Iridescent Spirituality: Early Experiments in Expanded Cinema

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Abstract

Iridescent Spirituality: Early Experiments in Expanded Cinema

Mojeanne Sarah Behzadi

This thesis sets out to examine three works of expanded cinema from the 1950s that preceded the psychedelic light shows of the 1960s with which they are often associated with. Through the medium of light, German avant-garde artist Oskar Fischinger's *Lumigraph* (1951), San Francisco Beat filmmaker Jordan Belson's *Vortex* concerts (1957-1959) and Beat writer and artist Brion Gysin's *Dream Machine* (1958) expressed a quest for inner truths and cosmic connections.

Each work emerged in a distinct context and this study reveals the meaningful intersections of the artists' trajectories. Created during the postwar years characterized by uncertainty, cynicism and rapid technological development; the discussed art works reveal a shared belief in light's potential as a vehicle through which to experience forms of spirituality that were outside mainstream forms of devotion in the Western world.

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Introduction

This thesis sets out to examine three expanded cinema experiments of the 1950s: Oskar Fischinger's *Lumigraph* from 1951, Jordan Belson's *Vortex Concerts* from 1957 to 1959, and Brion Gysin's *Dream Machine*, first prototyped in 1959. While recent scholarship has addressed in some depth the audiovisual experiments of the mid 1960s and 1970s (identified as "psychedelic"), I am calling particular attention to three art practices that directly preceded the psychedelic era.[1] Recent exhibitions and scholarship have corrected a long absence of serious study on psychedelic art. These exhibitions and their accompanying publications include the 2005 Tate Liverpool exhibition *Summer of Love: Art of the Psychedelic Era*, *Psychedelic: Optical and Visionary Art since the 1960s* presented at the San Antonio Museum of Art in 2010, the travelling exhibitions *West of Center: Art and the Countercultural Experiment in America, 1965-1977* organized by the Museum of Contemporary Art Denver (2011), and *Hippie Modernism: The Struggle for Utopia* organized by the Walker Art Center (2016). This recent scholarship emphasizes the psychedelic cinematic experiments of the 1960s, but in the process tends to blur the historical moment, by also including in its corpus the expanded cinema of the 1950s.

Curator Chrissie Iles essay "Liquid Dreams" included in the *Summer of Love* exhibition catalogue demonstrates one such instance. In the introduction to her essay she attempts to place the light shows of the mid-1960s in historical continuity with a long tradition of art practices that used "projective images": "the proliferation of psychedelic film and projected environments grew directly out of the experiments with synaesthetis in film, painting and music that had been made first by Futurist artists Arnaldo Ginna and Bruno Corra in 1909, and then in San Francisco and

1 The expression "psychedelic art" was widely in use as of 1966. The September 9, 1966 cover story of Life Magazine "LSD Art: New Experiences that Bombard the Senses" was an early review of nascent psychedelic art

New York between the 1930s and the 1950s by artists, scientists and engineers."[2] Iles spends an extensive portion of her essay describing the works of the 1950s, claiming that these directly influenced psychedelic light shows and films but as her survey progresses, she makes little effort to distinguish and discriminate between the periods discussed, making the line between various contexts increasingly fuzzy.

Although there are aesthetic parallels and continuity between the expanded cinema of 1950s and the light shows of the 1960s, the earlier experiments have their own distinctive qualities. The psychedelic light shows and multimedia club environments of the 1960s displayed "free-wheeling shapes, exaggerated acid colours and pervasive formal entropy"[3] in order to express the subversion, freedom of expression and hallucinogenic states that the counter culture movements were engaging with. In contrast, the artists I will discuss in this study were not simply aiming to entertain through sensory stimulation. Instead, they showed a powerful commitment to profound experience both aesthetically and spiritually, preferring precision and subtlety in their manoeuvring of light. As Jordan Belson explained about his performances at *Vortex* "I used effects carefully. I wasn't just blasting the audience psychedelically. It was all carefully composed, and synchronized with the music, so that there was a form and shape to each piece."[4] Through the medium of light, these artists were embarking on a quest for inner truths and cosmic connections. In this thesis, I will argue that spirituality is the thread that connects these three art practices, even if each work originated in a distinct context.

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2 Chrissie Iles, "Liquid Dreams," *Summer of Love: Art of the Psychedelic Era*, ed. Christoph Grunenberg (London: Tate, 2006), 68.

3 Christoph Grunenberg., "The Politics of Ecstasy: Art of the Mind and Body," *Summer of Love: Art of the Psychedelic Era* (London: Tate, 2006), 13.

4 Scott MacDonald, "Jordan Belson (and collaborator Stephen Beck)," *A critical cinema: interviews with independent filmmakers* (Berkeley: University of California Press, 1988-2006), 74.

This shared interest in iridescence suggests that light was a vehicle through which to channel forms of spirituality that were outside mainstream forms of devotion in the Western world. Following World War II, a new generation of Americans and Europeans broke with the institutionalized forms of religion they had experienced growing up. They reacted against the social conservatism of Western religions, and the way that this religious doctrine had been essentially cleansed of mystical power. The horrors of war, the detonation of the atom bomb in Hiroshima in 1945 and the state of the world at the brink of total inhalation during the early years of the Cold War caused a spiritual crisis and a need to find alternatives to morally bankrupt value systems. Although the term counterculture first described the youth cultures of the 1960s who opposed the values of mainstream society and sought to transform these,[5] their non-conforming attitudes grew out of the experiences of the Beat Generation during the 1950s. Jordan Belson and Brion Gysin were two of these early figures, who later came to be identified with the counterculture of the 1960s.

The spirituality that these three artists were exploring was marked by a desire for personal growth and to break free from systems of control. They did not however reject religion completely in favour of secularism, as had been the case with the artists and thinkers of the *Refus Global* in Quebec during the late 1940s, for instance. Instead, they turned to non-Western forms of metaphysical thought. They overcame the mind/body split of Christianity by practicing yoga and meditation, studied occult philosophy and magic and found parallels between mysticism and science. William Moritz writes about the postwar context in California: "These artists shared a broad base of spiritual and theoretical influences, encompassing such local figures as Swami Prabhavananda, Swami Paramahsansa Yogananda, Krishnamurti, Arnold Schonberg, Aldous

5 Elissa Auther and Adam Lerner, "Introduction: The Counterculture Experiment: Consciousness and Encounters at the Edge of Art," *West of Center: Art and the Counterculture Experiment in America, 1965-1977* (Minneapolis, London: University of Minnesota Press, 2012), xix.

Huxley, Alan Watts, Timothy Leary, the Beats, and hippies. Institutional resources included the Philosophical Research Library with its fine collection of classic occult texts, the Theosophical Society publishing house, and the California Institute of Technology…"[6] This eclectic approach to understanding and broadening consciousness had historical precedents in America and in Europe that date as far back as the seventeenth century with movements like Rosicrucianism, Transcendentalism and Theosophy. My research has led me to understand that these three artists were knowledgeable about this history, that they were actively studying sacred texts, and that these pursuits inspired and gave shape to their artistic endeavours.

Given that this study looks at the relationship between artists in the West and non-Western cultures, the question must be asked: is this yet another case of neo-colonial exploitation, whereby Western artists who have exhausted their own resources look to other cultures for inspiration? The history of modern art is fraught with cases of cultural appropriation and orientalist readings of non-Western cultures. On the one hand, it is true that the artists under discussion here were looking eastwards out of a disenchantment with their own culture, and that they showed great admiration for the cultures they were studying. Influential thinkers from Asian countries established themselves in California during the postwar period, positively influencing the cultural exchange. By virtue of their positions as Western men engaging in independent and decontextualized readings of these philosophies, it is inevitable that they were involved in a somewhat reductive understanding of those cultures. Alexandra Munroe makes an interesting observation: "Misreadings, misunderstandings, denials, and imaginary projections emerge as important iterations of this individual, transcultural process. Some artists identified with non-

6 Swami Prabhavananda was a Ramakrishna monk who co-translated The Upanishads to English in 1947, Swami Paramahsansa Yogananda was an India yogi who helped popularize yoga in the West, Krishnamurti was an Indian philosopher associated with Theosophy, Schonberg was a German composer, Aldous Huxley and Alan Watts were writers and Timothy Leary was a psychologist famous for his work on LSD at Harvard University in the 1960s. See William Moritz, "Abstract Film and Color Music," in *The Spiritual in Art: Abstract Painting 1890-1985*, ed. Edward Weisberger (Michigan: Aberville Press, 1986), 303.

Western and preindustrial systems of intelligence precisely to subvert and critique what they saw as the spiritually bankrupt capitalist West."[7]

While proposing to analyze these case studies in relation to spirituality, I will also describe each of them as belonging to the field of "expanded cinema." Gene Youngblood crystalized the discourse about this artistic project in his 1970 book *Expanded Cinema* in which he proposed that ordinary consciousness was undergoing a transformation, helped along by cinematic experiments. Youngblood sought to explain that unconventional and multimedia screening environments, abstract and non-narrative films and holographic technology were utopian models that could precipitate radically altered forms of consciousness. Youngblood argued in favour of a cinema that turned away from narrative, and from profit-driven end goals; artists should instead embrace new technological advancements as ideal tools for experimentation. He believed a synesthetic cinema to be "the only aesthetic tool that even approaches the reality continuum of conscious existence in the nonuniform, nonlinear, nonconnected electronic atmosphere"[8] of the epoch. However, unlike psychedelic cinema, expanded cinema suggested that the broadening of the mind could be attained through cultural change and more particularly through the transformation of the cinematic apparatus.

When filmmaker Stan VanDerBeek first coined the expression in 1966, "expanded cinema" represented a visionary tool that could unify all strata of the world through a globalized form of intermedia.[9] Recent scholarship on expanded cinema has reinvigorated the discussion about the significance of this theoretical model. These publications include *Fluid Screens, Expanded Cinema* edited by Janine Marchessault and Susan Lord (2008), *Expanded Cinema: Art,*

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7 Alexandra Monroe, "The Third Mind: An Introduction," *The Third Mind: American Artists Contemplate Asia: 1860-1989* (New York: Solomon R. Guggenheim Foundation, 2009), 25.

8 Gene Youngblood, *Expanded Cinema* (New York: E. P. Dutton & Co., 1970), 77.

9 Stan VanDerBeek, "Culture: Intercom and Expanded Cinema: A Proposal and Manifesto," *Film Culture* 40 (1966), 15.

Performance, Film edited by A. L. Rees (2011), *Between the Black Box and the White Cube: Expanded Cinema and Postwar Art* by Andrew V. Uroskie (2014), *Reimagining Cinema: Film at Expo 67* edited by Monika Gagnon and Janine Marchessault (2014), and *Cinema in the Expanded Field* by François Bovier and Adeena Mey (2015).[10] Today the scholarship on expanded cinema is not so interested in the "cosmic consciousness" dimension, but rather looks back at the 1960s and 1970s work as prescient experiments with media and visual technologies. Recent studies reflect today's ever-changing digital reality whereby conventional screening apparatus are no longer the norm and films are experienced on many different devices and consumed in fragments. The essays in Bovier and Adeena's anthology, for instance, focus on the "modes of presentation and reception"[11] of the intermedia of the 1960s, and address the spatial dimension of exhibiting ephemeral multimedia.

The intellectual parameters that have been developed to define expanded cinema are helpful in analysing the works I identify as having spiritual qualities. In fact, one of these case studies, the *Vortex Concerts*, as well as other films by Jordan Belson, occupy a considerable portion of Youngblood's 1970 monograph and more precisely his section covering the ideas of cosmic consciousness. Youngblood qualifies early experiments of the 1950s as belonging to the field and this open-ended chronology is also interesting for the purposes of this study. A forerunner of Youngblood and VanDerBeek's discussion of the spiritually transformative potential of cinema was the 1946 San Francisco Museum of Art's *Art in Cinema* series organized by Frank Stauffacher. The program was built as an initiative to renew interest in experimental

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10 Susan Lord and Janine Marchessault, *Fluid Screens, Expanded Cinema* (Toronto: Toronto University Press, 2008), Print; Alan L. Rees, *Expanded Cinema: Art, Performance, Film*, (London: Tate, 2011), Print; Andrew V. Uroskie, *Between the Black Box and the White Cube: Expanded Cinema and Postwar Art* (Chicago, London: University of Chicago Press, 2014) Print; Monika Gagnon and Janine Marchessault, *Reimagining Cinema: Film at Expo 67*, (Montreal: McGill-Queen's University Press, 2014); François Bovier & Adeena Mey, *Cinema in the Expanded Field*, ed. François Bovier and Adeena Mey (Zurich/Lausanne: JRP Ringier/Les presses du réel, 2015).

11 Bovier & Mey, "Multiple Sites of Expanded Cinema," *Cinema in the Expanded Field*, 7.

cinema in the postwar American context and to catalogue the artistic contributions that had been made to date. In its accompanying publication, *Art in Cinema* defined experimental cinema in terms not unlike the ones that Gene Youngblood would use over two decades later. For the introduction to the book, Henry Miller wrote a compelling essay in which he compares experimental cinema to the world of the "poet or the mystic."[12] He reflected on the function of these films:

> It is a world which, once discovered, will alter the very atmosphere we breathe. Its cardinal element is fantasy. It manifests itself whenever the imagination liberates itself from the thralls of the intellect. … On the screen we can sit inside and outside ourselves at the same time. The veil between dream and reality when suffused with light is capable of yielding the modulations of the spirit which animates all life. … A third eye renders back the wonder which surrounds the meaning of creation. … Wonder expands the inner orb, making it wax like a golden moon. At the full, the darkest recesses of the soul are illuminated.[13]

Miller's essay highlights the meditative potential of experimental cinema in evocative terms. He alludes to the experimental film artist as a spiritual guide who is able to see the "the veil between dream and reality"[14] and render it back through the lens. *Art in Cinema* had a powerful impact that would bring together artists of different generations and backgrounds and influence the work of a new generation of American experimental filmmakers who were introduce to the work of the European avant-garde for the first time. It is, for instance, how Jordan Belson became acquainted with the work of German artist Oskar Fischinger, and he would shortly thereafter start making abstract animation experiments of his own.

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12 Henry Miller, "The Red Herring and the Diamond-Backed Terrapin," in *Art in Cinema: A Symposium on the Avant-Garde Film Together with Program Notes and References for Series One of Art in Cinema*, ed. Frank Stauffacher (San Francisco: The San Francisco Museum of Art, 1947), 4.

13 Ibid, 4-5.

14 Ibid, 5.

As mentioned above, Fischinger, Belson and Gysin's engagements with spirituality was by and large marked by a turn away from the Christianity of their upbringing.[15] They preferred instead to experiment with a syncretic approach to spiritual thought, drawing from the ancient knowledge of Western esotericism, eastern froms of spirituality[16] and new forms of mysticism that emerged in the second part of the 19th century like theosophy, anthroposophy and more obscure occult movements like the Hermetic Order of the Golden Dawn. Each of these artists studied and experimented with the teachings of a wide range of systems of beliefs and maintained an attitude of exploration rather than seeking a single religion to devote themselves to. Each artist would integrate their spiritual interests into their film/art practices in distinctive ways.

Although both Jordan Belson and Brion Gysin openly used psychedelic drugs during the 1950s, I choose not to give excessive attention to hallucinogenic drugs in my analysis of their works. Drugs were only one of the many ways in which these two artists explored the alteration of consciousness and my intention is rather to discuss the spiritual reasoning underlying their choices and analyze how this materializes in the case studies.

The art that I will discuss in this study begins with electric light as part of the technology of the cinematic. Light tubes, powerful light beams and simple light bulbs were used to convey the ineffable nature of spiritual experience. It is important to recognize that luminescence has historically been of central importance in the art and thought of the Abrahamic religions as well.

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15 According to Oskar Fischinger's biographer William Moritz, the artist was born to a catholic family but Fischinger never adhered to an organized religion in his adult life. See William Moritz, *Optical Poetry: The Life and Work of Oskar Fischinger* (Bloomington, Indianapolis: Indiana University Press, 2004), 2 and 112; Details on Jordan Belson's biography are restricted to scholars at this time but I speculate that he too was brought up under a Christian denomination given the English origins of his surname. In an interview with Scott MacDonald, Belson reveals that he remained agnostic until the age of thirty-five. See MacDonald, 71; John Geiger uncovers that Brion Gysin was brought up Catholic and attended Anglican, Catholic and Benedictine schools. The artist proclaimed to be an atheist at age 15. See John Grisby Geiger, "Brion Gysin: His Life and Times," in *Brion Gysin: Tuning Into the Multimedia Age*, ed. José Férez Kuri (London: Thames & Hudson, 2003), 201-203.

16 I use the expression Eastern spirituality as a short hand, mainly to broadly describe Hinduism, Buddhism and yoga.

Media theorist and philosopher Peter Sloterdjik offers insight into the metaphysical properties of light:

> The 'reason of being' itself, be it God or a creative central intelligence, has not infrequently been imagined to be an active intelligible sun, which, with its rays, creates forms of the world, things and intellects – like an all-embracing theater of self-contemplation.[17]

The use of Light is prevalent in Christianity Judaism and Islam, notably in art, architecture and scripture to convey God or a higher reality. The sun's light is often represented in biblical depictions from paintings and sculptures to frescos, domes and stained glass. To name just one example, Giovanni Lorenzo Bernini's High Baroque sculpture, "The Ecstasy of Saint Teresa" (1647-1652) in the Catholic Church of Santa Maria della Vittoria made use of natural light that filtered through a domed window above the sculpture to illuminate monumental clusters of gold rod representing the sun's rays that surrounded the biblical scene. This sculpture illustrates both the ethereality and authoritative nature of light in the Christian context. Indeed, there was often a doctrinaire undertone to these representations that sought to evoke the power of the Church.[18]

Even though the art works in this study are referred to as cinematic, none are actually films and none made use of a standard screen. The *Lumigraph* was an instrument containing a malleable screen on which only the tactile gestures of the performer were imbued with coloured light. The *Vortex* concerts were one of the first occurrences of light projections on a domed surface, while the *Dream Machine*, creates flashing light with a rotating punctured metal sheet and is arguably best experienced with eyes shut. All three of these early forays into expanded cinema explored consciousness through devices engineered to create spectacles of light.

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17 Peter Sloterdijk "The Open Clearing and Illumination. Remarks on Metaphysics, Mysticism and the Politics of Light," in *Light Art from Artificial Light: Light as a Medium in 20th and 21st Century Art*, ed. Peter Weibel and Gregor Jansen (Ostfildern; New York: D.A.P/Distributed Art Pub, 2006), 45-46.

18 Jeanne Halgren Kilde, *Sacred Power, Sacred Space: An Introduction to Christian Architecture and Worship* (New York: Oxford University Press, 2008), <http://0-hdl.handle.net.mercury.concordia.ca/2027/heb.30806.0001.001>, Accessed 5 Sept. 2017.

Fischinger came from the European avant-garde tradition, Jordan Belson belonged to the Bay Area experimental film milieu associated with the Beat generation and Brion Gysin was a cosmopolitan artist and writer also associated with the Beats in the cultural trifecta of Paris, Tangier and New York. Although the artworks discussed in this thesis originated in entirely separate contexts, some important moments of influence and shared experience do give these works a sense of harmony. Fischinger was a known source of inspiration to Belson who started his film practice in the tradition of Fischinger's abstract animations. Brion Gysin and Jordan Belson were linked through the Beat movement, and both the *Vortex* concerts and the *Dream Machine* made use of the flicker effect.

Oskar Fischinger and The *Lumigraph*

"This art emphasizes the effect of music. It is to music what wings are to birds." – Oskar Fischinger (c.1948)[19]

In 1950, German avant-garde artist Oskar Fischinger (1900-1967) created the *Lumigraph*, a mechanical instrument intended to create light based images in response to pre-recorded music and synthetic music. The original *Lumigraph* (see Fig.1), which was referred to as *The Light Instrument* at the time of its inception, consisted of a three by four feet screen supported on a one-foot deep box-like wooden frame. The screen was made of a latex sheet stretched onto the box's front facade. Fischinger chose this material for its elastic and reflective attributes. Light tubes were placed underneath the top board of the frame, right in front of the rubber screen. When it was pushed forward the screen reached the thin light beam that activated the colourful imagery.

19 Jaap Guldemond, Marente Bloemheuvel. Cindy Keefer, "Oskar Fischinger : An Introduction," in *Oskar Fischinger 1900-1967: Experiments in Cinematic Abstraction*, ed. Cindy Keefer and Jaap Guldemond (Amsterdam, Los Angeles: EYE Filmuseum, Center for Visual Music, 2012), 10.

On the two vertical boards of the screen's backside, Fischinger installed wheels of colours. Six colour gelatine sheets were affixed to glass blades that were manually rotated by pulling on fabric handles.

At least two people were needed to play the instrument as Fischinger intended. A performer standing at its rear would activate the imagery and the intensity of the colours by applying pressure with their hands on the screen. The artist's daughter Barbara Fischinger describes the sequence of a typical performance:

> I would move the colour wheels. He would direct me which colours he wanted, or that I just rotate fast through the colours. […] He was intent on what he was playing, and had a concept of what colours he wanted at certain movements in the music. […] Sometimes, he would hit the screen to make it shudder. It looked lovely, like a big explosion of rippling light.[20]

At times, Fischinger played the *Lumigraph* without the screen on, wearing a black suit and white gloves in a darkened room so that the source of coloured light would illuminate his hands that appeared to be floating in space.[21] Fischinger selected musical recordings with a well-defined rhythmic component as this led to more expressive performances.[22] The wide range of music included light orchestral compositions by Johann Strauss and Leroy Anderson, a selection of pieces by Romantic composers Carl Maria Von Weber, Camille Saint-Saëns and Jean Sibelius, and popular mid-century styles like the exotic lounge music of composer Martin Denny, the Afro-Cuban beats of Sabu and his Percussion Ensemble and the Hawaiian pop of musician and singer Don Ho.[23] Fischinger also used innovative technology to create his own music. As early as 1932, he used hand-made synthetic soundtracks on filmstrips (see fig.2) and during the 1950s, he

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20 Interview with Barbara Fischinger by Cindy Keefer, "The Lumigraph: Dancing with your Hands," in *Oskar Fischinger 1900-1967: Experiments in Cinematic Abstraction*, ed. Cindy Keefer and Jaap Guldemond (Amsterdam, Los Angeles: EYE Filmuseum, Center for Visual Music, 2012), 197.

21 Elfriede Fischinger, "Writing Light," *Fischinger: A Retrospective of Paintings and Films* (Denver: Gallery 609, 1980) <http://www.centerforvisualmusic.org/Fischinger/Lumigraph.htm>

22 Keefer, 195.

23 Keefer, 200.

created a machine that enabled him to produce these synthetic sounds. Synthetic sound, also referred to as "drawn sound", involved manually manipulating celluloid to print a soundtrack onto the film. Joseph Hyde explains this method: "if a sound could be captured and represented visually as a waveform, then the reverse process could also be applied, and something drawn by hand, or scratched into exposed film, or producing produced by photographing directly onto the soundtrack, could then be played through a film projector and heard."[24] For some of his *Lumigraph* performances, Fischinger prepared a synthetic sound recording of Jean Sibelius' *Valse Triste, Op. 44, No.1*.[25] Fischinger created this recording with an apparatus he built c. 1948 that consisted of glass plates and a wooden frame. Fischinger placed film strips illustrated with graphic audio waveforms on the glass plates in order to play these recordings.[26] The *Valse Triste* synthetic recording used by Fischinger during his *Lumigraph* performances has not yet been found in his archives at the Center for Visual Music in Los Angeles, therefore it is not possible to know with certainty what it sounded like and how it was played at this time.[27]

Existing literature on the *Lumigraph* is minimal[28] and the instrument was only played publicly on three separate occasions: it was played four consecutive nights in January 1951 at the Coronet Theater in Los Angeles, at the Frank Perls Gallery also in Los Angeles in October 1951

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24 Joseph Hyde, "Oskar Fischinger's Synthetic Sound Machine," in *Oskar Fischinger 1900-1967: Experiments in Cinematic Abstraction*, ed. Cindy Keefer and Jaap Guldemond (Amsterdam/Los Angeles: EYE Filmuseum/Center for Visual Music, 2012), 145.

25 Ibid.

26 Ibid.

27 Email exchange with Center for Visual Music director. Cindy Keefer, "Re: Clarification: 'Dancing with Your Hands' Interview," received by Mojeanne Sarah Behzadi, 10 May 2017.

28 The most notable references to the instrument are an essay by Elfriede Fischinger for the 1980 Gallery 609 exhibition *Fischinger: A Retrospective of Paintings and Films* in Denver, Colorado; a short description of the work by William Moritz in his 2004 monograph *Optical Poetry: The Life and Work of Oskar Fischinger*; and most recently, an evocative interview with the artist's daughter, Barbara Fischinger conducted by the director of the Center for Visual Music, Cindy Keefer for the 2012 exhibition catalogue *Oskar Fischinger 1900-1967: Experiments in Cinematic Abstraction* produced by Amsterdam's EYE Filmmuseum and the Center for Visual Music. This last source provides the most details into the intention of the artist and provides an in-depth explanation of how the instrument was used. There are recordings of the Lumigraph as performed by Fischinger at the Center for Visual Music. There is notablt a filmed record of the instrument is a 1969 16mm color film performed by Elfriede Fischinger to Sibelius' *Valse Triste* with the assistance of William Moritz and Conrad Fischinger.

and at the opening of Fischinger's solo painting exhibition at the San Francisco Musuem of Art in February 1953. During the rehearsal for this last public performance, a speaker fell on his head, causing him considerable injury. Fischinger, who was superstitious, believed this incident to be a bad omen, influencing his decision to stop performing publicly.[29] Aside from these public showings, Fischinger mostly played for guests at his homes in West Hollywood and in Laurel Canyon. Among the people who saw a *Lumigraph* performance were artist Harry Bertoia, designer Cleo Baldon, art critic Jules Langsner, and the director Ib Melchior who used the *Lumigraph* in a scene of his film *The Time Travelers* (1964) (see fig.3).

The *Lumigraph* expresses the essential expanded cinema premise of "exploring cinema outside of the conventional screen."[30] Fischinger is also of the first generation of artists who accomplishes what Gene Youngblood argues "expanded cinema" should do. Youngblood believed "movies no longer provide the most realistic images so they've turned inward."[31] Fischinger himself vehemently argued against mass cinema in 1947 proclaiming that "there is nothing of an absolute creative sense in it. It copies only nature with realistic conceptions, destroying the deep and absolute creative force with substitutes and surface realisms."[32] Instead of aiming for surface realism, the *Lumigraph* takes cinema into an inward realm of sensory pleasure and spiritual exploration through live performances that fuse music, colour and light. These "lumia"[33] compositions – art works made of light – were aligned with the kind of

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29 William Moritz, *Optical Poetry: The Life and Work of Oskar Fischinger* (Bloomington, Indianapolis: Indiana University Press, 2004), 138.

30 David Curtis, "Introduction," *Expanded Cinema: Art, Performance, Film* (London: Tate Publishings, 2011), 5.

31 Youngblood, 79

32 Oskar Fischinger, "My Statements Are in My Work," *Oskar Fischinger 1900-1967: Experiments in Cinematic Abstraction*, ed. Cindy Keefer and Jaap Guldemond (Amsterdam, Los Angeles: EYE Filmuseum, Center for Visual Music, 2012), 113.

33 The term "Lumia" was first used by artist Thomas Wilfred (1889-1968) to describe and name the sculptural art works he made that consisted in free-flowing colour light emanations. See Keely Orgeman, "A Radiant Manifestation in Space: Wilfred, Lumia, and Light," in *Lumia: Thomas Wilfred and the Art of Light* (New Haven: Yale University Press, 2017), 21.

expanded cinema Stan VanDerBeek defended, having the intention to "both deal with logical understanding and to penetrate to unconscious levels to reach for the emotional denominator of all men, the non-verbal basis of human life."[34]

Oskar Fischinger began making animation films during the 1920s in Germany. He belonged to a current of avant-garde experimental filmmakers working on abstract animations and who approached the film medium as a canvas in motion. The emergence of motion picture technology brought with it the potential to bring the static, yet vibrant abstract painting to life and the combination of music and film allowed artists to experiment with the time dimension, movement and velocity. Fischinger was affiliated with the German "absolute film" movement (also referred to as "visual music"), a movement that also included German artists Walther Ruttmann (1887-1941) and Hans Richter (1888-1976) as well as Swedish artist Viking Eggeling (1880-1925). The name of this movement was a nod to the parallel "absolute music" phenomenon that characterized music that was free of narrative references and approached sound in its pure form. One of the defining moments of "absolute film" was the major film-screening event in Berlin in 1925 "Der absolute Film" screening at the Ufa Theater in kurfürstendamm that brought solidified the formal and theoretical connections between the budding works of these artists.[35] Absolute film/visual music largely consisted of animations that depicted non-figurative shapes, light and colour creating visual interpretations of the musical principles of "harmonies, rhythms, melodies, counterpoints, etc […]."[36] Although, the early artists working in the "absolute film" genre had affinities in their approaches to film, they emerged from distinctive paths, styles and techniques to achieve their films.

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34 VanDerBeek, 17.

35 D. Kulle, "The absolute film. Documents of the Media Avant-Garde (1912-1936)," in *Historical Journal Of Film Radio And Television* 34, no. 1: 146-148. Arts & Humanities Citation Index, EBSCOhost (accessed September 5, 2017).

36 William Morritz, "Absolute Film," *Center for Visual Music*, Apr. 1999, <http://www.centerforvisualmusic.org/library/WMAbsoluteFilm.htm> Accessed Apr. 9, 2017.

Walter Ruttmann was the first to complete a nonrepresentational animation with his *Opus 1* (1921), a colourful film featuring painted brushstrokes and geometric shapes dancing across the surface of the screen from frame to frame (see fig.4). *Opus 1* was screened in many cities across Germany and accompanied by a live string quintet, with Ruttmann as cellist. Ruttmann continued making animations until the late 1920s, after which he favoured filming in a documentary style. Dada artist Hans Richter made three short non-objective animation films: *Rhythmus 21, 23* and *25* are studies in rhythm that focus on ever-changing arrangements of squares, rectangles and lines. Richter's fellow Dada artist and friend, Viking Eggeling completed only one non-objective film, *Symphonie Diagonale* (1925), a silent black and white portrayal of lines and geometric shapes that evolved from constructivist experiments on paper roll in which he studies the inner musicality of time intervals. Fischinger's early experiments with animation differed from those of his contemporaries both technically and aesthetically. The fluid motions of his geometric shapes display convincing anthropomorphic traits that convey his belief that each object in the world possesses a spirit.[37] *Studies 1* to *13* (1929-1933), black and white short films, bring to mind dance choreography with their tight synchronization to the rhythms and motions of music. Moreover, all of his films create complex spatial configurations through perspective and depth of field. His early color-tinted multiple projection series *Raumlichtkunst* (c.1926-27) and the advertisement *Kreise [Tolirag Ad]* (1933-34) visually create a visually magnetic pull through the use of concentric circles and spiral vortexes that seamlessly transcend their mechanical production.

Interest in how spirituality intersected with representations of the color, light and pure geometric forms had developed since the 1910s when painters like Wassily Kandinsky, Frantisek Kupka and Paul Klee broke with figurative representation in search of an expression of inner

37 Richard H. Brown, "The Spirit Inside Each Object: John Cage and Oskar Fischinger," in *Oskar Fischinger 1900-1967: Experiments in Cinematic Abstraction*, ed. Cindy Keefer and Jaap Guldemond (Amsterdam, Los Angeles: EYE Filmuseum, Center for Visual Music, 2012), 140.

reality that echoed an eternal truth. Maurice Tuchman describes the artists' preference of "symbolic color to natural color, signs to perceived reality, ideas to direct observation."[38] These colors, signs and ideas were intended to articulate a universal aesthetic language that was supposed to awaken direct inner truths.

Fischinger's animations have an enchanting and vibrant quality not unlike Wassily Kandinsky's paintings and in fact there are many parallels between Kandinsky's essay *Concerning the Spiritual in Art* (1911) and the structure and expression of Fischinger's films. Fischinger knew of Kandinsky when living in Germany in the 1920s and 1930s and read his writings. He became further acquainted with his art in California through a friendship with the art dealer Karl Nierendorf as well as through the Museum of Non-Objective Painting. Among the Absolute Film artists, Fischinger's art comes closest to integrating the theoretical and formal principles described by Kandinsky in his writings. *Concerning the Spiritual in Art* proposes a break with the materialist thinking that pervaded Europe throughout the nineteenth century and transformed all aspects of society at the turn of the twentieth century. Materialism evolved around the conviction that everything is matter, and belongs to the physical world. According to this worldview, reality, including mental processes and consciousness are fully ascribed to physical existence and can be scientifically verified. It is by extension fundamentally irreconcilable with metaphysics and spirituality.[39] Kandinsky, like many of his contemporaries, closely studied the spiritual ideas that were gaining currency since the 1870s like Helena Blavatsky's theosophy and Rudolf Steiner's anthroposophy. He saw these ideas as small breakthroughs in an otherwise dark period for humanity: "The nightmare of materialism, which

38 Maurice Tuchman, "Hidden Meanings in Abstract Art," in *The Spiritual in Art: Abstract Painting 1890-1985*, ed. Edward Weisberger (Michigan: Aberville Press, 1986), 17.

39 "Charles T. Wolfe, "(Introduction): Materialism, Opprobrium and the History of Philosophy," in *Materialism: A Historico-Philosophical Introduction* (Cham: Springer, 2016), 3.

turned life into an evil, senseless game, is not yet passed; it still darkens the awakening soul. Only a feeble light glimmers, a tiny point in an immense circle of darkness."[40]

In addition to making over thirty-five short animation films and advertisements during his early career in Germany, Fischinger was also a skilled inventor, creating many devices that enabled him to both surpass the technological limits of the early film medium and create instruments and machines that addressed his spiritual needs and broader creative urges. In fact, Fischinger did not begin his career as an artist. His formal education was in engineering and he also apprenticed to an organ builder and as a draftsman for an architectural firm. Subsequent to a meeting with Walter Ruttmann in 1921, he embarked on his first undertaking in cinematic abstraction with the invention of a wax–slicing machine. This device captured a film frame of the surface of a block of wax each time it was sliced, exposing the changing interior patterns of the wax log that had been fashioned to contain abstract imagery.[41] Fischinger's inclination to represent aura-like imagery was also a concern of Walter Ruttmann's. Hearing of Fischinger's recent invention, Ruttmann commissioned him to build him a wax-slicing machine of his own (see fig.5).

Fischinger's early education allowed him to develop an interest in the "theoretical physics of music."[42] He approached much of his art with a scientific eye that complemented his mystical propensity. The following passage reflects much of his unique position at the intersection of science, art and mystical focus:

> Light is the same as Sound, and Sound is the same as Light. Sound and Light are merely waves of different length. Sound and Light waves tell us something about the inner and outer structure of things. Non-objective expressions need no perspective. Sound is mostly an expression of the inner plastic structure of things, and should also not be needed for non-objective expressions. The more

40 Wassily Kandinsky, *Concerning the Spiritual in Art* (New York: George Wittenborn Inc., 1947), 24.
41 Moritz, 7.
42 Moritz, 3.

> unessential material we can take away, the more the essential, the non-objective absolute truth, can come forth.[43]

Fischinger's reflections on the physics of light and sound and his association with major German scientists of the period like Hermann Oberth and Willy Ley – both of whom he met while working on special effects for Fritz Lang's *Woman in the Moon* (1929) – exemplify his curiosity in the scientific knowledge of the time. He had a keen interest in Einstein's theory of relativity and particularly the concept of the fourth dimension according to which time is homologous to linear dimensions.

During the 1920s, he collaborated on "colour-light" concerts with Hungarian composer, Alexander Laszlo. Similarly to the visual artists who explored musicality in its visual expression, many composers wanted to bring music alive through colours that corresponded to musical notes. Laszlo experienced synaesthesia, a neurological condition that enabled the subjective experience of one sense to trigger the experience of another sense simultaneously: "Gradually this new feeling of 'hearing colours' […] developed in me to the point that I no longer included pieces in my repertoire that did not light up in colours as I played them."[44] He wrote an essay called "*Die Farblichtmusik*" (Colour-Light-Music) that lays out his plans to manifest his coloured music visions. In 1926, Fischinger was commissioned to create filmic material that Lazlo projected during his concerts. Although there exists no records of what these consisted of, what is known is that reviews frowned on the juxtaposition of the classical Romantic music with the futuristic effects of Fischinger's film segments. Hence, this led them to end their collaboration and Fischinger began creating his own multi-projection show that included some of the coloured

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43 Oskar Fischinger, "Radio Dynamics – Document No. 4," in *Optical Poetry: The Life and Work of Oskar Fischinger*, ed. William Moritz (Bloomington, Indianapolis: Indiana University Press, 2004), 184.

44 Barbara Kienscherf, "From the Ocular Harsichord tot the Sonchromatoscope: The Idea of Colour Music and Attempts to Realize it," in *Summer of Love: Psychedelic Art, Social Crisis and the Counterculture in the 1960s*, ed. Christoph Grunenberg and Jonathan Harris (Liverpool: Liverpool Universiy Press, 2005), 191-192.

footage he made for Laszlo. From these, he produced a tri-projector piece often referred to as *Raumlichtkunst* (Space Light Art, 1926) that consisted in spliced fragments of his film experiments including wax slicing footage, depictions of celestial, circular shapes, and textured color experiments that Fischinger claimed could produce: "an intoxication by light from a thousand sources."[45] This experiment generated interest from Bauhaus artist and professor László Moholy-Nagy – another artist interested in "painting with light."[46] (see fig.6)

In 1935, Fischinger's animation *Komposition in Blau* (Compisition in Blue, 1935) was shown at the Venice Film Festival and was received with high praise (see fig.7). An MGM agent had the opportunity to bring a copy with him as well as another film to California and after seeing the film, Ernst Lubitsch, a German émigré and director of production at Paramount, offered Fischinger a position to join his team.[47] In February 1936, three years after the Nazi regime overtook Germany, Fischinger and his family relocated to Los Angeles. In Hollywood, he had contracts with major studios like Paramount, MGM, Disney and worked with Orson Welles' film studio, Mercury Productions. With the exception of MGM where he had the opportunity to make a critically acclaimed non-objective short animation, *An Optical Poem* (see fig.8), the studios seemed to be skeptical of the value of abstract animations as the industry increasingly embraced more lucrative figurative styles of animation. Several years of unfulfilling experiences in the Hollywood industry led him to return to producing animation films independently. He found creative and financial support from German expatriate patrons Galka Scheyer and Baroness Hilla Rebay von Ehrenwiesen who in 1939 became the director and curator of the Museum of Non-Objective Painting, later renamed the Guggenheim Museum in New York.

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45 Oskar Fischinger, "A Note About R-1," in *Optical Poetry: The Life and Work of Oskar Fischinger*, ed. William Moritz (Bloomington/Indianapolis: Indiana University Press, 2004), 176.

46 László Moholy-Nagy, "Painting with Light – A New Medium of Plastic Expression," *Penrose Annual* 41(1939): 25-31.

47 Moritz, 58-64.

Hilla Rebay was an ardent supporter of non-figurative painting as well as the spiritual ideas that energized its inception. An artist herself, she met her then patron Solomon R. Guggenheim when she first arrived in New York in 1927 and while he sat for her as she painted his portrait, she convinced him to take an interest in European abstraction. She helped him build his impressive collection of non-objective art and he subsequently decided to open a museum in New York to house his growing collection. Rebay began her patronage of Fischinger's non-objective film practice in 1938, a support that was hugely significant, not only inasmuch as it allowed him to maintain his animation practice for a decade longer but more importantly because it was one of the only institutional endorsements of abstract animation during the 1940s in the United States and contributed to its legitimacy and development. Therefore, "Rebay's enthusiasm for non-objective film offered a ray of hope for filmmakers struggling on the margins of the entertainment industry or the institutional fortress of the art world."[48] In 1943, during the early stages of developing the project for the new Guggenheim building with Frank Lloyd Wright, she arranged a meeting between Fischinger and Wright to conceive a plan for a movie theater specifically designed for screening experimental and non-objective films. By the time the museum's construction was under way, Solomon Guggenheim had passed away and Guggenheim's heirs fired Rebay, simultaneously dropping plans for the film theater.

In her preface to Kandinsky's book *Point and Line to Plane* (1926) Rebay proclaims: "To unfold the human soul and lead it into receptivity of cosmic power and joy is the tremendous benefit derived from the non-objective masterpiece, so intensely useful and conceived from the primary essence of creation."[49] Rebay's endorsement of a universal form of spirituality was

48 John G. Hanhardt, "Rhythm of the In-Between: Abstract Film and the Museum of Non-Objective Painting," in *The Museum of Non-Objective Painting*, ed. Jennifer Knox White, Don Quaintance, Karole Vail (New York: Guggenheim Museum Publications, 2009), 142.

49 Hilla Rebay, "Preface", *Point and line to Plane* (New York: The Guggenheim Foundation, 1947), 12.

progressive and modern but Fischinger also experienced a side of Rebay's devotion that was at times oppressive and condescending. In one letter to the artist, she required him to regularly attend ceremonies at the Los Angeles Institute of Mental Physics led by her admired spiritual teacher Ding Le Mei[50] in order to "improve himself spiritually."[51]

The occult ideas brought to the surface by the spiritual thinking of the time were connected to the overarching search for "oneness with the ultimate reality."[52] To Kandinsky, the immaterial spiritual experience could not be attained or understood through theory or dogma. He argued that through experiencing art, the soul could be aroused into mystical contemplation[53]. Fischinger agreed with the idea that music was the art form that most successfully achieved this because it is the least material. Kandinsky proclaimed that painting could achieve an equivalent to musical composition: "And from this results that modern desire for rhythm in painting, for mathematical, abstract construction, for repeated notes of colour, for setting colour in motion, and so on."[54]

Fischinger and Rebay were also attuned to theosophy, to the sacred geometry and science of numbers that were integral elements of the foundational theosophical writings. The Theosophical Society was founded by Helena Petrovna Blavatsky and Henry Steel Olcott in 1875 with the following intentions: "1. The formation of a universal human brotherhood without distinction of race, creed, sex, caste, or colour, 2. the encouragement of studies of comparative religion, philosophy, and science; and 3. the investigation of unexplained laws of nature and the

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50 Ding Le Mei or Dr. Edwin J. Dingle was the founder of a sect called The Institute of Mental Physics located in California. Dingle's teachings were influenced by the twenty years he spent living in China. See Joan M. Lukach, *Hilla Rebay: In Search of the Spirit in Art* (New York: George Braziller, Inc., 1983), 199.

51 Moritz, 102.

52 Tuchman, 19.

53 Kandinsky, 31.

54 Kandinsky, 40.

powers latent in man."[55] Robert P. Welch writes about the symbolic meaning of geometric shapes and numerology in Helena Blavatsky's writings: "a basic premise is the masculinity of odd numbers and femininity of even ones, with the related geometric forms also characterized. […] The triangle, the most rudimentary true geometric shape, is associated with the universal triune godhead and sides of pyramids, while the square represents terrestrial life and the base of the pyramid."[56] Many of the artists who integrated pure geometry into their practice were directly invoking the language of the occult to give external meaning to their inner experience.

In 1901, Annie Besant, the second president of the Theosophical Society, co-wrote the book *Thought Forms* with Charles Webster Leadbeater. With the premise that "thoughts are things"[57], they set out to illustrate their clairvoyant perceptions of inner feelings including affection, devotion, intellect, anger and sympathy using as guiding principles the effects of thoughts. The "radiating vibration and floating forms[58]" of thoughts as well as a chart of colours associated with moods were used as a basis for the visual emanations of the soul (see fig.9). The resulting illustrations in the book are a wide range of colourful formations, some nebulous and others solid, swirls of colours and assortments of geometric matter representing human energy (see fig.10). This notion of visualizing thought forms was of great importance to the pioneers of abstract animation, including Fischinger whose wax-slicing experiments from the 1920s and early black and white film studies suggest an affinity with this concept.

Beyond theosophy and anthroposophy, Fischinger was also drawing on Eastern thought, particularly from India, which reached Germany in the early 19th century when philosopher

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55 Peter Washington, "Troubles," in *Madame Blavatsky's Baboon: A History of the Mystics, Mediums, and Misfits Who Brought Spiritualism to America* (New York: Schocken Books, 1993), 69.
56 Robert P. Welsh "Sacred Geometry: French Symbolism and Early Abstraction," in *The Spiritual in Art: Abstract Painting 1890-1985*, ed. Edward Weisberger (Michigan: Aberville Press, 1986), 65.
57 Annie Besant and C.W. Leadbeater, *Thought-Forms* (London: The Theosophical Publising House LTD, 1901), 11.
58 Besant, Leadbeater, 21.

Johann Gottfried Herder's counter-Enlightenment writings[59] introduced his Romantic and orientalist views on the virtues of India's religions and culture to European audiences. Christian Rogowski writes about India's influence during the Weimar years: "German interest in India and its spiritual and philosophical traditions continued throughout the nineteenth century, culminating in the appropriation of Eastern thought by the various *Lebensrefrom* (life reform) initiatives around 1900. In a quest for alternatives to alienating, industrialized mass society, increasing numbers of disenchanted city dwellers turned to Indian culture for reorientation and spiritual renewal."[60] Coming of age during the Weimar era, Fischinger's own lifestyle reflected a validation of these reformist values. He was learned in Buddhist and Hindu beliefs and performed daily rituals that suggest a deeply rooted investment in cultivating his inner life:

> He lived constantly by some sort of astrological principles - working and abstaining according to moon cycles and other portents. For certain periods, he stayed awake only at nights, sitting on hilltops in meditation contemplating the moon. He locked himself away...for hours to practice yoga. He moved his bed around periodically to compensate for magnetic currents of the earth, and to realign his own energy flow in various relationships with it.[61]

Although Fischinger mostly avoided explaining the meanings of his work, there is nonetheless much evidence to suggest that they involved an expression of spirituality. In a letter to Rebay he gives a detailed account of his long-standing spiritual practice:

> I wish I could write you how much this whole teaching is in line with my innermost tendency. Already in 1929 in Berlin, I invented or developed and used a rotating cylinder, driven by a motor, day and night, all the time, to hold my denials and affirmations in steady motion-rotation (*An Optical Poem* reflects something of this). Years later, I learned

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59 See Johann Gottfried Herder's *Völker in Liedern*, 1778 and *Ideen Zur Philosophie der Geschichte der Menschheit*, 1784

60 Christian Rogowski, "Movies, Money and Mystique: Joe May's Early Weimar Blockbuster, The Indian Tomb," in Christian *An Essential Guide to the Classic Films of the Weimar Era*, ed. Noah Isenberg (New York: Columbia University Press, 2009), 64.

61 John Canemaker quotes William Moritz in his article "Elfriefe! On the Road with Mrs. Fischinger," *Funnyworld Magazine*, no.18, Summer 1978, Apr. 9, 2017 <http://oskarfischinger.org/OntheRoad2.htm >

> about the Buddhist prayer wheel, and discovered the existing parallel thoughts in my continuous rotating cylinders and the thousands-of-years-old prayer wheel.[62]

Fischinger also created a logo based on the Buddhist prayer wheel that he went on to sign all his paintings with. A series of notes he took while making his last animation film, *Motion Painting No. 1* (1947), also reflect his mystical inclinations. In one particular segment, he quotes Book 14 ff. of the *Bhagavad Gita*, a Hindu sacred text: "He who hath left behind him pride, Vain-glory, and Selfishness, goeth straight to happiness. Yea, so goeth he! Verily, Only he whose senses are shielded from the object of Senses, by the protection of the knowledge of the Spirit – only he is possessed of Wisdom."[63] Here, Fischinger seems to respond once more to the tenet that moving away from a materialist existence would lead to spiritual enlightenment.

The wax-slicing machine and the *Lumigraph* were part of Fischinger's modern metaphysical spirituality that went far beyond worship of holy figures, and extended instead to the realm of sciences and the manifestation of invisible matter. With the *Lumigraph,* Fischinger's compositions distance themselves from the geometric shapes his last animations like *An Optical Poem* (1938), *An American March* (1941) and *Radio Dynamics* (1942) (see fig.11) heavily relied on in favour of ephemeral, boundless formations of colours. They manifested the gestures and embodied experience of the performer as they were interpreting and synchronizing their movements to the rhythms of the music (see fig.12).

It could be argued that the *Lumigraph* was a way for Fischinger to channel his Buddhist and other spiritual inclinations into practice through the creative process of performance. His inner impulses and his responses to music were expressed through his hands, transforming ineffable energy into a rhythmical visual language that echoed the occult language of sacred geometry. For his home performances, he reinforced his relationship with the audience,

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62 Moritz, 112.
63 Quoted in Moritz, 186.

transforming his living room into a theater. He set up several mirrors overhead at an angle so as to see his own performances and was intent on the exact sequences he wanted the audience to experience.[64] The immediacy that performing the *Lumigraph* provided must have satisfied Fischinger's interest in exploring colour music more freely and without the meticulous and laborious technical process required of making animation films. He could rely on his spontaneous inner response to music, energy, thoughts and emotions and his belief that through creative expressions: "the non-objective, absolute truths can come forth."[65] He believed that light waves and colours could communicate and emanate truths. The distinctive optimism that marked his creative process was in continuity with his meditative attitude and his harmonious compositions could lead others to experience a universal sense of harmony.

Taking part in the audience of a *Lumigraph* performance would have been a transporting experience. The darkened space, together with the lively phantasmagorical impressions the hands left on the screen displayed a multisensory trajectory: a thought produced by music, transformed into energy and expressed visually through touch. The ephemeral formations were in a constant state of becoming, accentuating the dematerialized nature of energy, evoking the concept of the fourth dimension that Fischinger was fascinated by. The colourful emanations of light revealed tracings of the space-time continuum. They illustrated the trajectory of movement in space and time and connect these to music, giving it a visual dimension, in the manner of dance. If, as Kandinsky claimed, spirituality is manifested as tracings of inner meaning,[66] Fischinger's *Lumigraph* presented these ideas with yet a new dimension by bringing immediacy to the creative force to which he attributed the ultimate spiritual significance: "here and there, one day,

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64 Keefer, 197.

65 Oskar Fischinger's "Radio Dynamics – Document No.4" quoted in Moritz, "Statements by Oskar Fischinger," *Optical Poetry*, 184.

66 Kandinsky, 4.

perchance, something will be revealed, arising from the unknown, something that will reveal the True Creation: the Creative Truth!"[67]

Jordan Belson and the *Vortex* Concerts

"The theater of the future." – Jordan Belson & Henry Jacobs

Among the audience members at Fischinger's 1953 performance of the *Lumigraph* at the San Francisco Museum of Art was young Bay Area painter and experimental filmmaker Jordan Belson (1926-2011). He studied painting at the California School of Fine Arts and graduated with a B.A. from the University of California at Berkeley in 1946. Belson also became acquainted with Fischinger's work when the San Francisco Museum of Art organized its first *Art in Cinema* series, a symposium that reviewed the major moments in experimental cinema and presented screenings to a post-war crowd with a renewed of interest in the experimental approach to cinema. Soon after these seminal screenings, Belson decided to focus his art practice on the making of abstract animation films. He established contact with Fischinger who upon seeing his first film, recommended him to Hilla Rebay for a Guggenheim Fellowship. Rebay visited Belson's studio in 1949 and based on the strength of his graphic work, he was given a monthly stipend for two years and his paintings and films were shown at the Museum of Non-Objective Painting.

Belson thus described his experience of seeing the 1953 *Lumigraph* performance on the occasion of Fischinger's exhibition at the San Francisco Museum of Art:

> The mechanism of the Lumigraph was rather primitive, hand-made, but the way he performed proved his innate artistry, his natural sensitivity, that could turn even the

67 Oskar Fischinger, "True Creation," *Center for Visual Music*, <http://www.oskarfischinger.org/True%20Creation.html > Accessed Apr. 9, 2017.

> simplest things into a luxurious, magical illusion of cosmic elegance. That was very inspirational to me: much of my work after that had more of the quality of Lumia, and relied more on simple, hand-made devices.[68]

Belson's emphasis on the "cosmic elegance" of the *Lumigraph* performace is interesting to note in light of the performance work he would engage in just a few years later in a planetarium that conjured up celestial phenomena. In fact, Belson put aside his early experiments with film in the 1950s, in which he used hand-drawn abstract animation, to concentrate on performing with light on a monumental scale.

In 1957, Jordan Belson joined electronic musician Henry Jacobs in producing and performing the *Vortex* concerts, a series of audio-visual performances presented at Golden Gate Park's newly built Morrison Planetarium in San Francisco, an affiliate of the California Academy of Science (see fig.13). The program's notes for *Vortex V* describe the event as:

> […] a new form of theater based on the combination of electronics, optics and architecture. Its purpose is to reach an audience as a pure theater appealing directly to the senses. The elements of *Vortex* are sound, light, color, and movement in their most comprehensive theatrical expression. These audio-visual combinations are presented in a circular, domed theater equipped with special projectors and sound systems. In *Vortex* there is no separation of audience and stage or screen; the entire domed area becomes a living theater of sound and light.[69]

It can be argued that the *Vortex* concerts also expressed spiritual meaning since the visual component had the effect of taking the audience on a journey where reality suddenly seemed distorted and boundless, approximating the experience of space travel itself, and suggesting that selfhood itself can expand into the universe.

The artists were granted permission to use the space on Monday and Tuesday evenings when the usual educational program devoted to stars and the galaxy was over. The planetarium's

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68 Jordan Belson testimonial of Oskar Fischinger cited in William Morritz, *Optical Poetry: The Life and Work of Oskar Fischinger* (Bloomington; Indianapolis: Indiana University Press, 2004), 169.

69 Junius Adams, Liner notes to *Highlights of Vortex* (New York: Folkways Records, Album No. FSS 6301, 1959), n/p.

director, George Bunton, gave Jacobs and Belson full access to all their state-of-the-art instruments in sound and image and agreed to custom-engineer equipment for the artists' purposes.[70] According to writer and archivist Cindy Keefer, the equipment consisted of "up to a total of 30 projecting devices including the planetarium's one of a kind, custom-built 13 foot starfield projector (see fig.14), kaleidoscope, rotating and 'zoomer' projectors, strobes, slide projectors, rotating prisms, 16mm film projectors, a flicker machine, a spiral generator, and four interference pattern projectors."[71] "Interference pattern" projectors were specially installed upon Belson's request and he describes these as allowing him "to create effects that had people screaming as if they were on a roller coaster. Interference patterns are created when you have two visual patterns that work against each other. I don't think anybody had seen those particular effects at the time."[72]

Vortex also innovated in its use of acoustics. Thirty-eight speakers were evenly spaced around the 60-foot dome, and Henry Jacobs brought in an electronics expert to build a remote-controlled rotary device that allowed sound to circumambulate the domed theater. This created one of the first instances of a surround sound system that Jacobs described as the "vortex effect," inspiring the title of the events. Jacobs, an ethnomusicologist who hosted an acclaimed program on a Berkeley radio station[73], was responsible for producing and curating the sound component of the show. The music of *Vortex* consisted of early experimental electronic music labelled *musique concrète*. *Musique concrète* was first developed by French composer Pierre Shaeffer and his

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70 The star projector at the Morrison was, in point of fact, a one-of-a-kind projector built by the Academy of Science with military surplus components "with dozens of lenses that had been used for aerial photography." Zeiss optical factory was the only company that produced large-scale star-projectors at the time but since they were located in Soviet occupied Germany, the Academy opted to build one of their own. See Cindy Keefer, "Cosmic Cinema and the Vortex Concerts," In *Cosmos: En busca de los orígenes de de Kupka a Kubrick* (Santa Cruz de Tenerife: TEA Tenerife Espacio de las Artes, 2008), 473.

71 Keefer, 472.

72 Scott MacDonald, "Jordan Belson (and collaborator Stephen Beck)," in *A Critical Cinema: Interviews with Independent Filmmakers* (Berkeley: University of California Press, 1988-2006), 74.

73 The community supported Pacifica Foundation radio station, also known as KPFA radio.

colleagues from Paris' Studio d'Essai in 1948 and consisted of experimental collages of sounds recorded on tape.[74] These compositions were often infused with nature field recordings and folk music samples from around the world. Pierre Shaeffer himself contributed to *Vortex* and subsequently collaborated with Jordan Belson in producing the score for his 1959 film *Séance* (see fig.15). Belson also considered himself an electronic music composer and described sound as being an integral part of his practice: "I'm not interested in silent movies. It's when the combined effect of sound and image are really inextricable that I feel I've succeeded."[75]

In 1958, Belson and Jacobs created the Audio-Visual Research Foundation, aiming to create a community and opportunities around the new kind of performance genre they had developed and to source funding for artists, scientists and musicians working in "experimental aspects of audio-visual phenomena."[76] However, their efforts in materializing new projects and solidifying partnerships with other venues were not successful. One project did come to fruition after *Vortex* and ended in 1959. The New York based Folkways Records label produced an LP vinyl of some of its musical highlights including contributions by *musique concrète* artists Gordon Longfellow, David L. Talcott, William Loughborough and Henry Jacobs (see fig.16).

Vortex was a unique art form in the 1950s and its production equipment was of the highest quality available, resulting in an immersive environment that approximated a sublime experience.[77] The control of light's intensity, its temperature and color specificity were tools that allowed for bodily immersion, and increased the phenomenological effect. What began as a visual experience had the potential to change the audience's awareness of their material, physical, and metaphysical conditions. Despite the striking visual effects experienced by Morrison

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74 Michel Chion, "The State of Musique Concrète," in *Contemporary Music Review*, vol.8, no.1, 1993, 52.
75 Larry Sturhahn, "Experimental Filmmaking: The Art of Jordan Belson," *Filmmakers newsletter* 8/7 (May 1975): 24.
76 Keefer, 472.
77 MacDonald, 74.

Planetarium goers during the *Vortex* concerts, it was impossible for the artists to document the events on film due to what Belson describes as the very low voltage of lights used in the auditorium.[78] The faint luminescence of the projected lights and images was heightened by the darkness that otherwise overtook the planetarium. This caused the human eye to adapt and absorb the light that punctuated the darkness with an increased sharpness; this dramatic effect was only perceivable to those spectators in the actual space, though.

Vortex received sponsorship from KPFA as well as the California Academy of Science. A review of the show's first rendition appeared in the San Francisco Chronicle written by the acclaimed art and music critic Alfred Frankenstein; he proclaimed: "Especially magnificent was the sense of space – limitless, incomprehensively vast and awe-inspiring in its implications." This review, in addition to television news coverage and advertisements for the *Vortex* concerts that appeared on the sides of buses resulted in a popular response, and high attendance.[79] In total, between 1957 and 1959, Belson and Jacobs produced 5 *Vortex Concert* programs, each of which was presented a handful of times. A performance typically included approximately eight musical compositions, in response to which abstract imagery was choreographed. Although the *Vortex* concerts were performed live, the programs were meticulously prepared in advance of the shows given that Belson had to operate close to thirty remote controlled projection devices. In 1958, the artists were invited to present a version of *Vortex* at the Brussels World's Fair, *Expo 58* for the *Journées internationals de musique expérimentale*. Although this special production received some acclaim, the artists were disappointed with the poor quality of the equipment as well as the run-down dome surface they had at their disposal. In January 1959, the artists presented their fifth and last *Vortex* program. Conflict with the planetarium's management had intensified throughout

78 Ibid, 75.
79 Ibid, 73.

the duration of the concerts partly because of the popularity of *Vortex* among bohemian and Beat crowds – something that the institution frowned upon.

Jordan Belson belonged to San Francisco's North Beach artistic community at the height of the Beat era. The Beats were a group of young authors who transformed the American cultural landscape through literature and jazz and were notorious for their nonconformist attitude. They subverted conventional societal expectations by not holding down regular jobs, dressing against the 1950s sartorial standards, experimenting with drugs, preferring a nomadic lifestyle that involved travel and no fixed addresses. They constantly advocated for freedom of identity and were critical of capitalism. San Francisco was one of its epicenters, along with Greenwich Village in New York City and Paris's Beat Hotel. In San Francisco, starting with poet Kenneth Rexroth's poetry readings on the KPFA "Pacifica" radio in the 1940s, the first public radio outlet in the United States, poetry was reaching the ears and touching the minds of a wider network of San Francisco denizens. Eventually Rexroth began to consolidate a major artistic force around him that culminated in the legendary reading of Allen Ginsberg's poem *Howl* at the Six Gallery in 1955, an event often described as a solidifying moment for the Beats.

Belson was intimately involved with the Beat community, counting among his friends the writers Allen Ginsberg and Jack Kerouac, experimental filmmakers Harry Smith, Christopher Maclaine and Bruce Conner. His involvement with the Beats was manifold: he was commissioned by Lawrence Ferlinghetti to paint the infamous City Lights Books' front façade and discussed with Ginsberg the possibility of making a film based on William Burrough's then unpublished novel *Queer*.[80] Belson was also the cinematographer for Christopher Maclaine's infamous Beat film *The End* that premiered at the 1953 Art in Cinema symposium, causing an

80 Bill Morgan, *I Celebrate Myself: The Somewhat Private Life of Allen Ginsberg* (New York : Viking, 2006), 185.

uproar.[81] The atmospheric film, which follows six characters on the last day of their lives, addressed the adverse impacts of the Cold War on the American psyche by focusing on lost souls of the 1950s. Bebop jazz was another point of connection between Belson and the Beats – one of his first animation films, *Bop Scotch* (1952), was in homage to the jazz movement.

Belson first started as a painter during the late 1940s and received much recognition and international exposure for this body of work. He met artist Harry Smith while he was still studying at Berkeley, in 1946. Both men were primarily painters at this time but became absorbed with the idea of filmmaking shortly after attending that *Art in Cinema* series in 1946. Belson and Smith shared a deep admiration for Oskar Fischinger, as well as for Norman McLaren and the brothers John and James Whitney and set out to make non-objective animations of their own.[82] Belson's early abstraction films were an extension of his graphic work set into motion. He painted on long translucent scroll paper, which he then backlit and photographed to create stop motion animations. *Mandala* (1953) is an early example of Belson's exploration of composition, rhythm and form focusing on the circular meditative motif (see fig.17). Belson and Smith's friend Hy Hirsh gave the artists technical support given that he had access to a trove of film equipment as the house photographer for the Palace of the Legion of Honor, a fine arts museum in San Francisco. Hirsh began making animations shortly after Belson and Smith, using oscilloscope imagery – a wave-like lines and graphic patterns – that he produced with an optical printer that he constructed. An optical printer is a mechanical combination of projectors and cameras to add abstract special effects on filmstrips.[83] Belson's former wife, Jane Conger Shimané Belson,[84] was

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81 Brecht Andersch, "In Search of Christopher Maclaine 10: Stan Brakhage Interviewed, 1986," *Open Space*, San Francisco Museum of Modern Art, 29 Nov., 2010,Web, 5 Jun. 2017 <openspace.sfmoma.org/2010/11/in-search-of-christopher-maclaine-10-stan-brakhage-interviewed-1986/>

82 Norman McLaren was a Scottish-Canadian experimental animator at the National Film Board of Canada; John and James Whitney were Los Angeles based experimental filmmakers.

83 Michael Betancourt, *The History of Motion Graphics: From Avant-Garde to Industry in the United-States* (Rockville: Wildside Press, 2013), 139.

also a filmmaker, experimenting with abstract animation, archival footage and collage in acclaimed films *Logos* (1957) and *Odds and Ends* (1959).[85] Together, these artists formed a new generation of visual music films that continued in the tradition of the earlier Absolute Film artists.

Mid-century California was rife with spiritual figures, teachings, and other resources. San Francisco's creative community was inspired by the beauty of the natural environment as well as by non-Western spirituality. Timothy Gray explains the attitude among artists in the Bay Area: "[…] they were as apt to take a hike in the mountains as they were to spend a day in the library, to prefer Buddhist meditation over the Christian or Jewish traditions of their parents, and to look across the pacific instead of the Atlantic for literary inspiration."[86] The San Francisco creative community's interest in the teachings of Eastern religions instead of their own Judaeo-Christian origins amounted to a rupture with tradition. The Beats' receptive attitude toward Eastern thought also demonstrated a defiance of the American government's hostile politics towards Asia and their perception of the communist "threat" during the early years of the Cold War. Gray argues that: "the emergence of the Pacific Rim paradigm in the early years of the Cold War [was] a time when cultivating interests in Asian religion and literature was viewed by many American as offbeat and highly suspicious."[87] This *Zeitgeist* is well illustrated in the following fragment of Allen Ginsberg's 1956 poem *America*: "My mind is made up there's going to be trouble. You

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84 Some sources claim they were not legally married but that Jane simply took on her boyfriend's last name.

85 "Film Notes: Jane Conger Belson Shimane's Odds & Ends (1959)," *DVDs & Books*, National Film Preservation Foundation, <https://www.filmpreservation.org/dvds-and-books/clips/odds-ends-1959>, Accessed 26 Jul. 2017

86 Timothy Gray, "Introduction," in *Gary Snyder and the Pacific Rim* (Iowa City: University of Iowa Press, 2006), 4.

87 Gray 4 ; Gray argues that the Pacific Rim refers to the countries that share a border with the Pacific Ocean "and by extension, the same values and geopolitical concerns."

should have seen me reading Marx. My psychoanalysis thinks I'm perfectly right. I won't say the Lord's Prayer. I have mystical visions and cosmic vibrations."[88]

The interest in mystical contemplation was widespread amongst the post-war, creative community of San Francisco. Belson's approach to mysticism evolved throughout the 1940s and 1950s among a fertile environment of eccentric friends and fellow artists. In an interview with Scott MacDonald, he describes his contemplation of various forms of mysticism: "I was always on the fringe intellectually: Jung, Aldous Huxley, Teilhard de Chardin, magic, the occult, et cetera."[89] However, his thinking on religion and spirituality began to crystallize during the period directly following the *Vortex Concerts*. Although information about Belson's involvement with these mystical interests is scarce in the existing scholarship, Allen Ginsberg claims that during the 1950s Belson, along with artists Harry Smith and Jerry Jofen, poet Lionel Zirpin and a San Francisco character named Hube the Cube were part of a group involved with the philosophies of the Hermetic Order of the Golden Dawn, an organization based on the ritualistic practice and study of magic founded in 1887 and associated with Aleister Crowley, and the traditions of alchemy and the Kabbalah.[90]

The period of spiritual growth Belson underwent in his thirties coincided with the end of the productions at the Morrison Planetarium. Working at the Morrison was apparently a transformative experience for both Belson's artistic development and his spiritual growth. Belson claims: "Simply being in that dome was a holy experience."[91] By "holy" Belson was could have, on the one hand, implied domes in Christian architecture that have a long and profound history of

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88 Allen Ginsberg "America," *Howl and other Poems* (San Francisco: City Light Books, 1956) 40

89 MacDonald, 71.

90 Ginsberg is cited in Paola Igliori, "Allen Ginsberg: 24 September, 1995," in *Harry Smith: American Magnus* (New York: Inanout Press, 1996), 113. In this interview on artist Harry Smith, Allen Ginsberg recounts how he was first acquainted with the artist through Jordan Belson. Ginsberg mentions that Belson spent some time in New York during the 1950s and was connected to a Hermetic group.

91 Youngblood, 388.

evoking the cosmos and proximity to divinity. Access to the boundless immersive space of the planetarium also allowed him to explore non-Western modes of spirituality or holiness. The circular nature of the planetarium is connected to Belson's fascination with the trans-inducing nature of circle gazing through the ages in non-Western religious art: "such circular and symmetrical shapes have always been associated with the quest for spirituality, even to the extent that some people believe that such shapes, mandalas[92] or designs inside Moorish mosque domes, can precipitate spiritual feeling."[93]

The formal elements of *Vortex* also evoke the Taoist concept of *Yin Yang* according to which matter and ideas operate in a process of harmony and balance.[94] Orbiting motion and mandalic visual phenomena also have a hypnagogic function. Religious studies scholar Louise Child writes about the symbolic meaning of mandalas drawing from Carl Jung's interpretation of the Buddhist symbol: "Jung suggests that this symbolizes a sense of wholeness in the personality, held together by a psychic center or self. This point is potentially a source of energy, radiating outwards, or a vortex, which can draw energy to itself, during the process of meditative contemplation."[95]

In his book *Expanded Cinema*, Gene Youngblood argues that advancements in technology and science in the hands of the artists producing expanded cinema "promise to transform our notion of reality on a conceptual level, they also reveal paradoxes in the physical world that transcend and remake our perception of that phenomenon as well."[96] In his view "expanded

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92 A mandala is "a sacred space that has been set aside or adorned; a geometric diagram that portrays the perfected world of a deity or group of deities. See in Meher McArthur, "Glossary," Reading Buddhist Art: An Illustrated Guide to Buddhist Signs and Symbols (London: Thames & Hudson, 2002), 206.

93 MacDonald, 86.

94 Jeffrey J. Kripal, *Esalen: America and the Religion of No Religion* (Chicago and London: The University of Chicago Press, 2007), 76.

95 Louise Child, *Tantric Buddhism and Altered States of Consciousness: Durkheim, Emotional Energy and Visions of the Consort* (Bodmin: MPG Books Ltd, 2007), 11.

96 Youngblood, 416.

cinema isn't a movie at all. Like life, it's a process of becoming, man's ongoing historical drive to manifest his consciousness outside his mind, in front of his eyes."[97] Using this argument, it follows the *Vortex* concerts could facilitate the practice of expanding one's consciousness and the exploration of otherwise obscured territories of inner life. Youngblood believed that when used in a pointed way, the cinematic apparatus would lead humankind to attain an understanding of reality that would otherwise remain obscured to our perception because of the existing structures that condition societal living.[98] His book urges the development of a syncretized cinema that combines eastern spiritual belief systems, advancements in science, technology and art to set into motion a revolutionary awakening of a synergetic consciousness: "Where synergy does not exist, energy tends toward entropy and change becomes increasingly unlikely."[99] Stan VanDerBeek's 1965 manifesto pertaining to multiple-projection environments and their purpose reinforces this attitude: "The purpose and effect of such image flow is both to deal with logical understanding and to penetrate to unconscious levels, to reach for the emotional denominator of all men, the nonverbal basis of human life."[100]

Curator Chrissie Iles describes the multiple-projection environments that emerged during the 1950s as a spatial sensorium that took shape against the backdrop of the Cold War as America and the USSR were beginning their major spatial exploration programs: "[…] cinematic projects explored the positive implications of a vision that could extend beyond Earth's horizon line."[101] Further, she elaborates: "The immersive darkness of the theater, which produced a haptic sense that both the viewer and the projected image were floating weightlessly, had obvious allusions to

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97 Ibid, 41.
98 Ibid, 42.
99 Ibid, 111.
100 VanDerBeek, 17.
101 1957, the year of the first Vortex series also coincides with the beginning of the space race when the Soviet Union launched Sputnik. Chrissie Iles, "The Cyborg and the Sensorium," in *Dreamlands: Immersive Cinema and Art, 1905-2016* (New York: Whitney Museum of American Art, 2016), 131.

outer space […]."[102] In the few direct comments Belson made about the *Vortex* he emphasizes the intense darkness of the space: "Just being able to control the darkness was very important. We could get it down to jet black, and then take it down another twenty-five degrees lower than that, so you really got that sinking-in feeling."[103] Darkened movie theaters had been the primary mode of film projection as early as cinemas were invented because of their ability to create in spectators a sense of disembodiment and nullified space, eliminating distractions and focusing all attention on the screen.[104]

With *Vortex*, Belson carried the movie theater apparatus into a new realm of experimentation, breaking the bounds of the standard screen's frame. Juxtaposing reels of graphic images with raw light and electronic sound:

> We experimented with projecting images that had no motion-picture frame lines; we masked and filtered the light, and used images that didn't touch the frame lines, and used images that didn't touch the frame lines. It had an uncanny effect: not only was the image free of the frame, but free of space somehow. It just hung there three-dimensionally because there was no frame of reference.[105]

The uncanny effect of the *Vortex Concerts* described by Belson can further be explained as an attempt to awaken and to manifest a visionary experience of a mystical nature. By expanding cinema beyond standard frame lines and through phenomenological lighting effects, Belson's cinema conducted a blast on perception. The visual information that was projected on the dome didn't correspond to external reality, it confronted and augmented perceptual conventions, simultaneously reflecting a hidden inner reality and a contemplation of outer space phenomena.

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102 Ibid, 131.
103 Youngblood, 389.
104 Noam M. Elcott "Bodies in the Dark: Cinemas, Spectatorship, Discipline, Residue," in *Dreamlands: Immersive Cinema and Art, 1905-2006* (New York: Whitney Museum of American Art, 2016), 171.
105 Youngblood, 389.

The cosmic consciousness triggered by Jordan Belson's *Vortex Concerts* gave participants a chance to experience their senses anew with ideas and imagery pertaining both to inner and outer space. With a domed screening surface, a planetarium setting, and extensive use of the astral imagery, references to the universe are hard to avoid in discussing the *Vortex Concerts*. The sense of wonderment of gazing into infinite celestial bodies and contemplating the space-time continuum in itself can transport one into the otherworld. Gene Youngblood elucidates these themes in his writing on Belson's 1961 film *Allures* (see fig.18), a film heavily indebted to Belson's experiments on *Vortex*: "a mathematically precise film on the theme of *cosmogenesis* – Teilhard de Chardin's term intended to replace cosmology and to indicate that the universe is not a static phenomenon but a process of becoming, of attaining new levels of existence and organization."[106] References to the universe in this film and in *Vortex* also reflect and symbolize the vast territories of the self and of human consciousness: "It's a trip backward along the senses into the interior of the being. It fixes your gaze, physically holds your attention."[107]

Film scholar William C. Wees characterizes Belson's imagery as "derived from inner vision and from philosophical and religious traditions that use images to visualize – or help induce – deep states of meditation."[108] Inner visions are attained by means of meditation, sensory deprivation or mind-altering substances and are characterized by hallucinations and distorted perception. Belson himself confirmed this intent: "The hallucinatory aspect of imagery is certainly inherent in my work and in the ideas relevant to my work."[109] He and many members of the Beat generation experimented with hallucinogenic drugs throughout the 1950s, before the

106 Youngblood, 160.
107 Ibid.
108 William C. Wees, "Making Films for the Inner Eye: Jordan Belson, James Whitney, Paul Shatris," in *Light Moving in Time: Studies in the Visual Aesthetics of Avant-Garde Film* (Berkley: University of California Press, 1992), 124.
109 Larry Sturhahn, "Experimental Filmmaking: The Art of Jordan Belson," *Filmmakers Newsletter* 8/7 (May 1975): 24.

widespread distribution and consumption of LSD. Unlike the frenzied attitude toward drug consumption that marked the psychedelic era, the Beat generation didn't make drugs the center of their quest but rather sought different paths to spiritual growth. Psychedelics and other categories of drugs were among the methods they favoured to help discern nonlinear approaches to their creative thinking in ways that helped them counter the hegemonic culture. For Belson these experiences under the influence helped prepare his consciousness for spiritual revelations that he claimed only transpired many years later.[110] The enlightenment would begin deep within before he could grasp it consciously. With the cosmic cinema conducted at *Vortex*, Belson seemed to tap into images of the inner eye and represent them outwardly as part of a long process of unfolding the universal energy that binds all matter.

Brion Gysin and the *Dream Machine*

"We are not here to love fear and serve any old bearded but invisible thunder god. We are here to go." – Brion Gysin

Brion Gysin (1916-1986) first conceived the *Dream Machine* (see fig.19) in 1958 while sitting on a bus in the south of France, when he experienced vivid, colourful visions while facing a sunny window with his eyes closed. The sunlight bouncing through the trees along a particular street created intervals of flashing light. This, combined with the particular speed of the vehicle created what he later discovered was a flicker effect.[111] The phenomenon was first observed by neurophysiologist William Grey Walter who dedicated a chapter to it in his 1953 book *The Living*

110 Youngblood, 174.
111 John Geiger, *Nothing is True Everything is Permitted : The Life of Brion Gysin* (New York: Disinformation, 2005), 162.

Brain. The "flicker effect," as he referred to the phenomenon, was described as causing some of the following effects on his patients:

> All sorts of emotions are experienced: fatigue, confusion, fear, disgust, anger, pleasure. Sometimes the sense of time is lost or disturbed. One subject said that he had been "pushed sideways in time" – yesterday was at one side, instead of behind, and tomorrow was off the port bow.[112]

Walter discovered the remarkable way in which the simple light experiment caused his patients to fall into deep states of relaxation and experience visual hallucinations and other perceptual shifts. Gysin's own first experience with flicker described similar effects but evoked a much greater spiritual response than Walter's scientific description accounts for. Following his bus incident, he wrote: "An overwhelming flood of intensely bright patterns in supernatural colors exploded behind my eyelids: a multi-dimensional kaleidoscope whirling out through space. I was swept out of time. I was out in a world of infinite number."[113] With the help of his mathematician friend and collaborator Ian Sommerville, Gysin set out to create a device that could reproduce the flicker effect on demand. The resulting *Dream Machine* is a vertical cylindrical structure that resembles a floor lamp at first sight. It consists of a light bulb surrounded by a metal sheet perforated with a repeating pattern all around its surface that rotates at a precise speed on motorized base. Gysin believed that the *Dream Machine* served both artistic and medicinal purposes and that it comprised "the whole human program of vision."[114]

In 1962, Gysin made a small edition of the sculptural apparatus that he hoped would lead to commercialization and would eventually replace the television in people's homes.[115] The official unveiling of the *Dream Machine* was at the Louvre's Musée des Arts Décoratifs in Paris in 1962

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112 William Grey Walter, "Revelation by Flicker," in *The Living Brain* (New York: W.W. Norton & Company Inc., 1953), 106-107.

113 Brion Gysin, "Dream Machine," *Olympia* 2 (Feb. 1962): 31.

114 Laura Hoptman*, Brion Gysin: Dream Machine* (New York: Merrell Publishers Ltd, 2010), 121.

115 John Geiger, *Chapel of Extreme Experience: A Short History of Stroboscopic Light and the Dream Machine* (Brooklyn: Soft Skull Press, 2003), 63-64.

as part of their group exhibition *L'Objet*, and it received a lot of interest. Gysin gave Peggy Guggenheim a *Dream Machine* in 1962 and she showed it at her museum in Venice. *Olympia: A Monthly Review from Paris*, a short-run magazine from the Paris based publisher Olympia[116], dedicated an entire issue to the art work in its April 1962 issue and even included instructions for readers to make their own homemade versions of the device (see fig.20).[117]

The *Dream Machine* belongs to the expanded cinema repertoire both because of its intention to expand consciousness and because of its material incarnation, making use of light to expand on basic cinematic properties. Patented as a "procedure and apparatus for the production of artistic sensations," its use of projected light, constant rotary motion, and the imagery it produces evoke cinema in many ways.[118] Bruce Grenville writes: "[…] it activates a little movie in the brain. For Gysin, images, like language, were pre-programmed, already existing in the brain, waiting to be released or triggered by the machine – the tape recorder, the computer, the editing machine, the projector, the camera."[119] In 1962, he created an immersive installation in a small room of the Galleria Trasverte in Rome with the *Dream Machine* as the focal point, which he called *Chapel of Extreme Experience*. The installation had the effect of overwhelming the senses and distorting the viewers' perception. The perforated patterns on the *Dream Machine* projected ever-rotating beams of light and shadows on the four walls on which Gysin had installed a sequence of his calligraphic paintings. The immersive experience was completed with the reverberating effect of tape recordings of himself reciting "permutation poems" set to play on

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116 *Olympia Press* was a France-based, English language publisher created by Maurice Girodias as an offshoot of his father Jack Kahane's British *Obelisk Press,* infamous for publishing avant-garde, as well as sexually explicit, books prone to censorship, like those of the Maquis de Sade, Vladimir Nabokov and William S. Burroughs.

117 Hoptman, 122.

118 Ibid, 120.

119 Bruce Grenville, "Parascience and Permutation: The Photo-Based Work of Brion Gysin," in *Brion Gysin: Tuning in to the Multimedia Age*, ed. José Férez Kuri (London: Thames & Hudson/The Edmonton Art Gallery, 2003), 111.

a loop at an accelerated pace. This installation is a perfect example of how his work fits into the expanded cinema paradigm.

The phenomenon of stroboscopic light and its effects on brain wavelengths was part of a wider trend in neurological research in the scientific community during the 1950s that aimed to develop a better understanding of the mind. Some of this research had sinister intentions. While altering the mind's regular neural pathways could have psychological benefits it could also lead to methods of mind control and be used for torture, espionage and propaganda by intelligence communities. Brion Gysin attempted to liberate these powerful mechanisms from the scientific context as well as from their use as mechanisms of control, to instead enable individuals to use these to free the mind.

Gysin was a writer and an artist whose life and identity was marked by a distinctly multidimensional sense of place and identity. Details of his biography give an interesting perspective from which to consider his work. He was born in England during World War I to Canadian parents, grew up in Edmonton, moved to Paris in 1934 where he started painting and associated with members of the Surrealist circles, leading to an invitation to show his work in a 1935 group exhibition of surrealist art that included works by Max Ernst, Salvador Dalí, René Magritte and Pablo Picasso. Unfortunately, on the day of the opening, André Breton ordered Paul Éluard to expel Gysin from the exhibition, without giving any explanation. Gysin was nineteen years old at the time and viewed the experience as a curse cast upon him.[120] He subsequently spent two years living in Greece after which he returned to Paris and in 1939 was finally given a solo exhibition at the same gallery that had expelled him earlier (see fig.21).

In September 1944, during World War II, Gysin was drafted into the Canadian army. His time spent training for the Canadian intelligence and learning Japanese would later influence his

120 Geiger, 44-45.

technical approach as a calligraphic painter and on a deeper level, would testify to his intellectual preoccupation with mind control and the power-enforcing structures of society. After the war, he received a Fulbright fellowship to conduct ethnographic research in France having to do with the legal basis for Anglo-American slave laws. He enrolled at the Université de Bordeaux and returned to France in 1949. A chance encounter with his writer friend Paul Bowles in Paris in 1950 led to an invitation to sojourn at the author's villa in Tangiers.

This serendipitous visit to Morocco was transformative and resulted in Gysin spending over twenty years in the Maghreb nation. Gysin's oeuvre following his first eight years as an expatriate in Morocco is infused with his impressions of the country and its culture. It is worth mentioning here that that, unlike many artists and writers for whom the influence of North Africa led to orientalist and neo-colonial infused works, Gysin contributed to the development of postcolonial ideas. This position is most clearly laid out in Gysin's loosely biographical novel *The Process* (1969), which refers to resistance efforts that preceded the independence of Morroco and of Algeria (see fig.21). Fazzino argues: "With *The Process* Gysin has made a significant contribution to Beat discourses on race, gender, ethnicity, and religion, as they offer an alternative, even a corrective, to familiar depictions of the 'exotic' in Beat writing or the standard fare of what Brian Edwards has dubbed 'hippie orientalism'."[121]

Gysin was inspired by Morocco in multiple ways: by the vastness and visually stimulating landscape of the Sahara Desert, and by the rapture induced by the Sufi music of the mountain villagers of Jajouka (a southern region of the country).[122] In 1952, he opened a restaurant baring the name *1001 Nights* in Tangier to present the music of the Jajouka pipe players which he believed were a Muslim continuation of the music made by the Greek mythological figure, Pan

121 Jimmy Fazzino, "For Africa…For the World: Brion Gysin and the Postcolonial Beat Novel," in *World Beats: Beat Generation Writing and the Worlding of U.S. Literature* (Hanover: Dartmouth College Press, 2016), 166.
122 Geiger, 94-95.

during the Roman ritual of Lupercalia.[123] Gysin's support for and promotion of these musicians led to their international recognition as the Master Musicians of Jajouka.[124]

In 1956, Gysin became acquainted with the teachings of Scientology in the early days of its identity as a religious movement. He met two of the church's earliest followers, John and Mary Cooke in 1956, when they travelled through Tangiers and claimed that their Ouija board led them to Gysin and his restaurant.[125] Cooke was a mystic from California who had been taught by the founder of Scientology himself, Lafayette Ronald Hubbard, better known as L. Ron Hubbard. Scientology is a religion based on Hubbard's theories of Dianetics according to which exercises of the mind can lead to higher spiritual realms. It is argued to be a syncretic religion that draws a lot of its theories from Eastern philosophies and Gnosticism.[126] Hubbard, who was originally a science fiction author, had a deep interest in mental health and believed that the mind could exist apart from the body. He developed exercises that could induce a state of astral projection and help individuals to better understand their own spiritual existence.[127] Although Gysin never officially joined the Scientologists, he learned from its teachings and methods for liberating the mind of its ailments – something he referenced in his art and written work.[128]

Brion Gysin and William S. Burroughs met in Tangiers in 1954 but remained solely acquaintances until they both returned to Paris in 1958, at which point Burroughs became enthralled with Gysin and his views on esoteric practices. He was particularly fascinated with

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123 Terry Wilson and Brion Gysin, "Terminal Tourist: Who Runs May Read," in *Here to Go: Brion Gysin* (London: Creation Books, 2001), 44.
124 John Geiger, "Brion Gysin: His Life and Times," in *Brion Gysin: Tuning in to the Multimedia Age*, ed. José Férez Kuri (London: Thames & Hudson/The Edmonton Art Gallery, 2003), 220.
125 Wilson, 119.
126 Stephen A. Kent, "Scientology's relationship with Eastern religious traditions," *Journal Of Contemporary Religion* 11, no. 1 (January 1996), 21-36. ATLA Religion Database with ATLASerials, EBSCOhost (accessed September 5, 2017).
127 Ibid.
128 John Gieger, *Chapel of Extreme Experience: A Short History of Stroboscopic Light and the Dream Machine* (Brooklyn: Soft Skull Press, 2003), 72.

Gysin's knowledge about the eleventh-century Nizari Ismaili[129] sect known as the Assassins, derived from the word "hashashins," meaning hashish eaters. For every political adversary the Assassins were able to obliterate, Hassan I Sabbah, the sect's leader, promised greater access to a "Garden of Delights", a hashish-induced hallucinatory bliss.[130] Gysin and Burroughs' interest in Sabbah was double-edged and contradictory. On the one hand, Sabbah was regarded as a rebel warrior who was able to seize power and create firm roots for his spiritual project. His famous last words "Nothing is true. Everything is permitted" resonated deeply with Gysin and Burroughs' subversive tendencies. On the other hand, his deliberate use of drugs as a tool for mind control correlated with their general concerns about the deep-rooted conditioning that individuals are subjected to. The artists believed that words and images were tools for social control and thus sought to develop techniques that could undo these bounds and free the mind. Gysin took interest in the methods Hassan Sabbah employed to control the behaviour of his assassins. He believed this bared some resemblance with the Cold War intelligence programs[131] that began to emerge during the early 1950s such as the CIA's Project MK Ultra.[132]

In 1954, Gysin and Burroughs took up quarters at 9 rue Gît-le-Coeur in Paris at the Hôtel Racou, that had been renamed the Beat Hotel during the early 1950s on account of its many transitory residents with ties to the literary movement. They began to collaborate creatively and

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129 Nizari Ismailis were a Shia Islamic sect that emerged during the 11th century and pledged allegiance to Egyptian caliph Nizar. The Nizari are led by the Agha Khan whose successors continue to lead to this day. Cited from: Wilson and Gysin, 74-75.

130 Persian Nizari missionary Hassan I Sabbah conducted military activity during the 11th century. Sabbah was an infamous spy who created an elaborate network of intelligence around him. He converted many adepts and seized a fortress in Alamut, situated in the Alborz mountain chains of northern Iran and nicknamed his followers "Assassins".

131 In the introduction to Brion Gysin's novel *The Process*, Robert Palmer argues that Sabbah's organization bares some resemblance to the CIA "which use science and pervert enlightenment in the service of a sinisterly shadowy Grand Design." Robert Palmer cited in John Geiger, *Nothing is True Everything is Permitted: The Life of Brion Gysin* (New York: The Disinformation Company Ltd., 2005), 119.

132 The CIA-led research aimed to see the potential mind-control properties of administering LSD to unwitting subjects. See Erika Dyck, "Psychedelic Psychiatry: LSD and post-World War II Medical Experimentation in Canada," (PhD dissertation, McMaster University, 2005), 5.

their output between the years 1958 and 1962 was prolific. For Gysin, the works produced during this period represented an accumulation of creative energies arising from many years of formative experiences. The calligraphic paintings (see fig.22), cut-up writings (see fig.23), and *Dream Machine* all emerged simultaneously and had a common ambition to counter the primacy of rational thought. He created a series of graphic calligraphic works that drew inspiration from the top-to-bottom Japanese alphabet and the right-to-left Arabic alphabet, repeating inscriptions and creating grid-like systems. Guy Brett discusses these works as a creative response to Gysin's interest in Kabbalah grids and their spell-inducing functions. Gysin claimed to have been the victim of such a spell in Tangiers in the form of an amulet that had been placed in the kitchen vent of his restaurant and that succeeded in its intended malediction of shutting down his business. The spellbinding calligraphies were one of many magical practices Gysin participated in during this time that also included crystal-ball and mirror gazing with the goal of both conjuring apparitions and causing dematerialization. Brett alludes to the energetic field summoned up by these works: "Calligraphy performs an interrelation between the personal fantasy and idiosyncrasy of the writer/painter and the impersonal, universal energy which he or she invites to flow through them into the brush."[133]

During this period, Gysin also developed one of his most significant innovations in writing that not only propelled him creatively but also contributed to the transformation and validation of William Burroughs' literary style, as Gysin shared his method with him. The "cut-up method" first occurred in 1959 when Gysin accidently cut through a pile of newspaper with a scalpel while making a mat for a painting. This resulted in creating vertical bands of text that he decided to rearrange to transform the original meaning. This accidental discovery propelled Gysin into many

133 Guy Brett, "Gysin Known and Unknown: The Calligraphic Paintings," in *Brion Gysin: Tuning in to the Multimedia Age*, ed. José Férez Kuri (London: Thames & Hudson, 2003), 61.

years of exploration across mediums and art forms pursuing the idea of permutations. The writing technique had affinities to the 1920s surrealist game of *cadavre* exquis, as well as to Parole in Libertà, the Futurist poetry, and especially to Dada poetry and collage. These avant-garde practices created chance associations in writing and drawing through collaborative creations. In describing the cut-up method, Burroughs once said: "Words – at least the way we use them – can stand in the way of what I call nonbody experience,"[134] also remarking: "Cut-ups establish new connections between [poetic] images, and one's range of vision consequently expands."[135] Gysin believed that by rearranging sequences of words, new meanings would be manifested that would break down the systemic control that is intrinsic to languages. In his cut-up poem *Minutes to Go* Gysin gives instructions on how to reach a spiritually enlightened state of being free of social control, through the fragmentation and collage of texts:

> Pick a book any book cut it up
> cut up
> prose
> poems
> newspapers
> magazines
> the bible
> the koran
> the book of moroni
> lao-tzu
> confucius
> the bhagavad gita
> anything
> letters
> business correspondence
> ads
> all the words
>
> slice down the middle dice into sections
> according to taste
> chop in some bible pour on some Madison Avenue

134 "Interview with William Burroughs," *The Third Mind*, ed. William Burroughs and Brion Gysin (New York: Viking Press, 1978), 4.
135 Ibid, 2.

prose
shuffle like cards toss like confetti
taste it like piping hot alphabet soup

pass yr friends' letters yr office carbons
through any such sieve as you may find or invent

you will soon see just what they really are
saying this is the terminal method for
finding the truth.[136]

This excerpt gives insight into the frames of reference Gysin turned toward for his cut-up experiments and also gives a sense of the broad range of spiritual thought he was engaging with (Judaism, Christianity, Islam, Mormonism, Taoism, Confucianism and Hinduism). Collaborating with Ian Sommerville, Gysin wove together his painting and writing experiments, working across mediums and art forms. The cut-up experiment permeated his art practice and was applied to photo-based works, poetry recordings, light and sound performances and films that continued to follow the basic tenet of permutating words and images. He performed at the London's Institute of Contemporary Art in 1960 using a slide projector, screening a series of slide photographs of himself in various states of undress on which various manual interventions had been applied. Onto the slides he scratched his own name, his permutation poems, calligraphic grids, and he also painted and stained them with abstract marks.

A common thread in all his cut-ups experiments was the compulsive repetition of words and sounds. For instance one of his most renowned poems was a succession of permutations on the holy phrase "I AM THAT I AM" that Gysin borrowed from Aldous Huxley's appendix to the

136 Although the writer consistently credited Gysin for his discovery of the cut-up Method and the influential role he played in his own creative force, Burroughs became more recognized for establishing the style than Gysin would ever be. See Brion Gysin, "Minutes to Go," *The Third Mind*, 38-41.

1956 essay *Heaven and Hell*.[137] When performed or recited, these poems had an entrancing rhetorical quality that triggered an emotional response. Grenville comments: "Obsessive repetition, the upsetting of relationships, unconventional stimuli etc. constitute the instrument that permit us to examine the novelty of the ways that they reveal themselves."[138] This example illustrates methods Gysin resorted to in stimulating the mind to yield new patterns of thoughts and induce hidden manifestations of the mind. The hypnotising nature of repetition is also present in the constant flickering of light in the *Dream Machine*.

Brion Gysin's approach to spirituality is one that is very closely associated with interests in the mind's latent properties. Gysin's art has elements in common with some of Jung's theories on consciousness. The psychoanalyst believed that the contents of the unconscious are not accessible to modern individuals because the conscious mind has been educated as a social unit, a product of society. This lead to the experience of selfhood as "mass-minded" and the notion of individuality as an illusion that fits the expectations of the State. Jung writes: "[…] the individual becomes more and more a function of society, which in its turn usurps the function of the real-life carrier, whereas, in actual fact, society is nothing more than an abstract idea like the State."[139] Much like Jung, Gysin acknowledged the manipulative force of social control imposed on the mind and sought ways to release the mind from this affliction. The *Dream Machine*, emphasizes the power of "dream" in accomplishing this undertaking.

To come into contact with the *Dream Machine* can be a spiritual experience inasmuch as it causes subjects to be pleasantly transfixed and propelled into a latent realm of consciousness,

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137 The origin of this phrase, "Ehyeh-Asher-Ehyeh", from the book of Exodus (3:14) in the Hebrew Bible, is a phrase spoken by Yahweh/God to Moses. Sonnet, Jean-Pierre, "Ehyeh Asher Ehyeh (Exodus 3:14) : God's 'Narrative Identity' among Suspense, Curiosity, and Surprise," *Poetics Today*, no. 2, 2010, p. 331. EBSCOhost, 0-search.ebscohost.com.mercury.concordia.ca/login.aspx?direct=true&db=edsram&AN=edsram.aleph.publish.000493903&site=eds-live, Accessed 04 Sep. 2017.

138 Grenville, 102.

139 Carl Jung, "The Undiscovered Self," in *The Undiscovered Self with Symbols and the Interpretation of Dreams* (Princeton: Princeton University Press, 1950), 9.

somewhere between wakefulness and sleep. Not unlike hypnagogia, the pulsing lights of the *Dream Machine* cause the gaze to focus inwards where one becomes aware of visual and other sensory hallucinations all while reaching a state of deep relaxation produced by the alterations in brain activity. This altered neurological condition sets the brain's wavelengths in an optimal condition for the fragmentation of everyday consciousness.[140] The deep state of visionary meditation induced by the *Dream Machine* is akin to Sufi practices such as the whirling of Dervish dancers or mandala gazing in Buddhism, that similarly alter the brain's electrical activity. The *Dream Machine* tapped into the research in neurology and Gysin's own fascination with paranormal phenomena to construct an artistic apparatus that would lead to a new experience of reality.

For Gysin, the *Dream Machine* functioned as a portal to access primordial content in waking life, and as a direct connection to the unconscious and its linguistic and visual contents. It presents itself as a simple and relatively safe vehicle (as compared to drugs) to transport one to what Aldous Huxley called the "antipodes of everyday consciousness, the world of Visionary Experience."[141] According to writer Laura Hoptman: "His belief was that by erasing the artificial distinctions between words and images, and disentangling the two from their determined meanings, new meanings – those that had been hidden or suppressed – would arise, opening the way to new psychic vistas, even a new consciousness."[142] The *Dream Machine* seemed to force its viewers' minds to warp conscious thoughts and concerns and shift its patterns into producing abstract, pulsating and vivid imagery. By allowing the visual hallucinations to come into focus and adopting an open-minded attitude toward the experience, *Dream Machine* users could

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140 Vaughan Bell, "The Trippy State Between Wakefulness and Sleep and how it Can Help Solve the Mystery of Human Consciousness," *The Atlantic*, 20 Apr. 2016, https://www.theatlantic.com/science/archive/2016/04/deciphering-hypnagogia/478941/, Accessed 20 Jul. 2017.

141 Aldous Huxley, "Heaven and Hell," in *The Doors of Perception and Heaven and Hell* (New York: Harper Perennial, 2009), 85

142 Hoptman, 57.

navigate their inner visual field with more agency. This would ideally correspond to what Jung referred to as "numinous experience"; an experience having deep emotional resonance, a propitious condition for an enlightenment.[143]

Conclusion

The objective of this study has been to reconsider three early works of expanded cinema that have often been included in recent scholarship on psychedelic art, and to instead argue that these works have characteristics linked to spiritual experience. The *Lumigraph* by Oskar Fischinger, the *Vortex* concerts by Jordan Belson and Brion Gysin's *Dream Machine* each were produced in distinct contexts during the 1950s in America and in Europe, yet every one of these works shares a fascination with the medium of light. While the *Lumigraph* featured chromatic and gestural light performances on a flat screening surface, the monumental light projections of the *Vortex* concerts were conducted on the domed surface of a planetarium. Brion Gysin's use of a simple light bulb was transformed through the rotating motion of the perforated cylindrical metal sheet that surrounded it.

The light shows of the mid-1960s commonly accompanied "alternative" rock concerts. These psychedelic environments were constructed to induce crowds into trance states and to provoke absorption into music and visual effects. These shows were also supposed to heighten the effects of LSD and other psychedelic drugs. Visual references to spiritual symbols like mandalas and sacred geometry remained present, but these symbols became intricately tied to the concept of tripping and were details in a tapestry of sensory overload. While it can be argued that the light shows of the 1960s emerged out of the expanded cinema of the 1950s, the

143 Carl Jung, "Symbols and the Interpretation of Dreams," in *The Undiscovered Self with Symbols and the Interpretation of Dreams* (Princeton: Princeton University Press, 1950), 133.

rock culture of which they were part of was ostensibly aligned with the entertainment industry and very quickly became commodified even while it remained rooted in the countercultural movement. Despite reflecting disenchantment with capitalist values, the visual vocabulary of psychedelic culture was swallowed up by popular culture and sold back to a wider public, contributing to its quick demise.

Studying the expanded cinema experiments of the 1950s has revealed a distinctive use of light and colour. More subdued and precise than the work that came later, the artists' discussed were channelling the creative dimension to broaden their experience of consciousness and explore the human potential. Fischinger, Belson and Gysin were intent on keeping the integrity of their ideas separate from the cultural industries that they saw as threats to the creative process and to the experience of art. This separation was similarly essential to the validity of the spiritual experience, which is fundamentally incompatible with the material nature of market interest.

These three works have fascinated me for many year and I felt parallels between them long before I could articulate them. To think, discuss, write and contribute to the fabric of their histories from a spiritual perspective, has been a profound experience in its own right.

Figures

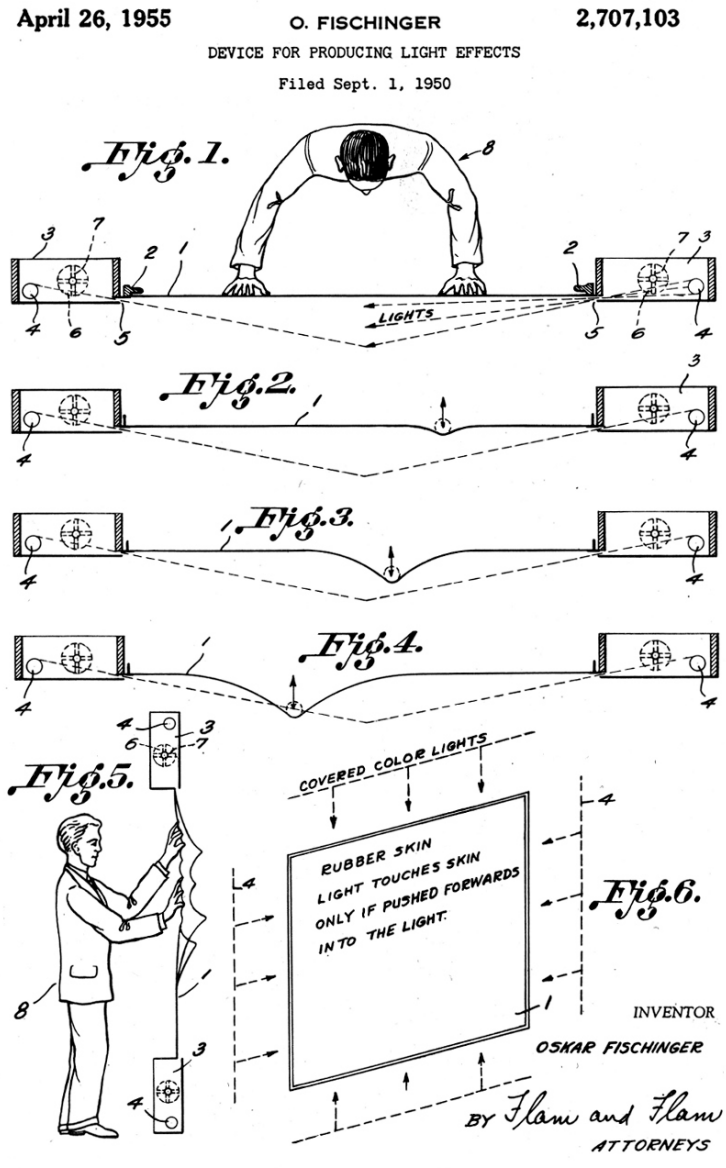

Fig. 1. Oskar Fischinger, Patent for "device for Playing Light Effects," granted in 1955, reproduced from Center for Visual Music. © Center for Visual Music

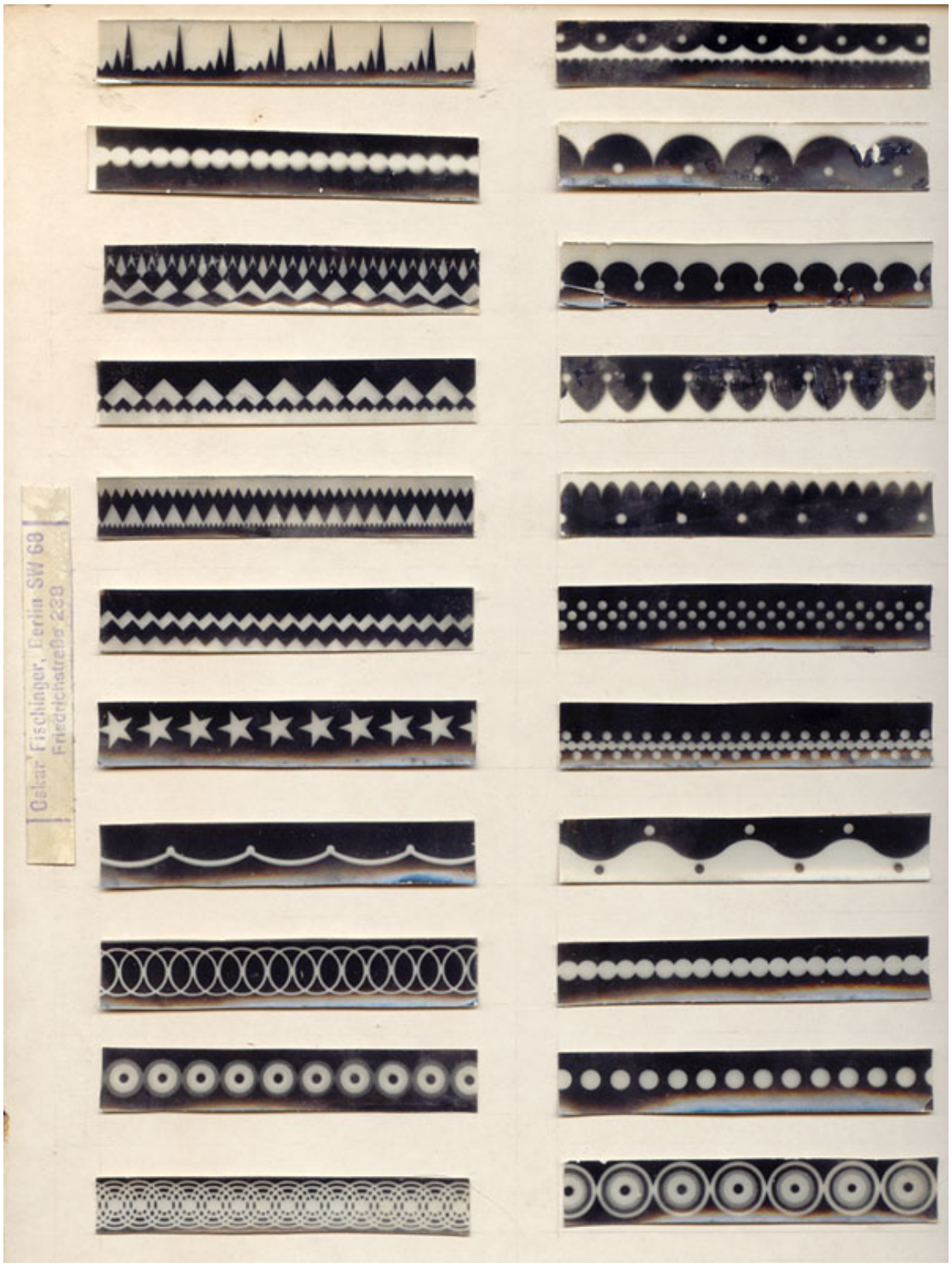

Fig.2. Oskar Fischinger, Details of Demonstration Card with various Ornaments, 1932, Reproduced from Center for Visual Music. © Center for Visual Music

Fig.3. Still from Oskar Fischinger's *Lumigraph* from *Time Travelers*, directed by Ib Mebchior, 1964.

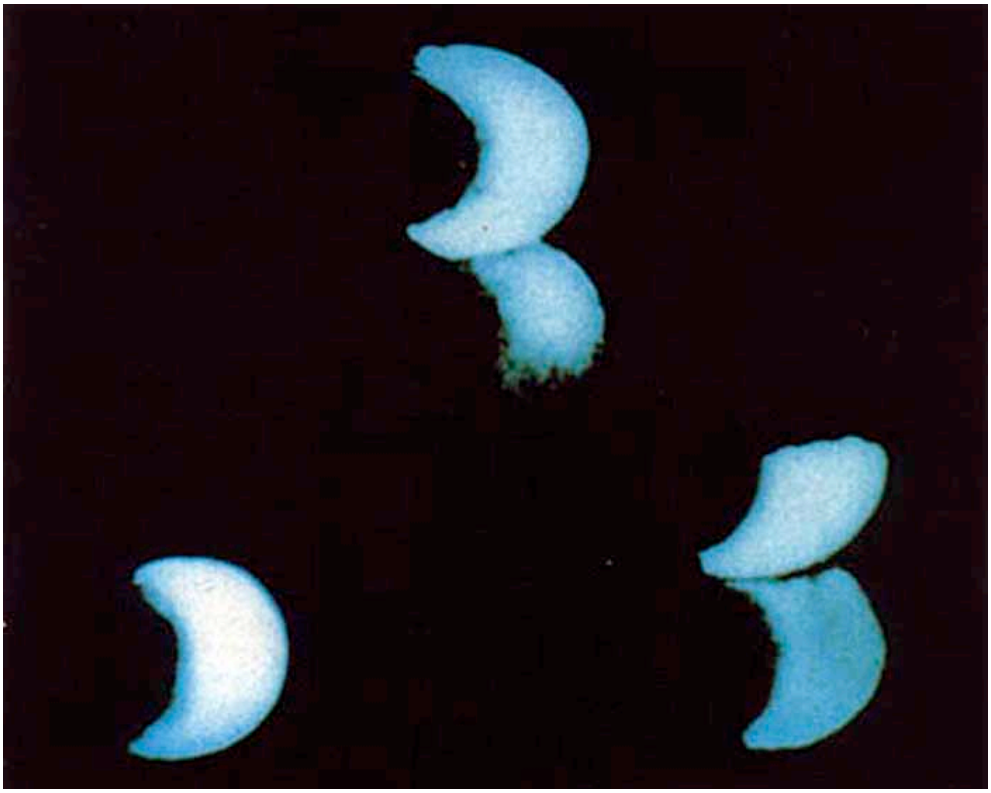

Fig.4. Walter Ruttmann*, Lichtspiel Opus 1*, 1921, sound

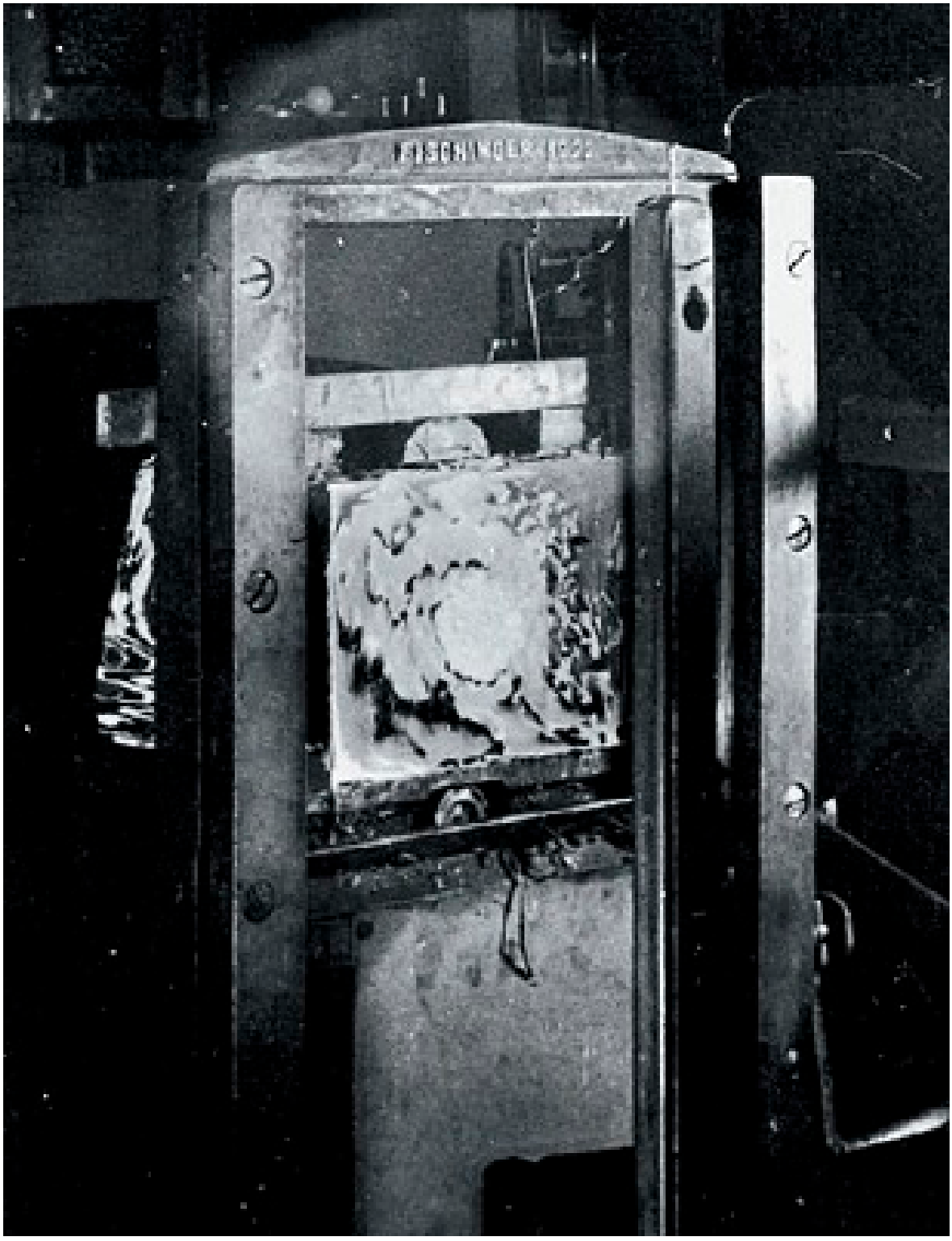

Fig.5. Oskar Fischinger, *Wax-Slicing Machine*, 1921 © Center for Visual Music

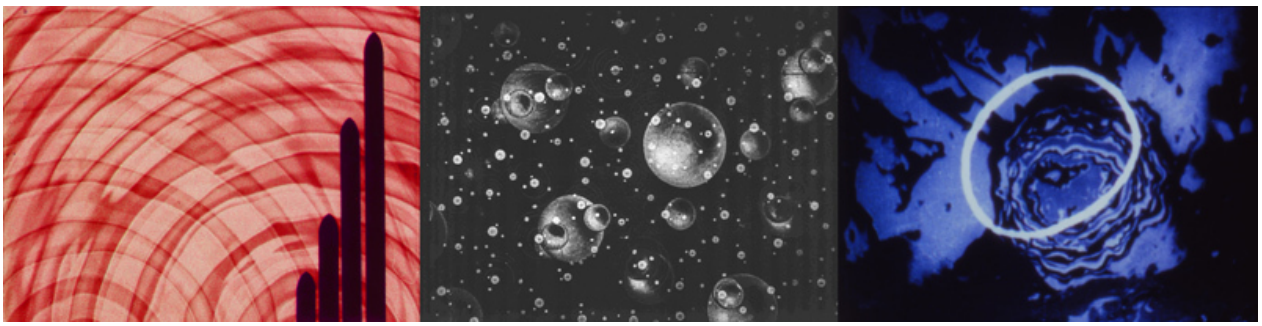

Fig.6. Oskar Fischinger*, Raumlichtkunst* (Space, Light, Art), 1926/2012, 35 mm, reconstructed b/w and tinted, length unknown. © Center for Visual Music

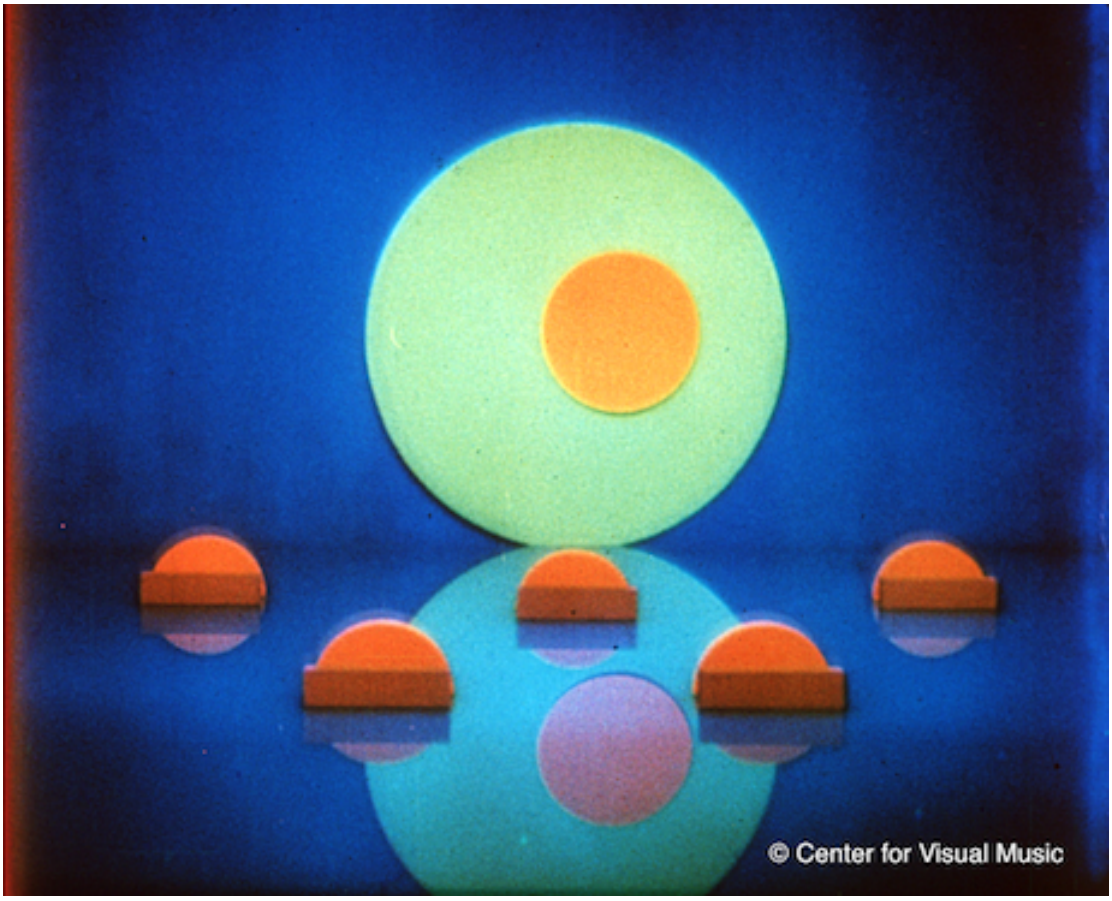

Fig.7. Oskar Fischinger, *Komposition in Blau*, 1935, 35 mm, colour, sound, 4 min. © Center for Visual Music

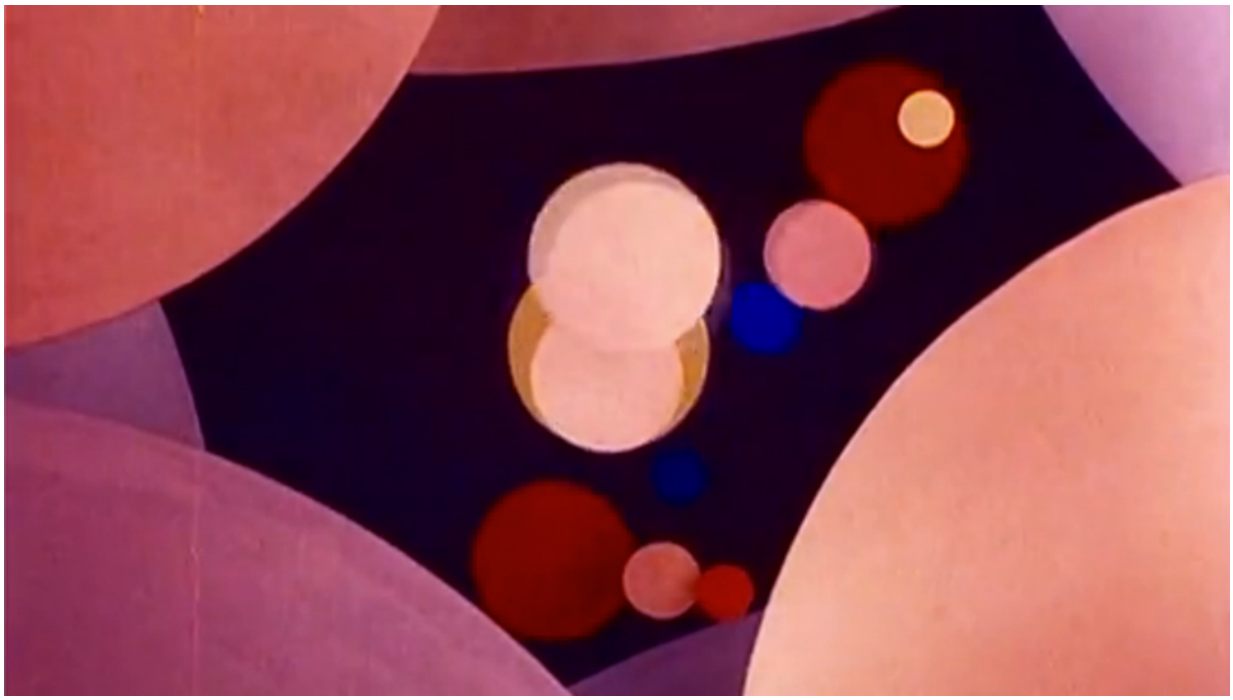

Fig.8. Oskar Fischinger*, An Optical Poem*, 1937, 35 mm, colour, sound, 7 min. © Center for Visual Music

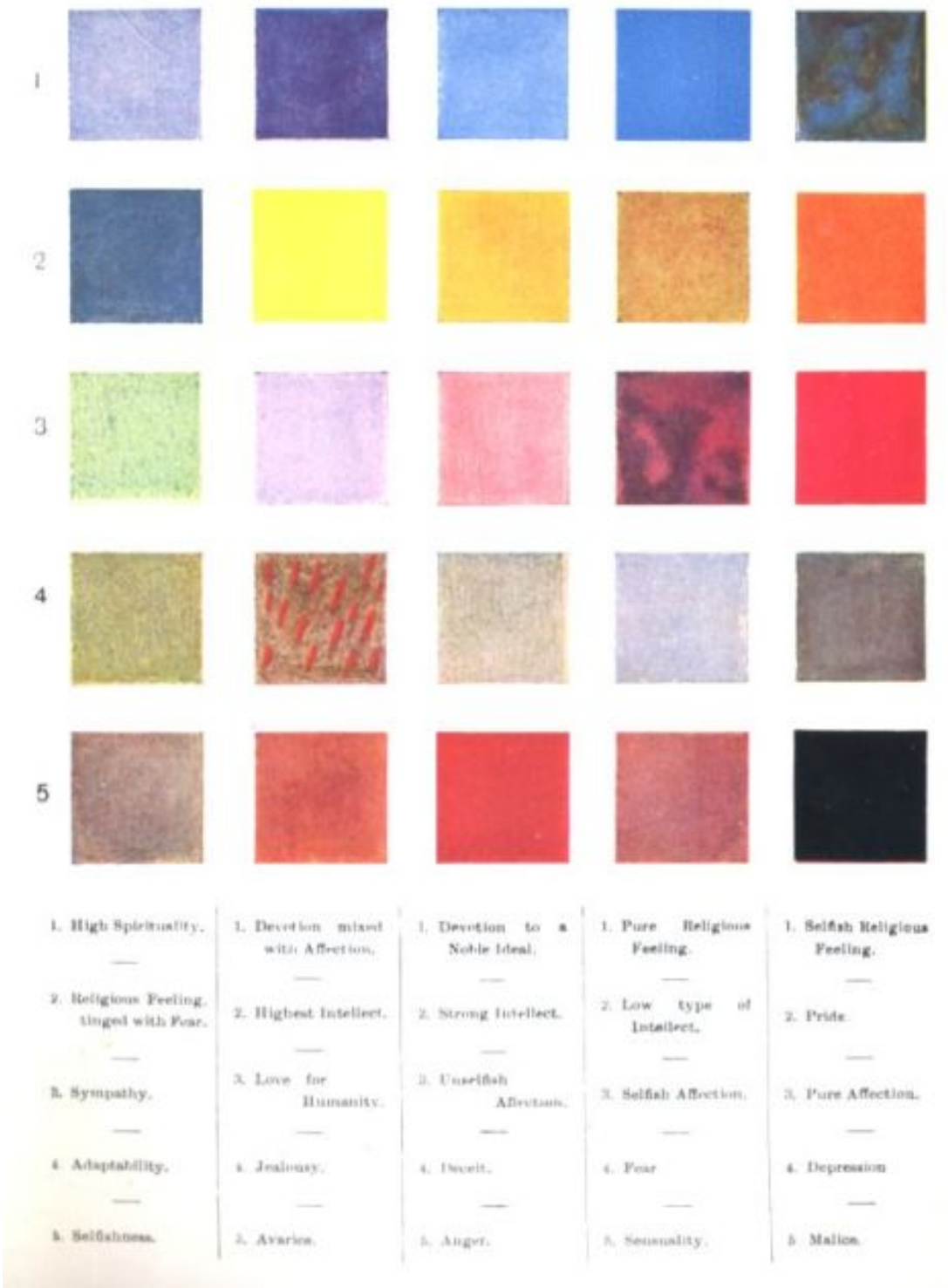

Fig.9. Annie Bessant and Charles Webster Leadbeater, "The Meaning of Colours," *Thought Forms*, 1901.

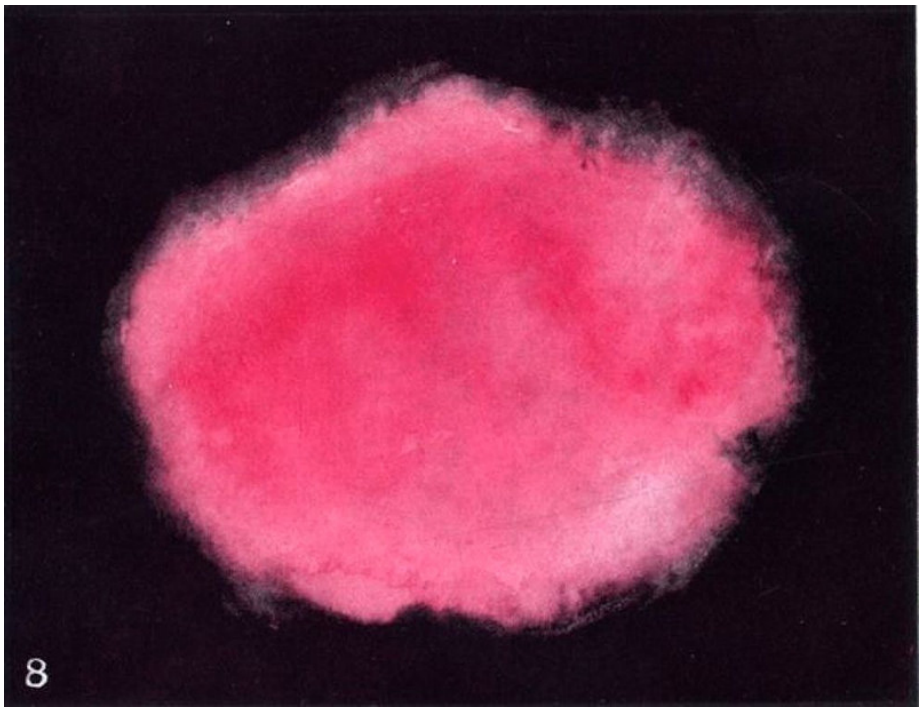

Fig.10. Annie Bessant and Charles Webster Leadbeater, “Vague Pure Affection,” *Thought Forms*, 1901.

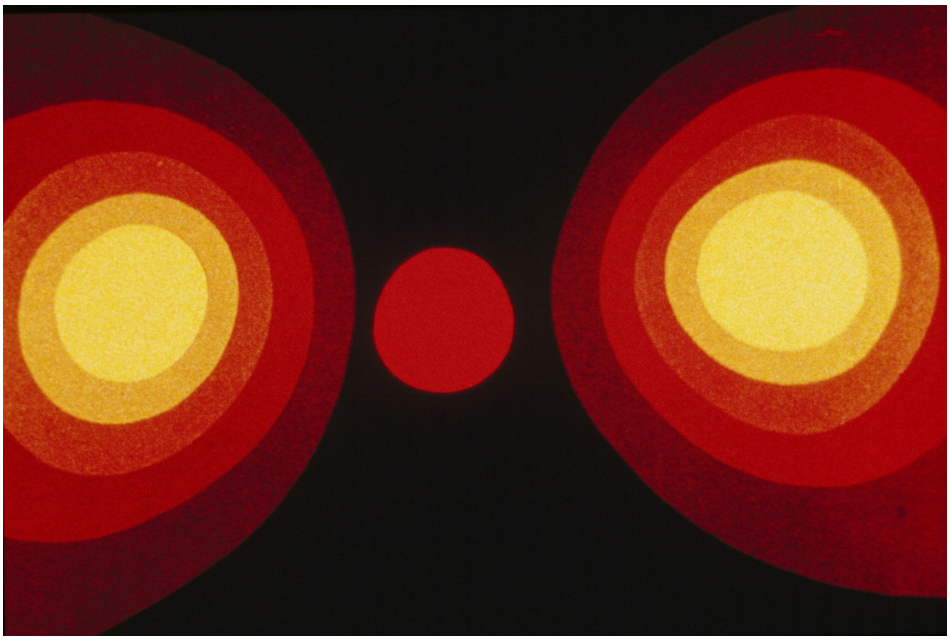

Fig.11. Oskar Fischinger*, Radio Dynamics*, 1942, 35mm, colour, silent. © Center for Visual Music

Fig.12. Stills from the *Lumigraph Film* played by Elfriede Fischinger, c.1970. © Center for Visual Music

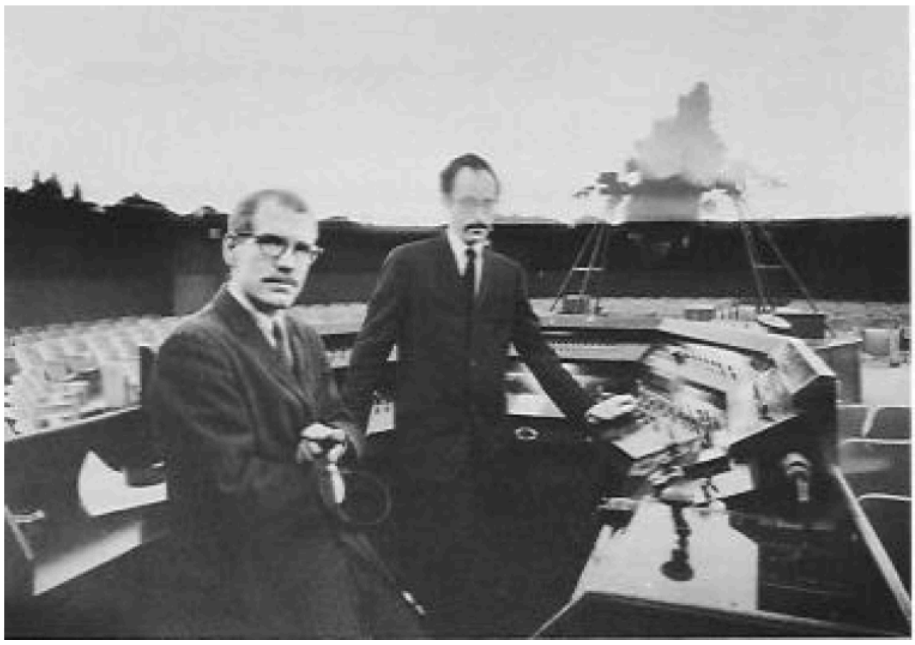

Fig.13. Henry Jacobs (left) and Jordan Belson (right) at the Morrison Planetarium in San Francisco, California, *Vortex Concerts* (c. 1957-1959). Reproduced from Gene Youngblood, *Expnded Cinema* (New York: E. P. Dutton & Co., 1970).

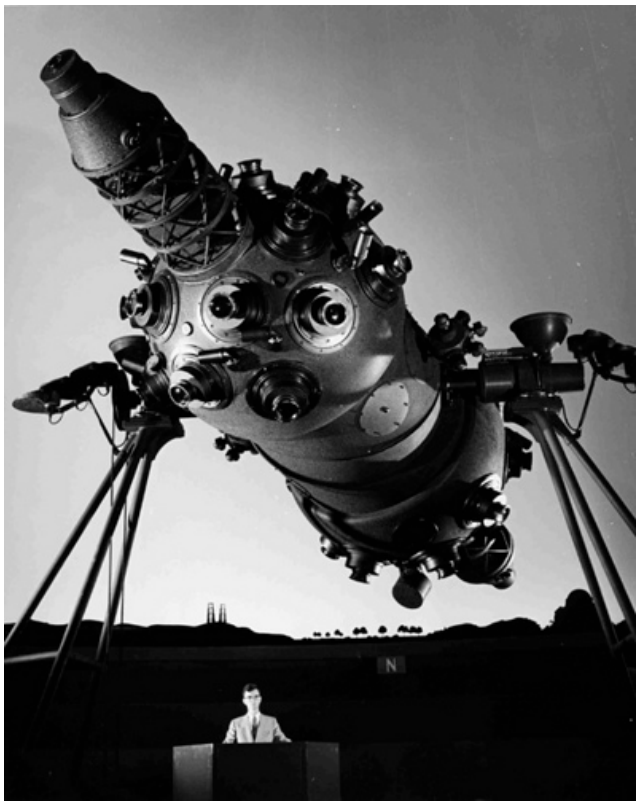

Fig.14. Morrison Planetarium's Star Projector, c. 1952, photo: California Academy of Sciences.

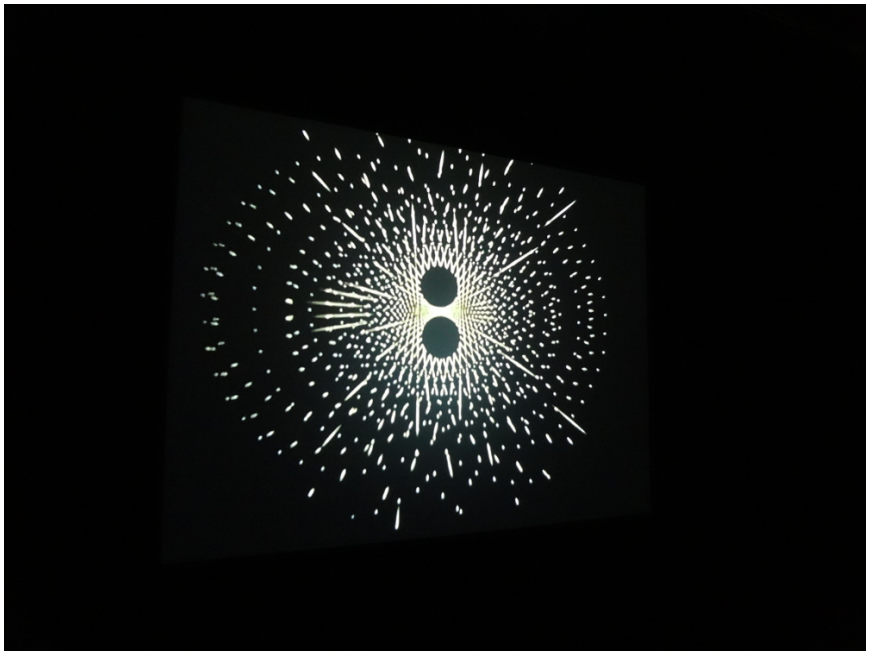

Fig.15. Jordan Belson, Still from *Séance*, 1959, 16mm, colour, sound. Sound : Pierre Schaeffer. Reproduced from Center for Visual Music. © Center for Visual Music

Fig.16. Folkways Records, Album No. FSS 6301, *Vortex*, Cover design by Ronald Clyne, 1959

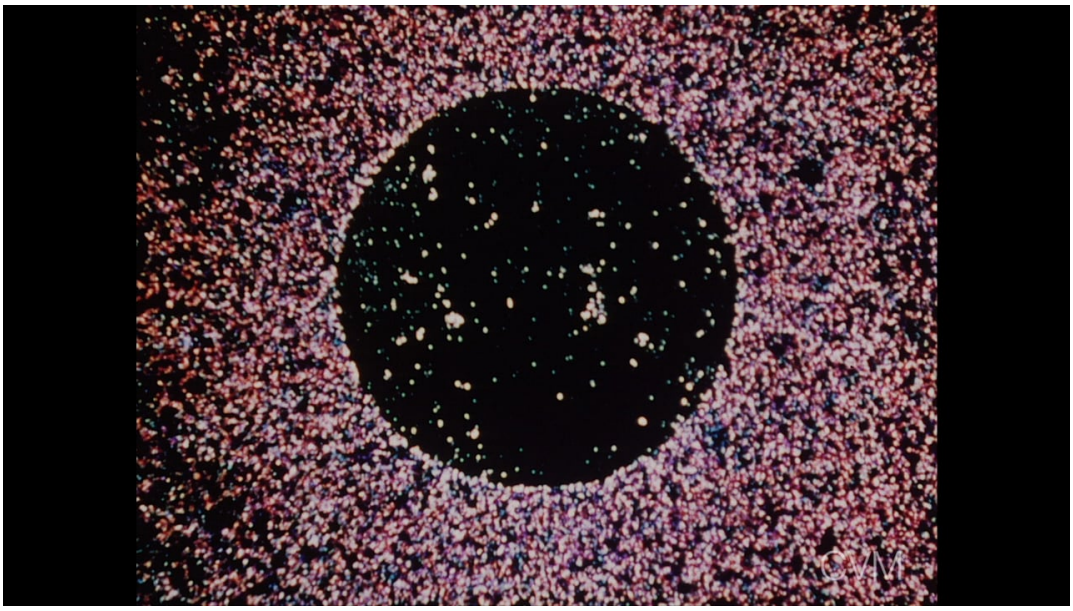

Fig.17. Jordan Belson, Still from *Mandala*, 1953, 16mm, colour, sound. Courtesy Center for Visual Music. © Center for Visual Music

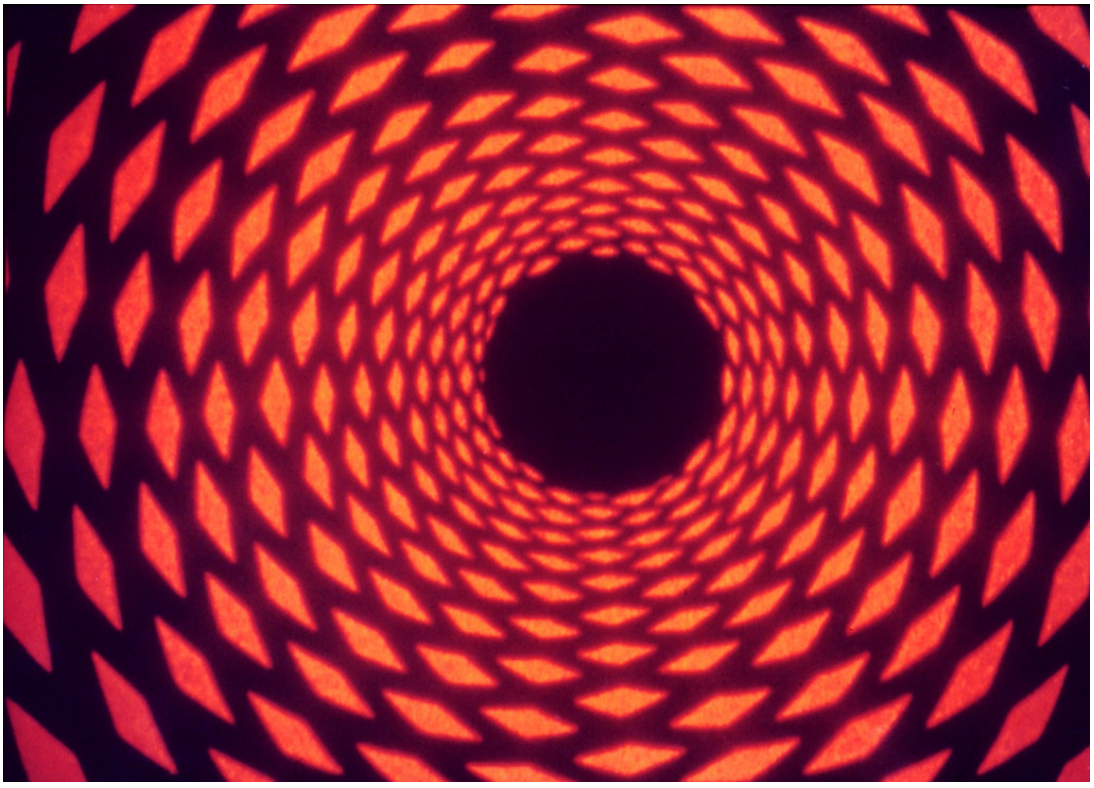

Fig.18. Jordan Belson, Still from *Allures*, 1961, 16 mm, colour, sound. Sound : Henry Jacobs and Jordan Belson. © Center for Visual Music

Fig.19. Brion Gysin, *Dream Machine*, ed. 1961, perforated metal, Musée d'Art Moderne de la Ville de Paris

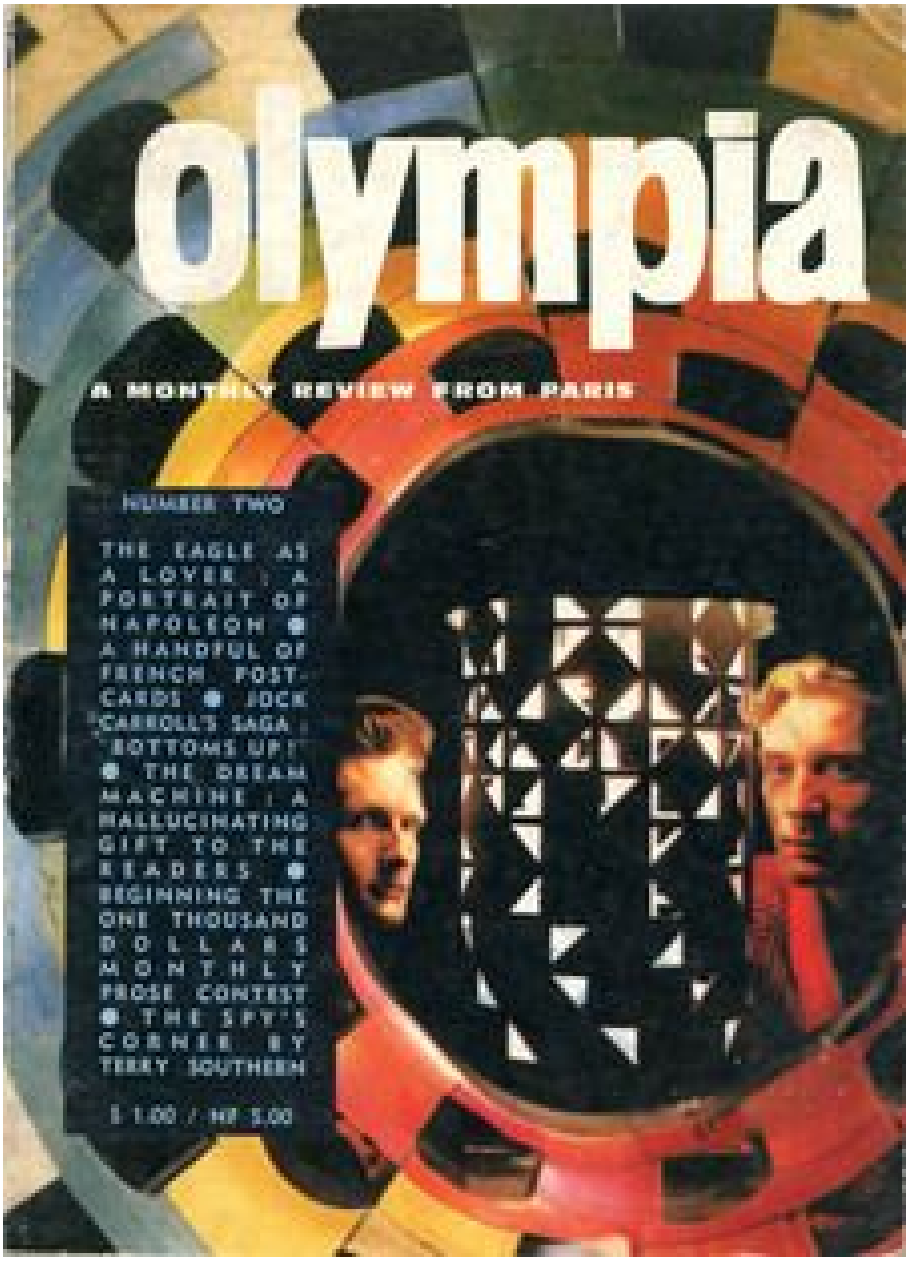

Fig.20. Cover of *Olympia: A Monthly Review from Paris,* No.2 (Jan. 1962)

Fig. 21. Brion Gysin, *Arbre généalogique féminin accablé par un matin machinal (portrait de leonord fini)*, 1935, Centre Pompidou

Fig.22. Brion Gysin, *Peggy's Window on the Grand Canal*, 1962, Ink on paper

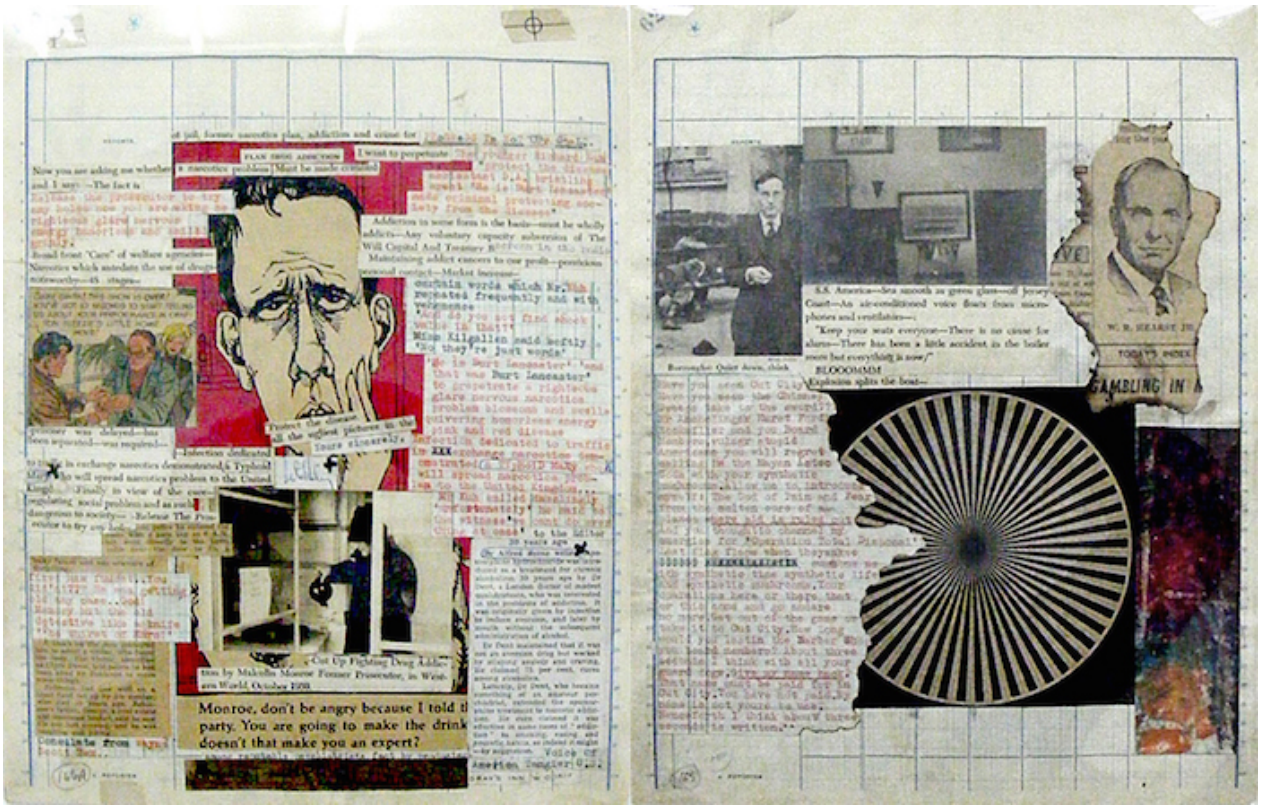

Fig.23. Brion Gysin and William S. Burroughs, A Cut-Up Collage from *The Third Mind*, 1962

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