

# Laserbeams make 3-D images for art, science uses

by Martha Little

A new art form and technological innovation is rising, but the wave has not hit the University yet.

Holography, the method of projecting a three-dimensional image on film by means of laser beams, spurns enough interest, though, to merit a special school in Chicago.

The School of Holography is centered at the Fine Arts Research and Holographic Center in Chicago. Courses explore every aspect of holography, both as a science and an art. Students get a certificate upon completion of a two-year program. Course credit also is available to students at the Chicago Circle campus. The classes range from general holography, where basic laser tech-

niques are learned, to holography as an art form, and photochemistry.

"Most students are in visual arts, everything from funk operas to laser light shows," said John Hoffmann, an instructor at the school.

A hologram of an object is made by placing it in a dark room with a piece of film, and shooting a laser at both the object and the film. The laser records all sides and angles of the object by means of coded light signals. The film is decoded using another specified laser, and a three-dimensional image of the object appears. The object appears to be hanging in space with every side visible from different angles.

Hoffmann said holograms are being used by engineers to test materials for flaws. If a

manufacturing company wants to test its product, a hologram is made of various samples, and then stress is placed on the samples. Another hologram is made, and engineers study the effect stress has on the material by comparing the before-and-after images.

Hoffmann said holograms also are being used in architecture, medicine, design and advertising. He said the possibilities in art offer a lot of exciting new areas. The future will bring more holographic displays, according to Hoffmann.

This optimism is not shared by the University's art department. No classes are offered in holography in the art curriculum. Luther A. Smith Jr., assistant professor of art at the University, said he did not think

there was much interest in it as an art form.

"All you have to do is look at them, and you know there's no artistic interest in them," he said.

The University's engineering department shows more enthusiasm, however. Raj Mitra, professor of electrical engineering who has researched holography and optics, said he thinks holography as an art form has incredible potential.

"No other process of either painting or photography can give you this realism," he said.

Courses involving holography at the University include Physics 371, Electrical Engineering 469, and various theoretical and applied mechanics classes.