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## University of California: In Memoriam, March 1976

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### J. Ralph Audy, International Health: San Francisco

*1914-1974*

*Professor of International Health and Human Ecology*

*Director, G.W. Hooper Foundation*

The report of the death of Professor J. Ralph Audy in San Francisco on March 19th, 1974 brought sorrow to his colleagues and friends in the University and the world scientific community. At the time of his death Professor Audy was director of the George Williams Hooper Foundation and chairman of the Department of International Health in the School of Medicine of the University of California, San Francisco. He was also director of the University of California International Center for Medical Research (UC ICMR), a program that has supported more than seventy scientists over the years since 1960 in collaborative research at the Institute for Medical Research in Kuala Lumpur and in the Faculties of Medicine of the University of Malaya and the University of Singapore.

Professor Audy was born on December 24, 1914 in Lancashire, England and spent nine years of his boyhood in Poona, India. He received his M.B.B.S. degree in 1939 from Guy's Hospital Medical School, London, and his Ph.D. and M.D. degrees in 1951 and 1971 respectively from the University of London. In the later stages of World War II, while in the Royal Army Medical Corps, he served as head of the Scrub Typhus Research Laboratory at Imphal, on the Indo-Burma border. Following the war, from 1947 to 1950 he headed the British Colonial Office Scrub Typhus Research Unit and from 1951 to 1959 the Division of Medical Zoology and Virus Research in the Institute for Medical Research, Kuala Lumpur. With his wife Kay and daughter Helen (whose birthplace was Kuala Lumpur), Professor Audy moved to San Francisco in 1959 to take up his new faculty appointment in the University of California. Thereafter he retained strong ties with those engaged in medical research and education in Malaysia, particularly through his successful efforts to create and develop the UC ICMR program.

Professor Audy's early research work in the epidemiology and medical ecology of scrub typhus led him also into pioneering studies

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in a new discipline, now known as medical geography. His contributions to the science of parasitology, and particularly to medical acarology, were also immense. His interests in medical ecology, medical geography, and parasitology were to continue throughout his career and to lead him, in his later years, into highly original exploration and synthesis in the emerging field of human ecology. Throughout his research years Professor Audy remained a profound humanist and an exciting and concerned medical educator. During his career he held many distinguished appointments on state, national, and international scientific committees. He received many honors, including in 1959, the Chalmers Memorial Medal of the Royal Society of Tropical Medicine

and Hygiene. He felt deeply the honor afforded him in 1971 by the unveiling of a commemorative plaque at the Institute for Medical Research in Kuala Lumpur, in appreciation of his years of service and support of the institute and its programs.

Professor Audy is no longer with us, but the power of his imagination and the stimulus of his scientific and philosophical thought will long continue as a beneficent influence on those who follow him.

Frederick L. Dunn Nicholas L. Petrakis

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## **Edna Watson Bailey, Education: Berkeley**

*1883-1973*

*Professor Emeritus*

For three decades, teachers-in-training at the University of California, Berkeley, learned to help children lead healthier and happier lives under the tutelage of Edna Watson Bailey. At a time when school-children's potentials were customarily explored by tests in terms of ability and achievement, Professor Bailey was emphasizing the development of the individual: his health needs, his personal attributes, his social requirements. In her words: "Men know very well how to shape children in a common mold... but how to release the gifts of each individual for the good of all, himself included, is not yet well known or practiced."

Professor Bailey's principal method of study was to observe the individual child in a natural setting, an approach which has gained increasing acceptance in recent years. For Edna Bailey, the technique was a logical outgrowth of her early interest in the life-sciences, an interest which she pursued to her doctorate.

Dr. Bailey's early public school experience and her roles as the wife of a physician and as the mother of two daughters enriched her professional orientation. She wrote an invaluable guide for students to develop their appreciation and understanding of children (Bailey, Laton, Bishop, 1939). In this book she reminds them that: "Children are resourceful, courageous, competent and delightful as they build themselves, educate themselves, enjoy themselves and the whole world."

But teaching and writing were not the only areas in which Edna Bailey's influence was felt. Believing that the salutary benefits of educational institutions should be extended downward, she helped establish the Children's Community, a parent-cooperative nursery school in Berkeley, one of the first in the country. The Federal Emergency Nursery School program for working mothers was among her concerns. During these years she traveled widely, conferring and lecturing on child health and development. She was one of the most enthusiastic and valuable members of the founding committee for the University's Institute

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of Child Welfare (now Institute of Human Development) in 1926, and for many years she served on its advisory committee.

Professor Bailey's assets were recognized and utilized when she was named a Laura Spelman Rockefeller Fellow at Columbia University in 1925-26 and when she chaired a committee for the White House Conference on Child Welfare in 1930.

Edna Watson was born July 30, 1883 in Parkersburg, West Virginia, the first-born and only daughter in a family whose English ancestors settled in the South in the eighteenth and early nineteenth centuries. Her elementary schooling was supervised and enriched at home by her father, a college teacher, who taught her to read Latin, introduced her to the Classics, and fostered her life-time interest in nature and in science.

The family's move to the more metropolitan Kansas City and the encouragement of her high school teachers there opened new avenues of culture—in music, art, and literature. She graduated from high school at sixteen and the next fall began her teaching career in a one-room school in the Black Hills of South Dakota.

In 1900 this young teacher came to California and attended normal school—now UCLA. She also made contacts with the embryonic Scripps Institute. Through association there with William E. Ritter and Charles Kofoed of the zoology department at UC, she came to Berkeley as a freshman in 1902. Her student honors included the Phoebe Apperson Hearst Scholarship, Phi Beta Kappa, and Sigma Xi. She received her Ph.D. in zoology and philosophy in 1910 at the University of California, Berkeley.

Edna Watson met her husband Samuel Ellsworth Bailey at the University when he was a premedical student. Ellsworth Bailey, a practicing physician, died in 1919 when their two little girls were three and five years old.

Edna Bailey was the first head of the science department at University High School where she supervised student teachers. In addition to her innovative school programs, which would be appreciated in today's search for meaningful learning situations, she established the first Well-Baby clinics in Oakland. In 1927 she joined the faculty at the University in the Department of Education. The courses that she initiated in child development and health education brought her close to many appreciative students, who valued her leadership as a teacher and her warm personal interest in their welfare.

Dr. Bailey retired in 1951. She continued to enjoy a rich family life, to render her invaluable services to the community, and to extend her writing career. Under a trust set up by Professor William E. Ritter, with whom she collaborated for many years, she edited his voluminous unpublished manuscripts and in 1954 brought out *Charles Darwin and the Golden Rule*,

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a perceptive interpretation of Dr. Ritter's manuscripts. During his life time, Dr. Ritter warmly acknowledged his indebtedness to Dr. Bailey in several of his books.

Edna Watson Bailey was a dedicated, wise, understanding woman whose contributions to the University, to colleagues, to students will long be remembered.

William A. Brownell Jean Walker Macfarlane Mary Cover Jones

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## **Ruth Emily Baugh, Geography: Los Angeles**

*1889-1973*

*Professor*

The professional life of Ruth Baugh was, in part, a living and loving memorial to another remarkable woman, Ellen Churchill Semple, whose influence dominated one period of American geography. The relationship began in 1913 at the Los Angeles State Normal School, where Ruth was enrolled and Miss Semple had come to teach. It developed further in 1919 when Miss Semple returned for a second teaching assignment, and continued at Clark University, where Ruth earned her master's and doctor's degrees under Miss Semple's direction. It was Ruth Baugh who saw her fatally ill teacher's final book through the press.

Ruth Baugh was born in Bedford, Indiana, January 10, 1889, of English, Scottish, and Scotch-Irish ancestry. As a child she came with her parents to Pasadena, California, graduating from Pasadena High School in 1908. Having decided on a teaching career, she enrolled in the Los Angeles State Normal School and graduated in 1910 with an elementary teaching certificate. She returned in 1913 as an instructor, after two years of teaching experience in Los Angeles and Kern counties, and remained on the staff for forty-three years until

her retirement as professor emeritus in 1956.

In 1919 the Los Angeles State Normal School was transformed into a branch of the University of California, and Ruth, now thirty, became an associate in geography. After a year as a teaching fellow in geography at UC Berkeley, she received her A.B. in geography (1921). Her M.A. and Ph.D. degrees were received from Clark University in 1925 and 1929, respectively. Her dissertation was entitled *The Geography of the Los Angeles Water Supply*. Years later she became the first woman in the history of the UCLA geography department to achieve the full professorship (1953), and one of the first ten women on the UCLA faculty to be promoted to highest academic rank.

In 1929 Miss Semple had a severe heart attack which left her almost

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completely incapacitated, and it seemed for a while that her crowning work, the great book on *The Geography of the Mediterranean Region* on which she had been working for some twenty years, would be lost. It was to Ruth Baugh that Miss Semple turned in this crisis for help in completing the manuscript. A grant from the National Research Council made possible the collaboration in the summer of 1931. Miss Baugh's contributions were mostly documentary and editorial, but there was some rewriting and reorganizing for which she should have received greater credit. It was probably her own modesty and Miss Semple's incapacity that kept her name from a more prominent position on the title page.

Most of the courses Ruth Baugh taught at UCLA were on regions and topics that had been of interest to Miss Semple—Europe, Historical Geography of the Mediterranean Region, the Geographic Basis of Human Society. From Semple she had learned to write elegant prose, and for years she offered a graduate course in geographic writing. However, her course on the geography of California was perhaps her favorite and most characteristic one. Not only did she influence future professors of geography through her California course, but work with candidates for teaching credentials extended her influence throughout the public schools. With one exception all her published articles are devoted to California topics; her first brief article, appearing in a student publication at Clark University (*The Monadnock*, June 1932), was in memory of Ellen Churchill Semple.

In 1949 she served a term as president of the Association of Pacific Coast Geographers. At various times she was active on committees of the Association of American Geographers, the International Geographical Union, and the National Council of Geography Teachers.

Ruth Baugh remained unmarried, finding warm ties in the families of her brothers and nephews and with two generations of students. She was a kindly, warm-hearted, dedicated person, generous and willing to help, with a special concern for the welfare of faculty women. On very rare occasions, as required, she displayed fine flashes of Irish temper. She passed on, after a brief illness, on June 1, 1973.

Her last professional performance was the presentation of an invited paper before a plenary session at the Annual Meeting of the Association of American Geographers in East Lansing, Michigan, on August 30, 1961. The paper was entitled "Ellen Churchill Semple, the Great Lady of American Geography." It ends with the quotation from Ecclesiastes which Miss Semple chose as the opening inscription for her Mediterranean volume, a quotation that Ruth Emily Baugh particularly loved. The words seem an appropriate conclusion here as well,

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in this tribute to a remarkable woman who was an excellent geographer in her own right.

*One generation passeth away  
And another generation cometh  
But the Earth abideth forever.*

## **Karl M. Bowman, Psychiatry: San Francisco**

*1888-1973*

*Professor Emeritus*

Karl Bowman was given considerably more than our allotted threescore years and ten, and he lived every one of them to the full. It is the full life of those years that matters about Karl and it is his life we remember this morning, and not the fact that it is ended.

Karl cared a great deal about a lot of things, and what he cared about he worked for and, if necessary, he fought for. He cared deeply about his family, and raised four sons, each to carry on a distinguished career of his own. He cared about his students, and expended great amounts of thought and energy to improving the quality of their training and to encouraging them to grow into humane and sensible physicians. He cared about his colleagues and was always ready to share their problems, encourage their interests, and appreciate their successes. Most of all, he cared about all patients—his own and others—for whose benefit he practiced medicine, taught students, ran hospitals, recruited needed professional workers, wrote papers, harangued administrators and legislators, and carried on that incredible variety of activities that filled every day of his life, almost to the end.

Karl was a plain speaker. Courageous, frank, and knowledgeable statements on controversial subjects were characteristic of him throughout a long and distinguished career of academic and public service. Long before civil rights became a watchword, he was outspoken in asserting the rights to legal protection and medical treatment of the mentally ill, sex offenders, addicts, and alcoholics.

Generous in making his professional knowledge and skills available to the community, he was quick to respond to requests for a public lecture or university extension course, for consultation with social and health agencies and other community organizations, for advice and information to legislators and administrators at all levels of government.

When he first came to Langley Porter from his position as director of psychiatry at Bellevue, Karl had some delusions that after the overwhelming workload and tremendous pressures he was used to, it would

be nice to lead a quiet, easygoing academic life. But life for him anyplace could not have been quiet and easygoing! He had a tremendous loyalty to his job. After a long flight back from some meeting in Washington or New York, arriving here in the middle of the night, there he would be at his desk at eight o'clock the next morning, reaching into the chaotic filing system that occupied the mounds of paper on top of his desk, to pull out the exact piece of paper he needed to get on with the job.

He was like a bulldog with a bone when dealing with any kind of problem. It might involve budget or administrative matters crucial to the existence of the institute, or the personal or academic problems of a student or faculty member who needed a “friend at court,” or what to do about a difficult patient—whatever it was, Karl saw it through to a conclusion, and more often than not, to the very conclusion he wanted!

He was my mentor and friend, and perhaps as well as anyone I appreciated his willingness to give younger people a chance to grow, to mature, and to assume responsibility and authority. He always said he tried to pick good people and thereafter he expected them to do a good job. What was unusual was his ability to let them do it their own way and to be tolerant of the diversity of professional viewpoints and activities that inevitably developed. He himself had a broad perspective of the entire field of psychiatry and of the related

fields that grew increasingly important during the course of his career. He might become impatient with the overenthusiastic proponents of a particular idea or point of view, but he never failed to listen and was ever ready to accept as much of it as he felt had merit.

Erik Erikson has written of the personal integrity achieved by “him who in some way has taken care of things and people and has adapted himself to the triumphs and disappointments adherent to being... [who has accepted] his one and only life cycle as something that had to be and that, of necessity, permitted of no substitutions.” That was Karl Bowman. He gracefully accepted his share of life's disappointments and deservedly enjoyed a large share of its many triumphs. He never failed to take care of the things and people for whom he cared and felt responsible as physician, teacher, colleague, friend, father, and husband. Everyone who was in some way a part of **his** life will always be glad he was a part of theirs.

Alexander Simon

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## **Dorothy Woodhead Brown, Art: Los Angeles**

*1899-1973*

*Professor Emeritus*

Dorothy Woodhead Brown was born in Houston, Texas and educated at Stanford University and at UCLA, where she received a bachelor's degree in art. She taught first at the Barnsdall Art Center and from 1947 until her retirement in 1969 in the art department at UCLA. Still earlier in her career, she had also been a feature writer for *Script Magazine* and from that time on continued to actively write and publish on art subjects.

Dorrie, as she was affectionately known to her many friends and associates, was ranked among the foremost women painters on the West Coast, but she also enjoyed a national reputation as an artist. During her long professional career she had some thirty one-man shows, participated in at least thirty-six invitational exhibitions and forty juried shows, and was the recipient of twelve purchase prizes and awards. Following her retirement from UCLA, she organized a one-man show of her work which toured the country for over a year. In 1956 Dorrie received The Woman of the Year in Art honor from the Los Angeles *Times*. She actively participated in many professional art associations including, preeminently, the National California Watercolor Society, serving as its first woman president; the American Watercolor Society; and the Los Angeles Art Association. She lectured extensively on a wide range of art subjects. To satisfy her own creative needs she studied and gathered extensive research materials during her numerous trips to Europe and the Orient as well as in this country, including Alaska and Mexico.

Although she was primarily committed to painting, she was also deeply involved in many other interests on a professional level: poetry, teaching, and the development of her art collection. She valued many friends and maintained an extensive correspondence with them. Above all she had a deep love for nature—especially the sea—but all life forms served as the basic sources for her creative work in all media. Very important to her, too, was her husband, Harold Austin Brown, with whom she shared fifty years of marriage until his death in December 1972.

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The special quality that perhaps describes Dorrie best is revealed in the character of her creative work, for in it she laid herself bare; her work confronts the viewer with her deeper perceptions and inner-most feelings and with it her personal philosophy and involvement with life.

Lorser Feitelson, artist, teacher, writer, and lecturer, perhaps best summarized her work as follows:

Dorothy Brown is consistently an expressive and painterly painter. Free from fixed opinion, or the imposition of the prejudice of the movement, she avoids dogmatism and scepticism. Taking full advantage of the possibilities of subjective and abstract imagery, she transmits, rather than abandons, objective forms. Free from eclecticism, she yet creates an art that possesses more than one category of values. Her reality is expressed in terms of feeling; simultaneously, what is felt is harmoniously integrated into an order that also gives formal satisfaction.

Dorrie was a unique and personal teacher who always maintained the highest standards of her profession. Good teachers have their special strengths. Dorrie had the ability and the patience to seek out and encourage students to learn to develop and use their sensibilities and personal feelings in confronting pictorial problems. She brought focus to the interrelationship of nature and vision with the artistic process. She was most effective in guiding the gifted and exceptional student.

Her personal art collection, unique chiefly because of its primary concentration on the creative work of women artists, was the result of many years of careful selectivity. It included some of the most celebrated women artists of the nineteenth and twentieth centuries as well as the works of some lesser-known but highly talented artists she admired. In her continuing dedication to UCLA, it is significant to observe that Dorrie bequeathed to the University all that remained of her own work and of the many artists included in her private collection.

Since Dorrie's retirement in 1969, she spent most of her time in her Malibu home—close to the ocean she loved so much—painting, writing, seeing friends, and deriving new enjoyment from her art collection. She continued to maintain active contacts with the University, serving as a member of the advisory board of the Grunwald Graphic Arts Foundation and later of the board of the Grunwald Center for the Graphic Arts; her own drawings and watercolors, as well as those by other artists from her collection, will ultimately be housed in the center. She also completed an important work, *Wings of Morning, Noon and Night*, which was published in 1970 by the Los Angeles press of Anderson, Ritchie, Simon. This beautifully conceived volume combines

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a selection of her paintings and drawings with her poetry; it summarizes all the major themes of her creative work and with depth and humor reflects upon the important events that touched her daily life.

Always herself, a deeply sensitive and creative person, she wrote the following as her personal conception of creativity:

It must be a total awareness and involvement in life in everything you do: concentrating on a theme or facet of life or living makes us look and search between ourselves—and to listen to the silent words.

Annita Delano Alice M'Closkey Maurice Bloch Sam Amato

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## **Llewellyn Morgan Buell, English: Los Angeles**

*1888-1975*

*Professor Emeritus*

Llewellyn Morgan Buell died in Claremont, California on February 13, 1975 at the age of eighty-six; he was one of the faculty members who participated in the transformation of UCLA from the Southern Branch on Vermont Avenue into the major University of California campus that it has become. He is survived by his widow, Theodora Franz Buell, who is a daughter of the late Shepard Ivory Franz, founding chairman of the Department of Psychology at UCLA.

Born in Jamesville, New York in 1888, Professor Buell received his B.A. degree from Cornell University in 1910. At Harvard University he received his M.A. in 1911, and his Ph.D. in 1917. After serving as a first lieutenant in the U.S. Army Air Service in World War I, he taught at the University of Missouri and at Yale University before joining the faculty of the then newly established Southern Branch of the University of California in Los Angeles in 1922. He was one of those, together with Frederic T. Blanchard, Alfred E. Longueil, Lily Bess Campbell, Sigurd B. Hustvedt, and others who helped create a department of English worthy of the university just then coming into being.

After a leave of absence during 1925-1926, made necessary by a serious case of tuberculosis of the eyes, he returned to the Southern Branch in 1927 to become executive secretary to Provost Ernest Carroll Moore. He remained in this central administrative post during the critical years, which saw the Southern Branch move from its Vermont Avenue campus to the Westwood site. UCLA owes much of its basic character, both physical and academic, to the contributions made at that time by its faculty and administrators. Among these, Dr. Buell was not one of the least.

Once UCLA was established on the new campus in new form, Dr. Buell returned, in 1931, to full-time teaching in the Department of English. He continued in that capacity until his retirement in 1955. Both in his teaching and in his scholarly publications, his interests were focused on the Elizabethan period, and on Shakespeare in particular.

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His edition of *Richard II* for the Yale Shakespeare Series remains one of the standard texts in the field today. The syllabus that he evolved for the general undergraduate course in Shakespeare helped shape the course as it is still taught at UCLA. As advisor and counselor to innumerable undergraduate and graduate students, as a member of Academic Senate committees, and as acting chairman of his department in summer sessions, Dr. Buell served his university generously and well.

For a third of a century, during a critical period of its development, UCLA found Llewellyn Morgan Buell—as teacher, scholar, administrator, and friend—one of its good and faithful servants. But in the words of his favorite poet, words which he sometimes quoted to the students and associates who admired him

*Pray now, no more: I have done  
As you have done; that's what I can, induced  
As you have been; and that's for my country.*

His country was the University of California at Los Angeles.

F. M. Carey A. E. Longueil F. P. Rolfe J. E. Phillips

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## **Brenton K. Campbell, Spanish and Portuguese: Berkeley and Santa Barbara**

*1929-1973  
Associate Professor of Spanish*

Brenton K. Campbell was born on September 23, 1929 in Des Moines, Iowa and died of cancer in Santa Barbara on July 31, 1973. He was a man of good cheer and good will even with the physical adversities and uncertainties of his last few years.

Brenton Campbell derived a deep personal pleasure throughout his life from studying languages. After graduating with a major in Spanish and French from Simpson College, Indianola, Iowa in 1950, he attended



a Mexico City College summer session and then, for the year 1950-51, the University of New Mexico. From 1951 to 1954 he served in the U.S. Air Force, during that time completing its Russian Language Program at Syracuse University. For the two years after his discharge, he was in Europe earning certificates and diplomas of language proficiency at the Universities of Perugia, Granada, and Paris. He returned to the United States in 1957 as a graduate student at the University of California at Berkeley, and received the Ph.D. in Romance languages and literatures with specialization in Spanish literature in 1961. For the following two years he remained at UCB as instructor in Spanish.

In 1963 Dr. Campbell was invited to join the faculty at the UC Santa Barbara campus, where he served loyally until his death ten years later. He gave unstintingly of himself to the University. Administrative assignments big and small were undertaken by him with model unselfishness and scrupulous zeal. In 1968-69 he was associate director of the Madrid Study Center, in the UC Education Abroad Program. At UCSB he was vice chairman of the Department of Spanish and Portuguese from 1970 to his death, and acting chairman whenever the occasion required. He was also chairman of the interdisciplinary program of Hispanic Civilization during his last year, after several prior years on its advisory committee. In addition to the many other committees on which he served, both departmental and campus-wide, he took an active interest in the Academic Senate and was an elected representative to that body.

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Brenton Campbell viewed pedagogy as a serious and rewarding calling. All-important for him was the setting up of goals and the satisfaction of achievement in them. In this vein, the guiding rule for himself and for his students was a deep devotion to learning and the acquiring of knowledge and skills, the personal discipline involved, and the resulting perfecting of oneself. He was exactly the right person to create, develop, and administer a new course of individualized Spanish language instruction which allowed students to progress efficiently at their own pace through a series of programmed steps and tests. He devoted himself to this task untiringly during the last year of his life. Another favorite course of his was the regular departmental offering in Theory of Literary Criticism.

Dr. Campbell's intellectual interests and the expression of them were the prevailing passion of his life. In addition to his work in languages and literary criticism, he had an abiding concern with philosophy, philosophy of languages, linguistics, and comparative literature. His publications reflect these divergent yet related interests, through his articles and reviews in scholarly journals, notably *Romance Philology*, *Hispanic Review*, *Hispania*, *Linguistics*, and *General Linguistics*.

Brenton Campbell is survived by his mother, a brother, his wife Greti, and his daughter Keven and his son Jason. His death at the early age of forty-three is deeply felt not only by them but also by his colleagues and many friends. He will always be remembered for his honesty, integrity, tolerance, humility, sober elegance, charming conversation, his deep sense of justice, his respect and courtesy for others, and a refreshing faith in the natural goodness of the world.

David Bary Enrique Martínez-Lopez Winston A. Reynolds

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## **Harold Dean Carter, Education: Berkeley**

*1904-1973*

*Professor Emeritus*

After having been associated with the University of California, Berkeley, for thirty-six years as a member of the faculty in the Department of Education, Harold Dean Carter died suddenly in his Placerville residence

on March 3, 1973. He is survived by his wife, Jean Timberman Carter, a graduate of Oberlin; by two sons, Benjamin and Timothy; and by two granddaughters, all of this state.

Born in McIntyre, Iowa on December 30, 1904, he graduated from the Valena High School, Minnesota in 1922, going on to the University of Minnesota that fall. There he earned his B.A. degree in 1926, his M.A. degree in 1927, and his Ph.D. degree in the psychology department in 1930, with emphasis on the field of Tests and Measurement and with minors in Mathematics and Biometry.

Dr. Carter's professional career was devoted almost exclusively to three institutions: the University of Minnesota, where he was a part-time instructor for three years; Stanford University, where he held a social science fellowship and worked closely with Lewis M. Terman and E. K. Strong, pioneers respectively in individual intelligence testing and in inventorying vocational interests, and where he did some teaching in the Department of Psychology for three years; and the University of California, Berkeley, beginning as a lecturer in 1937 and becoming a professor in 1950. He retired on June 30, 1971.

His research dealt with problems in the areas of factors other than intelligence associated with learning, emotional habits, study habits, twin resemblances, vocational interests, and cultural differences. This research resulted in the publication of thirty-five articles in the principal journals in Psychology and Educational Psychology; and his personal commitment to psychological research in education led him to be one of the founders of the California Educational Research Association, in which he was a recognized leader until his retirement.

The foregoing sketch may seem to portray a cloistered scholar, confined to his own institution, and performing his duties routinely and unimaginatively. Such was not the case with Dr. Carter. On several

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occasions he served as educational consultant for different state agencies and for local school systems, and he was called upon from time to time to address local school staffs and/or their patrons.

He was popular as a teacher with undergraduate and graduate students alike. In his elementary courses he gave splendid lectures. He was quick to note students who were temporarily confused and were accordingly frustrated. It was his practice to help such a student to regain his composure by relating a joke or humorous incident or by asking him an easy question or two which led him in the desired direction. Though he tested and graded rigorously, his students knew that he was fair and “on their side.”

In advanced seminars he always emphasized the positive, much preferring to stress what was good, new and interesting, and concerning himself less with criticism. His greatest accomplishment as a teacher was demonstrated in his method of dealing with doctoral students who were preparing dissertations. He seemed always to sense the right amount and kind of assistance needed. His suggestions for improving a manuscript were regularly addressed to the thesis as a whole, and not to trivial details. The scholarly accomplishments of his more than sixty doctoral candidates attest to his skill and wisdom.

Dr. Carter was uniformly liked and admired by his colleagues, and with good reason. He carried his full share of committee work in his department and did so faithfully and well. In faculty meetings he sought the best solution of problems rather than the acceptance of his own views. He was a tough adversary in debate, but by his willingness to “yield small things gracefully,” he often won the victory or a near-victory.

All in all, as a human being, Dr. Carter may perhaps be best described as a gentle man—gentle but not “soft.” Long a sufferer from arthritis, he did not complain of his pain or inveigh against his physical limitations. Instead, as in the instance of his hobby, carpentry, he used his ingenuity to devise mechanical aids to help him do what he wanted to do. Only rarely was he given to anger; and when he yielded to this emotion it was not directed toward particular persons but rather toward what he considered wrong decisions or unfortunate events. He will be remembered as an able scholar, a fine man, and a good friend.

## **Nathaniel Terry Coleman, Soils and Plant Nutrition: Riverside**

*1919-1973*

*Professor*

*Associate Dean, College of Biological and Agricultural Sciences*

In the waiting room of a hospital, to which he had gone to obtain inoculations in preparation for a long-planned trip to Indonesia as a consultant for the Agency for International Development and the International Rice Institute, Nat Coleman died instantly of a massive heart attack on August 1, 1973 in Loma Linda, California. This sudden removal of a man who had been a central figure in the development of the Riverside campus and who was one of the most admired and respected members of the faculty, has left his wife Betty bereft and many friends among his colleagues in the University and around the world feeling that their own lives are, in some substantial measure, diminished.

Born in South Boston, Halifax County, Virginia on November 24, 1919, Nat Coleman grew up and obtained his schooling in Virginia. He graduated in 1940 from Knox College in Galesburg, Illinois with a bachelor of science degree in chemistry. There followed a five-year period in the United States Navy, largely in the Pacific, from which he emerged as a lieutenant commander. After the war he entered graduate studies at the North Carolina State University in Raleigh, obtaining his doctorate in soil chemistry in 1949. He then spent a year as an Atomic Energy Commission Postdoctoral Fellow in the laboratory of Hans Jenny at Berkeley. In 1950 he returned to North Carolina State University as an associate professor and was advanced to professor in 1955. In 1957 he was appointed William Neal Reynolds Distinguished Professor at Raleigh. On leave during the academic year 1959-1960, he served as head of the agricultural section of the Department of Research and Isotopes of the International Atomic Energy Agency in Vienna.

Seeking, as he told friends, a greater challenge and a broader scope, Dr. Coleman joined the faculty of the Riverside campus of the University in 1961 as professor of soils and plant nutrition and chairman of

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the department. His subsequent services to the campus and to the University were both varied and extensive. He served as chairman of his department until 1965, and was associate director of the Dry Lands Research Institute from 1964 to 1966. He was a member of the Committee on Budget and Interdepartmental Relations from 1963 to 1965 and was chairman of this committee during the final year. From 1966 to 1968 he was chairman of the Riverside Division of the Academic Senate and a member of the statewide Academic Council. In 1970 he was chosen as Faculty Research Lecturer.

In 1968 an administrative rearrangement led to the establishment of the College of Biological and Agricultural Sciences and Dr. Coleman became its associate dean. From this time until his death he took part in every important decision concerning the college, and his clear logic, lucid expression, and unalterably high standards of academic as well as other conduct were major influences in its development. His vision of the college and the campus was so clear and his analytic and expository talents so marked that his influence will be apparent for many years.

In spite of his willingness to make the difficult decisions and to support the unpopular position, few men receive more admiration and affection than he enjoyed. In the words of a close colleague, "The only mean thing Nat Coleman ever did was to leave us behind."

Nat Coleman was an inspiring teacher, particularly in a tutorial relationship with graduate students. Twenty-three students obtained the Ph.D. under his direction and four more completed master's degrees with him. His advice and critical evaluation of evidence were important influences in the training of many more graduate students. At the time of his death he was actively directing the work of two doctoral candidates, who perhaps more strongly than anyone else, realize the full meaning of his loss.

Dr. Coleman's professional stature developed early and remained outstanding during a lifetime filled with a variety of interests but always oriented around his research. His early papers dealing with the chemistry of cation and anion exchange and ion activity in relation to the composition of soils established him among first rank of this country's chemists. This was recognized in his selection as a fellow of the Soil Science Society in 1965 and in his election as president of that society in 1968. He continued to develop these interests and his understanding of the chemistry of acid soils led him to become an authority on soils of the tropics, particularly South America. The twenty-six years Nat Coleman spent in research will have a lasting influence on his discipline. He leaves a legacy of basic understanding of soil chemistry which will continue to be the foundation for improvements in the cultivation and utilization of soils.

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This practical application of his basic research would please Nat. In the talk which he gave as Faculty Research Lecturer in 1970, *The Good, and Not-So-Good Earth*, he said that, "While the findings basic to most, if not all, of today's technology were made by people who had not the slightest idea of or interest in how they would be applied, I contend that equally important is the integrator, the adaptor, the mission-oriented researcher, who aims to apply knowledge for the benefit of society and who must often seek new knowledge to accomplish his purpose." His view of the necessary interdependence of basic and applied research was well expressed in his participation in the report of the National Academy of Sciences Committee for evaluation of agricultural and particularly U.S. Department of Agriculture research and this report is currently a strong influence in the rapidly changing structure of agricultural research.

An adept in the purest of research and endowed with the highest of principles, nevertheless, Nat Coleman was a man who by his own choice worked, "for the benefit of society," in mission-oriented research and academic administration. In the years ahead many academics and many formerly hungry tropical citizens will be grateful that he made this choice.

H. P. Bailey F. T. Bingham J. P. Martin S. E. Sperling R. T. Wedding

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## **Donald Coney, Librarianship: Berkeley**

*1901-1973*

*University Librarian Emeritus*

*Professor Emeritus*

Donald Coney was University librarian at Berkeley for twenty-three years until his retirement in 1968. He was born in Jackson, Michigan, on February 21, 1901, and received his A.B. in 1925 and his A.M. in library science in 1927 from the University of Michigan. In 1927-28 he served as librarian of the University of Delaware, in 1928-31 as assistant librarian of the University of North Carolina, and in 1931-32, also at North Carolina, as Assistant Director and Professor in the library school. In 1932-34 he was Supervisor of Technical Processes at the Newberry Library in Chicago. He then accepted, at age thirty-four, his first university librarianship, at the University of Texas.

In 1945, after eleven years at Texas, Coney came to Berkeley as University Librarian. The twenty-three years during which he held this post encompassed a great period of growth of the University and its libraries. The Library at Berkeley grew from about 1,300,000 volumes to more than 3,000,000, and its career staff increased from about 175 to well over 400. Don Coney became one of the important reasons for Berkeley achieving high distinction among the universities of the world. He created the University Library as it is known today, and it remains his achievement.

Donald Coney's interest in the University, moreover, was not restricted to its libraries. As a member of the Buildings and Campus Development Committee, or of its various subcommittees, often as chairman, he was influential in the design of many of the major new buildings on the campus, such as the Student Union, Hertz Hall, Zellerbach Hall, the Art Museum, Wurster Hall, and the Moffitt undergraduate library. Students at Berkeley, who take pleasure in the graphic arts, will remember him for his part in the development of the Graphic Arts Loan Collection in the Library, a circulating collection of more than 800 original prints by artists from the sixteenth to the twentieth centuries.

In 1955 he was named chairman of the Committee for Drama, Lectures and Music,

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whose name he shortly changed to the Committee for Arts and Lectures. The programs of CAL he designed the rubric—rapidly became models of their kinds, pleasing and exciting, but always educating their audiences. Under his guidance, the Berkeley campus developed as one of the leading dance centers in the western United States; in lectures, film, and theatre, the offerings were exceptional in their range and quality; in music, programs of comparable merit could only be found in a major metropolis. He served as committee chairman until 1970, two years after his retirement. Without exaggeration, it can be said that he was the principal architect of the cultural program for which the Berkeley campus is justly famous.

In other areas of University service, he was Vice Chancellor for Administration in 1955-56; and from time to time he was a member of various administrative committees, such as the Chancellor's committees on television, radio policy, centennial celebration, and orientation of new faculty members. He was a member of the Board of Directors of the Faculty Club in 1951-57 and its President in 1952-53. He was also, during his entire career at Berkeley, an active Professor in the School of Librarianship and a most sagacious member of the University-wide Library Council.

Off campus, Mr. Coney was a giant in the professional library community. He published little, but he wrote well, with humor, and with great good sense. During his early years at Berkeley, he was engrossed in the national problems of acquiring foreign research materials that had failed to reach our libraries during World War II. He became a member of the Council of the American Library Association and advanced to the Executive Board in the mid-1950s. Also, in the American Library Association and in the Association of Research Libraries, the Association of College and Research Libraries, the Association for Asia Studies, and the California Library Association, he fulfilled multitudinous assignments in such areas as joint importations, cooperative microcard and microfilm projects, the National Union Catalog, the Farmington Plan, the Library Technology Project, the acquisition of South, South East, and Far East Asian resources, research library mobilization, and cooperative access to newspapers and other serial publications.

As a person, Donald Coney was an honestly and broadly cultured man. Though he never flaunted his love of books, he was immensely literate; and he had extraordinary knowledge of, and excellent tastes in, the arts. In committees, he was consummately skillful in the processes of decision-making. He was always rational, reasonable, and searching; and he never lost his sly sense of humor. He was self-effacing in his personal life, quiet, reserved, and unassuming.

Let it now be remembered, even though belatedly, that over the full

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span of his career, Don was a truly great librarian. He did more for the Berkeley Library than anyone else has ever done, and few at Berkeley have contributed so much to the general educational, cultural, and physical welfare of the University.

Raynard C. Swank Travis M. Bogard J. Periam Danton

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## **Paul H. Daus, Mathematics: Los Angeles**

*1894-1973*

*Professor Emeritus*

Paul H. Daus was born in Chicago, Illinois on June 19, 1894, and died in his home at San Jose on March 27, 1973. He is survived by his wife, Daphne, of San Jose and two daughters: Mrs. Eric Kay of San Jose and Mrs. Floyd W. Preston of Lawrence, Kansas.

After graduating from Wendell Philips High School in Chicago in 1912, Professor Daus began his career in higher education by winning a competitive examination in mathematics at the University of Chicago. Here he was awarded the bachelor's degree with highest honors in 1916, majoring in both mathematics and physics. Other honors earned as an undergraduate included election to Phi Beta Kappa.

While an instructor in mathematics at the University of New Mexico in 1916-17, Professor Daus met his future wife, Daphne H. Fortney. They were married in 1919 and resided in West Los Angeles most of their lives. Both were active in community and University affairs until they moved to San Jose in 1969.

Professor Daus began his graduate work at the University of Chicago in the summer of 1917. Here he met Professor Derrick N. Lehmer of the University of California, who became his mathematical mentor and under whose direction he was to receive his Ph.D. degree. However, he interrupted his graduate study for two years to teach at Clemson College, South Carolina. He then continued his graduate work at the University of California and obtained his Ph.D. degree there in 1921. From 1919 until his retirement, he was associated with the University of California either as a student or a faculty member.

Professor Daus came to UCLA on the Vermont campus in 1922 as an instructor in mathematics and retired as professor in 1961. He was chairman of the Department of Mathematics from 1944 to 1950 and served on many departmental, Academic Senate, and administrative committees. Outside of his academic and professional activities, his most important service to UCLA was in the area of space assignment and building needs. He played a role in the initial planning of the present campus through many reports to President Robert G. Sproul

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and in planning many later buildings in consultation with the Office of Architects and Engineers. He was a member of the Space Committee—most of the time its chairman—from 1923 to 1950. His services in this area extend beyond retirement through his membership on the Subcommittee on Space Assignment from 1959 to 1964.

Although geometry was Professor Daus's major field of interest, he wrote his doctoral thesis in number theory and published some half-dozen papers in that field. His published works consisted of fifteen articles in various professional journals, and nine textbooks. Five of the latter were written in cooperation with William M. Whyburn, a colleague in the department for many years, and two were written as a member of the panel which wrote the *Geometry* text for the School Mathematics Study Group. He delivered many unpublished invited addresses to various professional organizations, including the California Council of Teachers of Mathematics, State of California Board of Education summer workshops at Santa Barbara and Fresno, the University of New Mexico, and the State University of Utah.

Professor Daus's services to his profession included efficient performance on numerous non-glamorous assignments. For many years he assisted Earle R. Hedrick, then chairman of the mathematics department at UCLA and editor of the *Bulletin of the American Mathematical Society*, in the preparation of copy and proof for the *Bulletin*. He was secretary of the local chapter of Phi Beta Kappa for eight years at the time it was a section of the Alpha Chapter at Berkeley. After it was chartered as the Eta Chapter of California in 1938, he held other offices in the chapter, including that of president. He was secretary-treasurer of the Southern California Section of the Mathematical Association of America from its founding in 1924 until 1957, when he began a term as governor of the section. In 1959, upon invitation, he joined the School Mathematics Study Group and cooperated in the preparation of its *Geometry* text. This led to his appointment as a member of the California Board of Education Panel on Revision of the State Mathematics Curriculum.

His was a fruitful life of devoted service to the University and his profession. Students and associates who worked with him found him to be a warm and stimulating person who was always willing to lend a helping hand.

William Puckett Paul Hoel Magnus Hestenes

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## **Darrell James Drickey, Physics: Los Angeles**

*1934-1974*

*Professor*

Darrell James Drickey died of cancer after a brief illness on December 10, 1974. He was stricken while “going flat out,” to use his words, in the activities he loved best—experimentation and accelerator design at the frontier of high-energy physics. With his death at the age of forty a distinguished career at the peak of creativity was brought to an untimely end.

Professor Drickey was raised on his family's ranch in South Dakota in an area where in his childhood pioneer settlers still survived. Their ethic did much to shape his character. He loved life at the limit of exertion, he cared deeply for those who worked with him, and he relished the struggle that leads to achievement.

He graduated in 1956 from the South Dakota School of Mining and Technology and then went to Stanford for graduate training in experimental high-energy physics. His thesis, on neutral pion photoproduction, led to a measurement of the charge radius of the neutron which provided the best result available and established his interest in the study of form factors. While a graduate student, he supported himself for a time by working as an accelerator operator at Stanford's Mark III Linear Accelerator. He was rather proud of knowing the “accelerator business” from the bottom up; clearly, his work there provided him with the first of many insights into the world of high-energy machines. Later, as his experience broadened, he came to understand this world from all sides, and knew instinctively how to marshal his diverse intellectual and technical resources for a scientific end.

After completing his studies at Stanford in 1963, Professor Drickey spent a year at Orsay, France, and extended his studies of high-energy electron scattering. He then returned to Stanford and participated in the design of the first large streamer chamber. At the same time he organized a research team and with them performed an early study of the dimuon decay of the rho-meson at the Brookhaven National Laboratory. He very much cherished his way of doing physics—identifying a significant scientific objective, selecting a research team of

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people he respected as scientists and enjoyed as friends, and then with them “going flat out” in the attack on the problem. The formation of a research team for the purpose of studying KLo decay modes and interactions

at the Stanford Linear Accelerator brought him in close contact with physicists at UCLA.

Professor Drickey joined UCLA in 1968. His personal warmth and friendliness quickly made him a very popular teacher both in the classroom and in his own laboratory. He was a firm adherent to the principle of “learning by doing,” and had an extraordinary skill in involving students in his research activities at the earliest stages of their training and sharing with them his own excitement in the scientific search.

In 1970, Professor Drickey became the leader of the U.S. team in the first U.S.-Soviet collaborative experiment at the Soviet accelerator at Serpukhov, USSR. The purpose of the experiment was the first direct measurement of the electromagnetic size of the pion by means of a technique he had proposed in 1967. His family as well as the families of the members of the U.S. team spent almost a year at Serpukhov. He was particularly proud of this work, not only of its scientific results, but even more of its social aspects, the pioneering effort in close international scientific collaboration. At the time of his death, he had reassembled his U.S.-Soviet research team at the Fermi National Laboratory in Illinois for a second and vastly more precise measurement of the pion size. At the same time, he was lending his unique talents in accelerator design to a study to double the energy of the laboratory's accelerator, already the most powerful machine of its kind in the world.

A life brought to an abrupt end at a peak of creativity is a particularly grievous loss. Darrell Drickey had boundless energy and a great infectious enthusiasm in all that he did. He loved his science and attacked its frontiers. His reputation as a scientist was worldwide and his advice in matters of international collaboration was sought by scientists and statesmen alike. He loved people and made deep and lasting friendships wherever he went. His colleagues responded to his affection for them, to his zest for life, and to his taste for significant scientific problems. These qualities and his extraordinary skill as an experimentalist made him a natural leader. He will be greatly missed.

Darrell Drickey's widow, Martha Tomovick Drickey, together with his surviving children, Roger (aged thirteen), Cheryl (aged 11), and Linda (aged 9) shared fully in his physics experiences, and especially in his travels. In South Dakota, where he often visited with his family, he is survived by his mother Josephine Drickey, his brother Bruce, and his sister Shirley.

Charles D. Buchanan Donald H. Stork Harold K. Ticho

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## **Hans Albert Einstein, Hydraulic and Sanitary Engineering: Berkeley**

*1904-1973*

*Professor of Hydraulic Engineering, Emeritus*

Professor Hans Albert Einstein, an accomplished scholar, engineer, and teacher, was born on May 14, 1904 in Bern, Switzerland, a year before his father, Albert H. Einstein, published the *Special Theory of Relativity*. His mother, Mileva Maric, was from Serbia and was a physics student before her marriage. Professor Einstein received his elementary school education in Zurich. In 1926 he received the Diploma in Civil Engineering, and in 1936 the Doctor of Technical Sciences, both from the Swiss Federal Institute of Technology in Zurich.

For four years following the receipt of his Diploma degree, he worked in Dortmund, Germany as a steel designer. During Professor Einstein's graduate study he became deeply interested in the fundamental mechanics of the transportation of sediment by flowing water. His doctoral thesis, *Bed Load Transport as a Probability Problem* (1936), is the definitive work on sediment transportation as accepted by engineers and scientists throughout the world.

In 1927 he married Frieda Knecht of the University of Zurich, a teacher of German language and literature. One of their three children, Bernard, is a physicist, and the second, Evelyn, took her degree in anthropology.



A third child, Klaus, died as a young boy shortly after the family came to the United States.

In 1938 Professor Einstein immigrated to the United States where he continued his research on the transport of sediment, first at the U.S. Agricultural Experiment Station at Clemson, South Carolina (1938-1943), and later (1943-1947) at the U.S. Department of Agriculture Cooperative Laboratory, California Institute of Technology. These years of research culminated in the classic Department of Agriculture Technical Publication No. 1026, *The Bed-Load Function for Sediment Transportation in Open Channel Flows*.

Professor Einstein joined the faculty of the University of California in 1947 as Associate Professor, and later became Professor of Hydraulic Engineering. He possessed the rare combination of a highly competent research scientist, a fine practicing engineer, and an excellent teacher in both the graduate and undergraduate areas of instruction.

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To recognize the many valuable contributions of Professor Einstein in research and teaching, his many former students organized in his honor a symposium on sedimentation on the Berkeley campus upon his retirement in 1970. The proceedings of this symposium resulted in the book, *Sedimentation*, in 1971.

Professor Einstein's extracurricular activities were diverse and numerous. He loved sailing and music. No day was too rough on San Francisco Bay to prevent him from heading out through the entrance of the Berkeley Yacht Harbor for a period of excitement and relaxation on the Bay.

Professor Einstein was extremely generous with his time—whether in conferences with his many graduate students, teaching for brief periods at foreign universities, or advising countries around the world on solutions to critical sedimentation problems. On one such occasion in late June 1973, he was at the Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, giving lectures and participating in research when at lunch he suffered a heart attack from which he did not recover and died July 26, 1973. Early after his arrival at Woods Hole he expressed his admiration of the beauty and serenity of this small seaside town—his family therefore chose the small cemetery overlooking the harbor as his final resting place.

Widowed in 1958 by the death of his first wife, Professor Einstein married Elizabeth Roboz, then a biochemist at Stanford Medical School, and later Clinical Professor of Neurology at the University of California, San Francisco Medical Center.

By students, friends, and colleagues, Hans Albert Einstein's name will be recalled with warmth throughout the world. He offered encouragement and patient assistance to his students, and through his contacts with students, teachers, and engineers, he had great influence on the scientific development of the hydraulics of sedimentation in foreign countries as well as in the United States. As an example of the many letters received by the Department from former graduate students, one student observed, “The picture of his well built and smiling figure striding across the Hydraulic Laboratory still hovers in my mind and before my eyes. We will always cherish those sweet memories.”

Among Professor Einstein's numerous honors and awards were a Guggenheim Fellowship (1953), research awards from the American Society of Civil Engineers (1959 and 1960), The Berkeley Citation from the University of California (1971), the Certificate of Merit from the U.S. Department of Agriculture (1971), and a certificate of recognition for more than twenty years of devoted and distinguished service to *Applied Mechanics Reviews* by the American Society of Mechanical Engineers (1972).

J. W. Johnson D. K. Todd R. L. Wiegel

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# Robert Marion Featherstone, Pharmacology and Experimental Therapeutics: San Francisco

1914-1974

Professor

The University lost a statesman, scholar, and one of the world's most prominent pharmacologists when, on May 28, Robert M. Featherstone died suddenly from a massive myocardial infarct in Geneva, Switzerland. He had no prior history of coronary disease. At the time of his death he was just completing a sabbatical leave at the University of Geneva where he was involved with projects concerning the pharmacology of gases, drugs, and deep sea diving.

Robert Marion Featherstone was born on December 24, 1914 in Anderson, Indiana. He received his undergraduate education at Ball State Teachers College in Muncie, Indiana, and his Ph.D. in biochemistry from the University of Iowa. He joined the faculty of the pharmacology department at Iowa in 1944 and became professor in 1955. In 1957 he was named professor and chairman of the Department of Pharmacology at the University of California in San Francisco.

During his tenure as department chairman at UCSF, from 1957 to 1973, he was instrumental in developing a strong graduate program in pharmacology and toxicology. He built the graduate student enrollment from four in 1957 to forty in 1972. By the latter date, the department also included ten postdoctoral fellows and an augmented teaching staff which successfully accommodated a continually increasing student body in the professional schools. He organized his department on a broad base and this earned the department recognition for teaching and public service as well as research. His faculty received more teaching and service awards than any other department on the San Francisco campus. He was a strong advocate of faculty government and within the University, he served and chaired many local campus and statewide committees. From 1968 to 1971, during a period of student and faculty unrest, he presided fairly and tactfully as chairman of the Academic Senate.

At the national level, Dr. Featherstone served on many committees for the National Institutes of Health. He was a member of the Cancer

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Chemotherapy Study Section of the Cancer Institute from 1960 to 1967 and was selected in 1968 by the Institute of Neurological Diseases to serve on the US delegation to the USSR on Problems of Higher Nervous Activity. However, he was most active with the Institute of General Medical Sciences and he served NIGMS ably in many capacities as a consultant. He played a major role in fostering the development of training programs in pharmacology and toxicology and was chairman of the Committee on Pharmacology and Toxicology Training Programs from 1963 to 1970. He was one of the most active members of the American Society for Pharmacology and Experimental Therapeutics. During his twenty-seven-year membership, he served as councilor (1967-1970) and president (1968-1969). He belonged to several other national societies and served on the editorial board of *Molecular Pharmacology*, *Biochemical Pharmacology*, and *Neuroscience*. He was also active in the local community and on a statewide level. He played a significant part in the development of the Drug Abuse Information Project, which functioned as a clearinghouse of information on drug abuse and assisted the state legislature in drafting humane and effective drug laws. In recognition of his scientific accomplishments and public service, Ball State University named him as the alumnus of the year in 1960 and awarded him an LL.D. in 1962.

His involvement in international pharmacology led him to attend congresses in Austria, Japan, Italy, England, Argentina, Holland, Czechoslovakia, and Switzerland, and this was highlighted by his able and distinguished service as president of the Fifth International Congress, which was generally deemed to be the best ever. At this

congress, he was presented with a medal on behalf of the Scientific Council of the Institute of Pharmacology of the Soviet Union's Academy of Sciences.

His primary area of research interest was molecular pharmacology. He was also interested in various aspects of neuropharmacology, particularly those concerned with cholinesterase and acetylcholine, but he is best known for his work on mechanisms of anesthetic action. He used the chemically inert gases xenon and cyclopropane as tools to elucidate the biological, chemical, and physical mechanism by which anesthesia can be produced. He and his colleagues recently concentrated on the interaction of xenon with myoglobin as a model system for the interaction of small molecules with large molecules. At the time of his death, he was exploring drug-protein interactions that might have practical consequences in such diverse areas as deep sea diving and the treatment of sickle cell anemia. He authored sixty original papers and five monographs and books.

In his private life, Dr. Featherstone was an active and concerned member of his community, but probably more than anything else he

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loved music. An accomplished violist and violinist, he studied with a professional violist during his sabbatical years in England and Switzerland, and played for several years with a San Francisco and chamber music group. He was a patron of the symphony, ballet, opera, and theater, and his move from the Midwest to San Francisco allowed him to savor fully the arts. He was by nature kind, warm, and sociable. These attributes coupled with his fine sense of humor and ready smile enabled him to have a wide circle of friends. Despite his numerous trips from home, he was a devoted family man. He enjoyed the companionship of his family, and they spent many hours together in travel and enjoying the rigors of the outdoors, hiking and camping. He is survived by his wife, Joyce, whom he married in 1940, and four children, David, Jean, James, and Judith. Few men can be successful as a scientist, administrator, musician, husband, father and still enjoy life. Bob Featherstone was and did all these things, and our world is less rich for our loss.

Alan Burkhalter E. Leong Way

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## **Walter Joseph Fischel, Near Eastern Languages: Berkeley and Santa Cruz**

*1902-1973*

*Professor of Semitic Languages and Literature, Emeritus*

Walter Joseph Fischel was born in Frankfurt am Main, Germany on November 12, 1902. He began his studies at the University of Heidelberg. He lectured at the Rabbinical College in Frankfurt from 1922 to 1924. In 1926, after receiving his Ph.D. from the University of Giessen, he came to the newly formed Hebrew University of Jerusalem where he served as assistant research fellow and lecturer in Oriental studies. During the following years his research took him to Egypt, Syria, Turkey, Iran, and India. He was invited to the University of California, Berkeley in 1945 as a visiting lecturer and only one year later he was appointed a full professor of Semitic languages and literatures. He served as chairman of the Department of Near Eastern Languages for ten years, from 1948 to 1958.

During his Berkeley career he was a recipient of a number of distinguished research grants, among them a Guggenheim Fellowship for 1959-60 and a Fulbright fellowship for 1963-64. He was elected a Fellow of the American Academy of Jewish Research and of the Royal Asiatic Society of Great Britain and Ireland. He authored a number of books, among them: *Ibn Khaldun and Tamerlane* (1952); *The Jews of India, Their Contribution to the Economic and Political Life* (1960); *Ibn Khaldun in Mameluk Egypt* (1967); and *Jews in the Economic and Political Life of Medieval Islam* (1937), which was reissued with an essay as *The Court Jew*

*in the Islamic World* in 1969.

He was acknowledged as an authority in the history and culture of the Jewish communities in Persia and India. Undoubtedly it was because of this renown, that in 1971 he and Mrs. Fischel were invited to a private reception by the Shah of Iran at his grandiose celebration of the 2500th anniversary of the founding of the Persian Empire under Cyrus the Great. Another milestone of his sunset years, of which he was proud, was that upon becoming emeritus at Berkeley in 1970, he was pressed into service by the University of California, Santa Cruz where he taught Jewish studies during the last three years of his life.

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The foregoing represents only the bare bones of his academic career. It says nothing of his urbanity and wit, which engaged colleagues and students alike. Nor has it mentioned his devotion to his wife and daughter, a devotion reciprocated in full measure by them. It is not without significance that Irene has spent these months following his death collecting his memorabilia or that Corinne is presently studying at the Hebrew University of Jerusalem, precisely in the same field and at the same institution where her father launched his career.

When he came to this campus he was expected to encompass all of Jewish and Islamic civilizations. Today the Department of Near Eastern Studies with which he was associated for close to thirty years comprises twelve full-time professional positions in these two fields alone not to speak of the cadre of visiting professors, instructors, and teaching associates attached to the positions. Moreover, Jewish and Islamic studies have been granted the status of interdisciplinary majors, and student pressure for new courses in these fields continues unabated. The tenure of Walter Joseph Fischel in this department spans this growth. It shall serve us as a directive and challenge for the future.

J. Milgrom R. B. Alter R. S. Cooper E. M. Epstein

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## **Alan E. Flanigan, Engineering: Los Angeles**

*1911-1974*

*Professor*

If a sculptor were to make a statue of Alan Flanigan he would have to hew it out of a block of marble, rather than shape it from a pliable clay, to express the integrity, purposiveness, and wholeness of the character of the deceased. Such was the man we used to know from the day Alan Flanigan joined our faculty in 1946 to the day of his untimely death on December 5, 1974, after a prolonged and painful illness. The familiar saying about Alan Flanigan was that whatever he did he left no stone unturned: in research, teaching, professional work, academic service, even in sports. In all these endeavors Alan strove for perfection.

This striving appeared to have been passed on to Alan by his father James, a self-made man and successful actuary. The latter might also have inspired his son with love for mathematics, “the Queen of All Sciences.” For, after finishing with high honors the Erasmus Hall High School in Brooklyn, N.Y., Alan enters the prestigious Department of Mathematics in Princeton. For three years he is the same brilliant student at the university as he was in high school. But then comes the depression of the thirties with its bewildering and distressing spectacle of hunger amidst plenty, which must have impressed young Alan no less than other young men of his generation. He manages though to get his B.A. in mathematics and even to work for a time as an actuary in the footsteps of his father, but his heart is no longer in his studies. He wants to find out what real life, the life of common people, is like. Thus we see Alan taking on various jobs in the period of 1935-1938, among them that of an arc welder in New York and of a ranger in the U.S. Forest Service in Alaska. In 1938 he goes back to school, but this time as a graduate student in mechanical engineering in Berkeley. There he

gets his M.S. degree in 1940 and his Ph.D. degree in physical metallurgy in 1947. Incidentally, his Ph.D. thesis marks the first step in a long research career, which was ultimately to bring Alan Flanigan national and international recognition. Typically, he picks up one of the most elusive problems in welding metallurgy: the effect of hydrogen

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on embrittlement of welds. Ably aided by his graduate students, he pursues this study with dogged persistence and single purpose for almost twenty years. When in 1966 he is invited to deliver the coveted Annual Comfort A. Adams lecture at the American Welding Society in Cleveland, it is obvious to everyone that the last word on the subject of hydrogen embrittlement in welds has been said. Alan Flanigan now is a recognized authority in the field of welding. He is the reporter at the Colloquium on Welding Metallurgy at the International Institute of Welding in Kyoto, 1969; the participant of the 1964 USA-USSR Faculty Exchange Program; member of the American delegation to the International Institute of Welding in Paris in 1965, to name a few. Not only in research but also in teaching, Flanigan strives for perfection. His course and laboratory in physical metallurgy is a model of planning, organization, and painstaking execution. He seeks constantly to improve the content and presentation of the course. His relation to the students is one of total dedication. He spares no time and effort to stimulate their interest, encourage their effort, and improve their work by giving each of them his personal attention.

Another activity for which Alan Flanigan is well known and gratefully remembered by the faculty is his yeoman's service on the various committees of the department and the Academic Senate. Since 1950 he served on no less than twenty college and departmental committees, eight Academic Senate Committees, among them the very exacting and time-consuming Committee on Budget and Interdepartmental Relations (including secretaryship of the committee), and the Committee on Committees. He was a delegate to the University-wide Assembly of the Academic Senate, member of the All-University Faculty Conference, and chairman of the Community Service Committee. He is remembered by his colleagues for his complete devotion to the task, his thoroughness, and painstaking and scrupulous observance of fair play. Here, as in research and teaching, he leaves no stone unturned to arrive at the right decision.

Nor was his preoccupation with public affairs limited to the University of California. He was an active member of the American Association of University Professors and president of its UCLA chapter. An ardent believer in human rights, he was outspoken in the defense of human liberty and universal peace. An indefatigable traveler and sportsman, he explored systematically and repeatedly, Europe and Soviet Russia. Improved relations between the United States and the Soviet Union was another one of Alan's major objectives, and one where he had considerable success. In particular he established close personal contacts with people working in his own field of research at the Moscow Institute of Steel and Alloys and the Leningrad Polytechnic Institute. In 1972 he began taking part in distance running and

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won several medals in marathons in his age bracket. Always striving for perfection in whatever he did, a man with intellectual and moral integrity—this is the image we retain of Alan Flanigan and share with his surviving wife Mary and his three sons, Thomas, James, and Michael.

R. R. O'Neill G. Sines D. Rosenthal

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## **Ralph Freud, Theater Arts: Los Angeles**

*1901-1973*

*Professor Emeritus*

The death of Ralph Freud on Sunday, November 4th, 1973, after a brief illness, brought to a close not merely one single distinguished career, but a great array of careers which encompassed the total world of the theater. Actor, director, producer, creative founder of many theatrical enterprises—he was all of these, but above all he was a superb teacher and a dedicated moulder of hundreds of young lives at UCLA and in the many communities he had served.

Born in England in 1901, he was brought to America in early childhood. His formal education at Mercersburg Academy in Pennsylvania and in the Detroit public schools was sketchy and brief. By lifelong self-education he developed his native talents to become a leading authority on the American theater, its history, its techniques and practices, and above all, its philosophy.

Ralph Freud's professional career began at the age of twenty as a member of the Bonstelle Stock Company of Detroit, the training ground of such later-famous players as Katherine Cornell, Frank Morgan, Ann Harding, and others. In the following year he toured as general understudy for the Southern and Marlowe Shakespeare Company. In 1922 he came to California as a director at the Pasadena Community Playhouse. During his eight years in that famous institution he played over two hundred roles and directed more than forty productions. In 1937 he became head of the San Francisco Federal Project and was in charge of the building of the project's theater at the San Francisco World's Fair.

Ralph's first association with UCLA was almost casual and certainly not predictive of the tremendous role he was to play just a few years later in the development of theatrical activities on this campus. He was invited to teach two Summer Session courses in 1932, in acting and play production. In the fall of that year he was asked by the Associated Students—not the University—to direct their annual performances. But there the tenuous connection ended and Freud returned to San Francisco to more secure employment.

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Finally, in 1938, Ralph Freud was offered a lectureship in the English department to give the only two courses in theatre that had ever been given here, and this was the beginning of his great project to establish a department of theater arts. Handicapped as he was by the lack of academic credentials, by the apathy of the campus, and by the active opposition of our parent university, he was buoyed only by his great enthusiasm, his unbounded energy, his professional know-how, and by a few staunch supporters in the faculty and administration. The monument to him and to them today is one of the most distinguished departments of theater arts in the United States. And the rewards that came to him are measurable not only in the academic recognition of promotion to the full professorship and in the high esteem in which he is held by the many communities that he has served—Pasadena, Los Angeles, San Francisco, not to forget Hemet and San Jacinto, whose Ramona Pageant he brought to national prominence—but his rewards are measurable beyond all else in the lives and careers of many hundreds of young men and women—some of them now themselves veterans—whom he guided into satisfying, profitable, and productive work.

No sketch of Ralph Freud's life would be even remotely complete without full mention and full credit to his partner of forty years, May-fair Murphey Freud. A native of Pasadena, a theater professional in her own right, she shared in all his travails and all his successes. She was at his side at rehearsals and at opening nights; she presided over wardrobes and makeup. She was his most ardent admirer and his severest critic. His students were her students. They were a team.

Dorothy Foulger John Cauble Gustave O. Arlt

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# Ralph Waldo Gerard, Biological Sciences: Irvine

1900-1974

*Professor Emeritus*

Professor Gerard was born at the beginning of this century, on October 7, 1900. He devoted over fifty years of his life to scientific discovery and education. Professor Gerard received a Ph.D. in physiology in 1921 and an M.D. degree in 1924 from the University of Chicago. He taught for a year at the University of South Dakota in 1921-22 and then returned to the Department of Physiology at the University of Chicago, where he remained until 1952. He left the University of Chicago in 1952 to become director of laboratories at the Neuropsychiatric Institute of the University of Illinois. In 1955 Professor Gerard moved to the University of Michigan where he helped to found the Mental Health Research Institute. He served as director of laboratories and professor of neurophysiology in the Department of Psychiatry and Physiology. In 1963 Professor Gerard moved to the Irvine campus of the University of California which was then being developed. He served as professor of biological sciences, director of special studies, and dean of the Graduate Division. He retired in 1970.

Professor Gerard was an uncommon scientist. He published over 500 scientific papers and nine books. He was clearly one of the most productive and distinguished neurobiologists of this century. Through his unrelenting pursuit of fundamental knowledge he taught us how cells work and he helped us to understand the organization and integrative functions of nerve cells. Professor Gerard's studies of the biology of the nervous system ranged over the full spectrum, from molecules to mind. He posed basic questions and stimulated critical research. His research was the pioneering work on many problems including nerve metabolism and nerve conduction. He studied the action of drugs and hormones on the functioning of nerve cells. His studies in neurophysiology included investigations of the electrical activity of the brain during sleep and the nature of brain waves. In order to examine the electrical activity of single nerve cells he developed microelectrode recording procedures. This technical development revolutionized research in neurobiology. His early studies of regeneration in the central nervous

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system following injury, published almost fifty years ago, posed problems that guide contemporary research on brain plasticity.

Professor Gerard was deeply interested in the function of the nervous system at the most complex levels. He initiated studies of the effects of electrical stimulation and drugs on the formation of memory. He directed research into the biological bases of mental illness.

Professor Gerard was interested in and wrote about the biology of language, ethics, biology and cultural evolution, and education. He was greatly concerned about the impact of science on public policies. Thus, Professor Gerard's behavior as a scientist was like that of his subject matter—the nervous system. He was clearly an “unrelenting” man.

Professor Gerard received numerous awards for his distinguished contributions. He was elected to the National Academy of Sciences and the American Academy of Arts and Sciences. He received honorary degrees from several universities, including the University of St. Andrews, Brown University, and McGill University. He served as president of the American Physiological Society and was the honorary president of the Society for Neuroscience, which he helped to found.

Professor Gerard also provided for us a model of how scholarship and teaching can and do go hand in hand. He was a master teacher. He was a stimulating lecturer to the fortunate students in his undergraduate courses in biological sciences at the University of Chicago. His former students are among the most distinguished leaders in contemporary neurobiology. His books and general articles give testimony to the fact that it is possible to

write about complex matters in a clear and exciting style.

Professor Gerard died on February 17, 1974. Survivors include his wife, Frosty, of the family home in Newport Beach, and a son, James, of New York City.

We have lost a creative, productive, and concerned colleague. We were stimulated by him and we learned much from him. We shall miss him. But, we and generations to come will continue to be influenced by his many contributions.

James L. McGaugh Howard A. Schneiderman

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## Harry Girvetz, Philosophy: Santa Barbara

1910-1974

Professor

Professor Harry Girvetz was a major force in shaping the history of the Santa Barbara campus, a leader in University affairs, a notably successful and influential teacher, and an important figure in liberal causes and in Democratic party politics in the West.

After taking A.B. and M.A. degrees at Stanford, Professor Girvertz received the Ph.D. in philosophy from UC Berkeley in 1937, and was appointed that same year to the faculty of the then Santa Barbara State College.

From the outset, Professor Girvetz won a reputation as one of the most eloquent and effective teachers on campus. “It was he who opened the door to the world of ideas,” a former student recalled with admiration and affection. As a scholar, Professor Girvetz was an authoritative and widely known exponent of the philosophy of liberalism. Inspired by the philosophy of pragmatism, his ideas were first systematically expounded in *From Wealth to Welfare*. This major work was followed by the *Evolution of Liberalism*. In 1973 he published the fruits of his matured reflections on ethical theory, *Beyond Right and Wrong*. He contributed major entries to the *Encyclopedia of the Social Sciences*, and to the *Encyclopedia Britannica*. Many of Professor Girvetz's most deeply held views about the history and significance of philosophy were embodied in the book, *Science, Folklore, and Philosophy*, which he edited, and in substantial part wrote.

Harry Girvetz's horizons, however, were far broader than the field of philosophy. Few members of the University community were more actively dedicated to interdisciplinary approaches to education. In his early years at Santa Barbara Professor Girvetz taught political science, sociology, and history, as well as philosophy; and in later years he was prominent in the tutorial program, offering interdisciplinary colloquia with faculty members from other departments. This breadth of intellectual interests also found expression in three anthologies: *Democracy and Elitism*; *Literature and the Arts: The Moral Issues* ; and the immensely successful *Contemporary Moral Issues*.

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Professor Girvetz's ideas and his personal efforts were decisive influences in the history of the Santa Barbara campus. He was the first chairman (1957 to 1964) of the philosophy department, which grew under his leadership until it offered the M.A. and Ph.D. degrees. His ideas on curriculum and on University governance were often at the center of campus discussion, and he served on many major committees of the Academic Senate—most notably as chairman of the Committee on Privilege and Tenure during the campus controversies and disturbances of 1969-71. He never flinched from controversy. He was ready and able to assume leadership when what he believed to be right needed support or defense, and he was a dauntless fighter wherever he saw a threat to academic freedom or the integrity of the University. These concerns prompted him to spearhead the



organization in 1970 of Faculty for Academic Responsibility, a group active on several UC campuses.

Professor Girvetz was a longtime leader in local liberal Democratic party circles; he was a member of the California State Democratic Central Committee and a delegate to the party's 1956 National Convention. He served as research secretary and as a major speech writer for Governor Edmund Brown during 1959-60. He was a leader in forming the local chapter of Americans for Democratic Action, one of the largest chapters in the state, and he was a key participant in local community planning, and in many organizations dedicated to social reform.

Among his many interests and talents, Professor Girvetz was also an exceptionally successful businessman, a dedicated traveler, and an ardent and formidable tennis player.

Harry Girvetz was a personality of remarkable vigor and force, mellowed by a humane and generous spirit, a genial sense of humor, and a pervasive optimism. He was a devoted family man. He and his wife Bertha raised two sons, Bill, now a teacher, and Jon, a clinical psychologist. Memories of the Girvetz hospitality, of evenings of lively conversation and conviviality, remain vivid for many in the community, and especially for younger colleagues, who were cordially greeted by Harry and Bertha at home, and supported by Harry's genuine concern for their professional welfare.

For as long as they live, those who knew Harry Girvetz will remember him for the great vitality and warmth of his personality, his wisdom and capacity to articulate ideas, and above all for his boundless energy and love of life, a fullness of life that made it possible for him to confront death with enormous courage and dignity.

Herbert Fingarette Gordon E. Baker James L. Walters

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## **John Francis Goins, Anthropology: Riverside**

*1915-1973*

*Professor*

John Francis Goins died on December 11, 1973, after an illness stoically and courageously endured for two and one-half years. He was an original member of the faculty of the College of Letters and Science on the Riverside campus and established the field of anthropology at UCR. He contributed richly to the development of this campus from its earliest years and indeed almost until the day of his untimely death.

Dr. Goins was born in Birmingham, Alabama, on December 21, 1915. He moved with his family to California and attended high school in Oakland, graduating in 1933. He was a student successively on the Berkeley campus of the University of California and at the College of the Pacific at Stockton. His first intention was to major in English, and consistent with this was his lifelong interest in the precise and forceful use of the language. In 1936, without having taken a degree, he went into business in California and later in Hawaii. He married Anna Louise Wilcox in Oakland on May 13, 1938. She and his sons, Tim and Jeb, survive him. Both of his sons are developing anthropologists.

After service in the U.S. Navy in 1943 and 1944, John Goins returned to the Berkeley campus in 1945 and received his B.A. in anthropology in 1948. Going on to graduate work, he received a research grant from the Henry L. and Grace Doherty Foundation which enabled him to spend 1951-52 in Cochabamba, Bolivia, making an ethnographic field study of a Quechuan Indian community. Andean cultural history remained his major research interest. He received his Ph.D. in 1954, just after he had taken up his duties as an instructor on the fledgling Riverside campus in February; there he was to remain for his teaching career.

In anthropology at UCR John Goins made a unique contribution which can never be paralleled or equaled. Part-time help aside, he was for more than five years the only faculty member in anthropology; the second did not join him until July 1959. But Goins was successful in igniting student interest in his subject, which led to the establishment of the major in 1959. He obtained for the campus gifts of artifacts

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which formed the potential beginning of an ethnographic museum and initiated, on bare shelves, what was to become a fine library collection in the several fields of anthropology. He cooperated fruitfully with other cognate disciplines and interested himself in all the concerns of the then Division of Social Sciences, of which he served as acting chairman on occasion. He also served as a member of the Riverside City Planning Commission from 1955 to 1958, an educational experience for his colleagues on the commission as well as for him.

Dr. Goins became an assistant professor in 1955, associate professor in 1961, and professor in 1970. On the breakup of the Division of Social Sciences in 1961, he served as first chairman of the new Department of Anthropology.

His published record is not voluminous. Something of a perfectionist, he seemed to approach with reluctance the final moment when his thoughts and conclusions had to be defined in print. Apart from a number of short papers, his chief publication was his monograph *Huayculi*, which one of his colleagues declared “one of the most lucid and readable monographs ever published in anthropology.” It was based on his dissertation research among the Bolivian Quechua and further informed by field studies in Indian communities in Peru and Ecuador.

Beyond question his greatest contribution was in his teaching, for which he was justly awarded the Distinguished Teaching Award of the campus in 1970. An absolute believer in the principle of teaching his students to think for themselves, he was utterly his own man in the individuality of both his lectures and his examinations, which were, as one student wrote, “predictable only in their unpredictability.” His methods worked superbly. Probably no University of California professor has ever received from his students more devotion and gratitude than did John Goins. The letters which they sent to his department were couched, time after time, in terms of all-out and touching praise for an entirely outstanding teacher. As they have entered professional careers of their own, his students bear marks of the intellectual challenges he posed them.

In personality John Goins was far from run-of-the-mill. Perhaps it was the southerner that showed in his firm adherence to scrupulous and difficult concepts of obligation or honor, and of privacy. He was utterly inner-directed: his ideas might or might not agree with other people's, but, whatever they were, they were entirely his own, arrived at without any particle of attention to fashion or thought of popularity. Such individuality is rare, and is sorely missed.

A. C. Turner H. H. Aschmann H. P. Bailey S. M. Broadbent

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## **Manuel González, Spanish and Portuguese: Los Angeles**

*1893-1974*

*Professor Emeritus*

Manuel Pedro González, an internationally recognized authority in his chosen field, died in Scripps Hospital, La Jolla, July 7, 1974, as the result of an illness complicated by pneumonia and heart difficulties. Dr. González was born in the Canary Islands in 1893, but he came to Cuba at an early age and was educated in that country. He was brought to UCLA in 1924 to teach the first course in Spanish American literature offered at that institution, and before his early retirement in 1958, more courses in Spanish American literature were being

offered at UCLA than at any other university in the United States. The UCLA Department of Spanish became nationally recognized for its graduate work in this area.

Dr. González was active in writing and research until the time of his death. He was the author of twenty books and of numerous articles in his field. He was honored by being invited to teach or lecture at a number of universities, among them the universities of Buenos Aires, New York (Stony Brook), Venezuela, Mexico, Havana, Bahía Blanca, and many others.

Dr. González was the initiator and enthusiastic organizer of the First International Congress of Professors of Ibero-American Literature held at the National University of Mexico in 1938. As a result of this congress a permanent organization of those specializing in this area was established. This organization has published a distinguished series of scholarly books and continues to publish the *Revista Iberoamericana*, a widely read literary and scholarly journal with one of the longest unbroken publication runs in any field of literature.

Dr. González devoted over forty years to an intimate and detailed study of José Martí (1853-1895), the liberator of Cuba from Spain, who was also one of the noblest men and finest writers of Latin America. This devotion to the Cuban liberator resulted in seven books by Dr. González on José Martí. In 1952 Dr. González was chosen as Faculty Research Lecturer at UCLA; the title of his lecture was "José Martí, Epic Chronicler of the United States in the Eighties." Thanks

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also to the initiative of Dr. González the *Sala Martí* and the *Anuario Martiano* were created at the National Library of Cuba.

Eleven years after retirement Dr. González founded and endowed with his savings the José Martí Foundation, in order to foster interest and research in Martí by means of cash prizes to the authors of the most outstanding studies on this great figure. Under the auspices of this foundation and Yale University, a seminar on Martí was offered at that university in 1970. In 1972, through the same foundation, Dr. González organized and subsidized a Martí Congress in Bordeaux, France, which was cosponsored by the University of Bordeaux. This congress held sessions in Bordeaux and Paris, where important papers were read by outstanding Martí scholars from Europe, Spanish America, and the United States.

In addition to his international reputation in Spanish American literature, Dr. González was an omnivorous reader, with an encyclopedic range of interests and knowledge. He was a dedicated scholar, whose unusually perceptive mind and passionate sense of justice were active throughout his life. He was articulate, warm-hearted, generous to a fault, a distinguished teacher, profoundly admired by his students, colleagues, and friends.

Dr. González is survived by his son, Dr. Edward González, of the Department of Political Science at UCLA, and by his daughter, Mrs. Emo D. Porro (Yolanda González), of Del Mar, who worked at the UCLA Visitors' Center for several years.

José Rubia Barcia Hermenegildo Corbató John A. Crow

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## **Jonas Ekblom Gullberg, Zoology: Berkeley**

*1901-1973*

*Professor of Metrology, Emeritus*

No adjective better characterizes Professor Jonas Ekblom Gullberg, known to his friends as John, than **unique**. He was indeed unique in name, person, nocturnal habits of work, achievement, sensitivity to human

frailties, and devotion to the highest standards of workmanship. He was born of Swedish parents in Butte, Montana and remarkably educated as a special student at the Medical School in Sydney, Australia, the London School of Tropical Medicine, the State Institute of Racial Biology at Upsala, Sweden, and by travel, especially by two anthropological expeditions to New Guinea. Gullberg came to Berkeley in the late twenties to visit Professor Charles A. Kofoid, whose parasitological studies he had admired. Kofoid, then Chairman of Zoology, recognized Gullberg's talents, appointed him Cinematographer, created for him a laboratory which was first designated the Laboratory of Microcinematography, and advised him to complete a bachelor's degree (in anthropology). Gullberg produced three motion picture films, two on protozoans—one a remarkable film on the life cycle of a marine foraminiferan—and the third on the embryonic development of a salamander.

In 1943 the name of Gullberg's laboratory was changed to the Laboratory of Optics and Metrology (the science of precision measurement), and his title became Lecturer in Optical Methods in Biology. He developed two 2-course sequences on optical methods in biology, the first on the microscope and other optical instruments and biological photography. A second sequence dealt with electrical instrumentation in biology. These courses attracted students and also faculty from various departments. For many years his course on the microscope was required of all predoctoral students in Zoology. Gullberg's courses were distinguished by beautifully designed and executed demonstrations, patient exposition of difficult concepts, an appreciation of students as persons, and a concern for the impact of science on society.

Gullberg's creativity in the design of instruments and his master craftsmanship in glass, plastic, and metal resulted in the invention

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and fabrication of working models of such instruments as the ultropak (an incident illuminator for the microscope now in widespread use), a microthermocouple for measuring minute changes in temperature in an organism, an automatic hemocytometer, a microcolorimeter, a double microscope for viewing an object simultaneously from above and below, and a scanner of autoradiographs to quantify the incorporation of a radioactive compound by some organ or tissue. One of his most significant contributions, shared with Professors Roderick Craig of Entomology and Paul Kirk of Biochemistry, was the development of a microbalance weighing to a millionth of a milligram. This instrument was of strategic importance in the isolation of plutonium as part of the research that led to the atomic bomb. Considering Gullberg's concern for the sociological effects of science, it is ironical that he facilitated the creation of a weapon of unparalleled human destruction.

The Laboratory of Optics and Metrology was exceptional in American universities, and for many years it ranked second only to the United States Bureau of Standards in range of facilities for making micro-measurements and in the maintenance of primary standards. To the Laboratory Gullberg loaned much personal equipment, including representative European, American, and Japanese optical instruments, electrical standards, and tools, especially jeweler's lathes, for fine milling.

With the encouragement of the Department of Zoology, Gullberg generously served scientists and laboratories within and outside the University of California and also domestic and foreign optical houses. No problem brought to him by faculty or students or industry was too small to engage his interest and receive his efforts to help in its solution. A specialist at the German optical house *Firma Leitz* once wrote: "It is rare to have technical skills in instrumentation combined with an understanding and appreciation of the research for which the instruments are needed." Gullberg's publications were not many. He made his contributions to research principally through personal advice. It will never be known how many advances in instrumentation and metrology owe their inception to consultations with John Gullberg.

In recognition of Gullberg's superior teaching, creativity in instrument design and construction, worldwide reputation in precision measurements, and distinguished service to scientific laboratories, research institutes,

and manufacturers of optical instruments he was appointed Associate Professor of Metrology (1946) and Professor of Metrology (1956) in the Department of Zoology—with only an A.B. degree on his academic record. He became Emeritus Professor in 1967, and continued his activities, despite ill health, until shortly before his death.

Richard M. Eakin Daniel Mazia Ralph I. Smith

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## **John Banks Harris, Medicine: San Francisco**

*1925-1973*

*Associate Professor*

John Harris died tragically on October 16, 1973. The loss to his family, to his friends, to his colleagues, to his students, and to this institution is immeasurable. He died at the height of a tremendously successful career. He was a bright star in the academic world, a scientist who could create new ideas about gastric physiology and at the same time apply these concepts to the care of patients and utilize them in stimulating students and house staff. His interests were extremely varied and he applied the same enthusiasm and creativity to all. It was not unusual to find John bursting with some new idea for teaching fourth-year medical students, or a new approach to the study of gastric acid secretion, or an innovative concept in his new interest, medical anthropology. It is unfortunate that so many of his new ideas will go undeveloped, but more importantly, that so many exciting thoughts will now be unborn.

Working together with I. S. Edelman for four years, John gained an international reputation in gastric physiology; he established the existence of an active  $K^+$  transport system in gastric mucosa and defined a number of the relationships between  $K^+$  and  $H^+$  transport. Since the early 1960s, after joining the University faculty as assistant professor of medicine at the San Francisco General Hospital, he and Darwin Alonso made a series of important contributions to our understanding of the molecular basis of gastric secretion: they were the first to implicate cyclic AMP as an intercellular mediator in acid production and to define some of the molecular determinants in histamine action. In recent years, Alonso and Harris explored the role of key intermediates, especially lipoic acid, in gastric secretion, a new and exciting development on the relationship between metabolic pathways and the regulation of proton transport.

As a person, what one saw of John was an even-tempered, well-controlled individual with a great concern about the welfare of others. This was abruptly changed upon the assassination of Martin Luther King. Then, at least in part, his manifest feelings matched what must

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for years have been inside of him—feelings of anger and indignation at the oppression of the blacks and other groups—feelings of frustration about trying to do something about it. With a new hope, John renewed his efforts and extended them vigorously in the civil rights and anti-war movements and helped reorganize the attitudes of the University toward minority students. It was during the early part of his deep involvement that he made plans to open up opportunities in his laboratory for minority youngsters, particularly from the Community College of San Francisco, so that they might experience a scientific research climate by working in the lab part-time and summers. Such attempts were blocked by refusal of funds for such purposes. John not only was unable to do this but faced the prospect of cuts in the funding of his research. In the last two years, the prospect of having to cut back on his laboratory staff with whom he had worked with so long and so well further depressed him.

It seems that John was attempting to help people from having to go through what he had gone through as a young man. Bored with high school, he dropped out to work in factories and the stockyards. Then after two

years in the army, he decided to obtain his high school equivalency diploma, enrolled in pre-med at Chicago, and received his M.D. degree at twenty-eight years of age.

Although he will be missed by all his colleagues, none will suffer more than the minority students and house staff. To them he was father, counselor, advisor, preceptor, tutor, confidant, and above all, friend. His impact on these students was profound.

John had the passion and the talent for extraordinary contributions to society and to academia: he cared deeply about his people—indeed all people, and about truth and science. We must all mourn his passing.

Darwin Alonso I. S. Edelman Hibbard E. Williams

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## **Samuel Herrick, Engineering; Astronomy: Los Angeles**

*1911-1974*

*Professor*

Samuel Herrick was born May 29, 1911 in Madison County, Virginia and received his B.A. from Williams College in 1932. He came to Berkeley to study celestial mechanics with A. O. Leuschner and received his Ph.D. there in 1936 with a dissertation on Laplacian and Gaussian orbit methods, a comparative critique of several approaches. His entire scientific career was concerned with procedures for improving orbit calculations for minor planets, other astronomical bodies, and later, space vehicles. Among interesting minor planet orbits he studied were those of Betulia and Toro (named in honor of his wife). Toro, which crosses the orbit of the earth, is locked into a peculiar resonance between Earth and Venus, being alternately under the primary control of each planet. Herrick was the first to dramatize the importance of this branch of celestial mechanics in anticipation of manned space ships and the navigational requirements for space travel. Thus, two decades before Sputnik I, he became interested in the calculation of orbits of terrestrial artificial satellites. Shortly after World War II he introduced courses at UCLA on the orbit determination and navigation of manmade space vehicles. These were the pioneering courses of this type in the world.

In 1956, a year before Sputnik, while consulting for Systems Laboratories Corporation, he directed the orbit calculation and navigation requirements for a proposed U.S. space vehicle to leave the earth, orbit the moon, and return to earth.

Samuel Herrick was a cofounder with Captain P. V. H. Weems of the Institute for Navigation in 1946, and served as its president during 1951-53. He contributed many papers to its journal. Also he served as a consultant to many firms in problems of space navigation and celestial mechanics, including Ford Motor Co., Northrop Aircraft, Rand, Thompson-Ramo-Woolridge, North American Aviation, General Electric, and Republic Aviation. He served on the staff of the Institute for Numerical Analysis of the National Bureau of Standards in 1948-49, and as Guggenheim fellow during 1945-46 and 1952-53.

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Except for a brief period in the mid-thirties, Herrick's total academic career was spent at UCLA, where he started as an instructor in astronomy in 1937, became an assistant professor in 1942, an associate professor in 1947, and a full professor in 1952. Twice he served as department chairman. After Sputnik, engineers became increasingly interested in problems of spacecraft trajectories. Appropriately, in 1962, Herrick moved into the UCLA engineering department with the joint title of professor of astronomy and engineering (later called astronautics and mechanics), where he guided the research of a number of outstanding students.

In 1952-53, Herrick served as president of the Astronomical Society of the Pacific. His outstanding contributions to astronautics and space navigation were recognized by his election as fellow of the International Federation of Astronautics, to the astronomy committee of the International Federation of Astronautics, and as fellow of the International Academy of Astronautics. He received an honorary Sc.D. from Williams College in 1962.

One of the world's foremost leaders in celestial mechanics gave this reminiscence of Sam Herrick: "If he had a fault, it was that he was a perfectionist. His opus magnus on celestial mechanics and Astro-Dynamics which grew naturally from his lectures, was undoubtedly delayed ten years in its eventual publication by this fault. If every detail was not entirely up to his self-imposed standard, it could not pass muster. He strove to imbue in his students this same critical attitude towards their work. Sam will be remembered as one who strove assiduously for the things in which he believed."

In 1934, Herrick married a student from Colombia, Betulia Toro, to whom he remained deeply devoted. They had three adopted children. The later years of his life were afflicted by ill health, a situation exacerbated by the death of his eldest son in Vietnam. In August 1973 he attended the International Astronomical Union meeting in Sydney, Australia, returned home complaining of fatigue, and perished in March 1974.

Early in his life, Sam Herrick had become intrigued by the possibility of travel in interplanetary space. He had the good fortune to live in an age when this first became possible technologically, and he had the opportunity, ability, and perseverance to play a leading role in the development of astronautics. The exploration of the solar system by probes or manned vehicles will forever be indebted to the pioneering efforts of Samuel Herrick.

Lawrence Aller John L. Barnes George O. Abell

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## **Clinton Newton Howard, History: Los Angeles**

*1902-1973*

*Professor Emeritus*

Clinton Newton Howard died August 28, 1973 after a long but determined struggle against Parkinson's disease. He leaves his wife Solvejg Nelson and two children, Clinton Nelson and Rio Cecily, all, like himself, professional historians.

Clinton Howard came to UCLA in January 1934, fresh from a doctorate in Anglo-American history at the University's Berkeley campus, where he had worked under Professors William A. Morris and Herbert E. Bolton. Those who knew him only in his later years, especially during his illness, will be interested to learn how dynamic, positive, and effective he was as a young teacher-scholar at the beginning of his career. Full of conviction and confidence, by his voice and stride alike he revealed a committed and inner-directed man, impatient with red tape and triviality, pettiness and opportunism. Yet he had humility as a scholar and believer—he was a convinced Anglican—and his integrity and humanity were inborn and inbred.

He was an Anglophile in the best sense. Born into the family of an Episcopalian rector, he grew up in Washington and Oregon and was graduated from the University of Oregon in 1925. He went on to Oxford University as a Rhodes scholar, delighting in it. His admiration for English life and institutions was great, but not uncritical. It stemmed from a consciousness of the English roots of American life and culture. He was interested in England itself, its success in constitutional government and its moderate and continuously evolving social and cultural life.

There were two periods in Howard's academic career. In the earlier one he was an extraordinarily forceful lecturer, a driving yet solicitous and helpful teacher. His lectures were superb and drew large enrollments.

In keeping with his breadth of interest he took over the teaching of ancient history, the then rather small department having no specialist in that field. He later was to push to bring a specialist into the department to give it added strength and balance. In this period he produced all his published writings—some four articles on the British presence in West Florida in the 1760s and a monograph, his

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doctoral dissertation, *The British Development of West Florida, 1763-1769* (1947). Too, with his colleague, the late Charles L. Mowat, he devoted much effort to building library resources in the field of British history.

In the second period his emphasis in teaching shifted to the graduate level, and a growing interest in England itself came to the front. From the dynamics of undergraduate lecturing he moved to mastery of the seminar, where he demanded, probed, stimulated, and drew out even the inarticulate student. He could be ruthless with shoddy work, yet considerate and encouraging of students experiencing the pressures of graduate study and self-doubt. The first member of the faculty to use the Clark Library in a regular and sustained way, he met his seminar in seventeenth-and-eighteenth-century British history weekly at the Library, affording his students unusual opportunity to learn the use of research materials.

He did not neglect his own research. He had in the early period begun work, in collaboration with a UCLA colleague in political science, Thomas I. Cook, on the Whig state in eighteenth-century Britain and its seventeenth-century origins. His interest ramified subsequently to the influence of Britain's mercantile empire in the eighteenth century on the social structure at home with its economic and political arrangements and bearing on Whig supremacy. He focused on identification of English merchants in the Caribbean trade, their business and family connections, their movement into landed society, and their political connections, particularly with the Rockingham Whigs. Unfortunately, he had written only a few chapters before his illness slowed him down and then stopped his writing.

As with the Clark Library, so with the department and college: his concern for growth and breadth at UCLA led him to become one of the prime movers in establishing the Near Eastern Center and in bringing to the campus its first director, the distinguished late Professor Gustave von Grunebaum. Meanwhile, his devotion to the study of British history received recognition in the award of a Fulbright visiting professorship at the University of Nottingham in 1950-51, and his association with Oxford continued with honorary admission to membership in the Senior Common Room of Exeter College, his college at Oxford.

Like so many fine teachers, Clinton Howard's contribution and influence live on not so much in his writings as in what he did for the growth of UCLA and in the students he taught, especially his graduate students, whom he touched with an energizing spark and to whom he opened wide vistas of intellectual life.

Raymond H. Fisher John J. Espey John W. Olmsted

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## **Harold Walter Iversen, Mechanical Engineering: Berkeley**

*1913-1973*

*Professor*

Harold Walter Iversen died on November 10, 1973 at the age of sixty, after a long and valiant struggle to overcome the effects of major cancer surgery. He is survived by his wife, Ruby Kahler Iversen, and two children, his son Jon and his daughter Karen Iversen Timm, both of Dixon, California.

Harold Iversen was born in San Francisco on September 1, 1913, the son of foreign-born parents—Carl Alfred Iversen, a native of Norway, and Martha Jorgensen Iversen, who came from Denmark. His parents moved to San Pedro, where his father, a former ship captain, found employment as Port Captain and Dock



Superintendent. Harold spent his early years in San Pedro, where he acquired a familiarity with ships and with people who work in shipping which later proved important to him.

After completing his secondary education in the public schools of San Pedro, Harold studied at UCLA for two years, completing the pre-engineering program and qualifying for transfer to the Berkeley campus, which at that time had the only Engineering College in the University system. Before enrolling at Berkeley, he spent two years earning the money to finance his education. Most of the jobs related to the sea, ranging from bathhouse attendant to wiper and oiler in the engine rooms of tanker ships, the latter activity keeping him at sea for nearly a year.

Following receipt of the B.S. degree in Engineering after two years at Berkeley, Harold worked as a Mechanical Engineer for the Ingersoll-Rand Corporation in New Jersey, where his work involved the development and testing of compressors, blowers, pumps, and allied equipment. During the four-year period at this work, he rose from engineering trainee to responsible charge of the test work in the laboratory. This practical engineering experience contributed to his ability to later teach engineering subjects from a practical viewpoint.

Harold returned to the Berkeley campus in 1941 to teach in the general field of fluid mechanics and to qualify for the M.S. degree,

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which was awarded to him in 1943. He served in several academic ranks and was advanced to Professor of Mechanical Engineering in 1957. While he taught a variety of different courses in the laboratory and lecture room, his major interest was in the field of pumping machinery. The course in this subject, taught for a number of years, was a developing course, keeping pace with his research in the field. At the time of his death Harold was engaged in the compilation of his research and course notes into a textbook on pumping machinery.

Harold was in local charge of the engineering group sent to Bikini Atoll to measure the wave disturbance produced by the early atom bomb tests conducted there. He developed the recording instruments required for these observations and was able to improvise on the spot, as indicated by his use of empty tomato cans lashed to palm trees at various heights to determine the maximum heights of the wave crossing the atoll.

As a professional engineer, Harold was called upon to serve as a consultant on fluid mechanics problems, one of these being the problem of designing a dredge pump for use in Ghana, at a site where the sand contained diamond particles capable of eroding the runners of pumps quite rapidly. His design of a jet pump solved the problem, with laboratory models to support his conclusions. This preoccupation with models was also evidenced by his success in solving problems for the City of San Francisco, where the pump intakes in the waste treatment plants could not carry the load until revamped, following model tests carried on by Professor Iversen. He also used models to finalize the hydraulic design of the fountain at the Bank of America in San Francisco, a design which has been copied for other fountains.

Professor Iversen served as Associate Dean of the College of Engineering from 1964 to 1969. Here he worked with students and faculty members to improve the advising system of the College and to aid students in finding solutions to their problems of academic standing. He served as advisor to student organizations and exercised his hobby of cooking by serving as barbecue chef at the annual ASME student picnic.

Harold will be remembered by his colleagues and former students for his careful and time-consuming preparation for class presentations, his clear and concise reporting of research and design work, and his insistence upon the best performance of which the students were capable.

E. D. Howe J. W. Johnson P. B. Stewart

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# Dilworth Darwin Jensen, Entomology: Berkeley

*1910-1973*

*Professor*

Dilworth Darwin Jensen, distinguished entomologist and authority on insects as vectors of plant pathogens, died suddenly of an aneurysm in Berkeley, California, April 1, 1973.

Born in Huntsville, Utah on October 1, 1910, ninth in a family of ten children, his early years on a farm gave him a lasting concern for the values of rural life. He attended the University of Utah and then Utah State University where he received his B.S. degree in 1935. In 1936 he earned a M.S. degree in entomology at the University of California, Berkeley.

Work, marriage, service to the Mormon church, and a continuation of his graduate education were the framework of his next few years. He joined the U.S. Department of Agriculture in 1939 and, until 1944, was active in the search for the vector of the destructive peach mosaic virus. During this period he characteristically utilized his extra energy to complete his doctoral dissertation on the systematics of the Psyllidae. He was awarded the Ph.D. degree in 1943 at the University of California, Berkeley.

His urge and desire to teach, as well as to do research, led him to accept a position, in 1944, in the Department of Entomology, University of Hawaii. There he worked on a variety of entomological projects, including the transmission of papaya ringspot virus by insects. He was elected president of the Hawaiian Entomological Society in 1945.

In 1946 Dr. Jensen returned to the University of California, Berkeley, as an Assistant Professor. Here his research involved the arthropod transmission of agents causing diseases of ornamentals and stone fruits. His pioneering work on the virus diseases of orchids, and his skill both as a writer and speaker soon brought him in demand as a lecturer and contributor to various groups involved with orchids, scientific as well as those of growers, breeders, fanciers, and hobbyists. His orchid virus expertise led, in part, to his appointment as a Fulbright Research Scholar, in 1959-60, to the University of Utrecht, the Netherlands.

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He was a keen observer, and his active mind continually selected and processed observational material into fruitful channels of research. While testing leafhopper vectors of fruit tree viruses, he established the insect transmission of a stone fruit virus to a herbaceous host. He also found that the Western-X “virus,” a plant pathogen, caused a clinical disease in the insect vector which reduced longevity and fecundity.

Since 1961 the National Institutes of Health, recognizing the fundamental importance of the work on the infection of animal vectors by plant pathogenic agents, continually supported this work through grant awards. During the course of the work, Western-X disease was found not to be due to a virus, but a mycoplasma-like organism.

Throughout his career he continued to contribute to the systematics of the Psyllidae, and when, in 1963, the pear decline disease struck the susceptible pears in northern California, its association with the spread of the pear psylla made him an obvious choice to direct Berkeley's research program on this devastating disease. He demonstrated that pear decline was not only psyllid associated, but that the causal agent was, in fact, transmitted by the pear psylla.

This brief account of Dr. Jensen's research activities only partially reflects his energy and vitality. As a bishop in the Mormon Church and the director of its student center on the Berkeley campus, he had a special concern for students and spent many hours listening to and counseling them. Here his fine sense of relevancy and humor must have played an important role. But still there was time left to teach, to serve as graduate

advisor, foreign language examiner in German, and as a member of various, and at times almost innumerable departmental, college, and campus committees.

In spite of his obvious talent for research and teaching, he was called for additional service as an administrator, serving as Acting Chairman of the Division of Entomology and Acarology (1964-65), Vice Chairman of the Department of Entomology and Parasitology (1965-68), and finally as Chairman, Division of Entomology, up to the time of his death.

Family, friends, students, and colleagues share in a deep sense of personal loss, but they, and the institutions of church and state that he loved and served, can only have been strengthened by contact with a person of Dil's sense of humanity and dedication to high purpose. The memory of Dil Jensen's unique philosophical and scientific awareness will continue to serve the growth of those who knew this rare individual.

J. H. Freitag N. W. Frazier E. S. Sylvester

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## **Warren John Kaufman, Hydraulic and Sanitary Engineering; Public Health: Berkeley**

*1922-1973*

*Professor of Sanitary Engineering*

*Director of the Sanitary Engineering Research Laboratory*

Warren John Kaufman died suddenly and unexpectedly in Berkeley on November 10, 1973 while on a brief working visit from the Polytechnic Institute of Milan, where he had just begun a sabbatical leave from the University. His untimely passing both shocked and saddened his many friends and colleagues in the University community and in the engineering profession throughout the nation and the world.

Professor Kaufman was born in Rome, New York on May 15, 1922 but California became his permanent home at an early age. He received his elementary and secondary schooling in Southern California, then enrolled at Berkeley where he received the B.S. degree in Civil Engineering in 1943. Thereafter his education was interrupted twice by military duty. After three years as a lieutenant in the U.S. Army, he attended the Massachusetts Institute of Technology for one year to complete his Master's degree in Sanitary Engineering in 1947. He then returned to military service and spent two years in Japan as a Sanitary Engineering Officer. During this interlude he came to know the Japanese people and a mutual respect developed which later led Japanese students to come to Berkeley to study under Professor Kaufman. In 1949 he returned to M.I.T., being awarded the Doctorate degree in Sanitary Engineering in 1951. During that period he married Kathryn Jeanette Conron and their first son, Kenneth, was born. In the years that followed a second son, Steven, and a daughter, Susan, were born in Berkeley.

Dr. Kaufman joined the research staff of Sanitary Engineering at the University of California, Richmond Field Station in September, 1951. It quickly became apparent that he possessed the exceptional keenness of intellect, energy, and imagination that the University seeks for its faculty. He was appointed to the faculty of both the School of Public Health and the College of Engineering in July 1952. In 1961 he received the additional title of Professor of Radiological Engineering. In

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1966 he became the Associate Director of the Sanitary Engineering Research Laboratory in Richmond and in 1969 he became the Director of this laboratory. In all these positions he exhibited the ability to evaluate a situation and to foresee clearly its implications, which was to characterize the next twenty-two years of his life.

In research Dr. Kaufman exhibited an exceptional ability to evaluate both current and forthcoming environmental problems in terms of priority and scale. As a teacher he was one of the finest. His lectures were always well prepared and updated to incorporate latest developments and to excite the imagination of the student. Many graduate students elected to work under his direction because of the depth of his technical and scientific knowledge and the constant challenge which he used to make research under his guidance a stimulating educational experience.

He was deeply engaged in the development and improvement of Sanitary Engineering education. He was a founding member and Secretary-Treasurer and active contributor to the Association of Environmental Engineering Professors.

Throughout his twenty-two years at Berkeley he maintained an abiding interest in research and at the time of his death was Director of the Sanitary Engineering Research Laboratory. He was an indefatigable worker. In describing his father's philosophy of life, Kenneth Kaufman quoted from Kipling:

*...If you can fill each unforgiving minute with  
sixty seconds worth of distance run;  
Yours is the world and everything that's in it...*

The first he did in full measure. At age fifty-one he had already shown that the second is truth.

Although work was his life, his life was not all work. He was fond of the mountains and of wilderness areas where he managed to spend a small fraction of each year in camping and fishing. His one continuing hobby was the study of wines, particularly California wines, and in the making and collecting of good wines.

In the field of environmental engineering education and the science of water quality control, the void left by the passing of Warren John Kaufman is as vast as that experienced by the University. Those who knew him well can only wonder what might have been had fate not withdrawn its measure of "unforgiving minutes."

J. F. Thomas R. C. Cooper P. H. McGauhey

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## **Joe Wallace Kelly, Civil Engineering: Berkeley**

*1895-1973*

*Professor Emeritus*

Joe W. Kelly was born on March 26, 1895 in New Albany, Indiana. After graduating in 1921 with a straight "A" record from Purdue University, he worked as an engineer on a construction project in New Mexico and then in 1924 joined the Portland Cement Association in Chicago to lecture to professional groups on new developments in concrete and construction practices. Through these lectures, which were presented in more than 100 cities, Kelly became well known to the profession and respected as an expert in the field of concrete. Subsequently, he joined the staff of Purdue University as a concrete specialist in the Engineering Extension Department.

In 1932 Kelly left Purdue University to join the research staff in the Engineering Materials Laboratory of the University of California, Berkeley. In 1939 he was appointed lecturer in civil engineering and through successive promotions became professor in 1949, the rank he held in emeritus since his retirement in 1962. As Professor of Civil Engineering, Joe Kelly taught classes in the fields of concrete and construction, engineering materials, surveying, and mechanics of materials.

His talents to administrative duties gave Kelly a number of important assignments on campus. He served as Head of the Engineering Extension for eleven years and was Vice Chairman and Assistant Dean of the College of Engineering for several years. He served as Chairman of several important academic and administrative committees of the faculty.

During his career Kelly was most active in the work of engineering professional societies, especially the American Concrete Institute of which he became a member in 1926. He played a major role in the progress of this Institute by serving on numerous administrative and technical committees including a twenty-year term as Chairman of the Committee on Inspection; he served on the Board of Direction in 1952-54 and 1956-57, was Vice President in 1958-59, and President of the American Concrete Institute in 1960. He was elected an Honorary Member of the Institute in 1966 for his invaluable contributions

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to the improvement of concrete as a lecturer, writer, and inventor. His best known invention is the ball penetration test, widely used to measure consistency of fresh concrete.

Recognized in the engineering profession as an authority in the field of concrete, Professor Kelly has authored and coauthored many technical papers on a wide range of subjects dealing with concrete and concrete materials research. He also authored and coauthored several manuals and textbooks, including the widely-used *ACI Manual of Concrete Inspection*, and with Professors H. E. Davis and G. E. Troxell the textbook *Composition and Properties of Concrete*. With Professor Raymond E. Davis and F. S. Foote he coauthored the textbook *Surveying Theory and Practice*.

His outstanding contributions to the profession were recognized by a variety of awards. In 1934 he received the ACI Wason Medal for the most meritorious papers published that year on *Cement Investigations for Boulder Dam*, prepared in collaboration with Raymond E. Davis, R. W. Carlson, and G. E. Troxell. In 1946 he received the ACI Construction Practice Award with B. D. Keatts for their paper, *Two Special Methods of Restoring and Strengthening Masonry Structures*. Purdue University awarded Professor Kelly the honorary degree of Doctor of Engineering during its 1967 commencement exercises.

Joe W. Kelly was a warm human being who cherished life and was always ready to help his fellow men. He devoted his life to teaching and to advancement of his profession.

H. E. Davis G. E. Troxell M. Polivka

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## **Hans Kelsen, Political Science: Berkeley**

1881-1973

*Professor Emeritus*

Hans Kelsen passed away on April 15, 1973, at the age of ninety-two.<sup>1</sup> His career began in Vienna, involved him in the drafting of the constitution of the first Austrian Republic, earned him a lifetime appointment to that nation's Constitutional Court in 1920, and caused him to be one of the first victims of Austria's incipient fascism in 1929 when his appointment was terminated. His voluntary exile from Austria took him to teaching appointments at the Universities of Cologne, Geneva, and Prague, none of which proved tenable as the Nazi conquest of Europe went on. He came to Harvard in 1940 and accepted a permanent appointment in the Department of Political Science at Berkeley in 1945, a position from which he retired in 1952. Until he neared ninety, he continued to come to the library and to write and publish.

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1. The authors gratefully acknowledge advice received from a former student and associate of Hans Kelsen, Professor Leo Gross, in the preparation of this memorial. Professor Gross's appreciation of Kelsen's contribution appeared in *The American Journal of International Law* (July 1973).

In 1934 Dean Roscoe Pound noted that “Kelsen... is unquestionably the leading jurist of the time. His disciples are devoted and full of enthusiasm in every land. His ideas are discussed in all languages. His followers are probably the most active group in contemporary jurisprudence.”<sup>2</sup> Much of Kelsen's fame was surely due to his determination, consistently advocated in his writings since the 1920s, to make jurisprudence “scientific,” i.e., distinguish it firmly from politics, ethics, sociology, and anthropology. His *Pure Theory of Law* was

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a rigorously deductive analysis, deliberately kept uninfected by considerations of political convenience, social appropriateness, or historical relevance.<sup>3</sup> His purpose was not to advocate specific solutions to controversies but to erect a logical structure for the law which would take the place of a style of advocacy which serves mainly as a cover for the personal preferences of the advocate. His aim was to push jurisprudence beyond ideology in order to provide a firmer basis for order and liberty than the shifting sands of temporary political preferences on which he considered other approaches to jurisprudence to rest. His theory of the “basic norm” underlay all his work on constitutional and international law. His shunning of specific political preferences contributed to the wide appeal of his work among diverse legal scholars as well as legal practitioners, including many delegates to the United Nations who invoked his teachings in support of their positions.

Kelsen in no sense denied the importance of politics, psychology, sociology, or anthropology; in fact he wrote widely and learnedly in these fields. He insisted, however, on separating them from law and in sharply differentiating purely legal propositions as opposed to political choices. He considered law to be architectonically one and indivisible, denying any structural differences between municipal and international, public and private law. His legal method, to which he ascribed the greatest importance, was designed to remove as many ambiguities as possible from law in general and from international law in particular so as to have available for the politician willing to use it, the clearest possible yardstick for choice. The magisterial interpretation of the United Nations Charter which he completed toward the end of his teaching career was intended to show the extremes in ambiguity which poor legal methods and draftsmanship are capable of producing. The ultimate choice was always the politician's: the “scientific” jurist's job was to make absolutely clear what legally justifiable choices were open to the politician, no more and no less. To argue that the law is such as to be consonant with a given national interest is not to present a scientific theory but a political ideology.

For these reasons Kelsen was rightly considered the most consistent of legal monists and an adherent of logical positivism; he strongly disassociated himself from the teleological school, the policy-science approach, and especially from natural law doctrines. He remained dubious about the possibility of deriving single authoritative interpretations concerning the meaning of the law when applied to concrete situations, and he also stressed that the act of applying law—for whatever rea-

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sons—also creates law; in short, the jurist is less important in the life of the law than the politician. The jurist's job is technical and logical, the politician's, properly, the use of the law to attain the national interest. Since Kelsen postulated that interests are always in conflict, he deliberately eschewed any notion of ideal justice in his jurisprudence. Justice deals with the attainment of value aspirations, with ethical norms. Scientific jurisprudence should deal with the legal norms.

Kelsen's approach is probably too pure and calls for too much self-restraint to be of appeal in today's intellectual world. It will, however, always move those of us who are willing to differentiate between our

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2. *Law and the Science of Law in Recent Theories*, 43 *Yale Law Journal* 532. Kelsen produced some 620 published items. His works were translated into twenty-four languages. For a list and evaluation, see: Rudolf A. Metall, *Hans Kelsen: Leben und Werk* (Vienna: Deuticke, 1969); A. Merkl, R. Marcic, A. Verdross and R. Walter (eds.), *Festschrift Hans Kelsen zum 90. Geburtstag* (Vienna: Deuticke, 1971); *Essays in Honor of Hans Kelsen*, 59 *California Law Review* (1971).

3. Translated by Max Knight, University of California Press, 1967, from the second and definitive version of *Reine Rechtslehre* (Vienna: Deuticke, 1960). The first edition of the work was published in 1934 by Deuticke.

philosophical and epistemological positions and the private values we inject into the arena of political partisanship and debate. A victim of totalitarianism himself, he showed us a way of retaining this balance, of not abandoning his role as a scholar when others yielded to the temptation to fight evil with ideology disguised as science.

No tribute from his own campus community could be written without grateful appreciation of Kelsen's unstinting willingness to debate his ideas with students—juniors, and seniors as well as advanced graduates. The clarity of his presentation mixed with an amiable sense of humor never lost its magnetic effect on young audiences. Until the end, his rare appearances on the lecture platform were intellectual events.

Ernst B. Haas Eric C. Bellquist Stefan A. Riesenfeld

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## Vern Oliver Knudsen, Physics: Los Angeles

1893-1974

*Professor and Chancellor, Emeritus*

Vern O. Knudsen, the world's leading authority and most respected figure in architectural acoustics, died of pneumonia on May 13, 1974, at the age of eighty. With his passing UCLA has lost one of its stellar lights, who guided our University from its early days and greatly influenced its later development. His death saddened numberless colleagues who had been befriended by Vern, who was universally recognized for his genius for friendship, his enthusiasm, and his skill in applying science to the service of humanity.

Vern Knudsen was born in Provo, Utah, on December 27, 1893. He entered Brigham Young University in 1911 where he studied with Harvey Fletcher. Following his B.A. degree in 1915, he served as a Mormon missionary and as acting head of the Northern States Mission in Chicago. In 1918 he joined Fletcher at the Bell Telephone Laboratories (then Western Electric), where he collaborated in the development of the then emerging vacuum-tube technology. During World War I, Vern applied his knowledge of the new vacuum-tube circuits to the study of Earth parasitic currents. Following the war he entered the University of Chicago where he studied with Robert A. Millikan, Albert A. Michelson, and Henry G. Gale, and wrote his doctoral dissertation on a subject of his own choice: the application of acoustics to the problem of hearing. He received his Ph.D. in physics *magna cum laude* in 1922. He confounded both colleagues and teachers by turning down offers from the University of Chicago and the Bell Telephone Laboratories to accept the position of instructor at UCLA, which had been recently established and was known as the Southern Branch of the University of California. The staff of the physics department at that time consisted of an associate professor, two assistant professors, an associate, and Leo P. Delsasso who, although only a sophomore student, served as an assistant to the department chairman. A close professional and personal relationship developed between Delsasso and Knudsen, which endured undiminished until Delsasso's death in 1971.

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In his physics research at UCLA, Vern is best known for his experiments that uncovered the role that relaxation processes, involving the vibrational and rotational states of gas molecules, play in affecting the attenuation and dispersion of sound, and the way in which the measurement of these two acoustical quantities can be used to understand certain properties of molecular dynamics. For this pioneer work he was awarded the American Association for the Advancement of Science Prize in 1934.

Twelve years after Knudsen arrived at UCLA, the institution first offered work leading to advanced degrees. He was the prime mover in establishing the Graduate Division and became its first dean, serving in this capacity from 1934 to 1958. It is with a sense of deep gratitude and pride that we acknowledge that today's

enviable stature of UCLA in graduate studies is to be traced to the drive, enthusiasm, and great foresight that Vern Knudsen displayed during his twenty-four-year tenure as dean. In 1956 he was appointed vice chancellor and then chancellor in 1959, a position which he held for only one year because he had reached the mandatory retirement age in 1960. Retirement provided the opportunity that Vern Knudsen had been eagerly anticipating, and he returned to his physics department office and to the acoustics laboratories. Here, in collaboration with Leo Delsasso, he devoted his full attention to acoustics, its theory and applications, including architectural acoustics.

The long life of a great man like Vern is replete with honors, prizes, and signal accomplishments so numerous that we can only touch on some highlights. With Harvey Fletcher, Wallace Waterfall, and Floyd R. Watson, Vern Knudsen was one of the founding fathers of the Acoustical Society of America. He served as president, 1933-35, and the society awarded him the Sabine Medal in 1958 and the Gold Medal in 1967. Knudsen is best known for his work on architectural acoustics, a subject on which he wrote two books and over one hundred articles, which appeared in scientific and technical journals. As a consultant he was responsible for the acoustical design of over five hundred structures of which the Thomas Hall at the University of Akron, Ohio, stands as his *magnum opus* and a lasting monument to his genius.

He was a member of the Los Angeles Building and Safety Commission, president of the California Institute for Cancer Research and of the Hollywood Bowl Association. Two Vern Knudsen Graduate Fellowships in Physics are supported by the Hope for Hearing Foundation and by voluntary contributions to the UCLA Foundation. He received honorary degrees from Brigham Young University and from UCLA and, as an added honor, the new physics building at UCLA bears the name Knudsen Hall.

During World War II, Knudsen played a key role in antisubmarine

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efforts. He was the first director of what is now the Naval Undersea Research and Development Center in San Diego. During this period he served as a member of the National Research Council.

The impact of a teacher and a researcher on his students is manifold. For Knudsen the dominant factor was his character and his unimpeachable integrity. The high principles by which he lived and conducted his affairs were so deeply ingrained in his behavior that his response to all human situations, however difficult, was always immediately instinctive and always right. He invariably enriched the lives of the many who knew him. His greatness never detracted from his innate goodness and modesty. Vern Knudsen was the epitome of the truly great man.

Gustave O. Arlt Alfredo Baños, Jr. Isadore Rudnick

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## **Edgar L. Lazier, Zoology: Los Angeles and Systemwide**

*1899-1973*

*Professor Emeritus*

Professor Edgar L. Lazier was born in Gonzalez, California on March 10, 1899. He died at his avocado ranch above Santa Barbara on September 15, 1973. He is survived by his wife, two daughters, and two grandchildren.

He received his Ph.D. in zoology at the University of California, Berkeley in 1928. The year previously, he joined the zoology department on the Los Angeles campus of the University. He became a full professor in 1953. At UCLA, he was responsible for most of the teaching in vertebrate morphology, both at the beginning and at the advanced level. He was greatly interested in the counseling and guidance of students, and devoted



much of his energy to the improvement of teaching and to advising students personally. They came to regard him as a human being who was vitally interested in their successes and failures. For assessing their ability to pursue further work, he sought a method that would be more suitable than reliance solely on grades.

These services were recognized by his appointment in 1937 as assistant dean of the College of Letters and Science; he served as acting dean, 1945-46. In 1946 Dr. Lazier became associate director of admissions, a position he held until 1960, when he transferred to Berkeley as statewide director of admissions in the Office of the President. During his period as an administrator on the Los Angeles campus, he continued to teach courses in the zoology department.

In the Office of Admissions on the Los Angeles campus, he was largely responsible for the success of pre-admissions counseling; and in his positions both here and at Berkeley, he worked faithfully to make the office helpful to prospective students and responsive to their problems. He made many changes to increase the efficiency of that office. He combined a willingness to listen to proponents of change with a staunch adherence to principle in granting any concessions. He strongly supported community colleges and took steps to facilitate ready acceptance of their transfer courses to the University. As statewide director of admissions, his wisdom together with the

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great respect with which he was held by members of the faculty and administration alike contributed enormously to the orderly establishment of University admissions policy and procedure in a newly decentralized function. He was director of admissions at the time of his retirement; in that capacity as in others he was greatly missed.

Both as administrator and department member, his skill and good judgment were recognized by his appointment to many committees, several of which he chaired. Notably he was chairman of the Committee on Committees of the Southern Section and local chairman of the Committee on the Reorganization of the Academic Senate.

His principal scholarly contributions were a *Laboratory Manual of the Anatomy of the Spiny Dogfish*, and two revisions of *Marshall's Introduction to Anatomy*, a textbook widely used at the time for elementary courses in this subject.

Edgar Lazier was a gentle man, thoroughly devoted to excellence in teaching and to the welfare of both students and the University, and of their relationship to each other. For over thirty-five years at the University of California, he devoted himself to its best interests, never sparing himself in the process. He was truly a force in helping to make this institution responsive to the citizens of the state, while upholding its standards and good name.

Gordon H. Ball Raymond B. Cowles Frank L. Kidner Vern Robinson

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## **Alberto Machado da Rosa, Spanish and Portuguese: Los Angeles**

*1924-1974*

*Professor*

Alberto Machado da Rosa died suddenly while on sabbatical leave, on the morning of December 3, 1974. He was reading in his improvised study, in the little town of Monsaraz (Alentejo) of his native Portugal, when he fell asleep, not to awake again. The manner of his death was a symbolic tribute to his peaceful and sensitive nature.

Alberto Machado da Rosa was an exceptional human being, a great organizer, a true humanist, an enthusiastic teacher, and an outstanding scholar. Born on January 30, 1924, in Angra (Azores), Portugal, he graduated from the local high school and in 1941 went to study at the University of Coimbra, where he received his degree of *licenciado em filologia germânica* from the *faculdade de letras*, in 1947. In the same year he came to the United States to continue his graduate studies at the University of Wisconsin in Madison. After a first year as a teaching assistant in the Spanish and Portuguese department, he was appointed acting instructor in recognition of his maturity and great promise. He became a regular member of the same department as soon as he obtained his Ph.D. in 1953. His doctoral dissertation was a real contribution to a better understanding of the life and works of the extraordinary Galician poetess Rosalia de Castro. Nineteen-hundred-fifty-three was also the year when he became a naturalized American citizen.

He stayed at Wisconsin for another ten years, until he accepted a professorship at UCLA in 1964. During his relatively brief life, Professor Alberto Machado da Rosa, was responsible for many important initiatives, and his accomplishments were impressive:

He was founder and director of the Luso-Brazilian Center at the University of Wisconsin, later the Luso-Brazilian Division of the Language and Area Center for Latin American Studies; organizer and director of the first Junior Year Abroad in the University of Bahia (Brazil), as a visiting associate professor from New York University (1959-60); co-founder of the Seminario de Cultura Galega in the Republic of San Salvador; director of two Summer Sessions in Brazil (1961 and 1962) at the University of Rio Grande do Sul; organizer

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of several symposia and lecture series on Luso-Brazilian literary problems and currents (Madison 1960, 1962, and 1963; Porto Alegre, 1961, 1962); founder and editor of the *Luso-Brazilian Review* (1964), the first periodical of its kind edited in the United States; secretary of the Portuguese Section of the Modern Language Association (1964); and promoter of several initiatives to pay homage to the famous Portuguese Generation of 1870 in its first century.

He was the author of many articles, essays, and books, mostly on subjects related to the nineteenth-century literature of Portugal, Spain, and Brazil. The project that occupied most of his time was the gathering and critical analysis of the short pieces scattered through numerous periodicals of the great Portuguese writer Eça de Queirós. It constitutes an impressive nine-volume enterprise which was left unfinished. Only the first five volumes were published with the common title of *Eça de Queirós, Prosas Esquecidas* (I—Ficção, 1866-72; II—Crítica, 1867; III—Política, 1867; IV—Polémica, 1867; V—Farpas, 1871), edited in Lisbon by Editorial Presença, 1965-66. He had previously published the book *Eça, discípulo de Machado?*, Editora Fundo de Cultura, Rio de Janeiro, 1963, which was so successful that a second edition appeared in Lisbon the following year.

Public recognition and appreciation was soon forthcoming: in 1966 he was elected member of the Academia Internacional de Cultura Portuguesa in Lisbon; almost at the same time, he was appointed consultant to the International Colloquium of Luso-Brazilian Studies held at Harvard University and at New York City; a year later he was invited as guest of honor to the Brazilian Cultural Festival, at the Indiana University (May 10-13, 1967); again in 1970 he was also a guest of honor at the I Encontro dos Professores do Ensino Superior e Secundário de Língua e Literatura Portuguesa, at Coimbra.

But his greatest impact took place at the level of human direct communication, where his warm personality, his cordial and compassionate manner, his keen intelligence, and his unlimited kindness served friends and strangers alike. He will be sorely missed by everyone who had the privilege of knowing him.

He is survived by his devoted wife, Aldegice, who had worked side by side with him in many of his projects, and to whom he had been married since 1946. And also by their three children: Alberto, who graduated from the French department at the Berkeley campus, and lives in Paris; George, a Rhodes scholar presently at

Oxford, after obtaining an M.A. in English literature at UCLA; and Patricia, also a former student at UCLA, who has married a Frenchman and lives now in Paris.

J.R. Barcia D.F. Fogelquist E.M. Dias

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## **Karl Friedrich Meyer, Pathology; Microbiology: San Francisco**

*1884-1974*

*Professor of Experimental Pathology and Microbiology, Emeritus*

*Director of the Hooper Foundation*

On April 27, 1974, just three weeks prior to his ninetieth birthday, Karl Meyer died. His colleagues, students, and friends were profoundly affected by his passing as they, under the auspices of numerous institutions and societies from around the world, had planned on this nonagesimal occasion to do honor to the most monumental and versatile figure in the general field of microbiology and public health of this century. Indeed, Karl Meyer's contributions to the care and protection of both human and animal life can only be compared with those of the giants in his discipline, such as Louis Pasteur, Robert Koch, Theobald Smith, and Almroth Wright.

K.F., as he was affectionately called by his friends, was born in Basel, Switzerland, on May 19th, 1884. He came of the union of two old families of that ancient intellectual and commercial center on the Rhine. His patronymic name, appropriate for a Swiss but which he seldom used, was Meyer zum Pfeil van Büren, and his father was a well-to-do merchant. His mother, Sophie, from whom he derived his strong sense of duty and service, was of the well-known Basler family, the Lichtenhahns. Following the solid, classical education of the *Gymnasium* of his day, he entered the University of Basel but soon transferred to the University of Zürich where he became a “famulus” under Professor Heinrich Zangger, who taught comparative physiology and pathology (then called veterinary medicine) and where he received his doctorate of veterinary medicine (1909) and later (1924) his Ph.D. in zoology.

Karl Meyer's years as a graduate student in Europe (1905-09) coincided with one of the most exciting periods in the history of bacteriology, immunology, and the parasitic vectors. The base established by Pasteur and Lister had been extended by Robert Koch, Edwin Klebs, Friedrich Löffler, Emil von Behring, Elie Metchnikoff, Almroth Wright, and Theobald Smith to cover most of the epidemic diseases

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affecting both man and beast. The excitement which pervaded the laboratory had now passed to the field, and the zoonoses and all animal and insect life were suspect as intermediate hosts of diseases. Karl Meyer, following a short exposure to experimental model building under Professors Kitt and von Muller at Munich, completed his course requirements at Bern. Here he came under the influence of Professor Wilhelm Kolle, outstanding assistant and pupil of Robert Koch at the Institute for Infectious Diseases. Kolle had accompanied Koch on his visit to South and East Africa to investigate many unique epidemiological problems, from trypanosomiasis to red-water fever. Suddenly Karl Meyer found himself part of the most exciting period in the history of bacteriology and was personally introduced by his teachers to such figures as Metchnikoff, Paul Langerhans, and von Prowazek, Schaudinn's assistant. These influences determined his selection of an academic career—a choice not too kindly received by his father.

In 1908 Karl Meyer submitted his doctoral thesis on the specific enteritis of cattle or paratuberculosis, which was accepted and published as a monograph by the Institute for Infectious Diseases. Feeling the necessity to broaden his experience by field work in parasitology, on the recommendation of Professor Kolle he accepted a position on the staff of Arnold Theiler at Onderstepoort near Pretoria, South Africa. It is extraordinary that

he had already perceived from his experiences in pathology the vast importance of the zoonoses, and he had determined to make their study his life's work. The opportunities that presented themselves to the young man at the superb new laboratories established by the South African government, as he often said, were unlimited and without parallel. He was promptly given huge and testing responsibilities involving hundreds of autopsies on large animals, the preparation of smallpox and rabies vaccines, investigations into outbreaks of anthrax, glanders, rinderpest, and obscure parasitic and bacterial infections. He found himself surrounded by the great confusion then existing on the nature and cause of the most devastating scourges of bovines since ancient times, such as rinderpest, East Coast fever, and red-water (Texas) fever. These destructive epizootics are of great economic importance to both Africans and Europeans dependent upon cattle. They had brought Robert Koch and William Kolle to Africa in the hopes of finding a solution, but with little success except for the discovery of "Koch's granules or blue bodies." In a series of brilliant experiments on the transmission of East Coast fever, K.F. showed early signs of his great originality by elucidating the major part of the life history of the parasitic *Piroplasma* (*Theileria*) *parvum*, of which "Koch's granules" were but the schizont stage, thereby clearing up much of the confusion, opening up new avenues of investigation on double infections, and establishing a new disease.

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Severe malaria contracted while in Rhodesia forced K.F.'s return to Europe where, through the aegis of a former British ambassador to Washington, an appointment at the University of Pennsylvania as an assistant professor of pathology and bacteriology was arranged at the munificent salary of \$1,800. Although promoted within a year, he did not remain in Philadelphia for very long. Encouraged by Richard M. Pearce, who had recently delivered the Hitchcock Lectures in Berkeley; David Riesman, the professor of clinical medicine at Pennsylvania; and Alonzo E. Taylor, professor of biochemistry at Berkeley, he elected to accept a position as associate professor at the University of California, which had just established the George Williams Hooper Foundation for Medical Research. The policy of the new institute, the first of its kind to be attached to a university in America, was guided by William H. ("Popsy") Welch, one of the original trustees who, because of his encyclopaedic knowledge of research institutes throughout the world, had also played a considerable role in the organization of the Rockefeller Institute as the proponent and original member of the latter's Board of Scientific Directors. Welch chose George Whipple, soon to become a Nobel laureate, as the first director of the Hooper, and Whipple in turn selected Karl Meyer as his associate and eventual successor in 1921. But, as K.F. remarked, it was the directness, warmth and personality of Herbert C. Moffitt, then dean of the School of Medicine, who won him over to a future in California.

Karl Meyer's scientific work at the Hooper Foundation, where he was to spend the rest of his life, was not only of the highest standard and distinction but the problems he undertook were clearly in response to his deeply felt humanitarianism and sense of obligation and duty to the community and society. Indeed, there were some who criticised him severely for his failure to devote himself exclusively to what they called "pure" science as something different from his conception of *Wissenschaft*. Nevertheless, it was an ecological or holistic approach to his discipline that gave consistency to K.F.'s endeavors and made him such a fascinating speaker and such an extraordinary, fecund investigator. This point of view is evident in his numerous writings—he published some eight hundred papers—and very apparent in the satisfying completeness of his famous work on western equine encephalitis and on ornithosis (psittacosis).

During his earlier years in California, K.F. began to respond almost immediately to the problems of his environment by studies on undulant (Malta), abortus (Bang's) and pig's (Traum's) fever, leading to the establishment of the new genus *Brucella*. This work carried out in association with E. C. Fleischner and E. B. Shaw (later professor of pediatrics) contributed to our knowledge of the relationships of these diseases in both man and animals and of their propagation; this research

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led to legislation prohibiting the use of unpasteurized milk in the feeding of infants and children. Of recurrent interest is his early work on lead air pollution from the Selby plant, which affected livestock. The great influenza pandemic of 1918 soon engaged his attention but it passed as swiftly as it came, to be replaced almost immediately by the problem of botulism.

The series of outbreaks of botulism with its fearful mortality became a matter of national and international concern in the 1920s. California's canning industry, as K.F. once put it, was in a state of panic. Together with J. C. Geiger as epidemiologist, the subject was to engage K.F.'s lifelong interest and was to lead to the establishment of world standards for the control of botulism at UCSF. K.F. wrote more than forty papers on the recognition, differentiation, isolation, and world distribution of the *Bacillus botulinus* and on methods of treatment of the disease. His efforts for essential methods for canning rescued the California canning industry from disaster. Oddly enough, despite Felix Pouchet's criticism, Louis Pasteur's achievements in the perfection and control of industrial fermentations were hailed as great science, whereas Karl Meyer's achievement in the control of the more deadly *B. botulinus* was denigrated by some of his contemporaries as mere industrial technology. Although he was deeply hurt by the criticism, time has shown that K.F. contributed far more to human welfare and safety.

No sooner was interest in botulism on the wane than a new form of food poisoning, paralytic mussel intoxication, made its appearance. It was to take many years and much interdisciplinary effort before its cause was traced to the dinoflagellate or marine plankton, *Gonyaulax catanella*. "Its toxin is probably the most powerful known to man," K.F. once said.

The decade of the 1930s had scarcely arrived before K.F. was challenged by the appearance in the West of a new epizootic then called "forage" fever, but in California attributed to botulism or to poliomyelitis. Thousands of horses were affected with a mortality of over fifty percent. The pursuit of this disease, its identification as equine encephalomyelitis, the isolation of the virus, the discovery of the mode of transmission, the recognition of human infections, and the relationship of western to eastern forms of the disease, is a saga in itself. It involved midnight forays and secret animal autopsies, the evolution of the sophisticated method of virus culture by means of the embryonated egg (falsely attributed to R. W. G. Wycoff), the development of a hyperimmune serum in treatment, and the virtual elimination of the disease. For the solution of this problem, field work (of which Meyer was an experienced master) was essential. The first report of the disease in 1931 by C. M. Haring, Beatrice Howitt, and himself was a masterpiece of brevity.

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Closely paralleling the work on equine encephalitis was that conducted by Karl Meyer and Bernice Eddy on psittacosis or parrot disease. This dangerous and highly infectious disease had made its appearance from time to time, though infrequently, in Germany and Paris, where it was diagnosed as a form of pneumo-typhus until the source was traced to the importation of parrots, parakeets, and budgerigars. Increasing popularity of these birds as pets in North America in the 1930s led inevitably to local epidemics with high mortality. The matter gained national prominence when the wife of Senator Borah came down with the disease. So infectious is the disease that both attendant and laboratory workers are commonly infected. Meyer and his coworkers were no exception, and K.F.'s personal clinical experience was reported anonymously in 1936 and perhaps amusingly. His studies ranged from the sea gulls of California to Long Island's ducks. Again, by a great cooperative effort, the wide distribution of the agent first among most birds justified the introduction of the term ornithosis, but continued efforts have shown its almost universal distribution throughout the animal kingdom. However, with the therapeutic and prophylactic methods introduced by his group, it is no longer a threat.

Continuity, persistence of endeavour, and thoroughness are the hallmarks of K.F.'s scientific work. Like a juggler, he seemed capable of balancing his interests in tularemia, coccidioidomycosis, sporothricosis, rickettsia, and all the zoonoses on his broad shoulders. This is evident in his work on plague, a disease in

the elucidation and control of which he is universally known, including The Plague Commission of W.H.O. The subject fascinated him from the days of his youth. He was familiar with the horrors of the historical “black death” as portrayed in his native city and elsewhere in Europe. He once told the writer, he first saw and cultivated the *Bacillus pestis* (*Pasteurella p.*) at the Institute of Infectious Diseases at Bern, appropriately along with the other agent of a universal disease, the *Spirochaeta pallida* (*Treponema p.*). He encountered *B. pestis* again in the rodents of southern Africa, where it was not supposed to be, and on a visit some fifty years later found it obscure but still present.

He pursued the disease on his arrival in San Francisco, delving into the early outbreaks and discussed the findings in a case of plague encountered in 1913 with George W. McCoy, of tularemia fame, at the old Lazaretto south of the city. He explored the plague records of the State Department of Health working closely with its director Walter M. Dickie. Beginning in 1916 he was actively concerned in tracing the source of the infection in all of the many limited outbreaks of bubonic and more occasionally, pneumonic plague and was deeply affected by one of the earliest of these outbreaks in which one of his own pupils was struck down by the terrifying pneumonic type. He examined

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the ground squirrels captured by Joseph B. Long, professor of zoology at Berkeley, and found them infected. But it was not until 1924, following an outbreak near Los Angeles that he was inspired to trace the source and varieties of infected fleas which led him to challenge existing conceptions of the transmission of the disease. From these investigations a new ecological approach was born, and concepts of the sylvatic origin of plague came into being. In typical fashion, a few years later K.F. was saying, “My God! we are sitting on a vast reservoir of plague and do not yet know its boundaries.” The advent of World War II brought the subject of plague into acute focus. The great military training camps in rural California were facing potential disaster, and his interest and anxiety were increased by the discovery with Dickie of plague among the migrating field mice at Fort Ord. The Old Medical School Building in San Francisco resounded with the tramp of class after class of military personnel being trained by him in measures of control.

With the certainty that in World War II American servicemen would be committed to geographical regions where plague was a direct threat, K.F.'s research took on new directions concerned with questions of immunization and the best therapy in view of existing uncertainties. The problem was one not only of difficulty, but of great urgency. K.F. and his associates were forced into conducting the most extensive series of studies in existence on the immunity responses to and metabolism of the plague bacillus. Fractionation of the bacillus with the eventual separation and production of its specific major antigens was accomplished followed by the almost immediate production of twenty-six million doses of an effective vaccine. In addition, from this work, tests for the detection and diagnosis of plague in animals and man were developed, as well as methods for the evaluation of the various antibiotics that were then being introduced. These extraordinary studies conducted at white heat have made possible a rational therapy in both the bubonic and pneumonic forms of the disease. Among the tens of thousands serving in endemic plague areas not a single case appeared in the American forces during World War II—high testimony to his success. Although K.F.'s first paper on plague did not appear until 1926, the sixty or more publications that followed have had an enormous impact on our understanding of this disease and will require an almost total re-evaluation of our conceptions of the circumstances producing the “black death” of history; Vietnam brought still newer problems. He was not satisfied and continued his search for a more satisfactory vaccine until a week before his death.

An appreciation of K.F. would be very incomplete if his great interest in the history of biology and biologists were not mentioned. To pursue a subject to its very foundations was part of his nature and, as

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he often said, most rewarding in providing insight into both subject matter and personalities. He expressed this through his stamp collections which were, however, a symbolic part of his commitment to his discipline.

Appropriately, he prefaced his book on *Disinfected Mail* with a reproduction of Arnold Boecklin's painting of the plague.

Science and friends alike will miss his rugged personality, his directness, his genius, his bonhomie, his love of company and conversation, and his graciousness. He was an accomplished photographer, fascinated by radio in its early days, loved good conversation, good company, and good wine. Those who knew him at close hand rejoiced in his friendship. His lifelong devoted support was a priceless boon to those who had worked with him—the “hand on the shoulder” for many years.

Karl Meyer married Mary Elizabeth Lindsay at Philadelphia in 1913 and to this union was born his only daughter, Charlotte (Mrs. Bartley Cardon, Jr.). The first Mrs. Meyer died following a prolonged illness in which her husband gave her every care and attention. In 1960, he married Marion Lewis, a happy and blissful union of which “God hath no better praise.” The University of California and its several faculties would express to his wife and daughter deep sympathy at their loss of a great scientist and noble man.

*“Stat magni nominis umbra”*

*Lucan*

J. B. de C. M. Saunders Edward B. Shaw

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## **Henry Dukso Moon, Pathology; Forensic Pathology and Medicine: San Francisco**

*1914-1974*

*Professor Emeritus*

The untimely death of Dr. Henry D. Moon on August 2, 1974, brought to a close the life of a distinguished pathologist who had been associated with the University of California for forty-three years. Dr. Moon was born in San Francisco September 28, 1914, and graduated from Galileo High School in 1931. All his undergraduate, graduate, and professional education was at the University of California, Berkeley, and San Francisco. His whole life was intimately interwoven with the life of his natal city and his alma mater, as chief pathologist for the city of San Francisco and as professor of pathology and chairman of the Department of Pathology at the University of California School of Medicine.

He received his A.B. degree in medical sciences from the University of California, Berkeley, in the spring of 1935 upon his completion of the first year of the curriculum of the University of California School of Medicine. The academic years of 1935-1937 he spent as a graduate student in anatomy at Berkeley, working in the Department of Anatomy and in the Institute of Experimental Biology. Few graduate students have a record of achievement for two years of work that can equal his. In these years he came under the influence of Professors William R. Lyons and Herbert M. Evans. Professor Lyons was actively engaged in the isolation and purification of prolactin from sheep pituitary glands and Dr. Moon undertook to characterize biologically adrenocorticotrophic hormone (ACTH) from one of the fractions Professor Lyons had obtained. He was remarkably successful in this and in 1937 reported studies of a highly purified and potent ACTH and also described a bioassay of his own devising to demonstrate comparative potency of different preparations. In addition he did numerous biological studies. Particularly noteworthy among these were the demonstration of thymic atrophy following ACTH administration in rats, the inhibition of somatic growth in young rats treated with large

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amounts of ACTH, the indirect evidence that the adrenal cortex might be stimulated to produce sex hormones,

and anatomical studies of the Golgi apparatus of adrenocortical cells as related to the probable functional state of these cells.

In the fall of 1937 Dr. Moon re-entered the School of Medicine as a sophomore student. He received the M.D. degree in 1940 and completed his specialty training in pathology in 1944. From 1944 until 1947 he was on active duty in the United States Army Medical Corps, leaving the service with the rank of major. In 1947 he became chief pathologist for the San Francisco Coroner's Office and chief of the pathology service at the Veterans' Administration Hospital. His first faculty appointment was in 1943 and he became a full-time faculty member in 1956 as associate professor of pathology and as chairman of the Department of Pathology, a position he held until his retirement in 1974. He was promoted to the full professorship in 1958. He also served as professor and chairman of the Division of Forensic Pathology and Medicine.

His interest in research, kindled in the mid-1930s, continued throughout his life and he was author or coauthor of approximately 100 original scientific papers. His research covered many fields but he maintained an interest in anterior hypophyseal hormones; in the first half of the 1950s he coauthored with H. M. Evans, C. H. Li, and M. E. Simpson a series of approximately ten papers dealing with neoplasms developing in rats chronically treated (a year or more) with hypophyseal growth hormone. He published extensive studies of arteriosclerosis both in man and in experimental animals; these were particularly noteworthy for developing primate models of atherosclerosis. In many ways ahead of their time were ten or more papers on the lysis of homologous cells by sensitized lymphocytes. One of his peers described this work as follows: "The latter have formed the basis for some of the most important current work on tumor immunity and on the action of lymphotoxin in the cellular immune system." In spite of his activity in research, Dr. Moon never neglected students or the responsibility his department had for undergraduate courses in three professional schools, as well as house staff training and service to the hospitals and clinic in anatomic pathology. Former residents have written of his availability to all house staff, commenting on the "new perspective" that his consultants often put on a difficult diagnostic problem. On the national scene he "worked hard and long for the cause of genuine scholarship in pathology." He was a member of numerous scientific societies and officer of many. The esteem in which his colleagues held him is best evidenced by the fact that he was president of three experimental and scientific pathology societies—the American Society for Experimental Pathology, the International Academy

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of Pathology, and the American Association of Pathologists and Bacteriologists. His advice was sought by many groups within the University and outside of it. He served on four different committees of the National Institutes of Health and on the Scientific Advisory Board, Armed Forces Institute of Pathology. He was twice visiting professor as specialist of the U.S. State Department—first to Korea, then to the U.S.S.R. The former must have brought him the most pleasure, as it was his only visit to the homeland of his parents.

Dr. Moon brought to his country, to his University, and to his profession a remarkable heritage. Both his parents were born in Korea, all of their children in this country. Henry Moon was the first born of four children, three boys and one girl. His father, Yang Mock Moon, born in 1868, studied to be a scholar in the old traditional sense. As a fierce patriot he was politically active against the Japanese and came to the United States in 1903 hoping to carry on better the fight for Korean independence. His lot was not an easy one. He worked as farm laborer, salesman, language teacher to second-generation Koreans, cleaning shop operator. There was little place in California for a traditional Korean scholar. But his purpose to free Korea persisted, shared by the handful of Koreans in this country at that time. Among those with whom he worked to this end was Syngman Rhee, whom he last visited in San Francisco about 1935 and with whom he earlier worked to raise money and to organize the Korean expatriates. These were some of the influences producing the remarkable blending of East and West that existed in Henry D. Moon.

As an individual and in his personal behavior Dr. Moon set a standard toward which all can strive but few can attain. It has been said that his word was better than any contract. One of his professional colleagues wrote of



him: "I know Dr. Moon personally as a warm and friendly individual with great personal concern for his fellow men and with great wisdom and sensitivity in dealing with them. I know very few people of whom I could make such statements." A faculty colleague who regarded Dr. Moon as one of his closest friends for forty years on many occasions stated that over that period he had never heard Dr. Moon make a cutting or unkind remark about any fellow human being. He had a keen, penetrating mind and a sharp wit, but his gentleness and great humanity outshone all other qualities. As a scholar, fine gentleman, teacher, scientist, and great human being, Dr. Moon had a remarkable heritage and he left a remarkable heritage to his wife, his sister and brothers, his children and his friends and colleagues. The unknown author of Ecclesiasticus spoke truly: "But these were men of mercy... with their seed shall remain continually a good inheritance."

Leslie L. Bennett Oscar N. Rambo

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## Raymond Moreman, Music: Los Angeles

1900-1973

*Professor Emeritus*

Raymond Moremen died in Long Beach on November 27, 1973. He is survived by his wife, Alice; a son, William, minister of the First Congregational Church, Washington, D.C.; a daughter, Helen Turner, of Playa Del Rey; a brother, Hamlet, of Seal Beach; a sister, Marguerite McCorkle, of Santa Barbara; and three grandchildren.

Professor Moremen was born in St. Joseph, Missouri. He received the A.B. degree from Pomona College in 1921. After graduating, he taught for two years at International College in Smyrna, Turkey. Returning to Pomona in 1923, he served for a year as President Blaisdell's special assistant. From 1924 to 1927 he attended Union Theological Seminary, New York City, from which he received the degree, master of sacred music, in 1932. Meanwhile, from 1929 to 1933, he was director of the a cappella choir at Polytechnic High School, Long Beach; from 1933 to 1937 he was director of the a cappella choir and glee club at Long Beach Junior College. During these years in Long Beach he was also organist and director of music at the First Congregational Church.

In 1937 he joined the UCLA Department of Music, with which he was affiliated until his retirement in 1966. At UCLA he continued to work in the field of choral music, placing special emphasis on the University's a cappella choir. For many years his annual Christmas programs with the choir attracted enthusiastic, packed houses to Royce Hall auditorium. Periodically he enlarged the scope of the choir by joining it with the University Symphony Orchestra to perform historically significant, large-scale works, among them Bach's *St. Matthew Passion*, Beethoven's *Missa Solemnis*, and Stravinsky's *Symphony of Psalms*. He also became well known for his leadership of the Men's Glee Club, the Women's Glee Club, and especially the Madrigal Singers.

In 1952 he entered a new phase of activity with his appointment as chairman of the Department of Music. His four years as chairman were climaxed in 1955 by the dedication of the new music building, later named Schoenberg Hall.

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Throughout his tenure at UCLA, and extending into his retirement, he was prominently identified with local and regional music organizations. In 1946 he was one of twelve founders of the Southern California Choral Conductors' Guild, and became its first president. He often served as a member of advisory boards, among them the Southern California Symphony Association and the Los Angeles Federation of Churches. He adjudicated many music festivals and competitions, made frequent appearances as guest conductor, and

published numerous articles and reviews. In addition he served as choir director for several local churches, notably the Westwood United Methodist.

In 1966 he retired from active service at UCLA. During the academic year 1967-1968 he returned to teaching, this time at the University of California, Riverside, where he substituted for his friend and former student, Professor William Reynolds of the Department of Music.

One of his most significant late activities took place in the editorial field. From 1968 to 1971 he served as editor for the *Journal* of the Southern California Choral Conductors' Guild. This work led, in 1971, to his appointment as chairman of the editorial board for *The Choral Journal*, the official organ of the 6000-member American Choral Directors' Association. His impact on this publication was immediate and profound; the Association's president recently asserted that none of the organization's recent changes "has been more dramatic than the change in quality and content of *The Choral Journal*. Ray was responsible for making the *Journal* a truly representative magazine."

Professor Moremen's energetic personality showed itself in small ways as well as large. He walked with long, vigorous strides. His greeting of friends was hearty. In conversation he enjoyed sly humor and liked to quote favorite aphorisms. His penchant for activity revealed itself conspicuously during his college years. At Pomona he became president of the student organization and was a member of the track team; during his last two years there he remained undefeated in the two-mile run. During his teaching years in Smyrna he once protected his students so heroically, in defying a marauding military force, as to win recognition on the front page of the *New York Times*.

He was a deeply religious man. One can conjecture, both by reason of his strong religious faith, and his equally positive affirmation of life, that he would have appreciated fully the extraordinary memorial service that followed his passing. It was held in the church that he had served for many years as minister of music, the First Congregational Church of Long Beach. Called "A Service of Celebration, in appreciation for the life of Raymond Moremen," it was rich in music; those present heard elaborate organ pieces by Bach, sang sturdy hymns, and listened to vibrant Renaissance madrigals performed by Donn Weiss

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and the UCLA Madrigal Singers. Two old friends, Derwood Baker and Charles Hirt, spoke informally. There were brief prayers; excerpts from the Bible; readings from Norwood, Kazantzakis, and de Chardin. In this impressive, many-sided, and very personal rite, those close to Professor Moremen came together to express their appreciation for having known him.

Robert U. Nelson William R. Hutchinson Donn Weiss

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## **Burton Jones Moyer, Physics: Berkeley**

*1912-1973*

*Professor*

Burton Jones Moyer, professor of physics at Berkeley (1947-71) and Dean of the College of Liberal Arts at the University of Oregon (1971-73) died in Eugene, Oregon on April 21, 1973. He was known and respected by many members of the campus and the Lawrence Berkeley Laboratory and by high energy and health physicists the world over.

Moyer was born in 1912 in Greenville, Illinois, where his father was professor of chemistry at Greenville College, a small denominational institution. He did undergraduate work and received his A.B. at Seattle Pacific College, where his father was then Dean. He completed his Ph.D. in physics at the University of

Washington in Seattle in 1939. He was greatly influenced by his parents, both deeply religious persons. The guiding motive of his life was service, service to his fellow men everywhere, in every form, as dictated by his religious and ethical principles.

After receiving his Ph.D., he returned to Greenville College as professor of physics. In June 1942 he came to Berkeley to work on the separation of uranium isotopes under Ernest Lawrence. He quickly became a group leader and spent considerable time in Oak Ridge, Tennessee, in the operation of the electromagnetic separation plant. At the close of the war he returned to the Radiation Laboratory in Berkeley, first to nuclear physics, then to high energy physics. Simultaneously he started teaching in the physics department as lecturer, was appointed associate professor in 1950 and professor in 1954. By this time a series of papers had established him as one of the world's leading high energy physicists. Perhaps the best known paper, written with Bjorklund, Crandall, and H. F. York, appeared in 1950 under the modest title, *High Energy Photons from Proton Nucleon Collisions*, announcing the discovery of the neutral pi meson. This was a milestone in particle physics.

Others of great interest were *Nucleon Momentum Distribution in D and C Inferred from Proton Scattering* and *Comparison of the Reactions  $p + d \rightarrow H^3 + \pi^+$ ,  $p + d \rightarrow He^3 + \pi^0$ , as a Test of Charge Independence*, a classic paper. In these Moyer's style was clearly discernable; it was characterized by precision, thoroughness, and expert

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analysis. In addition to his work in nuclear and particle physics, he directed the health physics activities at the Laboratory from 1947 to 1970. His leadership and wisdom led in large measure to present understanding of radiation protection problems associated with particle accelerators.

He enjoyed teaching, particularly mechanics; and his lectures were models of clarity. More outstanding was his direction of the thesis research of sixty-two students. Together they generated a steady and important stream of high energy physics papers. Moyer attended numerous conferences and was a rapporteur on several occasions. In 1962, at the urging of his colleagues, he accepted the chairmanship of the physics department at Berkeley. He became a trusted and admired chairman, able to meet with understanding and success the troubling problems of student unrest beginning in 1964.

In spite of his heavy commitment at the Laboratory, he was active on committees on the campus, in Letters and Science (Courses 55-57, Physical Sciences Council 68-69, and Chairman, Committee on Academic Programs 69-70) and in the Berkeley Division (Welfare 55-57, Representative Assembly 61-63, Budget and Interdepartmental Relations 70-71) as well as on the Statewide University Radiological Safety Committee 59-60.

Both before and after World War II, Moyer had wanted to spend time in missionary work in China. Events had prevented this, but in 1965 he accepted an opportunity for a different kind of service, a position at the India Institute of Technology at Kanpur. He spent the year teaching physics, aiding the research program, and helping to create a viable technical school. He left a lasting impression there. In 1968 Moyer retired from the chairmanship and returned to his research group and to teaching as well as to work with NSF and AEC. He undertook the revision of Vol. I Mechanics of the Berkeley Physics Course with A. C. Helmholtz. He felt then that research in high energy physics should pass to younger physicists. In view of this and his desire to serve, it was not surprising that he accepted the position of Dean of the College of Liberal Arts at the University of Oregon.

During his two years and three months of service as Dean, he suffered through the worst budgetary crisis known at the College and University. However, he exhibited the highest degree of fortitude, spirit, and good humor, quickly gaining the faculty's respect for his sound academic judgment, fair-mindedness, and firmness. Moyer combined the best of scientific and humanistic traditions by using his scientific training and clear

thinking for humane ends. He was loved and admired by students and colleagues alike as a man of generous and serene goodwill and absolute integrity.

E. Segre E. D. Commins A. C. Helmholz

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## Joseph Murdoch, Geology: Los Angeles

1890-1973

*Professor Emeritus*

Joseph Murdoch passed away in Santa Monica, California, on December 31, 1973, in his eighty-third year, thus closing a career of teaching, research, and service to geological science and the University which spanned nearly sixty years. Joseph Murdoch was born in Washington, D.C., on February 19, 1890, one of the twin sons of John and Abigail (Stuart) Murdoch. His father was a naturalist with the Smithsonian Institution, and Joe was early introduced to the out-of-doors. Educated in Massachusetts, Joe received A.B., A.M., and Ph.D. (1915) degrees from Harvard University, specializing in mineragraphy. While still a graduate student at Harvard, Murdoch served as an investigator with the Secondary Enrichment Investigation (S.E.I.) and was a coauthor with Professor L. C. Graton of the first publication of the S.E.I. which was entitled *The Sulphide Ores of Copper—Some Results of Microscopic Study (Transactions of the American Institute of Mining Engineers, New York Meeting, February, 1913)*. In 1916 Murdoch's book entitled *Microscopical Determination of the Opaque Minerals—An Aid to the Study of Ores* was published by John Wiley and Sons, Inc. This work provided the first method for the systematic identification of ore minerals in polished surfaces with tables giving the colors, hardnesses, and etch reactions of 186 minerals. Murdoch's treatise on the microscopy of polished minerals served as the definitive standard for many years. After a business career extending over a period of ten years, Dr. Murdoch joined the faculty at UCLA in 1928, advancing progressively to professor. He retired in 1959.

After extensive field collecting of minerals in California, Professor Murdoch published a number of papers on the crystal chemistry of several rare minerals. Murdoch described the occurrence and crystallography of a number of borate minerals from California deposits, including veatchite, ulexite, probertite, and howlite. He became expert on minerals of the world-famous Crestmore Quarries of Riverside County, California. In 1960 he summarized his Crestmore research before the Mineralogical Society of America in his address as retiring

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president of the society. In the address (published in the *American Mineralogist* 46:245-257, 1961) Murdoch related the history of the Crestmore Quarries and described the geological and mineralogical relations there which had been observed by previous investigators and by Murdoch himself. The remarkable deposits of unusual and some new minerals at Crestmore were produced by contact metamorphic and hydrothermal alteration of the Sky Blue limestone bed adjacent to an intrusion of quartz monzonite porphyry. One of the ten new minerals found at Crestmore was discovered and described by Murdoch and given the name Wightmanite by him in honor of Mr. R. H. Wightman, director of exploration and mining of the Riverside Cement Company.

In 1948, Professor Murdoch visited a number of berylantalite pegmatite deposits in northeastern Brazil, deposits that contain many phosphate minerals. He brought back to California many specimens of these pegmatite minerals which he investigated in the mineralogical laboratories at UCLA. As a result of these studies, he published two papers entitled *Phosphate Minerals of the Borborema Pegmatites: I—Patrimonio (American Mineralogist, 40:50-63, 1955)* and *Phosphate Minerals of the Borborema Pegmatites: II—Boqueirao (American Mineralogist, 43:1148-1156, 1958)*. In these papers he described the phosphate minerals and other minerals associated with them and elucidated their paragenetic relations. In the second of these papers he also described a new mineral to which he gave the name chavesite in honor of Dr. Onofre

Chavez, an engineer of the Brazilian Departamento Nacional de Produção Mineral.

A signal honor which comes to few mineralogists was the naming of a newly found mineral, murdochite, in recognition of his attainments. Murdochite is a copper-lead oxide from the Mammoth mine in Pinal County, Arizona. The mineral was described by mineralogists of the United States Geological Survey and named murdochite “in recognition of Professor Murdoch's contributions to the science of mineralogy.” Murdochite was shown to have a new type of crystal structure.

In 1948, 1956, and 1966 Dr. Murdoch authored (with Robert W. Webb) *Minerals of California*, annotated catalogs of California mineral occurrences, appearing at scheduled intervals during the decades of rapid growth in development of mineral products of the state in the expansion following World War II. Published by the California State Division of Mines and Geology, these bulletins are widely used by laymen and professionals interested in minerals and mineral resources.

“Little Joe,” as he was affectionately known to many generations of UCLA geology students, led field trips which are legendary because

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of his walking rate and stamina in hill climbing. He is remembered for his thoroughness and patience in and out of the classroom, and for his insistence on rigor and highest quality in all endeavors.

Professor Murdoch is survived by his widow, Maude Russell Murdoch, one daughter, Barbara (Mrs. Horace P. Phillips), and three grandchildren.

Kenneth D. Watson Robert W. Webb George Tunell

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## **Thomas F. O'Dea, Sociology; Religious Studies: Santa Barbara**

*1915-1974*

*Professor*

Dr. Thomas F. O'Dea died at his home on November 12, 1974, from complications associated with Hodgkin's disease. He is survived by a five-year-old son, Michael, and by a sister, Mrs. Alexander Sullivan. He joined the UCSB faculty on January 1, 1967 as professor of sociology and religious studies and director of the Institute of Religious Studies. He had previously served on the faculties of the Massachusetts Institute of Technology (1951-56), Fordham University (1956-59), the University of Utah (1959-64), and Columbia University (1964-66).

His early career was not typical of scholars in academia. Born in Amesbury, Massachusetts on December 1, 1915, he did not enter college until relatively late in life. He worked in various trades, was a labor organizer, and was active in politics. During World War II he served in the U.S. Army (in the infantry and the air corps) in North Africa, Australia, the Mariannas, India, and China. Once he entered college, his academic career was distinguished. He graduated from Harvard, *summa cum laude*, in 1949, and went on to receive his M.A. in 1951 and his Ph.D. in 1953. In connection with his doctoral dissertation, he participated in the Laboratory of Social Relations project on “The Comparative Study of Values in Five Cultures” in northern New Mexico. He focused his attention on the Mormon community of Ramah. Several publications resulted from this field work and his continuing interest in Mormonism—including *The Sociology of Mormonism* (1955), and *The Mormons* (1957). The latter work has been widely acclaimed, and one Mormon reviewer called it the “best account and interpretation” yet produced.

Subsequent works by Dr. O'Dea include two slim but significant volumes on aspects of Roman Catholicism: *American Catholic Dilemma: An Inquiry into the Intellectual Life* (1958) and *The Catholic Crisis* (1968). In 1963, as a consultant to the Arabian American Oil Company, he conducted a yet unpublished study on social change in Saudi Arabia. His book, *The Sociology of Religion* (1966), has been

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translated into five languages. Other publications include *Alienation, Atheism, and the Religious Crisis* (1969), *Sociology and the Study of Religion: Theory, Research, Interpretation* (1970), and more than forty articles in journals, encyclopedias, and anthologies.

Dr. O'Dea received many honors during his career, including election to Phi Beta Kappa and selection as a fellow by the Center for Advanced Study in the Behavioral Sciences (1955-56). He was elected to the American Academy of Arts and Sciences in 1972, and during the following year was visiting professor of sociology and religion at the Hebrew University in Jerusalem.

Professor O'Dea was not only an outstanding scholar in the sociology of religion but also an extraordinary and original one. He will be remembered for his participatory and yet not partisan attitude, for the approach that attempts to see religion from the inside and yet maintains the critical and impartial mind of the outsider. He succeeded in entering alien fields, not only with tact and respect, but also with involvement. Mormons, atheists, Muslims, and Christians alike felt that Thomas O'Dea was in some sense speaking for them and not exclusively about them. Still, his incursions always brought him back to his personal position both intellectually and existentially.

Those who knew Tom O'Dea well, especially his colleagues and graduate students, never ceased to be amazed at the breadth of his learning, the brilliance of his insights, the sharpness of his analytical powers. He had a special capacity to see polarities in human experience and to hold them in dialectical tension: sacred and secular, conservation and breakthrough, tradition and change, individual and community, reason and faith, estrangement and reconciliation. As he described polarities so he himself lived as a scholar in creative tension between distance and involvement, critical analysis and prophetic utterance. Never conventional, he was frequently controversial, a man of passion, fierce pride, and firm convictions; yet he had the capacity to change, a keen ability to absorb new knowledge, and a mature appreciation of commitment to the spiritual life. He lived, he loved, and in deep and penetrating ways, he understood. We are the better for it and are grateful for having had him in our midst.

Robert Michaelsen Raimundo Panikkar Tamotsu Shibutani

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## **Clarence E. Palmer, Geophysics and Planetary Physics: Los Angeles**

*1911-1973*

*Professor of Geophysics, Emeritus*

Clarence E. Palmer, one of the original members of the Institute of Geophysics, died on January 24, 1973. He was born in Wellington, New Zealand, March 19, 1911, and began his scientific career as a student of zoology at Victoria College, University of New Zealand. After receiving his master of science degree in 1933, he took a position in the New Zealand Meteorological Office while waiting for an academic position to open up in his chosen field. It was at this time that Dr. Jorgen Holmboe, later to become professor of meteorology at UCLA, visited New Zealand to explain the new polar front theory, which had been developed by Professor J. Bjerknes, his father V. Bjerknes, and other collaborators. Dr. Holmboe was so impressed by Palmer's keen interest in and quick grasp of the subject, that he urged the Meteorological Office to provide him with support for advanced training in physics and meteorology. When this proposal did not come to fruition, Palmer accepted a position

as lecturer in zoology at Victoria College, which he held until 1939.

At the outbreak of World War II, the Royal New Zealand Air Force urgently needed meteorologists, and so Palmer was drafted and sent to Guadalcanal. Palmer's fame as a tropical forecaster grew rapidly; and before long, his services were requested by the U.S. Army air forces in the training of weather officers at the University of Chicago. In 1943 he was appointed director of the Institute of Tropical Meteorology, which was established in Puerto Rico by the University of Chicago. His diagnostic and forecasting methods later became the accepted standard of the American armed forces in the Pacific.

After the war, Palmer returned to the southern hemisphere as senior lecturer in general science at the University of Melbourne. His stay there was brief; in 1948 he was offered an associate professorship at UCLA in the newly organized Institute of Geophysics, so that tropical meteorology could be represented there by one of its founders. Research in tropical meteorology received a strong impetus and financial support because of the continuing interest of the air force and the requirements for the nuclear testing program in the Pacific. In 1953 the Oahu Research Center was established in Hawaii under the auspices of the Institute of Geophysics and the direction of Professor

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Palmer. Under his leadership, the group he assembled produced the first integrated description of the tropical circulation in the Pacific and brought the advantages of streamline analysis to the attention of forecasters. In 1954 the University of New Zealand awarded Professor Palmer the doctor of science degree, in recognition of his fundamental contributions to tropical meteorology.

During the International Geophysical Year, Professor Palmer became interested in stratospheric circulation problems as a result of the availability of stratospheric radiosonde data from the Arctic and Antarctica. His conclusions concerning the development of "stratospheric warmings," as due to adiabatic warming of sinking portions of the stratosphere, have been generally accepted. He was also a pioneer in solar-terrestrial research designed to interpret the relationship between solar disturbances and large-scale weather patterns.

In 1964, no doubt influenced by his earliest scientific interests, he joined the Galapagos International Scientific Project as the leader of the participating meteorological group. His contribution to the international symposium held aboard the *Golden Bear* was the interesting description of the climatological setting of the Galapagos.

Among Professor Palmer's many contributions to the University was his service as the southern chairman of the Committee of the University Press. Professor Palmer will be remembered by his colleagues as a man of varied intellectual interests, a sparkling conversationalist, a gifted writer, and a warm friend. Few, perhaps, were aware that among his many talents was writing poetry, which is illustrated by an excerpt from his book *Elephantiasis in America*:

*To Ch'i Pai-shih*

*I saw your insect standing on a leaf  
My master. Orient antennae bright  
With intellect survey the rolling reef  
Of leaves and flowers in a blinding light.  
How could you, eyeless, paint cicada minds?  
Can I expect, when I have rheumy eyes  
To see beyond abstraction and the blinds  
And through the glass to where my vision lies?  
Perhaps when art forgets its history  
When I lose all that I have ever earned  
Perhaps when craft turns into mystery  
And all the stars my retinas have burned*

*Then shall I stand upon the cricket's leaf  
And see the world washed clean of joy and grief.*

He is survived by his widow, Dulcie Claire Palmer, and a son, Arthur Lewis Palmer.

Robert E. Holzer Leon Knopoff Louis B. Slichter

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## **Willis Conway Pierce, Chemistry: Riverside and Irvine**

*1895-1974*

*Professor Emeritus*

It is a major accomplishment for any faculty member to excel in all three criteria for promotion in the University of California system—teaching, research, and University and public service. Thus, it is especially noteworthy for a person during his career to have reached the summit in these three areas and at the same time successfully to have fulfilled major administrative responsibilities. Such a man was Professor Willis Conway Pierce!

Thus, when Conway Pierce passed away at the age of seventy-nine (December 23, 1974), although it was a time of deep sadness for his wife, Kate, his partner for fifty-three years of married life, his son, Bill, others of his immediate family, and the multitude of former students, faculty colleagues, and friends who knew, respected, and loved him through the years, it was also an occasion to reflect and review the accomplishments of a truly remarkable man—one who is remembered as a gentleman and a scholar.

Conway Pierce was born December 2, 1895 at Carrolton, Kentucky. During World War I, he served with the Chemical Corps of the U.S. Army. Subsequently, in 1921, he married Kate Shewmaker, a companion who so effectively complemented Conway's "lifestyle" that "Conway and Kate" were inseparable in the thinking of all who knew them.

Following a bachelor of science degree from Georgetown College in Kentucky, he taught at the University of Kentucky and the University of South Dakota. While teaching in South Dakota, he began his studies for the master's degree at the University of Chicago during the summer quarters. In 1927 Conway Pierce began his Ph.D. degree studies with the internationally recognized chemist, Professor W. Albert Noyes, Jr., also at the University of Chicago, and following completion of his Ph.D., he was appointed to a full-time position on the faculty at the University of Chicago.

It was while at the University of Chicago that Conway Pierce coauthored his first textbook, *Quantitative Analysis*. Pierce and Haenisch

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became an immediate success because of its lucid and factual presentation of a subject found difficult by generations of sophomore science students. Indeed, it was frequently referred to as the "Bible" in undergraduate analytical chemistry. Over a hundred thousand copies were sold through the years, culminating in 1958 in a most successful fourth edition, to which Professor Donald T. Sawyer—one of Conway's original appointees at UCR—made a significant contribution. Even today, Pierce, Sawyer, and Haenisch remains one of the top textbooks in elementary analytical chemistry.

Shortly before Pearl Harbor, along with a number of University scientists in the U.S. Conway Pierce was recruited by Professor W. A. Noyes, Jr., into serving with the National Defense Research Committee (NDRC) of the Office of Scientific Research and Development, and he became intimately involved with research on the defensive aspects of chemical warfare. In 1942, the Central Laboratory of Division 10 of the NDRC was set



up at the new Technological Institute at Northwestern University, and there he assembled his team of research scientists. During the course of World War II, this laboratory became a focal point for the development of new and effective charcoal filters used in the gas masks of the United States and its allies. Furthermore, in 1943, it joined several other such war research teams, including one at the University of California, Berkeley, under the direction of the late Professor Wendell Latimer, in exploring the offensive capabilities of chemical warfare. It was during this period that Conway Pierce became a close friend of Professor Francis Blacet, another scientist recruited by the NDRC from the UCLA faculty in 1941, and one who also directed with Conway a substantial portion of the highly secret war research activities.

In the latter years of World War II, Conway Pierce was sent on a lengthy mission to Australia and the South Pacific, where his understanding, particularly of the defensive aspects of chemical warfare, were of great utility to our armed services. His wartime contributions subsequently were recognized by the late President Harry S. Truman, who awarded him a Certificate of Merit.

After the war, Conway left the University of Chicago to join Pomona College as chairman of the Department of Chemistry. He and his two young colleagues—Nelson Smith and Corwin Hansch—set about to reorganize and reshape the teaching of chemistry at this well-recognized liberal arts college. Their success, with Conway as the leader, was remarkable... indeed, chemistry majors graduating from Pomona College were avidly recruited by the finest graduate schools in the U.S. This success was due not only to the high quality of the science taught by these three, but also by the humanity and general concern displayed by them in dealings with all students. Conway cared, and the students knew it!

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In 1953 Conway was recruited by Dr. Gordon S. Watkins, first provost of UCR, to join the newly established UC Riverside campus as chairman of the Division of Physical Sciences—an organization which, in the early stages of the development of this campus, was comprised of physics, chemistry, geology, and mathematics. His previous experiences at several eminent institutions, scanning the educational spectrum from a liberal arts college to a major university, proved invaluable to UCR. Indeed, from the beginning, Conway was one of the small, inner group who shaped the future of UCR, and, of that group, he was among the most influential in establishing those policies that led to the present form of the campus. Thus, from 1953 to 1961, he developed curricula, recruited staff, designed buildings, taught classes, administered an academic unit, set up a research program, advised major campus and University administrators, and still found time to indulge in two of his favorite hobbies—poker, with a group of local faculty and administrators called the SAE (Society for the Advancement of Economics), and fishing in the Sierras with another group known to the initiated as the Society of Wholesome Livers.

When Conway reached retirement age, his colleagues in chemistry persuaded him to continue, and he spent two more very effective years beyond his original retirement date—half-time at UCR and half-time helping to advise the administration of the new UC campus at Irvine formulate their academic programs and design and construct their physical plant. His contributions have been recognized in a number of ways: the chemistry building at UCR is named Pierce Hall, and the chemistry laboratory at Georgetown College is named for him and his two brothers.

It is interesting that while Conway was recruiting faculty, teaching classes, and serving as an effective, dynamic administrator, he found time to write another highly successful textbook. This book, coauthored by Professor Nelson Smith of Pomona College, was basically a text on how to solve problems in freshman chemistry. Once again, his clarity of thought and presentation resulted in a highly popular book with widespread appeal to generations of science students.

Conway Pierce's research interests ranged over a broad spectrum of chemistry. His Ph.D. thesis dealt with a problem in photochemistry—a subject which in the 1920s was in its infancy. Subsequently, at the University of

Chicago, he went into the field of X-ray spectroscopy and made significant contributions in another emerging field. Later, as a result of his research in World War II, developing activated charcoal filter systems for gas masks, he became intensely interested in the problems dealing with the adsorption of gases on solids, most particularly charcoal, graphite, etc. Indeed, it was in this area that he made his major scientific contributions, starting at Pomona College and continuing

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for the remainder of his life at the University of California, including his post-retirement years. Conway's studies in the mechanism of adsorption of gases on solid surfaces were noteworthy and led to an international reputation in this area. Recognition came in the form of his being one of the first Faculty Research Lecturers at the University of California at Riverside, the first recipient of the Petroleum Research Fund Fellowship, the Honor Scroll by the Western Section of the American Institute of Chemists, and the Richard C. Tolman Medal of the Southern California Section of the American Chemical Society. Finally, in recognition of his contributions in all areas—research, teaching, administration, and University and public service—he was awarded the honorary LL.D. degree from UCR in May 1965.

In short, Conway Pierce led a full and active life. He enjoyed it to the hilt, and while teaching his science, administering his team, and conducting his research, he communicated to students, colleagues, and friends a sense of joy in his work, a love of nature, and a humble but tough spirit, which profoundly influenced all of us. He was, indeed, a “man for all seasons,” and we shall miss him.

A. M. Boyce T. L. Broadbent J. W. Olmsted H. T. Spieth A. C. Turner J. N. Pitts, Jr.

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## **William Walden Rubey, Geology; Physics: Los Angeles**

*1898-1974*

*Professor of Geology and Geophysics, Emeritus*

William Walden Rubey died of cancer on April 12, 1974 in Santa Monica, California. Memorial services were held at UCLA on April 25 and at the National Academy of Sciences on April 27.

Bill was born in Moberly, Missouri, on December 19, 1898. After attending high school in Moberly, he enrolled in the University of Missouri and received the A.B. degree in 1920. During his senior year he married Susan Elsie Manovill, his lifelong companion and support. After graduation, he continued academic studies at John Hopkins University and Yale University for the next four years, to some extent overlapping these with his concurrent work for the U.S. Geological Survey. This association began in 1920 and extended practically unbroken for fifty-four years. Over this long period he exerted a strongly positive influence on the nature and thrust of research undertaken by the survey. After retirement, Bill became the first director of the Lunar Science Institute (1968-1971), serving during the return of Apollo Mission samples for the most intensive scrutiny yet received by materials scientists.

Bill's scientific contributions that have received international recognition include the systematics of stream hydrology, areal geology of western Wyoming, the origin of the atmosphere, sea water, and chemical differentiation of the planet Earth, mechanisms of overthrust faulting and mountain building, and factors influencing the release of seismic energy. During World War II he served as the U.S. Geological Survey's liaison to the armed forces, and was largely responsible for the entrance of both the water resources and geologic divisions into various phases of military geology.

Bill Rubey received many honors. He was a member of the National Academy of Sciences, received the National Medal of Science from President Johnson in 1966, was president of the Geological Society of

America in 1949-50, and received that society's highest honor, the Penrose Medal, in 1963. He received the honorary degree of D.Sc.

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from Yale University, the University of Missouri, and Villanova University, and an LL.D. from the University of California.

His advice was widely sought and was wisely, generously, but modestly given. He was chairman of the National Research Council-National Academy of Sciences (1951-1954), in addition to serving on numerous university visiting committees, as well as on the board of the American Association for the Advancement of Science, National Research Council, and for a six-year term as a member by presidential appointment to the National Science Board of the National Science Foundation (1960-1966). He was consultant to NASA for a number of years, was a member of the U.S.-Japan committee on scientific cooperation, Department of State (1961-1964); in 1966 he served as expert for the U.S. Corps of Engineers investigating Denver microearthquakes and their possible connection with the Rocky Mountain Arsenal Disposal well, and later was co-chairman of the Advanced Research Projects Agency (DOD) Panel to investigate possible correlation of fluid injection and earthquake activity in the Rangely oil field, Colorado. He was trustee of the Carnegie Institution and was a member, fellow, or councilor of more than twenty learned societies.

Bill was appointed professor of geology and geophysics at UCLA in 1960, a position that he held until his retirement in 1966; he was recalled to service each year thereafter, and was scheduled to offer his seminar, *Advanced Topics in Geology*, during the quarter in which he died. This study group dealt with major unsolved problems in earth science, such as the origin and evolution of mountain belts, the diversity of igneous, sedimentary, and metamorphic rocks, the growth of continents, the origin of ocean basins and of sea water, the evolution of the terrestrial planets, and so forth. Bill regarded himself as a general geologist, and this seminar reflected his conceptual understanding and method of addressing such large-scale, complex subjects. Bill's unique contributions here lay in directing the studies by judicious questioning and an open-minded, objective attack on the problems; only someone with his comprehensive appreciation of physics and chemistry coupled with an extremely broad background in geology could have organized and concluded such an ambitious course series. It was eminently successful. Each enrollee carried away a realization of the magnitude and interconnectedness of all problems in earth science; furthermore, each obtained an appreciation of how to address these problems constructively and analytically. The success of Bill's seminar is reflected in the fact that there were numerous retakers—students who came back for a second or even a third series of meetings.

Bill's counsel was sought on numerous occasions by faculty, USGS, NAS, and NASA colleagues throughout his association here; his wise,

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thoughtful advice will be greatly missed. If anything, however, our graduate students have suffered the most profound loss. Those who knew him, and especially those who were privileged to take his seminar, join with professional earth scientists at universities and in governmental agencies in expressing the deep sense of loss of an internationally honored and respected colleague, an outstanding teacher, and a kind, sympathetic friend.

W. G. Ernst D. T. Griggs Leon Knopoff L. B. Slichter

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## **Walter Howard Rubsamen, Music: Los Angeles**

*1911-1973*

*Professor*

Throughout a long career, thirty-five years of which were spent in the service of the University of California, Walter Rubsamen labored tirelessly to nurture the field of musical scholarship.

He was born and educated in New York City. Along with the B.A. degree, Columbia, 1933, he was awarded the Clarence Barker Music Scholarship, which enabled him to continue study abroad. He received the Ph.D. from the University of Munich in 1937 and joined the faculty of UCLA in 1938, remaining until his sudden death on June 19, 1973. He is survived by his widow, Gisela Roth Rubsamen, and his children Valerie, Glen, and, by a previous marriage, Eric and Mrs. Hope Platzek.

Professor Rubsamen's most abiding enthusiasm was probably for the music of the Renaissance, including the works of Pierre de la Rue, whose masses were the subject of his doctoral dissertation, and the frottola and forms related to it, including the sixteenth-century Italian madrigal. These interests are reflected in the monograph *Literary Sources of Secular Music in Italy (ca. 1500)*, which opened the University of California Publications in Music; in the book *Chanson and Madrigal (1480-1530)* (coauthored with Howard M. Brown and Daniel Hertz); in the paper, *Unifying Techniques in Selected Masses of Josquin and la Rue: a Stylistic Comparison*, which was presented at the International Josquin Conference, New York, 1971, and which will be published in the *Conference Proceedings*; and in a long list of articles published in the most respected musicological periodicals, encyclopedias, international congress reports, and *Festschriften*. Many other studies deal with the ballad opera, political influences on music, and incidental music for the theater and cinema. His *Music Research in Italian Libraries* has proved extremely helpful for many colleagues because it contains partial inventories of several priceless collections of manuscripts and rare prints which to this day are not accessible elsewhere in publication.

In addition to the Clarence Barker Scholarship, Professor Rubsamen was awarded two Guggenheim Fellowships, a Ford Foundation Fellowship, and grants from the American Philosophical Society, the

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American Council of Learned Societies, the Institute for the Humanities, and the Foundation for Reformation Research. In 1971 the Italian government conferred upon him the title Cavaliere.

Upon his arrival at UCLA, Professor Rubsamen took the lead in laying the foundations of the program in the historical study of music which has been in operation since that time. This program proved to be the basis upon which, eventually, the entire program in the scholarly study of music at UCLA was built. He knew that an adequate library is indispensable for historical study of music, and thus throughout his thirty-five years at UCLA he devoted his most strenuous efforts toward building the Music Library. He guided its accessions with utmost solicitude, combing every bookseller's list and auction catalogue for opportunities to fill the gaps in its holdings. The splendid Music Library which now supports teaching and research at UCLA owes much to his concern. The Library's collection of manuscripts and rare books elicited his special enthusiasm, and he was instrumental in procuring most of its treasures, which include: a complete collection of libretti of operas given in Venice from the beginning of operatic history there to the year 1769; libretti and scores of ballad operas; an unusually large collection of *Songs from the operas* printed in the early eighteenth century, chiefly by the Walsh dynasty; a complete set of part books of a collection of motets by Gombert; and an unusually extensive collection of printed books on the theory of music. In the same way he guided the accessions of the Clark Library in the field of music.

Throughout his last eight years Professor Rubsamen served as an exemplary chairman of the Department of Music. His vigorous support of all elements in the department's various offerings was especially striking. He took the lead in developing a new program of studies in performance practices, leading to the degree of master of fine arts. He always attached importance to his own accomplishment as a performer, convinced that it contributed something indispensable to his scholarly work. Before entering Columbia he had studied the flute under Georges Barrère and Meredith Willson and had been awarded a diploma by the American Orchestral

Society. At UCLA he frequently took charge of the Collegium Musicum and conducted many of its public concerts.

Soon after coming to Los Angeles he founded the Southern California Chapter of the American Musicological Society and served as a member of the society's council and as program chairman. Students at UCLA, past, present, and future, the musicological community in California, and musical scholarship generally will benefit from Walter Rubsamen's labors for a long time to come.

Edwin Hanley Frank D'Accone Charles Speroni

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## **Raymond Henri Sciobereti, Mathematics: Berkeley**

*1886-1974*

*Professor Emeritus*

Raymond Henri Sciobereti was born on April 7, 1886 in Basel, Switzerland. His family was musical and he was a very fine pianist. For a time he considered entering the Paris Conservatory of Music and making music his career. Instead he studied navigation and became a navigator on various sailing vessels, beginning in about 1906. During the next seven years, he sailed the seven seas and could tell stories in later years of experiences all over South America, South Africa, the Indian Ocean, and elsewhere.

Because of his years of travel he was an excellent physical geographer and had a deep interest in climatology and oceanography. He always had a great love of nature and was a conservationist long before the current wide interest in that subject.

In 1913 he arrived in the United States and gave up the seafaring life except for occasional yacht cruises out of New York on which he acted as navigator. He spent the next few years doing various teaching jobs including teaching French at Berlitz.

In 1919 he enrolled as a student at the University of California in Berkeley, getting an A.B. degree in 1920 and a Ph.D. in astronomy in 1923. He was an excellent tennis player and helped Coach Grismer coach the tennis team while he was a graduate student. On the tennis court he met Yvonne Reutinger, whom he married in 1922. They had one daughter, Simone M. Sciobereti, who is in charge of undergraduate foreign admissions in the Office of Admissions and Records on the Berkeley Campus of the University of California.

After getting his Ph.D., Dr. Sciobereti became a member of the Mathematics Department. His early research work reflected both his mathematical and his astronomical background, being concerned with Leuschner's method for determining orbits. Later on, his work changed to the solution of ordinary and partial differential equations and problems in geometry and continued fractions.

Most of all, however, he loved teaching, and this was reflected by the many notes of appreciation he received from his students. The day

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after he died, his widow was very surprised to receive a letter of sympathy from a man who had been his student nearly fifty years before, commending his teaching ability and his rapport with students.

During World War II Professor Sciobereti returned to his old field of navigation when he taught navigation to navy V-8 students.

Just before World War II he got interested in gardening and went into it with his customary intensity. Scope for this was provided by the large lot at his home in Berkeley. He often brought beautiful bouquets of flowers

to the Mathematics Department.

Professor Sciobereti retired in June 1954 and lived until January 1974. His manner was courtly, animated, and very friendly. He looked like a Basque, but he was not. For many people on the campus the most striking picture of him was that of a dashing little man in a beret driving a huge convertible with its top always down.

Edmund Pinney Derrick Lehmer Anthony Morse

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## **Zdenek Sekera, Meteorology; Geophysics and Planetary Physics: Los Angeles**

*1905-1973*

*Professor of Meteorology*

The death, in January 1973, of Dr. Zdenek Sekera brings to an end the teaching and research career of an eminent meteorologist and atmospheric scientist of international renown.

Zdenek Sekera was born in Tabor, Czechoslovakia in 1905. He received his M.S. degree in physics and mathematics from the Masaryk University, Brno, in 1929 and the *Venia Docendi*, equivalent to the Ph.D., in meteorology, climatology, and dynamical oceanography from Charles University, Prague in 1939. During the years of the Second World War, he had a faculty position in Charles University. There was relief from the stresses and strains of academic life in an occupied country when he was invited by Professor C. G. Rossby to join a research group at the University of Chicago in 1946. Soon thereafter, Dr. Sekera found his academic home at the Department of Meteorology, UCLA, where he was appointed associate professor (1949), professor (1955), and departmental chairman (1962-1967). Since 1970, he also held a joint appointment as professor at the Institute of Geophysics and Planetary Physics.

Dr. Sekera's research covered two fundamental areas in meteorology: the dynamics of planetary waves and the transfer of radiation through molecular and turbid atmospheres. His important work in atmospheric dynamics was accomplished while he was at Chicago. The major part of his research at UCLA was devoted to problems of atmospheric radiative transfer, a subject to which he was drawn by the predilection of his early training in physics and mathematics as well as by his prescience of its potential applications to meteorological problems. Upon the publication of his monumental work on the *Radiation Emerging from a Planetary Atmosphere with Rayleigh Scattering*, Chandrasekhar, the well-known astrophysicist, remarked: "The problem that was formulated by Rayleigh in 1871 has now at last found its complete solution." The American Meteorological Society recognized Dr. Sekera's contributions to atmospheric science by awarding him the Carl Gustav Rossby medal in 1966.

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Professor Sekera was a conscientious teacher whose compassion and personal concern for his students extended beyond their college careers. Many of these students, who have come to occupy important research and academic positions in this country and abroad, often flocked to him for scientific encouragement and advice. His younger faculty colleagues will remember him, most of all, for his tireless efforts in extending the range and scope of both research and teaching carried out in the department.

Research and teaching were only part of the passions of the gentle, courageous, and talented Zdenek Sekera. There were his hobbies, his family and his friends. Hobbies included classical music, social dancing, camping, and "beetles." Classical music in many forms brought untold pleasure: at his own piano, performing with others (President David Saxon reports such duets), and attending concerts whenever possible. Gabriela has reported on an extensive beetle collection while they lived in Czechoslovakia, "We had beetles of all sizes and

colors neatly labeled and pinned to their drying boards. The poor beetles were left behind when we came to Chicago in 1946.” During the first decade at UCLA, a thriving faculty dance group held the interest of both Zdenek and Gabriela. When the lively numbers were played, especially the schottische and the polka, Zdenek danced his best with a flair as well as with talent.

An International Conference on Radiation and Remote Probing of the Atmosphere was held at UCLA to honor Sekera. Many of his distinguished scientific colleagues from Germany, Holland, Japan, the United States, the Union of Soviet Socialist Republics, and Yugoslavia paid him tribute. They all missed his friendly presence.

Zdenek Sekera is survived by his wife, Gabriela, and his son, Michael.

S. V. Venkateswaran J. G. Kuriyan W. H. Dutton

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## Tracy I. Storer, Zoology: Davis

1889-1973

*Professor Emeritus*

Ortega y Gasset said: “To wonder, to be surprised is to begin to understand. This is the sport, the luxury, of intellectual man.” Tracy I. Storer exemplified Ortega's dictum as only an occasional individual has had the gift to do. His curiosity was boundless, whether with regard to man and other animals or plants, educational techniques or administrative procedures, photography or cars, electronics or music. To investigate these was his sport, his luxury.

Born in San Francisco, California, on August 17, 1889, he completed his entire education in the San Francisco Bay Area. He attended high schools in Oakland and entered the University of California at Berkeley in 1908. Majoring in zoology, he received his B.S. degree as a member of the famous class of '12, the M.S. in 1913, and the Ph.D. in 1921. In 1960 the University conferred upon him the LL.D. and in 1969 named the new zoology building on the Davis campus after him.

From 1914 to 1923 he was on the staff of the Museum of Vertebrate Zoology on the Berkeley campus, first as assistant curator of birds and later as field naturalist. These services were interrupted during World War I in which he served as a first lieutenant in the Sanitary Corps. In 1923 he joined the faculty of the University of California at Davis as assistant professor of zoology and assistant zoologist in the Experiment Station of the College of Agriculture. He was not only founder of the Department of Zoology at Davis but its sole faculty member until expansion began in 1935. He became professor emeritus in 1956.

Tracy had a meticulous and active intellect. Not only was he a “walking encyclopedia” on zoology, mammalogy, natural history, photography, and electronics, but his system of filing and storage enabled him to find any item in these categories quite promptly. For example, the color plates of birds in *Animal Life in the Yosemite* (1926) were pulled from a cabinet to be used in *Natural History of the Sierra Nevada* (1968). This precise competence was extended into his textbooks of zoology, which have been translated into a number of foreign languages

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and are still widely used. It was displayed in his many writings on his native state of California through which he opened the eyes of thousands of nature lovers to the wildlife that is the natural heritage of dwellers and visitors in the Golden West. In addition to his zoology texts, he wrote (with Lloyd P. Tevis, Jr.) *California Grizzly* (1955), the definitive treatise on this recently extinct, California bear population. As a result of these studies, he was called upon to assist in designing the bear on the California state flag.

His bibliography contains over 200 titles of scientific articles and books. At the moment of his death, he was busily dictating.

Storer's influence on biological sciences extended far beyond publication of scientific studies. He was a member of numerous societies; in several of these he contributed his skills as administrator and editor. He was vice president and president of the Society of Ichthyologists and Herpetologists, the Society of Mammalogists, the Society of Naturalists, and the Wildlife Society; three times president of the Cooper Ornithological Club; associate editor of *Ecology* and of *Ecological Monographs*, and editor of *The Journal of Wildlife Management*. In 1968 the California Academy of Sciences bestowed on him its Fellow's Medal.

On the Davis campus Tracy was an active force. He served on many committees of the Academic Senate. He was a leader in the founding of the Sigma Xi Club and was the first president of the Sigma Xi Chapter.

For some time before his death, Tracy was maintained on anticoagulant therapy to prevent coronary thrombosis. In June 1973, he elected to undergo a cataract operation, which needed the discontinuance of anticoagulant treatment and thus posed the danger of a coronary seizure. It was characteristic of Tracy that he undertook the risk, gambling on the recovery of his precious eyesight which served him so well. After the operation, he telephoned his friends to tell them that he could "read the phone book again." His elation was high on his return home; he asked his wife Ruth to bring out a bottle of Pinot Noir to celebrate the occasion. Again, this is what we might expect of Tracy as showing his appreciation of good wine and his love of life. But Tracy did not live to drink the toast.

Tracy enjoyed good wine, good food, good music, good literature, and good company. He was an enthusiastic member of the Davis Wine and Food Society and in earlier days was equally enthusiastic about square dancing. He was a superb raconteur who relished his friends, but the most important person in his life was his beloved wife, Dr. Ruth Risdon Storer, who carried on a private medical practice in pediatrics and was a devoted and contributing partner in many of his scientific activities as well as in making a charming home and garden

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open to their many friends. Their joint endowment of the Tracy and Ruth Storer Life Science Lectureship on the Davis campus, modeled after the famous Hitchcock Lectureship at their alma mater, will be a lasting monument symbolic of their dual dedication to the University of California and to the art of learning.

Herman T. Spieth Emil M. Mrak Harold G. Reiber Thomas H. Jukes

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## **Hazel W. Severy, Chemistry: Santa Barbara**

*1884-1974*

*Professor Emeritus*

Sixty-one years ago in August 1914, when the Santa Barbara State Normal School of Manual Arts and Home Economics opened for its fall term, Miss Hazel W. Severy began a teaching career in organic chemistry which lasted for thirty-seven years. As the normal school changed to a state teachers college, to a state college, and to a campus of the University of California, Miss Severy watched the enrollment grow from 150 to 3,000 students, and for twenty-eight years she was chairman of the Department of Sciences and Mathematics. She was always recognized by students and faculty members as one of the best teachers and administrators on campus, and she became a personal friend of almost every student for more than three decades. Even after retirement in 1951, she willingly gave another ten years of service to the University by serving on faculty and administrative committees.



Miss Severy earned her A.B. (1907) and M.A. (1912) degrees at Stanford University, and received the D.Sci.O. from the Osteopathic College of Physicians and Surgeons in 1914. In 1961 the American Chemical Society honored her with a life membership, in recognition of more than fifty years of active membership in the society. She was author of a number of scientific papers and found time to present papers at professional meetings. A plaque honoring her services is in the foyer of the present geological sciences building, and a beautifully landscaped courtyard near the biology buildings is named "Hazel Severy Court."

She is remembered for her indefatigable energy, her willingness to plunge into any kind of work if she felt it would benefit students and campus, her kindness and understanding, and, especially, her cheerful friendship. Members of her family used to say that "Hazel opens the college in the morning and closes it at night." She was always easy to work with and entirely democratic in the handling of her responsibilities. She supported her staff fully and constantly sought and used their advice on matters pertaining to appointments and changes in course programs and budget. One former faculty member of her staff recalls

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that "she was first and foremost a teacher, and had the interest of all her students at heart. She gave her time and energy to teaching, to advising, to administrative work, and to the student body; and had some left over for church and charitable work. She was noted, and I recall somewhat maligned, for being able to do fine teaching in the laboratory without much equipment. And as for keeping the plumbing working! We certainly learned to 'make do, use it up, wear it out' in her department, and I don't believe the students learned any less chemistry for it."

For many years Miss Severy was faculty adviser to the Student Legislative Council, sat on student body social and finance committees, and was liaison officer between the Associated Students and the campus administration. She was a board member of the American Association of University Women, unit leader for the League of Women Voters Board, treasurer of the Council on Christmas Cheer, president and public affairs chairman of the Santa Barbara Business and Professional Women's Club, a member of the advisory council for the Knapp College of Nursing, advisor to her sorority, and member of a dozen other civic organizations.

She was always looking toward the future, anticipating the problems of growth, working for the improvement of the curriculum. But one time, in recalling the early days, she said, "After climbing the hill students frequently had to stop and pick burrs out of their stockings before coming to class." Upon retiring she said, "I've loved every minute of it."

Hazel W. Severy, UC Santa Barbara emeritus professor of chemistry, died on December 2, 1974 in Santa Barbara at the age of ninety. For each of us who remembers, her legacy is a warm smile of pleasure for having been counted as one of her friends.

Elmer R. Noble Ernest L. Bickerdike Robert W. Webb

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## **Archer Taylor, German: Berkeley**

*1890-1973*

*Professor Emeritus*

To write of the life and honors of Archer Taylor within this narrow compass and yet to do justice to his career is not only impossible, but superfluous. For his name is a byword in academic circles. A graduate of Harvard, he began his career as an Instructor of German at Pennsylvania State College; seventeen years later, he was chairman of the Department of German at the University of Chicago, having broadened his area of interest meanwhile from German literature in the narrower sense to medieval literature and folklore. In 1939

he came to the University of California, where he assumed the chairmanship of the Department of German the following year. As his copious publications in the most divergent fields began to appear, so also did honors and recognition come to him, the latter obviously the result of the former. His works on fairy-tale motifs in the late Middle Ages, his publications on folklore of many nations and varieties, his several collections of riddles, his landmark book on problems of research in German Renaissance literature, his authoritative work on bibliography and the bibliography of bibliography all brought with them the title of *Ehrensessor* of the University of Giessen, two Guggenheim Fellowships, an honorary D.Phil. from the University of Kiel, an LL.D. from the University of California, honorary membership in the Finno-Ugrain Society, the Finnish Literary Society, the Norwegian Science Society, the Finnish Academy of Science and Letters, the German Society of Folklore—the list could go on and on. As vice president of the Modern Language Association in 1933 and 1950 and president in 1951, vice president and fellow of the Mediaeval Academy of America, and president of the American Folklore Society, he became well-known for his wise decisions and for his considered policies based on prodigious experience and knowledge. But such honors are a testimonial only to that which needs no documentation, his distinguished scholarly career. More important to his memory is the witness of Archer Taylor as teacher and colleague.

Generations of students from Harvard to Berkeley were privileged to experience the broad sweep of Archer Taylor's encyclopaedic mind.

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He ranged freely over the entire field of folk literature and folk customs and popular art forms, from the inscriptions on the walls of Pompeii to the Meistersingers in sixteenth century Nürnberg, from the tales of classical antiquity to the narrative store of nineteenth-century realism. He was never guided by a need for self-assertion and display but by an overriding concern that precious facts from history might be lost. He pitted his phenomenal memory against the lengthening shadows of oblivion.

For his students he set an example for research by his simply phrased insights, which revealed to the discerning students a rare intuition of what is essential in the historical setting and in the methods of his field. He was a firm believer in honest statements, and he was quick to see through pretense. A historian of legends and folk tales, he became a legend in his own lifetime. He knew it and he delighted in hearing anecdotes about himself. Any student who took flight in fanciful, theoretical statements he would call back by saying: "Now tell me what you just said in your own words."

Archer Taylor inherited a strong constitution and a keen mind. His Quaker background rendered him frugal, diligent, and righteous; he went his quiet unassuming way, and he left behind treasured memories of an exceptional human being and a vast heritage of accomplishment. He was a rugged pioneer in body and in mind. He was a man as much at home on the land as in the lecture hall and in the library. He tended his orchards and garden in the same unhurried and methodical manner in which he expounded in the classroom and pursued his research in the stacks. He planted his share of trees, built his own home, and wrote his many books. His was an exemplary interplay of *vita contemplativa* and *vita activa*.

He was a down-to-earth person, rarely ruffled by people or circumstances, and never given to ostentation or impressed by pretentiousness. He accepted his many honors casually and gracefully, and rarely without an honest touch of surprise. His broad smile was contagious and his candor invited trust. To his children he was a gentle father, to his wife an understanding and considerate companion, to his associates a loyal and helpful friend, and to his many students a patient, encouraging teacher, and a scholar to be emulated. Following his retirement, his ranch in Napa Valley became a veritable mecca for his many friends and fellow scholars.

Working in his garden, reading the books in his library, teaching his students, and writing his books and articles were but different facets of one activity which will be remembered after his death because it was simple, significant, and creative at the same time.

## Ivan Vallier, Sociology: Berkeley and Santa Cruz

1927-1974

Professor

Ivan Vallier was just attaining the height of his powers as a scholar and teacher of comparative sociology when, after a briefly incapacitating illness, he died of malignant lymphoma on January 23, 1974. He was born on February 14, 1927 in Weston, Iowa, and after serving in the marines in the Pacific during World War II, he graduated from the University of Utah. After field work in Israel and study at the Hebrew University in Jerusalem, and predoctoral teaching at Dartmouth, he received the doctorate from Harvard in 1959. There followed six years at Columbia, where he served as assistant and associate professor of sociology. He joined the University as associate director of the Institute of International Studies at Berkeley in 1965, where he carried effectively the major burden of administering the institute. In 1969, he joined the Santa Cruz campus as professor of sociology in Crown College. He was chairman of the Board of Studies in Sociology at the time of his early death.

Professor Vallier was an eminent scholar whose teaching, like his writing, exemplified the highest standards. One of his two major interests was the methodology of comparative social research, particularly the problem of how to study an institution and its influence in different locations and periods, i.e., through space and time. His other interest was the role of the Catholic church as a social institution, at first in several countries of Latin America, later more broadly and comparatively in France and the United States. Professor Juan Linz of Yale University has written

His work constitutes the most serious intellectual reflection by any sociologist of the changes taking place in the Catholic Church around Vatican II and particularly in Latin America as a result of social and political change. Others have written descriptive accounts, some journalistic, others scholarly, but only Ivan applied to those phenomena a theoretical perspective and a methodologically sophisticated search for indicators and data, linking

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the institutional analysis with his knowledge of the social context.... No one in the field will ignore...his fruitful paradigms for the conceptualization of change in the Church, of the role of the laity, the hierarchy and the clergy in different social and political contexts.

His book, *Catholicism, Social Control and Modernization in Latin America* (1970), has become a minor classic of comparative studies. His interest in methodological issues is reflected in his editing *Comparative Methods in Sociology: Essays on Trends and Applications* (1971), to which he contributed an important chapter on issues of macrostructural analysis. In the months immediately before his death, he was striving to complete a book based on his comparative studies of the Church in France, Chile, and the United States, with a tentative first title, *The Erosion of Caste in the Church*, which apparently he planned to change to *Catholicism in Three Societies: Structures, Contexts and Processes*. He did not live to complete revising the manuscript. However, his wife Vivian, who collaborated with him on the article on *South American Society* in the *International Encyclopedia of the Social Sciences*, is arranging for its editing and publication.

As a teacher and colleague, Professor Vallier was conscientious and devoted. He would not jump on a bandwagon, nor would he do anything for popularity. Yet he was a careful teacher, deeply interested in the welfare of students, and taking particular pains with those who came to the University poorly prepared.

His thoroughness was most notable in discussions among the Crown College faculty on policy, promotion, or recruitment. There, he would often be the one who had actually read the candidate's publications, rather than accepting the word of others, especially if the publications were in fields not closed to him by technicalities. Typically, he would listen silently to the discussion for a long time and finally give his opinion plainly and quite fearlessly, even though, on occasion, it might be in opposition to what had been generally said. It was a carefully weighed, judicious opinion, and it was based on knowledge. Had he gone into the legal profession, Vallier would have made an outstanding judge. His usual seriousness, furthermore, would at times be offset by a shy twinkle, which reminded us that he had a strong sense of humor.

All in all, Vallier's devotion to his work, to his students, and to the University and its standards was a major factor in helping him rise above the blow that the knowledge of his fatal illness must have inflicted.

His friends and colleagues were deeply touched that he continued—responsible, urbane, and witty—through the last weeks, when his primary

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concern, so far as they were aware, was with the many unfinished tasks that had to be handed to others. He even served as vice chairman of the Division Senate throughout his last year. Those who knew him best, and miss his presence, can take heart that he did indeed manage to achieve much in the short time allotted to him, and that he set an example not only for scholarship but for personal integrity and character.

M. Brewster Smith Kenneth Thimann

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## **Hollyngsworth Leland Vaughan, Landscape Architecture: Berkeley**

*1905-1974*

*Professor Emeritus*

In January of the year 1930, H. Leland Vaughan, a young Instructor in the fifteen-year-old Division of Landscape Design, opened the door leading from his newly occupied office in Agriculture Hall and greeted the first class awaiting his arrival in the drafting room. This entry symbolized the emergence of a new and fresh approach to landscape architecture on the Berkeley campus. The changes in professional focus which he advocated were of critical importance as California became increasingly urban during the subsequent decades. When Professor Vaughan retired in 1969 it was apparent that his contributions had served as the foundation for a new generation of young Landscape Architects capable of dealing with the more complex environmental issues of recent years.

Born in 1905 of parents native to the semi-rural environment of Ohio—themselves both teachers—Vaughan had bred into him a forthright and uncomplicated attitude toward life. He received a basic preparation for the profession at Ohio State and as a Fellow at the Lake Forest Foundation. Extensive travel in Italy, France, and Spain sparked a special kind of affinity for the California landscape, which he learned to understand and used as an important source of his environmental values and interests. His close association with Thomas D. Church, as well as his own professional practice in the varied California landscape contributed to the development of a special concern for the environment as an ecological whole. Such concern resulted in the humanization of architecture by integrating buildings with the out-of-doors and a way of expressing regional landscape qualities in the details of design. His choice of Point Richmond in the early 1930s as the setting for his own delightful home, the design of its grounds, together with his retreat on the wild coast of Mendocino County represented the fulfillment of these concepts to perfection and were early models for others seeking similar values. Vaughan shared these unique environments with faculty and students, adding his abilities as outdoor

chef and genial host as an important way of communicating his personal and professional values outside the classroom.

Reflecting on the sources of Vaughan's contributions one is led to his unique qualities as a person. His warmth, cordiality, generosity, and selflessness drew people to him; his calm and his patience in understanding the needs of others maintained a steady and fertile flow of communication. He clearly treated students as adults capable of defining their professional and academic interest rather than seeking a reflection of himself in their work. Whatever he had to say to them was clear and succinct. He encouraged innovation. At the same time a basic self-assurance as a person and a clear identity with his professional field made him a teacher and colleague with whom one could feel secure and at ease in self-expression. All these were factors that had a firm, yet often unseen effect on his role in helping young people evolve themselves in his constructive work in University and civic affairs, and in advancing the profession.

Thus, the personal qualities that underlay Leland Vaughan's professional capacities were important factors leading to the growth of the Department of Landscape Architecture, especially during the critical years of growth from 1947 to 1962 when he served as Chairman. He contributed to the formation of an independent Department of City and Regional Planning in the late 1940s and to the formation of the College of Environmental Design by supporting the concept of the environment as a broad framework for Landscape Architecture, City and Regional Planning, and Architecture. In this process, he constantly defended the integrity of his field in its own right and its ties to agriculture, forestry, and the natural sciences. He clearly foresaw the now generally accepted concept of the natural environment as the basic resource against which to measure the impact of all development. Vaughan drew upon his earlier experience as Acting Dean of the College of Agriculture during his effective appointment as Assistant Dean of the College of Environmental Design covering the several years of student unrest and academic change prior to his retirement in 1969.

His contributions to the profession and the community in general were imbued with his personal touch. He was an active member of the American Society of Landscape Architects and in later years promoted international professional relations through his chairmanship of the education committee of the International Federation of Landscape Architects attending meetings in various parts of the world. For many years he served his own town of Richmond as a member of the City Planning Commission and the Parks and Recreation Commission playing a socially innovative and liberal political role. However, the main bulk of his community service related to the University itself. Among the many ways in which he served, perhaps his most

notable and enduring achievement was his successful persuasion of Beatrix Farrand to bequeath to the Department her superior collection of historical documents, maps, and plans. In addition, the department gained a major endowment that is today providing graduate and undergraduate scholarships and also much needed support for scholarly research in the field of landscape architecture.

And it is at this level of the University itself that it is appropriate to conclude this expression of appreciation on the part of the many colleagues and friends in the University community on whose behalf this has been written. Certainly, we have all profited—as students, alumni, academic colleagues, fellow professionals, friends and, indeed, members of his family—from the life work of “Punk” Vaughan, the refreshing name by which he was warmly known during his four decades among us at the University.

Francis Violich Michael M. Laurie R. Burton Litton, Jr.

## S. M. Wright, Art: Los Angeles

1890-1973

*Professor Emeritus*

Stanton Macdonald Wright was born in West Virginia in 1890 of Spanish and Dutch lineage. He began to paint when he was five and continued his dedicated examination of this mystery to the very day he died, August 22, 1973 at the age of eighty-three years. His early schooling was as erratic and unconventional as his exotic life proved to be. He often joked about being “kicked out” of every public and private school in which his prosperous southern family placed him; at the age of fourteen he ran away on a merchant vessel and during a fight with a bos'n was forced to jump ship in the South Seas. He continued his youthful adventures of rebellion and search toward self-understanding until his ambition as an artist-painter led him to Paris in 1907.

There he found a double impetus toward his art by opposing and rejecting the entrenched academic style while simultaneously recognizing the great post-impressionist painters, particularly Cezanne, who had pointed the way toward the great movements of pre-World War I modern art.

Working with the American, Morgan Russell, he and Russell developed the movement known as synchronism by using abstract form and color. Their first exhibit was held in Berlin in 1913, which places them at the inception of non-objective painting, the first Americans ever to be associated with an important European school of painting.

Because of his doubt about the validity of a “movement” or the idea of conceiving of means and ends in art, he left the Parisian scene and sought to restart and extend his ideas.

He returned to the United States, working, studying, and painting in New York in the Tenderloin district, a violent ghetto. Macdonald Wright always spoke with amusement of his life there among other artists, whose reputations have since been meticulously cleaned and canonized.

Nevertheless, his more extensive philosophical views and his growing knowledge of arts were distant in time, place, and origins from that

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American scene, and this removed him personally from much of the grouping of early twentieth-century American abstract artists, and equally from the growing illustrative and didactic genre of the American art scene. This occurred in spite of the fact, for instance, that Thomas Benton and others learned from him the principles of Italian composition.

He had little respect for the pursuit of an individual style and its stabilization as a ticket to “success.” He continued his study of color, form, construction, and drawing as he worked and as he extended his awareness of alternative art histories, ideologies, morphologies, and iconographies, particularly of Oriental art. In this sense his aim and life became scholarly, intellectual, and artistic with a vast range of thought and expertise centered in Oriental art.

Exclusively self-taught, he became a muralist, inventor, theatrical director, sculptor, linguist, art historian, film maker, world traveler, teacher, aesthetician, and painter. This many-faceted side of his life continued through his administration of an art program in the Federal Works Progress Administration in Los Angeles, including the compilation of all the technical crafts usually embodied in public works.

It was his fame and expertise, particularly in Oriental art, that brought him to UCLA in 1942, where he taught painting and art history, graduate and undergraduate, not precisely from the orthodox stance of either a studio artist or an art historian. His great interest was to clarify the essential artistic sources and processes and their results in art. He compared his position with an instructor in Zen who could not directly, in the usual sense,

explain his subject and his understanding. He simply **was** what he taught; “The singer becomes the song,” he said. Today, some twenty-five years later, this stance is understood better, for it is built into current conceptions and ways of working in art, and is part of the indefinite separation of art from thought, phenomena, lifestyle, and enduring human traits.

Before retiring from University life, he married Jean Sutton, and together they built a unique Oriental-style home in the Pacific Palisades hills. During his last thirteen years they divided their time equally at their California studio home, a villa in Florence, and studio tea house within the compounds of a Zen monastery in Kyoto, Japan.

S. Macdonald Wright's position in art history as one of the world's master artists and the vivid lifestyle he led as a mature man of art will ever remain a goal example for those fortunate enough to have known him.

Jan Stussy Gordon M. Nunes

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## **Jacob Yerushalmy, Biostatistics: Berkeley**

*1904-1973*

*Professor Emeritus*

*Director, Child Health and Development Studies*

Dr. Jacob Yerushalmy died on October 15 at the age of sixty-nine. Dr. Yerushalmy was born in Ekron, a small town not far from Jerusalem, into a family of eight children; he was the youngest. He spent most of his early life in the Holy City where his father, William Zev Yerushalmy, owned a pharmacy. Dr. Yerushalmy came to the United States in 1924, for there were no universities then at home. After a year in New York City, he moved to Baltimore, where he met Eva Zemil, a graceful, charming, and beautiful young lady with unusual intelligence. They married in 1934.

In 1926 Dr. Yerushalmy entered the Johns Hopkins University to study mathematics; he was awarded the doctor of philosophy degree in algebraic geometry in 1930 under Oscar Zariski. He did postdoctoral research in mathematics on a National Research Fellowship at the University of Illinois in 1930-31 and at Princeton University in 1931-32. Soon after returning to Hopkins to be an instructor in mathematics in 1932, his interest turned to the field of biostatistics where Lowell J. Reed and Wade Hampton Frost held sway. He was a statistician in the New York Department of Health (1935-38), and at the National Institutes of Health (1938-41). From 1941 to 1943 Dr. Yerushalmy assumed the Directorship of the Division of Statistical Research, Children's Bureau, Department of Labor. From 1943 to 1947 he worked as a statistician in the Public Health Service. In 1947 Dr. Yerushalmy moved from the Public Health Service to the University of California at Berkeley where he joined force with Jerzy Neyman, one of the founders of modern statistics, to establish the first Ph.D. program in biostatistics in the country. He served on many University committees with his usual enthusiasm; he was active in various scientific societies at the national and international levels.

Dr. Yerushalmy's professional activities covered a wide range of problems. Except for a brief excursion to mathematics, his early research

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effort was devoted almost exclusively to studies of fetal, infant, and child health and mortality. He found that birth order and parents' age had an independent effect on the puerperal fatality and infant loss, and that natality and infant mortality are directly related to the age-sex composition of the population. He showed his research skill and creativity in every piece of work. His study of twinning, for example, where he used twins as natural, matched sample units, is still widely quoted for its exemplary methodology. His interest in mortality analysis

led him most logically to the investigation of measures of mortality. As a result, he proposed a mortality index, which has been frequently referred to by researchers as a means of summarizing mortality experience of a population.

The most significant of Dr. Yershalmy's professional work was perhaps a pioneer study on the reproducibility and reliability of X-ray readings. It was the first time that a group of clinicians were persuaded to participate in a study that exposed their own inconsistencies in X-ray readings. His study showed that eminent radiologists and chest specialists disagreed not only with one another in reading a given X-ray film, but also disagreed with themselves when reading the film a second time. The impact of this investigation was so great that the radiologists and chest specialists re-evaluated their thinking in X-ray readings, and many medical scientists and practitioners also felt the need to re-examine the reliability of their diagnostic processes. This study, which was regarded as a striking contribution to the knowledge in the field of roentgenology, earned him the reputation of "Dual Yerushalmy." But this was only one of many examples where Yak exercised his imagination and ingenuity.

Many of us read and reread his lucid treatises on inferring causality from observed associations in connection with chronic diseases, and took to heart what he called the "substitution game"—the fallacy resulting from introducing an intermediary variable between the environmental characteristic and the disease. The controversial issue of smoking and pregnancy—is it the smoker or the smoking?—was approached unconventionally by comparing the pregnancy outcome of mothers who later obtained the habit of smoking with that of mothers who never smoked. His conclusion? It is the smoker, not the smoking, that affects the outcome of pregnancy, a conclusion contrary to common belief.

The crowning achievement of Dr. Yerushalmy's career was the creation, in 1959, of the Child Health and Development Studies (CHDS), a longitudinal, multidisciplinary investigation of pregnancy, delivery, and child health and development. The objective of the study was to investigate the relationship of biologic, genetic, medical, and environmental factors in the parents with the development of the offspring.

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Here Dr. Yerushalmy played the role of researcher as well as stimulator of research. His exact standards of study design and methodology combined with the accumulated skill and savvy of a lifetime of experience to bear abundant harvest. His contributions included studies on intrauterine growth; a new definition of prematurity based on birth weight and gestation period; evaluation of teratogenic effects of the usage of pharmaceutical products during pregnancy; identification of congenital anomalies; and many others. He also instigated research in normal and abnormal children, the relationship of physical growth and skeletal maturity, and distribution of blood types in different ethnic groups. CHDS, the data carefully collected and preserved, will provide fruitful hunting grounds for researchers in the years to come, the most fitting memorial of all. In recognition, the American Pediatrics Society elected him an active member in 1967, an honor rarely, if ever, bestowed upon a public health statistician; the American Academy of Pediatrics elected him to an Honorary Associate Fellowship, an honorary classification for distinguished persons, not pediatricians, who have made outstanding contributions to child health.

These honors, like the rest, never really mattered to him. His values were too firmly rooted in the simple joy of doing his work. Some idea of his sense of values and priorities can be gleaned from one of his favorite quotations, from Major Greenwood, which appealed to him so much that he used it to conclude a paper on longevity:

It is not part of my theme, but I cannot resist the temptation to say that to make life more liveable seems to be quite as worthy a motive for hygienic reform as to make it longer.



In the same vein, one cannot resist the temptation to add that Yak hoped to make life more fulfilling as well as more liveable. And so he did. He was, perhaps the conscience of his profession; the biostatistician's biostatistician. He lived his life with zest and warmth and high spirits. He left his friends saddened but deeply satisfied that they had known him.

Chin Long Chiang Sanford S. Elberg William Griffiths

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## Isadore Zipkin, Periodontology: San Francisco

1914-1973

*Professor of Biochemistry*

In the spring of 1973, Professor Isadore Zipkin received one of the highest awards that could be conferred by his colleagues—the H. Trendly Dean Memorial Award, bestowed by the International Association for Dental Research at its 51st Annual Session, in Washington, D.C.—in recognition of his outstanding contributions in fluoride metabolism. In the autumn (October 17) of that year—his fifty-eighth year—Professor Zipkin died of cancer.

Isadore Zipkin was born October 30, 1914, in Rochester, New York, where he spent his youth, and in 1937 he received a bachelor of arts degree from the University of Rochester. Following graduate education in biochemistry at Pennsylvania State University (M.S., 1940, and Ph.D., 1942), he served as an officer in the United States Army during World War II until 1946, when he was honorably discharged with the rank of Captain. Appointed in the same year as a commissioned officer in the United States Public Health Service and assigned to the National Institute of Dental Research in Bethesda, Maryland, he embarked on a long career in dental research which gained him an international reputation based on his important and prolific contributions related to fluoride metabolism, saliva, caries, and periodontal disease. In August 1968, he was appointed professor in the Division of Periodontology, School of Dentistry, University of California, San Francisco, where he served until his untimely death.

During his career, Professor Zipkin published more than 150 papers and abstracts; was a guest lecturer at numerous universities in Europe, Canada, India, Israel, Japan, and South America, as well as the United States; was visiting scientist at the University of Minnesota in 1955 and visiting professor at the University of São Paulo in 1971. He also served as a consultant to the Pan American Health Organization—a part of the World Health Organization. He was in constant demand as a guest speaker and for service on various national international committees. *Biological Mineralization*, which was published April 1973, and of which he was editor, gave him great satisfaction,

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particularly since it was universally recognized as the outstanding contribution in his area of special interest and accomplishment.

Dr. Zipkin was an active member of numerous scientific organizations including the Society of the Sigma Xi, the American Chemical Society, the Biochemistry Society of London, Society for Experimental Biology and Medicine, the American Association for the Advancement of Science, and the International Association for Dental Research in which he served as chairman of the Washington, D.C., section. In recognition of his contributions to dental science, he was one of the few non-dentists to be elected a Fellow in the American College of Dentists.

The foregoing tells sketchily about Isadore Zipkin, scientist and academician, but not about Isadore Zipkin the man. Born on the eve of World War I, he lived his nearly fifty-nine years in a world characterized by the most

dramatic increase in complexity and the most rapid socioeconomic and technological changes experienced by mankind in any previous period of time. It was his nature and his great talent to meet that world and its multiplying problems with an open mind and clear vision and to be involved to the day of his death.

Professor Zipkin (Zip to his friends) was interested in all people, particularly young people for whom he organized many activities. His special interest was Little League baseball. (He supported himself through college playing as a semi-pro in the minor leagues, and it was there that he acquired the nickname that clung to him throughout his life.) He brought young students into his laboratory where he encouraged them and worked with them, inspiring them to continue as professionals in research. Despite a lifetime of most impressive accomplishments and of service beyond the call of duty to others, Zip was a modest man who imparted a deep sense of respect for his fellow man. One evidence of this was his making the effort to learn enough Russian to present a paper in that language at the 1961 International Congress of Biochemistry in Moscow, as a courtesy to the people of the host country, and then to continue the discussion in Russian as well. Similarly, when visiting foreign nations, he learned enough of their respective languages to be a gracious guest and always made a special effort to learn about the cultures and customs of other peoples before visiting their countries. He sincerely believed that many of the ills of the world could be cured if people would work together and, in accordance with his belief, he cooperated with everyone. It was probably largely because of his belief in and respect for people that he excelled as a teacher and counselor, particularly in his primary responsibility of directing research efforts of postdoctoral students in periodontology.

When working with Zip on a daily basis, or seeing him with his

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wife or two sons, one might easily forget that this capable and unpretentious, gentle and humorous man had, because of his knowledge and talent, earned a brilliant and distinguished international reputation and that others throughout the world sought him as a speaker, panelist, and teacher. During a social evening, one might learn that Zip was a deeply, quietly religious man, and a scholar of Jewish culture. His interests were not limited to his work. There was time in his life for golf, dancing, and vacations, and for generous support, often anonymously, of numerous charitable and service organizations. All these qualities were combined in this devoted husband and wise and loving father.

Finally, Isadore Zipkin was a strong and courageous man. Early in 1972, he learned that he had cancer and he faced that shattering news with the discipline that characterized his life. It was not his nature to wrap himself in sorrow or to burden others with his pain. Though fully aware during that last year that death was near, he chose to live as he always had, continuing to work skillfully, and efficiently organizing his family and scientific world obligations for those he loved and would soon leave behind.

The passing of Professor Isadore Zipkin was a deep personal loss to those who knew him: to the scientific community as a whole it meant the loss of a dedicated and dauntless pioneer.

Louis S. Hansen Edward Green Rajendra S. Bhatnagar