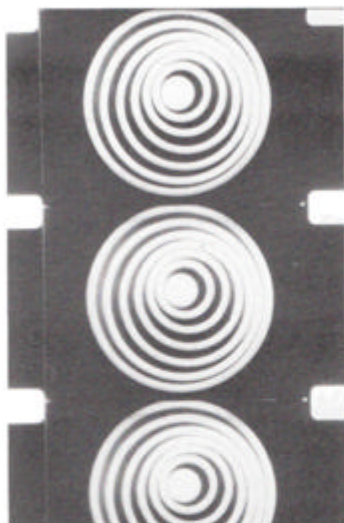


and according to their sketches they will arrive at the most exact and perfect expression in a mechanical way through electricity.

Theo van Doesburg *De Stijl* Nr 5, June 1921



Marcel Duchamp

- 1887 Born in Blainville, France
- 1906-1913 Begins career as a painter in Paris
- 1915-18 In New York, abandons painting, begins optical experiments with Man Ray
- 1919 Returned to Paris, participated in Dada and Surrealist activities, eventually 'ceasing to produce art'.
- 1968 Died in Neuilly

- 1920 *Moussiques Domestiques Demi-Stock* (stereoscopic experiments with Man Ray, never completed as a film) 1925 *Anemic Cinema* 7 mins

It is through his research into three-dimensionality that Marcel Duchamp, with the help of Man Ray, become interested in the cinema. A first attempt in 1920 in New York, made with two synchronised cameras (a transposition of stereo-photographic techniques known and used widely since the beginning of the century), was ruined in the developing process except for a few images.

But another solution, using circles de-centred from their axis of rotation, had been envisaged since 1920 and was successfully realised with the 'rotary demi-sphere' constructed for Jacques Doucet in 1925. This film, whose anagrammatic title immediately evokes an illusory 'profoundness', was very strictly composed of 10 optical discs between which alternated nine discs carrying the following inscriptions:

- Bains de gros thé pour grains de beauté sans trop de Bengué.
- L'enfant qui tête est un souffleur de chair chaude qui n'aime pas le chou-fleur de serre chaude.
- Si je te donne un sou, me donneras-tu une paire de ciseaux
- On demande des moustiques domestiques demi-stock pour la cure d'azote sur la Côte d'Azur.
- Inceste ou passion de famille à coups trop tirés.
- Esquignons les ecchymoses des Esquimaux aux mots exquis.
- Avez-vous déjà mis la moelle de l'épée dans le poêle de l'aimée?
- Parmi nos articles de quincaillerie paresseuse, nous recommandons le robinet qui s'arrête de couler quand on ne l'écoute pas.
- L'aspirant habite Javel et moi j'avais la bite en spirale.

It is not known exactly when, nor by whom, several very short shots were introduced in the middle of the film (the face of a girl, a tank clearing an obstacle, a statue of Napoleon which crumbles), shots perhaps indebted to Eisenstein (according to G. Sadoul, who describes the film in this form in his *Souvenirs d'un témoin*). But it was probably done very early, as attested by the early copy conserved by the Danish film archive.

Duchamp however has explicitly and entirely denounced this in an unpublished correspondence with Serge Stauffer. In a first letter dated 10 May 1961, Stauffer asked him if he remembered the 'realistic section which lasts a little more than a minute' in *Anemic Cinema*. Duchamp responded from New York on 28 May that he had 'no memory of the interpolations (Napoleon, etc) of which you speak, certainly done without my consent'. Not completely satisfied with this response, Stauffer returned to this point in another letter dated 20

June and he included stills from the film. The reply from Duchamp (date 26 June) was emphatic: 'I am sending you the stills of *Anemic Cinema*, and all those marked "do not recognise" have been added by "anonymous". It is essential that they not be published or thus create a general delusion about a version for which I am in no way responsible.'

from *Cinéma Dadiste et Surréaliste*, Centre Georges Pompidou, Paris, 1979, p. 32.

Viking Eggeling

- 1880 Born October 21 in LUND (Sweden)
- 1897 Emigrates to Germany and commences vocational training in Fltmsburg
- 1900 Book-keeper with a clock factory in Le Locle, Switzerland
- 1911 Works as an artist in Paris, mixing with Modigliani, Arp, Friesz, Kisting
- 1915/17 Produces designs which are possibly first sketches for his scroll-pictures *Horizontal-Vertical Orchestra* and *Diagonal Symphony*
- 1918 Lives in Zurich, where he renews his acquaintance with Arp and comes into contact with other members of the Dada movement. Gets to know Hans Richter through Tristan Tzara.
- 1919 Goes to Germany with Richter (Klein-Kolzig, near Berlin) where both work at studies and experiments in form.
- 1920 Begins film experiments with Richter. First attempts at *Horizontal-Vertical orchestra*.
- 1921 Lives in Berlin. Ends collaboration with Richter. Further work on the film *Horizontal-Vertical Orchestra*.
- 1922 Eggeling moves into artistic circle with El Lissitzky, Kurt Schwitters, Raoul Hausmann, Erich Buchholz, Werner Graeff and others.
- 1923 Meets Erna Niemeyer (Re Niemeyer-Soupault) and begins collaboration with her on the film *Diagonal Symphony*
- 1925 First public screening of *Diagonal Symphony* on May 3. Eggeling dies in Berlin on May 19 after a month's illness.

Rediscovering Berlin in 1947, I was making my way through the ruins in search of missing friends when to my great surprise I saw a house I had known many years ago; a house by some mysterious twist of fate spared from the destructive mania of the air raids.

Located very close to the Wittenbergplatz, Wormserstrasse 6a on the corner of Bayreuther Strasse, it was an ugly house, one of many blocks of flats in Berlin where, beneath the roof on the 6th floor, two so-called 'artist studios' nestled. The north face had large, sloping, studio windows, without watermains or heating. The house had been put up during the 1880's, possibly later. Over the years the window frames began to let water in on a wet day it was necessary to place a bathtub beneath, to prevent the floor being flooded. The winter in Berlin is bitter. The studios became ice cold, and it was possible only slightly to ease the temperature, if one had some coal, by the small, high-pressure furnace. In the summer an almost tropical heat accumulated in the rooms.

In one of these two Wormserstrasse studios the Swede, Viking Eggeling, lived and worked from 1921 until his death in 1925, a painter and pioneer of abstract film, or as I should say, the initiator of a new art form which one could call 'optical music'. (Augenmusik). Stopping in Berlin for a visit in the summer of 1923, I was introduced to Eggeling through Werner Graeff who, like myself, was studying at the 'Staatlichen Bauhaus' in Weimar. Until then, I knew nothing about Eggeling, and Werner Graeff spoke of him quite by chance. We then went for a walk through the town and crossed the Wittenbergplatz. Graeff told me that the sloping studio windows visible from where we stood were in fact the studio windows of Eggeling's room. I asked him who was Eggeling, and he explained that he was an important artist working on something completely new; that he draws, so to speak, with light onto a dark canvas, creating elementary geometrical forms and lines through proportion, numerical relations and intensity of light in a rhythmical context, from which something originates like light-music for the eye. This description enthralled me. 'Where is it possible to see his work?' I asked. 'Perhaps at his place', said Graeff. 'We'll go up, maybe he is at home'. I was so impressed that Graeff knew such an important artist well enough to risk visiting him unannounced, at 11 am and accompanied by a stranger. We went into number 6a Wormserstrasse. There was a lift, attached to the outside wall facing into the courtyard, that had evidently been put in long after the house was built. It was out of order at the time, and years later the rickety old machine was closed down by the police and eventually dismantled because it was quite unsafe. So we climbed up to the sixth floor. Two doors to the two

studios and there, in the corridor, directly opposite Eggeling's studio on the right hand side, was the water supply of the two sixth floor tenants. Werner Graeff banged vigorously on the door — there was silence. I was not at all surprised: at 11 am most people are up and out. But Graeff wasn't giving up, and at last an extremely sleepy voice replied, "who's there?" Graeff called back that it was he, and after a while the door opened. A thin blond man of medium height stood before us. He had extremely dark blue eyes, and a very drowsy look upon his face. He was wearing a garment that might have been a dressing gown. We had awakened Eggeling. It was not by chance that he had over-slept; he had suffered since an early age from terrible insomnia, and could only sleep with the help of Gardinal which he took regularly, often sleeping on into the afternoon if he got off to sleep late.

He invited us in. In the first little room just to the right of the door there was a gas cooker, on the left a wash-stand, and against the wall a bed. Light shone in through a small sloping window, and a curtain of sack-cloth separated the little ante-room from the actual studio, which was quite a large, well proportioned room, brilliantly lit by the daylight of the sloping studio window. Mounted on the left wall separating the little room from the main one, was a timber bracket supporting a small hand-wind projector. By moving the hand-winder, any picture would thus be projected on to the opposite wall, and that was indeed the method by which Eggeling examined the results of his current experiments. On the right, along the wall stood a sofa with a torn cover, and behind that hung an Indian batik cloth, lending a touch of homeliness to the room. In the centre was a working table and two or three primitive chairs, and opposite the entrance a high-pressure furnace, turned off of course, because it was summer. I should have remembered little of the sparse arrangement of the studio, except for that which any visitor is sure to notice, had I not had over a year in which to become familiar with these details. What did, above all, catch the visitor's attention were the sketches for Eggeling's optical symphonies pinned up everywhere. They were pencil drawings, on quite ordinary paper, of geometric forms. In order to be able to unfold the different phases of the optical development of these drawings, Eggeling put them on to scrolls. One had to imagine the shapes and lines in total reverse — i.e. the black on white as white on black — or better still, as light on dark. Here for the first time I saw the *Horizontal-Vertical Orchestra*, and three variations of the *Diagonal Symphony*. The sketches made an incredible impression, and Eggeling's method of working them out also became clear to me.

And yet really valid results of this new art form had still not been achieved. What there were were most unsatisfactory fragments which did not only display great technical imperfections, but also proved that the film technique was unaccommodating to Eggeling's ideas — a fact not clearly discernible until then. Eggeling was not a technician. He employed an animation film-operator who had to be paid by the hour. This man understood little of Eggeling's ideas, but he set him up a darkroom in a partitioned-off space opposite the studio, and at the bottom between four posts, was a sort of lightbox; above it, at the required distance, an Askania-Werke camera.

The lines and shapes were cut with a sharp knife from a very tough type of tin foil (already an improvement, for the first experiments had been done with paper), and by masking or de-masking on exposure after exposure a movement on the film-strip was created. To achieve the impression of motion demanded a great many experiments and calculations, and when several 'voices' were to appear on the screen simultaneously it became very difficult indeed. These 'voices' had to be not only independent of one another, but directed against one another in a satisfactory way.

Counterpoint had not yet been created in this new art form. Eggeling's operator was in complete despair, so impossible did the task seem to him. Added to that, Eggeling's money was evaporating, and he could no longer afford to pay the man. This was exactly the situation when I first got to know Eggeling. Since the spring of 1921 I had been at the Bauhaus in Weimar. Itten's foundation course was so full of new ideas and possibilities that I took it twice. After that I had to choose which workshop to enter, and I decided on weaving — more

out of confusion than actual conviction. I began weaving and knitting carpets but soon realised that there was no future for me in this field, so when Eggeling suggested that I help him with his film experiments I left the Bauhaus and went straight to Berlin. There Eggeling's operator showed me how to use the camera. From time to time the engineer of the Askania factory placed at Eggeling's disposal their latest model, completely free of charge, and followed the latter's experiments with the greatest interest thereby hoping to rectify any technical faults the camera may have had. The greatest difficulty was in winding the film back several times in order to be able to record on to the film a second, or sometimes third 'melody'. Quite often the whole working process had to be repeated because the winding back of the film had been unsuccessful, and to open the camera and see a whole roll of film drop out was extremely disappointing.

Another problem was the light which was very uneven because its source was a number of bulbs, and those in the centre were brighter than those at a greater distance from the lightbox. It was well nigh impossible to achieve a line with even density, in spite of the focusing screen. But the greatest difficulty of all for this new art form was the lack of a counterpoint, a 'law of harmony'.

The work was carried out in this manner: Eggeling would describe to me his thoughts of a certain movement, tempo, rhythm etc. My job was the cutting out of lines and shapes from the tin foil, as well as the technical execution on the rostrum. Exact calculations were necessary in order to achieve the required tempo; calculations which became extremely complicated when a second and third 'melody' was brought in. Eggeling was determined to realise, first of all, the *Horizontal-Vertical Orchestra* but the experiments were disappointing because the shapes were so rigid. It seemed to me that the *Diagonal Symphony* would be more suited to these first experiments, because it offered more freedom of movement. The first frames convinced Eggeling. The film began with a wavy line wide at the top and narrowing towards the bottom. Parts of the film really surpassed all expectations, and had we not been short of both money and time studies for a counterpoint ought at this point to have been established. However in spite of all the difficulties one film was completed. It was screened on 5th November, 1924 at the Gloria Palace, for invited guests.

Soon after the premiere Eggeling travelled to Paris where he showed his film to Fernand Léger, and met Tzara and other friends whom I have since spoken to about the event. On his way back from Paris Eggeling met me in Hannover where I was staying with Schwitters and his wife for a few weeks. My work for Eggeling was now over and I returned to Weimar before the end of the year. But my health was in a bad state from the strain and privations of the last year and so my mother arranged for me to recuperate in Italy.

Eggeling gave the impression of being a completely balanced sort of person. Was he a Dadist? No, for he had a classical conception of art, but he had a great sympathy for the Dadaists, in particular for Tzara. I am also indebted to Eggeling for his introduction to me of Leonardo's *Treatise on Painting*. Eggeling had the greatest admiration for Leonardo.

Eggeling was absolutely delighted with his popularity in Berlin. Amongst his closest friends belonged Dr. Charlotte Wolff, friend of Dora and Walter Benjamin, who in her book *On the Way to Myself* gave a detailed account of a trip through Russia where she lectured at the University of Karkhov on Eggeling's film. It was she who thought up the name for this new art form: 'Eydynamik' — a name which was also accepted by Eggeling himself.

Eggeling's personality transcended the world of success and self-seeking. He belonged to no church, party or group. His need for independence was total. He also had a sense of humour. Once at a Berlin guest house he had to complete the check-in form, where amongst other things they demanded to know his religion. He wrote briefly, 'Heathen'. For Eggeling this was no *bon mot*. He wished to express with this one word his non-conformist attitude as a human being and as an artist, and at the same time to show his indignation at such an indiscreet question.

He had an almost pathological fear of ageing. So much so that it



struck me as almost childish self-deception when he would state the year of his birth as not 1880 — the actual date — but 1888. The last time I was in Berlin was in 1962. This time the house at number 6a Wormserstrasse was no longer there. In its place was a parking lot, and on the very spot where Eggeing's studio once stood a large American limousine was parked. This seemed to me to be symbolic.

Ré Soupault
Paris, October 1977



Sergei Eisenstein

1898 Born in Riga, Latvia
1915-17 studied at the Petrograd Institute of Civil Engineering
1918-20 Served in the Red Army, first in engineering unit and later in agit-prop theatrical unit
1920-24 Worked with various theatrical troupes in Moscow
1924 Began film-making career.
1948 Died in Moscow

1924 *Strike*
1925 *Battleship Potemkin*
1927 *October*
1929 *The General Line*
1939 *Alexander Nevsky*
1941-46 *Ivan the Terrible, parts I and II*

The attraction (in our diagnosis of the theatre) is every aggressive moment in it, i.e., every element of it that brings to light in the spectator those senses or that psychology that influence his experience — every element that can be verified and mathematically calculated to produce certain emotional shocks in a proper order within the totality — the only means by which it is possible to make the final ideological conclusion perceptible. The way to knowledge — 'Through the living play of the passions' — applies specifically to the theatre (perceptually).

Sensual and psychological, of course, in the sense of efficient action — as directly active as in the Theatre Guignole, where an eye is gouged out, an arm or leg amputated before the very eyes of the audience; or a telephone communication is incorporated into the action to describe a horrible event that is taking place ten miles away; or a situation in which a drunkard, sensing his approaching end, seeks relief in madness. Rather in this sense than in that branch of the psychological theatre where the attraction rests in the theme only, and exists and operates *beneath* the action, although the theme may be an extremely urgent one. (The mistake made by most agit-theatres is in their satisfaction with those attractions that already exist in their scripts.) . . . The attraction has nothing in common with the trick. Tricks are accomplished and completed on a plane of pure craftsmanship (acrobatic tricks, for example) and include that kind of attraction linked to the process of giving (or in circus slang, 'selling') one's self. As the circus term indicates, inasmuch as it is clearly from the viewpoint of the performer himself, it is absolutely opposite to the attraction — which is based exclusively on the reaction of the audience.

Approached genuinely, this basically determines the possible principles of construction as 'an action of construction' (of the whole production). Instead of a static 'reflection' of an event with all possibilities for activity within the limits of the event's logical action, we advance to a

new plane — free montage of arbitrarily selected, independent (within the given composition and the subject links that hold the influencing actions together) attractions — all from the stand of establishing certain final thematic effects — this is montage of attractions.

The theatre is confronted with the problem of transforming its 'illusory pictures' and its 'presentations' into a montage of 'real matters' while at the same time weaving into the montage full 'pieces of representation' tied to the plot development of the subject, but now not as self-enforced and all-determining, but as consciously contributing to the whole production and selected from their pure strength as active attractions . . .

Schooling for the *montageur* can be found in the cinema, and chiefly in the music-hall and circus, which invariably (substantially speaking) puts on a good show — from the spectator's viewpoint. This schooling is necessary in order to build a strong music-hall-circus programme, resulting from the situation found at the base of a play . . .

S. Eisenstein,
Lef, No. 3, 1923
'Montage of Attractions'



Oskar Fischinger

1900 Born in Gelnhausen near Frankfurt
1914-15 Apprentice to an organ-builder, Gelnhausen
1915-16 Draughtsman in office of City Architect Göpfert, Gelnhausen
1916-22 Tool designer and engineer with the turbine factory Pokorny & Wiedekind, Frankfurt
1919-21 Member of a Frankfurt literary club where he meets the newspaper critic Bernhard Diebold who has been promoting abstract film. Prepares graphic charts of the dynamics of two plays: Fritz von Unruh's expressionistic anti-war drama *Ein Geschlecht (Generations)*, and Shakespeare's *Twelfth Night*. Diebold encourages him to make an abstract film of such graphics
1921 Diebold introduces Oskar to Walther Ruttmann at the premiere of Ruttmann's *Opus I*, Frankfurt, April. Oskar tries to interest Ruttmann in a labour-saving animation machine he has been working on
1922 August: Oskar moves to Munich to devote himself full time to filmmaking. November: Ruttmann buys a wax-slicing machine from Oskar. Oskar also invents and markets a clean-burning natural gas motor, but his business partner Güttler defrauds during height of inflation, and Oskar is left in debt
1924-26 Oskar forms partnership with Louis Seel to produce a series of theatrical shorts, *Münchener Bilderbogen*. Seel Co. also goes broke, leaving Oskar deeper in debt
1921-27 Oskar produces independently various abstract film work: *Wax Experiments*, *Orgelstube* (literally organ-pipes but translated by Oskar as Staffs) with cut-out silhouettes, *Stromlinien (Currents)* with coloured liquids, etc.
1925-26 Alexander László uses abstract films by Oskar as part of his *Farblichtmusik (Colour-light-music)* colour-organ performances throughout Germany
1926-27 Oskar performs his own multiple-projector shows in his Munich studio: *Fieber (Fever)*, *Vakuum (Vacuum)*, and *Macht (Power)*. Also produces representational silhouette-animation film *Seelische Konstruktionen (Spiritual Constructions)*, and special effects for feature film *Sinfur (Noah's Ark)*.
1927 To escape debts, Oskar spends summer walking from Munich to Berlin, taking single frames of people and places he encounters: *München-Berlin Wanderung*
1928 Oskar, now permanently living in Berlin, prepares special effects for Ernö Metzner's *Dein Schicksal (Your destiny)*, a political film supporting the radical Sozial Demokratische Partei. Also other advertising films and special effects

**Film
AS
Film**

**formal experiment in film
1910-1975**

Hayward Gallery, South Bank, London SE1
3 May-17 June 1979
Arts Council of Great Britain

Contents

	Phillip Drummond	Notions of Avant-garde Cinema	9
	Al Rees	Charting Film-time	enclosed
Part 1: 1910-40			
	Birgit Hein	The Futurist Film	19
	Wulf Herzogenrath	Light-play and Kinetic Theatre as Parallels to Absolute Film	22
		Documents on German Abstract Film	27
	Malcolm Le Grice	German Abstract Film in the Twenties	31
	Ian Christie	French Avant-garde Film in the Twenties: from 'Specificity' to Surrealism	37
	Peter Weibel	Eisenstein, Vertov and the Formal Film	47
	Deke Dusinberre	The Other Avant-gardes	53
	William Moritz	Non-objective Film: the Second Generation	59
		Filmographies 1910-40	72
Part 2: 1940-75			
	Birgit Hein	The Structural Film	93
	Peter Weibel	The Viennese Formal Film	107
	Malcolm Le Grice	The History We Need	113
		Woman and the Formal Film	118
		Filmographies 1940-75	130