Memorial to Perry L. Ehlig
1927–1999

JOHN C. CROWELL
300 Hot Springs Road, Santa Barbara, California 93108

Perry Ehlig, a truly outstanding geologist and professor, died unexpectedly on December 26, 1999. He had contributed significantly to the understanding of the complex regional geology of southern California, especially of basement rocks and the displacement history of the San Andreas fault system. Perry’s 40 or so publications include many papers dealing with the Vincent and related thrust systems and the origin and history of the underlying Pelona–Orocopia–Chocolate Mountain greenschists. He is remembered especially as an inspirational and beloved professor at California State University, Los Angeles, where he influenced the careers and viewpoints of numerous undergraduates and was the caring advisor of many graduate students. Perry was also a highly regarded consulting geologist, having worked on many projects involving engineering, groundwater, and landslides. Over the years, he led stimulating field trips for geological societies and student groups; his enthusiasm for finding answers to geological questions shone brightly on these trips. His “mountain-goat” capacity to run up and down steep hills through thick brush or over barren desert crags was phenomenal and humbling to his less agile colleagues.

Perry Ehlig scrutinized rocks in nearly every range and canyon from north of the Transverse Ranges to south of the Mexican border, with a special focus on the San Gabriel Mountains, Mojave Desert, borders of the Salton Trough, and along several strands of the San Andreas fault system. California geologists would frequently call upon him to comment upon what rocks were where. In addition, he studied the Palos Verdes landslide over many years, providing one of the longest records known of the activity of a single landslide. His publications provide a lasting record of both his careful field work and mapping and his associated petrographic and geochemical studies. Geology and teaching were his way of life and joy, and he indefatigably pursued them.

Perry Lawrence Ehlig was born on May 23, 1927, on a small farm in the San Gabriel Valley, in what today is Temple City, a part of the Los Angeles megalopolis. He was the youngest of three children of Max Carl and Jeanette (Rentchler) Ehlig. His father came to the United States from Germany and served in the U.S. Army during World War I, including some time in Siberia. He was well educated and could converse in several languages. Military service led to a deterioration in his health, and he died in 1940. Perry’s mother was a musician and played the violin and piano. She died while Perry was in high school. Perry took to music as well, and his family recalls Christmas gatherings when he would play his trumpet loudly.

As he was beginning high school, Perry took flying lessons; he received his private pilot’s license at age 15—before he was old enough to get his automobile driver’s license. He enlisted in the U.S. Army Air Corps in July 1944 and was shipped to Louisiana for basic training. Unfortunately, the pilot training program was discontinued, so he was assigned to Chanute Field, Illinois, for education in meteorology. He graduated as a weather forecaster and for a short time
was an instructor before his assignment to Hamilton Field, north of San Francisco. He was discharged from the Army in January 1949. Much later, in 1966 when he was a recognized engineering geologist, he was sent to Vietnam as a consultant, with the rank of lieutenant, to help the Corps of Engineers find gravel deposits for construction projects.

Perry attended Pasadena City College after his army discharge and then entered the University of California, Los Angeles (UCLA) in the fall of 1950, to major in geology. He was awarded the B.A. degree in 1952 and the Ph.D. in 1958 (although most of his dissertation research was completed by 1956). His research involved the study of an exceptionally rugged part of the San Gabriel Mountains, where elevations range from a low of about 3000 feet to the summit of Mount Baldy, at 10,064 feet. He mapped the Vincent thrust in its type region, where pre-Tertiary continental basement rocks of many types and ages, including Precambrian, are emplaced above the Mesozoic Pelona Schist, a unit largely of ensimatic origin. I recall with awe Perry’s vigor, endurance, and enthusiasm as he ran about over steep slopes, mapping as he went, during his undergraduate time at UCLA. On a spring field course in 1951, he brought his bride, Marilyn May Winbigler Ehlig along as a field assistant. Marilyn would supplement his field notes as Perry galloped from outcrop to outcrop, yelling his observations back to her.

Perry began his professional career as a geologist for Robert Stone and Associates in 1954, undertaking engineering geology projects in the Los Angeles region. During the summer of 1954, he conducted reconnaissance mapping for Texaco in central Nevada, in the vicinity of the newly discovered Railroad Valley oil field. His career as a memorable teacher really began, however, in the fall of 1956, when he was appointed assistant professor of geology at California State College at Los Angeles, now California State University, Los Angeles. Perry was one of the founders of the department at CSLA and taught there for 43 years; for 36 years he was a regular faculty member, until his formal retirement in 1992, and thereafter he was a volunteer professor emeritus until his untimely death after a brief illness at the end of 1999. During his academic career he served as department chairman, assistant to the vice president of Academic Affairs, and acting dean. His classes included physical geology, geological mapping, optical mineralogy, metamorphic petrology, structural geology, advanced structural geology and tectonics, summer field geology, geology of California, tectonic problems of southern California, and engineering geology. In addition, he supervised 23 graduate students in their Master’s degree endeavors, and he accompanied each to his or her field area, repeatedly in many cases. He was always available at his office or home and would enthusiastically go to the student’s field area, weekdays or weekends, holidays or not. As an example of his generosity, his gifts helped to support the 10-week summer field course; some of the money he obtained from consulting thus aided students.

Comments from Perry’s former graduate students reveal how much he influenced their lives: “I remember Perry for his extraordinary generosity to his students and for his strong desire to see them succeed.” “He was totally passionate about what he did for a living.” “Perry contributed much to understanding the tectonic development of southern California and to its landslide hazards and mitigation.” In the field “he beat everyone to the top of the mountain, and back down again, and made geology a wonderful adventure.” “Perry was intelligent, diligent, accessible, and sharing. He wanted others to have the same thirst for geology that he had.” “I cannot recall another petrologist with such a solid grasp of geophysics, tectonics, structural geology, field geology, and engineering geology.” “My clearest recollection is sitting around a campfire in Baja California, talking with Perry about what igneous petrology might contribute to solving tectonic problems.” “His passion and enthusiasm for geology were inspiring and invigorating to all of us students.” Former students and colleagues recall arriving at camp sites after dark and then running along a contact by moonlight, following Perry, or friendly tussles into cholla cacti
just beyond the campfire’s glow as the geologic discussion waned. He set very high professional standards for himself and his students, but always had fun “doing geology.”

Perry Ehlig was a California registered geologist and engineering geologist, concerned primarily with landslide, groundwater, fault, and earthquake problems, mainly in southern California. For example, he studied sites for two nuclear generating stations, and for a hydroelectric plant. We worked together on a proposed tunnel beneath the central Transverse Ranges to bring water from the southern San Joaquin Valley to the Los Angeles region, a project now in abeyance. The tunnel was planned to cross both the Garlock and San Andreas faults at depth, and we enjoyed speculating on what these sheared and broken zones would reveal if studied in detail during the tunneling. Over many years he gave freely of his time and expertise to the investigation of active landslides in the Palos Verdes Hills and guided mitigation efforts. He also served as a member of the County of Los Angeles Engineering Geologists Review and Appeals Board.

Ehlig was a Fellow of the Geological Society of America and a member of the Association of Engineering Geologists, American Association of Petroleum Geologists, American Geophysical Union, American Mineralogical Society, Society of Economic Paleontologists and Mineralogists, American Association for the Advancement of Science, and National Association of Geology Teachers. On many occasions he led field trips for sections of these organizations.

His investigations of the Vincent thrust system and the tectonically underlying Pelona Schist in the San Gabriel Mountains stand out among his recorded achievements. He led the way in demonstrating that the body of greenschist was laid down originally as a thick section of sediments and volcanics upon ancient-ocean floor during Jurassic and Mesozoic time, and then was carried eastward beneath a thrust sytem that emplaced continental rocks, viewed as part of a subduction zone. He was among the first to show inverted metamorphism, with a record of higher temperatures above those somewhat cooler. He also demonstrated that earlier structural displacements, carrying the schist body downward to the east, were overprinted by those suggesting a much later reversal of shear direction. In time this led to recognizing that the uplifted and exhumed mass of schist was a type of core complex and that the uplift was related to widespread detachment faulting beneath much of southern California. His writings also deal with similar metamorphic and tectonic relations of the Orocopia, Chocolate Mountain, and Rand schists. During all of these investigations, he backed up his conclusions with careful petrological and geochemical studies in both the continental plates above the fault systems and within schist bodies beneath them.

Ehlig also contributed significantly to our understanding of the displacement history of strands of the San Andreas fault system. With students, he demonstrated that a late Miocene volcanic center of distinctive rapakivi-textured quartz latite porphyry, located on the northeastern side of the San Andreas fault, was the likely source of debris shed southwestward along a valley, a valley with its band of sediment now displaced dextrally about 240 km. This band constitutes the Mint Canyon Formation in the Soledad basin, and is in turn displaced dextrally about 60 km by the San Gabriel fault to the Caliente Formation at the head of the Cuyama River drainage. The narrow swath of volcanic debris constitutes the best “geological line with piercing points” yet recognized for maximum dextral slip on the combined San Andreas–San Gabriel system. In addition, Ehlig mapped carefully along reaches of the San Gabriel fault within the rugged San Gabriel Mountains and demarcated its split into north and south branches with dextral slip on each, and he mapped later faults that have crosscut these branches.

Ehlig followed the growth of the Palos Verdes landslide complex through several decades, and through these studies he added much to our understanding of the mechanics of the sliding and the influence of groundwater and bedrock structure upon its evolution.
Perry Ehlig cherished his family and included them in enjoyable outdoor activities. He leaves behind his wife, Marilyn, and their two daughters, three sons, nine grandsons, and two granddaughters. His “family” also includes a legion of geologists and others who were students of his and admiring colleagues. We do indeed miss him.

SELECTED BIBLIOGRAPHY OF P. L. EHLIG


—— (with Barth, A.P.) Geochemistry and petrogenesis of the marginal zone of the Mount Lowe intrusion, central San Gabriel Mountains, California: Contributions to Mineralogy and Petrology, v. 100, p. 192–204.