(Los Angeles—May 24, 2018) The Los Angeles County Museum of Art (LACMA) presents the first North American survey of 3D objects and practices, tracing cycles of optical investigation, creative expression, and commercial popularity over the past 175 years. Featuring artifacts of mass culture alongside historic and contemporary art, 3D: Double Vision addresses the nature of perception, the allure of illusionism, and our relationship to accompanying technologies and apparatuses. The optical principle underlying all 3D media is binocular vision—the process by which our brains synthesize the information received by our two eyes into a single, volumetric image. The more than 60 artworks featured in the exhibition activate this process by means of mirrors, lenses, filters, or movement—requiring active participation on the part of spectators to complete the illusion.

Many 3D media are included in the exhibition—from stereoscopic photography, film, video, anaglyph printing, and computer animation, to the glasses-free formats of holography and lenticular—alongside 2D works that generate 3D effects by other means. The creators of these works are equally diverse: some are noted artists, others are primarily considered scientists, engineers, directors, or designers, and still others are unknown makers.

“At this moment when everyone is talking about virtual space and immersive art, 3D: Double Vision invites the audience to dissect the complexities of vision and perception. Throughout history artists have experimented with theories of vision and perception to represent, distill, and reinvent objects and the emotions they engender,” said Michael Govan, LACMA CEO and Wallis Annenberg Director. “This exhibition underscores LACMA's longstanding commitment to exploring art and technology in the museum's exhibitions and programming. 3D: Double Vision brings together the realms of art, science, mass culture, and entertainment, and is a microcosm of Los Angeles itself.”
“In 2013 I curated the exhibition See the Light: Photography, Perception, Cognition—The Marjorie and Leonard Vernon Collection, which explored the connections between the history of vision science and the history of photography. The stereoscope and photography were invented at nearly the same moment (1838/39), and together they demonstrated the workings of binocular vision for the first time,” said Britt Salvesen, Head of the Wallis Annenberg Photography Department and the Prints and Drawings Department at LACMA. “Since then, the quest for the perfect 3D representation has driven innovation and sparked wonder in generation after generation. In its broader scope, 3D: Double Vision demonstrates that this fascination with 3D representation persists from the Victorian era to the present day.”

**History of 3D**
The history of 3D begins in the 1830s with the invention of the stereoscope. Initially considered a scientific device, the stereoscope soon entered popular culture, as Victorian audiences became fascinated with stereo photographs depicting faraway lands, colossal monuments, current events, and comic scenes. 3D motion picture technology followed in the 20th century, paving the way for the Hollywood boom of the 1950s, along with consumer products such as View-Masters and Stereo Realist cameras. Other 3D formats, notably lenticular printing and holography, were invented to generate dimensional effects without the aid of glasses. Today’s artists have access to these analog techniques and myriad digital tools, enabling them to capture spatial information and create virtual worlds.

**Exhibition Organization**
3D: Double Vision is organized in five thematic sections, which trace the generational cycles of 3D. An introductory section focuses on the optics of binocular vision, as demonstrated by the earliest inventors of the stereoscope and by subsequent artists who wanted to explore not what we see, but how we see. The second and third sections address two peak periods of 3D popularity: the Victorian era and the 1950s, when education and entertainment were closely intertwined in thriving mass-market visual cultures. The fourth section turns to the 1960s and '70s, when art and technology partnerships resulted in a range of experimental film, performance, installation, and objects that stimulate altered perception. Finally, the exhibition looks at a sampling of 3D art from the late 1980s to the present, an era of appropriation, quotation, and reflection on the capacities of human vision and cognition.

To familiarize themselves with the principles of binocular vision and to experience the full effects of 3D, visitors are invited to engage and interact with 3D devices throughout the exhibition. Several works will require the use of optical apparatuses, including Victorian
stereoscopes, View-Masters, and modern lens-based devices. For other works, disposable anaglyph (red-blue) and polarized glasses will be provided. Several works do not require devices or glasses.

Salvesen adds, “In an important sense, these artworks require the participation of a spectator to be fully realized. The ultimate goal is a 3D image, which exists only virtually, in the spectator’s mind. 3D: Double Vision is a show that must be experienced in person.”

**Exhibition Highlights**

**Joseph Jastrow, untitled stereo pairs (1905):** Jastrow was a researcher in the field of experimental psychology, which emerged around the turn of the 20th century. Interested in vision as a portal to cognition and personality, Jastrow frequently used optical illusions to investigate how the mind extrapolates from what the eyes actually perceive. In a curious group of stereo pairs, Jastrow used props and models to play with depth perception and binocular rivalry.

**Richard Hamilton, Palindrome (1974):** From the portfolio Mirrors of the Mind, this lenticular print edition was made with the Vari-Vue process, invented in the 1940s, licensed to various manufacturers starting in the 1960s, and typically used for postcards and small promotional items. A prominent Pop artist, Hamilton was no doubt attracted to lenticular’s playful, commercial associations.

**Simone Forti, Striding (1975–78):** The animated Multiplex (or “integral”) hologram technique was pioneered by Lloyd Cross in 1972. First, a subject is filmed with a motion picture camera; then a, series of vertical “strip holograms” are created from the sequence of film stills and mounted to a Plexiglas cylinder. Forti made at least eight holograms with Cross in the mid-1970s, several of which have only recently been rediscovered in the artist’s studio.

**Ken Jacobs, The Surging Sea of Humanity (2006):** Jacobs is an experimental filmmaker who used various 3D technologies over the past 60-plus years. For The Surging Sea of Humanity, he appropriated a stereograph of a crowd at the 1893 Columbian Exposition in Chicago and subjected it to a digital editing method to produce an effect of depth and movement.

**Lucy Raven, Curtains (2014):** In Raven’s anaglyphic film installation, two images glide toward each other along a horizontal plane, triggering the spectator’s desire for optical fusion. When the left- and right-hand images finally cohere, the moment of fusion is
fleeting, as the frames diverge again and become separate. Observing the recurrence of 3D in Hollywood in the 2010s, Raven traced the digital networks through which 3D conversation takes place, depicting workers in China, India, Vancouver, London, and Los Angeles.

**Peggy Weil, 3D Wallpaper (1976/2017):** Weil originally produced her 3D wallpaper in 1976 as a series of screenprints on pink paper. For this exhibition, Weil has redrawn the pattern as a vector file for four-color digital output.

Additional artists represented in the exhibition include Trisha Baga, Louis Jules Duboscq, Marcel Duchamp, Oskar Fischinger, Dan Graham, William Kentridge, Harold Lloyd, Mariko Mori, Sigmar Polke, Thomas Ruff, Ed Ruscha, Michael Snow, and more.

**Catalogue**

*3D: Double Vision | $60*

Essay by Britt Salvesen with contributions by Thomas H. Banchoff, Eric Drysdale, Erikki Huhtamo, Zach Rottman, and Gloria Sutton

Co-published by LACMA and DelMonico Books • Prestel

The catalogue includes more than 200 illustrations of artworks, photographs, pop culture ephemera, and more. Each book includes a pair of anaglyph glasses and a stereo card viewer, allowing the reader to conjure captivating virtual images.

**Credit**

This exhibition was organized by the Los Angeles County Museum of Art.

Presented by:

![Hyundai](image)

Generous support provided by Yvonne Hessler in memory of Gordon Hessler, D.G.A. Additional support provided by RealD, Stereo D, Christie, and the Wallis Annenberg Director's Endowment Fund.

This exhibition is part of The Hyundai Project: Art + Technology at LACMA, a joint initiative exploring the convergence of art and technology.

All exhibitions at LACMA are underwritten by the LACMA Exhibition Fund. Major annual support is provided by Kitzia and Richard Goodman and Meredith and David Kaplan, with generous annual funding from Jerry and Kathleen Grundhofer, the Judy and Bernard Briskin Family Foundation, Louise and Brad Edgerton, Edgerton Foundation, Emily and Teddy Greenspan, Marilyn B. and Calvin B. Gross, David Lloyd and Kimberly Steward, David Schwartz Foundation, Inc., and Lenore and Richard Wayne.
About LACMA

Since its inception in 1965, the Los Angeles County Museum of Art (LACMA) has been devoted to collecting works of art that span both history and geography, mirroring Los Angeles's rich cultural heritage and uniquely diverse population. Today LACMA is the largest art museum in the western United States, with a collection of over 135,000 objects that illuminate 6,000 years of art history from new and unexpected points of view. A museum of international stature as well as a vital cultural center for Southern California, LACMA shares its vast collection with the Greater Los Angeles County and beyond through exhibitions, public programs, and research facilities that attract over 1.5 million visitors annually, in addition to serving millions more through community partnerships, school outreach programs, and creative digital initiatives. LACMA's main campus is located halfway between the ocean and downtown, adjacent to the La Brea Tar Pits and Museum and the future home of the Academy Museum of Motion Pictures. Dedicated to serving all of Los Angeles, LACMA collaborates with a range of curators, educators, and artists on exhibitions and programs at various sites throughout the County.

Location: 5905 Wilshire Boulevard, Los Angeles, CA, 90036. lacma.org

Image captions:


(left center) Ken Jacobs, *The Surging Sea of Humanity*, 2006, single channel video, dimensions variable, duration 10:40 min., courtesy Electronic Arts Intermix (EAI), New York, photo courtesy of the artist, © Ken Jacobs

(right center) Lucy Raven, *Curtains*, 2014, anaglyph video installation, 5.1 sound, dimensions variable, duration 50 min., courtesy of the artist, © Lucy Raven


Press Contact: press@lacma.org or 323 857-6522

Connect with LACMA

@lacma #LACMA3D