After Einstein
Art and Architecture
With a Cosmic Perspective

Albert Einstein, 1922. Burndy Library, Massachusetts Institute of Technology, Niels Bohr Archive

Curated by Lynn Gamwell
After Einstein presents work by painters, sculptors, photographers and architects who created new styles to express Albert Einstein's revolutionary model of the space-time universe and the spiritual outlook it embodies.

In 1919, Einstein's theory of relativity was confirmed when astronomers recorded the curvature of light by the sun's gravitational field during a dramatic solar eclipse. This event brought to international attention Einstein's powerful vision of cosmic unity, in which matter and energy, space and time, are inextricably bound together in a four-dimensional universe.

In the atmosphere of dread following the devastation of the First World War, many artists found comfort in Einstein's proclamation of the unity and rational order of the natural world. Designers and architects who had been composing with the squares, rectangles and cubes of Euclidean geometry learned that Einstein's space-time universe is four-dimensional. In Euclid's geometry, the shortest distance between two points is a straight line, but in Einstein's universe, the line is curved. Many artists asked: What does the new geometry mean for us?

Alexander Calder, untitled, 1952
Metal mobile, width: c. 36". Private collection
To express the unity of nature, artists developed a vocabulary of biomorphs ("free-forms") — symbolizing the micro-world (an egg, a cell, a seed) linked to the macro-world (a star, a galaxy). Against an empty background space, artists such as Alexander Calder floated biomorphic shapes that appear without gravity in a void.

Architects who worked in geometric styles vowed to create an art in keeping with the new cosmic space-time by adding the fourth dimension of time to their static Euclidean floor plans. Architects also created a powerful new metaphor for urban man's spiritual renewal in the post-war space-time universe — glass skyscrapers.

Mies van der Rohe, model for a glass skyscraper, 1920-21

László Moholy-Nagy, Advertisement for the Bauhaus Books series, 1926
Graphic designers let their lines of type float up the page, free of Earth's gravity. Painters such as Wassily Kandinsky also arranged shapes and lines as if floating in the vast voids of outer space.

Surrealists such as Max Ernst made an analogy between the "surreal" space-time universe and the bizarre world of their dreams and fantasies. In Italy, second-generation Futurists such as Gino Cantorelli responded to Einstein by creating with light. In America, the photographer Edward Steichen also sought a visual metaphor for the space-time universe.

Wassily Kandinsky,
Composition, 1925
Lithograph, 15" x 10 5/8"
Binghamton University Art Museum

Max Ernst,
Configuration, 1974
Oil on two panels,
16" x 12" (13" x 9 1/4")
Courtesy Cavaliere Fine Arts, New York
Gino Cantarell, Light Construction, c. 1919
Gouache and ink on paper, 12 1/2" x 17 3/4"
Rachel Adler Fine Art, New York

Edward Steichen, Time-Space Continuum, c. 1920
Gelatin silver print, c. 10" x 8"
Courtesy Howard Greenberg Gallery, New York

The opening of After Einstein corresponds to the exhibition Einstein at the American Museum of Natural History in New York. Organized in cooperation with Hebrew University in Jerusalem, this exhibit about Einstein's scientific and cultural impact includes his 1905 manuscript for the Special Theory of Relativity.