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(the spreading of news by oral or written means, esp. gossip) - the american college dictionary, random house.

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Holography - The New Space Age Art Form

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Space age technology is lending itself to the newest art form in existence — Holography.

Holography is three-dimensional imaging through the use of laser light, an ultra pure kind of light for which both scientists and artists are finding increasing and varied uses.

Laser light combined with optical devices in the form of lenses and mirrors are turned on an object. This in turn reflects an image onto a photosensitive plate. The result is not a flat, two dimensional picture, but a three-dimensional exact duplication — the full object with its breadth and depth and height.

The concept of holography is barely thirty years old; however, it was not fully realized until the development of the laser in the early

1960's.

And one of the few places in the world where holography can be studied as both an art and science is the Fine Arts Research & Holographic Center at 1134 W. Washington Blvd. Enrollment is underway there for the fall classes which begin September 22.

All classes encompass the technical and theoretical aspects of holography in a lecture and laboratory format. Courses can be taken for full credit.

The Fine Arts Research & Holographic Center, with both a school and a museum, prides itself on being the most complete institution of its kind in the world. The museum maintains a permanent collection of holograms from around the world, many of historic importance. It is open daily, except Monday, from 12:30 to 5 p.m. For more information, call 226-1007.

History Of The Holograph

Holography, like many great discoveries, is almost an accident. Searching for methods to improve the resolution of electron microscopy, Dr. Dennis Gabor, a scientist at the Imperial College of London, reasoned that by comparing the light shining through the object with a standard reference light he could record not only the brightness, but also the spatial relationship of one point of light to another. He made what is called a phase comparison.

This is the discovery that makes Holography unique as a photographic technique. Using a mercury arc lamp with a green filter, he produced the first 'in line' transmission hologram in 1948.

But despite Dr. Gabor's theorizing about the use of 'coherent' light, Holography lay dormant until 1960 when T.A. Mainman, of Hughes Aircraft company, demonstrated his first ruby LASER (Light Amplification by Stimulated Emission of Radiation) which produced an intense spectrally pure light.

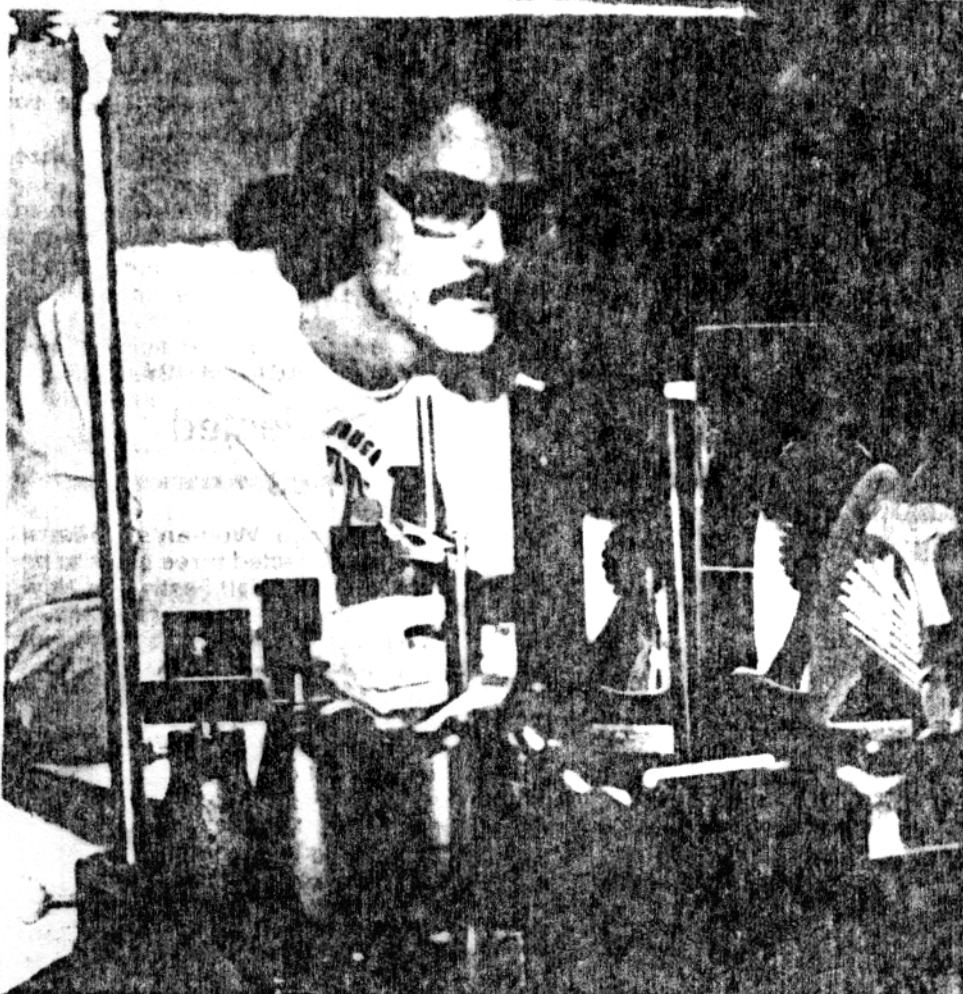
From then on scientific developments were rapid. Within a year Lloyd Cross sold the first commercially produced LASER, and Russian scientists produced the first white light reflection hologram.

In this country, two scientists at the University of Michigan, Emmett Leith and Juris Upatnieks, used the LASER's coherent light to make the first holograms using an off-axis reference beam.

Within several years Steven Benton of the Poloroid corporation had developed the white light transmission, the 'Rainbow' hologram, and Lloyd Cross and Dave Schmidt of the Multiplex company developed the white light 'Multiplex movie.' To house and encourage this work the Fine Arts Research & Holographic Center was founded in 1977, with its school of Holography opening in the fall of that year.

What Is Holography?

A Holographic plate and the image that plate produces are both referred to as a Hologram. A Hologram is actually a recording on a light sensitive medium of the light waves that reflect from an object illuminated with laser light, forming in complete and full dimension an image of that original object.



John Hoffmann, Director of Research, makes a hologram of Chicago's Picasso.