

The Holograms of C- Project

Holograms have held a place of fascination in popular imagination since they first came into being in the early 1960s. Proclaimed the medium of the future upon its invention, holography was predicted to be as important as the printing press and to someday replace painting and sculpture as the preferred creative medium. Although holography never fulfilled those expectations, the allure of its potential and the mystery of its technology have endured.

Artists were among the first to explore the creative potential of holography. Bruce Nauman produced his first series of holograms in 1968, just one year after it became possible to create holograms of living beings. Throughout the 1970s and 1980s, a surprising number of well-known artists, including Salvador Dalí, Simone Forti, Robert Indiana, Michael Snow, and Stan VanDerBeek produced holograms. The Museum of Holography was founded in New York City in 1976 and over the following decade, large-scale exhibitions of holograms were presented throughout the world, often drawing hundreds of thousands of viewers. Interest in holography among contemporary artists waned over the next decade as holograms were co-opted by more mainstream platforms that emphasized the broader appeal of kitsch over the technological sophistication that was possible with this medium. Although a small group of international artists devoted themselves almost exclusively to creating work within the holography format, and some received critical recognition for doing so, few were able to overcome the stigma attached to it after holograms became widely available on credit cards and as key chains and posters.

That changed in 1994 with the creation of the C-Project. This privately funded endeavor sought to introduce holography to a number of established artists, giving them access to the best technicians in the field and the opportunity to explore areas of their own creative process through this singular medium. Over a span of five years, nineteen artists participated in the C-Project, each producing editions of either four or eight holograms. These artists include

Richard Artschwager	John Baldessari
Larry Bell	Ross Bleckner
Louise Bourgeois	Chuck Close
Marisol Escobar	Al Held
Roy Lichtenstein	Ann McCoy
Tatsuo Miyajima	Malcolm Morley
Eric Orr	Larry Rivers
Dorothea Rockburne	Edward Ruscha
Robert Ryman	Richard Smith
James Turrell	

The holograms produced by these remarkable artists through the C-Project are among the most striking and innovative art of their oeuvre. The format of holography enabled each artist to approach subject matter they had explored for years with a fresh perspective and unique technological engagement. Carrying on the tradition established by such groundbreaking endeavors as Billy Klüver's Experiments in Art and Technology (E.A.T) in New York and Maurice Tuchman and Jane Livingston's Art and Technology program in Los Angeles, the C-Project

resulted in an astonishing body of work that reveals the extraordinary capabilities of one of the most profound and under-recognized technologies of the last fifty years.

Holograms created through the C - Project have been exhibited in over 30 national and international exhibitions including such venues as MoMA, New York; New Museum, New York; Staatliche Kunsthalle, Baden Baden; Museo Nacional Centro de Art Reina Sofia, Madrid; LACMA, Los Angeles; The Walker Museum of Art, Minneapolis; Hirschhorn Museum, Washington, DC; and MoCA, Chicago.

Holography Fact Sheet

To put it simply, a hologram is an image formed in the eye of the viewer. It is produced from the interference pattern that is created when a beam of light is bounced off the surface of an object and crossed with another beam split from an original light source. When re-illuminated, the interference pattern results in the illusion of a three-dimensional object of full volume, floating in deep space, in front of or behind a two-dimensional picture plane.

Dennis Gabor invented the theory of holography in 1948, and coined the term from the Greek words *holos* (“whole”) and *gramma* (“message”). It wasn’t until 1962, following the invention of the laser, that Emmett Leith and Juris Upatnieks made holography a reality. The characteristic properties of holography continue to astound. In addition to creating the perception of an object in full volume floating in space, a hologram can store vast amounts of information. For example, if one were to make a hologram of a glass of water and then examine that hologram under a microscope, even the microbes in the water would be visible. Moreover, if a hologram is shattered, the complete image is still discernable in each individual shard of glass. (It is for these reasons that holography’s predominant applications have been in the fields of science and medical research as well as in the military.) And yet, as unique as holography is, it is often confused with other visual technologies, those that are far simpler, such as lenticular printing and Pepper’s Ghost. These formats give the appearance of three-dimensionality while holography contains the actual information that demarcates three-dimensionality. With this extraordinary potential, it is not surprising that artists would be compelled to use holographic technology creatively.

There are two types of holograms: transmission and reflection. Transmission holograms are the earliest type of holography, requiring a laser projected through the back of the glass plate to experience the image. Reflection holograms, the most popular form of holography, are illuminated by bouncing a concentrated beam of incandescent light off the front surface of the plate. The C-Project comprises both types of holograms. The master plates are laser transmission holograms on Agfa glass. The editions are **multi color** reflection holograms. The production of reflection holograms from the master plates is done without contact copying or scanning, thus each hologram is “one of a kind” because no machine process is used for the final holograms. They exhibit full parallax, horizontally and vertically, and are fully archival.

As a new chapter in the history of holography unfolds, it is worth noting the curious position holography has held in our collective imaginations. While many of our most extraordinary technological advancements—such as laser beams, spaceships, and journeys to the moon—first entered our consciousness through science fiction and fertile imaginations, holography became a reality before we could even imagine a use for it. With the recent resurgence of interest in three-dimensional formats for film and television, and a longing for the optimistic potential of advanced technology within broader culture, it seems that holography’s future has finally caught up with its past.

