

OSKAR FISCHINGER

RAUMLICHTKUNST, C.1926/2012

SPACE LIGHT ART



WEINSTEIN 25 GALLERY



# OSKAR FISCHINGER

RAUMLICHTKUNST, C.1926/2012

SPACE LIGHT ART

Three-projector HD Reconstruction  
by Center for Visual Music

"Dazzling. . . an exhilarating phantasmagoria of abstraction and metaphor"  
—New York Times, 2012



WEINSTEIN **25** GALLERY

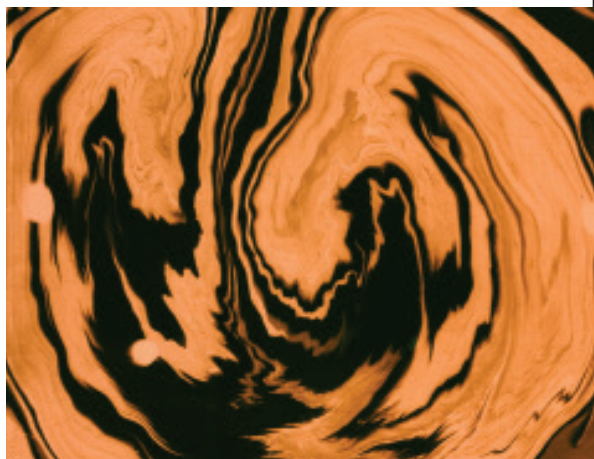
# OSKAR FISCHINGER: RAUMLICHTKUNST

*HD Reconstruction by Center for Visual Music*

IN 1926, FISCHINGER AND HUNGARIAN COMPOSER ALEXANDER LÁSZLÓ BEGAN TO perform multimedia shows in Germany with Fischinger's abstract films, projected colored lights, music and painted slides. After their brief partnership ended that year, Fischinger performed his own shows titled *Fieber* (Fever), *Vakuum* (Vacuum), and *Macht* (Power). From texts and press, we now understand these shows as his attempts to create some of the very first cinematic immersive environments. Fischinger produced several different versions of these multiple projector shows in the late 1920s, under the series name *Raumlichtkunst*, using up to five 35mm film projectors, color or filters to create light effects, slides, and reels of his black and white, tinted and hand-painted abstract films.

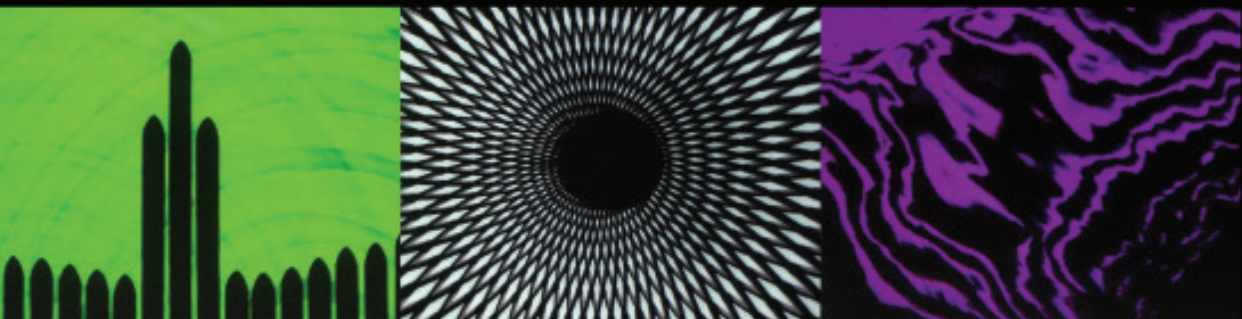
*Raumlichtkunst* has been reconstructed as a three projector HD black box installation, in an edition of five. It was recently exhibited at The Whitney Museum, New York (twice); Tate Modern, London; Palais de Tokyo, Paris; Len Lye Centre, New Zealand and in Hamburg and Brisbane. The exhibition at Weinstein Gallery, San Francisco is its West Coast Premiere.

Working with reels of Fischinger's original 1920s nitrate film, Center for Visual Music (CVM) restored the 35mm film by photochemical processes. CVM then transferred the new preservation materials to high definition video, digitally restored and added color; and in 2012 produced this three-screen reconstruction of his c.1926–27 performances. The reconstruction does not attempt to represent any one specific performance, rather the concept and effect of Fischinger's series of shows. *Raumlichtkunst* is presented as three continual loops, offset, unfolding constantly varying combinations. No documentation exists of the original music used, other than reports of avant-garde percussive accompaniment. For the current installations CVM chose to use Varese's *Ionisation* and two versions of *Double Music* by John Cage and Lou Harrison, partly due to Fischinger and Cage's discussions about Cage providing the soundtrack for a Fischinger film (a project encouraged in the 1940s by Hilla Rebay of the Guggenheim Foundation, though never realized).



Top: Detail from *Raumlichtkunst*

Bottom: Oskar Fischinger in the editing room, c. 1920s



Raumlichtkunst installation view, Whitney Museum of American Art, New York, 2012

## RAUMLICHTKUNST—FISCHINGER AND ABSTRACT CINEMA IMMERSIVE ENVIRONMENTS

By Cindy Keefer, curator/archivist

THE ORIGINS OF IMMERSIVE MEDIA ENVIRONMENTS, MULTIPLE-PROJECTOR EXPANDED Cinema performances and 1960s psychedelic light shows can be traced to the early experiments of abstract filmmaker Oskar Fischinger.

Fischinger expanded his work outside the rectangular film frame and beyond traditional screens, using multiple cinematic projections surpassing anything previously attempted. In the 1920s he combined cinema with other art forms to create a greater experience; in the 1940s he proposed covering a dome theatre with abstract imagery. Fischinger built machines and devices to create abstract imagery which he screened in his multiple projector shows and then in other later films. He continued to push the boundaries of cinema, projection, and space throughout his career.

Fischinger is the most important and influential filmmaker in visual music, producing over 50 films and 800 paintings. He's recognized as the father of Visual Music, the grandfather of music videos, and the great-grandfather of motion graphics. His films influenced generations of filmmakers, animators and artists, even continuing today.

Fischinger began his animated film experiments near Frankfurt c. 1920, inventing apparatus to produce unique abstract film imagery. Beginning in Munich in March 1926, Fischinger and Hungarian composer Alexander László performed *Farblichtmusik* (Color Light Music) shows, combining Fischinger's abstract 35mm films with projected colored lights from László's color organ piano, plus painted glass slides. Music varied from László's own compositions to Chopin, Rachmaninoff and Scriabin. László had begun performing *Farblichtmusik* shows in 1925, though without film.

Fischinger later discussed their joint 1926 performances and László's machinery with curator Hilla Rebay of The Museum of Non-Objective Painting in New York. In a 1942 letter to Rebay, Fischinger wrote,

László's machine was a technical marvel...built for him by one of the best and most imaginative engineers...it was fantastic. It was a giant apparatus, which was played by him and his many assistants. He built in a special film projector for my films, and that topped everything. Zeiss Ikon in Dresden helped him...it cost unheard of sums of money and was shown in

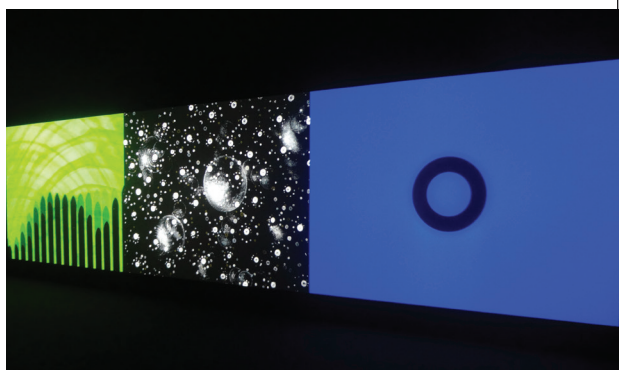
all the opera houses of Europe . . . . At that time, Zeiss Ikon developed the unique and wonderful planetarium projectors. For that reason, and also because of the publicity connected with it, they were very much interested in László's Spectrum-Piano [*Farblichtklavier*] and at that time they put everything at his disposal that he could possibly ask for.

Rebay in turn discussed various concepts of "expanded cinema," multiple projections and immersive cinema, with László Moholy-Nagy, Charles Dockum, Norman McLaren and other artists the Museum sponsored, thus she appears to have been a link between Fischinger's 1920s multiple projector work and its influence on later filmmakers.

A July 1926 newspaper review by critic Rudolf Schneider discussed Fischinger's 'wax experiments' footage used in a *Farblichtmusik* performance: "Fischinger's idea and invention is a great advance." The review described some of his other film images: "snakes, fog, balls, rings. . . fantasy;" and noted that Fischinger was working on a film performance called *Fieber*. Schneider mentioned this new art "that Fischinger calls Raumlichtkunst."

László was not generous in giving Fischinger credit for his work, and it appears the press gave more praise to Fischinger's films than László's music. The two parted ways in 1926. Fischinger began performing his own independent multiple projector shows called *Fieber*, *Vakuum*, and *Macht*. From reviews and Fischinger's notes, we now understand these as attempts to create some of the very first cinematic immersive environments.

Fischinger described his "Raumlichtmusik" concept; he believed all the arts would merge in this new art. He wrote of "Eine neue Kunst: Raumlichtmusik" [The new art: Room or Space, of Light and Music]: "Of this Art everything is new and yet ancient in its laws and forms. Plastic—Dance—Painting —Music become one. The Master of the new Art forms poetical work in four dimensions. . . Cinema was its beginning. . . Raumlichtmusik will be its completion." A critic suggested the name "Raumlichtkunst," substituting 'art' for music.

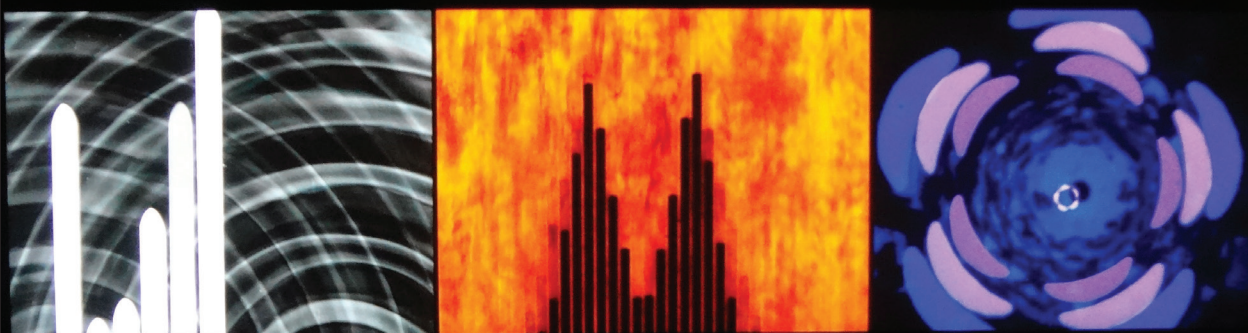


In October 1926, Schneider wrote that Fischinger was working on a film for multiple projector apparatus, *Fieber*, that had the claim to being a new type of independent art. A 1927 review in *Film Kurier* of Fischinger's multiple projector performance in Munich notes that his current work was called *Macht* (Power), another film is called *Fieber*, and that Fischinger's *Vakuum* has been finished and will soon be ready for showing. In December 1927, an article titled "Raumlichtkunst" in *Die Zeitlupe München* magazine praised Fischinger extensively, describing his three-projector film show, his sliced film technique, and his "original art vision which can only be expressed through film."

Film historian Dr. William Moritz later interviewed László, who said he'd seen one of Oskar's solo shows in Munich using five 35mm film projectors and slide projectors with painted slides. From that account, Moritz wrote:

[Fischinger] prepared his own multiple projector shows (including some of the imagery from the László shows) with three side-by-side images cast with three 35mm projectors, slides to frame the triptych, and at climactic moments, two additional projectors which overlapped the basic triptych with further color effects. . . . Oskar used all three systems for colorizing (tinting, toning and hand-coloring) to give a wider variety of colors.<sup>1</sup>

No records have been found of performances of these shows by Fischinger after the late 1920s, though single reels using some of this film material were shown in Europe in the early 1930s, continuing to the present (e.g. the film *Spirals*).



Fischinger became successful with his abstract animated films, his popular series of *Studies* screened internationally, and his famous waltzing cigarette commercials. With Paramount Studio's help he emigrated to Hollywood in 1936, thus becoming the direct link from the European avant-garde film community to west coast experimental filmmaking. He worked briefly at Paramount, Disney (*Fantasia*), and MGM, but was not successful in the studio systems.

Rebay and The Museum of Non-Objective Painting provided partial support for him to make several films in the 1940s, including the completion of his film *Allegretto* (1936–1943) which he'd begun at Paramount. Plans were underway then for the new Guggenheim Museum, with Frank Lloyd Wright spending years working on designs. Rebay proposed the creation of a Film Center in the Museum, discussing this extensively with Fischinger. He prepared plans for a Center which would support non-objective film artists. In 1944, Fischinger also proposed building a dome theatre in the Museum, in a letter to Rebay:

I would like to suggest to you a bigger theatre—half spherical—like a big planetarium. The Machines in the Center. The spheric projection-surface of a planetarium, produces a perfectly clear feeling of endless space, similar to the feeling which produces the star-lit-heaven at night. It is a cosmic-feeling of endless endless space without perspective. Images projected in such a sphere become far distant.

The people (a few hundred) are sitting in a big circle around the projection machines. The Sound comes (ideal) also from the center like the lightbeams of the projectors, and light and soundwaves strike the Sphere and are there reflected to the people, which will understand, maybe with there [sic] third Eye.

Fischinger also suggested the audience should recline on their backs, looking up at his abstract films projected onto the dome. Unfortunately, this dome theatre was not built. Fischinger's relationship with Rebay ended c. 1947, and her position at the museum concluded soon after. After this, Fischinger found little support in America for his film work. His later experiments include 3-D stereoscopic film, stereo paintings, and the Lumigraph, a mechanical color-light performance instrument, which he played with accompanying music. Fischinger's last performance of the Lumigraph was in San Francisco in 1953.

In 2012, Center for Visual Music in Los Angeles restored Fischinger's surviving nitrate film from the 1920s *Raumlichtkunst* shows, then reconstructed digitally a three-projector version for gallery installations which has been exhibited at major museums worldwide.

*Opposite and above: Raumlichtkunst installation view, Whitney Museum of American Art, New York, 2012*



# ABOUT THE ARTIST

By Dr. William Moritz and Center for Visual Music

OSKAR FISCHINGER WAS BORN ON THE SUMMER SOLSTICE IN 1900 IN GELNHAUSEN, Germany. He originally chose music as a career, studying violin and organ building (which attracted him because it combined precise knowledge of technical processes with mathematical harmonic theory) before 1914. Too young and unhealthy for war duty, he was trained in architectural drafting and tool design. Around 1920 in Frankfurt, he met Dr. Bernhard Diebold at a literary club. Seeing Fischinger's abstract scroll sketches, Diebold urged Oskar to take up abstract filmmaking. In April 1921, Fischinger was thrilled by Walther Ruttmann's *Lichtspiel Opus I* (an abstract film with a live musical score) and vowed to devote himself to absolute cinema, which could best combine his skills in music and graphic art. He resigned his engineer's job and moved to Munich to become a full-time filmmaker.

His first film experiments, made in the early 1920s, are among his most radical. In *Wax Experiments* and *Spirals* Fischinger designed visual patterns of extreme complexity which often develop in overlapping cycles, yet he interrupts these patterns with radical editing of single frames of contrasting imagery. Among Fischinger's form-breaking experiments of the era were the abstract multiple-projector performances (under the concept names of *Raumlichtmusik* and *Raumlichtkunst*), with individual performances named *Fieber* and *Macht*. These were performed c. 1926–1927 using up to five film projectors and several slide projectors.

Early in his film-making career, Fischinger established a pattern of alternating commercial work with personal, experimental film-making. While it seems clear that he preferred working in an avant-garde way, commercial work afforded both income and access to the most advanced technology, and Oskar was, among all of the radical film-makers of the Twenties, the most technically knowledgeable and adventurous. Oskar supported himself during this period by making conventional animation, which demonstrates his mastery of realistic anatomy, perspective, and conventional story-telling. But his personal film *Spiritual Constructions* shows the same radical consciousness and experimental techniques as his abstract films: the slender tale of two drunks who argue and stagger home becomes an epic voyage of warping shapes and thwarted perceptions, rendered again with single-frame editing and scratching directly on film frames—devices that would re-emerge thirty years later in avant-garde film-making.

During the summer of 1927 he walked from Munich to Berlin, recording his journey in single-frame exposures—a premonition of the diary films two generations later. He was hired to make special effects of rockets, starscapes and planet surfaces for Fritz Lang's 1929 science-fiction feature *Woman in the Moon*. When he broke his ankle on the set, he began drawing animations on white paper in charcoal while recuperating, which led to his remarkable series of *Studies*, comprised of 14 short black-and-white film experiments tightly synchronized to music. A few of the later *Studies* were drawn by his brother Hans.

In each of the *Studies* he set out to solve a different visual problem: in *Studie Nr. 6*, a flexible aerodynamic movement; in *Studie Nr. 7* a deep-space perspective of hard-edged figures contrasted with a flat surface where sensuous art-nouveau shapes metamorphose; in *Studie Nr. 8* an orchestral multiplicity and density of figures, etc. These *Studies* screened widely in Europe, Japan and America, and created such demand that by 1932, Fischinger's studio had grown to include his brother Hans, Elfriede (who became his wife in 1933), and three other women. At this time, Fischinger was also pursuing a series of film experiments with drawn synthetic sound, his famous *Ornament Sound Experiments*.

The close synchronization of the *Studies* with music (originally begun as ads for recordings, thus

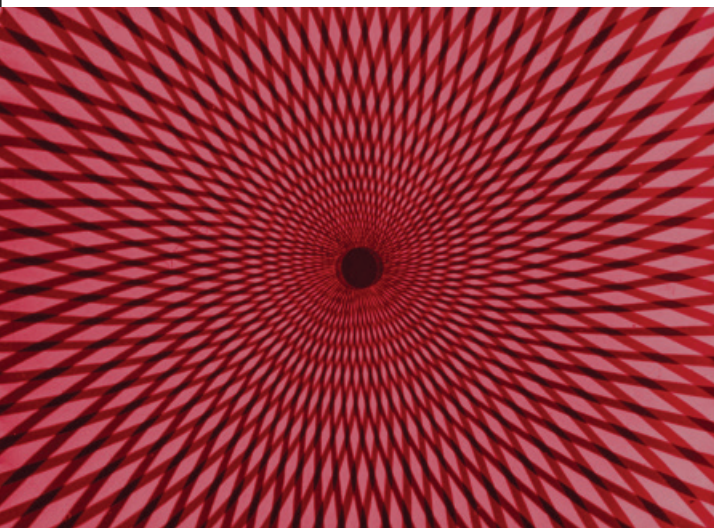


some of the first music videos) made them immensely popular with audiences worldwide, but after the advent of the Nazi regime, abstract works were classed as degenerate art, and it became more difficult to make any further experimental films.

Fischinger was involved with the development of the three-strip GasparColor film process, a European rival to Technicolor. With his technical training and exceptional understanding of the fundamental processes of cinema, Oskar was one of the very few who mastered this difficult process. The use of three-color film was relatively new in the cinema in the early Thirties, and while in Europe it was still not possible to use three-color film on an entire feature, GasparColor did lend itself to short films which did not require a realistic image. Color opened up new venues for Fischinger's animated and abstract works in the field of the commercial advertisement. Fischinger's 1933–34 film *Kreise (Circles)* was cleared as an advertising film, but it is essentially abstract imagery, and the ad text only appears in the last few frames. Fischinger then created an animated color advertising film, *Muratti Greift Ein (Muratti Marches On)*,

and another color film, *Composition in Blue*, using small geometrical models. He exhibited the *Composition* at foreign festivals. The critical and popular success of *Muratti Marches On* and *Composition in Blue* attracted a great deal of attention, and Paramount offered Oskar work in America.

Paramount brought Fischinger to Hollywood in February 1936, but did not allow him to continue his work in color film, and his tenure at the studio was short. A grant from The Museum of Non-Objective Painting (Guggenheim Foundation) allowed him to buy his short film *Allegretto* back from Paramount, and in 1943 he was able to complete it in color as he had originally intended. Fischinger used a cel-layering technique to animate formal visual equivalents of the musical concepts of rhythm, harmony and counterpoint. He implemented a "divisionist" technique of changing colors from frame to frame in order to achieve particularly luminous and chromatic hues that could not be produced by normal methods of animation photography. The film was shown at museums and centers of advanced art all over the world, and *Allegretto* eventually came to be rec-



**Top:** Oskar Fischinger with motion paintings, c. 1920s

**Bottom:** Detail from *Raumlichtkunst*

ognized as one of the most accomplished pieces in the history of visual music.

Fischinger found it extremely difficult to work in studio situations, enduring episodes at Paramount (1936), MGM (1937), and Disney (1938–39). He composed *An Optical Poem* to Liszt's "Hungarian Rhapsody No. 2" for MGM. He designed the Bach "Toccata and Fugue" sequence for Disney's *Fantasia*, but quit because his designs were simplified and altered to be more representational. Hilla Rebay, curator of the Museum of Non-Objective Painting, supported Oskar's work during the difficult war years with several grants. Rebay commissioned him to synchronize a film with a Sousa march (to demonstrate loyalty to America; this film was *An American March*). Oskar then proposed a film without sound in order to demonstrate the artistic validity of non-objective imagery, but Rebay insisted that he make a film to Bach's "Brandenburg Concerto No. 3." While carrying out his commission for Rebay, Oskar discreetly composed the silent masterpiece *Radio Dynamics*.

Although the Museum of Non-Objective Painting specifically required a cel animation film, Fischinger made his Bach film as a radical documentation of the act of painting, exposing a single frame each time he made a brush stroke. The film parallels the structure of the Bach music without slavish synchronization, and rediscovers some of the playfulness inherent in Bach's sense of formal invention. Although *Motion Painting No. 1* won the Grand Prix for Experimental Film at the Brussels International Experimental Film Competition in 1949, Fischinger never again received funding for one of his personal films (only for a few ad films in the 1950s). He turned increasingly to oil painting as a creative outlet. During the last twenty years of his life, Fischinger worked on a few commercial projects, several unfinished film and multimedia projects, many unfinished animation drawings, and by the end of his life had completed a substantial body of graphic work including some eight hundred paintings. Many of his paintings are in museums and private collections worldwide. Oskar Fischinger died on January 31, 1967.

## ACKNOWLEDGEMENTS

---

All images and biography text are © Center for Visual Music

Page 2: An earlier version of this text was published in Keefer, Cindy and J Guldemon, Eds. *Oskar Fischinger (1900–1967): Experiments in Cinematic Abstraction*. EYE Filmmuseum and Center for Visual Music, 2013. Distributed by Thames & Hudson. © Cindy Keefer, 2017

Further information is at [www.centerforvisualmusic.org/Raumlichtkunst.html](http://www.centerforvisualmusic.org/Raumlichtkunst.html)

Page 3: This is an edited excerpt from a longer essay by Keefer: 'Raumlichtmusik' —Early 20th Century Abstract Cinema Immersive Environments" published in *Leonardo Electronic Almanac*, Leonardo: The International Society for the Arts, Sciences, and Technology, and MIT Press. October 2009. Vol 16, Issue 6–7.

Fischinger's letters and texts quoted here are from sources in the Fischinger Collection at Center for Visual Music, Los Angeles.  
[www.centerforvisualmusic.org/Fischinger](http://www.centerforvisualmusic.org/Fischinger)

### Footnotes

Page 3: I. Moritz, Dr. William. *Optical Poetry: The Life and Work of Oskar Fischinger*. Eastleigh, UK: John Libbey Publishing, 2004.

### PRODUCTION CREDITS

Restoration and Digital Reconstruction by  
Center for Visual Music

Curator/Archivist: Cindy Keefer

Music Supervisor: Richard Brown, Ph.D.

CVM Thanks: Barbara Fischinger; The Fischinger Trust, Cinemaculture, William Moritz, Film Technology, Co. and The Whitney Museum of American Art

CVM's Film Restoration was supported by an Avant-Garde Masters grant funded by The Film Foundation, administered by The National Film Preservation Foundation



