

Magnetic Fields

Early in his career, Takis began experimenting with how to use energy and movement in sculpture. 'What interested me was to put into iron sculpture a new, continuous, and live force... The result was in no way a graphic representation of a force but the force itself'. Artist Marcel Duchamp memorably described Takis as the 'happy ploughman of the magnetic fields'. Here a large grouping of flower-like sculptures are brought to life by the magnetic pendulums that swing overhead. This is the first time it has been displayed since the 1970s.

Radar

Takis's exploration of radar and magnetism were bound up with a desire to understand the cosmos. He explains in his 1961 autobiography *Estafilades* [Slashes]: 'I was always enchanted by aerodromes and their great radars, which turned slowly searching for metallic objects hovering in space. It is as if they were gigantic instruments recording cosmic events...If only with an instrument like radar I could capture the music of the beyond...If this object could capture and transmit sounds as it turned, my imagination would be victorious.'

Oscillating Parallel Line

A powerful magnet holds a needle in suspension, highlighting how magnetism can override the laws of gravity. Takis stated: 'electromagnetism is an infinite, invisible thing, that doesn't belong to earth alone. It is cosmic; but it can be channelled. I would like to render it visible so as to communicate its existence and make its importance known; I would like to make visible this invisible, colourless,

non-sensual, naked world which cannot irritate our eye, taste or sex. Which is simply pure thought.'

Magnetic Wall 9 (Red)

Acrylic paint on canvas, copper wire, foam, magnets, paint, plastic, steel, synthetic cloth
Takis began his Magnetic Walls series in 1961. Magnets are hidden behind the canvas of these single-colour paintings. Hanging metal objects are attracted to these magnets, hovering just above the canvas surface. The result is an expansion of painting where abstract elements, instead of being painted on the canvas, float in space over it. Takis spoke of his work as creating an 'action in space', rather than the 'illusion of space' that many previous artists had achieved.

Magnetic Ballet

Cork, electromagnet, paint, steel, wire and wood
An electromagnet sits at the centre of this work. The suspended ball and cork have metal bases which make them leap and dance in response to the electromagnetic charge. Takis has observed that 'real movement, not illusion, invites spectator participation. It's no longer a trick but a physical fact in which you are involved.'

Télélumière No. 4

Brass, electromagnet, iron machine parts, light bulbs, paint, string, steel and wood
Takis became expert at manipulating electronic parts. Around 1962, he began to incorporate mercury-arc rectifiers into his work. These glowing blue valves use magnetism to convert alternating electrical current (AC) into direct current (DC). They were commonly used in electric railways, power substations and

radios before the 1970s. For Takis, these valves had a visual importance beyond their original functions. He used them to make viewers aware of the energy fields surrounding them.

Black Panel Dials

Dials, lightbulbs, metal, paint, wood
In the 1960s and 1970s Takis found many of his materials in military surplus stores selling supplies left over from the Second World War. He created a series of wall reliefs from salvaged aeroplane gauges and instrument panels. These panels showed pilots the invisible forces affecting their flights, such as wind speed. Through Takis's intervention, the rhythms of the panels verge toward visual music. At the time he made them, he was calling for political revolutionaries and scientists to develop what he called 'anti-tech' to disrupt the technologies of ruling governments and mass media.

Excerpts from *Takis Unlimited*

Takis worked with the London-based inventor and arts patron Jeremy Fry to mass-produce an unlimited edition of his Signal sculpture. Takis aimed to challenge the exclusivity of the art market by offering more affordable artworks. The prices of his unlimited Signals ranged from £10 to £20 (equivalent to about £150 to £300 today).

Animal Elements (Insects)

Bronze, iron, paint, steel
Since 1955 Takis has produced thin, flexible sculptures called Signals. Early Signals, like this one, resemble radio receivers. Takis has reflected on how they relate to communication and connection. For him they are 'like electronic antenna, like lightning rods... They constituted a modern hieroglyphic language....'
The bases are made from forged metal, or in some cases springy radio antennae typically found on American military Jeeps during the Second World War. The elements at their heads, simply by being raised in the air, become an indicator of cosmic space and distance.

Triple Signal

Takis's Signals sculptures from the 1970s include bomb fragments from the Greek Civil War. They were gathered from the hillside around his Athens studio. The use of these materials transforms the remnants of war into monuments of beauty and contemplation. Formed by an explosion, the bomb fragments also relate to Takis's fascination with all manifestations of energy, from the subtle to the dramatic. 'Sometimes I explode materials in order to increase the flow of energy and observe the effect.'

Takis's early work was inspired by ancient Greek, Egyptian and Cycladic art. He began sculpting figures from plaster in 1952, before learning to cast, forge and weld metal. He experimented with contrasting materials and forms throughout the 1950s. His exploration of opposites can be seen in works he called *Flowers* and *Idols* whose metallic finish contrasts with their organic forms.

Takis produced various 'telemagnetic installations' in the early 1960s using plinths, walls and the ceiling of the gallery as anchor points for his art. The installations challenged the traditional conventions of sculpture. Waves of magnetic energy move through these spaces, holding the individual elements in suspension. The works in this area have been brought together to resemble Takis's telemagnetic installation at the Alexandre Iola's gallery in New York in 1960.

Within the Takis Foundation is an openair theatre space featuring an ensemble of Takis's works arranged around a central Gong. This giant musical instrument is made from the rusted wall of an oil tank. In a shift in energy, this container for fossil fuels is now an instrument for producing meditative and resonant sounds. Inspired by Zen Buddhism, Takis's work often relates to his contemplation of the individual's connection with the universe. 'In the greatest solitude I feel the greatest happiness,' he has said.

*Signals Newsbulletin of the Centre
for Advanced Creative Study*
Vol. 1, Nos. 3 and 4, October–November 1964
The October–November 1964 issue of *Signals Newsbulletin* was mostly dedicated to Takis. It featured 'cut-up' poems by William Burroughs and Brion Gysin made from new and recycled pieces of writing, as well as a visual poem by Alan Ansen shaped like an electromagnet. Sinclair Beiles's 'Magnetic Manifesto' was also included. Beiles had recited this while suspended by magnets in a performance orchestrated by Takis in 1960. The bulletin gives a snapshot of Takis's international

network of friends and collaborators during the 1960s.

Signals Newsbulletin of the Centre for Advanced Creative Study

Vol. 1, Nos. 3 and 4, October–November 1964

Signals London was an experimental artist-run space named after Takis's Signals sculptures. While active, from 1964 to 1966, Signals produced a monthly bulletin. It featured art, poetry, and philosophical and scientific articles. The bulletin circulated ideas among artists in Europe, the United States and Latin America. This network was concerned with breaking boundaries between art and science.

Takis: Magnetic Sculpture and the White Signals

Indica Gallery, London, 1966

Exhibition catalogue

While in Paris in the late 1950s and early 1960s Takis frequently visited writers staying at a run-down boarding house nicknamed the 'Beat Hotel'. Guests included William Burroughs, Brion Gysin, Gregory Corso and Allen Ginsberg. Takis drew inspiration from their work, as they did from his, dedicating poems and odes to him. In 1962, Ginsberg wrote how discussing the cosmos with Takis helped him to see the magnetic forces holding it together: 'We imagined, if you pulled out any one star the whole thrumming mechanism would slip a cosmic inch.'

Takis's studio, King's Road, London
c.1965

Prints on paper (exhibition copies)

Photographer: Guy Brett

In the 1960s, Takis worked between Paris and the UK. He rented a studio apartment in London along King's Road in Chelsea. The neighbourhood was at the heart of 'Swinging London's' antiestablishment scene. At the centre of Takis's artistic life was his workbench. As seen in these photographs, a range of tools and electrical instruments were neatly arranged on the bench. It was little more than arm's length from Takis's tiny bed tucked in the studio's corner. His *Electro-Magnetic Musical* 1966 is visible above the bed. Courtesy of the Archive of Guy Brett, London Z74827-9

Documents 1: A.W.C.

1969

On 3 January 1969, Takis removed his work from the exhibition *The Museum as Seen at the End of the Mechanical Age* at the Museum of Modern Art, New York. It was being exhibited there without his consent. This protest led to the formation of the Art Workers' Coalition (AWC). *Documents 1* is a collection of correspondence, press and other items related to the foundation and rise of the AWC. It was first published at the height of the group's activity in mid-1969. It begins with a statement from Takis. Copyright 1969 by Artworkers Coalition –

Takis, Evidence of the Unseen

Hayden Gallery, Massachusetts Institute of Technology 1972

Exhibition catalogue

Takis was invited to undertake a fellowship at the Massachusetts Institute of Technology (MIT) in 1969. He worked with the scientist Ain Sonin to create a machine which transformed wave energy into electricity. They used a bicycle wheel in their design. This was

a tribute to the artist Marcel Duchamp who presented everyday objects as 'readymade' artworks, specifically to his sculpture *Bicycle Wheel* 1913.

Takis publicly introduced magnetism into art in 1960 when he staged the performance *The Impossible: A Man in Space*. He suspended the poet Sinclair Beiles in mid-air through a system of magnets. While floating in space, Beiles recited his poem 'Magnetic Manifesto'. At the time, the Soviet Union and the United States were competing to send the first person into orbit. This 'space race' was an extension of an ongoing arms race between the two global superpowers. Takis's event was both a poetic act and a critique of warfare.

Takis had experienced the devastation of war first-hand. During the Second World War he was active in the Resistance in occupied Greece, and faced political persecution during the Greek Civil War that followed. To escape this stifling political climate and pursue his artistic career Takis moved from Athens to Paris in 1954. He travelled regularly to London in the late 1950s and early 1960s. The artist-run gallery *Signals London* was named as a tribute to Takis's sculpture, and inspired by his approach to art.

In 1968, he was one of the first visiting fellows at the Center for Advanced Visual Studies at the Massachusetts Institute of Technology in the United States. There he continued to produce works using electromagnetism. He also developed work harnessing renewable energies in conjunction with scientists and engineers. Takis described these collaborators as 'poets' and 'creators'. His residency resulted in a patented device for transforming water currents into electricity. In an effort to democratise art, he also collaborated with engineers in London to produce affordable, mass-produced editions of his sculptures.

Social and political activism hold a central place in Takis's life and practice. In 1969, while living in New York, Takis physically removed his work from an exhibition at the Museum of Modern Art. It had been exhibited against his wishes. This action led to the formation of the *Art Workers' Coalition*. It included artists, filmmakers, writers, critics and museum staff. The coalition

advocated for museum reform including a less exclusionary exhibition policy in relation to women artists and artists of colour.