



## F. Beach Leighton, Honorary Member Association of Engineering Geologists

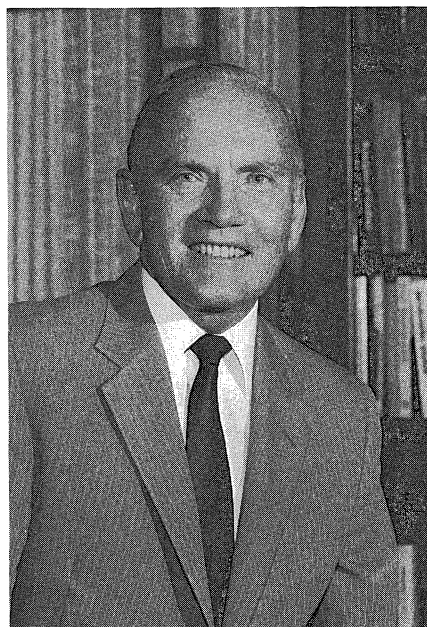
The choice of Freeman Beach Leighton for Honorary Member of AEG is a very appropriate choice because of Beach's contributions to the practice and progress of engineering geology. His undying support of younger geologists seeking to increase their knowledge of engineering geology, and his many hours of volunteering on many committees locally and nationally, have worked to enhance public awareness of the contributions made by engineering geology to the every day public safety and welfare.

In fact, if we read the "Aims of the Association of Engineering Geologists" in the front of the AEG directory, we would find that Beach has upheld five of these seven guidelines even before they were written a couple of years ago, and they are:

1. Promote public safety and welfare;
2. Promote public understanding and acceptance of the field of engineering geology;
3. Establish and maintain high documents and professional standards;
4. Monitor legal and other developments that would affect the profession of engineering geology, to provide information on their potential effect...
5. Provide for discussion of subjects and problems within the field of interest of the engineering geology profession.

Beach grew up in Illinois where his father, Morris Leighton, was chief of the Illinois Geological Survey. Beach, early in his educational career, shied away from geology and decided to enter the field of civil engineering. While at the University of Virginia in the Naval Reserve program, he developed peritonitis between terms and did not recover in time to reenter the accelerated engineering program. He could only enroll in two geology classes. After taking these he opted for geology.

He obtained his Bachelor of Science in 1946, his Master of Science from the California Institute of



Technology in 1949 with a thesis in Glaciology, and he received his PdD from Caltech in 1952 with his major thesis on vermiculite deposits. Beach thought he was going to enter the minerals industry. While at Caltech, Beach was fortunate to have studied with three of California's most famous geologists, Dr. Richard Jahns, Ian Campbell and Robert P. Sharp. Beach had field mapping from Jahns, mineralogy and petrography from Campbell and geomorphology from Sharp.

Beach began teaching geology at Whittier College in 1951 and continued to teach there until 1972. While living in the suburb of Hacienda Heights, Beach began his study of landslides. Beach related the story about how land developers began to develop the hills around his area. He began to appreciate that many of the hillside areas were inherently unstable because of the nature of the silt and clay-rich Puente Formation.

Beach had a strong desire to study the landslides and obtained funding for his students from the National Science Foundation to do so.

As a result of his initial identification of potential geologic hazards in the hills, Beach began his landslide career as a citizen activist opposing intensive land development in the hillsides of his suburb. He spent a great deal of time building bridges with planning commissioners and city council members, ever increasing public recognition of the landslide hazards to proposed land development.

Beach has related one story where he was hired by a land developer, so that Beach couldn't oppose the development, but he once appeared at a hearing to alter one of his client's projects.

As a result of his early study of landslides, Beach developed a reputation among city officials and he went on to consult for many cities throughout Southern and Northern California.

While at Whittier College, Beach acquired for Whittier College the Fairchild Air Photo Library. Beach indicates that he is most proud of this accomplishment. This was to become one of the most important contributions to the engineering geology community in Los Angeles. The Photo Library, with photos dating back to the 1920's and 30's, has always been available to the engineering geology consulting community and is the prime source in Los Angeles for determining site histories, locating active faults, and mapping of landslide terrains and unstable geology.

His consulting practice began in 1961 with his then wife, Wanda. As the practice grew, Beach finally resigned from Whittier College in 1972 to pursue consulting full time. Since that early start, Leighton & Associates grew until, at the time of Beach's retirement, the company consisted of 12 offices employing about 375 engineering geologists, geotechnical engineers, technical and support staff.

Beach always played an important role in monitoring the quality control of his staff and always strived to present a geologic analysis of a field problem by encouraging his staff to collect all the information possible, including library research, field mapping and aerial photo interpretation. It was also important for those working with Beach to present by manner of illustration, map or cross section, so that other less technical people could understand the significance of the geologic findings. Beach was always striving to improve the manner in which geotechnical information was transferred to the land planner, developer, civil engineer or project architect. Over the years

Beach has co-authored many technical papers that describe to the engineering geology profession how our science can be better presented and communicated.

Interestingly, on the occasion of this 36th annual AEG meeting, Beach's publication list includes 36 technical publications between 1951 and 1986, with 10 AEG publications and abstracts and 9 Geologic Society of America publications. And since retiring, Beach has put his authoring abilities toward publication of "Mr. Dutch the Arkansas Traveler." Most people don't know that Beach is an excellent golfer, and Mr. Dutch was one of the most famous golfers in the world and was an inspiration to Beach in his younger years when Beach thought about playing golf professionally. Beach is also a contributing author to *Golf News* and also recently published "Mitigation of Geotechnical Litigation in California." Beach truly believes that litigation of the technically failed development projects in California needs to be approached through the mediation and arbitration process by well-trained legal professionals who understand the geotechnical arena.

Beach's other contributions to engineering geology have included the training and opportunities that Leighton & Associates has provided many of the well-known AEG members from Southern California. Larry Cann, who was a student of Beach's at Whittier College, graduated and has worked for Beach since his school days. Larry has long been Beach's "right hand man" over the many years they worked together. When asked what he thought was the most exceptional trait of Beach's, Larry responded by saying, "It is Beach's personality about not asking any of his professionals to do anything Beach wouldn't do himself. He wouldn't ask anyone to log a boring that he wouldn't log himself. Beach has always been willing to work with people to train them on the best methods of accomplishing field studies and writing of reports, and has also been a hands-on mentor to his employees." My personal experience while at Leighton & Associates was similar and Beach always provided the critical overview that enhanced my training and my professional progress while under Beach's tutelage.

It is truly appropriate that Beach is honored with the AEG Honorary Member status because of his lead on development of the practice of recognition and investigation of landslides. His 1966 AEG "Landslides and Hillside Development" in *Engineering Geology in Southern California* won the AEG Claire P. Holdredge Award in 1967. This particular publication

has been utilized by hundreds of practicing engineering geologists to sharpen their skills in landslide investigation and remediation. As a young geologist practicing at the time in San Diego, I found Beach's publication to be the most informative and helpful guide to landslide studies.

The most interesting part of going to press on this material was related by Larry Cann. Larry says it almost didn't make publication. Just before the manuscript was due, Beach was in an early morning car accident and his VW was demolished. His manuscript, drawings and photos were in a box ejected from the car and spread all over the freeway. The next day, Larry says that there were photos and drawings with tire tracks all over them and many of the illustrations for Beach's article had to be redone that day to be ready for publication.

Over the years, Beach provided his time and expertise on many fronts, but he is particularly remembered for the efforts he expended to transfer geologic knowledge to developers, land planners, architects, civil engineers, city councils, city engineers and planning commissions. His 1973 publication, "Application of Earth Science to Land-Use Planning in the United States," was co-authored with William E. Spangler, George Mader and William R. Ziony, and was an

excellent example of how Beach strived to inform outsiders about the benefits of engineering geologic practice.

Beach's volunteer efforts on behalf of engineering geology included serving on the Engineering Geology Qualifications Board for the City of Los Angeles, Orange County and Los Angeles County, serving on the National Research Council's Committee on Methodology for Predicting Mudflow Areas (1981-88) and Committee on Ground Failure Hazard Mitigation Research (1982-88). Beach participated on the National Earthquake Studies Advisory Panel (1970-74), directed the California Urban Master Plan, Phase II (1973), was Chairman of the Board of Trustees of the Geological Society of America Foundation (1990-91), won the Distinguished Career Award from the State of California (1988) and the Distinguished Practice Award from the Geological Society of America in 1991.

For all of his service and contributions to the betterment of engineering geology, it is fitting that F. Beach Leighton becomes an honorary member of AEG and we congratulate Beach on his many achievements.

Dennis L. Hannan