ALEXANDER CALDER: RADICAL INVENTOR

ARTWORK LABELS

Alexander Calder

American 1898-1976

Day and Night

1965

sheet metal, steel wire, paint

Art Collection, Arts Centre Melbourne Purchased in 1977. William Angliss Art Fund.

A radical inventor

Alexander Calder (1898–1976) is celebrated today as the American artist who made sculpture move. Over an international career that spanned six decades, Calder created more than 22,000 works and exhibited on five continents. Although best known for his invention of the mobile, he worked in astonishingly varied media, including drawing, painting and sculpture, as well as set design for dance and music performances. His monumental sculptural commissions the world over revolutionised public art and redefined urban space.

Calder had an innate disregard for traditional artistic hierarchies, which place painting and sculpture above other mediums. This retrospective exhibition draws attention to the remarkable continuity between his paintings and drawings, sheet-metal sculptures, and the jewellery he often made as gifts, as well as the domestic objects he used in everyday life. From the 1920s to the 1970s, Calder established a pioneering and multidisciplinary practice, and his inventions – including 'drawings in space' made with wire, *Cirque Calder* performances, the mobile and the stabile (grounded sculpture) – reveal an artist unconstrained by conventional expectations and intrigued by the ever-changing modern world.

Gamma

1947 sheet metal, steel wire, paint

Collection of Jon Shirley

Left to right

Dog 1909 brass sheet

Calder Foundation, New York Mary Calder Rower Bequest, 2011

Duck

1909 brass sheet

Calder Foundation, New York Mary Calder Rower Bequest, 2011

An eleven-year-old Calder presented his parents with these small sculptures as Christmas gifts in 1909. The ingenious fashioning of three-dimensional forms from a flat sheet of brass suggests a kind of prodigy, and foreshadow Calder's unique spatial and visual thinking. Contours are cut flat in a continuous line, much like a sewing pattern, achieving uncanny resemblances to the actual animals with wit and imagination. With a few simple bends, the dog stands on point with nose forward, ear and tail up and out. Likewise, with two neat folds, semicircles form the head and body of a duck. The duck is kinetic, rocking back and forth when tapped.

For kids

Alexander Calder – 'Sandy' to his family – was a very creative child and had his first workshop when he was eight years old. He often used his talents to make sculptures, such as these small animals that he gave to his parents for Christmas when he was eleven. He cut each creature out of a single metal sheet and simply folded it into shape. The duck rocks back and forth when tapped.

Make your own creature in *Alexander Calder: Workshop for Kids* at the end of this exhibition.

Fish

1944

metal, wire, plastic, wood, glass, ceramic, paint

Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington, D. C. Gift of Joseph H. Hirshhorn, 1972

66.785

Fish belongs to a series of large suspended sculptures Calder made in the late 1940s and 1950s. Basically a fish-shaped metal frame, it is animated by free-floating, suspended glass shards and is reminiscent of a traditional fish trap. From childhood, Calder maintained an abiding fascination with the animal world as well as a fondness for assembling discarded or unconventional materials. Beginning with a mechanised wire aquarium for his mother and a large fish made from a single brass wire for his father for Christmas in 1929, fish reappear in Calder's body of work, suggesting a deep-seated fascination with their shimmering, darting movements.

Left to right

Galloping Horse

1926

wire, wood, leather

Calder Foundation, New York Mary Calder Rower Bequest, 2011

Horse and Rider

1926-31

wire, wood, cork, leather, velvet, string, rubber tube, lead

Calder Foundation, New York

Both of these unique forms are fashioned from found materials, and each promises some type of action. *Galloping Horse* consists of a wooden body, wire head and legs, attached to wheels, and can be propelled like a push toy. *Horse and Rider* was a part of Calder's renowned *Cirque Calder*. The assemblage has a loop of wire at its front, allowing it to be pulled, which triggers the horse and rider to pivot and rock.

Torrero

c. 1927 cloth, paper, wire, leather, pencil

Calder Foundation, New York
Promised Gift of Alexander S. C. Rower

Aerialist

c. 1926–31 wood, wire, leather, cloth, lead, string

Jonathan O'Hara Gallery, New York

These two objects are at once caricatures and performers. Their size, materials and manner of execution mark them as among the earliest figures Calder created in Paris as part of his *Cirque Calder*, the miniature circus he regularly performed in Paris between 1926 and 1931. They illustrate what in France was recognised as the work of a bricoleur – someone who 'makes do' with the objects at hand, operating with an economy of means. Their resemblance to real circus performers astonished theatre critic Legrand-Chabrier, who wrote a favourable review of Calder's miniature circus in June 1927 for the French newspaper *Candide*.

Right to left

Toilet paper holder

1949

brass wire, sheet metal

Calder Foundation, New York

Calder made this delightful and practical item for the house he built for his mother Nanette near his own house in Roxbury, Connecticut. It suggests Calder's often ribald humour and provides a unique aesthetic solution to a functional problem. The hand mirror, shown nearby, was also made for Nanette, who lived near the Calders in Roxbury until her death in 1960.

Scissor guard

c. 1940 brass wire

Calder Foundation, New York Gift of Sandra Calder Davidson, 2010

Hand mirror

1949

brass wire, sheet metal, mirror

Calder Foundation, New York

Fork

c. 1940 silver wire

Calder Foundation, New York

Serving spoon

c. 1945 sheet metal

Calder Foundation, New York

Photographs taken of Alexander and Louisa Calder's home in Roxbury, Connecticut, show many utensils and domestic items hanging from hooks and shelves, which Calder made from sheet metal and spools of wire he kept in his studio. This large serving spoon, along with other 'useful objects' on display nearby, are among the many domestic contrivances handcrafted by Calder to increase comfort and aesthetic pleasure in everyday life.

Toaster

c. 1942 wood, wire, stone, electrical wiring

Calder Foundation, New York

Calder's sense of creative inventiveness and 'can-do' practicality combined to produce an array of curious, beautiful and at times eccentric objects such as this toaster, one of five Calder made in the 1940s. This example sports a generous 'warming plate', which uses heat generated by the electric element to keep toasted bread warm.

For Kids

Calder enjoyed making useful objects for his family. This toaster is made from wood, stone, and wire, metal, plaster, nails and screws. The large, flat stone beneath the electric coils would warm up and help toast the bread. The toast could then be kept warm on the round wire tray on top. It was especially good at melting butter on top of the toast!

Some of Calder's other clever household objects are on display nearby.

Alexander Calder designer

American 1898-1976

Laverne Originals, New York printer

American 1938–64

Calder #1

1949

screen-printed rayon, fibreglass

Montreal Museum of Fine Arts, Montreal Liliane and David M. Stewart Collection

D83.140.1a

This fabric pattern is one of two that Calder designed in 1949 for Laverne Originals, an innovative American interior design company established in 1942. It was the brainchild of two painters, Erwine and Estelle Laverne, who had met at the Art Students League in New York, where Calder had studied less than a decade earlier. They originally intended to specialise in wallpaper, but soon discovered that hand screen-printing was ideally suited for textiles as well. *Calder #1* evokes not only the artist's mobiles, but it also conjures up dynamic structures through its ball-and-stick motifs.

Calder's continuous use of wire and sheet metal to create utensils, jewellery and art objects speaks to his disregard for artistic hierarchies and dislike of pretentiousness. Although Calder's jewellery did earn him some income and was showcased in two exhibitions at the Marian Willard Gallery in New York, among others, he never developed it for commercial purposes. Instead, each piece is unique, at once primitive and refined, and was often presented to family and friends as gifts. As such, his items frequently bear the mark of friendship and his tremendous artistic individuality.

Left to right

Necklace

1930 brass wire, ceramic, cord

Calder Foundation, New York Promised Gift of Holton Rower

This necklace incorporating shards of glazed pottery was made as a gift to Calder's mother Nanette for her sixty-fourth birthday in 1930, when Calder was visiting Calvi in Corsica. He sent it to her with a note that read: 'I meant to write you a birthday letter two days [ago] but I made you a necklace instead – having brought along pliers + wires, and found bits of things along the parapets of the citadel, to put into it ... I have been making a lot more wire jewelry – and think I'll really do something with it, eventually'.

Necklace

1930

nickel silver wire

Calder Foundation, New York Promised Gift of Alexander S. C. Rower

Necklace

c. 1940

brass wire

Smithsonian American Art Museum, Washington, D.C. Gift of Mr. and Mrs. Alexander Calder

1968.7.2

Bracelet

c. 1940

brass wire

Smithsonian American Art Museum, Washington, D.C. Gift of Mr. and Mrs. Alexander Calder

1968.7.3

Bracelet

c. 1940 brass wire

Calder Foundation, New York

Hair comb

c. 1940 gilt-brass wire

Smithsonian American Art Museum, Washington, D.C. Gift of Mr. and Mrs. Alexander Calder

1968.7.4

Left to right

Fish brooch

c. 1940 silver and steel wire

Calder Foundation, New York Gift of Sandra Calder Davidson, 2010

Goat brooch

c. 1943 silver and steel wire

Private collection, Montreal

Brooch

c. 1940 silver wire

Montreal Museum of Fine Arts, Montreal Liliane and David M. Stewart Collection, gift of Paul Leblanc

D94.218.1

Brooch

c. 1940 brass and steel wire

Calder Foundation, New York
Promised Gift of Alexander S. C. Rower

...continued overleaf

Nellie brooch

c. 1936 brass and steel wire

Wadsworth Atheneum Museum of Art, Hartford Bequest of Eleanor H. Bunce

1999.29.14

Brooch

c. 1940 brass wire

Montreal Museum of Fine Arts, Montreal Liliane and David M. Stewart Collection, gift of Paul Leblanc

D94.217.1

Necklace

c. 1938 brass wire

Wadsworth Atheneum Museum of Art, Hartford Gift of Mr. and Mrs. John L. Bunce

1966.65

Belt buckle

c. 1935 brass wire

Whitney Museum of American Art, New York Gift of Mrs. Marcel Duchamp in memory of the artist

77.21a-b

This ingeniously devised belt buckle was created for Teeny Matisse, whom Calder knew as a compatriot artist in Paris, and the wife of his new dealer in New York City, Pierre Matisse. Teeny trained as a sculptor with Constantin Brancusi in 1921 and married Pierre (son of Henri Matisse) in 1929. The gift, bearing the hallmark of Calder's pliers, represents a connection between gift-giving and wire jewellery dating back to his childhood workshop. The wire female figure with coiled breasts, similar to his wire portraits of Josephine Baker, was designed as a belt buckle created in two pieces which connect at the torso.

Fly shirt stud

1929 brass wire

Calder Foundation, New York

Fly choker

c. 1929 brass wire

Jonathan O'Hara Gallery, New York

Hans Cürlis

German 1889-1982

Artists at Work No. 2: Alexander Calder

1929

digital file, transferred from 35mm film, black-and-white, silent, 4 min 2 sec

Digital file courtesy of Filmmuseum München, Munich

The Spider and the Fly

c. 1938 brass wire, thread

Wadsworth Atheneum Museum of Art, Hartford Bequest of Eleanor H. Bunce

1999.29.15

Left to right

Animal Sketching

published by Bridgman Publishers, New York, 1926

Calder Foundation, New York

While working as an illustrator in the 1920s, Calder embraced new tactics to speed up his drawing process. He designed a drawing tray that could be strapped to his body by a cord, providing quick access to paper, India ink and a Japanese brush. In the winter of 1925–26, armed with his drawing tray, Calder spent several weeks at New York's Bronx and Central Park zoos, practising what Robert Henri, an art teacher at the Arts Students League of New York, which Calder also attended, called 'sketch hunting'. The hundreds of drawings of zoo animals Calder produced resulted in the book *Animal Sketching*, published shortly before his departure for Paris in 1926.

Seeing the Circus with 'Sandy' Calder published by National Police Gazette, New York, 1925

Calder Foundation, New York

Calder first attended classes at New York's Art Students League in 1923, four years after graduating as a mechanical engineer. In between, he had a range of short-term jobs including as an automotive engineer, draughtsman and efficiency engineer. At the League he excelled in sketching classes taught by former newspaper cartoonist Boardman Robinson, and soon began working as an illustrator for publications including the *National Police Gazette*. Many of these caricatures informed his early paintings, as well as the bricolage-style figures made of wire and a spectrum of found materials that formed his *Cirque Calder*.

Sir Roger L'Estrange translator English 1616–1704

Alexander Calder illustrator American 1898–1976

Fables of Aesop. According to Sir Roger L'Estrange, With Fifty Drawings by Alexander Calder published by Harrison of Paris, Paris, 1931

Calder Foundation, New York

Sir Roger L'Estrange translator English 1616–1704 Alexander Calder illustrator American 1898–1976

Fables of Aesop. According to Sir Roger L'Estrange, With Fifty Drawings by Alexander Calder published by Harrison of Paris, Paris, 1931

National Gallery of Australia Research Library, Canberra

Left to right

James Johnson Sweeney editor

American 1900-86

Alexander Calder illustrator

American 1898-1976

Three Young Rats and Other Rhymes

published by Curt Valentin, New York, 1944

Calder Foundation, New York

Samuel Taylor Coleridge author

English 1772–1834

Alexander Calder illustrator

American 1898-1976

The Rime of the Ancient Mariner

published by Reynal & Hitchcock, New York, 1946

Calder Foundation, New York

Samuel Taylor Coleridge author

English 1772-1834

Alexander Calder illustrator

American 1898-1976

The Rime of the Ancient Mariner

published by Reynal & Hitchcock, New York, 1946

Richard Wilbur editor

American 1921-2017

Alexander Calder illustrator

American 1898–1976

A Bestiary

published by Pantheon Books, New York, 1955

Calder Foundation, New York

The Flying Trapeze

1925 oil on canvas

Calder Foundation, New York

Calder's fascination with the circus began in 1925. While on assignment for the *National Police Gazette* he spent time observing the hugely popular Ringling Brothers and Barnum & Bailey Circus, recording his impressions in pencil and ink drawings. He intently studied tent structure and rigging, learning about the incredible spatial complexity of a circus show. His immersion in the world of the circus was enriched by the European circus tradition he encountered in Paris, a city teeming with venerable circus troupes and street performers, and where he settled in July 1926.

Totem Pole

1929 wood

Calder Foundation, New York

Deux acrobates (Two acrobats)

1930 bronze, wood, paint

Calder Foundation, New York

In May 1930, Calder wrote a letter to his parents from Paris, and noted that he wanted to take a break from performing his circus, 'as it hinders my work'. He added, 'There is a very fine bronze foundry at the end of Villa Brune – so I am going to delve into *cire perdu* [lost wax]. I have been carving, and painting a bit, and am really getting underway'. This sculpture is an example of the early bronzes he made in Paris, and demonstrates how he regularly included circus subjects and referenced the theme of action in his work across various media.

Two Acrobats

1932 pen and ink on paper

Whitney Museum of American Art, New York Gift of Howard and Jean Lipman

80.50.1a-b

Jean Painlevé

French 1902-89

Le Grand Cirque Calder 1927

1955

digital file, transferred from 16mm film, 43 min 8 sec

Digital file courtesy of Les Documents cinématographiques, Paris

Cirque Calder was performed by Calder for friends and family primarily between 1926 and 1931, and then sporadically until 1962. Fortunately it was captured for posterity by various filmmakers like Jean Painlevé. Calder's circus pioneered performance art, presenting audiences with an unprecedented art form in a symbiotic relationship with the real circus arts. The Cirque Calder began with a centre ring for riders and acrobats, and rigging for aerialists, and over time grew to over 300 items, including sixty-nine figures and animals ingeniously handcrafted from wire, wood, stuffed fabric and bits of rubber, plastic or paper.

Drawing in space

Calder's inventiveness partly sprang from the alternative vantage point he developed growing up within a family of artists: his mother, Nanette Lederer, was a painter; his father, A. Stirling Calder, and grandfather, Alexander Milne Calder, were well-established sculptors. In 1915, Calder chose science, not art, for his education. He graduated in mechanical engineering in 1919 and held various jobs before deciding to become an artist in 1923 and enrolling in the Art Students League in New York. He initially distinguished himself by way of single-line drawing and rendering speed – techniques that captured the movement of animals, the spectacle of the circus and the pace of modern life.

In 1926, Calder sailed for Paris and embarked on what would become a major enterprise – his miniature circus, the *Cirque Calder*. His circus set the stage for his first radical invention, wire sculpture. Pliers in hand, he took the single-line drawing off the page and gave it three dimensional form, thus challenging traditional notions of sculptural weight, solidity and surface.

Tightrope

1936

wire, wood, rod, lead, paint

Calder Foundation, New York Promised Gift of Holton Rower

The tightrope in this work is stretched between two irregular wooden forms set on metal tripod bases and provides the crossing for a procession of four objects made of thin, white-painted wire: a spiral (or helix); a sphere consisting of two intersecting circles; three circles stacked on top of each other; and a U-shape (or parabola). Each element balances and pivots by virtue of tiny lead weights. The biomorphic and geometric shapes evoke a circus act, walking a tightrope between reality and abstraction, as well as stillness and movement – all of which were integral to Calder's inventive process.

For kids

Look at the four shapes balanced on the wire of this work. There are tiny lead weights beneath each one, helping to keep them balanced. When Calder made this work, called *Tightrope*, he was interested in a new type of art called abstraction. Abstract artists often use basic elements in artworks, such as shape, form, colour and line, to express ideas but not show people or places as they really appear. Calder was also interested in invisible things, like gravity, balance and magnetic force.

Do the wire shapes in this sculpture remind you of anything?

Tumbler on Swing

1931 pen and ink on paper

Whitney Museum of American Art, New York Gift of Howard and Jean Lipman

81.23.4

Wire Sculpture by Calder

1928 wire

Whitney Museum of American Art, New York Purchased, with funds from Howard and Jean Lipman

72.168

Calder created this suspended sculpture for his first one-man show of wire objects in New York City. Hung outside the Weyhe Gallery on Manhattan's Lexington Avenue, this strategically balanced aerialist beckoned pedestrians to climb the stairs to the exhibition on the upper floor. Serving as both advertisement and art, this is an early example of the wire sculptures that brought Calder notoriety in both Europe and the US.

The Brass Family

1929

brass wire, wood, paint

Whitney Museum of American Art, New York Gift of the artist

69.255

The Brass Family is one of Calder's most important and ambitious wire sculptures. Using different gauges of wire, the artist renders the silhouettes of seven acrobats performing a balancing act. Not only does Calder borrow imagery from the circus, but the sculpture articulates the same excitement, ingenuity and balance that makes the actual circus so compelling. The abbreviated visual language of wire demanded new audiences capable of seeing and deciphering new figure-ground relationships. To see these figures is to actively distinguish between the space behind the work, and the space delimited by wire to signify form.

For kids

While living in Paris in the 1920s, Calder made a miniature circus with nearly 100 articulated figures. It had sword swallowers, lion tamers, elephants, strong men and high-flying trapeze artists, all made from wire and bits of leather, cloth and other found materials. Calder made the figures move, performing his circus in front of small groups. He also made lots of other works depicting circus acts and performers, such as this group of acrobats made from sculpted pieces of wire.

If you were a performer in the circus, what would your act be?

Acrobats

c. 1927 wire, wood

Calder Foundation, New York Gift of Katherine Merle-Smith Thomas in memory of Van Santvoord Merle Smith, Jr., 2010

Jimmy Durante

c. 1928 wire

Calder Foundation, New York Gift of The Lipman Family Foundation, in memory of Jean & Howard Lipman, 2016

Jimmy Durante was a popular singer and vaudeville comedian, self-dubbed 'the great schnozzola' due to his large nose. He was a local celebrity when Calder made this wire portrait and became a household name in America by the 1950s. In the late 1920s he owned a nightclub in midtown Manhattan that was briefly a popular speakeasy during the Prohibition years. Calder lived in New York for much of 1928, and early that year held his first exhibition of 'wire animals and people' at Weyhe Gallery, located on the Upper East Side.

John Graham

c. 1931 wire

Private Collection, New York

Calder met John Graham when they were students in John Sloan's drawing class at the Art Students League in New York in 1923. Along with other classmates, they were known to challenge each other to complete quick line drawings of passengers in the subway. This portrait of Graham demonstrates the importance of line drawing in Calder's conception of sculpture: manipulating wire with pliers, the artist draws in three dimensions. The linear shadow produced by the suspended portrait further emphasises the hollowing out of sculptural form. Calder gave this sculpture to Graham as a token of their friendship.

Pathé News producer

American 1921–47

Montparnasse. Where the Muses Hold Sway

1929

digital file, transferred from 35mm film, black-and-white, silent, 34 sec (excerpt)

Digital file courtesy of British Pathé, London

Left to right

Untitled

1930 oil on canvas

Calder Foundation, New York Mary Calder Rower Bequest, 2011

Untitled

1930 oil on canvas

Calder Foundation, New York

These two paintings are among a group of nineteen that Calder made over two weeks following his visit to Piet Mondrian's studio. The studio's spatial organisation impressed Calder greatly, particularly the way planes of colour interacted with the architecture. Calder recalled this momentous occasion some years later: 'It was a very exciting room. Light came in from the left and from the right, and on the solid wall between the windows there were experimental stunts with colored rectangles of cardboard tacked on ... I suggested to Mondrian that perhaps it would be fun to make these rectangles oscillate'.

Shaping space

By his own account, Calder 'had heard the word "modern" ... [but] did not consciously know or feel the term "abstract" until late 1930, when he visited the Paris studio of the Dutch painter Piet Mondrian. Calder later recalled the 'shock' of seeing different coloured cardboard rectangles arranged on white walls for compositional experimentation. He suggested to Mondrian that they could be 'made to oscillate in different directions and at different amplitudes', but Mondrian rejected the idea of enhancing movement in his paintings. Calder instead adopted abstraction himself, experimenting with figure-ground relationships to push beyond the limits of the two-dimensional.

Calder soon found himself exploring ways to create objects that would convey his perception of motion, inventing a series of abstract objects out of wire, sheet metal and wood, sometimes incorporating small weights for balance. Some of his earliest mobiles employed motors, and later relied on air currents to propel them out of stillness. Whether perched atop a base or suspended from the ceiling, his linked and balanced wire armatures allowed for movement and coalesced into the 'mobile', so named in 1931 by Marcel Duchamp. In French, it means both moving object and motive.

Half-circle, Quarter-circle and Sphere

1932

metal, wood, motor, paint

Whitney Museum of American Art, New York Purchased with funds from the Howard and Jean Lipman Foundation, Inc.

69.258

In 1931, Calder began to add motors to his wire and metal sculptures as a means of putting them in motion. This early motorised mobile is composed of purely geometric forms and the artist's signature colours: black, red and white. Calder used this reduced palette believing that colours were secondary to his works and merely served to differentiate forms. His main interest lay in movement; as he explained in 1933, 'Just as one can compose colours, or forms, so one can compose motions'.

Object with Red Ball

1931

wood, sheet metal, rod, wire, paint

Calder Foundation, New York
Promised Gift of Alexander S. C. Rower

Calder's drive to liberate art from stillness and infuse sculpture with energy was the principal motive behind his earliest mobiles, which moved in a variety of ways. While some were motorised, others involved human intervention. In *Object with Red Ball*, the red and black spheres that hang from the horizontal rod are unfixed and repositionable, and the vertical white post, which is held upright by a thick internal pin, can be rotated in full circle. Calder intentionally left the final composition up to the viewer, without prescribing a definitive form.

Big Black Disc c. 1931

c. 1931 ink on paper

Hirshhorn Museum and Sculpture Garden, Washington, D. C. The Joseph H. Hirshhorn Bequest, 1981

86.727

Black Frame

1934

wood, sheet metal, tubing, rod, wire, paint, motor

Calder Foundation, New York

Black Frame contains a motor which, when operational, causes the white-painted wire helix to spin, the red pendulum to rotate and the circular metal disc to flip back and forth, alternating between yellow and white. The background field of curved grey metal segments undulates to accommodate the movement of other elements. Conservation considerations mean that many of Calder's objects cannot be viewed today as he originally intended.

Left to right

White Panel

1936

plywood, sheet metal, tubing, wood, rod, wire, string, paint

Calder Foundation, New York Mary Calder Rower Bequest, 2011

Blue Panel

1936

plywood, sheet metal, rod, wire, string, paint

Calder Foundation, New York
Promised Gift of Alexander S. C. Rower

In the mid 1930s, Calder worked prolifically on 'panels' and 'frames' that occupy an equivocal space between painting and sculpture. White Panel and Blue Panel are paintings that literally come out of the frame, their planar forms engaging time and space, creating living pictures that move. The American curator James Johnson Sweeney observed in 1934 that Calder was pursuing and achieving a new fusion of 'texture contrasts, primary colours, simple rhythms' into forms 'interesting not so much for their representational character as for themselves'.

For kids

This is no ordinary painting – it is a living picture that moves! Instead of painting shapes with a brush, Calder has used metal, wire and string to make shapes in space. Two metal shapes hang in front of a piece of plywood painted bright blue. They constantly move as they spin around with the wind in the gallery, showing differently coloured sides as they go. By creating artworks like this, Calder brought painting to life.

Look at the other artworks along this wall. Can you spot any other living pictures?

Starfish

1934 wood, rod, string, wire

Calder Foundation, New York

Calder, along with avant-garde artists Marcel Duchamp, Naum Gabo and László Moholy-Nagy, was one of the inventors of kinetic art, which sought to free painting and sculpture from their traditional physical and static constraints. He spent a good part of 1934 exploring different models of objects that incorporated movement, creating a variety of structural types, either motorised or suspended. Among these is *Starfish*, comprising a large horizontal armature from which two smaller ones hang, each with suspended carved wooden elements, one perched high up near the support, as if dangling from a trapeze.

Untitled

1932 ink on paper

Calder Foundation, New York

Space Tunnel

1932 watercolour and ink on paper

The Planet

1933 ink on paper

Calder Foundation, New York

Calder had many odd jobs before he decided to become an artist, including as a fireman in a ship's boiler room. Sleeping on deck one night, he awoke to see both a brilliant sunrise and a scintillating full moon on opposite horizons off the Guatemalan coast. Calder referred to this experience throughout his life, describing it as leaving him with 'a lasting sensation of the solar system'. However, Calder's use of discs, spheres, and orbs in his artwork were not representations of the sun, moon, or earth. Instead, he was drawn to their 'universal feeling', in the artist's words, as indications of unifying forces postulated by physicists today as string theory.

Constellation with Red Knife

1943 wood, wire, paint

Collection of Jon Shirley

In his autobiography, written in 1966, Calder recalled: 'in 1943, aluminum was being all used up in airplanes and becoming scarce. I cut up my aluminum boat, which I had made for the Roxbury pond, and I used it for several objects. I also 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. After some consultation with [James Johnson] Sweeney and [Marcel] Duchamp, who were living in New York, I decided these objects were to be called "constellations".

Devil Fish

1937 sheet metal, bolts, paint

Calder Foundation, New York

Although *Devil Fish* does not actually move – is not 'mobile' – its contours and cast shadows suggest great gestural movement. Calder's refusal to establish a firm divide between the natural world and industrial materials led to a new kind of animistic metal sculpture. This type of standing configuration, consisting of sheets of torqued metal, became the defining format for what is known as the 'stabile' (grounded sculpture). *Devil Fish* is Calder's first bolted work and the first to be scaled up from a small maquette. It was originally exhibited in 1937 at the Pierre Matisse Gallery, New York.

For kids

Calder invented many different art forms throughout his life. *Devil Fish* is a kind of sculpture called a 'stabile'. One of Calder's good friends, the artist Jean Arp, made this word up to describe Calder's sculptures that were stationary. Unlike his moving 'mobiles', stabiles were 'stable' and didn't move.

Even though *Devil Fish* is stationary, it looks like it is moving, like the propeller of an aeroplane spinning, or even a person dancing.

Herbert Matter

American, born Switzerland 1907-84

Works of Calder

1950

digital file, transferred from 16mm film, 20 min

Digital file courtesy of the Calder Foundation, New York

Jean-Paul Sartre

1947 ink on paper

Calder Foundation, New York

In 1946, French philosopher Jean-Paul Sartre wrote an essay for his friend Calder's seminal exhibition at Galerie Louis Carré in Paris, in which he reflected on the revolutionary nature of the mobile. Sartre observed, 'A Mobile: a little local *fiesta*; an object defined by its movement and non-existent without it; a flower that withers as soon as it comes to a standstill; a pure stream of movement in the same way as there are pure streams of light'. In this portrait of 1947, Calder makes use of the same spiral forms prominent in his jewellery and early wire portraits of Josephine Baker.

Snow Flurry III

1948 sheet metal, wire, paint

Portland Museum of Art, Maine Gift of an anonymous donor, 1990

1990.31

The mobile

After nearly a year in Europe, Calder returned to the United States in 1938 and built a studio on his property in Roxbury, Connecticut. The studio was constructed on the foundations of an old dairy barn and featured four metrehigh windows facing onto green fields, and in a broader sense, nature and the elements. In this customised workspace, with 150 screw eyes in the rafters used for suspending mobiles from pulleys, Calder immersed himself in his practice of conveying external sources of movement.

This gallery presents some of the new formats Calder experimented with at Roxbury, where his problem-solving spirit could delve into new tools, new media and new attitudes. For example, his 'gongs' are made in the form of the mobile, but with an additional element of chance, with sound produced when their suspended metallic hammers randomly strike the metal plates. Art for Calder was not limited to studio-crafted volume and movement, but was also meant to resonate with creation itself and, as he said, with 'the spaces bounded by the great space, the universe'.

Parasite

1947 sheet metal, wire, paint

Calder Foundation, New York Promised Gift of Holton Rower

Little Spider

c. 1940 sheet metal, wire, paint

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

1996.120.18

Little Spider is the culmination of a series of linked solutions for standing mobiles (mobiles suspended from static bases) dating back to Calder's very first construction of this kind in 1931. A delicate cascade of curved wires with painted metal elements are hooked and suspended to form an S-shaped assembly that fans out and around in an almost circular configuration. The entire array is suspended from a larger C-shaped wire support that touches down as part of a tripod wire base. This web of balance and counterbalance is designed to maximise the displacement of space while heightening the mobile's susceptibility to random movement.

For kids

Balance is an important part of many of Calder's artworks. By twisting and connecting very delicate pieces of metal and wire, he created mind-boggling artworks like this one, which seem to float through the air. *Little Spider* is balanced by its base, which supports the web of wires that move freely through the air.

Can you spot small holes in some of the coloured metal shapes? Calder punched these holes to make the shape lighter, which helped balance the work. They look good, too!

Triple Gong

1951

steel, wire, brass, paint

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

1996.120.27

In the late 1940s and early 1950s, Calder constructed a series of mobiles known as 'gongs', which combined visual and aural elements. Sound is produced when one of the suspended rods strikes a flat, circular 'gong', integrated into the structure of the mobile itself, like a mallet. Although Calder once explained that the inclusion of percussion in his abstract work was initially accidental, he quickly adopted it as an added dimension, echoing the bells and whistles of his circus performances of the 1920s. As the artist later explained, 'You have weight, form, size, colour, motion and then you have noise'.

Molluscs 1955 oil on canvas

Constellation with Two Pins

1943 wood, wire, paint

The Helices

1944 bronze

Snake on Arch

1944 bronze

Sheldon Museum of Art, University of Nebraska-Lincoln, Lincoln Anna R. and Frank M. Hall Charitable Trust

H-285.1945

Calder's 1944 series of cast bronze sculptures were working concepts for giant concrete monuments conceived to stand alongside an International Style architectural project. *Snake on Arch* is composed of two interlocking components: a tripod base with arched legs that swell out and touch down on tapered feet, and a single cord balanced pendulously at the centre of the arched base. In his continued pursuit of motion, Calder here finds both gravity and grace by utilising bronze not for its mass but for its tensile strength. In a statement dated 1943, Calder wrote: 'Bronze, cast, serves well for slender, attenuated shapes. It is strong even when very slender'.

Santos

1956 oil on plywood

Calder Foundation, New York

Calder's work was acclaimed for its ingenious union of abstraction, construction and expression, capable of imbuing space with a sense of freedom and transcendence. Exhibiting in Brazil from the late 1940s through to the 1960s, his work aligned with a wider cultural movement that was invigorating Brazil's artistic and architectural scenes in the wake of World War II, the fall of a dictatorship and political unrest. Calder's exhibitions were held at sites symbolic of Brazil's new architecture 'of the sun and of open spaces', including at the Ministério da Educação e Saúde in Rio de Janeiro in 1948, and the Museu de Arte Moderna in São Paulo in 1959.

Twenty-nine Discs

1958 sheet metal, wire, paint

Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington, D. C. Gift of Joseph H. Hirshhorn, 1972

72.52

Black: 17 Dots

1959

sheet metal, steel wire, paint

Museum of Contemporary Art, Chicago Leonard and Ruth Horwich Family Loan

EL1995.9

Performing Seal

1950

sheet metal, steel wire, paint

Museum of Contemporary Art, Chicago Leonard and Ruth Horwich Family Loan

EL1995.7

Calder's fascination with the movement of seals dates back to his 1925 circus and zoo drawings. In his 1926 book, *Animal Sketching*, Calder wrote that the ability 'to transmit even something of the extravagant rhythmic movement of this graceful animal' was the measure for 'the perfect coordination of mental and physical processes' for example, the fluency necessary for a successful drawing. This abstract standing mobile demonstrates a similar animating fluency with its purely geometric metal shapes and contours. Its descriptive title was likely chosen by Calder's dealer because the upward curve of the base and balancing array of discs resembles a performing seal.

For kids

Believe it or not, Calder was not thinking about a performing seal when he made this sculpture. The title came later. Although *Performing Seal* does look a lot like a seal juggling balls with its nose, the work's title plays a different role. Calder made over 22,000 artworks, and many of them were given memorable titles by Calder or his art dealer just to keep track. He explained that his titles are 'just like the license plate[s] on the back of a car'— a way of identifying his works.

Think about the different shapes Calder uses in his sculptures. What do you notice about this and the two nearby? Look around!

Hollow Egg

1939 wire, rod, paint

The Phillips Collection, Washington, D. C. Partial and promised gift in memory of Betty Milton a close friend of Louisa Calder, 2001

Sumac II

1952 sheet metal, wire, paint

Sheldon Museum of Art, University of Nebraska-Lincoln, Lincoln Anna R. and Frank M. Hall Charitable Trust

H-285.1945

Scaling up

Calder's unique approach to creating art – namely finding ways of putting things in motion and making social and spatial interaction integral to the production and reception of his art – naturally extended to ever-changing forms.

This gallery introduces some larger-scale works that Calder made in the 1940s and 1950s. The room is dominated at eye level by *Jacaranda*, created in 1949 following an influential visit (the first of several) to Brazil, and *Black Beast* from 1940, one of Calder's first large-scale stabiles (a stationary sculpture). If you look up, you will find yourself walking beneath some of Calder's quintessential mobile forms.

By extending sculpture into its environment and in return making the environment part of a sculpture's experience, Calder pre-empted by nearly two decades the Minimalist sculptors, celebrated for their emphasis on the phenomenological encounter with the art object. Furthermore, Calder's industrial aesthetic and his collaboration with foundries, fabricators and structural engineers aligns him with a contemporary generation of artists who believe their creative contribution is not necessarily or solely in the making of an object, but in the invention of a communal and social experience.

Jacaranda

1949 wire, sheet metal, paint

National Gallery of Canada, Ottawa Purchased, 1977

18812

This heavy-gauge mobile is named after the jacaranda tree, native to Brazil. Calder was known to title works after something they vaguely resembled. *Jacaranda* is one of three unprecedentedly large-scale sculptures created following the artist's return from Brazil in 1948, where he had a solo show in São Paulo. Brazilian critic António Bento said of this exhibition: '[Calder's] largest mobiles glide or spread out majestically in space; one can hardly imagine the effect they might make in great offices – gigantic mobiles a hundred meters in diameter, turning in the air at great height to constitute one of the absolutely fantastic decorations of art of tomorrow'.

For kids

Look up!

'Mobile' is the name we use for these hanging wire sculptures. The mobile was a new kind of sculpture invented by Calder. For hundreds of years, sculptures were made from heavy material like marble or bronze. Calder was one of the first artists to add moving parts to his works of art in the 1930s, and soon he was making wire sculptures suspended from the ceiling, like these.

Mobiles move when the air around them moves, but when Calder was alive, he would often touch one to make it go. We can't do this today because the paint on them can be fragile, and they mark easily.

Mobile rouge

1956

sheet metal, metal rods, paint

Montreal Museum of Fine Arts, Montreal Purchased, Horsley and Annie Townsend Bequest

1960.1235

Black Beast

1940 sheet metal, bolts, paint

Calder Foundation, New York

The term 'stabile' was coined by the artist Jean Arp in 1932 to describe Calder's static sculptures and is a play on Marcel Duchamp's choice of the word 'mobile' for his kinetic sculptures. Calder developed his stabiles to consist of sheets of shaped metal, held together with large steel bolts. *Black Beast* was enlarged from a smaller model or maquette (on display in the final room of the exhibition). In his autobiography, Calder recalled the significance of this work and other large outdoor stabiles, which he described as 'the forerunners of the big stabiles to come'. By the 1960s, they had become monumental in scale and were installed in public spaces across the world.

São Paulo 1955 oil on plywood

Calder Foundation, New York

From the 1940s to the 1950s, Calder made a large number of robust oil paintings with biomorphic shapes, spirals and floating discs, which delve into two-dimensional notions of perception, motion and space. São Paulo was painted on plywood recycled from shipping crates that transported Calder's sculptures for his solo show at the 1953 Bienal de São Paulo, reviving his inventive use of discarded material. Empty nail holes and other conditions inherent to the crate can be seen upon close inspection.

Four Black Bottoms and Six Reds

1957

sheet metal, wire, paint

Montreal Museum of Fine Arts, Montreal Purchased, Horsley and Annie Townsend Bequest

1960.1234

Red Disc and Gong

1940

wood, canvas, sheet metal, rod, cloth, string, paint

Calder Foundation, New York Promised Gift of Holton Rower

Chock

1972

metal coffee containers, brass wire, steel wire, paint

Whitney Museum of American Art, New York Gift of the artist

72.55a-b

Trois disques (maquette)

1966 sheet metal, wire

Calder Foundation, New York Mary Calder Rower Bequest, 2011

Calder created *Trois disques* for Expo 67, held in Montreal, Canada. The declared intention of the international exposition was to examine 'man's aspirations and man's common goals' and to 'contribute greatly to understanding between peoples'. Following Expo 67, the stabile was donated to the City of Montreal, where it is known by locals simply as 'Man' or '*Homme'*. Measuring 75.6 centimetres in height, this is Calder's first maquette for the sculpture. It was then scaled up as an intermediate maquette (385 centimetres high), and subjected to various technical tests including wind tunnel testing. Finally, it was scaled up to the sculpture's ultimate height of 20 metres.

For kids

Calder made this maquette in 1966 before building the stabile *Trois disques* in Montreal, Canada in for a special exhibition called Expo 67. *Trois disques* is one of Calder's largest sculptures. The sculpture is 22 metres tall (the same height as about four giraffes stacked high!) and is made entirely from nickel. Look how the arches, points and discs overlap and reach out in multiple directions. *Trois disques* still stands today, and is one of Montreal's most important landmarks.

Create your own virtual sculpture for Melbourne in *Alexander Calder: Workshop for Kids* next door!

Flamingo (maquette)

1972 aluminium, rivets, paint

Smithsonian American Art Museum, Washington, D. C. Transfer from the General Services Administration

1980.49.3

Flamingo is one of Calder's most iconic public sculptures. This is the small-scale maquette (model) for the sculpture at the Chicago Federal Center, a complex of three buildings and a public plaza in downtown Chicago designed by the modernist architect Ludwig Mies van der Rohe in the mid 1960s and completed in 1974. The full-scale Flamingo features a sixteen metre—high archway, and its bright red paint contrasts dramatically with the glass walls of the adjacent skyscrapers. Monumental public sculptures such as Flamingo transformed the cityscape and were among the first public works funded by the National Endowment for the Arts, the United States' federal arts funding organisation.

For kids

This object is a small-scale model for a much larger stabile (standing sculpture) in Chicago. When something is made 'to scale' it means that every part of it has been made smaller or bigger, by exactly the same amount, so it all remains in proportion. It's a very handy way of making sure something looks good, and works well, before spending lots of time and using loads of materials to make it really big.

Calder's monumental sculptures can be seen in cities all around the world, including in Italy, Mexico, Israel and even Australia. See if you can find a maquette (a small model) for the Australian sculpture in the next room.

Southern Cross (maquette)

1960 sheet metal, wire, paint

Calder Foundation, New York Mary Calder Rower Bequest, 2011

Not all of Calder's monumental sculptures were destined for urban settings: he kept the six metre—tall version of *Southern Cross* in the grounds of his home and studio in Roxbury, Connecticut, where it still stands today. Essentially a 'standing mobile', its four legs support a rotating arm that itself supports two suspended mobiles. It is rare among his monumental works in that it was not made as the result of a commission.

Funghi Neri

1957 sheet metal, bolts, paint

Calder Foundation, New York

Calder was invited to create this stabile for the XI Triennale di Milano in 1957, where it was displayed outdoors. For the commission, Calder decided to enlarge an existing small sculpture he had made in 1942. Funghi Neri was part of the Triennale's survey of sculpture spanning the late nineteenth century through to the mid twentieth century, and included works by Calder's predecessors and peers, including Auguste Rodin, Constantin Brancusi, Pablo Picasso and Henry Moore. Also in 1957, Calder was commissioned to create a monumental mobile for Idlewild Airport (John F. Kennedy International Airport) by the Port Authority of New York.

Untitled1946 gouache and ink on paper

Calder Foundation, New York

Untitled1946 gouache and ink on paper

Calder Foundation, New York

Object in Five Planes (maquette)

1964 sheet metal, paint

Calder Foundation, New York Mary Calder Rower Bequest, 2011

This is the orginal maquette for a monumental stabile donated by Calder to the United States Mission to the United Nations in 1966. It now stands in the foyer of the Mission's redeveloped building located opposite the UN's General Assembly Building in midtown Manhattan. Calder renamed the stabile *Peace* – an optimistic gesture given the US was actively engaged in the Vietnam War at that time. Calder and his wife Louisa participated in anti–Vietnam War marches and Calder designed protest posters for organisations such as SANE and Amnesty International.

Deux discs II (maquette)

c. 1965 sheet metal, paint

Calder Foundation, New York

Black Beast (maquette)

1939 sheet metal, paint

Calder Foundation, New York Promised Gift of Alexander S. C. Rower

Crossed Blades (maquette)

c. 1966 sheet metal, paint

Calder Foundation, New York

Crossed Blades is the only monumental stabile Calder created for Australia. It was a site-specific work commissioned by the modernist architect Harry Seidler for the plaza in front of his Australia Square tower in Sydney's George Street. Calder never visited Australia, but Harry and Penelope Seidler visited the artist in both Saché, France, and Connecticut to discuss the commission in 1965–66. (The Seidlers chose Calder from shortlisted sculptors including Henry Moore and Isamu Noguchi). This is the artist's original maquette, which remained in his Roxbury studio after his death.

Black Mobile with Hole

1954 sheet metal, wire, paint

Calder Foundation, New York