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1. Vitalism and Abstraction

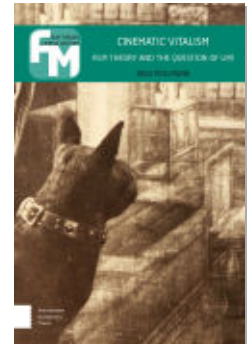
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1. Vitalism and Abstraction

Rhythm and Non-Organic Life from Hans Richter to Sergei Eisenstein

The Reinvention of Cinema in Abstract Film

A number of early film and cultural critics, such as Rémy de Gourmont, Alfred Döblin, and Hermann Häfker, discussed cinema's fascination and potential in terms of the lifelikeness of its images. They sought to find words for the peculiar nature of the relationship in time, via movement, between the spectator and the moving image. It might seem that what I have called 'cinematic vitalism' relies on indexicality and the vitality of the photographed world. Cinematic vitalism would then be an aspect of a particular trajectory of film theory, namely the one that Siegfried Kracauer in his *Theory of Film* called the 'realistic tendency', which he privileged over the formalist tendency. This binary distinction was subsequently picked up in film theory, most notably by Dudley Andrew in *The Major Film Theories*, and has long shaped our understanding of film history.¹ According to Kracauer, a film's aesthetic validity, the consequence of a 'cinematic approach' to matter, needs to be led by an engagement with the physical world and only secondarily informed by formal interventions of framing, montage, narrative, and so forth.² Like Kracauer, Andrew traced the opposition of realism and formalism back to the films of the Lumière brothers versus those of George Méliès. However, he organized the history of film theory and practice as a whole chronologically around the two poles, by claiming that pre-WWII film theory, in reaction to early cinema's 'crude' realism, was by and large formalist (Hugo Münsterberg, Rudolf Arnheim, and Sergei Eisenstein serve as his prime examples), while Kracauer and André Bazin spearheaded post-WWII realist film theory.

Other early film critics, however, who play a central role in my inquiry into cinematic vitalism—including Georg Lukács and Béla Balázs—actually built their thoughts on cinema on the difference between the film image and reality; or rather, the difference between the image and unmediated perception. Both Bazin's and Kracauer's work, as well as early Lumière films and the 'Lumière aesthetic', are indeed central touchstones of this

¹ See Andrew, *Major Film Theories*.

² Kracauer, *Theory of Film*, 37-39.

book, yet the interaction with vitalism on the part of filmmakers and film theorists is by no means restricted to realist film and film theory—not least because (as both Kracauer and Andrew readily admit) the binary division between realism and formalism is itself too rigid and artificial to be useful as a means of orientation.³ The distinction between a tendency toward the photographic and a tendency toward the non-photographic, formal aspects of film can help us, however, to sketch out a particular aspect of cinematic vitalism that, rather than relying on photographic realism, emerges from a consideration of the formal and formative properties of the cinematographic apparatus and of film itself, including mechanical movement, projection, and montage. A cine-vitalist approach is thus not restricted to the ‘recording’ and ‘revealing’ of the visible world, but also considers the vital exchange between the embodied spectator and the film body.

This chapter traces the role of vitalist conceptions of life in and for abstract film, on the one hand—that is, films that seem to be diametrically opposed to photographic realism and a depiction of ‘life itself’—and montage theory, on the other hand. Early abstract film includes the work of filmmakers such as Hans Richter, Viking Eggeling, Walter Ruttmann, Germaine Dulac, and Fernand Léger. A number of these films were created in the context of broader art movements, especially Dada (Eggeling, Richter, Léger), and connected to attempts to distill something like cinema’s essence by means of a pure or absolute film (Dulac, Richter). The elements of this essence were movement, rhythm, and light, and a peculiarly dynamic, intuitive connection between spectator and image. These filmmakers and theorists were concerned with re-building cinema from the ground up, starting with its literal body, its matter, and developing cinema’s ‘physical expression’, its capacity to express and transmit ideas, on the basis of this physiognomy.

In the first and longest part of this chapter, I focus on Hans Richter’s collaborative work with Viking Eggeling and the eventual production of Richter’s first abstract film, *Rhythm 21* (the exact date of the film is unknown, but Richter seems to have begun work on it in 1921 and completed it in 1923/24). I argue that we ought to see *Rhythm 21* as a

3 A case in point of the limitations of this distinction is Andrew’s classification of Béla Balázs as a formalist. Sergei Eisenstein, a ‘formalist’ filmmaker par excellence, formulated the sharpest critique of Balázs in this respect (*avant la lettre*): see Eisenstein, ‘Béla Forgets the Scissors’. Dan Morgan has made a powerful argument for a reconsideration of classical ‘realist’ film theory and the role of style; see Morgan, ‘Rethinking Bazin.’

'reinvention' of cinema. Cinema had become a well-established medium by this point, with abundant nickelodeons dotting city streets and an increasing number of picture palaces—grand cinemas in the style of theaters—accompanying efforts to reach bourgeois audiences and raise the medium's artistic profile. Yet Richter and Eggeling turned to cinema in order to solve a set of vitalist-aesthetic issues and problems that they had initially addressed in scroll painting, but that—at least, so Richter believed—could only be fully pursued by exploiting the capacity of cinema to merge the living temporality of the spectator with the mechanical temporality of the film apparatus. They tried to find an abstract expressive film language that could capture the potential of the new, mechanical vitality they felt the cinematograph possessed. In the second, shorter part of this chapter, I turn to montage theory, in particular Sergei Eisenstein's writings. I argue that Russian montage theory, especially Eisenstein's later conception of montage, presents a translation of the sensual-formal principles employed by Richter in *Rhythm 21* into photographic, narrative film, and can be seen as a continuation of a certain approach to film as vitalized matter.

None of the artists and filmmakers that I consider in this chapter were vitalists in the sense that biologist Hans Driesch was; that is, none of these artists and filmmakers felt the need to commit him- or herself to a specific set of ontological claims about the relationship between life and physical-chemical explanations of the natural world. However, all of the artists and filmmakers that I consider addressed a topic that was central to vitalist accounts of life, namely, the importance of vital rhythm; and for most of them, this seems to have been a function of reading vitalist philosophers such as Henri Bergson, Ludwig Klages, or Georg Simmel. The importance of vitalist conceptions of life to these authors and filmmakers is thus related to their belief in the ability of the medium of film to structure, that is, rhythmicize, time, and create a temporal organization. Rhythm paired with *Einfühlung* ('empathy'), abstraction, and animation, I am suggesting, provided a formula for a 'vitalist formalism'. A projected film, according to this line of thought, has an affinity for life not because it presents the living duration of the natural world, but rather because it is itself a temporal, organized body, an organism changing over time, whose rhythmic temporality—a result of flicker, the mechanical motion of the filmstrip, the movement in the image, *mise en scène*, and montage—is expressive of the film's life. The distinction between this vitalist formalism and a vitalist materialism in film theory and practice is just one of several tendencies, however, since both directions converge in a consideration of

the spectator's perception and sensations. This chapter thus also turns to painting and music, because it was by rethinking cinema *with the help of* other arts—and in particular music's temporal gestalt and painting's planar expressivity—that Richter and others sought to conceive of a vital expressivity specific to film.

A Universal Language

The 1910s and early 1920s saw the creation of a number of abstract films, especially in the context of futurist, constructivist, or Dadaist art movements. The non-representative, non-photographic images of these early abstract films challenged dominant ideas about the nature of cinema: while these films emphasized movement and rhythm, they also rendered the cinematic image independent from photographic realism. Some of these abstract films—for example, those of Oskar Fischinger (who later went to Hollywood and worked briefly for Disney on *Fantasia*, 1940) and Walter Ruttmann (who created the abstract *Opus 1-4* films before his famous film *Berlin: Symphony of a Great City* from 1927)—emphasized forms and movements that were organic, pulsating, reminiscent of natural movement, and intended to facilitate a mimetic response in the spectator. The early abstract films of Hans Richter and his friend Viking Eggeling, by contrast, lacked forms that would encourage a mimetic response, for their films featured geometrical, inorganic forms, such as lines, squares, and rectangles.

Yet I argue that it is precisely the inorganic quality of these films' formal language that demonstrates the amalgamation of vitalist ideas and technological medium. This amalgamation was the result of a work process over the course of several years on the part of Richter and Eggeling, and I thus develop my argument by retracing their steps in four stages. I first describe Richter's collaborative work with Viking Eggeling, which began with an attempt to create a universal sign language. Then, in part two, I discuss Richter's and Eggeling's move to the medium of painting on long scrolls, and, in part three, their move to the medium of film. In following this trajectory, I am especially interested in the different conceptions of the temporality of the aesthetic object and its relationship to the temporality of the beholder or spectator that accompanied their shift from one medium to another.⁴

4 One could argue that alongside this theoretical and aesthetic adjustment, there is a third one, namely the adjustment from the paradigm of artistic exclusive production and the artist-as-creator to the cinematic paradigm of a popular, democratic, mass-cultural medium and the

As I will try to make clear in the fourth and final part, what emerges from Richter's and Eggeling's engagement with cinema is an approach to the medium strongly influenced by Bergsonian vitalist ideas, which challenges not only our usual understanding of cinematic temporality, but also early twentieth-century discourses on abstraction and empathy. I argue that *Rhythm 21* provides us with an example of a cinema created on the basis of vitalist ideas of life, whereby the latter were transformed and mutated to accommodate the mechanical apparatus of cinema.

How should we approach a film like *Rhythm 21*? It is a film that consists only of white, black and grey squares and rectangles changing shape and shifting position; a film that is not only devoid of narrative, but also apparently of any other means that would allow us to project emotions or values. Moreover, the film's form, length, title and year of creation are also unclear: Richter and others provide contradictory information, and, as Holger Wilmesmeier concludes, the 'existence of four different designations—*Film ist Rhythmus*, *Rhythmus 21*, *Filmspiel*, *Ohne Haupttitel*—for one single film [...] indicates the rather provisional character of this work.⁵ And how might we relate a film that is so obviously lodged in an artistic, painterly context to film aesthetics, theory, and history? In 1921 (the year of *Rhythm 21*'s partial creation; it was only screened publicly in 1924), films on international screens included Charlie Chaplin's *The Kid*, Fritz Lang's *Destiny* or *Der müde Tod*, and D. W. Griffith's *Orphans of the Storm*, while *The Cabinet of Dr. Caligari* had been produced the year before. All of these narrative films are representative of a moment in film history when film became more widely accepted as an art form in public discourse, and narrative cinema had developed a wide array of stylistic devices, from parallel editing to the close-up, from intricate special effects to increasingly experimental camerawork. By the time that Richter began to establish himself in the world of artists and bohemians, in other words, cinema had already been around for almost twenty years and had established itself as an art form in its own right with a distinct aesthetic.

At the same time, both film and its precursor, chronophotography, had had a huge impact on artists working in other media, such as painting, photography, architecture or theater. These new technological media shook

spectator-as-creator. After his experiments in abstract film, Richter made short essay films (*Inflation*) and became much more interested in socially-engaged documentary film that reached out to the audience. And in montage theory (see the final section of this chapter), the active role of the spectator is even more pronounced.

5 Wilmesmeier, 'Entstehungsgeschichte', 40.

artists' understanding of temporality, movement, and the relationship between human body and machine.⁶ Richter's work in painting, which eventually led him to film, was thus itself already influenced by film; yet, because he was approaching film as a painter, through the back door, he was able to see film differently and, in this sense, reinvent it. Rather than as a model of influence, we might want to think about this intertwined path as a process of cross-pollination, with ideas of movement, form, time, abstraction, and nature generated by both media (and others, certainly) in the air, which were then taken up by artists such as Richter. (André Bazin develops a similar model of the mutual evolution of painting and cinema, as well as theater and cinema, according to which each only comes into its own by opening up to other art forms. I will return to this in Chapter 4.)

Richter's orientation towards film was forged during the time he spent in Zürich as part of the first Dada group that had formed there. While WWI was claiming the lives of friends, colleagues, and countless others around them, a group of artists had gathered around Hugo Ball and Tristan Tzara in Zürich in neutral Switzerland, and they soon called themselves 'Dada'. In the context of this group, in 1918, Hans Richter, a young painter from Berlin, began to collaborate with the Swedish painter Viking Eggeling. Eggeling was already undertaking systematic studies of the possibility of creating a universal visual language, something in which Richter had also just become interested. Initially, Hans Richter played the role of a student, studying the laws Eggeling had worked out for the relationship of lines to each other, and gradually incorporating them into his style.⁷

The term 'universal language' was a buzzword in the 1910s, especially with respect to the debate about the possibilities and achievements of film. Film pioneer D.W. Griffith claimed that film was universally understandable and fundamentally democratic, and he sought to put these principles into practice with films such as *Birth of a Nation* (1915) and *Intolerance* (1916).⁸ This 'language of film', however, was by no means the semiotic, structuralist understanding of a parallel between film and language that dominated film theory in the 1970s and 1980s. The idea of film as universal language was rather based upon the idea that photographic film's representation of

6 Ideas of simultaneity, dynamism, time and movement, which occupied futurists, cubists, and Dadaists alike, are rooted in the confrontation with chronophotography and film—an important example would be Marcel Duchamp's *Nude Descending a Staircase*, which almost seems like a response to Muybridge's serial motifs. See also Marta Braun, *Picturing Time*.

7 Compare the descriptions of Eggeling's and Richter's collaboration in Louise O'Konor, *Viking Eggeling*; Hans Richter, *Dada: Art and Anti-Art*; and Richter, *Begegnungen von Dada bis heute*.

8 On Griffith's ideas of film as a universal language, see Hansen, *Babel and Babylon*.

a waving hand or a smile can be understood by all humans immediately, mimetically, and as such resembles a hieroglyphic language, which is based on mimetic signs. It thus bore a closer relation to Walter Benjamin's notion of language as a mimetic faculty. According to Benjamin, runes and hieroglyphs indicate the passing of a certain type of mimesis, namely 'non-sensuous similarity', from occult practices to (written) language.⁹ This is also how Vachel Lindsay, an early American film theorist, defined the 'Egyptian' quality of cinema (and somewhat later, Sergei Eisenstein likewise compared cinema to hieroglyphics).¹⁰

Yet even as Eggeling and Richter used this same term, 'universal language', they seem not to have been aware at this point of a parallel between their project and the description by film directors and critics of cinema as a new, 'universal' medium. Rather, Eggeling's and Richter's studies of the possibility of a universal language took music and its time-based perception as their point of departure. Music, as a non-representational art form, has a long history of being conceived of as universally understandable; one need only think of the discussions of music in Lessing's *Laocöon*, Schopenhauer's *World as Will and Representation*, or Nietzsche's *Birth of Tragedy*, all of which grant music a privileged position among the arts due to its temporal, non-representational nature.¹¹ Eggeling and Richter were trying to develop a basic system of lines, forms, and interrelations between them that would constitute the underlying basis for more complex expressions; something Eggeling called a 'general bass (or basso continuo) of painting'.¹² As a consequence, they modeled the visual forms that they produced on the musical principles of harmony and counterpoint, that is, on the interplay of several musical lines. In music, the term 'harmony' describes the sound of notes that are heard simultaneously. Even though harmony is dependent upon the context within which it is heard, one could still say that it privileges the vertical aspect of sound. 'Counterpoint', by contrast, refers to the principle of simultaneous melodies that are interacting (harmonically) with one another. In counterpoint, both the linear or horizontal dimension of individual melody-lines and the vertical dimension of their harmonious interaction are important elements of composition. As a consequence,

9 See Benjamin, 'On the Mimetic Faculty', 722.

10 See Vachel Lindsay, *The Art of the Moving Picture*, esp. 199-216.

11 Gotthold Ephraim Lessing, *Laocöon*; Arthur Schopenhauer, *The World as Will and Representation*; Friedrich Nietzsche, *The Birth of Tragedy*.

12 An idea already formulated by Goethe; similarly, Leibniz had attempted a universal language based on musical and mathematical principles to express 'thoughts'.

contrapuntal music can become fairly complex, and often has an almost spatial, multi-dimensional structure.

The direct musical influence on Richter and Eggeling came, in large part, from the composer Ferruccio Busoni, who befriended Richter in Zürich in early 1918, shortly before Eggeling arrived (Richter himself was a skilled piano player).¹³ Busoni's most important work, which occupied him for most of his professional life as composer, was the transcription of Johann Sebastian Bach's works for organ and clavichord to piano, the so-called Bach-Busoni Editions. Richter's and Eggeling's interest in counterpoint was thus not coincidental, but derived from a study of Bach's eighteenth-century fugues and preludes, rather than the music of Beethoven or Wagner, for example.¹⁴ Richter himself later noted that Busoni had advised him to study the laws of counterpoint when 'form, as such, became a handicap' in his attempt to organize 'the relationship of one part of a painting to the other'.¹⁵

Richter's and Eggeling's translation of the principles of counterpoint into painting was itself part of a small movement within painting in the 1910s. Other painters within their sphere of influence had already done so, including Frantisek Kupka with *Amorpha: Fugue à deux couleurs* (1912), Wassily Kandinsky with *Fuga (Beherrschte Improvisation)* (1914), and Adolf Hölzel with *Fuge (Über ein Auferstehungsthema)* (1916). While these were stylistically all very different, they had in common the application of the structural principles of counterpoint by variations and inversions of shape and color throughout the image, resulting in dynamic compositions.¹⁶ For Richter and Eggeling, counterpoint was the basic principle of their sketches toward a universal language, because they sought to dynamize expression. For them, expression was not located in a stable form, but in the relationship between forms. They thus systematically tested out the effects of various vertical and horizontal relationships; that is, the tension and relaxation between parts created by particular formal constellations. According to Eggeling, the guiding formal principles in their studies were 'polarity', 'contrast' and 'analogy'.¹⁷ The concept of 'polarity' as elemental natural dynamic has a long history in nineteenth-century philosophy and

13 See Marion Hofacker, 'Chronology', 288.

14 William Moritz adds to the musical influences on Eggeling Stravinsky, Arnold Schönberg and the Vienna School. See William Moritz, 'Der abstrakte Film seit 1930', 133.

15 Richter, *Hans Richter*, 112.

16 See Maria Teresa Arfani, 'Abstract Film as Viewable Music'.

17 Eggeling quoted in Richter, *Hans Richter*, 112. In 'Die schlecht trainierte Seele' ('The Badly Trained Sensibility'), Richter describes the fundamental principle of *Rhythmus 21* with the same simple paradigm. See Richter, 'Die schlecht trainierte Seele'.

life science, from Schelling to Goethe to Schopenhauer, and Richter's and Eggeling's formal choice highlights the degree to which their universal language was meant to be modeled on principles of movement and growth applicable throughout the natural world.¹⁸

Eggeling's sketches show that he was primarily interested in working out these formal issues by means of lines (Fig. 1.1). This sketch reveals that he derived the basic forms for the elements of a universal language from abstractions of natural forms, such as the relationship between the outlines and structures of hills, trees, and other visual phenomena (this is especially evident in the drawings on the bottom right). In the upper half of the sketch, he systematically explores the effect of drawn-out, dotted, or non-existent outlines (first row) and lines (center of the page), as well as radial lines (second row). The latter, in turn, pose the question of the 'directionality' and 'spatiality' of lines: when radial outlines are added to a line or form (circle, square, triangle), this addition not only adds dynamism and direction to the form, but also upsets the perception of space, since the rays define further the relationship between the form and its environment. The sketch also illustrates Eggeling's experiments with contrast and analogy, that is, experiments on the ways in which forms influence one another, creating an expression based on their relationship. A quick glance at the variations of two pointed and two round shapes on the right side of the bottom half of the page reveals Eggeling's exploration of the relationships between outline (*Silhouette*, pointed/inorganic and round/organic), size, 'filling' (*Füllung*, striped and dotted), and position, and the consequences of subtle variations for the expression of the whole ensemble.

Richter, by contrast, was more interested in the relationship between planes, rather than lines, an interest that had already occupied him in the series of ink drawings entitled *Dada Head* (*Dada Kopf*), which constitutes his first experimentation with counterpoint (see Fig. 1.2). An exemplary sketch of his universal form language (Fig. 1.3) illustrates Richter's systematic exploration on the level of planes and volumes of 'contrast' and 'analogy' and the expression ensuing from the various tensions that are established between forms. Yet it is worth stressing that this was not just a mathematical sketch of possible positions, but rather an exploration of basic elements of design, of *Gestaltung*, and, as such, of artistic creation itself. Richter takes as his starting point two rectangles—one black and one white—that align on a horizontal plane, but that stand at right angles

18 On the relevance of the concept of 'polarity' for Richter, see also Cowan, 'Bewegungskunst,' 66-69.

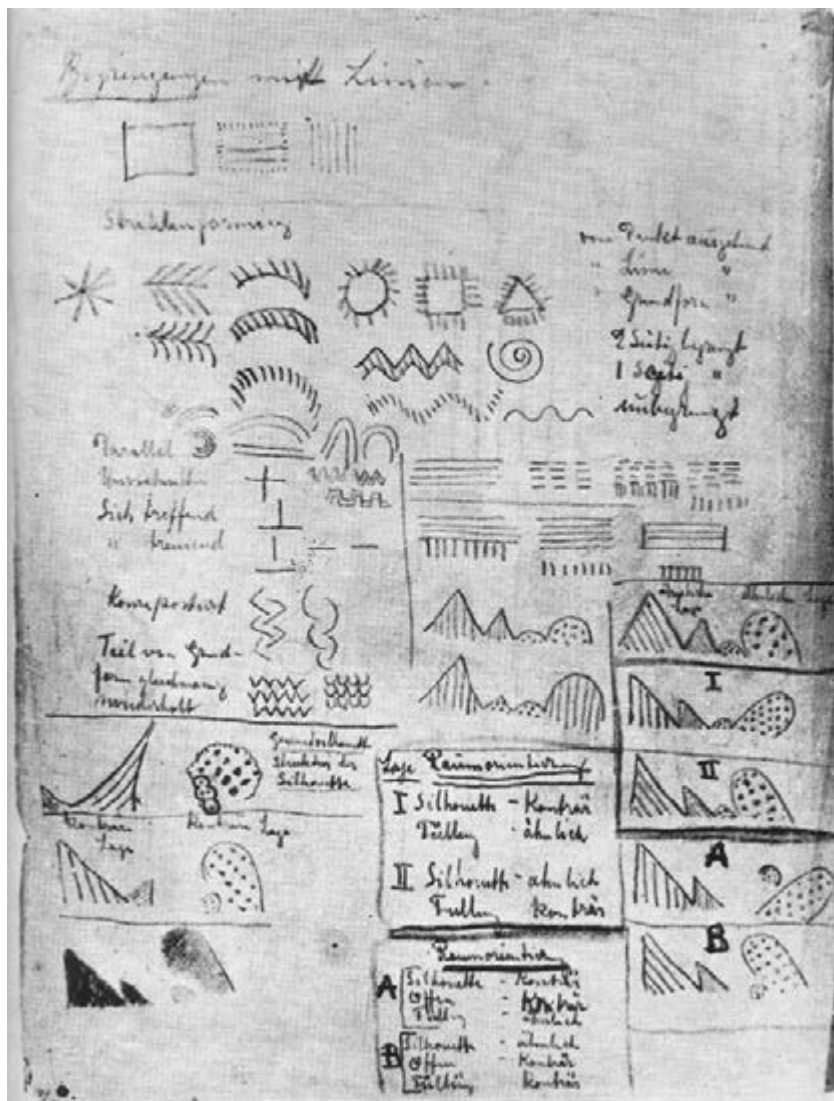


Fig. 1.1: Viking Eggeling's sketches for a universal language.



Fig. 1.2: Hans Richter's *Dada Kopf*.

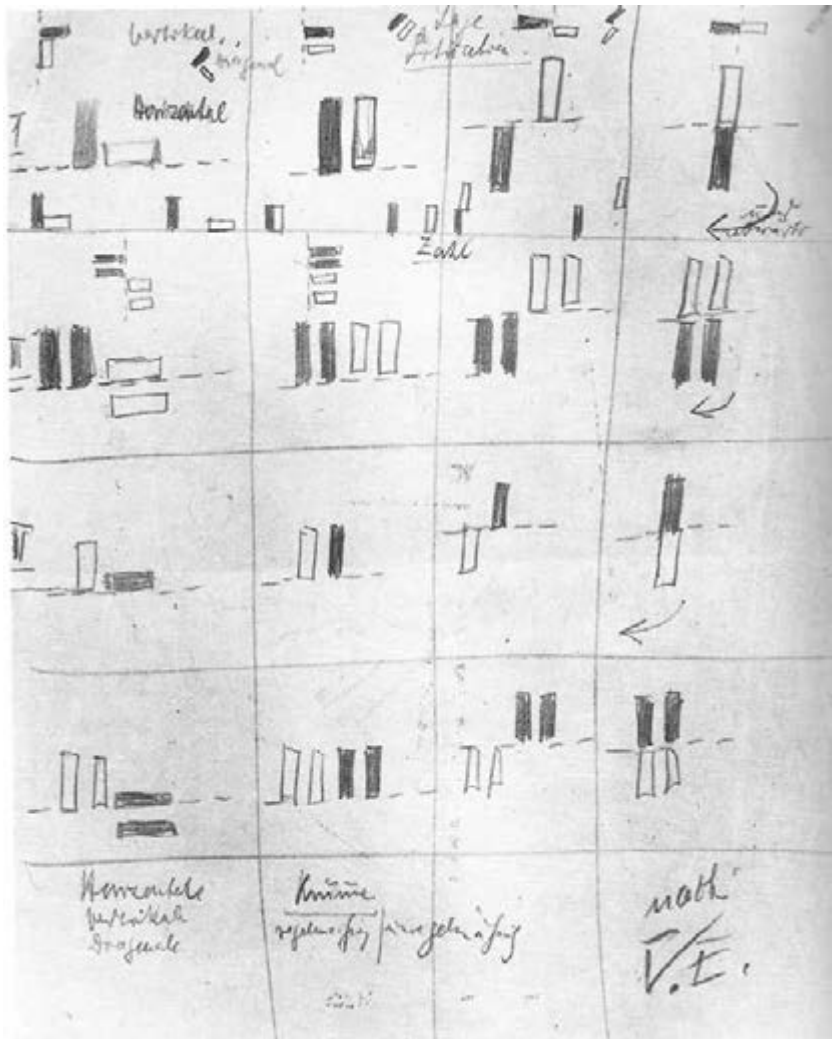


Fig. 1.3: Hans Richter's sketches for a universal language, entitled 'following V. E.' (undated).

to one another (top left). In the vertical column, he progressively changes *number* and *color*—he first doubles the rectangles, then switches their color, and then doubles them again—while the corresponding horizontal rows switch the *positions* of these variations in number and color. These early studies thus express a very specific and unique conception of form as dynamic interplay, rather than as static outline. Richter formulated his insight thus: ‘Form could only be configured by its opposite and became alive only through the production of an intimate relationship between the opposites.’¹⁹ For both Eggeling and Richter, a form was not expressive in and of itself. Rather, a form became expressive only *in relation to* something else. This relationality between forms produced an expressive tension, and it is from the perception of this tension that meaning emerged. It was in this tension, this relationship of one form to an Other, that Richter located vitality, the ‘living’ quality of form.

Bergson, Intuition, and Art

According to Richter and Eggeling, the meaning of this universal formal language had to be grasped intuitively, rather than intellectually. They founded this premise upon Henri Bergson’s notion of intuition, introduced by Bergson in *Creative Evolution*, which appeared in France in 1907 (though the book was not translated into German until 1921) and which soon became an important reference work for artists throughout Europe.²⁰ The Zürich Dada group’s connections to Paris, particularly via Hans Arp, Tristan Tzara, and Francis Picabia most likely initially introduced Eggeling and Richter to Bergsonism. Extensive notes on *Creative Evolution* by Eggeling, made at the time of Eggeling’s and Richter’s collaboration at the Richter family estate near Berlin in 1919/20, establish Eggeling’s deep familiarity with Bergson’s ideas—indeed, all of the notes that Eggeling subsumed under the heading ‘Film’ are quotations, summaries, and comments related to *Creative Evolution*.²¹

As discussed in the introduction, Bergson famously discussed the cinematograph as an example of the workings of the intellect, yet Eggeling and Richter, like many other painters in the early twentieth century, seized upon Bergson’s notion of intuition as inspiration for their work in painting and

19 Richter, *Dada: Art and Anti-Art*, 65.

20 See, for example, Antliff, *Inventing Bergson*; Fink, *Bergson and Russian Modernism*.

21 See O’Konor, *Viking Eggeling*, 92-96.

film. In *Creative Evolution*, Bergson distinguished between two different approaches to the world, which he argued had resulted in two separate lines of biological evolution. He called the first an ‘intellectual’ approach. Intelligence, he argued, grasps objects as facts, and thus it grasps what it already knows; it is therefore always oriented toward inert matter and its spatial, factual extension. The intellectual approach to the world—which humans are the most extreme instance—proceeds by constantly inventing new instruments that mediate among the self, the natural body, and the world. Intelligence, Bergson claimed, is unable to grasp time as the essence of life, as experiential, lived, qualitative time, or what he called *durée* (‘duration’). By contrast, the instinctual approach to the world on the part of animals, and especially of lower animals, such as insects, is firmly lodged in life and cannot be strictly separated from the overall organization of a living being. Consequently, the instruments that instinctive beings use are an organic part of their body, and they have instinctive, immediate knowledge of how to use these instruments. Instinctual beings thus comprehend the surrounding world through a gesture of sympathy, in the original cosmological meaning of the term.²²

To illustrate his understanding of sympathy as intersubjective instinct, Bergson turned to an animal that the famous French entomologist Jean-Henri Fabre had discussed repeatedly with great fascination, namely the sand wasp *Ammophila*.²³ Bergson recounted Fabre’s observation that *Ammophila* paralyzes, rather than kills, its victim, the caterpillar, as a simple means of preserving it for longer as a food source for its larvae. *Ammophila*

22 Prior to the restriction of the term ‘sympathy’ to moral sentiment in the seventeenth century by moral philosophers such as David Hume and Adam Smith, sympathy and antipathy were understood to be the decisive cosmological forces that made possible, in their interplay, both change and identity, difference and sameness. In that sense, one could draw a connection between Richter’s and Eggeling’s formal language based on contrast and analogy, i.e., basic relationships between forms, and the ur-forces of sympathy and antipathy. Michel Foucault notes that in the sixteenth century, sympathy was understood to be a principle of mobility that draws distant things together while also exerting a power of assimilation by which each thing takes on the quality of other things, such that without the counterforce of antipathy, everything would be reduced to the same: ‘The identity of things, the fact that they can resemble others and be drawn to them, though without being swallowed up or losing their singularity—this is what is assured by the constant counterbalancing of sympathy and antipathy. It explains how things grow, develop, intermingle, disappear, die, yet endlessly find themselves again; in short, how there can be space (which is nevertheless not without landmarks or repetitions, not without havens of similitude) and time (which nevertheless allows the same forms, the same species, the same elements to reappear indefinitely).’ Michel Foucault, *The Order of Things*, 24–25.

23 Fabre provides a detailed and passionate account of the Hairy *Ammophila*’s ‘operation’ of her victim. See Jean-Henri Fabre, *More Hunting Wasps*, 295–302.



Fig. 1.4: Sand wasp (*Ammophila*) with caterpillar in Carl Gottfried Hartman's *Observations on the Habits of Some Solitary Wasps of Texas* (1905).

does so by stinging the caterpillar in nine nervous centers and subsequently squeezing the caterpillar's head in its mandibles to manipulate the central nerves even further. The wasp somehow 'knows' where to sting its victim to paralyze it and render it unconscious without killing it. Fabre recounts how toward the end of his career, Charles Darwin admitted that he had not solved 'the problem of the instincts' and recommended in a letter that the case of the sand wasp would be the true test of any theory of instincts.²⁴ This is the puzzle that Bergson picked up. For him, *Ammophila's* treatment of her victims was illustrative of a sympathetic relationship between the bodies of wasp and victim; the wasp feels itself instinctively into the nervous system of the other animal.

Such sympathetic, intersubjective access to the world and to other beings seems to be denied to humans, who approach the world through intelligence and analyze, identify, and individuate that which is given. But Bergson argued that though humans encounter the world almost entirely through intelligence, they nevertheless also have recourse to *intuition*, which is a form of disinterested, self-conscious instinct. Intuition, Bergson claimed, gives us access to life, duration, and sympathetic union; though in order to gain this access, one must train this capacity. Significantly, for

24 Fabre, *More Hunting Wasps*, 286-87.

Bergson, art could serve as a means for activating and accessing intuition. Aesthetic intuition, according to Bergson, is a form of sympathy between artist and world that allows the artist to feel into an object; to connect to the artwork on the basis of a vital temporality that unites both artist and object:

Our eye perceives the features of the living being, merely as assembled, not as mutually organized. The intention of life, the simple movement that runs through the lines, that binds them together and gives them significance, escapes it. This intention is just what the artist tries to regain, in placing himself back within the object by a kind of sympathy, in breaking down, by an effort of intuition, the barrier that space puts up between him and his model.²⁵

Intuition, understood as divining sympathy, was for Bergson ‘an aesthetic faculty along with normal perception’, a kind of inner feeling that allowed the artist to grasp not just external appearances (that is, matter), but life itself, ‘the key to vital operation’, ‘the intention of life’. Bergson described this ‘intention of life’ in painterly terms, as a movement that ‘runs through the lines, that binds them together and gives them significance’.²⁶

For painters such as Richter and Eggeling, this notion of intuition as sympathy provided a model not only of the artistic process, but also of abstract painting and its reception. They wanted their universal language to be based on intuitively understandable forms—that is, forms to which one would relate by means of an embodied, sympathetic intuition, rather than by means of intelligence. These forms themselves represented the vital substratum, the ‘intention of life’ as movement in lines and planes. ‘Art’, Richter wrote in 1921, ‘is not the subjective explosion of an individual, but rather organic language of human beings and of extremely serious importance.’ Art should always aim at this general, overarching goal, and put those aspects of one’s work that are subservient to one’s will in the service of a much deeper, underlying organic language. ‘Such a scientific presentation of a problem, as it were, is less an inhibition of the intuitive (upon which artistic creation is ultimately based) rather than its elementary means.’²⁷ The formal language that he and Eggeling sought to develop, in other words, presented a belief in giving expression to general

25 Bergson, *Creative Evolution*, 177.

26 Bergson, *Creative Evolution*, 176, 177.

27 Richter, ‘Prinzipielles zur Bewegungskunst’, 109-112 (translation mine).

intuitive relations. The forms are developed by means of artistic intuition, but aim at expression of generally valid relations and attitudes that can then become constructive stepping stones to create new intuitive (and, building upon the intuitive, new emotional, spiritual and intellectual) attitudes.

In addition to the influence of Bergson through (at least) Eggeling's studies of *Creative Evolution*, vitalist inspiration also came in other, less direct guises, through the work of groups and movements with whom Richter and Eggeling had contact and which also sought to dynamize 'form' in painting and other arts. The Dada group in Zürich began its infamous *soirées* in 1917, of which music and especially dance formed an important part. This emphasis on music and dance occurred not least because of the proximity of Rudolf von Laban's dance school, which provided the Dada group with a theoretical model of body, movement, and rhythm, dancers for the *soirées*, and, as Richter salaciously noted, a number of girlfriends.²⁸ In a project that bore many similarities to Richter's and Eggeling's formal efforts, Laban's school of *Ausdruckstanz* ('expressive dance') sought to break with the eighteenth-century model of dramatic gesture as providing direct access to the soul. Instead, gesture became abstracted in order to institute 'a split between emotion and expression.'²⁹ Laban was also interested in gesture as a universal language that allows us to reflect on and produce universal 'laws of movement' and modes of 'experiencing, being, and communicating.'³⁰ Gesture was able to do so, Laban maintained, because it made visible and performed the flow of life, and the resonance between body and environment in particular.³¹

Through their combination of painting, poetry, sculpture, music, dance, and performance, the Dada *soirées* were thus directly expressive of the inter-artistic influences at play within a given artist's work. Richter's and Eggeling's work shared with most of their Dada colleagues' work at the time an experimentation in expression. Ball's sound poems were another example, since they likewise sought to break out of the mold of meaning and signification of language by incorporating elements of other art forms. Moreover, the work of Wassily Kandinsky—whom Richter describes, along with Paul Klee, as one of the 'fathers' of Dada—and his 1911 book *Concerning*

28 See Richter, *Begegnungen von Dada bis heute*.

29 Mark Franko, *Dancing Modernism/Performing Politics*, x.

30 Rudolf von Laban, *Die Welt des Tänzers*, 58. Quoted in Lucia Ruprecht, 'Gesture, Interruption, Vibration', 23-24.

31 See Ruprecht, 'Gesture, Interruption, Vibration', 29-30.

the Spiritual in Art were likely an important influence on and inspiration for Richter and Eggeling. Kandinsky's paintings formed the centerpiece of two important exhibitions by Dada Zürich, and his texts were often read at gatherings and *soirées*.³² Kandinsky's book spelled out—much more eloquently and clearly than comparable texts by other artists at the time, such as Piet Mondrian's writings on Neo-Plasticism—that music provides the best guideline for thinking about the spiritual meaning, effect, and value of painting.³³

Even though Kandinsky's thought was heavily influenced by theosophy and oriented toward a purely 'spiritual' realm, there are also important correspondences between his and Bergson's work. Paralleling the relation that Bergson established between music and intuition, Kandinsky's chapter on 'The Language of Form and Colour' began with a discussion of music as an art form that produces a direct resonance in the mind. For Kandinsky, color and form could only be harmonic if they rested on 'a corresponding vibration of the human soul'.³⁴ This harmony could be achieved by means of organic, material, and purely abstract forms. And with respect to the overall composition and orchestration of forms, Kandinsky maintained that the harmony of the composition is altered by the relation of forms to one another: 'Nothing is absolute. Form-composition rests on a relative basis, depending on (1) the alterations in the mutual relations of forms one to another, (2) alterations in each individual form, down to the very smallest.' He concluded:

The adaptability of forms, their organic but inward variations, their motion in the picture, their inclination to material or abstract, their mutual relations, either individually or as parts of a whole; further, the concord or discord of the various elements of a picture, the handling of groups, the combinations of veiled and openly expressed appeals, the use of rhythmical or unrhythmical, of geometrical or non-geometrical forms, their contiguity or separation—all these things are the material for counterpoint in painting.³⁵

32 See Richter, *Dada: Art and Anti-Art*, 17, 35, 39, 78.

33 Mondrian's texts on Neo-Plasticism were first published in Theo Doesburg's journal *De Stijl* and in 1920 in book form. See Piet Mondrian, *Le néo-plasticisme*.

34 Wassily Kandinsky, *Concerning the Spiritual in Art*, 29.

35 *Ibid.*, 32-33.

Kandinsky thus also posited the primacy of relationality and the principle of counterpoint—as well as other musical expressions, such as ‘melodic’, ‘symphonic’, ‘rhythmic’, ‘fermata’, and ‘tonality’, which he used to describe principles of painterly composition—in order to define how painting could express spiritual reality, or the ‘inner need’ of the soul, and create spiritual freedom in the relationship between beholder and painterly compositions that were free from external constraints.

Setting Form into Motion: Scroll Paintings and Empathy

Though Kandinsky’s influence on both Richter and Eggeling is undeniable, their subsequent work on scrolls emphasized the difference between Kandinsky’s and their own conceptions of form, composition, and movement, not least by moving on to a more constructivist, objective formal language. On the basis of their studies of form relations as a universal language, Richter and Eggeling created increasingly complicated successive figures on scrolls in order to spell out and develop the dynamism and movement that each single relation expressed.³⁶ These scrolls were long, mostly horizontal paper rolls hung on a wall, and the beholder would move her eyes—and possibly the whole body—from left to right to follow the progression of figures. As a consequence of the adoption of this new format, the temporality of the paintings, and the beholder’s engagement with the painting in time, became increasingly complex. Even more than in their earlier sketches, the forms that Richter and Eggeling used in their scroll paintings were oriented toward musical analogies and strove to create a harmonic spiritual balance in the beholder, although the emphasis had now shifted toward a dynamic, constructivist conception of form and formal relation. While the forms were still composed with an understanding of abstraction as a spiritual liberation—a distillation of expression out of naturalistic forms—the role of movement had shifted. Rather than emphasizing static relations that

36 One inspiration for drawing scrolls came from the tradition of Chinese scroll painting, as Werner Gräff, who became Richter’s technical assistant and developed his own abstract films, noted: ‘Inspiration for the abstract scroll paintings came from great old Chinese scroll paintings that represented nature, such as the (artfully shortened) representation of the “Course of the River Yangtse Kiang from its Source to its Estuary”.’ Werner Gräff, ‘Über den Ursprung der abstrakten Filme’, 58 (translation mine). Before Eggeling and Richter turned to Chinese scrolls, however, they had studied Chinese language symbols for their means of expression using relationships of lines. See Richter’s sketch on Chinese symbols in Richter, *Hans Richter*, 112.

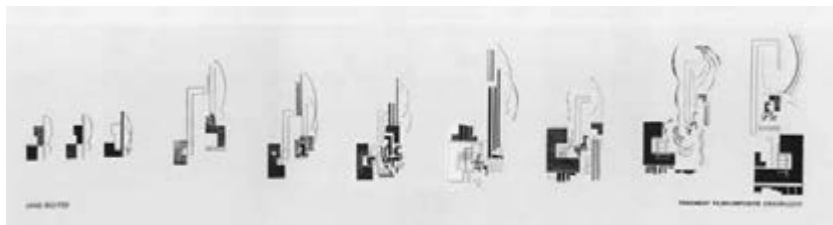


Fig. 1.5: Hans Richter, *Präludium* (1919).

express tensions and relaxations, the scrolls contain an implied dynamic, elliptical movement from one figure to the next. As such, they present not only an important step toward film, as I discuss in more detail below, but they also help us to understand how form, expression, sensual perception, and intellectual engagement are affected when the temporality of an artwork changes. Tracing this change will thus help us to understand the correlation of movement, temporality and perception with respect to film, and the location of a non-organic vital principle in the moving image.

Richter's first scroll from 1919 is entitled 'Präludium' ('Prelude,' see Fig. 1.5)—a term for a musical piece that often serves as an introduction to the musical motifs of the work as whole—and it illustrates not only the evolution of the contrapuntal principles he had studied, but also presents a step toward film. The scroll depicts a number of so-called 'chords'. Like a musical chord of several notes struck at the same time, these forms consisted of a number of shapes and lines interacting with one another. Richter and Eggeling called these shapes and lines 'instruments' or 'voices'. The chords develop from relatively simple forms to increasingly complex forms. On the scroll, then, the temporality of the forms is no longer one of tension and relaxation, of a cosmic balance of sympathy and antipathy that expresses movement more as potential (as inner tension) than as an actuality, but rather it suggests real, progressive movement from one chord to the next.

The scrolls' organization of distinct forms that succeed one another bears a more than formal resemblance to the new temporality introduced to photography by Eadweard Muybridge's and Etienne-Jules Marey's chronophotography in the late nineteenth century. Chronophotography influenced an entire generation of artists, most notably Giacomo Balla, Umberto Boccioni, Frantisek Kupka and Marcel Duchamp.³⁷ Like Richter and Eggeling's scrolls, chronophotography featured the successive depiction

37 For an overview of Marey's influence on the art world, see Braun, *Picturing Time*, 264 ff.

of a moment in time. Finally, just like chronophotography 35 years earlier, the scrolls also inspired Richter and Eggeling to try and set the shapes and their relationships into motion in film. Richter's and Eggeling's trajectory from scrolls to film could, in other words, be read as a belated repetition of the genesis of film out of chronophotography. Yet a more careful comparison of Richter's and Eggeling's work and chronophotography reveals a divergence between these two endeavors that will in turn force us to understand Richter's and Eggeling's 'reinvention of cinema' in quite different terms: not as belated repetition of something that had already occurred, but as a coming-to-cinema by a quite different route.

Chronophotography, a technique invented and made popular by Eadward Muybridge in the US and Etienne-Jules Marey in France, is the production of a series of photographs shot at short intervals that allows the presentation of various stages of a continuous movement. An action that takes place over a given time is broken down into a series of photographs which are shot at regular intervals, and thus each resulting still photograph presents an instant, a singular moment, within that larger block of time. This procedure allowed scientists as well as artists to isolate and visualize instants of complicated, rapid movement—most famously, the positions of the legs of a galloping horse—that had previously been imperceptible. There are two different methods: either the photographic plate changes with every exposure, such that the result is a strip of singular photographs taken at short intervals (see Fig. 1.6), or—and this is the method we now most associate with Marey—multiple exposures are taken on the same plate, resulting in one photograph combining different positions in time of a moving subject (see Fig. 1.7).

As scholars from Friedrich Kittler and Gilles Deleuze to Anson Rabinbach and Mary Ann Doane have argued, cinema's roots in chronophotography are not only technical—that is, the cinematographic apparatus is not just historically and technically derived from chronophotography—but the link between chronophotography and film is also conceptual and ontological.³⁸ From an aesthetic standpoint, chronophotographs did not restrict themselves to a synthesized 'pregnant moment', in Gotthold Ephraim Lessing's sense of the term—that is, a moment that is chosen because it best captures a narrative trajectory and implies prior and future movement.³⁹ Instead, the motion studies provided the observer with a *series* of scientifically correct,

38 See Friedrich Kittler, *Gramophone, Film, Typewriter*; Deleuze, *Cinema 1*; Doane, *The Emergence of Cinematic Time*.

39 Lessing develops the notion of the pregnant moment in Lessing, *Laocöon*.

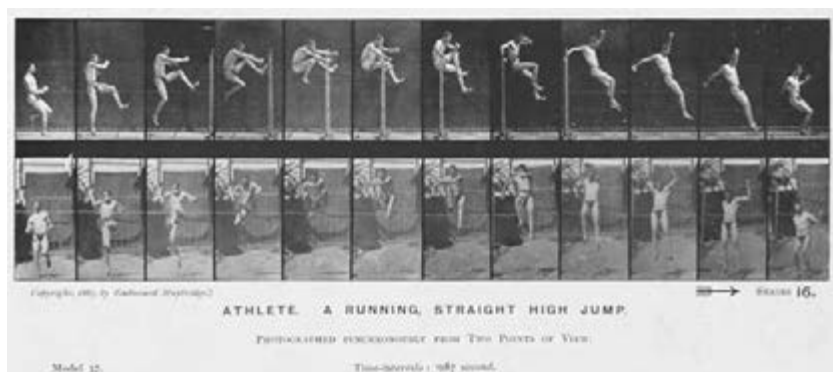


Fig. 1.6: Eadweard Muybridge, Athlete Running, Straight High Jump, from *The Human Figure in Motion*, series 16 (1887).

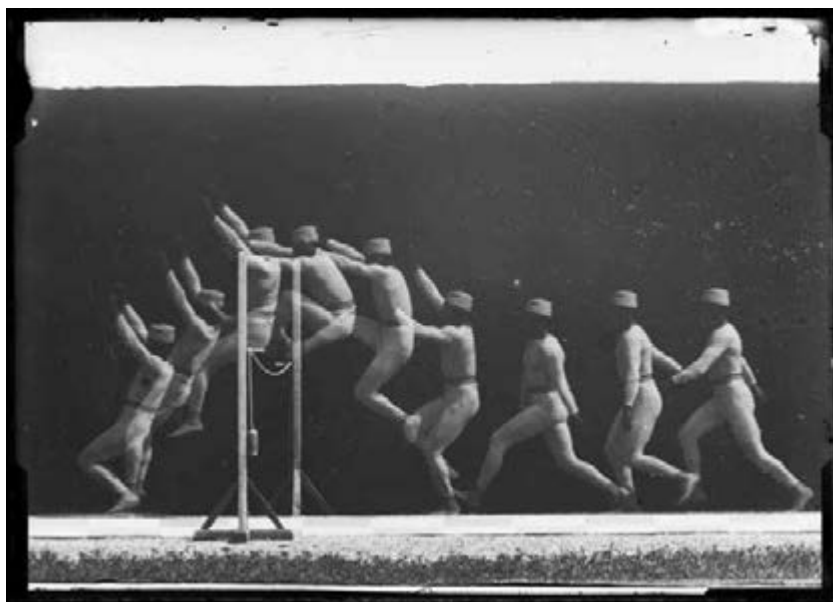


Fig. 1.7: Etienne-Jules Marey, High Jump. Chronophotography on a fixed plate (Archives at the Collège de France, no date).

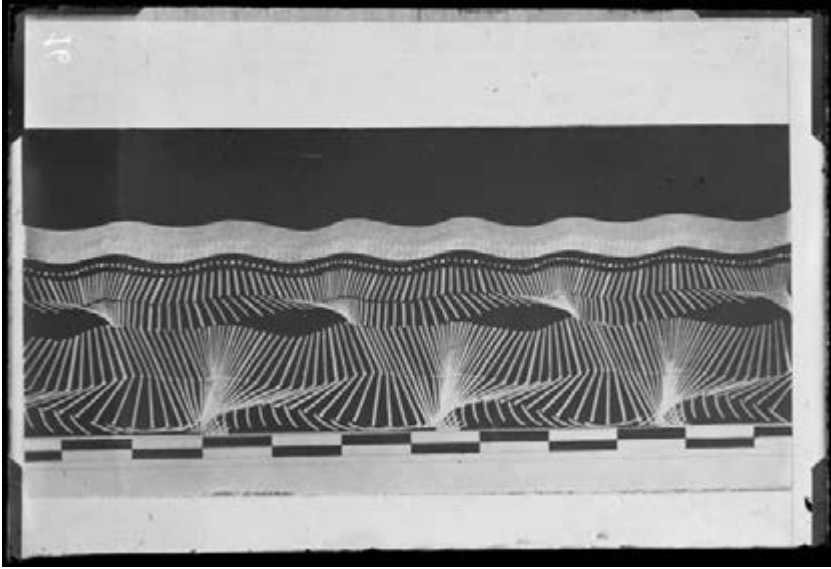


Fig. 1.8: Etienne-Jules Marey, Walk of Human Being: Filtered. Graphic obtained by means of partially geometric chronophotography (Archives at the Collège de France, 1883/84).

arbitrary (coincidental, contingent) poses that presented mere instants of an executed movement. Underlying Marey's scientific chronophotography in particular was a mechanist conception of the body as a vessel of physical and chemical forces and a conception of time as objective and divisible—conceptions, in other words, that put him at the forefront of the group of French mechanist physicists who aspired to implement Hermann Helmholtz's positivist principles in French science. Marey's approach to time was thus diametrically opposed to that of Bergson, who was his colleague at the Collège de France. In order to be legible, Marey's motion studies could only present a limited number of instants—or, to put it differently, scientific value was only achieved by the selection of information and by the extraction of data. The result of this negotiation of readability and data was a double abstraction: a temporal abstraction, since only a limited number of instants could be selected; and increasingly a visual abstraction, in order to manage the overflow of information provided by the photographic image (see Fig. 1.8).

While both chronophotography and Richter's and Eggeling's scrolls present a series in time, there are thus nevertheless important differences. Marey's chronophotography is a visualization of chronological, scientifically

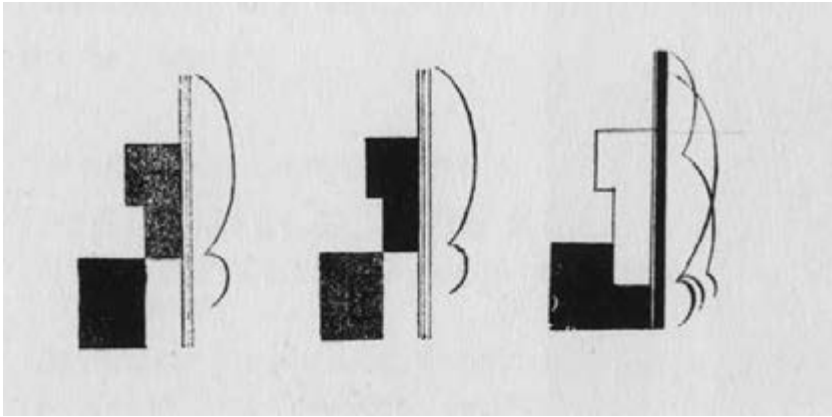


Fig. 1.9: The first three 'chords' of Richter's scroll *Präludium*.

measurable time; the images were to provide a stable relationship between time and space, that is, the spatial configuration of a body at a given moment.⁴⁰ Each image presented an instant in time and, as such, contained no duration in itself. Richter's scrolls, by contrast, feature a much more varied temporality that combines the conception of intuited, dynamically interrelated forms with an evolution from one chord to the next. Richter's scrolls do not depict an objective, progressive temporality, but rather a temporality that interacts with the perceptual activity of the beholder.

The first three images of Richter's scroll *Präludium* illustrate this point. The first chord consists of a black rectangle, a grey shape with six sides at right angles, two long, straight lines or a white pole (not clearly distinguishable), and a swinging line of varying thickness on the right that progressively varies throughout the scroll and most clearly suggests movement. Several 'harmonic' relations can be traced between the instruments within the single chord: there is an increasing lightness from left to right; the two planes react to each other, revolving around the point in which they touch; and the swinging line reacts to this point as well, which consequently appears to be a center of gravity. But as we explore these relations within the first chord, our eye already wanders on to the next

40 In fact, though, the simultaneity of instants in the display of chronophotography—as well as in Marey's later chronophotography, in which he recorded the movements onto the same photographic plate—actually inspired artists to think about non-scientific, non-chronological models of temporality. One only need think, for example, of Anton Giulio Bragaglia's photodynamism; that is, his series of long-exposure photographs that make visible the continuous trace of every movement executed during the exposure time.

chord and places the former in a durational context as well. This second chord features the same basic structure, only the planes have switched color, a small rectangle has formed within the bottom rectangle, the pole has turned grey and the line seems to swing upward now, indicated by a stronger stroke at its upper end. As our eye returns to the first chord, we can retrospectively add relations that we are now able to see because of our knowledge of the chord's progression (for example, the correspondence in emphasis of the swinging line with the black shape). The scroll thus contains two temporal expressions that interact contrapuntally: the relationship of instruments within a chord, and the relationship between chords. The first temporality is vertical, and corresponds to the simultaneous sounding of notes in a musical score. The beholder comprehends the expression of a chord—that is, a complex of shapes and lines—as a synthetic whole. The second temporality is horizontal, and corresponds to the melody developing by notes struck one after the other. The beholder sees the chords as stages, and the expression—the melody—develops between the chords, in the interval synthesized by the beholder.

In describing how people perceive the scrolls, Richter emphasized the active participation of the beholder, who compares, meditates and memorizes. He described the perceptual activity when looking at the scrolls thus:

We experienced the sensation of arresting time, of enjoying the development of forwards and backwards. The eye was stimulated to a special kind of participation by the necessity of comparing and meditating [...] This sensation lies in the stimulus which the remembering eye receives by carrying its attention from one detail, phase or sequence to another that can be continued indefinitely [...] In so following the creative process, the beholder experiences it as a process, not as a single fact. In this way, the eye is stimulated to an especially active participation, through the necessity of memorizing; and this activity carries with it the kind of satisfaction which one might feel if one were to suddenly discover new or unusual forms of one's imagination.⁴¹

The key elements of the perception of the scrolls are thus the active participation of the beholder on the basis of eye and body movement and memory and an 'intensive' time that is both harmonic and contrapuntal, that is, both horizontal and vertical; a kind of voluminous, deep time. This active mode of perception and the resulting mode of temporality are a consequence

41 Richter, *Hans Richter*, 113-14.

of the fact that the scroll painting, as a medium, reveals and displays the procedural, developmental character of painting. All movement in the scroll is based on relations, and it is in the ultimate relation between the scroll as a 'living machine', as Richter described it, and the spectator's animating perception in time that the formal expression is realized—a process that is quite like *hearing* music as opposed to simply reading a score.

The comparison of the scrolls to music highlights the fact that there are two intertwined dimensions to the scrolls: they are both a notation system (like sheet music) and, when perceived durationally, actual temporal art, or visual music. In his notes, Richter described the scrolls as merging these two dimensions: "The scrolls are "machines", complicated constructions like life with organic + alive and ever changing expression [...] not like a hammer that bangs on your head—more like an active living power—like a radioactive element for example, that without your knowing it transforms you—".⁴² The scrolls, in other words, are machines that contain life in the tension between their parts, but do not impose an automated, external movement, since they rely on the animating power of perception in time. Because the expression is founded on tension and relation between a form and its environment (i.e., the spatial organization of the other forms), it is always dynamic and indivisible; that is, 'living' expression. Even though Richter used mechanical terms for the scrolls, the temporality of the scrolls depends on the activity of the beholder, who is supposed to feel herself into the forms depicted on the scroll and correlate the temporal expressivity of those forms with her own lived temporality, just as the sand wasp entered into sympathetic union with the caterpillar.

It is important to note, however, that intuition, sympathy, and memory are not tied to individual perception, emotion, and history. Richter was after an elemental, material connection between beholder and art that is built upon, and activates, vital strata in the beholder that exist below or beyond personal histories and capacities. Therefore it is important that the artistic forms are abstract and do not invoke natural forms that would activate memories and concrete associations: 'Like [in music] the action (in an entirely spiritual sense) occurs together with the pure material, and finds in this pure material tension and resolution in a sense that is—because all material comparisons and memories cease to apply—elementary-magical.'⁴³ Richter's scrolls and his subsequent *Rhythm* films strove to be

42 Richter in his sketches on a universal language. Reprinted in: Stephen C. Foster, ed., *Hans Richter*, Appendix, 191.

43 Richter, 'Prinzipielles zur Bewegungskunst' (translation mine), 109.

elemental in order to forge an intuitive union between beholder and art that could bypass the influence of memory, history, convention, and tradition on perception. This, for him, was the way in which art could create new ideas. Theo van Doesburg, one of the most important members of the Dutch art movement *De Stijl*, reprinted Richter's 'Prelude' in an essay in his journal, *De Stijl*, in which he formulated this turn away from the individual in more programmatic fashion:

We only know one thing, namely that the solution of the economic problem as well as of the problem of art lies outside of individual attitudes—and that is a gain. For this means that the supremacy of the individual (the attitude toward life of the Renaissance) has been broken [...] In order to rightly understand the task of our time, it is necessary that we grasp the structure of life not only with our eyes, but rather our *inner sense organs*.⁴⁴

Richter's and Eggeling's application of Bergson's concept of intuition also evokes another important art-theoretical context that can help define Richter's work more closely; namely, the concept of *Einfühlung* ('empathy'; literally, 'feeling-into'). *Einfühlung* was developed as an art-historical concept in the late nineteenth century by German art theorists, including Robert Vischer and Adolf Hildebrand, and it became the centerpiece of Theodor Lipps' psychology of aesthetics in the early twentieth century. Art theorists claimed that in perceiving artworks—from paintings to sculpture and architecture—as well as nature, the beholder *animated* the lines and forms she saw with her own vitality. Lipps expanded this idea and gave it a broader and more psychologically nuanced foundation. '[W]riters taking up the idea of *Einfühlung*', Scott Curtis summarizes, 'explained aesthetic pleasure as a resonance between the structures of the body and the structure of the artwork, thereby explicitly acknowledging the embodied nature of perception.'⁴⁵

Like Bergson's intuition, *Einfühlung* is a projection of vital forces into another object. The colloquial and academic uses of the word 'empathy' over the past decades obscure, however, the extent to which the historical concept of *Einfühlung* encompasses not only the alignment with living beings, but also includes inanimate objects as well as qualities such as

44 Van Doesburg, "Der Wille zum Stil", 23.

45 Curtis, *The Shape of Spectatorship*, 216.

atmosphere or acoustic or visual rhythms.⁴⁶ '[I]n the form of things we perceive an analogy to the expressive quality of the vitality of the human body', as Robin Curtis paraphrases Karsten Stueber.⁴⁷ Our living body involuntarily and instinctively engages in mimicry with things in the world. 'I give expression to this kind of *Einfühlung* in everyday life when I say that the line stretches or bends, surges up and away again, confines itself; and when I say that a rhythm strives or refrains, is full of tension or resolution etc.', Lipps wrote. 'This is all my own activity, my own vital, internal movement, but one that has been objectified.'⁴⁸

Lipps' understanding of *Einfühlung* as a projection of the self into the surrounding world thus also views discrete objects as secondary to formal or qualitative properties with which our living body engages. Our primary attitude toward the world is not in fact a concern with the objective, given world, but rather, in Robin Curtis' words, 'one is occupied with characteristics of one's own embodied engagement with that world and its things, in short: with the sensations, activities, and atmospheric moods that come about through this engagement.'⁴⁹ We may understand Richter's and Eggeling's universal language similarly as an attempt to express an engagement with the world, rather than (qualities of) the world itself. Part of aesthetic enjoyment, according to Lipps' theory of *Einfühlung*, is thus a kind of *Selbstentäußerung* (variously translated as 'self-estrangement', 'self-distanciation' or 'self-alienation')—in aesthetic contemplation, we move into a form provided by an aesthetic object and are thus set free from the confines of the self.⁵⁰

A closer look at Lipps' theory of *Einfühlung* also changes the division between empathy and abstraction that was postulated by Wilhelm Worringer in his popular 1908 study, *Abstraction and Empathy*—the text that allowed Richer and Eggeling to imagine an empathic animation of abstract, inorganic forms. In this study, Worringer roughly distinguishes between two types of art (a distinction that still bears upon art history today). For Worringer, there is, on the one hand, organic, natural representation with which we can empathize; that is, a representation we feel ourselves into and that we animate with our own life force. On the other hand, there is what

46 Lipps' *Einfühlung* has much in common with the uses of *Stimmung* as an aesthetic concept in the late nineteenth and early twentieth centuries. See Chapter 3. For a brief overview of the history of the understanding of *Einfühlung*, see Curtis, *The Shape of Spectatorship*, 216.

47 Robin Curtis, 'Einfühlung and Abstraction in the Moving Image', 429.

48 Theodor Lipps, *Ästhetik*, quoted in Curtis, 'Einfühlung and Abstraction', 429.

49 Ibid., 430.

50 See Lipps quoted in Wilhelm Worringer, *Abstraktion und Einfühlung*, 60.

Worringer calls ‘inorganic abstraction’, of which he believes Egyptian art to be exemplary. This inorganic abstraction voids representation of space, emphasizes tactility, isolates the various elements of the artwork and thus allows the beholder to experience instinctively an eternal harmony by bringing her into contact with a more primal form of being.⁵¹ Worringer draws on evolutionary theory to make an aesthetic argument:

A convinced evolutionist might [assert] that every differentiation of organized matter, every development of its most primitive form, is accompanied by a tension, by a longing to revert to this most primitive form so to speak [...] [I]n the contemplation of abstract regularity man would be, as it were, delivered from this tension and at rest from his differentiation in the enjoyment of his simplest formula, of his ultimate morphological law. The spirit would then be merely the instrumental provider of these higher relationships.⁵²

For Worringer, the most primitive form is not the protozoon and its plastic quality.⁵³ Rather, Worringer sees the delivery from the tension of life in the return to preorganic or anorganic, that is, crystalline matter. Worringer was formulating a principle here that Sigmund Freud would pick up on in his 1920 essay, ‘Beyond the Pleasure Principle.’ Freud introduced the idea of a ‘death drive’ as the instinctual corollary of the ‘soma,’ the organic body that is destined to die (in contrast to the germ-plasm, which is, in essence, immortal). For Freud, the instinct to return to an original inorganic state is an essential part of life itself, and his formulations bear striking similarities to Worringer’s:

The attributes of life were at some time evoked in inanimate matter by the action of a force of whose nature we can form no conception. It may perhaps have been a process similar in type to that which later caused the development of consciousness in a particular stratum of living matter.

51 It is along these lines that Eggeling developed landscape paintings into abstract lines. However, Eggeling’s and Richter’s decision to make scroll paintings already points to an excess of energy that arose from combining different forms; and then the scrolls became an energy machine that demanded a movement of its own.

52 Worringer, *Abstraction and Empathy*, 35-36.

53 In Sergei Eisenstein’s discussion of animation, cartoons, and the case of Disney films, he develops the argument that the malleability of matter in drawing can be explained by a quasi-biological theory of the protozoon and its plastic quality as the ur-form of animated matter. See Eisenstein, *Eisenstein on Disney*.

The tension which then arose in what had hitherto been an inanimate substance endeavored to cancel itself out. In this way the first instinct came into being: the instinct to return to the inanimate state.⁵⁴

Freud's discussion of the two opposing instincts—life instincts and death instincts—at work in living beings highlights what seems to be internal contradiction in organic life.

Worringer conceived of the two tendencies of abstraction and empathy in art in a similar way. Yet recent studies on the concept of *Einfühlung* have demonstrated that Worringer made use of very selective references to Lipps in order to be able to set up abstraction as *Einfühlung's* opposite. Jutta Müller-Tamm has argued that both *Einfühlung* and abstraction are forms of projection.⁵⁵ Similarly Juliet Koss suggests that,

[w]hile refusing to acknowledge that *Einfühlung* was abstract—insofar as it described a viewer's basic physiological response to pure form—he transposed its universalizing claims to the concept of abstraction (...) Beyond this, he reconfigured *Einfühlung* in his text as a general emotional identification, ignoring its spatial orientation, thus further separating the visual and applied arts from the discipline of architecture.⁵⁶

A reading of Lipps and the critical reassessment of Worringer's opposition also affects our understanding of the role of abstraction and *Einfühlung* for Richter and Eggeling.⁵⁷ Worringer's description of the connection of abstraction to tactility and intuition coincides with the expressivity of the scrolls, which consist of abstract, inorganic forms, yet 'act like a living power' that can 'transform' the beholder. However, according to Worringer's interpretation of ancient art—he was, after all, writing prior to Expressionism and cubism—abstraction induces stability and rest, while the scrolls' main element is animation, vital movement.

There is one instance in Worringer's discussion where the opposition of abstraction and *Einfühlung* melts to create something like a living mechanics: namely, Nordic Pre-Renaissance art in general, and the Gothic cathedral

54 Freud, 'Beyond the Pleasure Principle', 46.

55 Jutta Müller-Tamm, *Abstraktion als Einfühlung*.

56 Juliet Koss, 'On the Limits of Empathy', 148.

57 Paul Dobryden has also explored the crucial role of the discourse on *Einfühlung* for Rhythm 2; see Dobryden, 'Einfühlung.'

in particular. This is the place where, arguably, Worringer stays closest to Lipps' comprehensive understanding of *Einfühlung*; it also constitutes the passage that, if not directly inspirational for Richter and Eggeling, certainly helps us to understand better the relationship between life and mechanics, empathy and abstraction in Richter's work.

The first thing we feel with the Gothic cathedral is a strong appeal to our capacity for empathy, and yet we shall hesitate to describe its inner constitution as organic (...). In the Gothic cathedral (...), matter lives solely on its own mechanical laws; but these laws, despite their fundamentally abstract character, have become living, i.e. they have acquired expression. Man has transferred his capacity for empathy onto mechanical values. Now they are no longer a dead abstraction to him, but a living movement of forces.⁵⁸

The heightened movement of forces Worringer found in the Gothic cathedral 'in their intensity of expression surpassed all organic motion'. In contrast to inorganic abstraction, which strives to provide rest and relief from the tension of life and is the result from a most fundamental instinct or intuition toward such a relief, the Northern line that dominates Gothic cathedrals and Nordic pre-Renaissance ornamental art is searching, striving, and vital. Its dynamism is expressive of the fact that Northern man is not experiencing an equilibrium of man and environment, but rather a struggle. The Gothic cathedral's 'living movement of forces' has a vital expressivity that is not based on organic laws, but rather combines organic *Einfühlung* with mechanic abstraction.

It is difficult not to read Worringer's description of the Gothic aesthetic in the context of modernity, that is, the time of Worringer's own writing. A perceived struggle between man and environment ensures that the abstract line remains alive and searching, even as it has abandoned organic expression. By mediating between *Einfühlung* and abstraction, it also mediates between life and mechanics, organic body and inorganic matter—a definition of artistic expression that subsequently comes to define modern art and also evokes Richter's description of the scrolls as 'living machines,' as well as the interface of spectator and film—which was what Richter and Eggeling turned to next.

58 Worringer, *Abstraction and Empathy*, 112-13.

The Transition to Film

Richter and Eggeling identified the affinity between their scrolls and film quite quickly, and were fascinated by the possibility of actually setting their 'chords' into motion.⁵⁹ Yet the attempt to shift from one medium (scroll painting) to another (film) fundamentally changed the way in which their project dealt with time and movement—and this, as it turned out, created significant problems for Richter and Eggeling. What made the switch from scroll painting to film so difficult on a theoretical level was—to return to Worringer's categories for a moment—the fact that rather than depending solely on an animating empathic beholder, the medium of film itself (that is, the mechanical, inorganic apparatus) took over the animation of forms. The apparatus, in other words, determined the temporality. In film, movement—the 'life force' of form—became independent from that of an empathic beholder.

There were not only theoretical problems, however, but also very practical ones. Neither Richter nor Eggeling had anticipated the conflict between the scrolls' temporality, which was primarily based on the flexible time of perception, memory, and empathy, and the uniform time units of the filmstrip. Much later, Richter recalled the words of a technician at UFA, Germany's largest and state-run film company, when he and Eggeling presented their scrolls to him and demanded that he transfer the scrolls onto film. The man reacted with disdain: 'If you want me to set your drawing in motion, you first have to show me which of these figures will begin the movement, when and where that figure will move, when and where to and how fast or slow the others will move, and then, when, how, and where they are supposed to disappear!'⁶⁰ Subsequently—and with the help of two friends, Bauhaus student Werner Graeff and Erna Niemeyer, who later went by the name of Ré Soupault (she married Philippe Soupault and became an accomplished photographer)—Richter and Eggeling began to develop different notation systems for the films, which took the unified time units of the filmstrip as their basis.

59 At the same time, another trajectory can be distinguished in Richter's work that leads to further scroll paintings, such as *Orchestration of Color* (1923), *Victory in the East (Stalingrad)* (1943-4), or the series of *Motorythms* and *Lyrrhythms* in the early 1960s. These scrolls, while maintaining a directionality of reading (i.e., a time element), differ from the early scrolls in that they are non-serial and instead show a gradual process of dissolving the different stages into a single painting, sculpture, or mosaic, much like the Chinese scrolls that had originally fascinated Richter and Eggeling.

60 Richter, *Begegnungen von Dada bis heute*, 190 (translation mine).

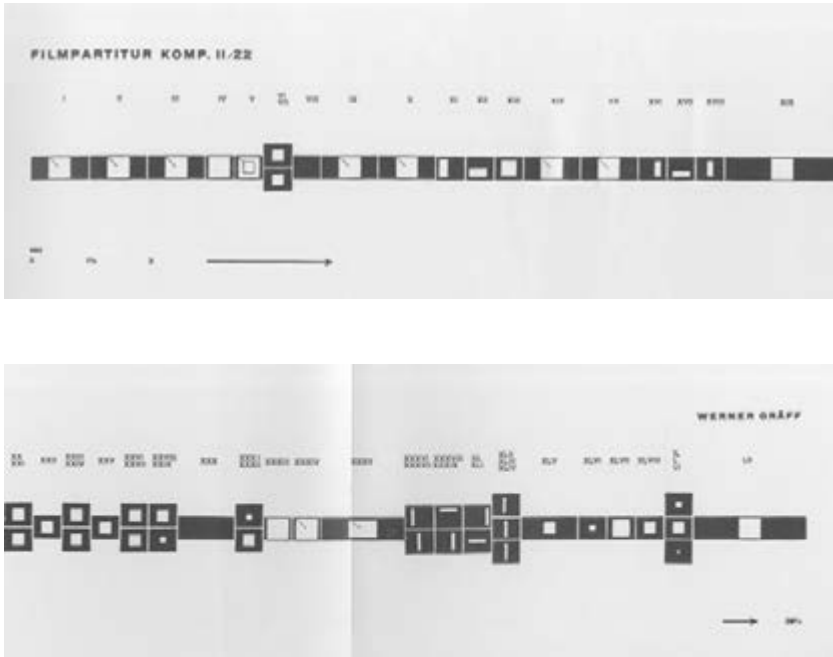


Fig. 1.10: Werner Graeff's *Film Composition II/22*.

Graeff's Bauhaus scroll 'Film Composition II/22' (Fig. 1.10) is one of these notation systems that has itself become graphic art. This scroll clearly demonstrates the separation of notation system and actual 'music' or 'expression'. Visually it already resembles a filmstrip, and like a filmstrip, every image has a predetermined duration, namely a third of a second. When the images are supposed to be shorter in duration, they are stacked on top of one another to share the time slot of one third of a second (on the bottom scroll, there are two instances of a sequence of three images, each one ninth of a second long).⁶¹ Lines indicate the movement that will take place within this predetermined duration. On the top scroll, we see diagonal lines in white squares, indicating that the white square will shrink toward the center. This scroll is solely a script, while the actual expression is dependent upon the animation in film. The composition submits itself to chronological time, similar to the actual filmstrip, only in condensed temporal form and in stylized fashion. This notation system therefore bears a much closer relationship to chronophotography than to Richter's

61 See Gräff, 'Anmerkungen zur Filmpartitur Komp. II/22'.

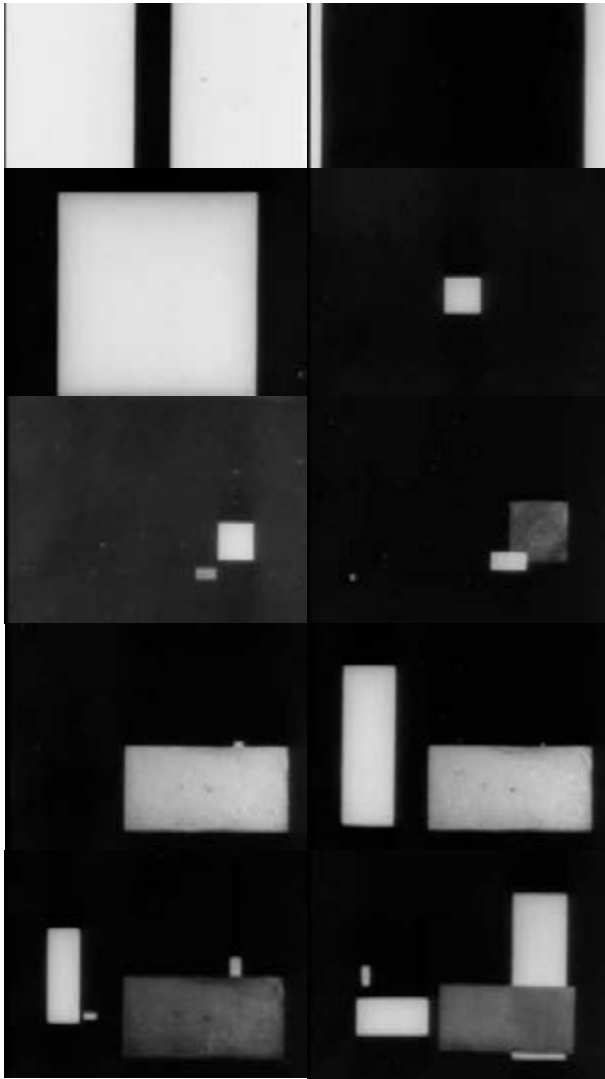
and Eggeling's earlier musical scrolls, insofar as it ties the relationship of movement to chronological time rather than the activating, individually varying perception of the spectator.

With the transition to film, time thus did not have to be created by means of the dynamic interaction between complex forms on a scroll, for the apparatus already provided time. The role of the film was to provide a nexus between apparatus and spectator, between cinematic time and lived time or duration. However, Richter was convinced that by creating a sensational rapport between the temporal expression of his film and the spectator, he could unearth new sensations. While Eggeling thus continued to work on the forms he had developed in his scrolls—the result of which was his *Vertical Symphony*, completed in 1924, shortly before his untimely death—Richter felt the need to translate the formal experiments of the scroll into the film material. In film, he realized, the question of design, *Gestaltung*, was not a question of form, but of time. The new task that he set himself was to visualize time and abolish formal expression as much as possible, and rhythm was the means to accomplish this. The formal language of *Rhythm 21* is thus basically a *Gestaltung*—a design or shaping—intended to rhythmicize time by creating a rhythmic figure or form. This rhythmic form is created by means of the reduction of film to its basic elements: light, movement, and the square of the screen. As such, Richter's film, much more so than Eggeling's *Symphonie Diagonale*, employs the constructivist principles of *faktura* and *tektonika* and might in fact better be described as constructivist rather than Dada film experiment.⁶² In *Rhythm 21*, the screen is neither a frame nor a window, but a form in its own right, the basic square, and fully part of the film's *Gestalt*.⁶³

The first images of *Rhythm 21* seem to introduce precisely this activation of the screen, for white planes move inwards from the side and meet in the middle, creating a white screen that immediately breaks up again; the white planes then recede to the sides until the screen is black again. This

62 Richter was well aware of the affinity between his work and that of the Russian constructivists; in May 1922, he formed the International Fraction of Constructivism with van Doesburg and El Lissitzky, and Richter's journal *G* is in many ways a direct outcome of the international contacts he made in the spirit of constructivism. For more on Richter's ties to constructivism, see Hoffmann, "Hans Richter: Constructivist Filmmaker"; Finkeldey, "Hans Richter and the Constructivist International."

63 Richter's formal language is certainly influenced by the squares and rectangles of Piet Mondrian, Theo van Doesburg, and Kazimir Malevich. The latter also destroyed the function of a painting's frame with his iconoclastic black square on white ground, a square that itself hovers between being a frame-within-a-frame, an object, and the denial of an object. See Tupitsyn, *Malevich and Film*, 9-15.



Figs. 1.11.a-j: Hans Richter's *Rhythm 21*: white planes move in from the side and recede; squares increase and decrease in size, changing position and tone.

movement is reminiscent of theater curtains, but it pulls screen, curtain, and film onto one level. Squares that decrease and increase in size provide an illusion of depth: our perception goes back and forth between seeing a receding square that burns a third dimension into the flat surface, and seeing merely a two-dimensional change in size. The film presents increasingly complex ‘contrapuntal’ movements of squares and rectangles, with at least one shape constantly changing position and size. There is no firm ground for us to establish space such that we could distinguish it from time. This effect is not least due to the fact that for spatial effects, Richter relies only on overlapping planes and differing sizes, but eschews perspectival order. Pictorial perspective—including the use of vanishing points and horizon lines—‘secures’ space on a two-dimensional surface and separates it from time, while overlap and size can retain dynamism and simply propose variable relations between space and time.⁶⁴ Space is simply an effect of movement in Richter’s film. Since the screen itself is a relational, rectangular temporal *gestalt*, there is no outside to the relationality of the contrapuntal principle in film; everything is subjugated to the rhythmic, flowing temporality of contrast and analogy. The squares and rectangles are not forms-in-space, but rather forms-in-time for the project of sculpting with movement; as Richter put it, the squares are ‘limitations (borderlines, endings) of actions in different dimensions . . . [t]he film should be felt (when projected) as tensions and contrast-light-movements’.⁶⁵

In contrast to the formal language of the scrolls, which was based on perception in time—that is, on ‘matter and memory’—film subjects the spectator’s perception to the fleeting forward-movement produced by the apparatus. The rhythm film thus forces the spectator to feel and perceive on the film’s own rhythmic terms: ‘This film does not provide us with “resting points,” which allow us to return in recollection, instead, one is at the mercy of the film—forced to “feel”—to follow the rhythm—breathing—heartbeat;—By the up and down of the process, the film expresses what feeling and sensation really are.... a process.... movement.’⁶⁶ Though this temporality is restless, linear, technological and ‘oblivious’ to the temporality of the spectator, Richter understands that in the process of perception, in the encounter between film and spectator, this technological temporality is nevertheless animated by the spectator’s temporal and

64 On space and time in *Rhythm 21*, see also Klaus Müller-Richter, ‘Architektur’, 45-47.

65 Even though Richter turned against Moholy-Nagy, there is a connection to the latter’s ideas about the lightplay that would be worthy of further investigation.

66 Richter, ‘Die schlecht trainierte Seele’, 51.

spatial sensations. The film ‘forces’ and the spectator ‘feels’, and it is in this nexus of forcing and feeling that Richter locates the potential of the medium to create new sensations. The sweeping temporality of the film, which is dislodged from Euclidean space and instead itself creating a dynamic space, is fundamentally non-human, yet the spectator can perceive and incorporate these rhythmic forms in light.⁶⁷

Rhythm 21 does something quite extraordinary. As a consequence of the fact that film’s essence is a mechanical temporality, Richter sought to create a film that *expresses* temporality, rather than creating expression on the basis of temporality. *Rhythm 21* should be understood as a temporal sculpture, one that does not create a space in time, but that creates space *and* time; space, in Richter’s film, is only a consequence of the temporal *gestalt*. This is what Richter is trying to express in a text from *G* in 1926:

The real sphere of film is that of mobile space, mobile surface, mobile line. This space is not essentially architectonic nor essentially plastic, but rather temporal; i.e. the light creates by means of a change of quality (light-dark, large-small) light-spaces which are not voluminous, but rather only turn by way of their succession that into space which, if one interrupted the temporal progression, would only be surface, line, point.⁶⁸

The ‘light-spaces’—the shapes that structure spatiotemporality in the film—thus effectively abolish not only representation, but also presentation. They are synonymous with the film itself. As a consequence, as Philippe-Alain Michaud put it, the spectator’s space becomes an integral part of the space of the film, while the separation between the projection surface and movie theater is abolished. ‘The limit, or frame, of the representation disappears, and the spectator finds himself in the presence of a system that unfolds in the same space that he occupies: he no longer watches the film as a theatrical representation; he optically experiences it.’⁶⁹ Detlef Mertins describes the viewing experience of *Rhythm 21* in similar terms as a ‘comprehensive, flowing and abstract spatiality, within which

67 Klaus Müller-Richter connects the spatial relationship between spectator and *Rhythm 21* to contemporary architectural discourses such as Ludwig Hilberseimer’s, according to which a building’s construction can only be understood in the context of the complex dynamic interaction of a building with its environment (*Umwelt*, see also Chapter 2). Müller-Richter, ‘Architektur’, 48.

68 Hans Richter, ‘Film’, 65 (translation mine).

69 Philippe-Alain Michaud, ‘Toward the Fourth Dimension’, 56.

the spectator floats weightlessly in the endless, timeless play of expansion and contraction, light contrasts and rhythmical movement.⁷⁰

The importance of *Rhythm 21* for film theory lies not just in the fact that it, like other films belonging to abstract, absolute, or pure cinema movements, sought the essence of film beyond its representational capacities and in a movement-based expression of sensuality or spirituality. Rather, what makes this film and its precursors important documents is their exploration of the meeting point between, on the one hand, human perception, affect, and sensation, which are activities performed in time and which have a certain duration, and on the other hand, cinema, which seemed to be based on a mechanical time diametrically opposed to duration. This exploration of the creative potential inherent in the encounter between human and technological, organic and non-organic time, upsets the often too rigid distinction between mechanism and vitalism. It is in this sense that I describe the trajectory from Richter's scrolls to *Rhythm 21* as a retracing of the invention of cinema, or even as a reinvention of cinema.

Richter's 'reinvention' also allows us to reconsider how the shaping of cinema spectatorship as a thoroughly modern, embodied, sensually stimulating experience redefines the valence of central aesthetic terms. Scott Curtis discusses the clash of *Einfühlung*, interiority, and contemplation as traditional aesthetic cornerstones with modernity and cinema in particular. He argues that especially in Germany, modernity was understood to be 'too pushy; it shoved its spectators along, giving them no pause for reflection'; a formulation that highlights how Richter's denial of 'resting points' and opportunities for 'recollection' sought to break with bourgeois, nineteenth-century attitudes.⁷¹ In contrast to the physical engagement and stimulation that is central to many early texts about cinema—for example Walter Serner's 'Cinema and Visual Pleasure'—in *Einfühlung* aesthetics, Curtis maintains, projection and movement are interior acts dependent upon the imagination, and thus ensure that real movement and physical sensation remain outside of the realm of aesthetic experience.⁷² For Richter and other Dadaists, as well as many cinema enthusiasts, then, the emphatic embrace of movement and sensation went hand in hand with a renunciation of contemplation, which for them had become equated with passivity and complacency. *Rhythm*

70 Mertins, *Architektur des Werdens*, 128. See also Müller-Richter, 'Architektur,' 52.

71 Curtis, *The Shape of Spectatorship*, 208. For Richter, see footnote 61.

72 Walter Serner, 'Cinema and Visual Pleasure'.

21 is thus engaged in a direct dialogue with earlier texts on cinema and not only mirrors their perspectives, but also contributes formally to the redefinition of spectatorship and the dynamic interface of spectator and artwork that early film theory had set into motion. This new spectatorship seeks an interconnection that is profound, but nevertheless renders the spectator an active participant.

Understanding *Rhythm 21* as a reinvention of cinema also sheds new light on Bergson's reflections on the relationship between cinema and duration. In *Creative Evolution*, Bergson had famously referenced Marey's chronophotographs as well as the cinematograph to illustrate the workings of the intellect and its more or less complete rejection of duration. Like a film strip consisting of a series of static images stripped of duration, the intellect can only perceive spatially, by isolating moments in time. The filmic apparatus, Bergson claimed, restores a false movement to things, since it sets things in motion with one general movement that ends up making all things equivalent to one other, and in this sense, it is a movement that is indifferent to the qualitative differences between those things that it represents. Bergson argued that, like this filmic apparatus, we ourselves in everyday perception also abstract a general movement from the various qualitative, developmental, and extensive movements around us. This cinematic mode of perception and knowledge is a consequence of our adaptation to the demands of modern life, and thus our daily activities are also marked by a similar disjunction between our perception and the qualitative distinctions in duration between things. Bergson describes our everyday mode of action as kaleidoscopic: we position ourselves kaleidoscopically *vis-à-vis* surrounding bodies, reducing our being-in-the-world to disjointed configurations.

On the one hand, Richter's film experiments embraced this quality of cinema to create a non-human temporality. But he also understood that Bergson's description of intellectual perception as cinematographic perception did not describe the *experience* of film as intellectual. Rather, Bergson had used the cinematographic apparatus, that is, the technical functioning of the machine, as a metaphor. Bergson was not talking about the visual experience of continuous filmic motion that rendered its origins in discrete images invisible. Thus, Richter's understanding of film, and the development of his *Rhythm* film, was able to combine two elements of Bergson's philosophy that are generally understood to be diametrically opposed, namely, his description of film—which Bergson claimed was based on intellectual arrest and spatialization—and on the other hand, intuition, which grants access to duration, or life.

The restoration of non-prejudiced, non-intellectual, or non-conceptual sensation based on pure movement—which Bergson saw as threatened by cinematographic perception—is thus accomplished precisely *by means of* the cinematic apparatus as a kind of living machine. Drawing not only on Bergson's philosophy, but also on theories of empathy and vitalist conceptions of rhythm as organic temporality, Richter's *Rhythm 21* turned the cinema into a place in which technology enabled a reflection on, or an encounter with, life in the experience of visual, embodied sensation. As such, the film not only constitutes an important addition to the work of film theorists such as Jean Epstein, who describes cinema's animistic quality of bestowing life on objects (in photographic film), but it also constitutes an early experiment that performed an operation that Walter Benjamin would formulate more poignantly fifteen years later; namely, that the reflection of humanity in a technicized world, of life in the face of technology, is only possible in film.

Back into Matter: from Abstraction to Montage

Certainly, this focus on Richter is to some extent artificial; not only is Eggeling credited by many as being the driving force behind the duo, but Eggeling's and Richter's film experiments also lagged behind Walter Ruttmann's experiments, both chronologically and, more importantly, with respect to their technical accomplishment. My emphasis on Richter might also seem like a rather loaded contribution to what has been a surprisingly contentious debate among film scholars about the origins of early abstract film in Germany, and Richter's role in this movement. The animosity of this dispute can largely be attributed to the fact that Richter was the most outspoken of all the participants in this movement, and some of his accounts were either distorting or have been distorted. Richter's role in the Dada movements in Zürich and Berlin has been disproportionately emphasized in the form of performances, speeches, and publications in Theo van Doesburg's *De Stijl*, László Moholy-Nagy's *MA*, and Richter's own journal that he published together with Mies van der Rohe, *G. Zeitschrift für visuelle Kommunikation*—and later in books on the history of Dada, as well as on his own life and work. In contrast to Eggeling, who died in 1925 shortly after the first screening of *Symphonie Diagonale*, and Ruttmann, who stayed in Germany making war and propaganda films until he died in 1941, Richter remained an important public figure in the art world in the US until his death in 1976, and many film scholars have felt the need to

'correct' what is often seen as Richter's magnification of his own centrality to the development of abstract film.⁷³

However, I have singled out Richter's film in my argument about a non-representational cinematic vitalism not in order to award Richter some special place in the pantheon of early abstract film, but rather to emphasize the trajectory that led him to the idea of a rhythmic-organic connection between film and spectator, a kind of non-organic life created by film. Richter sought to create an abstract language that used the cinematographic apparatus to transmit sensation directly to the spectator, thereby creating a direct relay between film and spectator. The result should be, he thought, a pure cinematic sensation that activates the spectator's thoughts and feelings by means of a direct communication with his corporeal vitality, bypassing engrained concepts and judgments. Ruttmann's abstractions, by contrast, did not seek such a pure form of sensation, but instead used film's potential for free movement of forms to present a formal play that enabled associations, memories, and analogies. This method and goal becomes especially evident in Ruttmann's own description of his film *Opus 1* in a 1919/20 manuscript entitled 'Painting with Time':

[I]n a particular point of the canvas a star-like center of brightness develops—the wave-like movement from the beginning of the film reappears, but this time increasingly lightened in lively movement, always in conjunction with the crescendo of the light center—round, soft, bright ones are blooming—and glide into the black pointiness of the

73 In her biography of Viking Eggeling, Louise O'Konor tries to restore Eggeling's leading role in the collaboration of the two artists. Jeanpaul Goergen's work on Walter Ruttmann has uncovered the filmmaker's pioneering work on abstract film, foregrounding his technical expertise, especially evident in the 1921 *Lichtspiel Opus 1*. More recently, William Moritz denied Richter a legitimate part in the history of early abstract films, arguing that *Rhythm 21* and *Rhythm 23* were only completed in 1927/8 by Erna Niemeyer, and that Richter's films 'needed the special pleading of "first, early, primitive" to make them worth considering, since they lacked the quality of Ruttmann's film.' See Moritz, 'Restoring the aesthetics of early abstract films', 222. The most important and most recent account of the importance of Ruttmann's work is Cowan, *Walter Ruttmann and the Cinema of Multiplicity*. Since Moritz does not provide proof for his claims, it is unclear how accurate his information is regarding the production of the *Rhythmus* films. Accounts of other, previously disregarded figures, such as Richter's assistant Werner Graeff, or Eggeling's assistant Erna Niemeyer (first his girlfriend, then Richter's wife for three years; she later married Soupault) complement the picture; and most recently, a DVD entitled 'Medien-Kunst' (Absolut Medien, 2009), produced by the Bauhaus Foundation, juxtaposed Richter's and Eggeling's films with a series of abstract experiments by Graeff, Heinrich Brockspieper, Kurt Kranz and Kurt Schwerdtfeger.

beginning and finally reach a radiating, happy brightness and dance-like motion of the entire image, which slowly transforms into a bright, joyful rest. Next, a threateningly dark, snake-like sneaking movement might set in, which increases, pushes back the brightness and finally calls up an extremely lively fight between light and dark—white forms in the movement of galloping horses throw themselves against the advancing dark masses—there is a shattering, a clamoring confusion of light and dark elements, until somehow, by means of the victorious intensification of the light, equilibrium and conclusion are brought about.⁷⁴

Ruttmann's description, with its representational analogies (star, wave, bloom, snake, horse) and acoustic analogies (crescendo, shattering), mirrors the viewing experience of his *Opus* films quite accurately: we witness a play of organic and inorganic forms that pulsate, breathe, grow, shrink, and metamorphose, all the while evoking associations in a spectator.⁷⁵ As a consequence, the viewing experience encouraged by his film is intense and engrossing, and can be understood as a kinetic version of *Einfühlung* aesthetics. Richter, by contrast, strove—whether successfully or not—to create a film that would free perception from subjective recollection. Such a freeing of perception was to evoke, by means of new cinematic sensations, a new sense of being that, through technology, would break the shell of subjective human being. By relying on empathy, Ruttmann's films fell behind (or to the side of) such aspirations, since they left the empathizing subject intact.

My emphasis on the trajectory that led Richter to 'reinvent' film also suggests that we should see Richter's film experiments not just in connection with later abstract experimental film, but also in relation to a certain 'vital' conception of constructivist film aesthetics—montage in particular—and politics based on a material (sensorial, physical) connection between film and spectator. This is not to deny the historical

74 Walter Ruttmann, 'Malerei mit Zeit', 74.

75 This is somewhat surprising, since in 'Malerei mit Zeit', Ruttmann actually devalorizes an approach to the new temporality of 'speed' (*Tempo*) by means of the 'gloves of analogy'. The forms and movements in *Opus III* are recognizably derived from factory machinery and bear a strong formal resemblance to photographic films that focus on the movement of machines, such as Eugene Deslaw's *March of the Machines* (1927) or Germaine Dulac's *Disque 957* (1928) and *Arabesque* (1929). Yet because of the increased abstraction of forms, Ruttmann is able to play with the translation of three- into two-dimensionality much more effectively (when, for example, a spinning spiral is reduced to a two-dimensional line with growing and shrinking bulges).

trajectory that indeed leads from Ruttmann's and Richter's films to later abstract experimental film production in a variety of experimental film styles, ranging from psychedelic, mystic experiments in form and color, to perceptual experimentation to structural film, both in Europe (Peter Kubelka, Kurt Krens) and in the US; I am thinking especially of Jordan Belson, Harry Smith, Richard Breer, and Jonas Mekas.⁷⁶ However, what interests me here is the transition from abstract to photographic film, a step taken by both Richter and Ruttmann (Oskar Fischinger was the only one who continued to work on abstract films in the US). While a focus on formal composition continued to inform Richter's shots, there is a direct trajectory, based in their interest in a form derived from the materiality of film as medium, from Eggeling's and Richter's conception of the interaction of forms to montage theory.

In the abstract experiments of Richter, Eggeling and Ruttmann, montage could be said to be either non-existent or all-pervasive, since every shot is filmed by itself, separated from the previous and subsequent shots by an interruption and by a manipulation of the tinfoil (in Richter's case) or the glass plate (in Ruttmann's case). The transition from form language to scroll painting to film illustrated, however, that Eggeling and Richter were from the outset interested in relations and in an expression not intrinsic to one form, but based on the relationship between forms. This relationship could be spatial (in the universal language scripts) as well as temporal (in the scrolls and, differently, in film). In Richter's subsequent films such as *Filmstudie* (1926), *Vormittagsspuk* (*Ghosts Before Breakfast*, 1926) or *Inflation* (1928), photographic objects are investigated as symbols and as forms, and montage—the juxtaposition, comparison, and evolution of images on the basis of editing—becomes a new mode of expression.

From this perspective, montage—and especially the advanced montage films and theories of montage of Sergei Eisenstein and Dziga Vertov—emerges as a continuation of the line of a 'sensual-formal' (and, to some extent, formalist) cine-vitalism that so clearly comes to the fore in Richter's abstract film. Richter himself was aware of the resonance between his own work and that of Eisenstein, often describing seeing Eisenstein's *Battleship Potemkin* in 1926 as a watershed moment in his (Richter's) idea of cinema. He later became close friends with both Eisenstein and Vertov, and even embarked on a collaborative film project with Eisenstein for Meshrabprom Film in Russia (*Metal*, which was never completed and of which only film

76 On this trajectory, see P. Adams Sitney, *Visionary Film: The American Avant-Garde*; Moritz, 'Der abstrakte Film seit 1930'; Hein, 'Der strukturelle Film'.

stills and a script remain).⁷⁷ And though Richter's theoretical foundation for his early film experiments often sounds more metaphysical than political, it nevertheless bears a close resemblance to Eisenstein's montage theory.

Eisenstein's theory of montage, like Richter and Eggeling's work, is based on counterpoint.⁷⁸ Essential for Eisenstein's understanding of the cinema is the dynamic, antithetical relationship between two shots or other audiovisual elements and a resulting conceptual (psychological) synthesis. Eisenstein's understanding of the cinematic image (*obraz*) is thus profoundly dynamic and dialectical and eventually leads him to simultaneously describe the cinema as a synthesis of all arts and seek the cinematic in the long history of artistic expression across all arts. Montage in this tradition, to put it simply, is the organic, dynamic creation of a new whole by means of two shots. This conception of montage, and a conception of cinema that views montage as the medium's essence, follows logically out of the trajectory I have laid out in Richter's work—in fact, they mutually illuminate one another. Richter's early experiments with Eggeling on a universal language recall Eisenstein's foundation of montage principles in hieroglyphs and the ideogram, a parallel that emphasizes the inherent cinematic-ness of Richter's and Eggeling's studies. At the same time, if we return for a moment to Fig. 1.4 (Richter's sketch for a universal language), we can note the similarity of these formal experiments to Eisenstein's systematic exploration of the importance of the relationship of volumes, shapes, color, and so forth, to one another from one shot to the next. Richter's sketch appears to be a montage experiment itself, except that the 'parts' are not subsequent parts in time (as shots would be in montage),

77 On Richter's relationship to Eisenstein and Vertov in the context of the 1929 Congress for Independent Film at La Sarraz, where Richter and Eisenstein directed a film with participating filmmakers and critics, see the special issue of *Archives on Le 1er Congrès international du cinéma indépendant*, Roland Causandey and Thomas Tode, 'Le 1er Congrès international du cinéma indépendant'. Tode also published a letter from Richter to Vertov about the political dynamics at the congress, in which Richter confirms his alliance with Eisenstein and Vertov (whom he originally wanted to be the Russian delegate) against Bálazs. See Tode, "Das Gegenteil von revolutionär". Günter Agde describes Friedrich Wolf's script of *Metal* in Agde, 'Filmutopien vor der Katastrophe'.

78 Counterpoint is a central term in Eisenstein's film theory. In 'The Heir,' part of his *Notes for a General History of Cinema*, Eisenstein describes 'The Method of Cinema' as '[m]ontage and counterpoint. The ultimate exposure of the fundamental patterns of being,' and both in his famous 'Statement on Sound' and elsewhere did he conceive of the relationship of sound and image as counterpunctal. See Eisenstein, *Notes for a General History*, 112, 207, 215-18; 'Vertical Montage'; Eisenstein, Pudovkin, Alexandrov, 'Statement on Sound.' James Tobias discusses Eisenstein's role in a film history of the role of music for structuring film images in Tobias, 'Cinema, Scored'.

but interacting parts in space. This similarity in turn highlights the fact that Eisenstein never understood montage to be purely linear—that is, as expressing the relation between two successive parts, as the images are located on a filmstrip—but rather as a dynamic interaction of ‘montage cells’ that creates a ‘third image’, a new whole. Moreover, Eisenstein, like Richter and Eggeling, developed a complex notion of counterpoint in film language that, in his later work and writing, focused more and more on ‘vertical montage’, that is, less on collision and more on integration.

Juxtaposing Richter and Eisenstein emphasizes that Eisenstein’s work, even as it reveals an incredible breadth of artistic, literary, philosophical, historical, scientific, and political knowledge, also contains an interesting general tension between a materialist, dialectical, constructivist understanding of form (which is mechanistic in its basic orientation) and an organicist understanding of form (which is vitalist in its basic orientation). This tension is most obvious in Eisenstein’s discussion of the basic elements of montage. Eisenstein criticizes the conventional conception of montage, exemplified by Lev Kuleshov’s and, by extension, Vsevolod Pudovkin’s work as static, linear, and inorganic. Eisenstein maintained that, according to the Kuleshov school, montage is the assembly of one ‘brick’ on top of another.⁷⁹ A good montage then yields a solid, stable wall, and improvement can be measured as an evolution toward ever more stable, skillfully constructed walls. The problem with this view of montage, according to Eisenstein, lies not only in a false conception of montage, but also a false conception of matter. Matter for Eisenstein is inherently dialectical and proceeds by dynamic tensions and conflicts between material elements, which resolve into new syntheses. Eisenstein’s dialectical materialism is thus not to be understood as mechanistic, but rather is a materialism that nevertheless is oriented toward forms that are found only in the register of life.

Linking Richter’s Bergsonian-inspired vitalism with Eisenstein’s ‘organicist’ dialectical materialism may seem like a flawed enterprise, even if we acknowledge that Eisenstein’s intellectual sources were not limited to Bolshevik, party-line views, but also included conservative, reactionary vitalists such as Ludwig Klages. Conceiving of Eisenstein as a ‘vitalist’ is undoubtedly problematic, for it threatens to confuse theoretical positions that seem fundamentally opposed, even if there are some points of minimal contact between the two (e.g., a mutual interest in organic form). However, it is important to stress that the link that I am establishing between Richter and Eisenstein is ultimately less concerned with the ‘sources’ of theoretical

79 Eisenstein, ‘The Cinematographic Principle,’ 36-37.

inspiration—that is, is less focused on the vitalist provenance of ideas that filmmakers, film critics and film theorists brought to cinema—and rather emphasizes the creative potential of cinema as *dispositif*. From this perspective, the question of what is ‘put in’ or ‘brought to’ cinema—in Eisenstein’s case, a dialectical, materialist view of nature that is not originally focused on film—matters, but only with regard to the emergent product, be it a film or a theory of film. In Eisenstein’s film theory, the cinema essentially becomes a constructed cosmos: starting from a material base of filmstrips with recorded footage, Eisenstein literally sought to animate the material by a method of editing and image composition that aimed at a construction that would follow the progression from inorganic matter to living bodies to living thought that is described in both Hegel’s idealist philosophy and Marx’s dialectical materialism.

Eisenstein’s view of nature is very close, in fact, to Friedrich Engels’ materialist updating, in *Dialectics of Nature*, of Hegel’s philosophy of nature. Engels grounds dialectics in matter and makes extensive reference to modern scientific advances, from Helmholtz to Darwin, to substantiate this view. For Engels, the fact of life, the workings of complex organisms, and thought itself can be explained on the basis of a fundamental conception of matter as ceaseless motion and on the basis of a dialectical interaction between parts.⁸⁰ Eisenstein was thus following Engels—and not more mechanistic biologists—when he (Eisenstein) wrote that the action of thinking is ‘the highest form of movement’.⁸¹ If matter is characterized by ceaseless motion, then the shots as elementary montage pieces are not bricks, but themselves dynamic entities—they are ‘montage cells’, as Eisenstein laid out in his early writings, that are characterized by collision and conflict.⁸² There are a number of implications that follow from the term ‘cells’. What Eisenstein was aiming at with this organicist vocabulary was an animation of the cinema. Every film frame contains a number of conflicts—of space, line, volume, color, etc.—which, like ‘molecules’, form a creative new whole; namely, a cell (a shot) which, in contrast to a brick, links to and interacts with other cells in multiple directions and on various levels.⁸³

80 See Friedrich Engels, *Dialectics of Nature*, especially Chapter 2, ‘Dialectics.’ Yet it is possible that Engels’ philosophy of nature reached Eisenstein mostly indirectly, through Lenin’s writings; at least, Lenin is most frequently quoted in Eisenstein’s writings on dialectic materialism.

81 Eisenstein, notes. Quoted from Anne Nesbet, *Savage Junctures*, 248 n2.

82 Eisenstein, ‘The Cinematographic Principle and the Ideogram’, 37; see also Eisenstein, ‘A Dialectical Approach to Film Form’, 53.

83 Based on Eisenstein’s discussion of rhythm as a struggle between the organic and the technological in ‘The Dramaturgy of Film Form’, Michael Cowan also makes the point that

Over the course of his career, Eisenstein increasingly shifted the focus from a confrontational model of montage—a montage of shocks and ‘simple’ dialectical oppositions—to a more complex, integrated, organic model. By the time that he wrote the main texts in what now comprise the volume *Nonindifferent Nature* in the late 1930s and 1940s, his efforts had shifted to a conception of film structure as mimicking organic structure. If a film not only constitutes an organic whole, but is also created on the basis of a unified set of organic laws—just like a real organism—then it is able to become part of nature, and both show a greater affinity to the nature it represents and to the spectator who herself is part of organic nature:

It is obvious that a work of this type has a very particular effect on the perceiver, not only because it is raised to the same level as natural phenomena but also because the law of its structuring is also the law governing those who perceive the work, for they too are a part of organic nature. The perceiver feels organically tied, merged, and united with a work of this type, just as he feels himself one with and merged with the organic environment and nature surrounding him.⁸⁴

To return to Engels’ materialist nature-philosophy for a moment, Eisenstein thus sought to locate the principles of the *Gestaltung* of a film within the kind of natural creation that leads to self-determining organic entities. If this is accomplished, a film can organically communicate with the spectator (and all of nature), since its matter, its orders of motion, are based on the same principles as the rest of animate nature. Antonio Somaini, using Eisenstein’s words, call this ‘an ecstatic “flow” that circulates between the artist, the work, and the spectator: a flow which becomes possible if all three of them “participate” in the stream of dialectic, ecstatic energy which runs across all natural phenomena, across a “matter” which Eisenstein conceived “as a continuous process of becoming.”’⁸⁵

For Eisenstein, these organic principles were most perfectly expressed in the formula of the ‘golden section’, which expresses the relationship of parts to whole. The golden section describes a ratio between two parts that is equivalent on two levels: part a is to part b as a + b is to a. The relationship between

‘Eisenstein’s notion of filmic “conflict,” while derived from Marxian dialectics, also resonates with the vitalist models of rhythm so important for the early 20th century’s understanding of the body.’ Cowan, ‘The Heart Machine’, 234.

84 Eisenstein, *Nonindifferent Nature*, 12.

85 Somaini, ‘Cinema as “Dynamic Mummification,”’ 70.

a and b is thus not only that of two parts to one another, but immanent to it is also the relationship of the whole to the parts. In the nineteenth century in particular, physiologists such as Adolf Zeising and Gustav Fechner had been interested in grounding the golden section in nature, in the arrangement of branches on a tree, the veins on a leaf, or in the spiral of a Nautilus shell. What distinguished the golden section for Eisenstein is the fact that it simultaneously expresses a principle of natural organic structure, a mathematical principle, and a principle of organic development and evolution, a principle of growth; it is thus structural, calculable, *and* dynamic.⁸⁶ In this combination, the golden section can create relationships that literally spiral something given out of its framework into a new, higher order, into a different state.

The emotional-affective expression of the organic model of development in which Eisenstein sought to ground cinematography and in particular his own films, especially *Battleship Potemkin*, is an understanding of *pathos* as a state of ecstasy, of being-beside-oneself. This state of ecstasy is exemplified as much by that water which, in the encounter with heat, is about to turn into steam, as by the man who, in *Battleship Potemkin*, is at the point of transforming his sadness into anger and who thereby rises up in resistance and revolution. *Pathos* comes into being at all points at which the collision of two oppositional forces creates a new whole and catapults that whole into a new stage. From the perspective of this image of an energized, vitalized cosmos—a nonindifferent nature indeed—the responsibility of the filmmaker consists not just in orchestrating pathos in the leading actors, but likewise making that pathos resonate in objects and landscapes.⁸⁷

Eisenstein's later conception of montage cinema—as well as of literature, painting, and other arts—as a mutual interpenetration and orchestration of various dialectical dynamics (rather than simple collision on one plane), provides us with an example of how the vital conception of form and of form reception in Richter's *Rhythm 21* is not restricted to abstract form. Rather, Richter's film experiment simply distilled a model of the interrelation of a spectator or beholder and moving matter. Both Richter's and Eisenstein's conceptions of the material interface of film and spectator can be described

86 Ibid., 15-26.

87 Although outside the scope of this book, it should be noted that in his *Notes for a General History of Cinema* written largely contemporaneously with *Nonindifferent Nature*, Eisenstein applies these thoughts on the dynamic history to not only the history of cinema and the arts at large, but history in general. He detects a 'dialectic polarity' between 'regression' and 'progress' in every work of art, linking artworks not only to both 'the deepest layer of emotional thinking' and 'the highest peaks of consciousness,' but also to both ancient or primitive art and contemporary or even future art. See Eisenstein, 'Closing Speech,' 38, 41-46.

with reference to Henri Bergson's famous example of sugar water. Bergson described the combination of sugar and water, two distinct substances which, after a little while, transform into a new whole, namely sugar water.⁸⁸ Eisenstein would describe the state of the sugar as it lay in the water and was about to dissolve, and the state of the water which surrounded the sugar crystals, as a state of ecstasy—if they 'could psychologically register their own feelings at these critical *moments*—moments of achieving the leap, they would say they are speaking with *pathos*, that they are in ecstasy'.⁸⁹

While both Bergson and Eisenstein were interested in the creation of a new whole, Bergson emphasized duration as a lived temporality that is open to the future, to creation. The mode of experiencing duration is aptly captured in the image of the philosopher waiting passively until the sugar is dissolved, finding pleasure in the adaptation of his duration to that of the creation of sugar water. Eisenstein, by contrast, was interested in the active transformation of matter. His focus lay not on duration as the experience of open time, but on the property of matter to clash and collide and thus create new wholes. Eisenstein took a spoon and began to stir the water to accelerate the process of dissolution. Gilles Deleuze, who also picked up on Bergson's example of the sugar water, described the consequence of this action: 'If I stir with the spoon, I speed up the movement, but I also change the whole, which now encompasses the spoon, and the accelerated movement continues to express the change of the whole.'⁹⁰ One might say that Eisenstein envisioned montage to be a tool just like this spoon, by means of which the filmmaker creates a 'sped-up' movement with an increased ratio of conflict and *pathos* of which the spectator becomes a part. The 'change of the whole' system works itself up organically:

[B]orn out of the pathos of the theme, the compositional structure repeats that single basic principle by which organic, social, and all other processes of the formation of the universe are achieved, and cooperation with this principle (whose reflection is our consciousness, and the area of application—our whole being) cannot but fill us with the highest feeling experienced by man—pathos.⁹¹

88 See Bergson, *Creative Evolution*, 9-10. It is likely that Eisenstein would also have found this example intriguing on the level of writing, since the newness of the new whole that is sugar water is indicated simply by eliminating the 'and' (or, for the German word *Zuckerwasser*, the space) between sugar and water.

89 Eisenstein, *Nonindifferent Nature*, 36.

90 Deleuze, *Cinema 1*, 9.

91 Eisenstein, *Nonindifferent Nature*, 36.

Just as in Bergson's example of waiting, the film spectator as organic, intellectual, *and* social being becomes part of Eisenstein's stirred-up film cosmos of revolution. However, the spectator—at least, this was Eisenstein's hope—participated in this stirred-up film cosmos by experiencing the same state of ecstasy, of transformation into a new whole, as sugar, water, and all the elements needed to bring a social revolution into motion.

The trajectory from simple formal experiments to abstract film to montage theory that I have pursued here thus outlines not only Richter's and Eisenstein's conception of vital form in cinema, but also seeks to locate a cine-vitalist element in the *construction* of films, in their formal aspects. Both Richter and Eisenstein were interested in creating a rhythmic dynamic of forms and formal relations on the screen that are innervated sensorially by the spectator. The vitality of film is a consequence of the fact that film as a temporal medium can merge with the organic, rhythmic temporality of the spectator. This experiential fusion, which takes place on the basic level of organic functions, and which affects mood and thought 'from the bottom up' (in Eisenstein's model), is the basis for what I have called, with respect to Richter's film, not just a non-organic aesthetic, but also a non-organic vitalism that extends to technology and inorganic matter. The principle of a dynamic dialectic evolution that underlies Eisenstein's idea of the 'leap' into a new quality, a new state of being, and Richter's experience of new sensations, namely the confrontation, or contrast-analogy tension, between two entities, ultimately also applies to the encounter between spectator and film: the living, sensing being and the technological medium, in their confrontation, leap into a new qualitative state.