

Alexander Calder

Alexander Calder revolutionized the art of sculpture by making movement one of its main components. Yet his invention of the "mobile" -- a word coined in 1931 by artist Marcel Duchamp to designate Calder's moving sculpture -- was only one of Calder's achievements. In his early wire figures and in his "stabiles," static sculptures in sheet metal, Calder created innovative works by exploring the aesthetic possibilities of untraditional materials. As a major contribution to the development of abstract art, Calder's stabiles and mobiles challenged the prevailing notion of sculpture as a composition of masses and volumes by proposing a new definition based on the ideas of open space and transparency. With the giant stabiles of the latter part of his career, Calder launched a new type of public sculpture -- one which proved so successful that many of these works have become landmarks in cities around the globe. This exhibition commemorating the centenary of Calder's birth brings together over 260 works, with sculpture, paintings, drawings, and jewelry drawn from his entire career. In small handmade objects as well as in monumental sculptures, Calder metamorphosed every material with humor and ingenuity. Whether twisting wire, carving pieces of wood, or cutting shapes from sheets of metal, he invested each work with an unexpected poetry.

Beginnings

Calder was born in 1898 in Philadelphia to a family of artists. His interest in making objects developed at an early age: he fashioned his own toys and made small animal sculptures from brass sheet for his parents (as in *Duck* and *Dog*). After graduating with a degree in mechanical engineering, Calder

decided, in 1923, to become a painter and enrolled at the Art Students League in New York. His first paintings, mostly New York street scenes, reflect the realist approach of his teachers, including John Sloan.

Wire Sculpture

Attracted by Paris' reputation as an artistic center, Calder moved there in 1926 and earned his living as an illustrator and a toy designer. At the same time, he was developing a miniature circus of articulated performers in wire, a material that he soon adapted for his sculpture. Working in this radical new medium was tantamount to drawing in space. In a series of wire portraits and full-size figures from the late 1920s, Calder captured with humor the salient features of his subjects, from president [Calvin Coolidge](#) and entertainer [Josephine Baker](#), to his artist friend [Joan Miró](#).

First Abstract Constructions

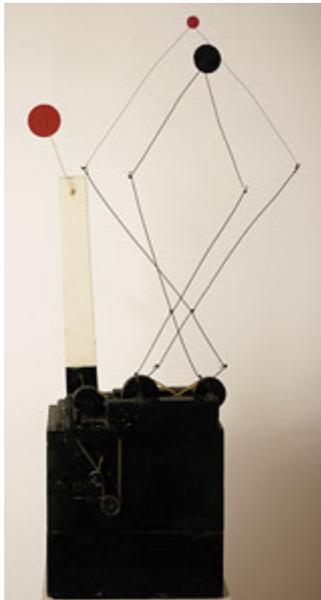
In October 1930, Calder paid a visit to the Dutch painter Piet Mondrian that would change the course of his career. Looking at the colored rectangles that covered the wall of Mondrian's studio, Calder remarked that he would like to see them move. After a few experiments in abstract painting, he began making constructions of wire and wood, equipping some with a crank or a small motor that could set them in motion (see [*Two Spheres within a Sphere*](#) and [*Pantograph*](#)).



Two Spheres within a Sphere, 1931

wire, wood, and paint

Private Collection



Pantograph, 1931

wood, wire, sheet metal, motor, and paint

Moderna Museet, Stockholm

"Just as one can compose colors, or forms," Calder said, "so one can compose motions."

Although abstract, these three-dimensional compositions evoke in their form and movement representations of planets and other celestial bodies. "The underlying sense of form in my work has been the system of the Universe, or part thereof," Calder wrote. "What I mean is that the idea of detached bodies

floating in space, of different sizes and densities, perhaps of different colors and temperatures, and surrounded and interlarded with wisps of gaseous condition, and some at rest, while others move in peculiar manners, seems to me the ideal source of form."

Early Mobiles / Biomorphlic Forms

By 1931 Calder was experimenting with structures that could move randomly when propelled by the wind or air currents. *Cône d'ébène* is one of the earliest "classic" mobiles in which hanging elements are designed to coexist in varying states of dynamic equilibrium. The biomorphic shapes of the carved wooden objects are similar to some of the forms that appear in Calder's drawings of 1932, exhibited in this room. They mark a trend in Calder's art away from geometric forms toward a more organic imagery.



Cône d'ébène, 1933
ebony, wire, and metal bar
Private Collection, New York

Panels, Frames, First Stabiles

Calder's wish to create paintings in movement was virtually realized in a group of wall-mounted sculptures of 1932 to 1936 in which various forms are placed within a frame or before a panel. Some of these works are mechanized; when set in motion, each element performs a different type of movement (for example *Black Frame*). In others, the forms suspended on wires are moved by air currents.



Black Frame, 1934
wood, sheet metal, motor, wire, and paint
Private Collection, New York

When this work is set in motion, the helix rotates slowly, the disk flips back and forth, and the red ball circles the rod to which it is attached.

In the second half of the 1930s, while creating further variations on the mobile format, Calder began working on another type of sculpture, immobile and freestanding, made of sheets of metal connected by bolts. *Whale* and *Big Bird*, both of 1937, are early examples of these "stabiles" -- as such

works had been dubbed by the sculptor Jean Arp.



Whale, 1937

sheet metal, bolts, and paint

Private Collection

Their bold curves recall the shapes of the mobile objects in some of the earlier panels and frames. Because they appear different from all sides, the stabiles invite the viewer to walk around them, thus implying, like the mobiles, the ideas of movement and perception in time.

Wood Sculpture

Throughout his career Calder demonstrated a great versatility in his use of materials. In 1935-1936 he produced a number of works made largely of carved wood. Though most of these were stabiles, some include movable parts and many incorporate biomorphic shapes, showing affinities with the surrealist works of Jean Arp and Joan Miró.

Jewelry

If one excepts the jewelry he made as a child for his sister's dolls, Calder produced about fifteen hundred original pieces of jewelry in his lifetime. He never intended his jewelry to be mass-produced and often gave examples to relatives and friends on special occasions. Some, such as the *Louisa Pin* made for his wife, incorporate the name of their owner.



Louisa Pin, c. 1940

silver and steel wire

Private Collection, New York

Derived from his wire sculpture, Calder's jewelry is typically made of bent and twisted wire, usually of brass, silver, or gold. Some pieces include found objects, such as bits of bones, uncut stones, and glass. The remarkable variety of these works comes from the multiplicity of sources that inspired Calder, from African jewelry (*Bracelet*) to Brazilian good-luck charms (*Figa Pin*). The finely detailed craftsmanship found in the jewelry is echoed in his small and large-scale works of the same period.

On the Making of Mobiles

I used to begin with fairly complete drawings, but now I start by cutting out a lot of shapes....Some I keep because they're pleasing or dynamic. Some are bits I just happen to find. Then I arrange them, like papier collé, on a table, and "paint" them -- that is, arrange them, with wires between the pieces if it's to be a mobile, for the overall pattern. Finally I cut some more of them with my shears, calculating for balance this time. I begin at the small ends, then balance in progression until I think I've found the point of support. This is crucial, as there is only one such point and it must be right if the object is to hang or pivot freely. I usually test out this point with strings to make sure before bending the wires. . The size and angle of the shapes and how to use them is a matter of taste and what you have in mind. To most people who look at a mobile, it's no more than a series of flat objects that move. To a few, though, it may be poetry. Alexander Calder



Constellations

In 1943, aluminum was being all used up in airplanes and becoming scarce....I devised a new form of art consisting of small bits of hardwood carved into shapes and sometimes painted, between which a definite relation was established and maintained by fixing them on the ends of steel wires.... I decided these objects were to be called "constellations." Alexander Calder made about twenty-nine "constellations," including many variations on the type. Their title recalls his early abstract constructions, but the constellations differ in their open composition and the irregular shapes of the wooden objects. These curvilinear, biomorphic shapes, also found in Calder's gouaches of the same period, are related to the surrealist imagery of such painters as Joan Miró and Yves Tanguy.



Constellation, c. 1942

wire, wood, and paint

Private Collection



Constellation, 1943

wood, wire, and paint

On loan in memory of Betty Milton, a close friend of Louisa Calder

Bronzes

In 1944, following his first major retrospective at the Museum of Modern Art in New York, Calder decided to experiment with more traditional materials than those he was currently using. He made several works in plaster, which were then cast in bronze. A few of these incorporate movable parts (for example, *Double Helix*). As in the sheet metal sculpture and drawings shown elsewhere in the room, the curves and arabesques suggest animal and plant forms.

Calder, however, was frustrated with the casting process, which involved several intermediaries between inception and the finished object. Moreover, as he wrote in his 1966 autobiography: "This was rather an expensive venture and did not sell very well, so I abandoned it for my previous technique."



Double Helix, 1944
bronze
Private Collection, New York

Late 1940s-1950s

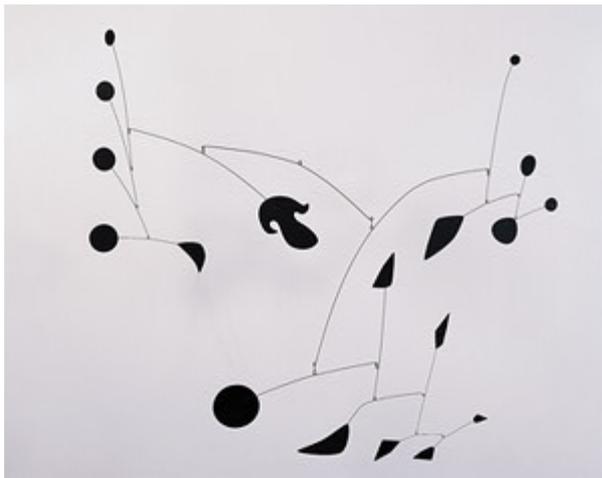
In the late 1940s throughout the 1950s Calder continued to explore ingenious variations in his kinetic objects. He devised new means of merging his mobile and stabile constructions, including exploiting the cantilever as "...a means of support...to best approximate...freedom from the earth."



Vertical out of Horizontal, c. 1948
sheet metal, wire, and paint
Collection Dr. and Mrs. Arthur E. Kahn



Red Disc, 1947
sheet metal, wire, and paint
Private Collection

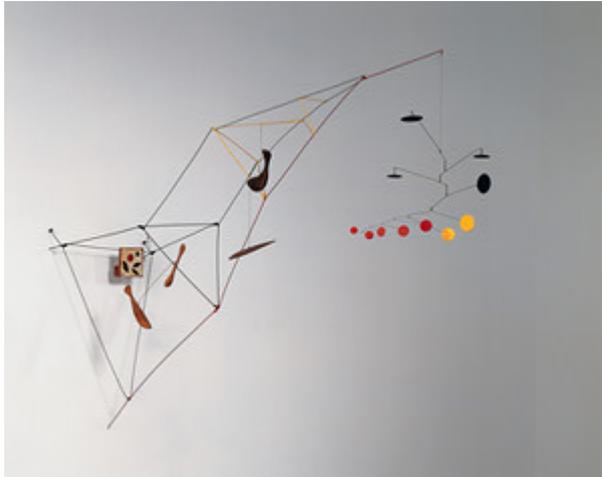


Black: Flower and Seventeen, 1959
sheet metal, wire, and paint
David and Leslee Rogath

Towers and Gongs

Two series begun in 1951, "towers" and "gongs," introduce new developments in Calder's art. The architectonic towers are related to the constellations of the previous decade, but include a greater variety of elements within their scaffold-like structure (see wall to far right). With their little wire spheres,

mobiles, carved wooden forms, and even a painting (*Tower with Painting*), the towers seem to offer a survey of Calder's art in miniature.



Tower with Painting, 1951

wire, wood, sheet metal, paint, and oil on canvas mounted on wood
Private Collection, San Francisco

Calder, who had first experimented with sound-making sculpture in the early 1930s, liked the sound some of his mobiles made when the metal plates collided. In the gongs (for example, *Triple Gong*), he emphasized this aural dimension by including small metallic hammers that strike the plates at random when the mobiles move.



Triple Gong, 1951

sheet metal, wire, and paint

National Gallery of Art, Washington, Gift of Mr. and Mrs. Klaus G. Perls

Monumental Sculpture

From 1953 until his death in 1976, Calder devoted most of his energy to monumental sculpture, which is represented in this section of the exhibition by several maquettes and a video showing works in situ. Most of these sculptures are stabiles designed for a specific location.

The small metal maquette -- the first step in the production of a monumental sculpture -- was already for Calder a sculpture in its own right: "Even in aluminum and very small, at the model stage, the object must please whether it is intended to be made in large dimensions, or not." The earliest large-scale sculptures, such as *Teodelapio*, were constructed directly from the maquette. After 1965, an intermediate maquette, usually about one-fifth the final size, was often fabricated to test the wind resistance and to refine the structure.

The final sculpture was executed by skilled ironworkers under Calder's supervision. The large versions of *Southern Cross* (maquette) and of *Tom's* (maquette) are installed on the lawn outside the East Building.



Southern Cross [maquette], 1963

sheet metal, wire, and paint

Private Collection



Tom's [maquette], c. 1966

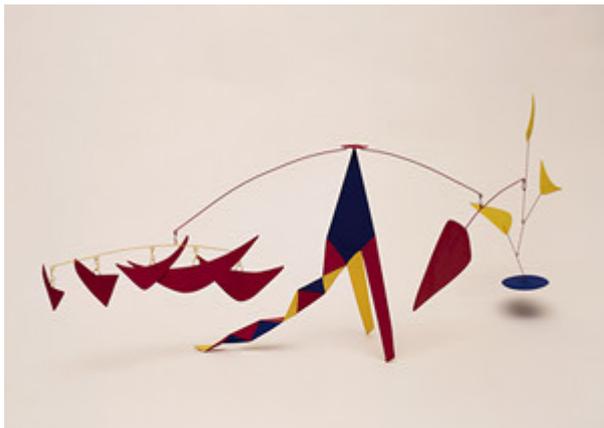
sheet metal

Anonymous Lender

Other large-scale works are spread throughout the public spaces in the East Building.

Post 1950

Although in the 1950s and 1960s Calder's primary focus was on large-scale works, he continued to work on a smaller scale, creating intimate objects such as *Crinkly* and indoor mobiles.



Crinkly, 1970

sheet metal, wire, and paint

Private Collection, New York

Overview

On view in this space, just outside the entrance to the exhibition, in the East Building atrium, is a full range of Calder's large-scale sculptures, from an early outdoor wind-driven standing mobile, *Steel Fish*, to one of his final commissions, the Gallery's large mobile, *Untitled*, of 1976.



Steel Fish, 1934

sheet metal, wire, rod, lead, and paint

Private Collection

These standing mobiles (nos. 73-75) are among the earliest sculptures Calder designed for the outdoors. He made them in 1934 after moving to an old farmhouse on eighteen acres of land in Roxbury, Connecticut. He developed their complex kinetics in detailed drawings, calculating the weight distributions and range of movement of the various elements. "All of them react to the wind...like a sailing vessel," Calder wrote of these works.



Untitled, 1976

aluminum honeycomb, tubing, and paint

National Gallery of Art, Washington, Gift of the Collectors Committee

Other sculptures by Calder, installed in the atrium and outside of the East Building, are not shown within the virtual tour panoramas.

PUBLIC SPACES



Black Beast, 1940

sheet metal, bolts, and paint

Anonymous Lender



Jacaranda, 1949

sheet metal, wire, and paint

National Gallery of Canada, Ottawa



The Fountain, 1962

sheet metal and paint

Universal Building North, Inc., Washington



Southern Cross, 1963

sheet metal, rod, bolts, and paint

Private Collection, New York



Obus, 1972

sheet metal, bolts, and paint

National Gallery of Art, Washington, Collection of Mr. and Mrs. Paul Mellon



Tom's, 1974

sheet metal, bolts, and paint

Private Collection, New York