

ENGINEERING PHOTOGRAPHY is the combining of photographic and optical techniques with engineering measurement procedures.

Areas of specialization are:

- Visibility Studies — HD-video and/or still photography, with related analysis, accurately depicting visibility under conditions relevant to the subject incident. Visibility studies can be performed, and proper foundation established, day or night. Vehicles, pedestrians, buildings, trees added or removed accurately with photorealistic appearance using engineering computer methods.
- Comparison Photogrammetry — Analog techniques of determining measurements of skid marks and other objects from accident scene photographs. Analog techniques involve overlapping measurement grids included in a comparison photograph taken from the same viewpoint as the accident photo. The result is usually more accurate than purely mathematical approaches, and is easily understood by any viewer. Computer applications supplement this

approach.

- Computer Virtual Reality Simulations — Video, film, still photos, and/or artwork computer-combined in film or 3-dimensional video presentations based on engineering reconstruction input.
- Video — High speed (slow motion) or broadcast quality video recordation of vehicle testing, machine operations.
- Expert Witness — Qualified as Expert Witness more than 500 times since 1963 (never denied qualification) In the Following Jurisdictions: Federal and State Courts in Hawaii, Alaska, Washington, Oregon, California, Nevada, Arizona, Colorado, Oklahoma, Texas, Missouri, Florida, Alabama and Washington, D.C., Pennsylvania.

BACKGROUND:

- Engineering Photography: — Primarily based on the experience obtained during more than forty years of consulting work. Related employment experience involved designing and operating measuring devices using optical and photographic principles. Related foundational academic work includes courses in basic engineering measurements, analytic geometry, calculus, physics, and chemistry at UC Berkeley School of Engineering.
- Visibility Studies: — More than 5000 visibility studies performed during the past fifty-five years, of which some 1800 were at night. The techniques of defining testing parameters, making related measurements, and analyzing the results have been derived in collaboration with many engineers, physicists, and human factors psychologists who have

participated in producing these studies.

- Comparison Photogrammetry: — A methodology involving parallax location of camera positions at the scene, the establishment of a grid system of coordinates, and the use of overlay prints has been developed through application in more than 2000 cases. Computers are now extensively used

RELATED EMPLOYMENT

- Research Technician, Institute of Engineering Research, UC Berkeley, 1960-61, designing and using optical testing apparatus for measurements on Air Force research projects (rocket nosecone materials).
- University Tutor, UC Berkeley, 1960-61, in calculus, chemistry, and physics (employed on a contract basis).
- Director of Photographic Facility, Student Union, UC Berkeley, 1961-62, designed, supervised construction, and equipped the photographic department.
- Head of Research Department, Dimensional Research Corporation, Burlingame, CA, 1962-63, developing techniques and apparatus for use of photography and optics as sophisticated measuring procedure (several patent applications as inventor).
- Professional Photographer, technical, aerial, underwater, architectural, advertising and editorial photography, 1957-1980. Twenty photo stories in Life Magazine, California Today, and other publications. Fifteen museum and gallery one-man shows.

- Owner and Manager of Photography, Graphic Arts, and Printing Company, The Berkeley Group, Oakland and San Francisco, CA, 1967-70.
- Owner and manager of State of California-Licensed Investigation Firm, Comprehensive Attorneys' Services, Oakland, CA, 1963-71, specializing in the preparation of demonstrative evidence.
- Attorney with Emphasis on Consultation in Engineering Photography and Demonstrative Evidence Preparation, Bolinas, CA, 1972-80; also representation of clients in land-use and administrative law hearings and litigation.
- President of Paul Kayfetz, Inc., Engineering Photography, Bolinas, CA, October 1980-Present.

SEMINAR AND LECTURE PRESENTATIONS:

American Bar Association, National Teaching Institute on Transportation Negligence;

American Bar Association, Faculty of National Institute on Crash Cases; Paper, International Association of Forensic Sciences 11th Meeting; California Bar Association Annual Meeting, California Trial Lawyers' Annual Seminar;

National Association of Railroad Trial Counsel Annual Meeting; California Association of Independent Insurance Adjustors Annual Convention;

Hawaii Institute for Continuing Legal Education Program;

Hastings College of Advocacy;

Hastings Law School;

California Association of Defense Counsel Annual Meeting;

The Society of Forensic Engineers & Scientists (several programs);

San Francisco Trial Lawyers' Association; American Bus Association Annual Meeting;

Pacific Claim Executives Association Semiannual Meeting;

Pacific Telephone Legal Conference;

Illinois Association of Defense Counsel Annual Meeting;

Paper, American Academy of Forensic Scientists Annual Meeting;
Consumer Attorneys of California (three annual meetings);
Continuing Legal Education Course Instructor;
and others.

EDUCATION:

Pittsburg Senior High School, Valedictorian, 1960.
UC Berkeley, Engineering Physics initially, A.B. in Political Science, 1964. Boalt Hall, UC Berkeley, J.D., 1971

HONORS:

National Merit Scholar (ranked third in on national exam) Bausch & Lomb Science Award
Bay Area Engineers' Society, Outstanding Student of 1960 Bank of America Science Award
UC Berkeley College of Engineering, Dean's List
Bernstein Science Award
UC Berkeley College of Engineering, Undergraduate Honors
Shell Science Award
Life Master, American Contract Bridge League
Law Review, Boalt Hall
John Woodman Ayer Fellowship in Law
West Marin Man of the Year, 1976

ELECTIVE PUBLIC OFFICE:

President, Bolinas Community Public Utility District (in seventh four-year term of office)
Citizens Representative, Golden Gate Recreational Travel Study, 1975 and 1976

DATE ADMITTED TO BAR: 1972;

Voluntarily inactive since 1983

MEMBERSHIPS:

Founder's group, Society of Forensic Engineers and Scientists

American Society for Photogrammetry and Remote Sensing
American Academy of Forensic Scientists (Full Member, Engineering Section)

PUBLICATIONS:

Four peer-reviewed papers on visibility study and photogrammetry methodology, proper technical foundation to facilitate their admissibility in evidence, presented at National and International Engineering Society Annual Meetings, published in their proceedings. 1987, 1992, 2001. (The last co-authored with human factors psychologist Kenneth Ziedman, PhD.); computer-modified HD-Video visibility studies 2004.

Co-authored with vision expert, Thomas Ayres, PhD 2010 paper validating nighttime video calibration method.