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## Pacific Review October 1978

Pacific Alumni Association

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# Pacific Review

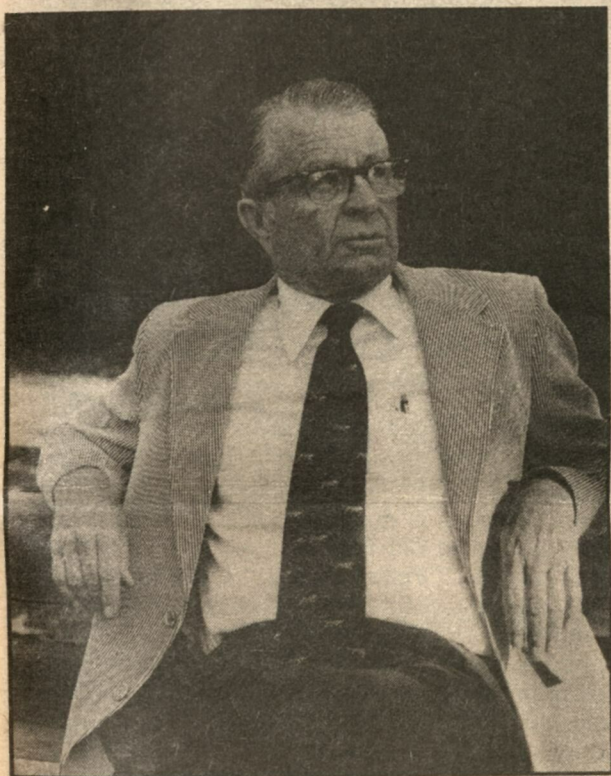
VOLUME 13 NUMBER 2

THE UNIVERSITY OF THE PACIFIC

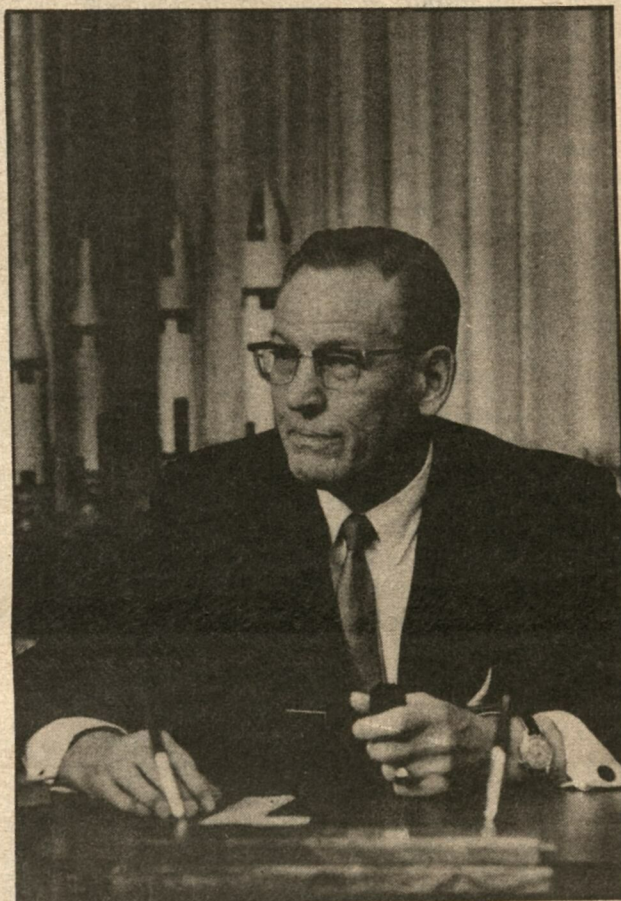
OCTOBER 1978

## Three Pacific alumni who have helped shape modern aviation

**Carlos C. Wood**  
**L. Eugene Root**  
**Walter E. Fellers**



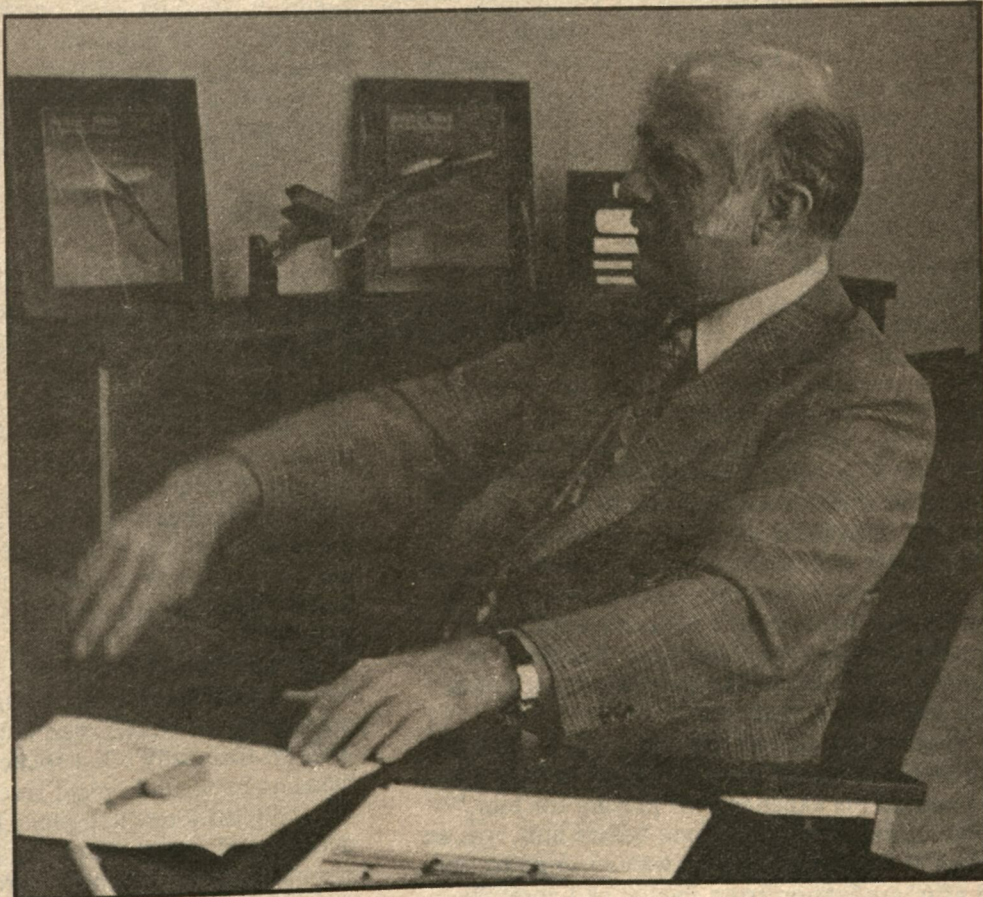
Carlos C. Wood



L. Eugene Root

*Photo courtesy of Lockheed Missiles & Space Co., Inc.*

Walter E. Fellers



It is nearly noon on a Thursday morning in the early 1930's. The weekly College of the Pacific convocation is just over and the students are filing out of the Conservatory auditorium.

The roar of a single engine airplane at a very low altitude turns all eyes to the sky. Two members of Omega Phi are about to strike on behalf of their candidate for student body president.

As the plane approaches the gothic tower of the Conservatory, the pilot, Carlos Wood, is urged to fly even lower by his bombardier, Gene Root. They had to get it just right so that the campaign literature would drift over the gathered students and reach the hands of as many as possible. Wood protested that he did not want to fly lower, but Root, already showing signs of stubbornness, kept urging him on.

It was a perfect hit.

The two young men from Stockton, who later became world renowned aeronautical engineers, were already beginning to make their mark in the world.

Airports in the area received a host of complaints about the low-flying plane, and Root and Wood narrowly escaped a run-in with the aviation commission before their careers had a chance to begin.

L. Eugene Root was born in Lewiston, Idaho, where his parents ran a candy store.

"My first clear memories, however, are of living in California (Modesto) where my father was an accountant," Root says. "We moved to Stockton in the 1920's, where Dad was business manager for the 47,000 acre Cantrell Ranch in the Delta region. Later he took a job with Rosensteel Printing Company, becoming a full partner in 1930.

"When it came time to enter college, in 1928, my savings from summer and after-school jobs, plus the limited resources of my family, were far from sufficient. Help from others made my undergraduate education at Pacific possible. First there was a one-year scholarship from the Rotary Club of Stockton, then a two-year scholarship from the Stockton Lions Club, and finally an athletic scholarship from COP.

"Additional resources came from a loan from a paper route customer, Harriet West Jackson, who also donated the infirmary to Pacific. I appreciated the loan, but was almost as appreciative of the infirmary since, as a running guard for the football

*continued*



# Pacific Review

Volume 13, Number 2, October 1978

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The *Pacific Review* is published by University of the Pacific, second-class postage paid, Stockton, California 95211, eight times a year, September through May, except January. It is designed to inform readers about the University, its people, and its events.

team, I spent part of nearly every week each fall getting after-game treatment there. It took us seven years to repay Mrs. Jackson's loan, and I remember her commenting at the time that this was one of the few loans she had made that was ever repaid."

Carlos Wood moved with his family from Hughson to Stockton in 1929, when he graduated from high school and enrolled in College of the Pacific.

"This was a difficult time for me," Wood says. "Studies were no problem, but I was living at home, and, having skipped a couple of years in school, I was much younger than the rest of the students. This made it difficult to become involved in campus activities."

"Eventually, I became involved with the Pacific Players, and, since I was majoring in Engineering, I became a stage electrician. DeMarcus Brown (then head of the drama department) did an awful lot for me. He opened up new worlds. I was very shy, but Marc Brown eventually conned me into doing things."

Root and Wood were outstanding engineering students. Since both knew that after graduation they wanted to go to California Institute of Technology, they worked particularly hard. Root carried 21 units each semester and narrowly missed being valedictorian. Kenneth Stocking received that honor.

But Root received other rewards. Tully C. Knoles, then president of Pacific, knew of Root's great interest in going to Cal Tech and made it a point to invite Dr. Robert Millikan, president of Cal Tech, as the commencement speaker that year.

"Following the ceremonies," Root recalls, "Dr. Knoles singled me out for an introduction and conversation with Dr. Millikan. It became clear that Dr. Millikan was acutely aware of the great future of aeronautical science, and this confirmed my own assessment of that field as a challenging career. My great dream to attend Cal Tech, with its newly formed Guggenheim Aeronautical Laboratory, became a reality."

Wood graduated from Pacific a year later, in 1933, with a major in engineering and minors in economics and English. He received all-college honors and graduated with high honors. He was 20 years old.

Wood entered Cal Tech that fall and joined Root in the Guggenheim Aero Laboratory.

Root received a Master of Science degree in mechanical engineering in 1933 and an M.S. in aeronautical engineering in 1934.

"The competition at Cal Tech was incredible, especially during the first year," Root says.

"Finally the group decided to work together on tough design projects instead of trying to outdo each other. This helped our individual survival."

Root planned to go on to earn a Ph.D. and continue his studies. However, unexpectedly, Authur E. Raymond, assistant chief engineer of Douglas Aircraft Company and instructor of the aircraft design course at Cal Tech, offered Root a job as an aerodynamicist.

"I hesitated changing my plans," Root says, "But Mr. Raymond pointed out that I could either stay at Cal Tech and earn a Ph.D. a year later, or I could take the job he offered and be the person to hire the Ph.D.'s the next year. It was a convincing argument made even stronger by the fact that I had hopes of marrying Miss Beryl Mount, COP '35. As a result, I left Cal Tech and joined the Douglas-Santa Monica plant as assistant chief aerodynamicist."

Root's first assignment involved him deeply in the flying qualities of the DC-2 air transport, the beginning of the famous DC models.

"It was a great airplane," Root says. "But there was one serious unresolved stability problem which made commercial passengers airsick. In rough air, the airplane demonstrated a good case of 'Dutch Roll Instability'—an oscillatory motion, involving directional and lateral instability. The final solution involved flight testing many hours, changing the wing dihedral angle, along with fin and rudder sizes and airfoil sections."

Root evolved a system of aerodynamic design of control surfaces which gave Douglas airplanes outstanding flying qualities, according to many military and commercial test pilots.

In the years that followed, Root would be involved in the configuration design of many Douglas aircraft, both military and commercial. In 1939 he was promoted to chief of the aerodynamics section of the Douglas-El Segundo plant.

Wood received an M.S. in mechanical engineering in 1934 and an M.S. in aeronautical engineering in 1935 and continued his studies until 1937 while working part time. In fact, he held three jobs at the same time while still a student: designer of the Aeroneer at Aero Engineering Corporation in Long Beach, a design consultant to Hughes Aircraft in Burbank, and chief engineer at National Aircraft in Alhambra.

In 1936 Wood married Madeline J. Walker, COP '36, and the next year he joined Douglas Aircraft Company in Santa Monica. By 1939, at the age of 26, Wood had several 40 and 50-year old engineers under his direction. In 1942 he was named chief preliminary design engineer at the Douglas-Santa Monica plant.

At about this same time another young man was beginning to make his mark on aviation.

Walter E. Fellers transferred to Pacific from Santa Rosa Junior College in 1938. His advisers had recommended that he apply to UC Berkeley and to Cal Tech. Three weeks before he was to begin studies at UC Berkeley, Fellers decided that the place for him was College of the Pacific, even though the College had a very small and limited engineering program.

"I wrote to Charles Gulich, head of the Engineering Department, and after he had reviewed my records he responded that Pacific was not that great in engineering and that I would be better off at Cal Tech," Fellers recalls.

"There are several reasons I wanted to come to Pacific. Then, as now, I strongly believe in getting a good general education first and then specializing. Cal Tech was pretty narrow as an undergraduate school. Also, my grandfather was a Methodist minister, and my father was very active in the church. I spent eight summers working at Methodist student camps and there I became acquainted with people like Tully Knoles, Lawton Harris and George Colliver.

"Another reason was that there was a football coach by the name of Stagg at Pacific at that time, and I wanted the experience of playing for him."

Fellers, like Root and Wood before him, was an excellent student. He knew he wanted to go to Cal Tech after graduation from Pacific and carefully planned his courses. He took every math course offered at the College. By the time he graduated he



Back from the deep: In addition to pioneering in aviation, Lockheed Missiles and Space Co., Inc., under Root's direction, developed advanced deep sea rescue systems.

Photo courtesy of Lockheed Missiles & Space Co., Inc.

had no deficiencies to make up when enrolling as a graduate student at Cal Tech.

"At that time," Fellers recalls, "Cal Tech had the only wind tunnel for testing new aircraft in the West, and it was used by every aircraft manufacturer west of the Mississippi. Since I worked in the wind tunnel as a graduate assistant, I was exposed to a great many different aircrafts and manufacturers."

In 1942 Fellers received a Master of Science degree in Aeronautics and joined North American Aviation. His first involvement was in the aerodynamic development of the P-51 Mustang, a famous World War II fighter plane.

The World War II years were exciting and challenging for the aircraft industry and for the three Pacific alumni. They were an integral part of the massive effort to develop an efficient and effective air force to turn back the German and Japanese forces.

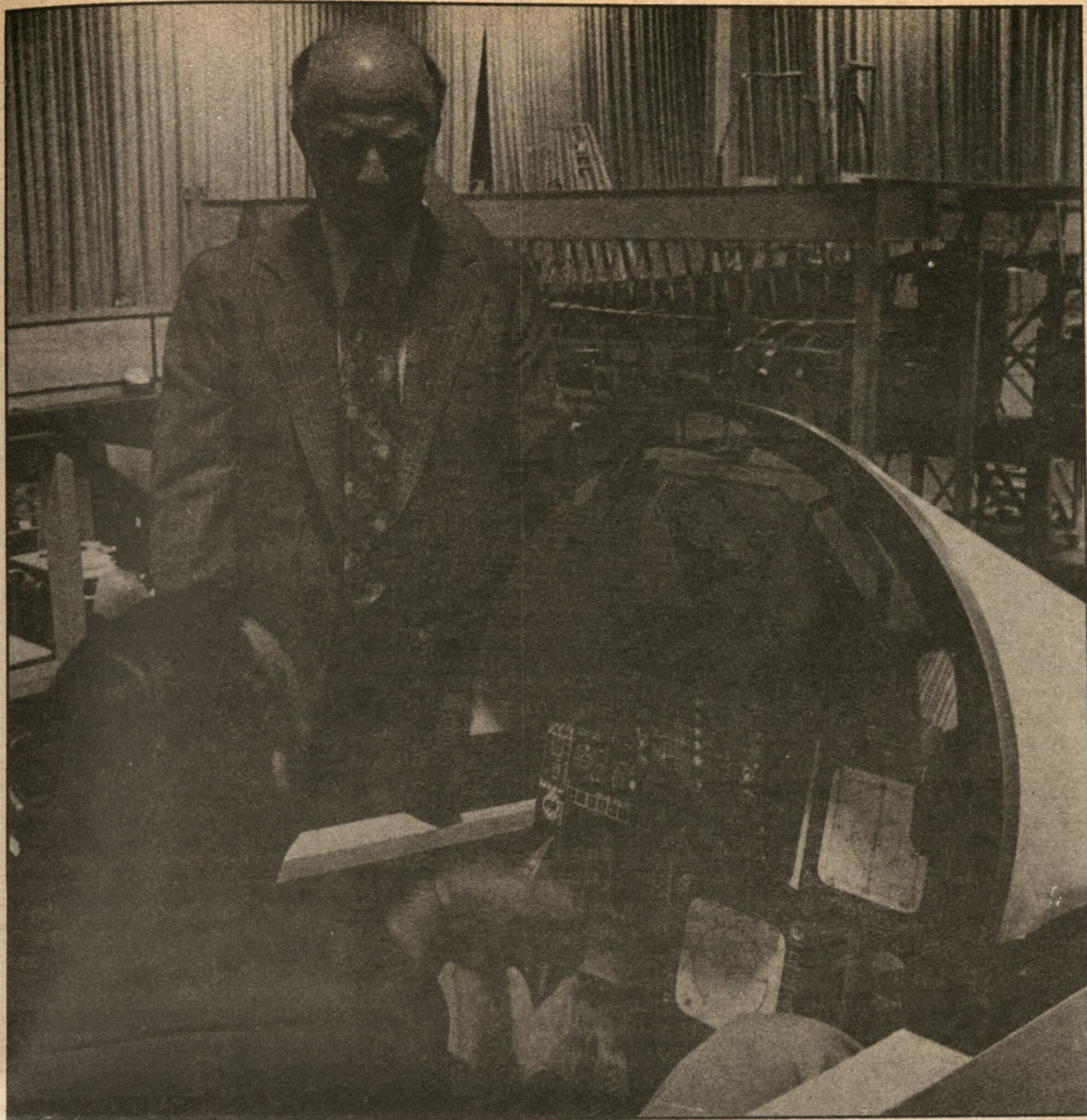
The plane that Root had made fly properly, the DC-3, became the workhorse cargo plane of the war, the C-47. Thousands were built and many of the sturdy aircraft are still flying today. Of course Root was working on other planes throughout the war, such as the Douglas Dauntless dive bomber, the largest plane of its time, the B-19 and the famous A-20 series.

"Overworked as we were to meet the unprecedented demands of the war effort, we still looked beyond the present to the seemingly unbreachable sonic (speed of sound) barrier," Root says.

By late 1944 the Air Force and the National Advisory Committee for Aeronautics, the predecessor of NASA, had launched the Bell Aircraft Company's X-1 rocket plane and the Douglas-El Segundo plant received a contract from the Navy for a research plane that would approach the speed of sound. Root was given the primary responsibility for the basic aerodynamic design of the plane, the D-558 Phase 1, known as the Skystreak.

Wood also was heavily involved with the war effort at Douglas. His work included the B-42





Walt Fellers' airplane: Fellers shows UOP Public Relations Director Doyle Minden a model cockpit of the YF-17, shown below in flight.

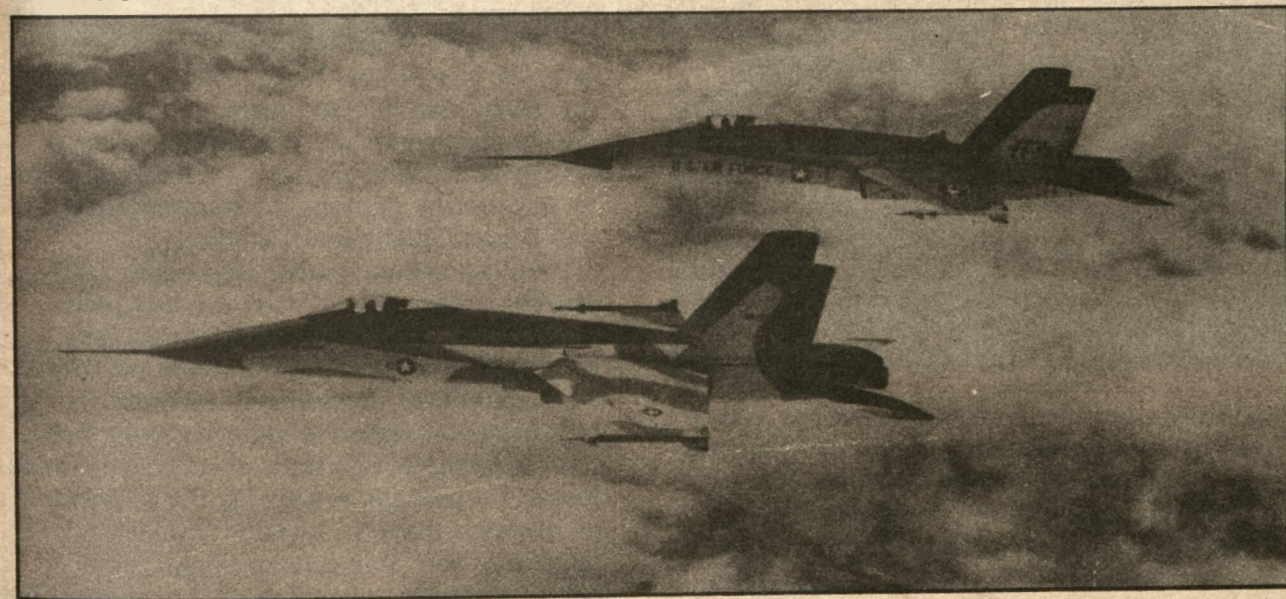


photo courtesy of Northrop Aviation

long-range bomber, the B-43 bomber and the X-3 research aircraft.

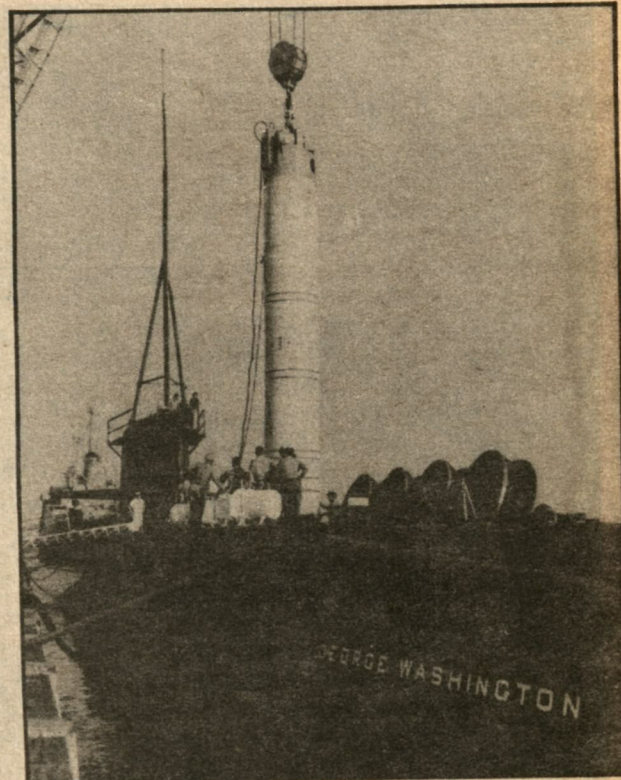
Meanwhile, at North American, Fellers, in addition to the P-51 Mustang fighter, was working on the development of low-speed wind tunnel operations and was in charge of the conceptual design for a tri-sonic wind tunnel that would test models at three times the speed of sound. He became project aerodynamicist on the B-45, the first jet bomber in the United States.

The end of World War II brought new challenges and new directions to each of the three alumni.

In the Spring of 1945 Root was asked by the U.S. Navy to join a mission to Germany to follow closely behind the advancing Allied forces and secure "every bit of advanced planning and technology as was humanly possible so it could be applied to the war effort against Japan."

"Our external competition in this mission was from other countries seeking the same data, particularly the USSR," Root says. "We were shocked, overwhelmed, and technically impressed by the data we uncovered. The Germans were actually about five years ahead of us in applying their advanced technology to their weapons systems. We were still trying to figure out how to fly at nine-tenths the speed of sound with the D-558 Phase 1 while they had already substantially exceeded the speed of sound. Hitler had ordered all basic information destroyed, but the Germans' pride in their work had slowed them from doing so."

The importance of the material found by the Allied teams was so substantial that the data was immediately taken back to the United States under Marine guard, and one member of the team, Dr. Clark B. Millikan (the son of the Cal Tech president), went back to convince the U.S. Navy and Air Force of its significance. The material,



Defense system: First Polaris missiles developed by Lockheed Missiles and Space Co., Inc., under Root's direction, are being loaded into a nuclear submarine

Photo courtesy of Lockheed Missiles & Space Co., Inc.

some 6,000 feet of 35mm film, was put into use even before it was translated.

"Quite a few engineers and scientists reluctantly learned technical German very fast," Root comments.

The impact of the findings led General "Hap" Arnold, commander of the Air Force, to form two groups to find ways to improve the country's Air Force. One was the Air Force Scientific Advisory Group, and the other was the creation of Project RAND through a contract with Douglas Aircraft in Santa Monica. Root was one of the initial six persons selected for the Project, and he headed the Airborne Vehicle Section.

"Our objective was to look 20 years into the future and make recommendations to the Air Force. The first Project RAND report was dated May 2, 1946, and was titled 'Preliminary Design for an Experimental World-Circling Spaceship.' The report pointed out that the United States had the technology to go ahead with satellites at that time.

"One of the difficulties at RAND was that the information we developed was so highly classified that few people were exposed to the data and we felt it was not being used adequately. I pointed this out at a staff meeting and as a result was named to act as liaison in Washington."

In 1948, Project RAND became RAND Corporation and was the first non-profit "think tank" in the country.

Root is especially proud of the fact that RAND helped develop in-flight refueling techniques which, after eight years of work, increased the range of the Strategic Air Command bombers by one-third.

Wood, meanwhile, continued his work at Douglas. By 1947 he was co-holder of the design

continued on page 18



## COMMENTARY

# Who needs reading, writing, or even thinking, anyway?



**W**ho needs reading, writing, or even thinking, anyway?

I like the quote attributed to Goethe at age seventy-one: "I have spent my lifetime learning to read." It reflects my philosophy, particularly when speaking about reading, writing, and thinking. These are skills that are not learned once for always at some time, approaching our teens, but which develop as we develop. This is the real message I find in the developmental psychologists like Piaget and Erikson; however, American Education has only begun to implement their concepts. All learning is a continuing process, and our educational institutions, particularly schools and colleges, need to reflect this opportunity.

Is it logical to assume that by the time a student has reached college he or she has acquired *all* the academic skills necessary for

rigorous academic work? Can't college be the place where students acquire and develop these necessary skills, then apply them in practical areas? Various educational theorists have suggested the probability of learning delays in even normal population groups. It should not surprise us as teachers (or parents) to find a considerable proportion of our adolescents and young adults achieving below expectations. Effective instruction, whatever that may be, must consider this, provide for it, and expect the essential growth and development.

Piaget's ideas have direct application to the reading-writing-thinking patterns of adolescents and adults and especially to those who have not developed their ability to handle concepts and abstractions at advanced levels. Piaget calls this the level of "formal operational thought." To list only a few: (1) These people are limited in their thoughts, their speech and their interpretation of what they read to the immediate present, to the "now." (2) They solve problems meticulously, resolving each situation, each issue and question one by one. They are not able to juggle multiple concepts at the same time. (3) They do not have an organized system of

observation, of thought, of speaking or of study, and cannot express complex relationships and inter-relationships. (4) Since their language is "now" oriented and more conducive to passive observations, they have not developed curiosity and analytic skills. Their thoughts are often characterized by rigid thinking patterns. (5) "Doing" or participatory experiences must become an essential part of instruction for those individuals limited to such "concrete" stages of thought in order to make the transition to the next level.

Applying developmental theory to the classroom can be rewarding, challenging and even fun. Why? Because Piaget and the others are talking about, among other matters, the affective domain, and they expect both the teacher and the student to enjoy the total learning experience. This does not imply "laissez faire" instruction, minimal requirements, or a lack of rigorous and often demanding content. Rather, it suggests that neither the secondary nor college teacher can assume that someone else will provide the necessary "real" experiences elsewhere in the curriculum. It suggests that the teacher of English or reading or business or economics or any other subject must include those experiences that facilitate the transfer of theory into practice.

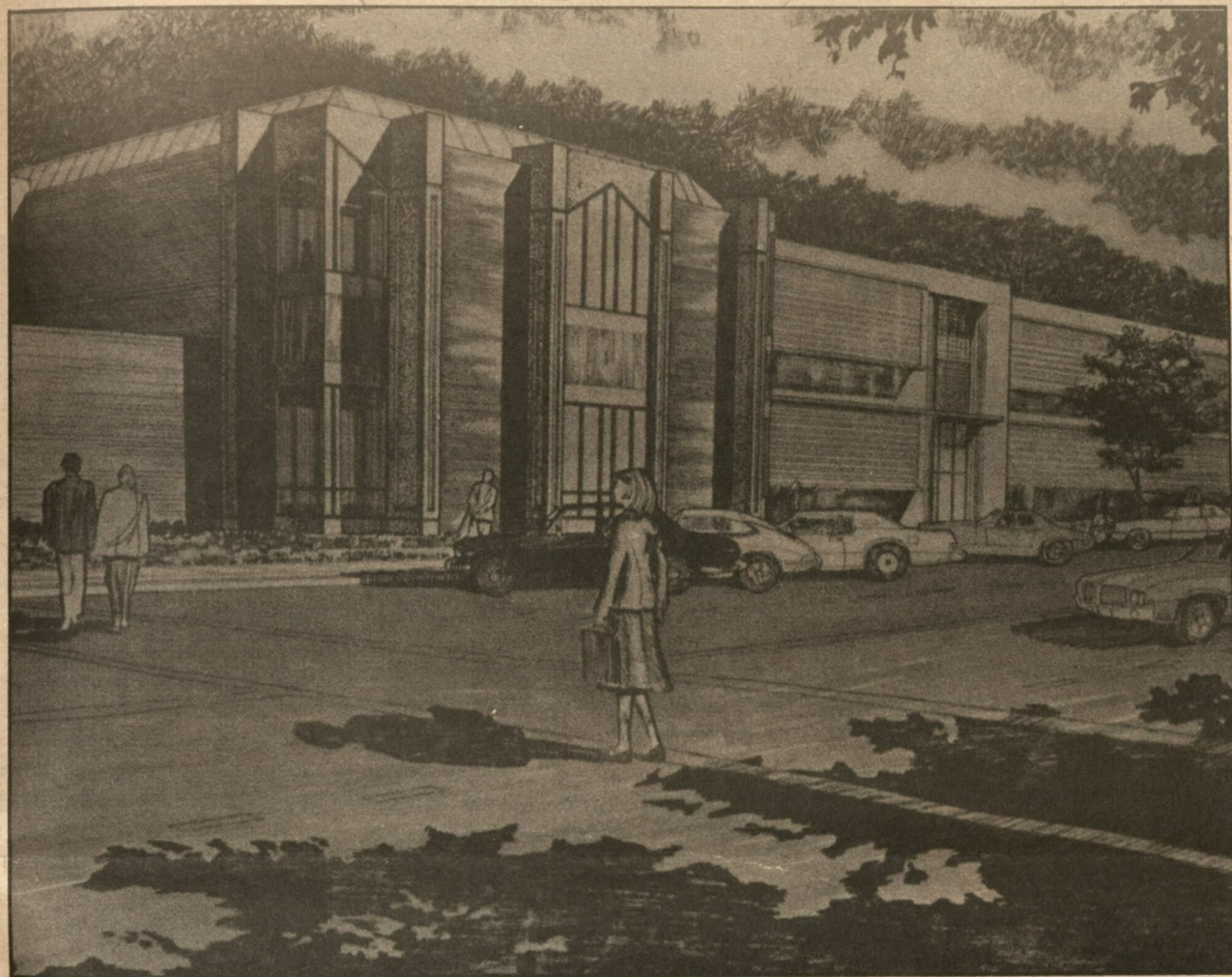
But how? Various groups have proposed time for internships, for a "walk-about year," for practicums related to occupational interests. Engineering, pharmacy and education students on our own campus utilize three differing patterns for blending theory into practice and there are others.

We can enhance such integration in the classroom even more. When we integrate reading skills with the organizational and analytical skills specific to our content areas, we facilitate the development of more advanced conceptual thought patterns. Such basic reading-writing skills as identifying main ideas of a passage, organizing the sequence of an author's thought, locating "hidden meanings" or "multiple meanings" of a term—these are only a few of the practical but essential reading and writing skills expected of the thinking, educated person in today's adult world. I believe college is the place where such skills are developed and expanded.

Who needs these skills? The thinking person—whoever he or she may be—needs more than a minimal level of competency in reading and writing in order to sort ideas and ideologies, fact and opinion, truth and falsehood. U.O.P.'s Learning Center is operating in the light of this need, realizing that all levels of thinking are valid, but hoping to help learners make the transition from their own levels to the next higher and more efficient thinking level.

*Vickie Sanders is director of the Learning Center at the University.*





*Architect's rendering of the planned Science Center*

## A NEW SCIENCE CENTER

Ground was broken Friday, September 8, marking the beginning of the development of a major science center at the University.

The start of the projected \$3 million development was made possible by a \$1 million grant from the James Irvine Foundation of San Francisco. The center will be located on the South Campus and will be formed by joining what is known as Faraday Hall and the Classroom Building into a single facility for biology, chemistry, physics, and other science programs.

The Irvine funds will be used to construct the building joining the two existing structures. This two-story addition will contain some 17,000 square feet and will house chemistry laboratories. The adjacent Faraday Hall already has been remodeled for use by the Physics Department, and a renovated portion of the Classroom Building is headquarters for the Biology and Mathematics Departments.

Commenting at the ground-breaking ceremonies, Kenneth Cuthbertson, administrative vice president of the Irvine Foundation, said, "This is a very effective and efficient opportunity for Pacific to move ahead in the support of the sciences."

He said the grant to UOP is one of the largest made by the Foundation and that the Foundation has become more selective in making awards. He described Pacific as "a fundamental part of the independent system of higher education."

"This grant," he said, "is to encourage you to meet the fund-raising problems that face all of independent higher education in California."

The development of the science center is the latest in a series of improvements that have been made since the property was acquired in 1974. Other renovations have provided new locations for the School of Education, Drama Department, the Long Theatre, and the Speech, Hearing, and Language Center.

The portion of the Science Center funded by the foundation grant is scheduled for completion by the Spring semester of 1980. Other renovations will proceed as funding becomes available.

—D. M.



A focal point in the year's calendar, Homecoming, November 11th, will be a day when all Pacificans, past and present, come together to watch the parade on Pacific Avenue and to cheer the Tigers in football against San Jose State. And it will be a special day for reunion classmates from the Classes of '28, '38 & '39, '48, '63 & '64, and '68 as they come together to celebrate their years at Pacific. The Committees have been at work since early last spring, planning the 50th reunion dinner at the Redwood Room, the Elkhorn Country Club dinner for the 40th, dinner and dancing at the Prime Rib Inn for the 30th anniversary of the Class of '48, Quail Lakes Athletic Club dining for the classes of '63 & '64, and the champagne brunch for the Class of '68.

Hazel Kelley McCuen's letter so accurately describes the initial misgivings and then the joys of the reunion this spring of Half Century members:

*Thank you for bringing together the Class of 1928 for its induction into the Half-Century Club. I found it a stimulating, heart-warming occasion. Although I didn't arrive until noon on Saturday, there was time for brief visits with almost everyone, because of the leisurely pace of the luncheon and of the tea in the afternoon. I was glad we were able to attend graduation recitals at the Conservatory that evening, for it was at Pacific that I learned to love classical music.*

*Regrettably, not everyone was there. Some who wanted to come were ill. I'm sure there were many reasons, including even downright indifference, perhaps. Some I have heard of feel they would be too unhappy to see their classmates as old men and women, preferring to remember them as they were. For those, let me say that when I see my classmates now, the way they were comes back more clearly than I would have thought possible. I hear a snatch of someone's speech, and also hear her talking fifty years ago. I see the back of a person's head, and that head fifty years younger comes into sharp focus. Even those whom I don't recognize at first gradually become, in my mind's eye, what they were then. In each case, I see two people, the young one and the old, both beautiful. . . I think it was the affection filling the rooms that gave me this miraculous double vision.*

*Of course we didn't all like each other equally well in those old days. Probably for most "the class" (which expanded conveniently, if illogically, to include some from other classes) wasn't so much a cherished second family as it was for me. None of us was happy all of the time. Everyone, I suppose, suffered from love—unrequited, or, at best, often disappointing and incomprehensible. Then there were the hurts inflicted on many by the sorority-fraternity system. Not to mention "real" academic and financial problems. But in spite of all distressing and divisive things, there really was a bond between us in that small school, so long ago, when we were so alive. I'm glad that for a few weeks those dear people, clearly outlined, will walk through my mind.*

*I am most appreciative that the University (or the parents club?) provided our luncheons and made it possible for us to meet during the afternoon in a home; and my thanks to the de Marcus Browns, who were there when we were, for their lovely home and friendliness.*

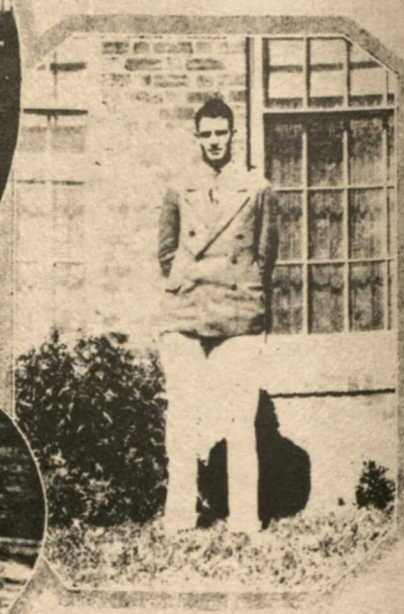
Sincerely,  
Hazel Kelley McCuen



## Homecoming 1978 November 11

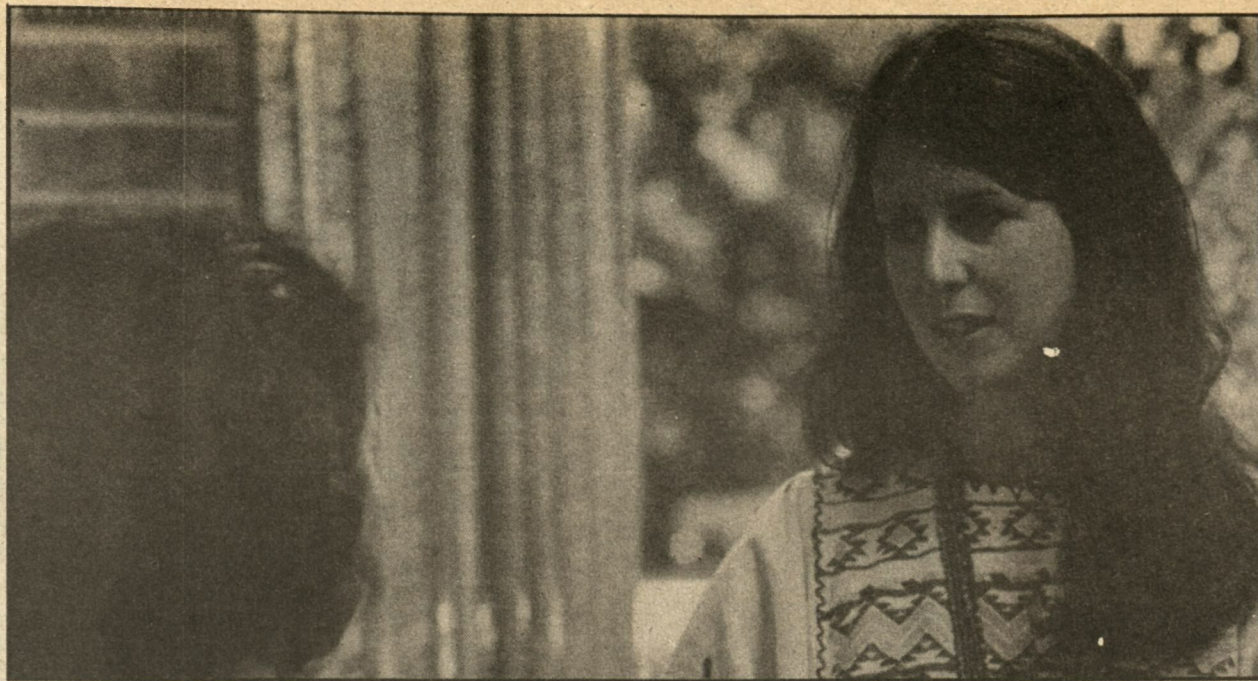
### See you there!

Carmen McRae, UOP Jazz Band	Friday, November 10, 8 p.m., Conservatory of Music
Past Presidents Breakfast	Saturday, November 11, 7 a.m., Regents' Dining Room (by invitation only)
Homecoming Parade	Saturday, November 11, 10 a.m., Pacific Avenue (Miracle Mile) to Stadium Drive
Investors Luncheon	Saturday, November 11, 11:30 a.m., Grace Covell Dining Hall, (by invitation only)
Class Reunions	Saturday, November 11; Class of '28, '38 and '39, '48, '63 and '64, and '68; contact Alumni Office for further information
Homecoming Football Game	Saturday, November 11, 2 p.m., Pacific Memorial Stadium, (UOP vs. San Jose State)
Post-Game Reception	Saturday, November 11, 4 p.m., President's home (in case of in- clement weather, reception will be in Gold Room, Anderson Hall.)



from the 1928 Naranjado, the student yearbook





## ANN HELM

### "You need to have a lot of energy..."

Ann Helm doesn't particularly like the term 'foreign student education.'

And for good reason.

"I prefer to think of it as international education because it is education of American students, too, not just foreign students."

This statement typifies Ann, who was recently named to the newly-created position of Director of International Services and Foreign Student Adviser at the University.

For she sees her job in a broader perspective than many people would associate with such a position.

"The only justification anywhere in the world for a foreign student program is that it lends to the total educational experience," she says in commenting on the value of foreign students for a university. "People expand their limits of imagination and question themselves in a liberal arts environment. Through association with people from different cultures they are exposed to new information, ideas, and perspectives. They learn to analyze themselves and the world around them in new ways. That is what it means to be educated."

For Ann Helm, this exposure started several years ago when she was an undergraduate student at Lewis and Clark College in Portland, Oregon.

She went to Japan for six months at the age of 19.

Everyone has a period in his or her life that helps to shape values and give guidance toward a career.

For Ann this was Japan.

"It was the most wonderful experience of my life," she exclaims with an infectious smile. "I felt like a sponge—just soaking up everything I could about the environment in every waking moment."

This was the first of several experiences abroad in which she would be involved during the next few years, and they would collectively increase her interest in a professional career in foreign student work.

Along the way she transferred to the University of Washington, where she earned a B.A. degree in far eastern studies and anthropology.

"I thought about working with the Americans abroad program and that aspect of international education and international exchange." She was interested in learning about people and developed an interest in Asian folk craft to facilitate learning more about the residents of foreign lands. "The folk craft really aided the foreign experience because it provided a thrust to my overseas

stay. I even toyed with the idea of opening an Asian folk craft store when I returned home to Oregon."

These plans never materialized, but when she did return to the U.S. after having lived for four years in Japan and Southeast Asia she experienced what many foreign students encounter—the feeling of being a foreigner in a strange, new land. "By that time I was almost a foreign student because I had been out of the country for so long. This feeling is very important to have experienced when relating to foreign students in a similar situation."

She had earned an M.A. degree from Columbia University and, with foreign student advising positions at Eastern Oregon State College and the University of Iowa, has compiled 13 years' experience in this general field as a student, teacher and administrator.

The new UOP official has a desire to work with people and provide needed services, two characteristics that are virtual prerequisites for her current position. Also helpful, Ann said, has been the travel, academic background in anthropology, and ability to think logically.

And she gained this last virtue at an early age:

The Helm family would gather after dinner for "mandatory conversations" on a variety of topics. With her father being a lawyer and her mother having survived some bitter times in New York City during the depression, there was much to gain for Ann in these formative years.

"We would talk a lot about civil rights, the depression, life in New York and current events. My dad, often to my consternation, demanded logic in such discussions," she chuckles, "and this helped me learn to think rationally and independently."

But this isn't all it takes to be effective as a foreign student adviser.

"One of the problems of our profession is that there is no standard job description. But the ability to relate to being foreign—speaking a language that is not your native tongue (she speaks Japanese and 'survival' Spanish)—and being aware of the variety of cultures in the

world gives you a sensitivity to people and things around you."

Ann's concern for the student comes through clearly when she interrupts the interview twice to assist a student filling out some mandatory forms.

She also radiates a tremendous amount of enthusiasm for her job.

"You need to have a lot of energy, imagination, and be interested in people. I'm an eternal optimist—and this may sound corny—but you need to believe that people are good. They are trying to do the best they can and you can help them be dedicated to their fields."

She had a variety of both professional and personal reasons for accepting the position here. These included the friendliness of the people she talked to when interviewing for the position and the receptivity of the UOP students, faculty, and administrators toward the foreign student program. "It is nice to not have to struggle to show people the program has validity and is important to the institution," she said.

"Pacific has two tremendous international education programs through Raymond-Callison College and Elbert Covell College, and the opportunity to create a foreign student program in this environment is exciting.

Her job responsibilities involve a multitude of tasks and assignments. Included are the areas of admissions, orientation, housing, immigration, advising, personal counseling, student activities, and community programs.

"I want to provide the support and services necessary to allow the foreign students to achieve their potential at University of the Pacific," she explains, "as they need special services because of their situation. I also want the University to benefit by taking full advantage of having these students on campus. This is best achieved by helping these students implement their ideas and programs, such as the International Festival."

She said other activities that are being considered include an international classroom program where the foreign students visit area public schools to discuss their homelands, a series of foreign films that could be followed by discussion sessions, and special educational programs geared to the needs of the students, faculty, and/or the community.

"People from different cultural backgrounds bring bodies of knowledge here that are not available in a North American climate. To relate this to the inherent benefits of a private college like Pacific certainly is beneficial to all concerned," she concludes.

—R.D.



## "Never lose that crucial contact with people..."

"I had 275 hours of internship, but when I went to the hospital I felt like I knew nothing!"

Rosetta Cirelli is talking about her experience in the School of Pharmacy externship program, which she completed at the end of August. The nearly 300 hours she had already completed through an internship—work experience not directly arranged through the School—had apparently proven considerably different from her externship at Dameron Hospital.

"I had to be trained to the much more rigorous work at the hospital."

Prospective pharmacists in California are required not only to pass a state examination before being issued a license to practice, but must log 1500 hours of work experience. The School of Pharmacy at University of the Pacific provides the future pharmacist with some 600 hours toward the state requirement. Doctor of Pharmacy students may earn an additional 500 hours while in the School program.

Yet after all of that, as many as 400 working hours may remain to be acquired, which students often fulfill in the first several months of employment following graduation.

Rose Cirelli plans to graduate from the School of Pharmacy in December of 1979. She has been working in internship situations throughout her School career.

The School of Pharmacy externship program is a four-month, full-time, 40-hour week for pharmacy students. Each student signs up for three potential sites at which they would like to serve their externship. Sites are available throughout the State of California, and final placement is on a competitive basis. Only a certain number of positions are available within each area. Thus, while pharmacy students are guaranteed placement in the program, they are not guaranteed that placement in a site of their choice.

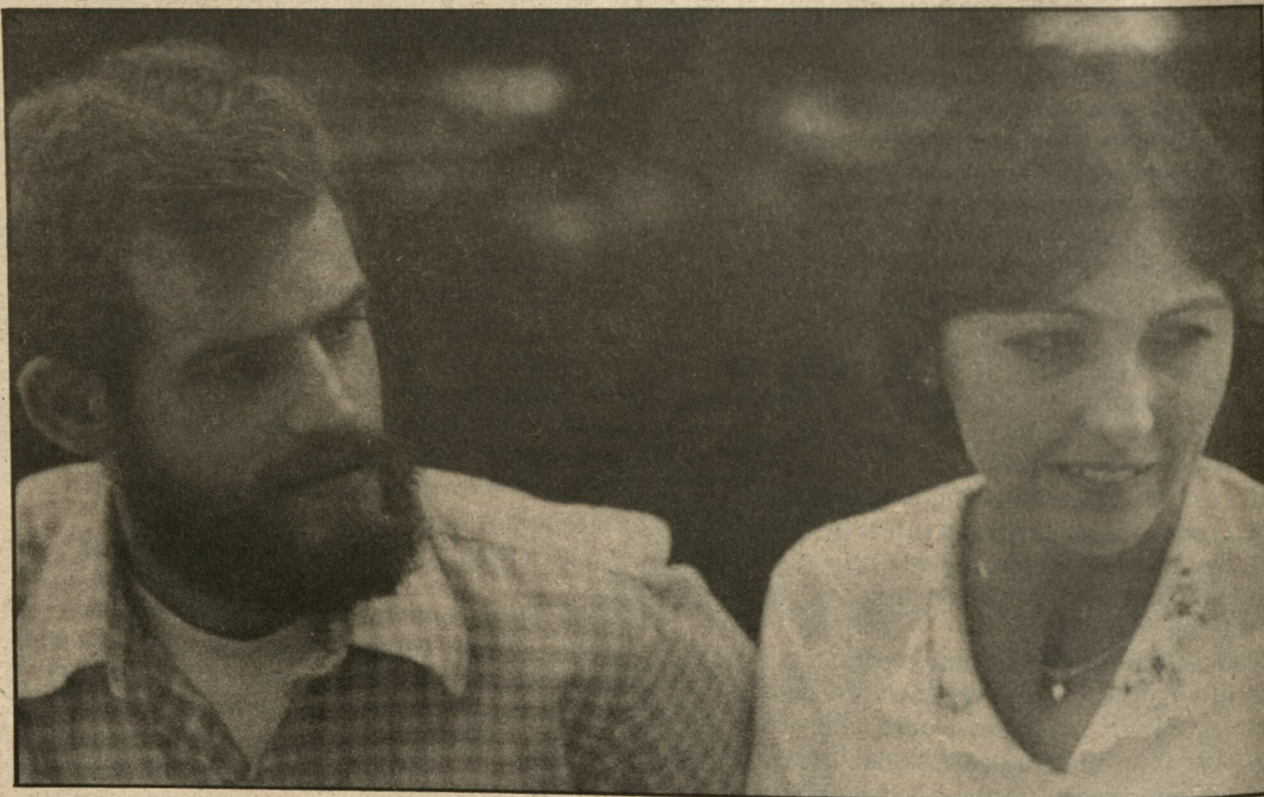
Rose indicates that the competition for local externship sites is keen. Many students prefer to remain in the area, rather than shoulder the extra headaches of relocating. She was one of those selected for a local site, in the hospital pharmacy at Stockton's Dameron Hospital. Having worked in community pharmacy situations, she had sought the new experience of a hospital.

At Dameron, she gained a lot of that experience. Her duties included making intravenous add mixtures, preparing total parenteral nutrition diet solutions, preparing and delivering narcotics to the hospital floors, maintaining i-v bottles on each floor, filling in-patient prescriptions. . . "and a whole lot of paperwork." Each step of her work had to be checked by a preceptor, who was also responsible for her work.

"There is still much more I want to do," says Rose. "I try to do everything." She indicates her desire to gain as much experience in as many areas of pharmacy as she can. Industrial pharmacy is another aspect of the field that she would like to experience, but that opportunity is no longer available.



*Rosetta Cirelli: Intravenous mixtures, nutrition solutions, and patient prescriptions. . .but the people come first*



*Joi and David Grabenauer: Helping people help themselves through the local ostomy club they created*

"There was a Food and Drug Administration externship at one time, but government and industry externships are no longer recognized by the state board."

Rose is explicit in her conviction that pharmacists must not lose sight of their patients. She expressed displeasure with people who pursue the science as an avenue to financial wealth. "We

do get paid well," she says, referring to the professional pharmacist. "But the pharmacist must never lose that crucial contact with people as human beings."

Two other pharmacy students who completed their externships when Rose did are doing just that, carrying on direct patient contact.

Joi and David Grabenauer will hold the first meeting of what they hope will become regular meetings of a local ostomy club on October 18.



# THE STATE OF THE UNIVERSITY

The project grew as a result of their externship experiences. David worked in a local pharmacy that is the only area distributor of ostomy supplies, and Joi worked in the Dameron Hospital pharmacy, on alternate shifts with Rose Cirelli.

An ostomy is an operation for intestinal removal, often referred to as a bypass operation. The most common cause for an ostomy is cancer of the colon. The rectum of an ostomy patient, or ostomat, is no longer in use. Bodily wastes are discharged through a surgically created opening, called a stoma, at a point on the body depending on the amount of the patient's intestinal tract removed.

Joi and David say that they have planned an ostomy club in an effort to overcome the single largest problem faced by ostomats—psychological support. An ostomat is required to devote considerable personal care and attention to himself or herself. Extensive equipment is necessary. Ostomats must maintain special bags, sanitized and deodorized, at the stoma, for the discharge of wastes. This discharge is most often beyond their control.

While ostomies have been common operations for many years, it is only very recently that ostomats have, in effect, come out of hiding. Many have gathered in clubs, learning that they are by no means alone. Information is exchanged about the latest supplies, and about how other ostomats have grappled with their situations following the operation, and have gone on to lead fully normal lives.

This initial invaluable contact among people is what the Grabenauers hope to achieve through the formation of a local ostomy club. The project is co-sponsored by Dameron Hospital and the American Cancer Society. Once the club becomes a reality, the Grabenauers will no longer participate in it—ACS guidelines stress that clubs should be run by ostomats. There is a national organization, even a journal for members.

Area surgeons and specialists are scheduled to address the club. David remarked that there is one chemist he knows of, an ostomat himself, who hopes to speak with club members and share his own methods for making the continual care an ostomat must render quicker and easier. The chemist's message is face the reality and learn how to handle it, rather than being controlled by it.

The Grabenauers also mentioned that it is now possible for people to check for colon cancer on their own, with the aid of a kit called a hemacult screening. It is normally available without charge at pharmacies.

The experiences that David and Joi Grabenauer have acquired as a result of the School of Pharmacy externship program have heightened interest in continuing to apply their knowledge in some manner of public information service or, perhaps, teaching. Later, they say, they might like to own their own business together.

Rose Cirelli and David and Joi Grabenauer—and there are certainly others—are strong testimonials to the value of the pharmacy externship program.

—C.S.

The "State of the University" may be steady, but it also is very solid, according to a report to the University community made by President Stanley E. McCaffrey at the fifth annual President's All-University Convocation at the start of the school year.

Many areas of the University continue to show considerable strength, according to McCaffrey's report. Enrollment in the new School of Business and Public Administration, for example, is up by about 50 students, and in the College of the Pacific the number of confirmed applications increased from 506 last year to 555 this fall. Enrollment in Pharmacy and Engineering has reached capacity and remains stable in the Conservatory of Music and the School of Education. Graduate student enrollment also remains stable, in spite of the University not accepting additional students in the Marine Science and Learning Disabilities programs.

McCaffrey reported that new student enrollment figures were very promising, even though the numbers of prospective students are declining and the competition for students is increasing.

"A heartening feature with respect to our enrollment," McCaffrey said, "is that we have more new freshmen on the campus in Stockton this year than we have had in any of the preceding four years. There are 750 freshmen this fall compared with 710 last year."

The President reported a slight decline in enrollment last year which made necessary special economies. At the same time, he said, the University was able to complete the past fiscal year with a balanced budget without having to cut back in programs in ways that would lessen their quality.

McCaffrey also reported on several new developments, including a cooperative education program in the liberal arts colleges, a realignment of the Community Involvement Program with the School of Education, and the expansion of services to the more than 300 foreign students from some 60 nations now attending Pacific.

"The new co-op program is made possible by a grant from the U.S. Office of Education and will enable us to develop work-study and co-op opportunities for students in the liberal arts somewhat similar to those which are an integral part of the engineering program," McCaffrey said. Jim Godfrey, formerly director of the engineering co-op program and director of the Western Center for Cooperative Education, heads the new program.

McCaffrey also announced the appointment of Dr. John Jones as director of the 10-year-old Community Involvement Program. He was selected after a nationwide search. The program was moved to the School of Education following extensive study by a faculty, student, and community committee.

McCaffrey announced three new steps to strengthen programs for foreign students:

1. Establishment of an Intensive English Program within Elbert Covell College to attract foreign students who do not have a complete command of English.

2. Appointment of a new, full-time director of international services and foreign student adviser. Ann Helm, formerly at the University of Iowa, has been named to this position.

3. Appointment of Gary Hoover, associate dean of admissions, as director of foreign student admissions.

McCaffrey pointed out areas in which particularly difficult decisions had to be made during the past year as a result of financial pressures and changing interests of students.

"A very difficult decision which culminated over five years' consideration was made this year to phase out the operations of the Pacific Marine Station. It was painful for all involved, but I feel sure it was a proper decision which is being implemented with fairness to faculty and students directly involved, as well as all concerned," McCaffrey said.

A second major decision during the past year was the merging of Raymond and Callison Colleges, according to McCaffrey. This decision was made after an extensive review of the colleges by faculty, students and administration.

"Raymond-Callison continues to face problems, McCaffrey said. "Its enrollment has dropped and is at a low point. However, I believe there is a basic value in the unique international-intercultural program which the college offers and we intend to devote concerted effort to maintaining the special values and the educational diversity which has been developed through Raymond-Callison College."

Recognizing that Elbert Covell College also is facing enrollment problems, McCaffrey announced the reactivation of a Cluster College Committee "to make intensive studies of both Raymond-Callison and Elbert Covell Colleges to assure the maintenance of their special values within the total educational and financial needs of the University.

"We are not making this study in any way which should be threatening to these colleges but rather are facing their situations realistically and with the desire of making it possible that their programs be continued in the most effective ways possible," McCaffrey said.

The final portion of McCaffrey's report dealt with developments of a campaign to raise some \$30 million for the University during the next three to five years.

"This is by far the largest goal of any campaign in this University's history," he said. "We have raised some \$6.5 million in less than one year's time, and a significant portion of this has come from contributions of the Board of Regents who have participated 100 percent in making pledges and contributions."

Earlier in the day, announcement was made of a \$1 million gift from the James Irvine Foundation to begin work on the development of a Pacific Science Center.

—D.M.



# The Pacific Arts Woodwind Quintet



*George Nemeth*

They've been practicing and performing together for several years, and they've made it—as far as Tucson. Well, the story isn't quite like that.

"They" are William Dominik, clarinet, George Nemeth, French horn, Donald DaGrade, bassoon, Carol van Bronkhorst, flute, and Neil Tatman, oboe—the Pacific Arts Woodwind Quintet. These five musicians, all Conservatory of Music faculty members, are entering their fourth year as a quintet. But the woodwind quintet story goes back to 1970.

According to Dominik, a Conservatory faculty member since 1967, then-Conservatory Dean W. Preston Stedman had the idea of bringing in resident artists to the faculty. An additional benefit of acquiring such expertise would be the stimulation to form faculty ensembles. At the time Dominik was the only available woodwind.

In 1970, Nemeth and DaGrade joined the music faculty, teaming with Dominik to form the original nucleus of the Quintet.

Dominik holds the Bachelor of Music degree from Michigan State University, and Master and Doctor of Music degrees from the University of Southern California. His teachers include Clark Brody, Robert Marcellus, Kalman Bloch, Joseph Siniscalchi, and Keith Stein.

Nemeth has played five years with the Rochester Philharmonic Orchestra. He holds the Bachelor of Music and Master of Arts degrees from the Eastman School of Music, the Ph.D. from Stanford, and a performer's



*The Pacific Arts Woodwind Quintet*



*Carol van Bronkhorst, Neil Tatman*

certificate for the French horn. He is currently principal French horn with the Stockton Symphony.

Don DaGrade earned his Bachelor of Music degree from Brigham Young University, and his Master and Doctor of Music degrees from Indiana University. He was principal bassoonist for the Indiana University Philharmonic Orchestra and is currently with the Sacramento Symphony Orchestra.

The arrivals of Carol van Bronkhorst in 1973 and Neil Tatman in 1975 complete the current Quintet.

Van Bronkhorst studied with Joseph Mariano at the Eastman School of Music, with Julius Baker, with James Pellerite, and with James Galway in England, where she also participated in a master class in the summer of 1977.

Tatman earned his Bachelor of Music degree at Lawrence University and the Master of Music from Indiana University, where he is





Donald DaGrade, William Dominik

works to perform with that house band.

Repertoire material is not a problem for quintets these days. But that, apparently, is a relatively late development.

Historically, says Nemeth, quintets got started as a legitimate performing ensemble in Paris around the late eighteenth century. The first music written specifically for the quintet has been attributed to the composer Cambini, also dating from this period. Yet even after horn players found their way into what had previously been quartets, says Nemeth, the quintet languished for over a century. Very little music for quintets was written by major composers such as Bach or Mozart.

The situation has changed. There is a resurgence of interest in quintets today. And some of the best twentieth century writing, says Dominik, has been for quintets. Stanworth Beckler, the Conservatory's resident composer and chairman of the theory-composition department, has provided two original works for the Quintet. And the noted contemporary Portuguese composer Fernando Lopes-Graca dedicated one of his recent works to the Quintet.

While quintets are more numerous today, most are affiliated with universities or larger musical consorts. Nemeth could not think of a single professional quintet, making it by performing alone.

Organizing a quintet creates some special problems. In fact, the major problem, according to Dominik, is that "the instruments are not really that homogeneous." Nemeth adds that the instruments require different intonation, different attack, and release of notes. Yet this special problem is, at the same time, a special advantage:

The voices of the woodwind quintet are quite distinct. This permits audiences to appreciate the various instruments simultaneously, and, says DaGrade, permits contrapuntal writing, where two or more relatively independent melodies are sounded together. The woodwind quintet is thus accessible as a cohesive unit and as five individual instruments, simultaneously.

The Pacific Arts Woodwind Quintet usually plans its schedule of concerts and clinics for any academic year during the previous spring. This year, they have committed themselves to a slightly easier schedule than last year's when, says Nemeth, "we really worked ourselves hard."

Last year's itinerary called them to such places as Stanford and Salinas, and to such events as the California Music Educators Association Convention in San Diego, and the Music Educators National Conference in Hayward. This year, the University of the Pacific community had their first opportunity to hear the Quintet October 2 in the Conservatory.

The lighter schedule this year "really won't bother us at all," claims Nemeth.

And with that comment, the five took up their instruments for another hour of rehearsal.

—C.S.

currently a doctoral student. He has been principal oboe in the Indiana University Orchestra, the Evansville, Indiana, Symphony and has appeared as soloist with the Fox Valley, Wisconsin, Lawrence University, and Bloomington, Indiana, symphonies.

"We basically do three things," says Dominik. "We play schools, where we give concerts and clinics; we perform regular evening concerts and series; and we perform special events, such as the California Music Educators Association convention."

"We've gone as far as Tucson!" jokes Nemeth.

The school concert-clinic format is more informal than the evening concert. The Quintet normally performs for 30 to 45 minutes, then concerts may consist of four or five complete works from different periods. When performing in situations involving resident orchestras or bands the Quintet often selects



# UOP Today

## Grant Awarded For Co-op Education

A federal grant of \$55,343 has been awarded to University of the Pacific to finance operations of the Western Center for Cooperative Education here.

James T. Godfrey, director of the program, said this is the third year that the U.S. Office of Education has awarded funds to UOP for the Center.

The Center covers an area of 15 Western states where more than 150 cooperative education programs are in existence. A main purpose of the grant is to help train personnel to administer co-op programs, which involve college students alternating periods of classroom instruction with on-the-job experience in a profession.

Godfrey, who has a national reputation and 16 years experience in co-op education, was in the news recently when UOP received a \$65,000 federal grant to expand co-op studies here into the liberal arts. He will direct that program on a half-time basis and spend the rest of his time as director of the Center.

The current grant to the Center will finance several workshops and institutes, including a two-day institute in San Francisco, three one-day employer conferences throughout the year, a workshop for community college co-op administrators, a two-day workshop on the philosophy and techniques of co-op programs, and several one-day articulation sessions throughout Northern California.

## Assistant Dean Named At Raymond-Callison

Dr. James M. Shebl has been named assistant dean of Raymond-Callison College.

Shebl, previously an assistant to the academic vice president at UOP, has taught literature courses since 1969 at the University. In recent years he has taught at Raymond-Callison College, which emphasizes international, intercultural, and interdisciplinary studies.

He also serves the University as associate director of the Holt-Atherton Pacific Center for Western Studies. These duties will continue with his new assignment.

Shebl has a B.A. degree from Creighton University, an M.A. degree from the University of Nebraska, and a doctorate from UOP.



## Dave Brubeck To Perform

Dave Brubeck '42, internationally acclaimed jazz musician, will perform with students and faculty of the Conservatory of Music in two performances at 8:15 p.m. on December 8 and 9 in the Conservatory Auditorium.

The program will be the final in a series conducted during 1978 in observance of the 100th anniversary of the Conservatory. Proceeds will go to support of Conservatory scholarships.

Included in the performance will be the West Coast premiere of Brubeck's Christmas cantata, "La Fiesta de la Posada," which will be performed with the choir and orchestra. The first half of the program will feature Brubeck playing piano with the Jazz Band, a trio and the Conservatory orchestra.

Works to be included in the opening half are "Happy Anniversary," three excerpts from Brubeck's "A Light in the Wilderness," a medley of Ellington tunes arranged by Brubeck and titled "The Duke," a composition by Brubeck's brother, Howard, titled "Theme for June," and another Brubeck tune, "Out of the Way of the People."

Tickets for the concert are available from the Conservatory.

## UOP Receives Grant From Kresge Foundation

The Kresge Foundation of Troy, Michigan, has awarded a \$100,000 "challenge grant" to the University to stimulate fund raising for completion of renovation of the former Print/Carpentry Shop

Building on the University's South Campus.

In announcing the award, University officials noted that, in order to qualify for the grant, the balance of funds must be raised toward the project from alumni, parents, foundations, and other friends by mid-December of this year.

One of nine buildings secured as part of the 1974 purchase by UOP of the former campus of Delta Community College, the Print/Carpentry Shop Building is already under renovation to serve as a Psychology-Communicative Disorders Teaching/Research Center. A grant from the William G. Irwin Foundation of San Francisco has allowed for one portion of the building to be renovated for use by the Department of Communicative Disorders, and the Kresge "challenge grant" is tied to that portion of the structure to be occupied by the Department of Psychology.

"We are delighted that the Kresge Foundation has elected to join us in this exciting and soon-to-be-completed project," said President Stanley E. McCaffrey in announcing the award. He added, "The 'Kresge Challenge' will provide an important stimulus to assist with the final phase of this undertaking. We are confident that the many friends of Pacific will demonstrate their appreciation as well, by joining to meet the terms of the challenge within the time frame stipulated by the foundation."

Since the foundation was formed in 1924, appropriations of more than \$311 million have been made to institutions in the areas of higher education, health services, the arts, social welfare, and the care of the young and old. The Kresge Foundation was created solely by the personal gifts of the late Sebastian S. Kresge and is not affiliated or associated with any other corporation or organization.

## Carmen McRae In Concert

Famed jazz and popular singer Carmen McRae is scheduled to appear in concert Friday, November 10, in the Conservatory Auditorium, as University of the Pacific opens its Homecoming weekend.

The program begins at 8 p.m. with music performed by the UOP Jazz Band, according to band leader Tony Kissane. The Jazz Band will play music from the libraries of Count Basie, Woody Herman, and Chuck Mangione.

Carmen McRae follows the Jazz Band, singing and backed up by her own trio. She is also scheduled to perform some numbers to accompaniment of the Jazz Band.

The first event of UOP's Homecoming Weekend is sponsored by ASUOP and COPA. Admission is \$1.50 for ASUOP members, \$5.00 for all others.

## Too Many Lawyers? Not From McGeorge!

There is a lot of talk these days about there being "too many lawyers," about unemployed law graduates being cranked out only to pound the pavements seeking work. However, national statistics and, in particular, the statistics at UOP's McGeorge School of Law in Sacramento say otherwise.

A McGeorge employment report shows that 96 percent of eligible 1977 graduates were employed in law-related positions by April of this year. Totals for 1976 and 1975 were 97 and 96 percent, respectively. McGeorge's figures outrank the national statistics, as indicated by a recent report of the National Association for Law Placement (NALP). That report showed 93 percent of the law school graduates approved by the American Bar Association were employed in law-related jobs within six months after graduation.

Gordon Schaber, dean of the law school, commented that the "McGeorge rate is a most gratifying indication of the qualifications of our graduates."

Dr. Nick LaPlaca, McGeorge assistant dean and president-elect of NALP, added that the national figures shatter the misconception that there are large numbers of unemployed law graduates. LaPlaca also pointed out the versatility of the law degree, as indicated by the



school's report: 56 percent of McGeorge graduates were employed in private practice, while 44 percent were divided among such areas as government, judicial clerkships, business concerns, indigent services, the military, and the academic sector.



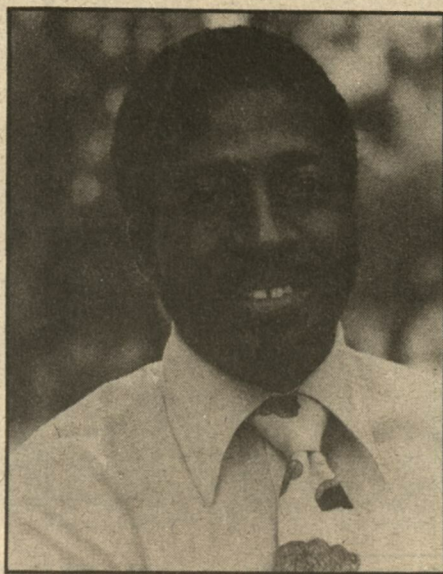
## Two Admissions Counselors Named

Two recent UOP graduates have been named admissions counselors at the University.

David V. Summers of Paradise and Mary E. McFarland of Fullerton were selected for the positions, according to an announcement from E. Leslie Medford Jr., dean of admissions.

Summers received a B.A. degree from Pacific last May in religious studies and sociology. He received President's Honors at Entrance when he enrolled here, belonged to the Phi Kappa Phi national honor society, was selected as the outstanding senior in the social sciences, and graduated cum laude.

McFarland also graduated from Pacific last May, and she received a B.A. degree in communication arts. She has an Associate of Arts degree from Santa Rosa Junior College and also attended Fullerton Community College, where she was named to the dean's honor list and was a member of an academic honor society.



## CIP Director Named

Dr. John R. Jones of Jefferson City, Missouri, has been named director of the Community Involvement Program and an assistant professor of education at the University.

Jones was recommended by a committee of community representatives and UOP faculty, students, and administrators to head CIP. He will direct a program that allows financially needy students from the Stockton area to attend Pacific. Approximately 150 students are enrolled in the program, which involves considerable tutorial assistance and counseling.

Jones comes to UOP after seven years in various administrative positions at Lincoln University in Jefferson City. He was director of student special services for two years, associate director of the Trio Program—involving Talent Search, Upward Bound, and Student Special Services—for one year and director of this program, which is similar to CIP, for the past four years.

Jones holds a B.A. degree from Shaw University in North Carolina, an M.S. degree from Tennessee State University, and a doctorate from the University of Missouri.

# AT UOP

## THE ARTS

**"One on One"** at the University Center Theatre, October 20, at 6 & 9 p.m., October 21 & 22 at 3, 6 & 9 p.m. Sponsored by ASUOP.

**Resident Artist Series**, Carol van Bronkhorst, flute, at the Conservatory, Friday, October 20, at 8:15 p.m.

**Resident Artist Series**, Shirley Dominik, flute, at the Conservatory, Monday, October 23, at 8:15 p.m.

**University Symphony Orchestra**, at the Conservatory, Tuesday, October 24, at 8:15 p.m.

**"Kwaidan"** at the University Center Theatre, Tuesday, October 24, 7:30 & 10 p.m. Sponsored by University Center Programs Council Film Committee.

**"Lord of the Flies"** at the University Center Theatre, Wednesday, October 24, 7:30 & 10 p.m. Sponsored by University Center Programs Council Film Committee.

**"Rocky Horror Picture"** at the University Center Theatre, October 27, at 6 & 9 p.m. October 28 & 29, at 3, 6 & 9 p.m. Sponsored by ASUOP.

**Phi Mu Alpha Recitals** at the Conservatory of Music, Friday, October 27, at 7 p.m.

**Resident Artist Series**, Sierra String Quartet, at the Conservatory, Monday, October 30, at 8:15 p.m.

**Resident Artist Series**, Dale Fjerstad, trumpet, at the Conservatory, Tuesday, October 31, at 8:15 p.m.

**"Last Year at Marienbad"** at the University Center Theatre, Wednesday, November 1, 7:30 & 10 p.m. Sponsored by University Center Programs Council Film Committee.

**"Young Frankenstein"** at the University Center Theatre, November 3, at 6 & 9 p.m. November 4 & 5 at 3, 6 & 9 p.m. Sponsored by ASUOP.

**A Cappella Choir** and Women's Chorus at the Conservatory, Tuesday, November 7, at 8:15 p.m.

**"W.R.: Mysteries of the ORG"** at the University Center Theatre, Tuesday, November 7, 7:30 & 10 p.m. Sponsored by University Center Programs Council Film Committee.

**"Turning Point"** at the University Center Theatre, November 10, at 6 & 9 p.m., November 11 & 12, at 3, 6 & 9 p.m. Sponsored by ASUOP.

**"Fantastic Planet"** at the University Center Theatre, Wednesday, November 8, 7:30 & 10 p.m. Sponsored by University Center Programs Council Film Committee.

**Carmen McRae, Jazz Band** at the Conservatory, Friday, November 10, 8:15 p.m.

**Resident Artist Series** at the Conservatory, William Dominik and Don DaGrade, clarinet and basson, Tuesday, November 14, 8:15 p.m.

**"Weekend"** at the University Center Theatre, Tuesday, November 14, 7:30 & 10 p.m. Sponsored by University Center Programs Council Film Committee.

**"The Deep"** at the University Center Theatre, November 17, at 6 & 9 p.m., November 18 & 19, at 3, 6 & 9 p.m. Sponsored by ASUOP.

**Opera Theatre Production** "Kiss Me Kate," November 17, 18, 19, 20 & 21, at 8:15 p.m., at Long Theatre.

## LECTURES

**Colliver Lectures** at Morris Chapel, Monday & Tuesday, October 30 & 31, all day. 946-2161.

## SPECIAL EVENTS

**Spook Spectacular** at the Conservatory, Sunday, October 29, at 8 p.m. Sponsored by Phi Mu Alpha.

**Newman House Canned Food Drive**, November 1 through November 15.

**Homecoming**, November 11.

**Thanksgiving Day Football Game** with Colorado State University, November 23, at UOP.



Kenneth Jones

## Religious studies, survival, and the Yom Kippur War

Editor's Note: Quotes from Jones are excerpted from an article he wrote for a religious publication and are reprinted with his permission.



I gear down into second and yank the right-hand control stick, sliding into position with the other Sherman tanks. Putting it into neutral, I pull back both control sticks to ninety degrees, locking them into place with a foot lever, and flick the OFF switch. The roaring Cummins engine chuggles into silence. The sudden cessation of noise leaves my body slack. I slough sideways, my helmeted head resting on the rim of the hatch, staring dumbly at the somber red glow of the "twenty-four" knob lighting up the claustrophobic assortment of rods and wires within the whitewashed, mud-crusting interior. My eyes continue watering from the stinging dust impacted in them.

Most University of the Pacific students who received advanced degrees at this year's commencement proceedings were in their undergraduate years in 1973, concentrating on the completion of required courses so they could pursue work in their major field of study.

But not Kenneth Jones of Stockton. In October of 1973 he was at war.

Jones, who received two degrees last May, was a tank driver for the Israeli Army in the Yom Kippur War. Instead of studying for classes in biology and literature, he was in the Golan Heights during the three-week battle



that will leave lasting memories ingrained in his mind.

"To be caught in the open during an artillery barrage was the most frightening thing," he recalls. "In war you see many things that aren't very pleasant," he says with a seriousness one would expect from someone in a similar position.

When the shooting is imminent, you submerge into your taut body. The firing begins and your body screams, yet you hear your own voice on the intercom, so calm and detached, and your limbs function briskly, automatically. Direct hits - the feeling entirely ineffable in its intensity. Afterwards your body becomes waddled again, and you suffer the long, tortuous process of unwinding.

Jones, who spent 18 months in the Israeli Army, ended up in that situation through an unusual set of circumstances.

After graduating from Lodi High School in 1967 he entered University of the Pacific. One semester later, however, he dropped out of college to travel to Europe and the Mideast. He became particularly fascinated by Israel, and he vowed to return to the Jerusalem area when he had the opportunity.

This came about in 1969, when he began what would be a five-year stay in Israel. During this time he worked in a kibbutz and became seriously interested in the Jewish faith. When he subsequently fell in love with a Jewish girl, a conversion to Judaism became necessary for them to marry.

His conversion, however, also brought with it being drafted into the the Israeli Army.





During basic training, we lived ankle-deep in mud, our tents leaking pathetically, no heating, no electricity, no hot water, no toilets, poor equipment and rotten food. Every place I'd ever been stationed had been full of rats and flies. In the fetid tents at Shomron, wrapped up in blankets after a filthy day's training, still fully clothed with boots on, the rats would scamper over us constantly. But positive things, aside from the toughening aspects, accrue from such conditions - the idiocies of "spit and shine" discipline are minimized.

How did the war change his life?

"It made me enjoy the little things in life," he recalls. "It seemed so arbitrary who got killed in the fighting; it was only a question of luck. It could happen to anyone, so if you got through it you came out with more joy for life."

He said it is hard for Americans to understand how small Israel is. For example, he was fighting in the war only 25 miles from where his wife and baby were living. "I know it is a cliché, but war over there is a matter of survival. Everyone is involved and the morale is very high."

We were supposed to be home today. I would have showered, eaten a good meal, and drank coffee while Devorah told me about her week. Sometimes I can't assimilate her words. The transition is too quick, too radical. Less than two hours from this hell are my wife

and child. In the afternoon I am shot at, a few hours later I'm sitting in the warmth of our kitchen, listening to my wife talk about bills to be paid, the baby, the rising food prices. I try to describe a shelling to her, but my heart starts beating rapidly, the inside of my mouth feels full of cotton, I quiver and almost cry. . . She cannot understand and I cease the attempt.

The 29-year-old Jones has seen a lot in the last few years, and he has some definite beliefs on the Arab - Israeli conflict. "The Israelis want peace very much, because they have seen war and what it can do. The Arabs also have suffered hardships in four wars with Israel, so, in spite of the formidable obstacles still remaining, I view the Camp David accords with optimism and hope. Both sides seem sincere, and I just hope these efforts will not be frustrated by the very complexities involved and not be sabotaged by Jewish and Arab extremists."

Jones returned to the United States in 1974 to continue his education. He completed his bachelor's degree work at Pacific through the University Without Walls program. This allowed college credit for much of the work Jones did in Hebrew studies while in the Mideast. His master's degree is in the Religious Studies Department, notably in Biblical, Judeo and Islamic studies. Jones received both his B.A. and M.A. degrees in May, and he also was honored with a Phi Beta Kappa cash prize for outstanding work in graduate studies. He



plans to return to Israel at the end of this year to pursue a doctorate at Hebrew University in Jerusalem and then settle in Israel.

"I hope to eventually work in some capacity to improve relationships between the Israelis and the Arabs," he explains. "The misunderstandings run a lot deeper than just the territorial differences."

Jones has citizenship in both Israel and the U.S., but if his current plans materialize, future visits to America will be as a visitor.

—R.D.

I hear the rest of the crew crawling into their bunks. The candles are being snuffed. I think of my baby. He cries when I come home. He gets used to me again after I've played with him, rocked him to sleep, given him all the love I can pack into a few hours - then I leave again. I think of my wife. I want to touch her and tell her I'm safe. I think of the baby. I must get some sleep. When will it end? I cannot envision the end. I can't sleep, my mind in fierce rebellion. We all lie there, turning, tossing, dozing, groaning, snapping completely awake, sitting up, lighting cigarettes, trying again to sleep. . .



# TIGER TRACKS

## '20's

**Margaret (Stout) Reynolds, COP '24**, lives on Balboa Island with her son, Eugene. She has retired after 36 years of teaching kindergarten.

**Myra J. Keplinger, COP '28**, is in Argentina, helping create a written language for a tribe of Indians.

**Ruth (Richardson) Johnson, COP '28**, is involved in historical preservation at the William Nolck Museum in Watsonville.

## '30's

**Howard A. Moody, COP '30**, has retired from the U.S. Air Force after 28 years of service. He was a pilot, engineering officer, base and depot commanding officer, and colonel. He was also with Aerojet in Sacramento as head of the engineering and maintenance branch in the technical services division.

**Howard Bailey, COP '34**, announces the birth of a first great grandson in April. Howard retired from McClatchy Newspapers and Broadcasting in January.

**Edward Simonsen, COP '37**, retired as chancellor of the Kern Community College District in June.

**Evelyn (King) Smith, COP '38**, and her husband live in Citrus Heights, where they are active in groups working for the preservation of plants and animals. They lead trips for interested amateurs and botanists searching for rare and endangered plants.

**Eileen (Daniels) Britton, Conservatory of Music '38**, has been acclaimed as a specialist on the organ music of Brahms. She has given master classes and recitals of Brahms' complete works for conventions and for universities such as Stanford, Southern Methodist University, and St. Mary's College.

**Dorothy (Van Gelder) Clark, COP '39**, and her husband, Charles, have been collecting contemporary art for over 25 years. They have given works of art to 21 museums, colleges, and universities, including UOP. The University of Texas print collection at Austin has been named in honor of them.

**Ralph F. Trembley, COP '39**, publicized the exploits of Jackie Robinson and Kenny Washington at UCLA. He is a press agent for Andy Williams' golf tournament and covers sports in San Diego.

## '40's

**Buford O. Bush, COP '40**, received the California Parks and Recreation Association fellowship award in February.

**Robert J. Lehman, COP '42**, has retired from Reedley College after 24 years in physical education as track and field coach, and director of intramurals.

**Charles M. Pond, COP '44**, observed his 10th anniversary as rector at St. George's Church in Chicago in December 1977. He made a preaching tour in May-June 1977 and represented the bishop of Chicago at the 40th ordination anniversary of H.M. Chaplain at Chapel Royal in Savoy Hill, London.

**Ferol Egan, COP '46**, has been awarded a gold medal by the Commonwealth Club of California for the best non-fiction work, "Fremont: Explorer for a Restless Nation." He also has been given a merit award as one of the three best western historical novelists by the Western Writers of America for his book "The Taste of Time."

## '50's

**Vinal E. Benson, COP '50**, and his wife, **Nancy (Harby), COP '50**, have moved to Aptos, where Vin is the owner of Bayshore Press in Santa Cruz.

**Richard V. Patton, COP '51**, is the new president of the California State Automobile Association and the CSAA Interinsurance Bureau.

**Douglas F. Smith, COP '52**, is the offensive line coach at the University of California at Berkeley.

**Alfred E. Stockdale, COP '52**, and his wife, **Mary (Nelson), COP '51**, moved to Foster City in April. Al is district manager of Owens Illinois Inc., and Mary is a homemaker.

**James H. Carson, COP '52**, has been appointed pastor of the Burlingame United Methodist Church in July after having completed six years as superintendent of the Golden Gate District.

**Alan Rains, COP '54**, was recently appointed director of the Ojai Valley State Bank. He owns a department store in Ojai, where he lives with his wife, **Alice (Kirkman), COP '55**.

**Todd Clark, COP '55**, was recently elected vice president of the National Council for the Social Studies, an 18,000 member professional organization.

**Eloise Haldeman, COP '55**, is teaching in the Beverly Hills Unified School District as supervisor of elementary music.

**Thomas R. Thompson, COP '55**, is a free lance writer and is also an organist in a Carmel church. He has retired from the music business as international concert artist for the Hammond Organ Company; the national sales manager for Hammond; and director of marketing for Hammond.

**Norma (Suarez) Bauer, COP '57**, is teaching first grade in Fremont. She lives in Hayward and has two sons, Scott and Rick. Norma has also taught in Stockton and Oakland.

**Nancy (Coleman) Phillips, COP '57**, is in her 21st year of teaching kindergarten at Garrison School in Modesto.

**David M. Hench, COP '58**, was recently promoted as general manager of Kaiser Steel Tubing, Inc. and warehouse products. He joined the company's sales division in 1959 and served as assistant manager and southern district sales in the Los Angeles area.

**Jeanne Tuttle, COP '59**, graduated from Duke Divinity School in Durham, North Carolina. She has been ordained a deacon in the United Methodist Church and appointed to serve as associate minister, in charge of programs and education at St. Paul's UMC in Oxnard.

## '60's

**Dan Poynter, COP '60**, lives in Santa Barbara, where he is an author and publisher of nine books and four translations on aviation subjects. His recent books are: "Parachuting," "The Skydivers' Handbook," and the "Frisbee Player's Handbook."

**Neil Stafford, COP '60**, is director of the Sunlight 4 R School, a co-educational individualized private school in Santa Rosa. Neil has been teaching grades 3 through 12 since 1961 and has also been in the field of recreation for the last 14 years.

**Jan (de Angeles) Beekman, COP '61**, is moving back to the San Joaquin Valley with her husband, Bob, and their two children. Jan taught for six years in Daly City and nine years in Hillsborough.

**Lloyd H. Bakan, COP '61**, has been appointed associate and director of marketing for Howard, Needles, Tammen, Bergendoff. Lloyd is president of the Society for Marketing Professional Services and is an active member of the American

Marketing Association. He has authored nationally published articles and has participated in many marketing conferences across the country.

**Mary (Winfield) Collidge Arbury, COP '61**, is in her 14th year of teaching the trainable mentally retarded at the John F. Kennedy School, where she was named the Outstanding Teacher of the Year. She also received the School Bell Award for her work with the retarded in Stanislaus County.

**Ronald G. Ranson, Jr., COP '63**, received a master of fine arts degree in design and technical theatre at UCLA. He was a teacher with the American Peace Corps in Nepal in 1964-66 and married his wife, Martha, in Nepal in 1973 while on sabbatical leave from his teaching position at Rio Hondo College.

**Delbert J. Alberti, COP '63**, is director of the Nueva Learning Center in Hillsborough. He served as science consultant to Learning Magazine in conducting the 1975 summer teacher training institutes in Ohio and Illinois. His newest publication, "The First Math-Science What To - How To Book," has recently been published. Del is currently completing his doctoral dissertation at the University of San Francisco.

**Martha S. Draper, COP '64**, is the regional director for the Southeast MIT Alumni Association. She travels to Washington, D.C., Florida, Texas, and Oklahoma.

**Karen (MacDonald) Rosenthal, COP '66**, was named chairperson of Claremont Parkways and Trees Commission for the second year. She has been a member of this council-appointed commission for five years.

**Alan W. Anderson, Pharmacy '67**, is owner and partner of the Lawson-Dyer Pharmacy and Marin Orthopedic, a family-oriented pharmacy and health care supply organization in Mill Valley.

**Carl G. Britto, Pharmacy '68**, has recently been elected Speaker of the House of Delegates at the California Pharmacists Association Convention in Palm Springs.

## '70's

**Linda S. Lockett, Raymond '70**, travelled to Everest Base Camp in Nepal and around the Annapurna range.

**Richard Emerzian, School of Pharmacy '70**, has recently opened his own drugstore in Fresno called "The Druggist."



**Patrick H. Matthews, COP '70**, married Cynthia Barton in July. Pat is the owner of Sundance Sports and Matthews Development Company.

**Ellen (Benton) Haigh, Raymond '71**, is working at the Imperial College of Science and Technology Library at the University of London.

**Cindy (Britz) Davito, COP '71**, and her husband, Rick, have a year-old son, Brandon Ross.

**Louis S. Scarcella, School of Pharmacy '71**, graduated from USC School of Medicine in June. He is an intern at Los Angeles County Hospital. His wife, **Robin (Grandey), COP '71**, received a master's degree at Stanford and is continuing her teaching at USC, where she is concluding a research program for a doctorate in linguistics.

**David Dains, Pharmacy '72**, is manager of the Sav-on Drug in Newport Beach. His wife, **Gayle (McGinn), COP '71**, is a retired teacher of the Palos Verdes Peninsula USD and the Saddleback Valley USD. They have two children, Brett and Megan.

**Robert J. Hayworth, Callison '72**, was awarded the President's Cup for the greatest sales volume and highest commission in March 1977, in his first year as regional representative for Childers Manufacturing Company, a division of Overhead Door. He is also a licensed structural steel contractor in California and Nevada.

**Colleen (Yeates) Marsh, Elbert Covell '72**, is living in Davis with her husband, Rob, and their two sons, Sean and Dana Robert.

**Donald R. Devany, COP '72**, and his wife, **Mimi, (Betts) COP '74**, announce the birth of their first child, Joseph Michael, in April. They live in San Ramon.

**Ross Moerman, COP '72**, has accepted the position of general manager for Cablecom-General, Inc., in Joplin, Missouri. Ross was formerly KUOP's director of development and had been director of marketing and public relations for Big Valley Cablevision in Stockton.

**Lois A. Killewich, Raymond '72**, received a Ph.D. in biochemistry from Columbia University. Lois is now working in Juneau, Alaska, for the National Oceanic & Atmospheric Administration in the Outer Continental Shelf Environment Assessment Program.

**Ingrid Rimland, School of Education '73**, has been awarded a silver medal by the Commonwealth Club for her first novel, "The Wanderers."

**Robert Bakich, School of Engineering '73**, and his wife, **Janet (Kemo), School of Education '73**, have moved to Seattle, where Bob is with the Pacific Northwest Bell. They have an eight-month old son, Vincent Robert.

**George B. Johnson, Elbert Covell '73**, has been promoted to assistant manager of Wells Fargo's Sacramento Sunrise branch in Citrus Heights. His wife, **Linda (Ferry), COP '74**, is an employment counselor at the Employment Development Department for the State of California.

**John A. Krairert, School of Pharmacy '73**, and **Anne (de Moss), School of Education, '73**, are living in Vallejo with their children, Andrew and Sarah Anne.

**Robert M. Acosta, COP '73**, received an M.D. degree from Michigan State University in 1977. He is completing his internship at UCLA.

**Jean M. Spurlock, Callison '73**, married Karl Emrich in San Francisco in May.

**Lyndon G. Furst, School of Education '74**, was named director of the Center for Studies and Services in Education. CSSE conducts funded research in education and provides consultation services for both public and private schools. Lyndon is associate professor of educational administration.

**Pamela R. Crane, Conservatory of Music '74**, is assistant director of the Alan S. Maremont Child Development Center. She is teaching children ages 2-5 and is developing a teacher-training program for the staff. She works with **Richard R. Wollman, COP '73**.

**William M. Ketchum, Callison '74**, received a juris doctor degree from USC's Law Center in June. He also received a fellowship from the Kyoto Center for Comparative Law from Kyoto University, Japan.

**Mary Van Buskirk, COP '74**, is currently in her second year at McCormick Theological Seminary.

**Don Gregory, COP '74**, is the owner of the Gregory Publishing Company. He wrote and published "Algol on the B6700: A Complete Primer," in 1977.

**Marcie (Grant) Mayfield, COP '74**, announces the birth of a daughter, Megan Lee, in February.

**Carl Dominik, Conservatory of Music '75**, is completing an M.M. degree at USC. He is presently a staff accompanist at Los Angeles City College.

**Ann (Berkstresser) Guadagni, Callison '75**, and her husband, Ray, announce the birth of a daughter, Julia Christine. Ann is with the Napa County Social Welfare Department.

**Cecilia (Pennoyer) Meyer, School of Education '75**, and her husband, **Monte, School of Pharmacy '78**, announce the birth of a son, Justin Benjamin, in May. They live in Newbury Park.

**Richard M. Simons, School of Pharmacy '75**, and his wife Jane, announce the birth of a son, Jared Gregory, in May.

**John P. Lynch, COP '75**, recently received the California Newspaper Publishers Association's first place award for best sports pages for weekly newspapers in the state over 7,500 circulation, at the CNPA convention in Coronado. John is sports editor of the Sonoma Index-Tribune.

**Pam (Marshall) Wolf, COP '75**, and her husband, **Larry, School of Pharmacy '72**, announce the birth of a daughter, Adrienne, in January. Pam is an administrative assistant for the American Title Co. and the president of the Riverside Tri-Delta alumnae organization. Larry is a pharmacist for Kaiser Hospital.

**Frank J. Linhart, School of Engineering '76**, announces the birth of a daughter, Jennifer, in May.

**Donn C. Sperry, Pharmacy '76**, and **Jeanne Mandeville, School of Education '76**, were married in Hawaii in July 1977.

**Steven N. Ng, Conservatory of Music '76**, has been a graduate assistant at the University of Illinois Music School string division. He received an M.A. degree in May and is presently part of a resident quartet at Blue Lake Fine Arts Camp in Twin Lake, Michigan.

**Kathy A. Thomas, COP '76**, is a speech pathologist in Jackson Hole, Wyoming. She completed an M.A. degree at Washington State University in Pullman.

**James M. Murray, Conservatory of Music '76**, and **Susan (Smith) School of Education '75**, are living in Evanston, Illinois, where Jim is completing his Ph.D. in Medieval History at Northwestern University. Susan is working on campus for the student union as a programming secretary.

**Michael C. McAdams, University College '77**, received an M.A. degree from the Institute for Soviet and East European Studies at John Carroll University in Cleveland, Ohio. He has been awarded scholarships by the American Bar Association and a full scholarship to continue his education at the University of Colorado's Institute for the study of comparative politics and ideologies.

#### In Memoriam

**Lyman W. King, COP '26**  
**Ruth (Farey) McCoard, COP '28**  
**Jeanette Alexander, Raymond '65**

**E. Robert Wanat, School of Pharmacy '77**, was recently hired by the Dista Products division of Eli Lilly and Co. as sales representative to cover the Reno, Nevada area. He joins **Alan Lampe, School of Pharmacy '72**, who has been the Dista sales representative in Sacramento since 1975.

**Susan McDonald, COP '77**, is working for Colusa Sun-Herald Newspaper. She was recently named the Williams Bureau Staff Correspondent.

**John P. Knezovich, COP '77**, is currently conducting research in marine ecology for an independent aqua-culture company in the island of Antigua in the Lesser Antilles.

**Matt Bench, COP '77**, and **Sandy (Fitzsimmons) COP '77**, were married in September 1977. Matt is a vocational counselor for Community Action Council in Everett, Washington. Sandy is a secretary and assistant to the personnel manager of Cascade Savings & Loan Association.

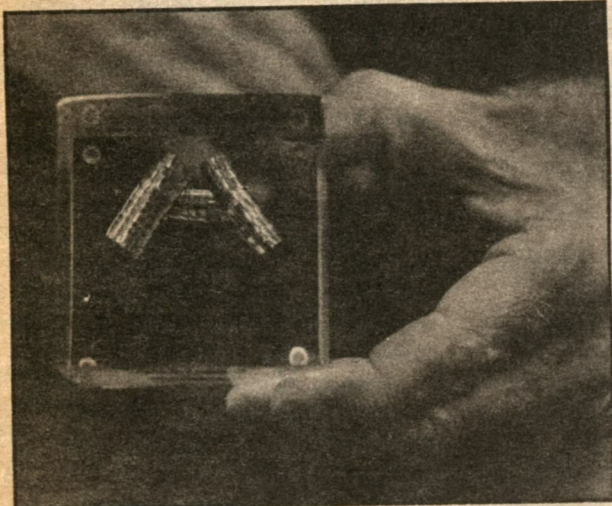
**Gregory A. Smithey, School of Pharmacy '77**, and his wife Pat, announce the birth of a son, Brian, in December. Greg is manager of the East Lake Pharmacy in Watsonville.

**Deborah Stuhr, Raymond-Callison '78**, has been hired as a missionary associate, to teach English for two-and-a-half years by the Kyoai Gakere Girls High School in Maebashi, Japan. This appointment is in conjunction with the school and the Board of Global Ministers, World Division, and the United Methodist Church.

T.E.



continued from page 3



First chips from the YJ101 engine

patents for the DC-6, DC-7, C-118A, and the R6-D series transports.

In 1947, against the orders of his boss, he began designing the first jet transport for Douglas — the DC-8.

"By 1951, I felt we could go ahead and build the plane, and I started a campaign aimed at 'go-ahead for production' by 1953," Wood says. "At about that time the management of Douglas changed from father to son and the project didn't get started until 1955, when Boeing was already flight testing. The DC-8 went into production in 1959."

Wood became chief engineer in Douglas' Long Beach Division in 1955. He argued that the design divisions he had headed also be moved to Long Beach for the development of the DC-8.

Wood recalls a dinner party at the home of the corporation president: "Each of the guests had a place card at the table, and when I looked down at mine it read 'Your baby will be born in your house.' The DC-8 was built in Long Beach."

In 1948 Fellers was named assistant chief of aerodynamics at North American, with 150 people in his department. He had been out of school for only six years and was providing technical direction in the development of the FJ-1 fighter, the F-86, the AJ-1 bomber, the T-28, and the F-100 fighter.

In 1953 Fellers began to question his role in aviation. His entire career had been devoted to weapons of war, and he resigned from North American to join Fletcher Aviation, where he was in charge of the aerodynamic development of a utility airplane.

"It took me a long time to rationalize what I was doing in peace time. I could have been a conscientious objector," Fellers says, "but then I realized that I could do some things better than other people, and my objective was to design aircraft to meet the needs at the lowest possible cost. Assuming we need a military force, just as we need a police force, I felt that this was the area in which I could make the greatest possible contribution to the country."

He then joined Northrop Aviation in 1954 and directed development of the Hawke missile airframe and rocket engine. He also participated in

the initial design of the T-38 (still the primary fighter pilot training plane after 20 years in use) and F-5 airplanes.

In 1957 he was appointed technical assistant to the vice president of engineering and in 1962 was appointed director of long range planning.

Fellers was named manager of research and development in 1967 and was responsible for all company and contract analytical and experimental research, advanced aircraft design, and programs management of advanced systems.

Root stayed with RAND Corporation until 1953, when he joined Lockheed Aircraft Corporation to establish its corporate Development Planning. This activity was patterned after the planning organization he helped establish for the Air Force during the two previous years while on leave from RAND. It was among the earliest, if not the first, long range planning groups formally established by any aerospace corporation.

His first strong recommendation was that Lockheed enter the missile field immediately. The company established a Missile Systems Division in Van Nuys in 1954 with definite plans to expand into the Palo Alto-Sunnyvale area as soon as possible.

"The Palo Alto-Sunnyvale area met many of the requirements for a greatly expanded plant," Root says. "The overall environment of the area was an obvious industrial advantage. There was an impressive supply of technologically oriented activities and manpower — NASA Ames Laboratory, Moffett Field, Stanford University, the electronics industry, Stanford Research Institute, and San Jose State University."

Shortly after the Division was established, Root became its general manager.

**W**ood, meanwhile, transferred to Douglas Corporation headquarters in 1959 as director of advanced engineering planning, where he held overall responsibility for corporate research and development.

A year later he left Douglas to join Sikorsky Air Craft in Stratford, Connecticut, first as engineering manager and later as vice president. He oversaw the development of the S-61/H-3 series transport helicopter. It is used as a transport, anti-submarine weapon, air-sea rescue, and by the President of the United States. It also is produced in England and Japan and has world-wide use. Several other of the aircraft developed during his decade there have been used throughout the world.

While at Sikorsky, Wood helped bring the helicopter into the modern era. He was elected to the National Academy of Engineering in 1967.

"I have always believed that a good manager must create an atmosphere where people want to do things," Wood says. "It is much more effective than forcing them to do things, and if it is fun you accomplish the objective much faster."

In 1970, as a result of some changes at Sikorsky, the fun went out of it, and at the age of 57 Carlos Wood retired. He continued as a part-time consultant until 1977.

The growth of Lockheed Missiles and Space Company under the direction of Root was phenomenal. He uses the word "frantic."

From less than 5,000 employees in 1956 the company grew to a peak of more than 30,000 in 1968. In the process the company designed,

developed and produced two of the country's defense systems, the AGENA satellite, and the Polaris/Poseidon Fleet Ballistic Missile.

Initially Root was general manager of Lockheed's Missile Division at Sunnyvale. He then became a corporate group vice president in Burbank, where he was in charge of the missile and space division, a propulsion company and an electronics company.

He later was brought back to Sunnyvale and named president of Lockheed Missile and Space Company, which had been formed into a separate company, while continuing to hold the title of corporate group vice president.

Root was spending about half of his waking hours airborne as he juggled the countless jobs that needed his attention.

At the same time, Root was giving considerable time to a number of national advisory boards, such as the Defense Science Board, the Air Force Scientific Advisory Board, and National Advisory Committee for Aeronautics.

A list of the accomplishments and contributions Lockheed Missile and Space Company and Root have made to defense systems, space exploration, deep sea rescue and exploration, high speed off-road vehicles, and innovations in aircraft design would take more space than is available.

Suddenly, in 1968, it came to an end.

"It was Sunday. I had just gotten out of the shower and was getting ready to go back to Washington once more (to save the company), when I suffered what the medical profession terms a severe aortic stenosis and heart block. My son, Brian, and Beryl helped me into bed and called the doctor who immediately placed me in the Stanford hospital," Root recalls.

Since then Root has undergone open heart surgery twice, and today his activities are somewhat limited. He retired from Lockheed on disability in February 1970. He actively pursues his hobby, and refers to himself as a "ham" (amateur radio enthusiast).

"I have had a privileged career," Root says. "I have seen the first small step taken into new fields of endeavor that lie on the ocean floor at one extreme, and the limitless reaches of space at the other. I have seen dreams become realities, and the impossible become achievements so many times that there is little in this world that can surprise me—with one exception. I am literally shocked to find so many intelligent people who honestly believe we have conquered our last frontier and that there is nothing new under the sun. I can only answer these myopics with the beautiful phrase coined by the founder of Lockheed Aircraft Corporation, Robert Gross. He said, 'look up and out—where the horizons are unlimited.'"

Fellers continues to "look up and out."

In 1972, he was appointed program manager of the Northrop YF-17 lightweight fighter prototype program. The story of the development of the YF-17 reflects the long range planning that each of these three alumni has experienced.

As early as May 1966 Fellers began work on the project.

Between then and 1972 Northrop Corporation invested some \$30 million in the development of the plane. At that point the Air Force asked



# This is the Class of 1982



Gina Ferrante

aircraft companies to submit proposals for a lightweight fighter prototype aircraft. Feller's design won the competition and Northrop was given one of the prototype awards of \$38 million. Northrop invested another \$20 million in the development of the prototype plane. Thus far \$88 million had been invested.

When the prototypes were complete, the Air Force called for bids on production aircraft. After eight years of work, Northrop lost the bidding.

The Navy, however, needed a similar plane and with some modification the YF-17 became the F-18, and Northrop teamed with McDonnell-Douglas and was successful in winning the contract to build the plane for the Navy. The first plane for the Navy flew in October of this year and will be in full production by 1981, 15 years after the start of the project.

Fellers was named chief designer by Northrop in 1973 and continues in that position today. He was elected a Fellow of the American Institute of Aeronautics and Astronautics in 1976.

This fall, among countless other things, he is working with Germany on exploring their needs for aircraft in the 1990's. His travel schedule includes two trips to Europe within a three-week period.

Each of the three alumni is concerned about the state of our country today. Fellers, for example, is concerned about unnecessary military expenditures.

"We know we can build effective airplanes for half of what they are now costing, but military requirements won't allow it," he says. "If the Air Force had reduced its requirements for the proposed B-1 bomber by just 10 percent, we could have built it for half the cost. Also, on the B-70, if the Air Force had reduced the required range by 10 percent, it would have been possible to cut the weight of the airplane in half."

Root is concerned about the lack of emphasis being placed on the important area of research and development.

"Our country must have this area of effort financially singled out for greater emphasis on advanced technology," Root says. "We must insure that we have new and experimental weapons systems using advanced 'state of the art' to be competitive with superior enemy capabilities."

"We must regain lost capabilities to concentrate our effort effectively in less time, to accomplish more through cooperative effort, to reduce expensive and entangled procedural delay, to eliminate excessive in depth administrative and financial controls, and to avoid uniformed and excessively detailed contractual specifications. These things can kill a research and development effort, particularly if the unique process of research and development is not well understood by those in control. Some space must be left for innovation."

Wood is concerned that there are not enough good managers in business and industry.

"Too often a person is held responsible for something when he has not been given the authority to do anything about it. This is immoral," Wood says. "I also believe it's important to always tell the truth. That way you don't have to remember what you said. We don't see enough of this in our leaders today."

L. Eugene Root, Carlos C. Wood, and Walter E. Fellers—three Pacific alumni who have helped shape modern aviation.

—D.M.

There probably are 744 reasons why University of the Pacific freshmen decided to enroll here this fall.

This is the size of the Class of 1982, and a random check with some of these students indicates their reasons for being at Pacific are as diverse as their number - which constitutes one of the largest entering classes in the history of the University.

This year's freshmen come from throughout the world, with 36 states and 18 foreign countries being represented. Among the countries are Mexico, Japan, Iran, Canada, Sweden, Peru and Switzerland.

The first-year students are entering college with an impressive academic background. The grade point average for the class is 3.38, the highest in the history of the University, and 40 percent arrived with President's Honors at Entrance because of high scholastic achievement.

Typical of this group is 18-year-old Marly Galindo of Hawaii. He is one of 11 percent of the class majoring in engineering, and part of the 20 percent of the freshmen from states other than California. Marly graduated from Leilehua High School in Wahiawa with a 3.7 grade point average, which placed him seventh in his class. Like 35 percent of the freshmen, he was in the top 5 percent of his high school class. Marly, along with 55 percent of the class, is attending UOP with financial assistance.

Although Hawaii is 2,500 miles from Stockton, it is second only to California as a home state for Pacific students. "I'm studying more than I anticipated," said Galindo after four weeks on campus, "but things are going along pretty smoothly." He acknowledged that there are many adjustments to make when you are this far from home, and said he enjoys being in the civil engineering program at UOP.

Although many schools offer this major, Marly was attracted to Pacific because of the Cooperative Education Program, which gives the students the opportunity to work in the profession while still an undergraduate student.

Statistics compiled by the Admissions Office show that engineering is a popular field for freshmen, with the 11 percent figure only being exceeded by 12 percent in the School of Business and Public Administration and 56 percent in College of the Pacific.

Two students who help comprise this 56 percent mark for COP are Gina Ferrante and Amy Lopez.

Gina, a 17-year-old from San Marino, came here from Southern California. "It's really neat to see the stars at night because

where I live in the San Gabriel Valley we don't get to see them very much because of smog," she explained while describing the attractions of the campus. "I came here during the summer for orientation and just loved the place so much that I didn't want to go home," she added.

Like many of the freshmen, Gina was active in high school, participating in numerous drama productions, serving as a member of the class advisory board and earning honor roll status for her academic work. Amy, an 18-year-old from Hanford, also engaged in extra-curricular activities at Hanford High School in the San Joaquin Valley. She was sophomore class president, played tennis, and did photography for the yearbook.

Statistics show that 425 members of the Class of 1982 belonged to high school honor societies, while 105 were leading athletes, 170 were student body officers, 255 won significant honors, and 90 were editors of high school newspapers and yearbooks.

Nine percent of the freshmen have close relatives that are Pacific alumni, and this pertains to Amy. "My father is a graduate of the School of Dentistry and my mother took courses at UOP," she explained, saying her parents encouraged her to attend Pacific.

She is a pre-law major who selected UOP "because it's not far from home and it has a good law school." She is attending college because "my parents have been very nice to me and given me a lot of things. I want to be able to do the same for my children some day and live the way I'm used to. A college education will certainly help make this possible."

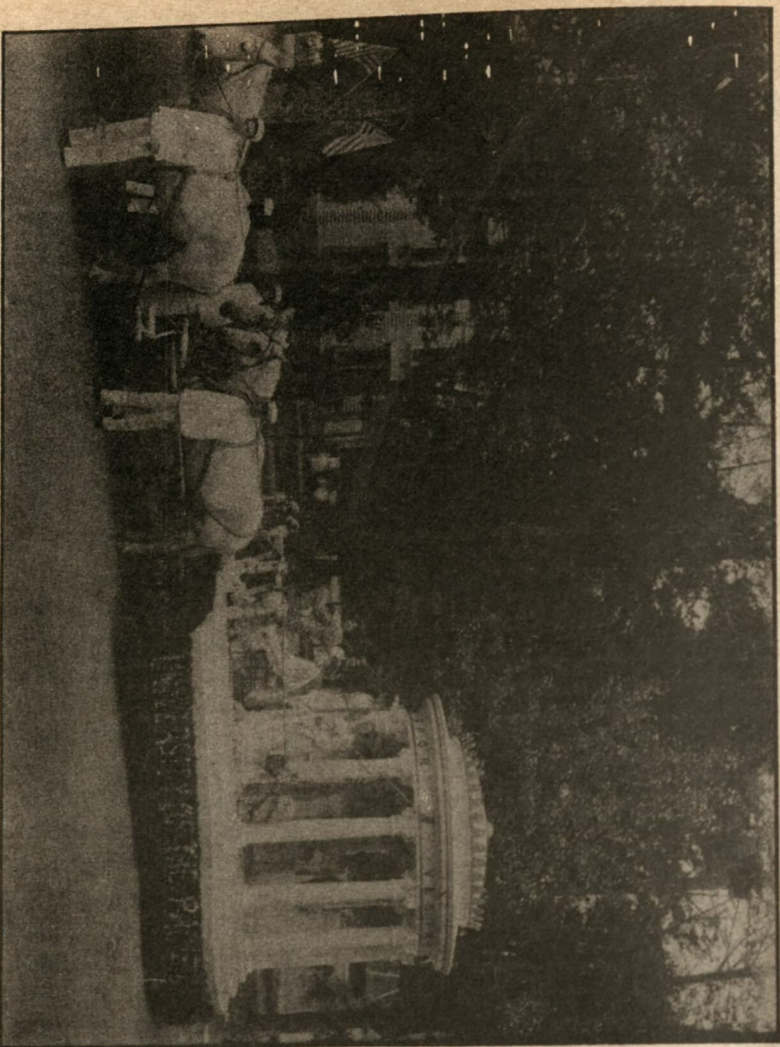
Gina voiced similar thoughts, although from a different perspective. "Where I'm from, everyone goes to college - it's something like 98 percent - and I just feel that I would be missing something special and some of the best years of my life if I didn't go. You really have to get a college education to make something of your life."

Gina already has her goals clearly in mind, as she has a major in theatre arts and a minor in dance. "I'm really looking forward to acting and have been able to take some drama and dance classes already," she explained. "It really is nice to take classes that apply to what I want to do with my life. I just love it here because of the independence it gives me, the beautiful campus, and the friendliness of the people."

This friendliness, one of the characteristics of Pacific that appeals to students and is stressed in admissions material, was evidenced recently when Amy celebrated her 18th birthday. A surprise party was arranged by her new friends in the residence hall, complete with cake, ice cream, balloons and a gift. "It was really neat. . . we already are just like a family," she beamed.

—R.D.





*Everybody loves a parade! And floats, like the one above from an early Pacific event, are a tradition of the Homecoming parade. A football game with San Jose State, the Investors Luncheon, a concert featuring Carmen McRae, and class reunions highlight this year's event. For more details, see page 6.*

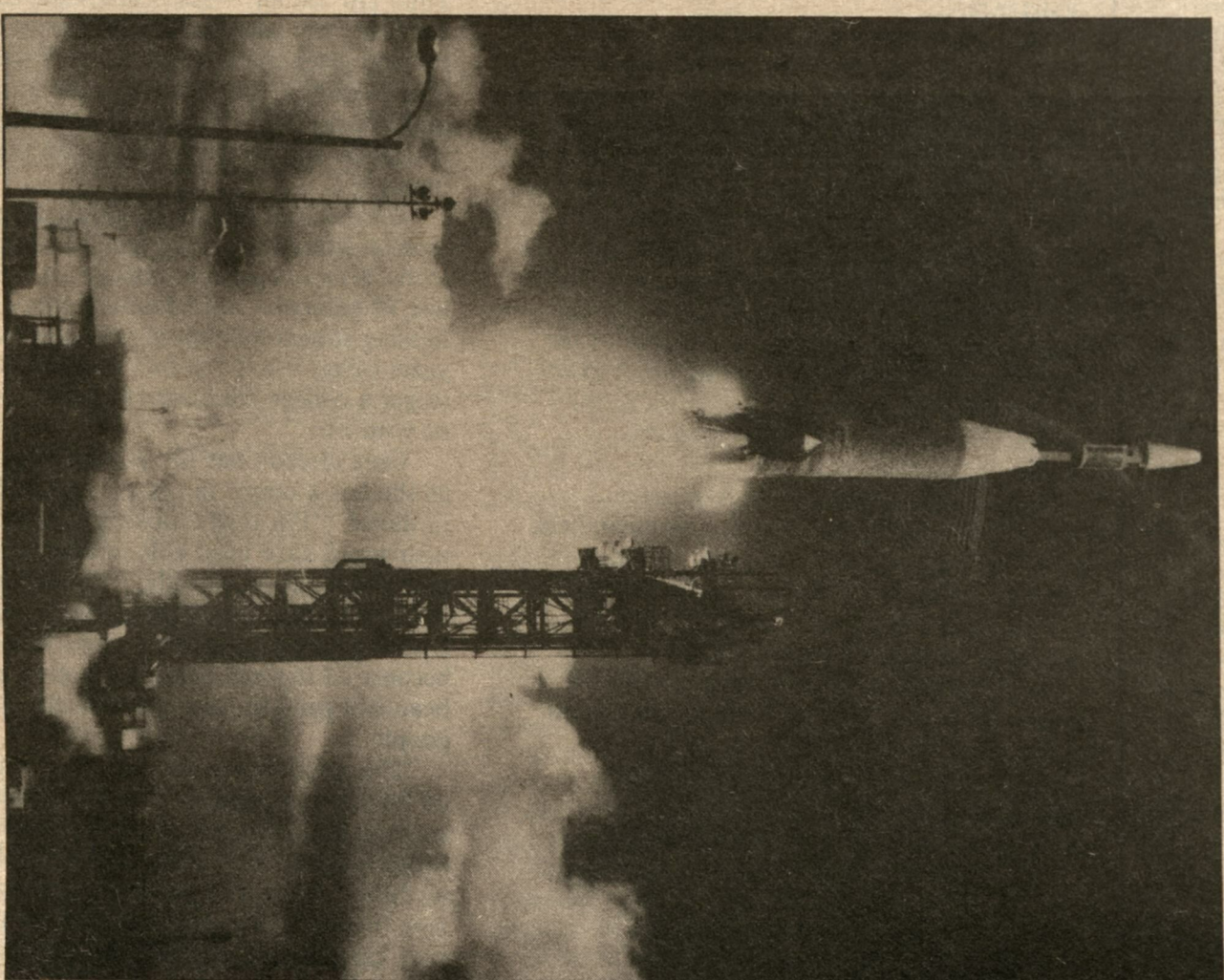
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*Pioneers in aviation: From the earliest days of commercial aviation to the space age, three Pacific alumni, Carlos C. Wood, L. Eugene Rool, and Walter E. Fellers, have played key roles in aircraft design. Above is an Atlas rocket launching an Agena space vehicle, which circled, photographed, and televised the moon as a preliminary to manned landings. The system was developed by Lockheed Missiles and Space Co., Inc., under the direction of Eugene Rool.*

*Photo courtesy of Lockheed Missiles & Space Co., Inc.*