

## **CHRONOLOGY OF HOLOGRAPHY**

### **PRE-HISTORY**

- 1875 Herman Weiner's experiment to show the existence of standing waves makes the first holographic mirror.
- 1881 Gabriel Lippmann applies the above principle and publishes and demonstrates his interferential process of color photography.
- 1890 Lord Rayleigh records diffraction grating interferometrically.
- 1908 R. W. Wood describes his diffraction grating based method of color photography, which is the basis for what we call a 2-D holographic sticker.

### **PRE-LASER HOLOGRAPHY**

- 1947 Dennis Gabor gets the inspiration for a "Two-step Recording Process" to improve the electron microscope.
- 1950 Gordon Rogers becomes the second holographer; he sends Gabor a letter, holographically.
- 1958 Yuri Denisyuk records the first reflection hologram, that of a small concave reflector.
- 1962 The publication, in English, of Denisyuk's paper,

### **HOLOGRAPHY BY LASER ERA**

- 1964 Emmett Leith and Juris Upatnieks demonstrate the recording of three-dimensional objects using laser light.
- 1965 Karl Stetson and Lance Powell make time-averaged holographic interferograms of vibrating film can.
- 1966 "If you're going to go 3-D, why not go 360?" was the inspiration for Tung Jeong to wrap film around an object to make a cylindrical hologram.
- 1967 Richard Pennington and Chuck Lin at Bell Labs record true color holograms.
- 1969 Dr. Stephen A. Benton of Polaroid publishes an abstract on "White Light Reconstruction of Holograms" but not the how-to, and the rainbow hologram is born but temporarily left in the dark, as no one believed him.

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- Dominick diBetetto makes first holographic stereogram, of his airplane\*.
- 1971 Dennis Gabor receives Nobel Prize in Physics for the invention of holography. Shankoff publishes paper on recording holograms in dichromated gelatin.
- 1973 Lloyd Cross forms the Multiplex company, which produces white light viewable stereograms in a cylindrical form.
- 1975 Mike Foster starts embossing holograms.
- 1978 The author sees Dr. Tung Jeong make two holograms at an Society for Photographic Education meeting, and the event changes his life.
- 1979 Nils Abramson captures "Light in Flight" via holography.
- 1982 The first of the triennial **INTERNATIONAL SYMPOSIUM ON DISPLAY HOLOGRAPHY** at Lake Forest College takes place.
- 1983 The world becomes aware of holography with the cover of National Geographic.
- 1984 Virtually everyone has a hologram in their pocket with the advent of the Visa Dove Credit Card.
- 1995 DuPont re-enters the holographic recording film marketplace with their line of HRF materials\*\*.

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\*Bill Molteni transfers it into a white light copy, 1979.)

\*\*The author has the dubious distinction of making the first true-color hologram on their panchromatic material, HRF-700. The object was a Russian Matryuska, or Nesting doll, given to his son Andrew by Yuri Denisyuk. (The doll was later nibbled on and the paint came off.)

RCA Selecta-Vision\*?  
Early DuPont photopolymers?

### **REFERENCES**

Most of this information came from the following:  
(Any or all of these are musts for serious holographic scholars.)

### **ENDNOTES**

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\*The trademarked name later went to their early line of VCR's.