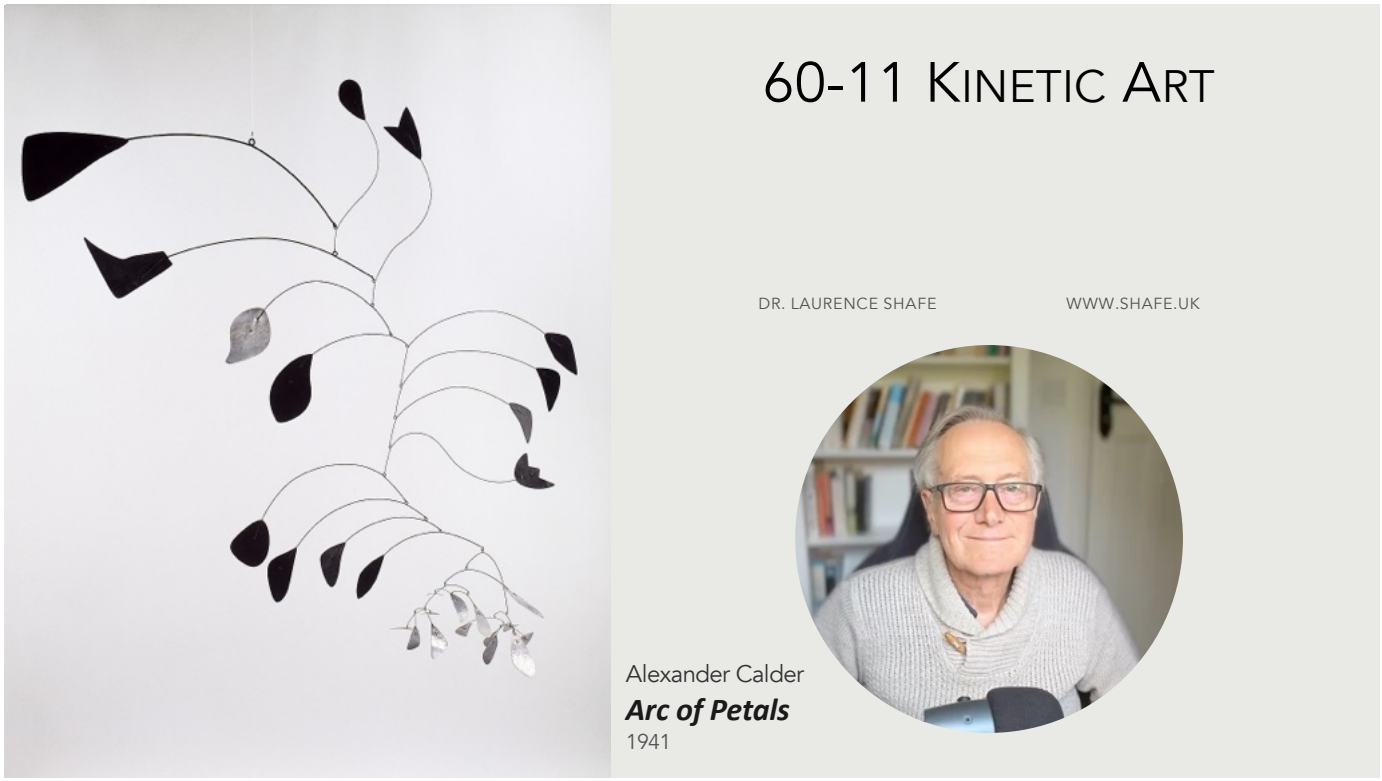
- Welcome. This talk continues my quest to research, generate and give a talk using AI. The first talks I recorded five years ago were researched, written and recorded by me and over the years I have tried to find ways to automate the process. I have tried all the leading large language models, image generators and audio cloning systems. The only task I cannot automate is finding and positioning the images. So, this talk, 14th from the final talk on Christmas Day 2026 is researched and written by Claude within PowerPoint and apart from two slides at the start and one at the end is spoken using a clone of my voice produced by ElevenLabs.

GENERAL REFERENCES AND COPYRIGHT

- My talks and notes are produced with the assistance of AI systems such as Claude, Perplexity, ChatGPT, Google Gemini and Microsoft CoPilot.
- They are also based on information found on public websites such as Wikipedia, Tate, National Gallery, Louvre, The Met, Oxford Dictionary of National Biography, Khan Academy and the Art Story.
- If they use information from specific books, websites or articles these are referenced at the beginning of each talk and in the 'References' section of the relevant page. The talks that are inspired by an exhibition may use the booklets

and books associated with the exhibition as a source of information.

- Where possible images and information are taken from Wikipedia under an Attribution-Share Alike Creative Commons License.
- If I have forgotten to reference your work then please let me know and I will add a reference or delete the information.



- This is Section 60 on recent art movements. and this talk is about Kinetic Art. Kinetic art is an artistic movement that incorporates real or perceived motion. Works may move physically through motors, wind, or viewer interaction, or create optical illusions of movement. Artists such as Alexander Calder pioneered mobiles, while others explore light and vibration, engaging perception and time as active elements in art.

REFERENCES

https://en.wikipedia.org/wiki/Young_British_Artists
https://www.tate.org.uk/art/art-terms/y/young-british-artists-ybas

Marcel Duchamp (1887–1968)
Bicycle Wheel
1913 (third version 1951)
Metal wheel mounted on painted wood stool
129.5 × 63.5 × 41.9 cm
Museum of Modern Art, New York

Marcel Duchamp (1887–1968), Bicycle Wheel, 1913 (third version 1951), Metal wheel mounted on painted wood stool, 129.5 × 63.5 × 41.9 cm, Museum of Modern Art, New York

This is where kinetic art begins. In 1913, in his Paris studio, **Marcel Duchamp** mounted a bicycle fork and wheel upside down on a white-painted kitchen stool. He could spin the wheel freely, and he did, often. He later said he enjoyed watching it **"just as I enjoy looking at the flames dancing in a fireplace."** It was not conceived as art at first. It was a distraction, a private pleasure. He did not even call it a readymade until years later, when the category existed. The original was thrown out by his sister **Suzanne** when she cleaned his studio after he left for New York in 1915. This version, the third, dates from 1951.

The work embodies two simultaneous rotations: the wheel on its axis and the fork spinning in the stool. Critics have read sexual metaphor into this pointless rotary motion. **Arturo Schwarz** connected it to masturbation. Duchamp himself kept the reading open and playful. He once said that the wheel **"must have had a great influence on my mind, because I used it almost all the time from then on."** The piece is now considered the first kinetic sculpture, though Duchamp would have found the label absurd.

In 1913, Duchamp was riding a wave of scandal after his **Nude Descending a Staircase, No. 2** caused outrage at the Armory Show in New York. He was 25 and already bored with painting. The **Bicycle Wheel** pointed him toward a lifetime of conceptual mischief.

The work stripped art down to its essence: an idea, a gesture, a spin. Every kinetic artist who came after owes something to this moment of idle curiosity in a Parisian studio.

Pronunciation Guide

Marcel Duchamp — mar-SEL doo-SHOM

Readymade — RED-ee-mayd

References

https://www.moma.org/collection/works/81631

https://en.wikipedia.org/wiki/Bicycle_Wheel

https://www.toutfait.com/unmaking_the_museum/Bicycle%20Wheel.html

https://theconversation.com/heres-looking-at-marcel-duchamps-bicycle-wheel-1913-98846

https://www.theartstory.org/movement/kinetic-art/

Naum Gabo (1890–1977)
Kinetic Construction (Standing Wave)
1919–1920 (replica 1985)
Metal rod, painted wood and electric motor
61.6 × 24.1 × 19.0 cm
Tate, London

Naum Gabo (1890–1977), Kinetic Construction (Standing Wave), 1919–1920 (replica 1985), Metal rod, painted wood and electric motor, 61.6 × 24.1 × 19.0 cm, Tate, London

This is the work that gave kinetic art its name. **Naum Gabo** built it in Moscow during the winter of 1919–20, in the middle of civil war, hunger and chaos. Materials were almost impossible to find. The sculpture is deceptively simple: a single steel rod fixed to a wooden base. Press a button and an electric motor makes the rod oscillate rapidly, creating the illusion of a standing wave — a shimmering, three-dimensional form made of nothing but vibration. Solid matter dissolves into pure movement.

Gabo made it to demonstrate the principles outlined in his **Realistic Manifesto** of 1920, co-authored with his brother **Antoine Pevsner**. The manifesto proclaimed that **"kinetic rhythms"** should replace static forms as the **"basic forms of our perception of real time."** The work was first shown at an open-air exhibition on Moscow's Tverskoi Boulevard in August 1920. Gabo himself later downplayed it, calling it **"more of an explanation of the idea than a kinetic sculpture itself."** But art history disagreed. It became the founding work of the entire movement.

Gabo had studied engineering in Munich before the war, and his technical knowledge was essential. He had to calculate the length, strength and elasticity of the rod, add balancing gadgets at the top and bottom, and calibrate the motor speed to prevent the wave from splitting into two. The fact that he achieved this in revolutionary Russia, scrounging parts, makes the work all the more remarkable. Born **Naum Neemia Pevsner** in Bryansk, Gabo adopted his pseudonym to distinguish himself from his

brother. He left Russia in 1922 and never returned.

Pronunciation Guide

Naum Gabo — NOWM GAH-boh

Antoine Pevsner — on-TWAHN PEV-sner

Tverskoi — tver-SKOY

References

https://www.tate.org.uk/art/artworks/gabo-kinetic-construction-standing-wave-t00827

https://en.wikipedia.org/wiki/Kinetic_art

https://www.theartstory.org/artist/gabo-naum/

https://wikieducator.org/Kinetic_Construction_(Standing_Wave)

https://harvardartmuseums.org/art/299819

László Moholy-Nagy
(1895–1946)
Light Prop for an Electric Stage (Light-Space Modulator)
1930
Steel, aluminium, glass, Plexiglas, wood and electric motor
151.1 × 69.9 × 69.9 cm
Harvard Art Museums, Cambridge, Massachusetts

László Moholy-Nagy (1895–1946), Light Prop for an Electric Stage (Light-Space Modulator), 1930, Steel, aluminium, glass, Plexiglas, wood and electric motor, 151.1 × 69.9 × 69.9 cm, Harvard Art Museums, Cambridge, Massachusetts

One of the earliest electrically powered kinetic sculptures, and still one of the most visually stunning. **Moholy-Nagy** worked on it for nearly a decade, from 1922 to 1930, collaborating with an engineer and a technician. It consists of a metal box with a circular opening at the front — the stage — and inside, three movable constructions of perforated metal discs, glass rods and reflective surfaces mounted on a rotating platform. When switched on, coloured bulbs flicker in sequence while the internal mechanism turns, casting an astonishing array of shadows and reflections.

Moholy-Nagy presented it at a 1930 exhibition of German design in Paris, describing it as an **"apparatus for the demonstration of the effects of light and movement."** He immediately used the sculpture as the star of his experimental film **Lightplay: Black, White, Gray** (1930), a six-minute abstract masterpiece. The critic **Sigfried Giedion** praised it as proof that **"art and technology are not enemies but partners."**

Born in Hungary, Moholy-Nagy was a key figure at the **Bauhaus** in Weimar and Dessau, where he ran the metal workshop and the preliminary course. He believed passionately that light was the medium of the future and that artists must embrace industrial materials. He wrote: **"Space, time, material — are they one with light?"** He fled Nazi Germany in 1934, spent time in Amsterdam and London, then moved to Chicago where he founded the New Bauhaus. He died of leukaemia aged just 51. This sculpture

remains a landmark in the fusion of art, technology and performance.

Pronunciation Guide

László Moholy-Nagy — LAHS-loh MOH-hoy-NAHJ

Bauhaus — BOW-house

Sigfried Giedion — ZIG-freed GEE-dee-on

References

https://harvardartmuseums.org/art/299819

https://en.wikipedia.org/wiki/Light-Space_Modulator

https://socks-studio.com/2014/01/18/light-prop-for-an-electric-stage-by-laszlo-moholy-nagy-1929-1930/

http://www.medienkunstnetz.de/works/licht-raum-modulator/

https://artelectronicmedia.com/en/artwork/light-space-modulator/

Alexander Calder (1898–1976)
Lobster Trap and Fish Tail
1939
Painted steel wire and sheet aluminium
260 × 290 cm diameter
Museum of Modern Art, New York

Alexander Calder (1898–1976), Lobster Trap and Fish Tail, 1939, Painted steel wire and sheet aluminium, 260 × 290 cm diameter, Museum of Modern Art, New York

This is the mobile that defined the genre. Commissioned by MoMA for the stairwell of its new building on West 53rd Street, it was Calder's first large-scale hanging mobile and, as the museum notes, **"the first to reveal the basic characteristics that launched his enormous international reputation."** Suspended from the ceiling, flat aluminium shapes in organic forms — suggesting fins, tails and crustacean parts — drift and rotate on wire arms in response to the slightest air current. No motors. No electricity. Just physics and poetry.

Calder came from an artistic dynasty. His grandfather sculpted the massive **William Penn** statue atop Philadelphia City Hall; his father was also a prominent sculptor; his mother was a portrait painter. But Calder trained as a mechanical engineer before turning to art. That training proved decisive. He used mathematical calculations to balance each element precisely, ensuring that every mobile was unique and could never be exactly replicated. **Marcel Duchamp** coined the term **"mobile"** for these works after visiting Calder's studio in 1931. **Jean Arp** then suggested **"stabile"** for his static sculptures.

By 1939, Calder was the most celebrated kinetic artist alive. A visit to **Piet Mondrian's** studio in 1930 had been transformative — he set out to put Mondrian's coloured rectangles into actual motion. The biomorphic shapes in his mobiles owe more to **Joan Miró** than to Mondrian, though. Viewers can read the forms as geometric circuitry or as organic cells, leaves and fins. If you had a mobile over your cot as a baby, you have

Alexander Calder to thank for the idea.

Pronunciation Guide

Alexander Calder — KAL-der

Piet Mondrian — peet MON-dree-ahn

Joan Miró — zhoo-AHN mee-ROH

Jean Arp — zhon ARP

References

https://www.moma.org/collection/works/81621

https://en.wikipedia.org/wiki/Lobster_Trap_and_Fish_Tail

https://calder.org/works/hanging-mobile/lobster-trap-and-fish-tail-1939/

https://uen.pressbooks.pub/arth2720/chapter/alexander-calder/

https://www.theartstory.org/movement/kinetic-art/

Alexander Calder (1898–1976)
Arc of Petals
1941
Painted sheet metal, wire and rod
213.4 cm tall
Solomon R. Guggenheim Museum, New York

Alexander Calder (1898–1976), Arc of Petals, 1941, Painted sheet metal, wire and rod, 213.4 cm tall, Solomon R. Guggenheim Museum, New York

If **Lobster Trap and Fish Tail** proved the mobile could work on a monumental scale, **Arc of Petals** showed it could achieve genuine grace. This standing mobile — part stabile at the base, part mobile above — features a wire frame with flat, petal-like metal shapes painted in Calder's signature primary colours. They sway and rotate in the breeze, never repeating the same configuration twice. Calder carefully engineered the weight distribution so that even the faintest draught would set the petals dancing.

The work was made at Calder's farm in Roxbury, Connecticut, where he had set up a studio in a converted icehouse. By 1941, America was on the verge of entering the Second World War. Calder, who had lived and worked in Paris through much of the 1930s, now channelled his energy into increasingly ambitious sculptures. The critic **James Johnson Sweeney** wrote that Calder's mobiles were **"a new kind of sculpture — four-dimensional, incorporating time itself as a material."**

Calder had an extraordinary work ethic and a playful, gregarious personality. He hosted legendary parties at Roxbury, made jewellery for friends including **Peggy Guggenheim**, and continued to produce his miniature **Cirque Calder** — a performative toy circus made of wire, cork and cloth that he had been staging since 1926. Arc of Petals represents the summit of his pre-war mobile practice: elegant, mathematically precise, and endlessly surprising. He became the leading exponent of kinetic art for more than 20 years, making work that ranged from tabletop pieces to vast public commissions.

Pronunciation Guide

Roxbury — ROKS-bree

Peggy Guggenheim — GUG-en-hime

References

https://www.guggenheim.org/artwork/740

https://en.wikipedia.org/wiki/Alexander_Calder

https://calder.org/

https://www.masterclass.com/articles/kinetic-art-guide

https://themadmuseum.co.uk/history-of-kinetic-art/

Jean Tinguely (1925–1991)
Homage to New York (Fragment)
1960
Painted metal, fabric, tape, wood and rubber tyres
203.7 × 75.1 × 223.2 cm (surviving fragment)
Museum of Modern Art, New York

Jean Tinguely (1925–1991), Homage to New York (Fragment), 1960, Painted metal, fabric, tape, wood and rubber tyres, 203.7 × 75.1 × 223.2 cm (surviving fragment), Museum of Modern Art, New York

On the evening of 17 March 1960, 250 invited guests gathered in MoMA's sculpture garden to watch a machine destroy itself. **Jean Tinguely** had spent three weeks assembling a monstrous contraption seven metres long and over eight metres high, built from 80 bicycle wheels, old motors, a piano, metal drums, an addressograph, a child's go-cart, glass bottles, a bathtub and assorted junk scavenged from New Jersey dumps — all painted white. Over 27 chaotic minutes, it shook, smoked, made paintings, destroyed them, inflated and burst a weather balloon, and finally caught fire. A fireman had to douse it with water.

Tinguely called it **"a self-constructing and self-destroying work of art." Marcel Duchamp** endorsed it with a typically sly pun: **"Il y a un swissscide métallique"** — a metallic Swiss suicide. **Richard Huelsenbeck**, the veteran Dadaist, wrote a statement for MoMA's press release. A man in uniform presented Tinguely with what he assumed was congratulations but turned out to be a citation for disturbing the peace and violating the fire code. Only fragments survived, including this one, which MoMA keeps in its permanent collection.

Tinguely was 30 and already famous in Europe for his **Méta-Matic** drawing machines, which satirised the art world by producing abstract expressionist drawings at the press of a button. Born in Fribourg, Switzerland, he grew up in Basel and trained at the School

of Arts and Crafts, where he discovered Duchamp, Dada and Constructivism. He moved to Paris in 1952 and married the sculptor **Niki de Saint Phalle** in 1971. His vision of machines was anarchic and darkly comic, the opposite of Calder's serene mobiles. Where Calder celebrated harmony, Tinguely celebrated catastrophe.

Pronunciation Guide

Jean Tinguely — zhon TANG-guh-lee

Méta-Matic — may-tah-mah-TEEK

Niki de Saint Phalle — nee-KEE duh san FAL

Fribourg — free-BOOR

References

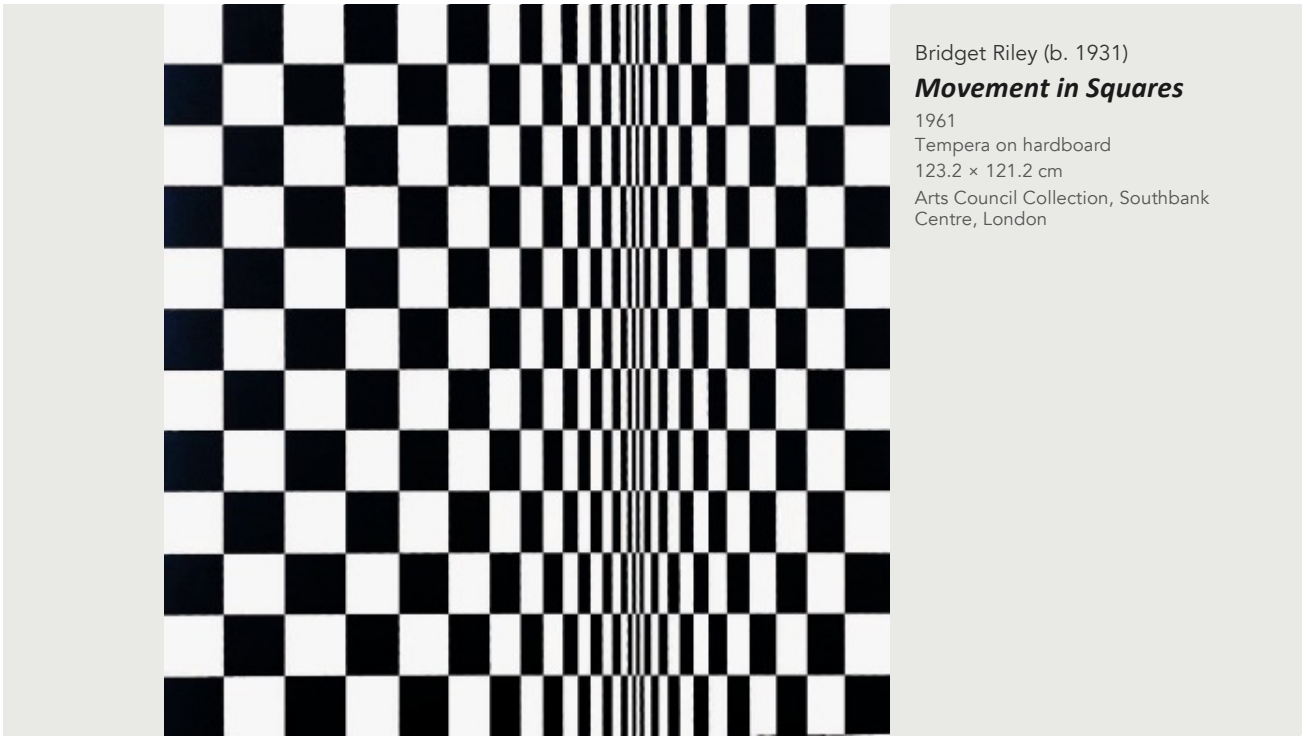
https://www.moma.org/collection/works/81174

https://smarthistory.org/tinguely-homage-new-york/

https://www.icon-icon.com/en/tinguelys-homage-to-new-york/

https://archiveofdestruction.com/artwork/homage-to-new-york/

https://en.wikipedia.org/wiki/Jean_Tinguely



Bridget Riley (b. 1931), Movement in Squares, 1961, Tempera on hardboard, 123.2 × 121.2 cm, Arts Council Collection, Southbank Centre, London

Twelve rows of alternating black and white squares stretch across the board. Their height stays constant, but their width gradually narrows towards the centre, creating an irresistible illusion of the surface buckling and folding inward. Nothing moves. Everything moves. This is the painting that launched **Bridget Riley** and, with it, the British branch of Op Art. She made it in one sitting, without stopping. When she stepped back to look, she was, by her own account, **"surprised and elated."**

Riley had been struggling. She later said she felt **"a great sense of frustration over what it meant to be a modern painter."** She started drawing squares as a way back to basics. **"Everyone knows what a square looks like,"** she said. **"But as I drew, things began to change. Quite suddenly something was happening down there on the paper that I had not anticipated."** The painting was shown in her first solo exhibition at **Gallery One** in London in 1962, and the critical response was electric.

Riley was born in London in 1931, studied at Goldsmiths and the Royal College of Art, and was profoundly influenced by **Georges Seurat's** pointillism and by the Italian Futurists. Her painting **Current** (1964) was used as the cover image for the catalogue of the landmark MoMA exhibition **The Responsive Eye** in 1965, making her an international star almost overnight. She was furious, however, when American fashion designers copied her black-and-white patterns for dresses and fabrics without permission or payment. Riley has always insisted her work is about perception, not decoration. She

remains one of Britain's most celebrated living artists.

Pronunciation Guide

Bridget Riley — BRIJ-it RY-lee

Georges Seurat — zhorzh suh-RAH

References

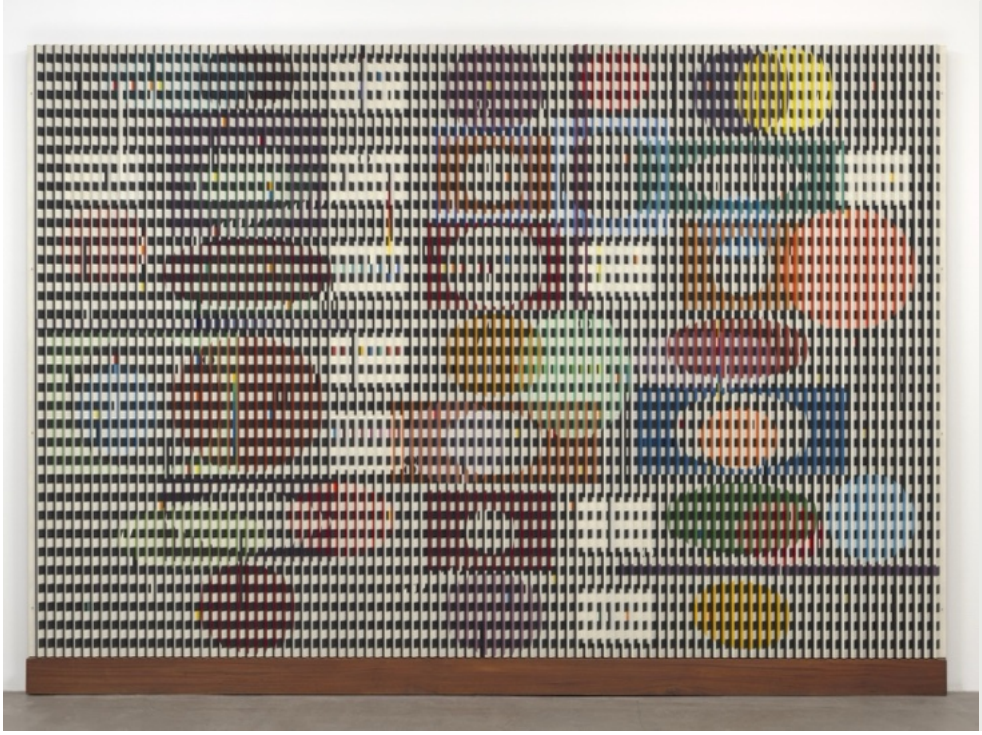
https://artscouncilcollection.org.uk/artwork/movement-squares

https://en.wikipedia.org/wiki/Bridget_Riley

https://www.theartstory.org/artist/riley-bridget/

https://bridget-riley.publications.britishart.yale.edu/catalogue/1/

https://artsandculture.google.com/asset/movement-in-squares-bridget-riley/dwGpQ5o3Dc4FrQ



Yaacov Agam (b. 1928)
Double Metamorphosis II
1964
Oil on corrugated aluminium
269.2 × 401.8 cm
Museum of Modern Art, New York

Yaacov Agam (b. 1928), Double Metamorphosis II, 1964, Oil on corrugated aluminium, 269.2 × 401.8 cm, Museum of Modern Art, New York

Walk past this painting and it transforms before your eyes. Painted on corrugated aluminium panels, the work presents entirely different images depending on the angle from which it is viewed. From one side, bold geometric patterns in primary colours; from the other, a completely different composition. From straight on, the two merge and shimmer. **Yaacov Agam** called these works **"polymorphic paintings"** — art that exists in time as well as space, changing with every step the viewer takes.

Agam was born in Rishon LeZion in what was then Mandate Palestine. His father was a rabbi and **Kabbalist**, and the mystical, symbolic teachings of Jewish tradition left a deep impression on his visual language. He trained at the **Bezalel Academy** in Jerusalem, then studied in Zurich under **Johannes Itten**, who had been a master at the Bauhaus. He moved to Paris in 1951 and held his first solo show in 1953. In 1955, he participated in **Le Mouvement**, the exhibition that launched kinetic art as an international movement.

Agam once declared: **"I am not an abstract artist. Abstract art shows a situation on a canvas. I show a state of being which does not exist, the imperceptible absence of an image."** He invented the **agamograph** — a print using lenticular technology that displays different images at different angles. His public commissions include the fountain at **La Défense** in Paris (1975) and the Fire and Water Fountain in Tel Aviv's Dizengoff Square (1986). Now in his nineties, Agam continues to work. His art

commands the highest prices of any Israeli artist at auction.

Pronunciation Guide

Yaacov Agam — yah-ah-KOV ah-GAHM

Kabbalist — KAB-ah-list

Bezalel — beh-tsah-LEL

Johannes Itten — yo-HAH-nes IT-en

La Défense — lah day-FONS

Dizengoff — dee-ZEN-gof

References

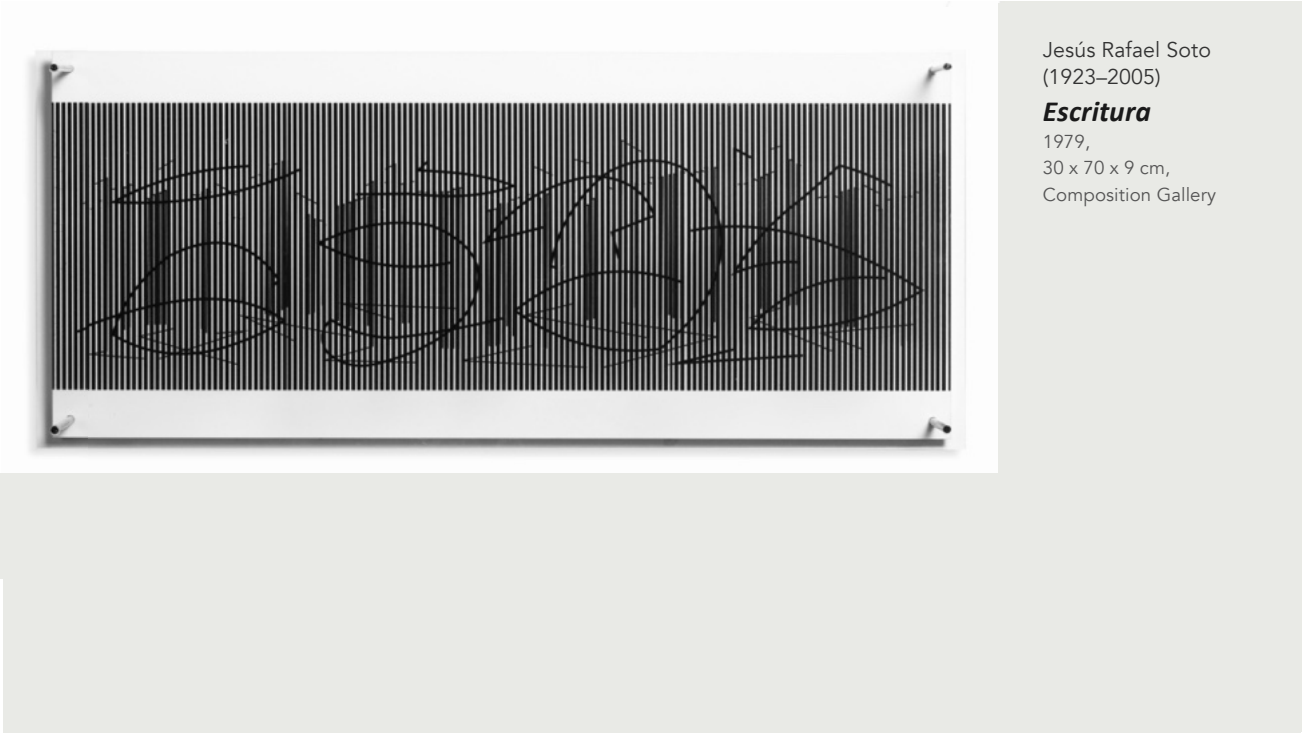
https://www.moma.org/collection/works/78793

https://en.wikipedia.org/wiki/Yaacov_Agam

https://artmiamimagazine.com/yaacov-agam-the-pioneer-of-kinetic-and-op-art/

https://www.singulart.com/blog/en/2024/04/13/double-metamorphosis-by-yaacov-agam/

https://human.libretexts.org/Bookshelves/Art/A_World_Perspective_of_Art_History:_1400CE_to_the_21st_Century_(Gustlin_and_Gustlin)/06:_The_Art_of_Engagement_(1940-1970)/6.05:_Kinetic_Art_(1950s__1960s)



Jesús Rafael Soto
(1923–2005)
Escritura
1979,
30 x 70 x 9 cm,
Composition Gallery

Jesús Rafael Soto (1923–2005), *Escritura*, 1979, 30 x 70 x 9 cm, Composition Gallery

Metal rods hang from the ceiling in thin parallel lines. As the viewer moves, the rods seem to vibrate, blur and dissolve. The effect is mesmerising — solid matter appears to dematerialise before your eyes. **Soto** called these works **Escrituras** (Writings), and they represent the heart of his exploration into vibration, perception and what he called **"the density of space, its fullness."**

Soto was born in Ciudad Bolívar, Venezuela, and studied at the Escuela de Artes Plásticas in Caracas before receiving a scholarship to Paris in 1950. There he associated with **Agam**, **Tinguely** and **Vasarely**, and participated in the pivotal 1955 **Le Mouvement** exhibition. His career was marked by several distinct series: paintings on Plexiglas in the 1950s, the **Escrituras** from the 1960s onwards, and the famous **Pénétrables** — room-sized installations of hanging tubes — from 1967 until the end of his life.

In 1973, Soto built a museum in his hometown to house his collection of geometric and kinetic works. He was commissioned for monumental public works around the world, including pieces at UNESCO headquarters in Paris, the Centre Pompidou, and the Royal Bank of Toronto. The art historian **Guy Brett** wrote that Soto's work **"dissolves the boundary between the artwork and its surroundings — the viewer ceases to observe and begins to inhabit."** Soto spent his final decades between Paris and Caracas. He died in Paris in 2005, aged 81.

Pronunciation Guide

Jesús Rafael Soto — heh-SOOS rah-fah-EL SOH-toh

Escritura — es-kree-TOO-rah

Ciudad Bolívar — syoo-DAHD boh-LEE-var

Pénétrables — pay-NAY-trah-bluh

References

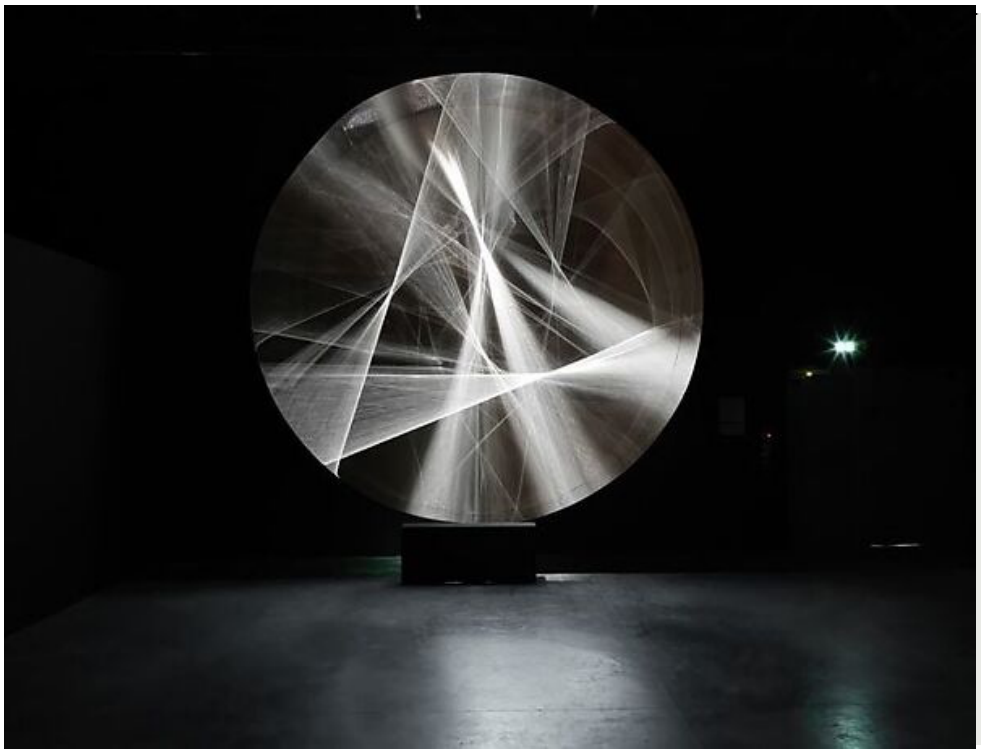
https://jesus-soto.com/

https://en.wikipedia.org/wiki/Jes%C3%BAs_Rafael_Soto

https://www.fondationlouisvuitton.fr/en/collection/artworks/penetrable-bbl-bleu

https://www.theartstory.org/movement/kinetic-art/

https://www.invaluable.com/blog/kinetic-art/



Julio Le Parc (b. 1928)
Continuel-lumière cylindre
1962
Metal, nylon, wood, electric motor and light
Variable dimensions
Palais de Tokyo, Paris
(various versions in collections worldwide)

Julio Le Parc (b. 1928), Continuel-lumière cylindre, 1962, Metal, nylon, wood, electric motor and light, Variable dimensions, Palais de Tokyo, Paris

A small motor slowly rotates a cylinder covered in polished metal squares. A single spotlight hits the surface and the room erupts into a constellation of reflected light, flickering and dancing across walls and ceiling like sunlight on water. **Julio Le Parc** has been creating these light environments since the early 1960s, and they remain among the most purely beautiful experiences in all of kinetic art. The work strips art down to its most elemental: light, movement, space and the viewer's own delight.

Le Parc was born in Mendoza, Argentina, and studied at the Escuela de Bellas Artes in Buenos Aires before moving to Paris in 1958 on a scholarship. In 1960, he co-founded **GRAV** (Groupe de Recherche d'Art Visuel) with five other artists, including **François Morellet** and **Horacio Garcia Rossi**. GRAV sought to demystify art, eliminate the cult of the individual artist, and create participatory experiences. They staged happenings in the streets of Paris and encouraged audiences to touch and interact with their work.

In 1966, Le Parc won the Grand Prize for Painting at the Venice Biennale — a sensational result for a kinetic artist. The award outraged conservative critics but confirmed that kinetic art had entered the mainstream. The **Argentine military junta** expelled him from France briefly in 1968 for supporting student protesters. Now in his nineties, Le Parc continues to exhibit worldwide. A major retrospective at the **Palais de Tokyo** in 2013 reintroduced his work to a new generation and confirmed his status as one of the great innovators of post-war art.

Pronunciation Guide

Julio Le Parc — HOO-lee-oh luh PARK

Continuel-lumière cylindre — kon-tee-noo-EL loo-mee-AIR see-LAN-druh

GRAV — GRAHV

François Morellet — fron-SWAH mor-eh-LAY

References

https://en.wikipedia.org/wiki/Julio_Le_Parc

https://www.theartstory.org/movement/kinetic-art/

https://www.palaisdetokyo.com/

https://www.invaluable.com/blog/kinetic-art/

https://www.guggenheim.org/artwork/artist/julio-le-parc

George Rickey (1907–2002)
Two Open Rectangles Excentric, Variation VI
1976
Stainless steel
366 × 91 × 91 cm
Middlebury College, Vermont

George Rickey (1907–2002), Two Open Rectangles Excentric, Variation VI, 1976, Stainless steel, 366 × 91 × 91 cm, Middlebury College, Vermont

Two open steel rectangles sit atop a slender arm, mounted on bearings that allow them to rotate freely in the wind. They appear to interpenetrate, though they never touch. They seem about to collide, though they cannot. The viewer watches in constant suspense, held by an elegant tension between geometry and chance. **George Rickey** called his kinetic sculptures **"useless machines,"** and he spent five decades perfecting them.

Rickey was born in South Bend, Indiana, but grew up in Glasgow, where his father worked for the Singer Sewing Machine Company. He studied history at Balliol College, Oxford, then trained as a painter in Paris under **Fernand Léger** and **Amédée Ozenfant**. It was his experience as a mechanic in the Army Air Corps during the Second World War that changed everything. Working with gunnery and aircraft machinery revived a childhood fascination with moving parts. After the war, inspired by Calder's mobiles, he began making his own kinetic works.

By the 1950s, Rickey had eliminated colour and organic shapes entirely, focusing on sleek, geometric stainless steel forms whose sole purpose was to move. He wrote: **"The artist finds waiting for him, as subject, not the trees, not the flowers, but the waving of branches and the trembling of stems."** His sculptures are in over 150 museum collections worldwide. An earlier version of this work — Variation III — was stolen from its pedestal at Middlebury College in 1976. This larger replacement was installed the

following year. Rickey died in 2002 at the age of 95, still working.

Pronunciation Guide

George Rickey — RIK-ee

Fernand Léger — fair-NON lay-ZHAY

Amédée Ozenfant — ah-may-DAY oh-zon-FON

Balliol — BAY-lee-ul

References

https://www.georgerickey.org/

https://en.wikipedia.org/wiki/George_Rickey

https://en.wikipedia.org/wiki/Two_Open_Rectangles,_Excentric,_Variation_VI

https://www.middlebury.edu/museum/collections/public-art/artists-and-exhibits/george-rickey

https://www.invaluable.com/blog/kinetic-art/

Takis (1925–2019)
Signal
1965,
steel, paint and vehicle indicator light,
215 x 20 x 20.5 cm,
Tate, London

Takis (1925–2019), Signal, 1965, steel, paint and vehicle indicator light, 215 x 20 x 20.5 cm, Tate

A tall, slender steel rod rises from the floor, topped by a small light or electromagnetic element that trembles, sways and flickers. **Takis** called these works **Signals** and made hundreds of them from the late 1950s onwards. They were inspired by the radar antennae and signal lights he saw at railway stations and airports — the poetic beauty of functional technology. Takis was obsessed with invisible forces: magnetism, electricity, light and radar waves. He wanted to make art from energy itself.

Born **Panayiotis Vassilakis** in Athens, Takis was largely self-taught. He moved to Paris in 1954 and quickly became part of the avant-garde scene. In 1960, he held a famous performance at the **Galerie Iris Clert** in which a man floated in mid-air, held aloft by powerful magnets — a piece he called **Magnetic Ballet**. The American beat poet **William Burroughs**, a close friend, wrote that Takis **"was the sculptor of the magnetic field — the first artist to use magnetism as a medium."**

Takis was a fierce character. In 1969, he stormed into MoMA and physically removed one of his own sculptures from the exhibition **The Machine as Seen at the End of the Mechanical Age**, protesting that artists had no control over how museums displayed their work. The incident helped spark the Art Workers' Coalition, a group that lobbied for artists' rights. In 2019, Tate Modern gave Takis a major retrospective shortly before his death at the age of 93. His **Signals** were installed throughout the Turbine Hall, swaying and trembling like antennae receiving transmissions from another world.

Pronunciation Guide

Takis — TAH-kiss

Panayiotis Vassilakis — pah-nah-YOH-tees vah-see-LAH-kiss

Galerie Iris Clert — gal-REE ee-REES KLAIR

References

https://www.tate.org.uk/whats-on/tate-modern/takis

https://en.wikipedia.org/wiki/Takis

https://www.theartstory.org/movement/kinetic-art/

https://www.guggenheim.org/artwork/artist/takis

https://www.invaluable.com/blog/kinetic-art/

Jesús Rafael Soto (1923–2005)
Pénétrable BBL Bleu
1999
Painted steel and suspended PVC tubes
365 × 450 × 1400 cm
Los Angeles County Museum of Art / Fondation Louis Vuitton, Paris

Jesús Rafael Soto (1923–2005), Pénétrable BBL Bleu, 1999, Painted steel and suspended PVC tubes, 365 × 450 × 1400 cm, Los Angeles County Museum of Art / Fondation Louis Vuitton, Paris

Hundreds of thin blue PVC tubes hang from a steel frame, creating a shimmering curtain of colour that visitors walk through. The tubes brush against your body, parting and swaying, creating sounds and sensations that are at once physical and ethereal. You are no longer looking at the artwork. You are inside it. **Soto** began his **Pénétrable** series in 1967 and continued making them until the end of his life. This blue version, conceived in 1999, is one of the most celebrated.

In a filmed interview, Soto explained: **"My concept of space is very different from that of the Renaissance, where man was in front of space, he was the viewer, the judge of that space. With the Pénétrables, I reveal that man is part of space."** He compared the experience to entering water — a sensation of liberation from gravity. When LACMA displayed a yellow Pénétrable from 2011 to 2017, it became one of the most popular works on the campus. The museum subsequently acquired this blue version.

For Soto, matter, time and movement constituted a **"trinity"** defining all aesthetic relationships. The visual experience had to be accompanied by touch and hearing. The **Pénétrables** embody this philosophy completely — they are sculptures you see, hear and feel. They also represent the culmination of kinetic art's central ambition: to involve the viewer's body, not just the eye. Few works in art history have achieved this as simply and effectively. Soto's legacy endures in contemporary immersive

installations, from **Olafur Eliasson** to **teamLab**.

Pronunciation Guide

Pénétrable BBL Bleu — pay-NAY-trah-bluh bay-bay-EL BLUR

Olafur Eliasson — OH-lah-fur EL-ee-ah-son

References

https://collections.lacma.org/node/2292604

https://unframed.lacma.org/2020/05/26/lacma-acquires-blue-penetrable-kinetic-artist-jes%C3%BAs-rafael-soto

https://www.fondationlouisvuitton.fr/en/collection/artworks/penetrable-bbl-bleu

https://www.sicardi.com/projects/jesus-rafael-soto2

https://jesus-soto.com/penetrables/

Anthony Howe (b. 1954)
Lucea
2016
Stainless steel
Approximately 500 cm tall
Private collection (originally commissioned for 2016 Rio Olympics Closing Ceremony)

Anthony Howe (b. 1954), Lucea, 2016, Stainless steel, Approximately 500 cm tall, Private collection (originally commissioned for 2016 Rio Olympics Closing Ceremony)

Kinetic art's most spectacular 21st-century moment came during the closing ceremony of the 2016 Rio Olympics, when a massive, wind-driven stainless steel sculpture by **Anthony Howe** was revealed to a global television audience of billions. **Lucea** — named after the Latin word for light — consists of interlocking curved metal arms that rotate in the breeze, creating hypnotic, organic patterns that seem almost alive. The sculpture became the Olympic cauldron holder during the ceremony, framing the flame in a constantly shifting steel embrace.

Howe works from a remote studio on **Orcas Island** in Washington State, where the persistent Pacific winds provide a natural testing ground for his sculptures. Each piece is designed using computer modelling but hand-fabricated from stainless steel. He has said: **"I want people to be hypnotised by the movement, to stand there and lose track of time."** His sculptures typically feature dual or multiple axes of rotation, producing complex, organic-looking motion from purely mechanical elements. They owe a clear debt to Calder and Rickey but push kinetic sculpture into a new realm of visual complexity.

Howe represents the latest generation of kinetic artists, working at a time when the movement has come full circle — from Duchamp's idle wheel-spinning to global spectacle. His work has been exhibited at Burning Man, in private gardens and public plazas worldwide, and commands six-figure prices from collectors.

Pronunciation Guide

Anthony Howe — HOW

Lucea — LOO-chee-ah

Orcas Island — OR-kuss

References

https://www.howeart.net/

https://en.wikipedia.org/wiki/Anthony_Howe_(sculptor)

https://blog.artsper.com/en/a-closer-look/kinetic-art-movement/

https://dionartstudio.com/the-dynamic-world-of-kinetic-art/

https://jerwoodvisualarts.org/art-theory-glossary/kinetic-art/

60-11 KINETIC ART

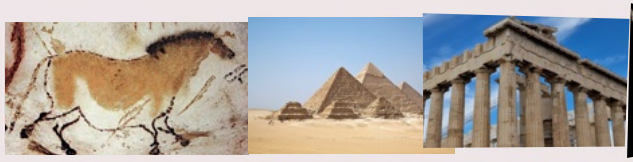
DR. LAURENCE SHAFE WWW.SHAFE.UK

Anthony Howe

Lucea

2016

- Kinetic art, once dismissed by some critics as mere spectacle, has proved remarkably durable. From Gabo's vibrating rod in revolutionary Moscow to Howe's shimmering steel in the Olympic stadium, the impulse to put art in motion continues to captivate.
- Thank you for your time and attention.



A Free Course on the History of Western Art

Dr Laurence Shafe www.shafe.uk