

Peter Weibel Expanded Cinema, Video and Virtual Environments

Kasimir Malevich, "Painterly Laws in the Problems of Cinema," in *Cinema and Culture* (Kino i Kultura), nos 7-8, 1929.

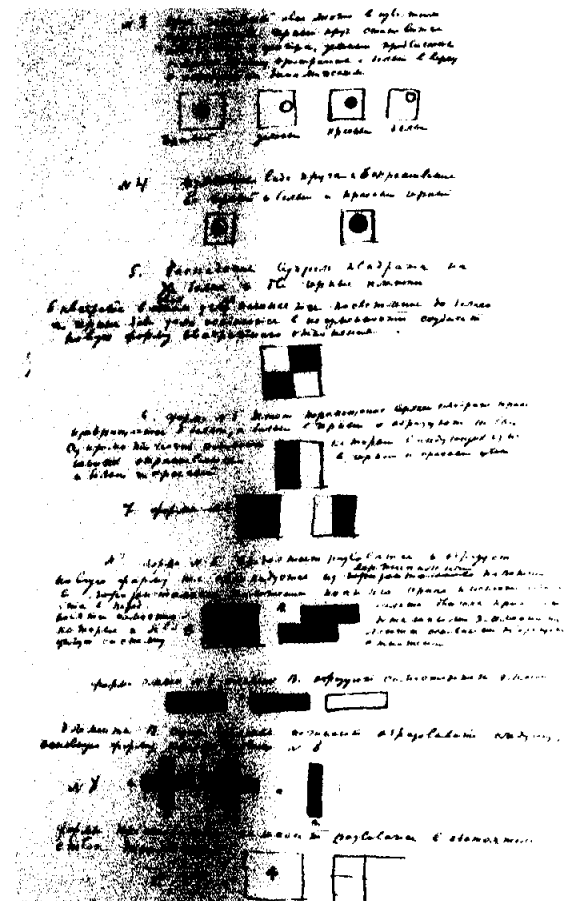
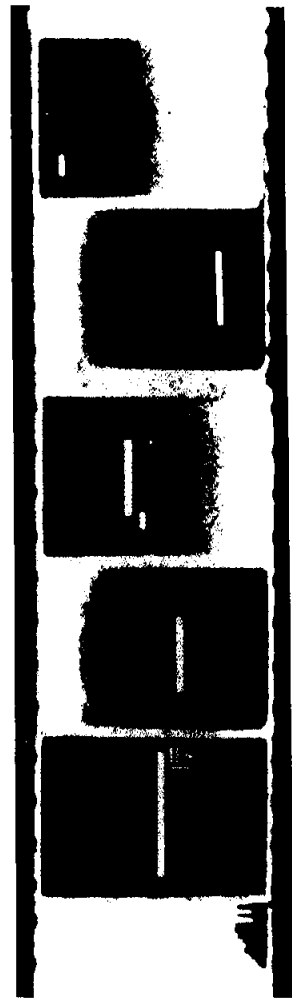
This history is described and documented in the following books: Sheldon Renan, *An Introduction to the American Underground Film*, Dutton, New York, 1967; P. Adams Sitney (ed.), *Film Culture Reader*, Praeger, New York, 1970; Gene Youngblood, *Expanded Cinema*, Dutton, New York, 1970; Parker Taylor, *Underground Film (1969)*, Secker & Warburg, London, 1971; David Curtis, *Experimental Cinema, A Fifty-Year Evolution*, Universe Books, New York, 1971; P. Adams Sitney, *Visionary Films*, Oxford University Press, New York, 1974; Hans Scheufl, Ernst Schmidt jr., *Eine Subgeschichte des Films. Lexikon des Avantgarde-Experimental- und Undergroundfilms*, vols 1, 2, Suhrkamp, Frankfurt, 1974; Amos Vogel, *Film as Subversive Art*, Random House, New York, 1974; Stephen Dworkin, *Film Is - The International Free Cinema*, Peter Owen, London, 1975; *Structural Film Anthology*, Peter Gidal (ed.), BFI Publishing, London, 1976; *Film als Film 1910 bis heute*, Birgit Hein, Wulf Herzogenrath (eds), Kölnischer Kunstverein, Cologne, 1977; Malcolm Le Grice, *Abstract Film and*

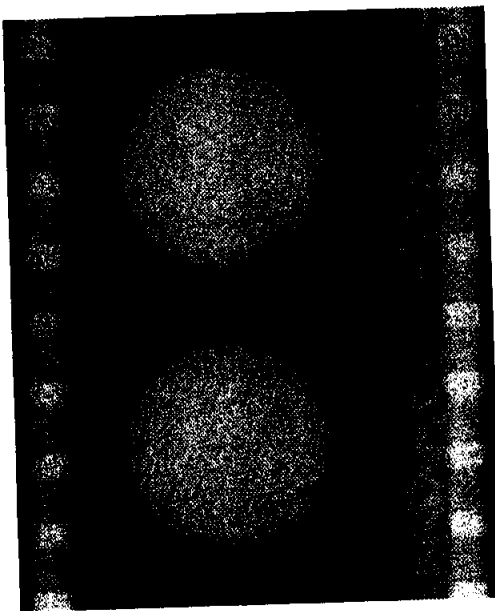
Avant-garde Film

In most histories of cinema the avant-garde film occupies a minor and marginal position. In the interwar period of the twentieth century, avant-garde film was initially seen as a spin-off or by-product of visual art movements like Cubism, Futurism, Suprematism, Constructivism, Dadaism or Surrealism. Linked to these movements were abstract or pictorial animations as well as montage and kinetic films by artists like Fernand Leger, Bruno Corra, Kasimir Malevich, Viking Eggeling, Hans Richter, László Moholy-Nagy, Oskar Fischinger, Man Ray, Marcel Duchamp, Len Lye, Lotte Reininger, Berthold Bartosch, Alexander Alexeieff and Claire Parker. These films constituted a body of work that served as the source for the innovative and autonomous post-WWII motion picture that was variously termed "art" or "experimental" film. This new movement differed from its historical predecessor (few artists, small audiences, no media presence, no theaters, no organization, no distributors) in that it was at a certain moment in history a mass movement (with its own distributive organizations, with large audiences in conjunction with the student and pop-music revolutions, a large number of filmmakers, its own theaters and magazines). The independent or experimental film of the 1960s was very conscious of being a new branch of art, a new medium and form of art as opposed to merely a byproduct of the visual arts, even if some major filmmakers like Andy Warhol, Guy Debord or Yoko Ono could be linked to Pop Art, the Situationist International or Fluxus. This awareness of film as new art medium led to a complete deconstruction of classical cinema. The apparatus of

top
Hans Richter
Rhythm 23
1923
16mm film
b/w, silent
3 min
film strip
courtesy Cecile Starr,
New York

bottom
Kasimir Malevich
*Artistic and Scientific Film -
Painting and Architectural
Concerns. Approaching
the New Plastic
Architectural System*
1927
manuscript page from a
three-page film script
private collection





Gil J. Wolman
L'Anticoncept
 1951
 film stills
 L'Institut Scandinave de
 Vandalisme Comparé
 from Joseph Wolman, *L'Anticoncept*,
 Editions Allia, Paris,
 1994, p. 66



Stan Brakhage
Mothlight
 1963
 16mm film
 color, silent
 4 min
 film strip
 © Stan Brakhage



Birgit and Wilhelm Hein
Hohfilm [How Film]
 1968
 16mm film
 b/w, sound
 20 min
 © the artists

classical cinema, from the camera to the projector, from the screen to the celluloid, was radically transformed, annihilated and expanded. The history of avant-garde film is a history of interpellations in the sense of Althusser (see my preface) on the basis of the apparatus itself. The deficit of the cinematic apparatus theory of the 1970s was that it showed us only the ideology inherent to Hollywood films, just as in the 1960s Umberto Eco used semiotics to explain James Bond films and today Slavoj Žižek uses Lacan to explain Hitchcock. Neither theorist used the apparatus theory radically in order to demonstrate that the cinematic apparatus and the inscribed ideology can be transformed by making different films with different technologies in the way done by avant-garde filmmakers. They therefore missed a vital point, and fell behind their own theoretical premises. Their theoretical work insofar paradoxically supported the hegemony of Hollywood and dismissed the avant-garde movement from film to video, from video to digital, as representing a transformation of the cinematic apparatus.

This transformation took place in three phases. In the 1960s, the cinematic code was extended with analogous means, with the means of cinema itself. Shortly afterwards, new elements and apparatuses like the video recorder were introduced, and the cinematic code was expanded electromagnetically. Artists' video – from Bruce Nauman to Bill Viola, from Nam June Paik to Steina and Woody Vasulka – was initially successful in the 1970s, but was halted in the 1980s by retro-oriented painterly neo-Expressionism. In the 1990s video art became the dominant form of

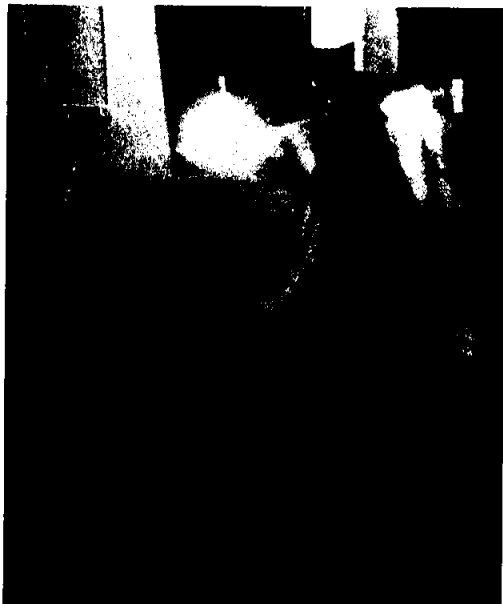
media avant-garde, and dominated major exhibitions like the Kassel Documenta and Venice Biennial. In the same decade, film entered the field of digitally expanded cinema.

Material Experiments

The subversive explosion that shattered the cinematographic code in the 1960s affected all of the technical and material parameters of film. The material character of the film itself was analyzed by artists who, instead of exposing the celluloid, scratched it (George Landow, *Film in Which There Appear Sprocket Holes, Edge Lettering, Dirt Particles, etc.*, 1965/66; Birgit and Wilhelm Hein, *Hohfilm*, 1968), perforated it with a hole punch (Dieter Roth, 1965), painted it (Harry Smith used 35mm material, processing it with grease, paint, tape and spray, 1947), covered it with fingerprints (Peter Weibel, *Fingerprint*, 1967) or glued moths to it (Stan Brakhage, *Mothlight*, 1963, in which moth wings and leaves were fixed between layers of perforated tape and projected). Empty frames, black film and overexposed material were also used (Gil J. Wolman, *L'anti-concept*, 1951; Guy Debord, *Hurlements en faveur de Sade*, 1952; Peter Kubelka, *Arnulf Rainer*, 1960; Tony Conrad, *The Flicker*, 1965).

At the same time, the apparatus of film, from camera to projector, was taken apart, reassembled, augmented and used in entirely new ways. There were cameraless films, for which unprocessed celluloid, known as clear film, was inserted into the projector (Nam June Paik, *Zen for Film*, 1962), and films without film, in which Kosugi, to name one example, focused light from a projector without film against a paper

Beyond, The MIT Press, Cambridge, MA/London, 1977; Deke Dusinberre, *A Film, Film as Film, Formal Experiment in Film 1910-75*, Arts Council of Great Britain/Hayward Gallery, London, 1979; Peter Gabriel, *Mutational Film*, Routledge, London, 1989; David L. James (ed.), *To Free the Cinema: Jonas Mekas & the New York Underground*, Princeton University Press, Princeton, New Jersey, 1996; Keny Brougher, *Art and Film Since 1945: Hall of Mirrors*, Manich Press, New York, 1996; *Spellbound: Art and Film*, Ian Christie, Philip Dodd (eds), BFI Publishing, London, 1996; Jack Sanguant, *Naked Lens: Bold Cinema*, Creation Books, London, 1997; A. L. Ross, *A History of Experimental Film and Video: From the Canonical Avant-Garde to Contemporary British Practice*, BFI Publishing, London, 1999; Garrett Stewart, *Between Film and Screen: Modernism's Photo Synthesis*, The University of Chicago Press, Chicago and London, 1999; *Into the Light: The Projected Image in American Art, 1964-1977*, Christine Bus (ed.), Lochy cat, Whitney Museum of American Art, New York/Harry N. Abrams, New York, 2001; Malcolm Greig, *Experimental Cinema in the Digital Age*, BFI Publishing, London, 2001; Hans Scheufl, *Erweitertes Kino: Die Wiener Filme der 60er Jahre*, Triton, Wien, 2002; Martin Rieser, Andrea Zapp (eds), *New Screen Media: Cinema/Art/Narrative*, BFI Publishing, London, 2002; book and DVD, Margot Lovejoy, *Digital Currents: Art in the Electronic Age*, Routledge, London, 2003.



Anthony McCall
Line Describing a Cone
 1973
 16mm film
 b/w, silent
 31 min
 installation view: Artists Space,
 New York, 1974
 Whitney Museum of American
 Art, New York
 courtesy Anthony McCall
 photo © Peter Moore;
 VG Bild-Kunst, Bonn 2003



Robert Whitman
Shower
 1964
 environment
 16mm film loop transferred to
 video, shower stall, water, wax
 pump
 installation view: Newark
 Museum, New Jersey, 1999
 collection Robert Rauschenberg
 photo courtesy
 Robert Rauschenberg and
 Robert Whitman



Simone Forti and
 Lucinda Childs in
 Robert Whitman's
Prune Flat
 1965
 performance view: Expanded
 Cinema Festival, Film-Makers
 Cinematheque, New York, 1965
 photo © Peter Moore;
 VG Bild-Kunst, Bonn 2003

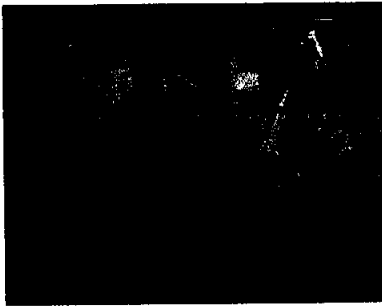
screen, cutting out sections of the screen from the middle until there was nothing left of it (*Film No. 4*, 1965). In *zzz:hamburg special* (1968), Hans Scheufl replaced the filmstrip with a thread actually running through the projector to create a shadow line on the screen. In other works, the light beam was replaced with a stretched length of rope (Peter Weibel, *Licht-seil*, 1973), or became the pure and only matter (Anthony McCall, *Line describing a cone*, 1973). Films were projected not on the conventional screen but on curtains of steam with running water (Robert Whitman, *Shower*, 1964) and on the surfaces of human bodies (in his *Prune Flat*, 1965, Robert Whitman projected a film onto the body of a girl wearing white clothing; the film showed her taking off the same clothes; in Andy Warhol's and Jud Yalkut's *Exploding Plastic Inevitable*, 1966, the film was projected onto the figures of members of the audience dancing to music by the Velvet Underground). The history of these material experiments is described in Peter Gidal's book *Materialist Film* (London, 1989).

Multiple Screen Experiments

Many film artists carried out radical experiments with the screen itself. It was exploded and multiplied, either through division into multiple images using split-screen techniques or by placing screens on several different walls. Thus multiple projections occupied the foreground of a visual culture that was intent upon liberating itself from the conventional concept of the painting, from the technical and material restrictions of imaging technology and from the repressive deter-

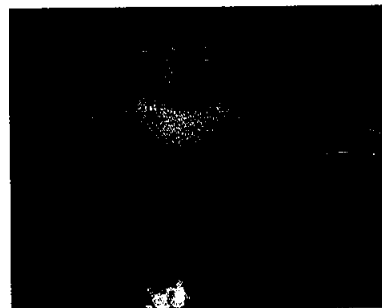
minants of the social codes. In much the same way that some painters sliced up the canvas (Lucio Fontana) or used the human body as a canvas (the Viennese Actionists) in search of avenues of escape from the picture, cinema artists were also engaged in a quest for ways of breaking out of the limited film screen during the same period.

The *Vortex Concerts* (visuals by Henry Jacobs, Jordan Belson, the Whitney Brothers), 1957–59, mixed multiple film projections and slide shows. Kenneth Anger showed *Inauguration of the Pleasure Dome* (1954) on three screens in Brussels in 1958. In order to “free film from its flat and frontal orientation and to present it within an ambience of total space,” Milton Cohen, the leading figure in the ONCE Group from Ann Arbor, Michigan, had since 1958 been developing an environment (*Space Theatre*) for multiple projections with the aid of rotating mirrors and prisms using mobile rectangular and triangular screens. In 1965, Stan VanDerBeek published a manifesto in justification of real-time multiple projection environments, a kind of “image-flow” in which image projection itself became the subject of the performance. In the same year he showed *Feedback No. 1: A Movie Mural*, achieving a first breakthrough for multi-projection cinema. To realize his idea, he established a *Movie Dome* in Stony Point, New York; a vaulted cupola modeled on the geodetic domes of Buckminster Fuller. Around 1960, the USCO (“US” company) Group associated with Gerd Stern began working on the multi-projection shows on the east coast of the USA (*We are all one*, with four 16mm

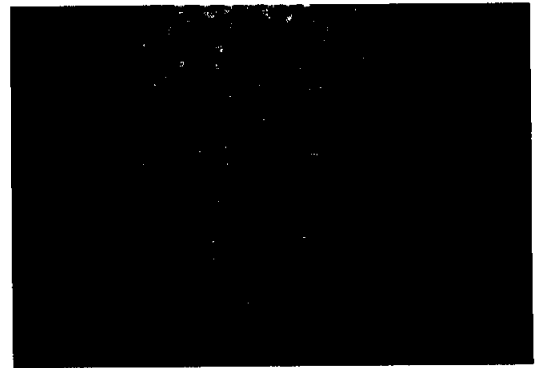


DNCE Group
Unmarked Interchange
 1965
 photo © Peter Moore, VG Bild-Kunst, Bonn 2003

Live performers interact with a projection of *Top Hat*, starring Fred Astaire and Ginger Rogers.



center and bottom
 Partially opened parachute becomes Isobe's *Floating Theatre* for the presentation of Jud Yalkut's *Dream Reel* intermedia environment at Oneonta, New York, March 1969
 photos courtesy Yukihsa Isobe.



The Single Wing Turquoise Bird group in their studio at Venice, California, 1967/1968
 photo © Gene Youngblood

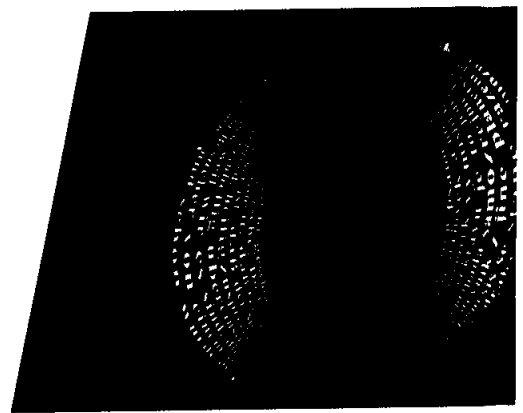
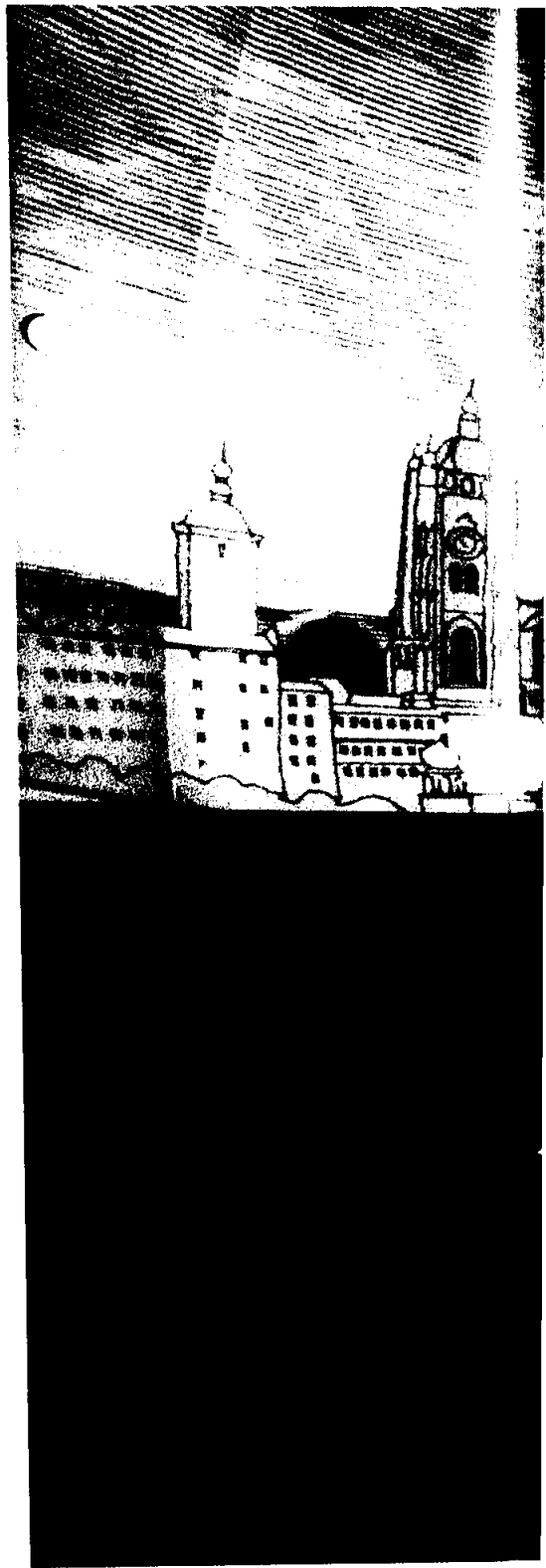
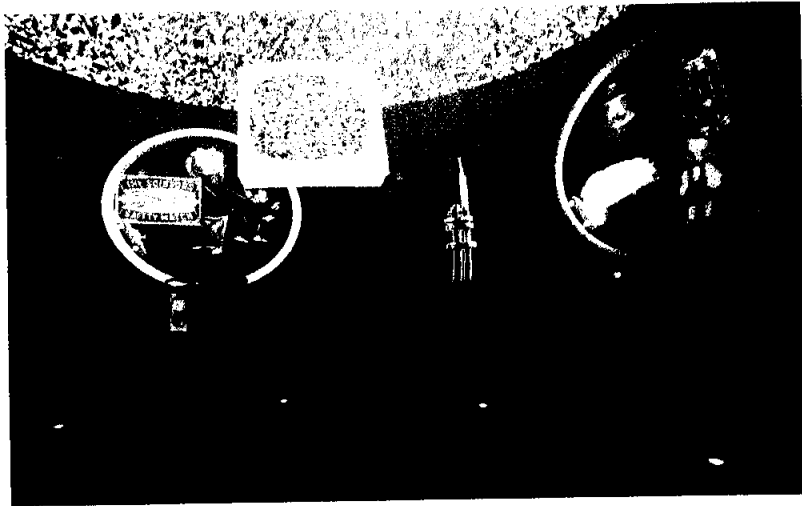
projectors, two 8mm projectors, four carousel projectors, 1965).

John Cage, Lejaren Hiller and Ronald Nameth staged *HPSCHD*, a five-hour "Intermedia Event" with eight thousand slides and one hundred films projected onto forty-eight windows at the University of Illinois in 1969. Between 1960 and 1967, Robert Whitman experimented with multiple plastic and paper screens onto which films were projected (*The American Moon*, 1960). In *Tent Happening* (1965), films, including a sequence filmed through a glass pane showing a man defecating, were projected onto a large tent. Beginning in 1965, Aldo Tambellini's *Electromedia Theatre* worked with multiple projections (*Black Zero*, 1965) in which, to cite one example, a gigantic black balloon appeared from nowhere, blew itself up and eventually exploded. Hundreds of hand-painted films and slides were used. In 1968 Tambellini organized *Black Gate* in Dusseldorf along the banks of the Rhine, an event featuring projections onto helium-filled, airborne plastic hoses and figures by Otto Piene and Yalkut created *Dream Reel* for Yukihsa Isobe's *Floating Theatre*, a gigantic parachute held by nylon threads—a portable hemispheric screen for multiple frontal and rear projections. The Single Wing Turquoise Bird group (Peter Mays, Jeff Perkins, the later video artist Michael Scroggins and others) from Los Angeles put together light shows for rock concerts in 1967 and 1968. Sponsored by the painter Sam Francis, they subsequently conducted experiments in an abandoned Santa Monica hotel with constantly changing images, from video projections to laser beams. In

their *Theatre of Light* of the late 1960s, Jackie Cassen and Rudi Stern used self-constructed "sculptural projectors" to project multiple images onto pneumatic domes, transparent Plexiglas cubes, polyhexagonal structures, water surfaces, and so forth. Particularly impressive was a fountain illuminated by a strobe light, a technique that evoked the impression of individual drops of water being suspended like crystals in the air. This effect is today variously repeated by Olafur Eliasson. Toshio Matsumoto showed his *Space Projection AKO* in a dome in 1969. One noteworthy example is Andy Warhol's *Chelsea Girls* (1966), a mixture of split-screen techniques and multiple projection in which a number of performers discuss their unusual lives from multiple perspectives and at several different levels at the same time. There were monumental mobile projections from moving vehicles onto building facades (Imi Knoebel, *Projektion X*, 1972), onto dancing people, onto forests and fields, onto the curved inside and outside surfaces of geodesic domes, onto plastic balls, hoses, and so on.

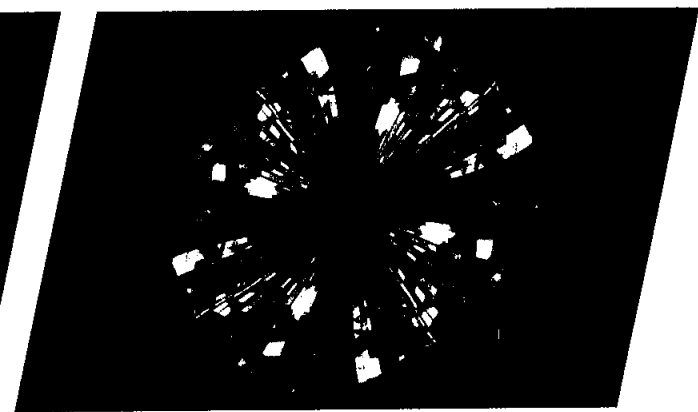
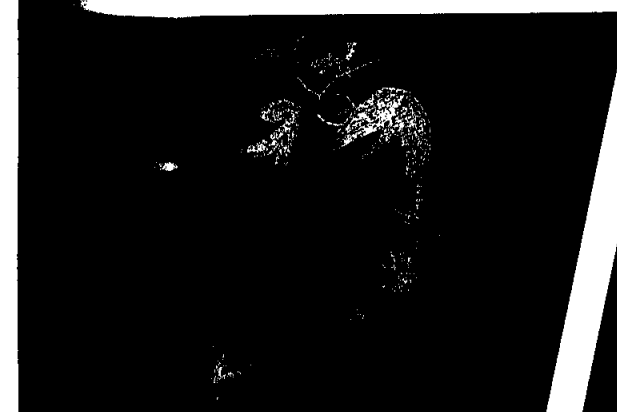
Contemporary visual practices have returned to these techniques of mobile projection or deployment of the screen as a window in a moving vehicle, as in Lutz Mommartz' *Eisenbahn* [Railway] of 1967. The interactive installation *Crossings* (1995) by Stacey Spiegel & Rodney Hoinkes simulates a train journey between Paris and Berlin, transforming physical space into the virtual interactive space of the World-Wide Web. *Room with a view* (2000), created by Michael Bielicky and Bernd Lintermann for Volkswagen's "Autostadt Wolfsburg," uses four projectors to achieve a

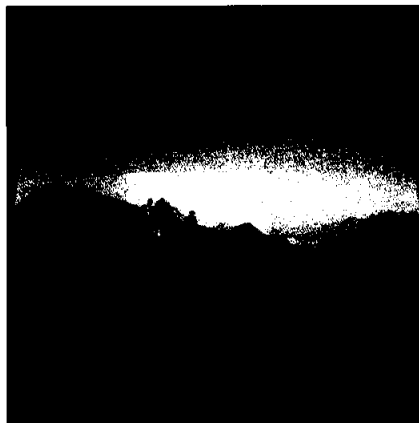
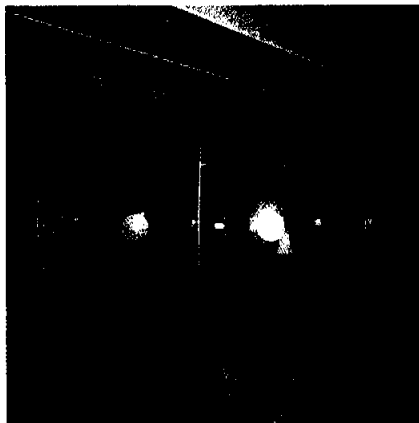
11 SCREENINGS
Peter Weibel / Expanded Cinema, Video and Virtual Environments





Michael Hebeley,
Herald Instruments
Ernst von Behschner
Summer and Aussicht
[Rooms with a View]
2000
interactive installation
-CDL-
ZKM | Institute for Visual Media,
Karlsruhe
© The artists and ZKM | Center
for Art and Media Karlsruhe

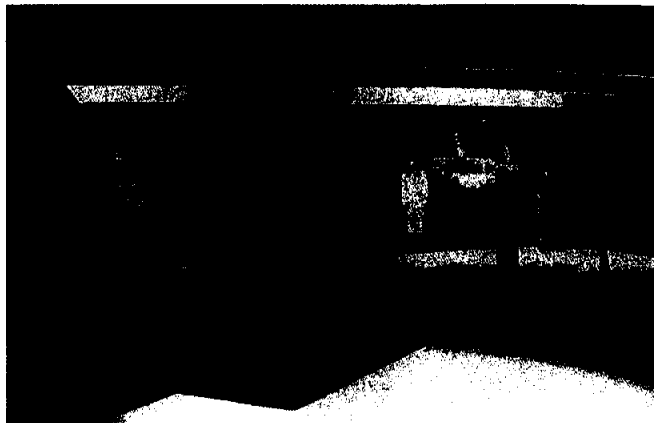




Edmund Kuppel
Das Planetarium
1990
installation
central projector, 12 screens,
steel globe
800 cm ø
installation view
courtesy the artist
bottom
Das Planetarium
detail



Michael Snow with the machine used for filming
La Région Centrale
[The Central Region]
photo © Joyce Wieland



Michael Snow
Two Sides to Every Story
1974
projection
two 16mm films
both color, sound
two projectors, painted
aluminum screen
8 min, dimensions variable
installation view: Walker Art
Center, Minneapolis, 1974
National Gallery of Canada,
Ottawa
© Michael Snow
photo courtesy Michael Snow

perfect 360-degree dome projection, with a touch-screen at the center of the dome allowing multiple manipulation of the projected images. With twelve round screens in a dome construction and one central projector, Edmund Kuppel's *Das Planetarium* (1990) is an interesting paraphrase of Michael Snow's outstanding *La Région Centrale* (1970). In the 1960s, the screen became in a number of ways multiple and mobile, as well as flat or curved, or was even replaced by unusual materials like water, woods and buildings.

Important experiments with material film, multiple projections and expanded cinema were made in the 1970s by a group of British filmmakers associated with Malcolm Le Grice (*After Leonardo*, 1974, a six-projector film) and made up by Dave Crosswaite, David Dye (*Unsigning* for eight projectors, 1972), Gill Eatherley, Annabel Nicholson, William Raban and Lis Rhodes. In 1972, Birgit and Wilhelm Hein showed a two-screen film titled *Doppelprojektion 1-IV*. A very early example of double projection was delivered by the film *L'Uomo meccanico* [The Mechanical Man] of 1921 by André Deed, a French film clown who had been making his "Cretinetti" films in Italy since 1909 and was admired by the Futurists. In this film, a robot filmed with a camera a furiously fast police car and the footage was shown on a second screen inside the first.

These experiments with multiple screens were carried forward in the 1960s by environments with film and by film environments which combined projec-

tion and live action. In *Moviemovie* (1967) by Theo Botschuijver, Jeffrey Shaw and Sean Wellesley-Miller, films and light were projected onto a pneumatic sculpture on which people moved. *Moviehouse* (1965) by Claes Oldenburg showed a film theater without a film. The situation (real people sitting on chairs) was the cinematic spectacle, a cinematic approach repeated by Janet Cardiff in the 1990s (*Playhouse*, 1997). An innovative project by Markus Huemer (1988) placed the famous letters HOLLYWOOD on a hill in Linz, Austria; the idea was later repeated by Maurizio Cattelan in Palermo (2001), and partially (LYWO) by Bertrand Lavier in Lyon (2000).

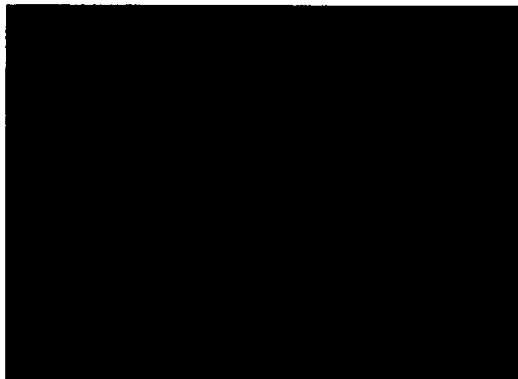
Narrative Experiments

Multiple projections of different films alongside one another, one on top of the other, and in all spatial directions represented more than merely an invasion of space by the visual image. They were also an expression of multiple narrative perspectives. The filmmaker Gregory Markopoulos, an early master of quick cuts and complex cross-fading techniques, published a manifesto of new narrative forms based upon his cutting technique:

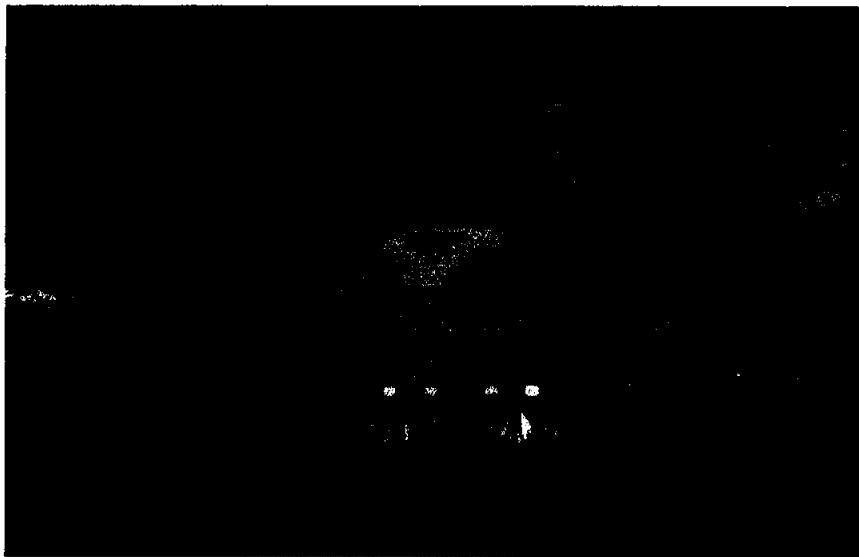
"I propose a new form of narration as a combination of classical montage technique with a more abstract system. This system incorporates the use of short film phases that evoke thought images. Each film phase comprises a selection of



Annabel Nicholson
Reel Time
 1973
 16mm film
 b/w, sound
 performance of
 indeterminate length
 © Annabel Nicholson



Rodney Hoinkes,
 Stacey Spiegel
Crossings
 1995
 interactive installation,
 Internet project
 mixed media
 dimensions variable
 installation view
 © Rodney Hoinkes,
 Stacey Spiegel



Charles and Ray Eames
Glimpses of the USA
 1959
 Moscow World's
 Fair auditorium

specific images similar to the harmonious unity of a musical composition. The film phases determine other interrelationships among themselves; in classical montage technique, there is a constant relationship to the continuous shot; in my abstract system there is a complex of different images that are repeated.”¹

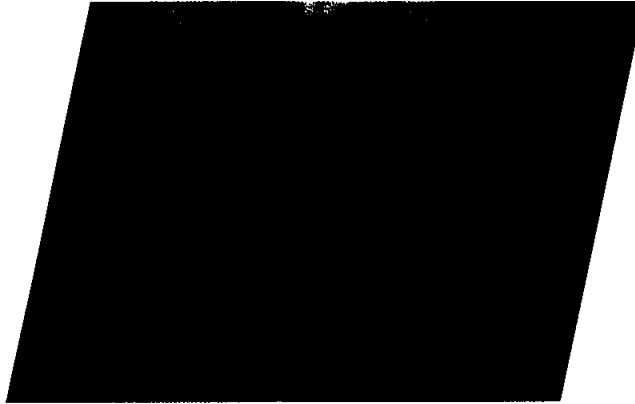
From the outset, the extension of the single screen to many screens, from the single projection to multiple projections represented not only an expansion of visual horizons and an overwhelming intensification of visual experience. It was always engaged in the service of a new approach to narration. For the first time, the subjective response to the world was not pressed into a constructed, falsely objective style of narration but was instead formally presented in the same diffuse and fragmentary way in which it was experienced. In the age of social revolts, mind-expanding drugs and cosmic visions, multiple projection environments became an important factor in the quest for a new imaging technology capable of articulating a new perception of the world.

Charles and Ray Eames made very early use of slide and film projections onto multiple screens: *Glimpses of the USA* was shown on seven screens at the Moscow World's Fair (1959), and on fourteen screens in the IBM Pavilion at the New York World's Fair (1964-65). For the Montreal Expo in 1967, several

artists also created huge multi-vision environments (for instance, Roman Kroitor's *Labyrinthe*) with the intention of developing new forms of storytelling. “People,” as Roman Kroitor asserted, “[were] tired of the standard plot structure.” Francis Thompson, a pioneer in large-scale, multi-image cinematography, presented his piece *We are Young* on an arrangement of six screens in Montreal. The Czech pavilion featured Josef Svoboda's *Creation of the World of Man*, a huge (Diapolyekran) screen on which 15,000 slides could be shown simultaneously on 112 movable cubes.

In these experiments with multiple screens we see the beginning of immersive environments, virtual worlds and interactive relations between spectator and image. The spectator slowly becomes part of the system that he observes. Closed-circuit video installations in the 1970s really allowed the spectator to see himself in the video monitor, in the image captured by the video camera. At the same time, multiple screens broke up the linearity of traditional narration. Multiform plots, a non-linear narrative matrix, became possible. Narrative elements could be repeated, recombined, or replaced by other elements. In *Zorn's Lemma* (1970) by Hollis Frampton, letters were replaced by images, and these images turned into events. A new form of narration was achieved on a single screen. The narrative matrix was based on a theorem of set theory (Zorn's Lemma). The narration became a multiform matrix, a multi-story machine.

¹ In *Filmculture*, no. 31, winter 1963/64.



left
John Whitney
Matrix
1971
computer-graphics animation
color, sound
6 min
© John Whitney

Figures from John Whitney's article "A Computer Art for the Video Picture Wall," in Robert Russett and Cecile Starr (eds), *Experimental Animation: Origins of New Art*, Da Capo Press, New York, 1976, pp. 187-191.

above
Ed Emshwiller
Skin Matrix
1984
video
color, sound
16:57 min
video still
courtesy Ed Emshwiller

Douglas Gordon
24 Hour Psycho
1993
video installation
installation view
© Douglas Gordon
photo © Douglas Gordon

In the film *Nowa Ksiązka* [New Book] of 1975 Zbigniew Rybczynski used a matrix of nine different images on one screen, showing different parts of one narrative and thereby anticipating the four-part screen of Mike Figgis' *Time Code* (2000). Before the term "matrix" was made famous by William Gibson's novel *Newromancer* (1984) and the Wachowski brothers' film *Matrix* (1999), it was already serving as a method for visual narratives (see John Whitney's computer animation *Matrix I*, 1971, and *Skin Matrix*, a video fantasy by Ed Emshwiller, 1984).

Time and Space Experiments

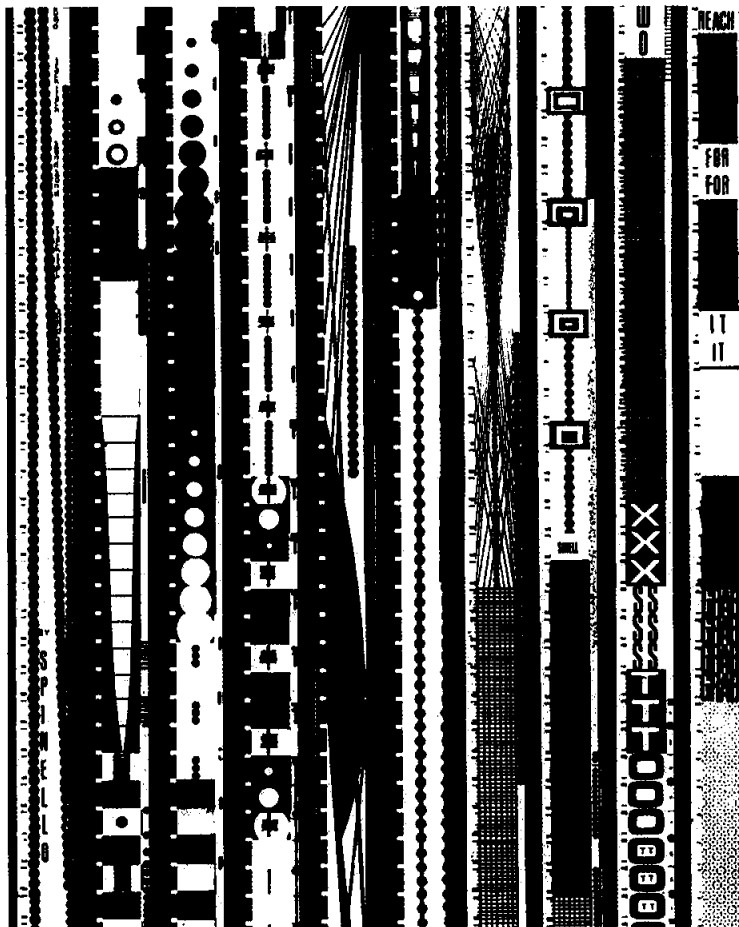
In addition to the expansion of the technical repertoire through experimentation with projectors and multiple projections, another material-oriented approach to the visual expression of a new concept of reality, the renunciation of social conventions and a new drug-induced, consciousness-expanding experience emerged. It involved the shifting and distortion of the conventional parameters of space and time using techniques designed to extend, slow, delay and abbreviate time. Film duration was extended to as much as twenty-four hours (Andy Warhol, *Empire State Building*, 1963), just as later Douglas Gordon extended Hitchcock's *Psycho* to twenty-four hours, or reduced to an extreme of only a few seconds (Paul Sharits, *Wrist Trick*, ten seconds, 1966). Temporal dilations in film and music (La Monte Young) were favored as primary means of expression not only due to their consciousness-raising effects, but also for compositional and formal reasons. The same was true of time-shortening and aggressive cutting techniques. The films of Michael Snow were pure time and space ex-

periments (*Wavelength*, 1967, a forty-five minute zoom through a room; *One second in Montreal*, 1969; *La Région Centrale*, 1970). In his *See you later/Au revoir* (1990), a thirty-second movement (a man leaving his office) was extended to seventeen minutes and thirty seconds. In Joe Jones' *Smoke* (1966), the cigarette smoke streaming from a mouth is extended to six minutes. The composer Takehisa Kosugi takes thirty minutes to take off his jacket in *Anima 7* (1966). Peter Weibel's film actions *The Kiss* and *To pour* (both 1966) which deploy extreme slow motion, must also be counted among this "slow anthology" (T. Kosugi).

Social and Sexual Experiments

In the social sense too, the contents of these independent avant-garde and underground films strayed from the familiar terrain of the industry film. Images from the intimate sphere, psycho-dramatic documents of an excessive individualism were shown publicly in uncensored form. Taboo sex scenes were acted out in front of the camera (Jack Smith, *Flamingo Pictures*, 1962/63, a transvestite orgy that triggered a scandal even in artistic circles yet became a major source of inspiration for Warhol's universe; Kenneth Anger's *Scorpio Rising*, 1963, which marked the birth of *Biker Movies* and homo-erotic self-fashioning, and *Inauguration of the Pleasure Dome*, 1966). The widening of material and technical parameters went hand in-hand with the dissolution of social consensus.

Raymond Durgnat, *Sexual Alienation in the Cinema*, Studio Vista, London, 1972



Barry Spinello
Soundtrack
 1970
 16mm film
 b/w, parts handcolored, sound
 11 min
 film strips
 courtesy Barry Spinello

Both sound and image are produced with handmade graphic effects

Sound Experiments

Both formal and thematic extensions of the cinematographic code were welcomed enthusiastically in the revolutionary aesthetic and social atmosphere of the 1960s and was, like progressive rock music, supported by a new, youthful audience. Indeed, a large number of such underground films were accompanied by rock (from the Grateful Dead to Cream) and avant-garde (from John Cage to Terry Riley) music. In these films, the role played by music was much more emancipated than in industry movies. Regardless of whether mainstream productions use classical or popular scores, music serves more or less as background sound and a device for controlling mood and atmosphere, for heightening or resolving dramatic tension. By contrast, in many avant-garde films music and sound exercise a determining effect upon the structure of imagery, and images are cut and composed in accordance with musical principles. The tendency to industrially exploit and market film images through linkage with music is clearly illustrated by the function of the soundtrack, the serial arrangement of existing popular songs and the commissioned piece that is known as a theme song and used to associate a certain film with a certain musical hit. This usage of semi-prefabricated components in movies and videos is reminiscent of the accelerated prefab building techniques employed in mass industrial high-rise construction. Instead of compound concrete-and-steel construction, the rapidly mass-produced industrial film made use of a compound sound-and-music construction. In contrast, the avant-garde films of the 1960s employed a highly differentiated approach to the development of new relationships between sound

and visual imagery.⁵ Barry Spinello's *Soundtrack* (1970), in which both sound and image are produced with handmade graphic effects, explored audio-visual compositional techniques. In *Feature Film* (1999), Douglas Gordon reorchestrated Bernard Herrmann's score for Hitchcock's *Vertigo* and presented only James Conlon conducting and hearing the film music played by an orchestra.

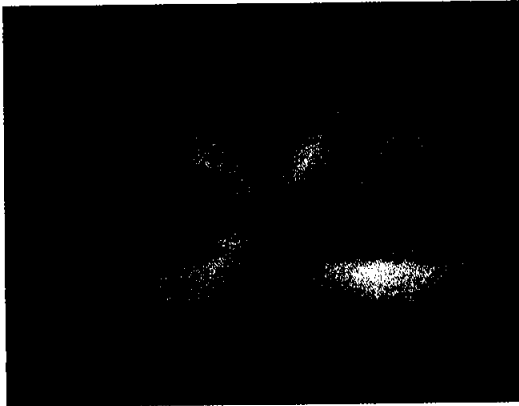
The Evolution of the Language of New Media: Expanded Cinema, Video and Virtual Environments

In the course of the 1970s, several avant-garde galleries promoted analytical refinements and developments, ranging from the Structuralist films to spatial film installations. This decade also witnessed the emergence of video art, with viewer-oriented closed-circuit installations that anticipated the observer-relative interactive computer installations of the 1990s and time-delayed installations, which pursued further the experiments of Expanded Cinema. The market-induced revival of figurative painting in the 1980s put an abrupt end to the development of expanded cinematic forms and video art. Broad segments of visual culture were affected by an amnesia as scandalous as it was total, and for which the market alone was not to blame but also institutional art historiography, which had buckled under to the power of the market. Viewed from this perspective, the triumphant return and revival of the tendencies of 1960s Expanded Cinema in the work of the 1990s video generation is all the more astounding and gratifying. However, we still face the problem that most art historians and writers, being oblivious to the history of avant-garde film and video art, cannot make a

5. See Michel Chion, *Les musiques electro-acoustiques*, INA-GRAM, Aix-en-Provence, 1976; Michel Chion, *Le son au cinéma*, Cahiers du Cinéma, Paris, 1985; Michel Chion, *L'audiovision*, Nathan, Paris, 1990; Michel Chion, *La musique au cinéma*, Fayard, Paris, 1995.



David Lameles
Filmscript
 1972
 installation view
 Witto de With, Rotterdam
 photo © B. Goedewaagen



Dennis Oppenheim
Echo
 1973
 film installation
 four 16mm film loops
 transferred to video
 b/w, sound
 installation view: Whitney
 Museum of American Art,
 New York, 2001
 collection of the artist
 © Dennis Oppenheim
 photo © David Allison



Jane and Louise Wilson
Stasi City
 1997
 four-channel video installation
 color, sound
 29 min
 installation view
 collection Pamela and Richard
 Kramlich
 courtesy Thea Westreich Art
 Advisory Services

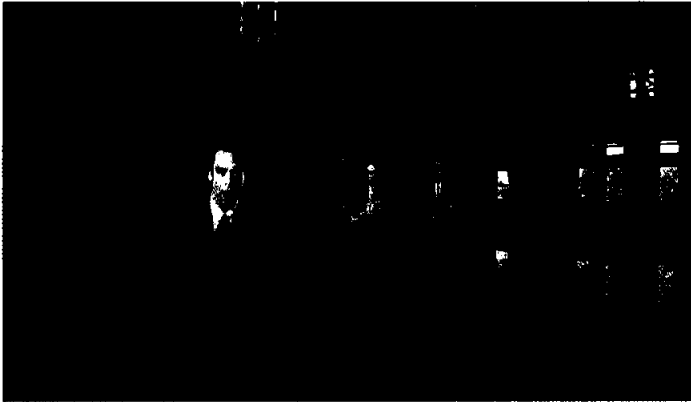
connection between the generations and therefore exaggerate contemporary achievements.

The new generation took its cue less from the achievements of 1980s video artists, whose art was subordinated to the sculpture and painting of their time. In pursuing the development of a specific video-based language, video artists in the 1990s deliberately focused on the expansion of image technologies and social consciousness that took place in the 1960s. We find surprising evidence of parallels, sometimes extending even to the finest detail, not only in style and technique, but in content and motif as well. For the most part, 1990s video art is also shaped by an intense interest in multiple projection and the concomitant new approaches to multi-perspective narration and multiform plots. Numerous representatives of the 1990s video generation, including artists like Jordan Crandall, Julia Scher, Steve McQueen, Jane and Louise Wilson, Douglas Gordon, Stan Douglas, Johan Grimonprez, Pierre Huyghe, Marijke van Warmerdam, Ann-Sofi Sidén, Grazia Toderi and Aeronaut Mike, now work within the context of a deconstruction of the technical "apparatus" outlined here. Many computer artists of the same decade, among them Blast Theory, Jeffrey Shaw, Perry Hoberman and Peter Weibel, have also returned to the tendencies

and technologies of 1960s Expanded Cinema, in the form of interactive computer installations, including *On Justifying the Hypothetical Nature of Art and the Non-Identicality within the Object World* (1991) and *Station of Lascaux* (1995-96). Peter Weibel realized various virtual worlds in which the observer played a total role derived from his closed circuit video installations of the late 1960s/early 1970s. The observer became part of the system he observed, and he changed the immersive image system, and changed the behavior and content of the image by his actions. The British group Blast Theory's *Desert Rain* (1996) consisted of six visitors on a mission in a virtual environment made up of six rooms. The virtual worlds were projected onto a curtain of streaming water. Each visitor had thirty minutes to complete his mission by communicating with the other five virtual environments and their inhabitants. However, 1990s video art has pursued the deconstruction of the cinematic apparatus code in a much more controlled, less subject to chance manner, applying strategies more methodical and more closely oriented to social issues than those of the 1960s. In the video art of the 1990s, experiments with multiple projections were employed primarily in the service of a new approach to narration. Video projections onto unusual objects, were also used to



Stan Douglas
Win, Place or Show
 1998
 two-channel
 video projection
 color,
 four channel soundtrack
 6 min
 video stills
 courtesy Galerie David
 Zwirner, New York
 photo © T. Mills



Stan Douglas
Evening
 1994
 three-channel video installation
 color, sound
 20 min
 installation view: Renaissance
 Society, Chicago, 1995
 courtesy Galerie David Zwirner,
 New York
 photo © T. Mills



top
 Blast Theory
Desert Rain
 1999
 VR environment
 for performance
 installation views: ZKM |
 Center for Art and Media
 Karlsruhe, 1999
 © Blast Theory
 photo © Franz Wamhof

artists ranging from Tony Oursler to Honoré d'O. Projections onto two or more screens are found in the work of artists like Pipilotti Rist, Sam Taylor-Wood (*Third Party*, 1999, seven projections), Burt Barr, Marcel Odenbach, Eija-Liisa Ahtila, Shirin Neshat, Samir, Doug Aitken, Dryden Goodwin, Heike Baranowsky and Monika Oechsler. Split-screen techniques are characteristic features of the art of Karin Westerlund and Namir. Multiple-monitor environments are employed by Ute Friederike Jürss, Mary Lucier and Chantal Akerman (*D'Est*, 2002, twenty-five monitors).

Multiple Monitors and Screens, Multiple Projections and Perspectives, Multi-perspective Narrations and Plots

These multiple projections take advantage of the opportunities multiple perspective offers for a departure from familiar ways of looking at social behavior. On three screens projected in alternation, Monika Oechsler's *High Anxieties* of 1998 shows the construction of feminine identity as it begins in childhood, demonstrating how even girlfriends of the same age control the formation of the individual as agents of society. The changing cinematic perspective calls to mind the familiar cinematic codes of courtroom dramas involving prosecutors, defense attorneys, victims and

defendants. Enhanced by the possibilities offered by triple projection and multiple viewpoint achieved through this formal montage technique, this new perspective intensifies the hidden violence inherent in the socialization of the individual. In a similar way, the triple projection in Eija-Liisa Ahtila's *TODAY/Tanaan* (1996/97) enormously enhances the possibilities for complex linking of image and text elements independent of the narrator's perspective. Only rarely do the texts match the faces and genders. Texts and images do not identify each other; instead they distinguish each other, floating alongside one another and forming moving nodes in a network of multiple relationships which the viewer must create himself. Free-floating chains of signs, be they images or texts, are interwoven to form a universe without a center. Yet its core harbors the catastrophe of a fatal accident that has obviously eradicated all possibility of a coherent, linear narrative. Only disparate fragments of memory are presented in strangely objective fashion by the passive, *knotted subjects* (the title of a book by Elisabeth Bronfen, 1998). The story of the catastrophe no longer follows the linear track of rational thought; instead, the irrational essence of the catastrophe is released (from censorship) by disorderly, centrifugal, multi-perspective narrative trajectories.

bottom
 Sam Taylor-Wood
Third Party
 1999
 installation
 seven 16mm
 film projections,
 transferred to DVD
 installation view
 photo © Jay Jopling,
 London

7. Sina Kaja Silverman, *The Acoustic Mirror: The Female Voice in Psychoanalysis and Cinema*, Indiana Univ. Press, Bloomington, 1988




Marina Gržinić, Aina Šmid
Troubles with Sex, Theory and History
1997
interactive CD-ROM
screenshot
© Marina Gržinić,
Aina Šmid

Only in this way can the catastrophe be experienced as such – through the refusal of image and text elements to merge and fit together. Narrative structures of this kind, which employ the irrational character of dream and the human psyche as plot elements, clearly reveal associations with the early films of Ingmar Bergmann (for example, *Wild Strawberries*, 1957). The interactive CD-ROM *Troubles with Sex, Theory & History* (1997) by Marina Gržinić and Aina Šmid analyzes aleatoric, combinatoric and recombinatoric relations between images and text, based on a selection of works by Gržinić and Šmid between 1992 and 1997.

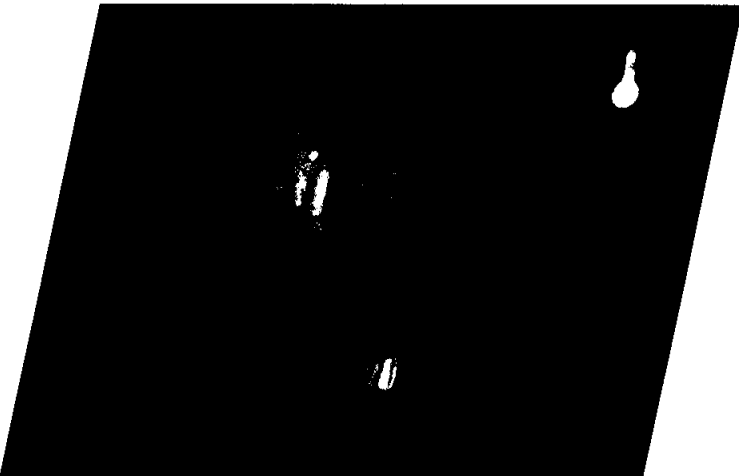
Shirin Neshat presents in *Turbulent* (1998) the binary opposition of man and woman in a patriarchal society on two screens positioned opposite one another. The woman has a voice but neither words nor listeners. She has only sound and her ability to scream. The man possesses the words, the culture of language and an audience which rewards him with frenetic applause at the end. The exclusion of woman from the building of civilization and society can hardly be illustrated more vividly than in this binary juxtaposition of projectors and positions. The device of the synecdoche (used here in the representation of the violence inherent in gender issues and the politics of identity) is typical of many of the best works of video art, which deal in a methodological-analytical manner with the eradicated power mechanisms of the social code, as opposed to the predominantly subjective approaches of the New American Cinema of the 1960s.

Modern society offers the real subject a number of different role models and possibilities for role behavior. On a scale of multiple possibilities defined by the culture industry in media ranging from popular movies to highbrow opera, from slick magazines to

low-ratings TV, the subject can make its choice and position itself, as long as it can take the pressure of the respective social code. This relationship between the subject as a real possibility and the imaginary subject option is expressed as a synecdoche in Sam Taylor-Wood's *Killing Time* (1994). Like several other artists, Taylor-Wood works with "found sound." Interestingly enough, her work confirms the theory of the dominance of musical structure as the determining narrative structure. It is not the visual image but sound that dictates the behavior of the actors. The four persons shown in the quadruple projections listen to *Electra* by Richard Strauss, waiting for cues for their assigned voice parts. Like Shirin Neshat's work, the film sequence is a synecdoche for the range of available (social) roles and the role of the voice in society.⁷ The theater of sound opens a view to the theater of subject positions. In comparison, Pipilotti Rist tends rather toward the structure of semi-prefabricated components in her work. She uses pre-recorded music, which she illustrates with her pictures, or the music illustrates her pictures according to coded schemes of the kind we see on MTV. She remains within the codes of the subject option and the industrial narrative prescribed and accepted by society. We find a differently interesting adaptation of the relationship between sound and image at the narrative level, since remembering is one of the functions of narrative, in *A Capella Portraits* by Ute Friederike Jürss. The videos of Sylvie Blocher, Gillian Wearing, Sam Taylor-Wood combine in a very complex way mise-en-scène, documentary, sounds, images, masks and screens to serve the deconstruction of the world as a multiform script.



George LeGrady
Slippery Traces
1996
interactive CD-ROM
screenshot
courtesy
George LeGrady



Perry Hoberman
*The Sub-Division
of the Electric Light*
1996
CD-ROM
screenshot.
© Perry Hoberman

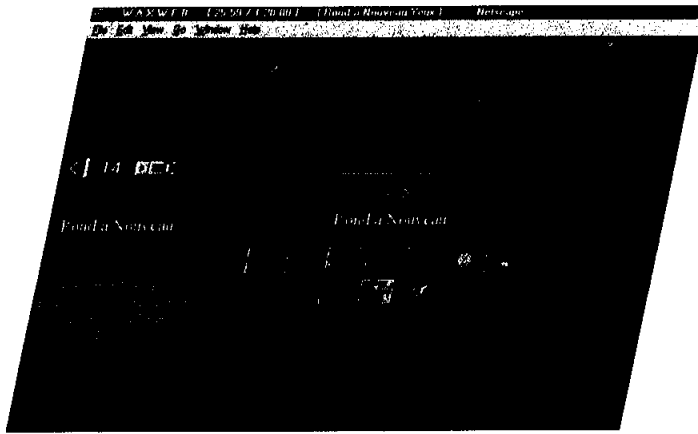
Found Image and Sound, Found Film Experiments

Just as artists of the 1960s made use of "found images" and "found footage" (George Landow and others), contemporary video and film artists like Douglas Gordon, Marcel Odenbach and Martin Arnold employ found material as well. Perry Hoberman uses in his interactive CD-ROM piece *The Sub-Division of the Electric Light* (1996) found slides and 8mm film and old projection instruments. Erkki Huhtamo uses a selection of found vaudeville rides, mostly computer-generated to imitate on a simulation platform a journey on virtual vehicles through the highlights of historic cinematographic rides in his piece *The Ride of Your Life* (1998). George LeGrady in his interactive CD-ROM piece *Slippery Traces* (1996) uses about two hundred post-cards for a non-linear narration built on an algorithm, navigating through a data bank. Martin Arnold deconstructs his found footage to the extreme in order to make hidden semantic structures visible through gradual repetition (*pièce touchée*, 1989; *passage à l'acte*, 1993). Found footage is re-assembled, looped, partially re-filmed and visually estranged in its entirety. The use of found film is part of a general strategy of media reflection and appropriation. When Marcel Odenbach, Gabriele Leidloff, Samir, Isabell Heimerdinger, Andrea Bowers, Burt Barr, Pierre Huyghe and Douglas Gordon allude to familiar films, including such classics as *From here to Eternity* (Fred Zinnemann, 1953) and *The Godfather* (Francis Ford Coppola, 1972) or to popular television images ranging from cheerleaders (Andrea Bowers, *Touch of Glass*, 1998) to scenes from the funeral of Diana, Princess of Wales (Gabriele Leidloff, *Moving Visual Object*, 1997), then what we have are media-oriented observations of a second order, in which visual culture

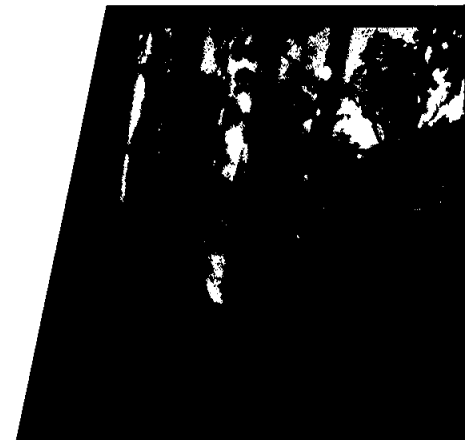
as a whole is exposed as a ready-made object for analysis. Consequently, observation of the world gives way to the observation of communication. The unconscious character of the visual code becomes evident in a kind of symptomatic reading.

In Doug Aitken's installations employing multiple screens, the narrative universe is broken down into individual, autonomous film frames and series of effects of the kind familiar to viewers schooled in video-clip techniques: detailed shots, blurred motion, technical modifications achieved with the camera, digital image processing, short cuts and dilations of time. Narration is not only broken apart spatially through projection onto multiple screens but in chronological terms as well.

Shifts and distortions of conventional parameters of space and time play a significant role in the new narration. As in the 1960s, these experiments with time emphasize the technological time of the cinematic order as opposed to the biological time of life. The focus is on artificial time rather than "rediscovered time," on time constructions as visual symptoms of a completely artificial, constructed reality. In his triple projection *L'Ellipse* of 1998, with Bruno Ganz, Pierre Huyghe illustrates the difference between industrial time (the use of time in the industry film) and personal time (the use of time in Pierre Huyghe's own film). He uses found footage or found film, film as a ready-made work of art, which he deconstructs by subjecting it to chronological manipulation: When Bruno Ganz is off screen in the industry film (*The American Friend* by Wim Wenders, 1977), the projection of his personal film begins and interrupts the projection of the industry film. Huyghe plays with the cinematographic technique of cutting from one scene



David Blair
WAXWEB
(WAX or the Discovery
of Television Among the
Bees,
a hypermedia version)
1994-2000
video, realtime, 3D/html
screenshot
courtesy the artist



to another by deleting the time and space in between which technique is called "elliptical." Douglas Gordon subjects industry films to similar time manipulations. He also works with found films (from Hitchcock's *Psycho* to Ford's *The Searchers*), expanding them to respectively twenty-four hours or five years.

Computer Film

Made with the help of an IBM 1620-21, Marc Adrian's film *random* (1963) was probably the first computer-aided film made by an artist in Europe. The Whitney Brothers opened the field of the digital film (John Whitney, *Permutations*, 1968). In 1971, John Whitney jr. made his first digital film *Terminal Self*, a title that was later recalled in that of Scott Bukatman's book *Terminal Identity* (1993), which simultaneously echoed a line from William Burroughs: "The entire planet is being developed into terminal identity and complete surrender."¹ Michael Whitney made the digital film *Binary Bit Patterns* (1969). John Stehura (*Cybernetic 5-3*, 1965), Lillian Schwartz and Ken Knowlton, Charles Csuri and James Shafter (*Humming Bird*) belong to the early avant-garde of digital film. David Blair's *WAXWEB* (1994-2000) laid a foundation stone for web cinema.

Navigable Rhizomatic Narration

The narrative universe becomes reversible in the field of digitally expanded cinema and no longer reflects the psychology of cause and effect. Repetitions, the suspension of linear time, temporal and spatial asynchrony blast apart classical chronology. Multiple screens function as fields in which scenes are depicted from a multiple perspective, their narrative thread broken. The accusation once leveled at new music – that it had cut the link to the listener, since the listener could no longer reconstruct or recognize the principles of composition – can now be addressed without reservation to the advanced narrative techniques of contemporary video art. They have severed the link to the viewer, who can no longer make out the narrative structure. Linearity and chronology, as clas-

sical parameters of narration, fall victim to a multiple perspective projected onto multiple screens. Asynchronous, non-linear, non-chronological, seemingly illogical, parallel, multiple narrative approaches from multiple perspectives projected onto multiple screens are the goal. These narrative procedures comprising a "multiform plot" have been developed with reference to and oriented toward such rhizomatic communication structures as hypertext, "as sociational indexing" (Vannevar Bush, *As We May Think*, 1945), text based "multi-user dungeons" (MUDs) and other digital techniques of literary narration.² Gilles Deleuze's definition of the rhizome as a network in which every point can be connected with any other point is a precise description of communication in the multi-user environment of the World-Wide Web and the allusive, open-ended image and text systems derived from it. These narrative systems and scripts have a certain algorithmic character. Narration becomes a machine, a plot-machine, an engine. As early as 1928, Vladimir Propp demonstrated in his famous study *Morphology of the Fairy Tale* that the 450 fairy tales he analyzed could be reduced to 25 basic functions and narrative events, or narrative morphemes. These twenty-five morphemes form a kind of algorithm, which generates an endless string of new plots through new combinations. With its audio-visual narrative techniques, contemporary video art breaks down holistic forms into their basic morphological components. These are then reassembled using the multiple methods described above. These new narrative techniques render the complexity of social systems lucid. The crisis of representation, which painting averted during the 1980s by resorting to a restorative repetition of historical figurative and expressive conditions, is being overcome in contemporary video art through the revival of narrative conditions anticipated by the historical avant-garde: of literature, theater and music: from the French OULIPO (Ouvroir de Littérature Potentielle) group to the Vienna Group. The interactive installation *Passage Sets/One Pulls Pivots at the Tip of the Tongue*

¹ William Burroughs, *Nova Express*, Grove Press, New York, 1964.

² See Walter Grond, *Der Erzähler und der Cyberspace*, Haymon, Innsbruck, 1999.