

454 Shotwell St.
San Francisco, Ca.
94110
(415) 282-6611

SCHOOL OF HOLOGRAPHY

Classes in Basic and Advanced Holography

1611 Ocean Front
Santa Monica, Ca.
90401
(213) 986-9900

General Information---Los Angeles, Spring 1974

A new School of Holography is being opened in Santa Monica to provide instruction in holography and holographic services for the Los Angeles area. The School of Holography is an independent cooperatively-owned facility established to develop and expand the use of holography as a visual and environmental medium. Holography is generally known as three dimensional laser photography using laser sources to make and view three dimensional images called holograms. More fundamentally, holography is the use of interference and diffraction phenomena to record and control wave energy of any type including light, sound, heat and water waves and may even be used for the detection and measurement of gravity waves. A holographic model for the brain has recently been proposed and qualitatively accounts for basic brain functions such as associative memory far better than any previous model.

Since its inception by Lloyd Cross and Jerry Pethick three years ago, the School of Holography has made a number of significant contributions to the field of holography. The new techniques developed at the school now permit not only white light viewing of three dimensional images, but also eliminate the need for a laser to illuminate the original subject. As well as aiming towards establishing holography as a viable visual medium, the school is now exploring several new applications of holography to other areas including medical diagnosis, new parallel-access information storage techniques, and alternate energy sources. The School of Holography in San Francisco presently has over 8000 sq. feet of facilities including four basic sand-based studios, a fixed overhead master plate camera, an image plane copy camera now producing white light viewable Rainbow Holograms, a 35mm filming studio, holographic display area, electronics area, optics and clean room, a vacuum optical coater, emulsion research area, darkroom facilities including a 16"x 20" batch film processor, a 35mm roll film processor, 14" wide-film processor, a complete machine shop and a pulsed laser camera under development. Recently completed is the development of the world's first automatic multiplexing camera which has made possible 360 degree moving holograms of live subjects, taken with conventional lights and a 35mm movie camera.

The School of Holography in Los Angeles will initially be located at 1611 Ocean Front in Santa Monica in a 2400 sq. ft. facility equipped with basic sand tables, holographic cameras, a fixed master plate camera, an image plane copy camera and a large table for making holograms up to 18"x 24". This location will also be a school store for the direct sale of holograms. We are looking for more space in the Los Angeles area to set up facilities for large scale multiplexing and pulsed holograms up to 4'x 8' in size. It is anticipated that a 10-12,000 sq. ft. facility will be in operation this fall or winter. Development projects planned for the new school in Los Angeles include large area projected holograms, holographic screens for three dimensional stereo movies, parallel-access holographic storage for film editing and the continued development of integral holography on a theatre-sized scale.

Classes scheduled in Los Angeles for Spring and Summer 1974 are a six week Basic course starting April 29th; four one week intensive Basic courses; and four one week Advanced Workshops during the summer. A workshop in multiplexing cinematography giving instruction in filming techniques for the new 360 degree holography will be announced later this spring.

The course in Basic Holography assumes no previous knowledge or technical experience of any kind and has been taken by over 300 students from a wide diversity of backgrounds and interests. There are presently six instructors for Basic Holography, all former students who began their careers in holography at the San Francisco School. In addition to college level students and instructors, the course in Basic Holography has been attended by photographers, artists, professionals of all types as well as people just generally interested in this new craft. The course in Basic Holography is a studio course in which the students will set up, expose and develop their own plates and gain hands-on experience with all three basic types of holograms: transmission, reflection and image plane. Completion of the basic course gives a thorough understanding of the holographic process, its applications and enough practical experience to set up your own holographic studio.

The Advanced Workshop is designed for students who have taken the course in Basic Holography or have had equivalent experience in making holograms. The course is primarily a workshop where the student will attain proficiency in the art and technology of holography. Advanced topics such as white light viewable holograms, high quality bleaches, projected images, multiple exposures, 360 degree set ups and the new field of integral holography will be presented. New emulsions of dichromated gelatin will be prepared, exposed, and developed by the students. This new emulsion for holography can be prepared from scratch, developed in water and alcohol, and results in extremely bright, clear reflection holograms. The Advanced Workshop in Holography will give the student an opportunity to make several high quality holograms in sizes up to 24" using transmission, projected image, white light image plane, rainbow and reflection techniques, with helium-neon, helium-cadmium and pulsed ruby lasers.

The School will be open to visitors beginning April 15, 1974. There will be an exhibit of holography including our newest developments in the technology. For further information, call (213) 986-9900.