of the Society of Economic Paleontologists and Mineralogists.

Howard Stark, '43, has been transferred from Santa Maria to Long Beach where he is district geologist for Richfield.

Jim Taylor, with Shell, has been transferred to Ventura.

Joe Ernst, '49, who has been district geologist of the Texas Company at Santa Maria, is now at the Long Beach office with similar duties.

Bob Jennings, '54, of Amerada, is back from a summer in Alaska.

Manley Natland, '28, is chief of the new Production Research Department established by Richfield, and Melvin Swinney, '40, is his assistant. We hear that the first task is to set off an atomic bomb under Peace River to make the tar in the tar sands flow.

George Owens has returned to Coalinga after four months training with Shell in Houston.

Paul H. Dudley, Sr., '25, gave a luncheon talk to the A.A.P.G. Pacific Section on "The Sulu Sea, Hongkong, and Macao."

Dick Ten Eyck, '35, makes frequent visits to southern California, watching over his company's interest in offshore leases.

Jerry Harriss, '24, is working for Dick Ten Eyck's company in Wyoming.

Jim and Grace Richmond have purchased a dream home on a hilltop in the San Rafael district west of the Arroyo Seco.