

STUDY #18
COSMIC FLARES III
LILIANE LIJN

Study is a series of focused case studies of works from the David Roberts Collection.

A single work by one artist is highlighted, either in isolation or accompanied by references to complementary works by the same artist.

A new text is commissioned studying the work in depth, from its material production, to its position in the artist's practice and contemporary debates.

An artwork is a system. Beyond its trajectory as an object, it circulates as images, ideas and narratives. It contains both material and conceptual histories, and the potential for future narratives.

To study is to devote time and attention to a subject, to acquire knowledge. It can also refer to a piece of work done as practice or experiment. Rather than a transmission of knowledge or an act of contemplation, the Study series is an invitation to act, and to enter into a dialogue with the work.

The study is not conclusive but asks the reader to take up multiple viewpoints and to engage with the artwork by spending time with it.

THE WORK



Liliane Lijn

Cosmic Flares III

1966

polymer lenses on perspex in painted wood frame, lights and motorised cam switches

46 1/8 x 48 1/4 x 4 7/8in. (117 x 122.5 x 12.5cm.)

Courtesy the artist and David Roberts Collection.

Photo: Stephen Weiss

INTRODUCTION

Cosmic Flares III is a kinetic sculpture made by Liliane Lijn in 1966. It comprises a painted white wooden frame attached with light bulbs powered by a motorised switching mechanism. When switched on, the light bulbs flash intermittently to illuminate a spiral formation of polymer lenses adhered to a sheet of Perspex fitted within the hollow frame. The sculpture forms part of a series of framed wall sculptures made by Lijn in the late 1960s as a means of **making ‘cosmic maps’**, where Lijn understands the programmatic discipline of drawing (such as replicating organic spiralling motifs in her work) as articulating **the same rhythm ‘as that of cosmic forces’**.¹ Lijn’s earlier kinetic sculptures experimented with image, object and movement using a single light source, whereas in *Cosmic Flares* Lijn adapted previous designs to incorporate numerous small spotlights within the frame. The bulbs were programmed to turn on and off in a random sequence to change the angle of incident light illuminating the surface of the Perspex glaze.

Lijn is known for her highly **original combinations of industrial materials and artistic processes**, often engaging with the relationship between **light and matter**, and has pioneered the interaction of art, science, technology, eastern philosophy and female mythology in her work. Born in New York in 1939, Lijn moved with her family to Lugano, Switzerland as a teenager and studied Archaeology at the Sorbonne and Art History at the Ecole du Louvre in 1958 in Paris. At this time she also began drawing and painting and participated in meetings of the Surrealist group, where she met the French writer, poet and theorist André Breton. Fully immersed in the post-war Parisian art scene in the early sixties, Lijn began experimenting with **language and movement**, creating her first *Poem Machines (1962)*, which incorporated rotating movement and text following an invitation from British poet Nazli Nour to make her poems kinetic.² Lijn in turn selected fragments of Nour’s poems and embedded them on her *Poem Machines* which were subsequently exhibited at La Librairie Anglaise, Paris in 1963, a popular spot for Beat artists and writers. Lijn mixed in the same circles as writers and poets including William Burroughs, Gregory Corso, Sinclair Beiles and Brion Gysin, but she was crucially also interested in the work of other kinetic artists working with light and movement in Paris such as the Groupe de Recherches Visuelles.

After separating from the Greek artist Takis (1925-2019) in 1966, who she met and married in 1961, Lijn relocated from Paris to London, where she continues to live and work today. Once in London, Lijn began making her timeless cone-shaped *Koan* series, in addition to *Cosmic Flares (1965-66)*, *Liquid Reflections (1966-68)* and many other kinetic sculptures, moving image works, performances, collages and major public sculpture commissions across the UK, including University of Warwick, Milton Keynes, Norwich, Reading, Cardiff and Leeds. Lijn has exhibited extensively internationally, including the Venice Biennale in 1986, and was artist-in-residence at the Space Sciences Laboratory, University of California, Berkeley, in partnership with NASA, Arts Council England and the Leonardo Network in 2005.

In conversation with Fluxus artist and writer, Charles Dreyfus, Lijn stated that she primarily chose to **‘see the world in terms of light and energy’** and brings this transcendent cosmic perspective to her artworks. In a material sense, she describes her work as **‘a constant dialogue between opposites**, my sculptures use light and motion to transform themselves from solid to void, opaque to transparent, formal to organic’, continually **blurring boundaries** between mediums and matter.³

¹ Liliane Lijn website: www.lilianelijn.com/portfolio-item/cosmic-flares-1965-66/

² Confirmed by Liliane Lijn via email correspondence in August 2019.

³ Tate website: <https://www.tate.org.uk/art/artists/liliane-lijn-1511>

FIRST APPEARANCES

Above all, I'm surprised it's still working. This strange Perspex lidded box, framed in white wood and fringed with light bulbs.⁴ Like all first appearances, my initial impression is deceiving, with the square object seeming more like an elaborate picture frame yet absent of any image. It lies in front of me flat on its back on a table, presumably to prevent crushing the miniature glass bulbs dotting the face of the frame, reminiscent of a glamorous dressing room mirror or the footlights of a stage. An **atmosphere of theatre** and anticipation is implied. But it's difficult to see fully in this particularly dark corner of the DRAF storage unit. In this gloomy light the vacant glazed face stares blankly toward the ceiling, resting against a background of marled felt. A lumpy grey electrical cable protrudes from a corner and trails over the edge of the table, connecting to a discoloured misshapen box, a prehistoric power transformer, which spits out more flex coiling down to the floor. The end is stopped with a plug; to the side on the felt table sits a small yellowing box of spare bulbs.

Two storage managers appear wearing white gloves. One gloved hand inserts the vintage plug into a power socket and ignites the frame with light. Suddenly the dormant glass bulbs fixed in rows begin to **flash asynchronously** across the four sides of the frame winking to each other in Morse code. The bulbs flash in pairs, trios and quads, emitting a metronomic clicking sound with each switching sequences of light. The rhythm of these **codified flashes**, both seemingly random and at times ambiguously in tandem, scatters shadows of circular dots caught in the light across the Perspex surface. These small dots are visible both over and under the surface of the glaze, like tacky transparent blobs of glue, or dried contact lenses reflecting light and casting shadows. A spiral begins to emerge, or at least **an impression of rotation and movement**, a circling inwards through dots forming curving lines at regular intervals spinning towards the centre of the frame.

I ask if the white-gloved technicians can lift the frame, holding it upwards by resting the base on the floor to get a better look. A full-frontal view of this quasi-kinetic image reveals a shifting depth. Shafts of light emitted from the flashing theatre bulbs separate the dots from their circular shadows, as if the two layers of spiralling patterns detach. The action of the bulbs picks out a graphic image, like a mismatched screen print where one layer misaligns with the other. Facing the panel, I can see a dense cluster of dots moving towards the centre, the pattern of circles is a spiral motif twisting toward the middle of the frame. Not concentric circles decreasing in size and space, but a gradual concentration to the centre. It's confusing, and only seen fleetingly, as the ongoing random light show **illuminates the frame from different angles**, highlighting only corners and parts of the picture at once. The light never fully reaches the centre where dots densely amass. The **image is never fully visible**, only glimpsed in **fragments** as each sequence of bulbs offers a different perspective. When all bulbs illuminate the whole rotating, illusionary surface of the frame these dotted formations are only visible for a second, before changing again.

The artist Liliane Lijn created this kinetic light show, titled *Cosmic Flares III* in 1966. The mechanism powering the sequence of flashing lights remains seemingly unchanged for 50 years, perhaps a result of never having been played for an extended period. I'm reminded of Stephen Willat's series of flashing *Visual Automatic* sculptures from the same period, wall-based objects constructed from wood in the mid-1960s. Willat's primary-coloured geometric forms were similarly mounted with light bulbs linked to a circuit board programmed to flash one at a time in a series of random computer-generated sequences, like a precursor to the 1970s electronic children's game *Simon Says*. Except displaying these works pushes their archaic mechanisms to their limit, and often requires the assistance of an attentive invigilator to turn the sculptures on and off again before and after viewing, and when all fails apologise when they frequently stop working at all. In comparison Lijn's *Cosmic Flares III* tick over effortlessly. I watch the lights blink continuously and

⁴ Lijn offers further insight into the origin of the bulbs via email correspondence in August 2019: "The work is, in fact, more complex than you imagine. The bulbs, surplus GE airplane landing bulbs, are interesting, because they have an integral lens and can be wired to double their amperage, thus giving off a brighter and more focused light".

hear the mechanical cam switch regulating the power satisfyingly click for several minutes before the dial on the clunky power box, housing a transformer, is rotated by the technician from right to left, ON to OFF. The bulbs stop flashing and the image turns blank. Turning the artwork off. **What happens to the image without light?** Is the image only on or off? Are you supposed to see an image, and **what exactly is being seen?**

COSMIC MAPPING IN KINETIC ART

Lijn describes *Cosmic Flares III* via drawing, born from **a desire to ‘make cosmic maps... it should be that in the discipline of a drawing there is the same rhythm as that of cosmic forces’**, and so combines mechanical processes within the conventional structure of the picture frame to rhythmically manipulate light and interrogate acts of looking and the science of perception e.g. sight, vision. Lijn has been creating and experimenting with innovative artistic processes and materials since the late 1960s, and these visual investigations into **‘cosmic forces’**, or alternatively **the laws of physics**, are born out of her enduring interest in **science and technology**. These ‘cosmic flares’, the kinetic visioning of images and illusion, describe a series of sculptures made by Lijn at the start of her career that **experimented with industrial and scientific materials**, such as **plastics, acrylic polymers, lenses and prisms** melded with natural elements including **fire, light and water**.

In many ways Lijn’s scientific interrogation of synthetic and organic matter is a modernist project, and continues, much like her peers, the experiment of incorporating movement into art, as in the mechanic or motorised movement of kinetic art pioneer Naum Gabo’s *Standing Wave* of 1919–20, or by exploiting the incidental movement of natural forms and phenomenon (such as air in a space) as in Alexander Calder’s 1930s mobiles. Yet what distinguishes Lijn’s ‘cosmic’ maps and other experimental compositions from Op Art works of the same period is her distinctly **poetic manipulation of light** and transgression of modernist sensibilities, such as exploiting the limits of the picture frame and distorting illusory geometric forms. Much like Bridget Riley, Lijn repeatedly experiments with circular and spiral motifs in *Cosmic Flares III* to **distort the viewer’s perception** and create artworks, which although static, **create tangible sensations of movement** as composition of dots seemingly shift position when caught in the changing shadows and reflections of incidental light.

LIQUID REFLECTIONS

A brief glance at *Liquid Reflections (1966-68)* offers an interesting comparison (or companion) to Lijn’s *Cosmic Flares* series, due to their mutual manipulation of light, early plastics and droplets of water. *Liquid Reflections* (1968), which is currently held in the Tate Collection, is inspired by Lijn’s **interest in astronomy and the physics of light** and provides the outcome of 5 years of experimentation with acrylic polymers, lenses, prisms, light, fire and finally water. This relatively modest-size sculpture comprises a hollow acrylic disc, much like a scientific petri dish, containing water and revolving on a motorised turntable. On its surface, two acrylic balls rotate, their motion subject to opposing forces: the centrifugal force of the spin of the disc and the centripetal force due to the concavity of the disc surface.

Likewise, water undergoes **material transformation** in *Liquid Reflections* through the **power of motion**, condensing into coagulated pools through vibrating forces of the motor and then separating into precise spherical droplets, alive and trembling, covering the entire surface of the disc. All sculptural components are mutually co-affecting; the water in the disc is influenced by the motion of the rotating turntable and exerts an effect on the movement of the balls. The laws of momentum, as well as centrifugal force and the pull of gravity induced by the concavity of the disc govern the movement of the balls on the surface of the disc. The translucent balls also act as moving magnifying lenses, bringing to life one area of the disc, now another, with a strange lunar

landscape of reflections and shadows. *Liquid Reflections* is Lijn's attempt to **contemplate the universe on an intimate scale**.⁵

SCIENCE AS PURE POETRY

Lijn's particular fascination at that time in astronomy and nuclear physics drove the development of these visual metaphors, where in her own words she was engrossed with 'creating metaphorical propositions concerning the essential behavioral aspects of electromagnetic waves, and using that narrow section of the spectrum, white light, as my medium'.⁶ For Lijn, 'My feeling about science – in particular the science of light and matter – was that **it was pure poetry**'.⁷ It's perhaps within her poetic composition of geometric forms, whether precisely constructed through circular and spiral motifs in *Cosmic Flares*, or the incidental arrangements of water in *Liquid Reflections*, that unexpected representational space is created through a chain-reaction of scientific processes.

Water droplets in *Liquid Reflections* are forced to radiate across the surface of the hollow disc in concentric circles, which give way to spiral clusters. These organic formations are recurring motifs in Lijn's sculptures, and her repeated constructed/incidental composition of concentric circles, water droplets and **spiralling forms** can be seen to **symbolically express a poetic idea of the feminine in her work**.

The **spiral** is linked to the **circle**, and historically operates as an **ancient symbol of the goddess**, the womb, fertility, feminine and serpent forces, signifying continual change and at its most abstract the poetic evolution of the universe. Similarly, revolving cone-like structures, which occur throughout her career as in her extensive '**Koan**' series, also **evoke the movement of spiralling or circular forms** and are consciously manipulated by Lijn to represent an idea of the feminine, as she explains 'When the 'koans' oscillate, the more you look at them the less you see the body. And that's what interested me because I was very interested in **dematerialisation** – in the idea of **losing the body**. And that was related in a way to **being a woman**'.⁸

UNIVERSAL REFLECTIONS

In scientific terms, macrocosm and microcosm refers to a vision of cosmos where the part (microcosm) reflects the whole (macrocosm) and vice versa. Lijn's phenomenological attentiveness to her artistic materials, from contracting and expanding pools of water, shifting particles of light and visualising gravitational forces through waves invites an almost metaphysical level of contemplation on the stuff that matters, from the laws and orders of physics to the organisation of vision, language and articulation of the feminine through organic forms.

As already mentioned, initial appearances can be deceiving and viewing the dusty blank white picture frame of *Cosmic Flares III* sporadically illuminated with light and shadow in the backroom of an art storage facility is an unlikely space to encounter such transcendent universal reflections. But in her own words, "The most important thing for me **is a moment of awareness, and focus**. I try to make work that will allow people to still their minds, **look at things with a different eye**".⁹ *Cosmic Flares III* offers an alternative view, through rudimentary flashing theatricality, it leaves an indelible image, not fully seen, but constructed in your mind.

⁵ Tate website: www.lilianelijn.com/portfolio-item/liquid-reflections-1966-1968

⁶ Tate website: www.tate.org.uk/art/artworks/lijn-liquid-reflections-t01828

⁷ Frieze website: www.frieze.com/article/liliane-lijn-my-influences

⁸ Tate website: www.tate.org.uk/art/artists/liliane-lijn-1511/introducing-liliane-lijn

⁹ *Ibid.*