

# Kinetic art

**Kinetic art** is art that contains moving parts or depends on motion for its effect.<sup>[1]</sup> The moving parts are generally powered by wind, a motor or the observer. Kinetic art encompasses a wide variety of overlapping techniques and styles.



A whirligig by Lyman Whitaker

## Kinetic sculpture

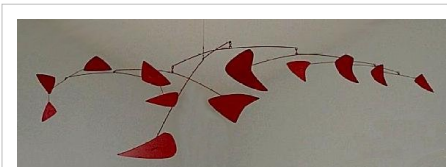
Kinetic sculptures are examples of kinetic art in the form of sculpture or three dimensions. In common with other types of kinetic art, kinetic sculptures have parts that move or that are in motion. Sound sculpture can also, in some cases, be considered kinetic sculpture. The motion of the work can be provided in many ways: mechanically through electricity, steam or clockwork; by utilizing natural phenomena such as wind or wave power; or by relying on the spectator to provide the motion, by doing something such as cranking a handle.

*Bicycle Wheel* (1913) by Marcel Duchamp, is said to be the first kinetic sculpture.<sup>[2]</sup> Besides being an example of kinetic art it is also an example of a readymade, a type of art of which Marcel Duchamp made a number of varieties throughout his life. In Moscow in 1920, kinetic art was recorded by the sculptors Naum Gabo and Antoine Pevsner in their Realist Manifesto, issued as part of a manifesto of constructivism.

László Moholy-Nagy (1895-1946), a member of the Bauhaus, and influenced by constructivism can be regarded as one of the fathers of Lumino kinetic art. Light sculpture and moving sculpture are the components of his *Light-Space Modulator* (1922–30), One of the first Light art pieces which also combines kinetic art.<sup>[3] [4]</sup>



*La Esfera* de Jesús Soto, Caracas.



Alexander Calder, "Red Mobile", 1956. Painted sheet metal and metal rods, Montreal Museum of Fine Arts.

The 1950s and 1960s are seen as a golden age of kinetic sculpture, during which time Alexander Calder and George Rickey pioneered kinetic sculpture. Other leading exponents include Yaacov Agam, Fletcher Benton, Eduard Bersudsky, Marcel Duchamp, Arthur Ganson, Starr Kempf, Jerome Kirk, Len Lye, Ronald Mallory, Jean Tinguely, and the Zero group (initiated by Otto Piene and Heinz Mack).

Jean Tinguely's kinetic junk sculpture *Homage to New York* in 1960 destroyed itself in the Museum of Modern Art's outdoor sculpture garden. Metamechanics has a specific meaning in relation to art history, as a description of the kinetic sculpture machines of Jean Tinguely. It is also applied to, and may have its origins in, earlier work of the Dada art movement.

Some kinetic sculptures are wind-powered as are those of Theo Jansen (including beach 'animals')<sup>[5]</sup>, and others are motor driven as are those of Sal Maccarone. The kinetic aspect of the Maccarone sculptures are contained within a fine wood cabinet which itself is stationary. These sculptures turn themselves on and off at pre-determined intervals sometimes catching viewers by surprise. Video.<sup>[6]</sup>

A mobile is a type of kinetic sculpture constructed to take advantage of the principle of equilibrium. It consists of a number of rods, from which weighted objects or further rods hang. The objects hanging from the rods balance each other, so that the rods remain more or less horizontal. Each rod hangs from only one string, which gives it freedom to rotate about the string. A popular creator of mobile sculptures was Alexander Calder.

### Kinetic drawing

Kinetic drawing makes use of the critical balance and creates 3D drawings from various materials. Kinetic means that the object holds energy, kinetic drawings usually are critical in their stability and are eager to find a more stable position, through gravity. From there they are built up again, better and stronger and with a repetition of this process a beauty of its own starts to grow by natural forces.

A variation of kinetic art in the realm of painting is ModulArt, where smaller modular elements allow a larger painting to be in flux, though not continuously but at the will of its creator, owner, or user. However, the painting stays in motion, offering alternative views and alternative interpretations.

### Vehicles: art cars and kinetic sculpture races

An art car can be considered a kinetic sculpture by definition, in that it is a piece of art that moves by a petroleum-powered engine.

A kinetic sculpture race is an organized contest of human-powered amphibious all-terrain works of art. The original and longest race is held annually since 1969 in Humboldt County in far northern California. Participants compete for three days over 42 miles of land, water, sand, and mud. Other races are held annually in locations throughout the United States, and in Australia.



David Ascalon, "Wings to the Heavens", 2008.  
Fabricated and brazed aluminum and stainless steel cable, Temple Israel (Memphis, Tennessee)



"A Sequence of Sensations", 2001 Sal Maccarone, Wood, glass, ceramics, metal, and paint. Los Angeles, California

**Selected kinetic sculptors**

- Yaacov Agam
  - David Ascalon
  - Fletcher Benton
  - Daniel Buren
  - Alexander Calder
  - Carlos Cruz-Diez
  - Marcel Duchamp
  - Roland Emert
  - Arthur Ganson
  - Nemo Gould
  - Bruce Gray
  - Ralfonso Gschwend
  - Chuck Hoberman
  - Tim Hunkin
  - Theo Jansen
  - Ned Kahn
  - Starr Kempf
  - Frederick Kiesler
  - Gyula Kosice
  - Gilles Larrain
  - Julio Le Parc
  - Len Lye
  - Sal Maccarone
  - Heinz Mack
  - László Moholy-Nagy
  - Otto Piene
  - George Rickey
  - Barton Rubenstein
  - Nicolas Schöffer
  - Jesús Rafael Soto
  - Mark di Suvero
  - Takis
  - Jean Tinguely
  - Panayiotis Vassilakis
  - Lyman Whitaker
  - Ludwig Wilding
-

## Selected kinetic op artists

- Nadir Afonso
- Getulio Alviani
- Carlos Cruz-Díez
- Ronald Mallory
- Youri Messen-Jaschin
- Abraham Palatnik
- Bridget Riley
- Victor Vasarely
- Jean-Pierre Yvaral

## References

- [1] Tate | Glossary | Kinetic art (<http://www.tate.org.uk/collections/glossary/definition.jsp?entryId=148>)
- [2] Artspeak, by Robert Atkins, 1990, Abbeville Press, ISBN 1-55859
- [3] Tate bio (<http://www.tate.org.uk/servlet/ArtistWorks?cgroupid=999999961&artistid=1649&page=1&sole=y&collab=y&attr=y&sort=default&tabview=bio>) Retrieved January 17, 2011
- [4] (<http://www.hatjecantz.de/controller.php?cmd=artdictionary&id=32>) Retrieved January 17, 2011
- [5] Jansen, Theo. "Man creates kinetic sculpture that moves and lives on its own" (<http://www.wimp.com/kineticsculpture/>). *Kinetic Sculpture*. BBC Radio One. . Retrieved January 27, 2011.
- [6] (<http://www.youtube.com/watch?v=VkTe0Pn7y9w>) The movement within a Sal Maccarone kinetic sculpture.

## Further reading

- Popper, Frank (1968). *Origins and Development of Kinetic Art*. Studio Vista and New York Graphic Society. ASIN B000O5Y6AQ.
- Popper, Frank (1970). *Kinetics*. Arts Council of Great Britain.

## External links

- Kinetic Art Organization (KAO) (<http://www.kinetic-art.org>) - KAO - Largest International Kinetic Art Organisation (Kinetic Art film and book library, KAO Museum planned)

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