Peter Weibel
Expanded Cinema, Video and Virtual Environments

1970-125

Avant-garde Film

In most histories of cinema the avant-garde film occupies a minor and marginal position. In the interval of the 20th century, avant-garde film was initially seen as a spin-off by-products 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 Léger, Bruno Corra, Kazimir Malevich, Ilya Ehrenburg, Hans Richter, Liubov Popova, Richter Flachinger, Man Ray, Marcel Duchamp, Lissitzky, Lottie Reiniger, Bartholdi Bartosch, Alexander Alexeieff and Claire Parker. These films constituted a body of work that served as the source for the innovative and autonomous post-World War II films dealt with previously or "unofficial" films. 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 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 1970s was very conscious of being a new branch of art, a new medium and form of art as opposed to merely a by-product of the visual arts, even if some major filmmakers (like Andy Warhol, Guy Debord or Yoko Ono) could be linked to Pop Art, the Situationists or Fluxus. This awareness of film as a new art medium led to a complete reconstruction of classical cinema. The apparatus of classical cinema, from the camera to the projection, from the screen to the celluloid, was radically transformed, a posteriori and a posteriori. The history of avant-garde film is a history of interpretations in the range of Athens (see my preface) on the basis of the dispositif (as in the definition of the cinematic phenomenon in the 1970s). It was that it allowed us only the eyeglance inherent to high art movies, just as in the 1970s Montreal Eco looked elsewhere to explain collage and film (and today Slav) Zlata uses Lacan in order to make us understand the video, the experimental theorist used the apparatus theory radically in order to demonstrate that the cinematic apparatus and the inscribed ideology could be transformed by making different forms of different technics to move in the way of avant-garde filmmakers. They therefore missed a vital point, which is that their own cinema is the new cinema. They thought that it was just a small step, which is that they missed the new cinema. It is not just a small step, it is the new cinema. This transformation took place in three phases. In the 1970s, the sound cinema became extended with specific means, with the many of cinema itself. Shortly afterwards, new designs and apparencess (as the visual experience was introduced, the visual style) was extended a secondarily, with the aids of the visual arts (from Bruce Nauman to Bill Viola, from Jean-Paul Desbordes or Andy Warhol). The 1970s was successfully not only the 1970s, but was held in the 1970s by the artists, which is to be an expression of the visual arts. In the 1980s video art became the dominant form of media avant-garde, and concluded major exhibitions like the Kassel documenta and Venice Biennale in the same decade. Film entered the history of avant-garde cinema...

Mental Experiments

The subversive explosion that shattered the cinematic cosmos in the 1970s affected all the technical and material parameters of film. The material character of the film itself was analyzed by artists who, instead of exposing the celluloid, exploded it. (George Landow, film in which there was a Banke-Botched Bodies, Hole, Lettering, Dirt, Parts, etc., 1976/77; Birgit Laken, Iron Film, 1976; Tony Cragg, The Risen, 1985.) At the same time, the apparatus of film changed, from camera to projector, from frame to frame, augmented and used in entirely new ways. There were cameraline films, for which unprojected celluloid, known as "film," was essential to the projection of film. (Stuart Eizen, Bill Viola, and film without film, 1985) and film without film, in which the frame, to name one example, fused with a frame from a projector without film against a paper background experimental film, video and virtual environments, 1985)
screen, cutting out sections of the screen from the middle until there was nothing left at all (from July 18, 1885), in zürichburg special (1988), hans hauger replaced the filmstrip with a frame actually running through the projector to create a shadow line on the screen. in other words, the light beam was replaced with a stretched length of rope (peter weibel, lond-"s, 1978), or became the pure and only material (an-"thony mccall, line describing a circle, 1973). films were projected not on the conventional screen but on a sur-"face of a room with running water (robert whitman, shower, 1964) and on the surfaces of human bodies (in the pruma film, 1960). robert whitman projected a film onto the body of a girl wearing white clothing; the film showed her taking off the same clothes. in another work, "the yakuza exploding plastic inevitable," 1968, the film was projected onto the figure of a woman, as part of an exhibition at the vel"v.el underground. the history of these experimental works is described in peter oliva's book materialist film (london, 1989).

multiple screen experiments

many film artists carried out radical experiments with the screen itself. it was expanded and multiplied, ei-t-ther through division into multiple images using split-screen techniques or by placing screens on different walls. thus multiple projections occupied the foreground of a visual culture that was instant user-interactive from the conventional concept of the painting. from the technical and material restrictions of imaging technology and from the repressive deter-

mentions of the social codes. in much the way that some painters strewed over the canvases (luce 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 video concerts (visually by harry yakob, jordan balent, the whitney brothers, 1997-98), mixed multiple film projections and slides above kathleen anger's installation "boulevards" in which he (1984) on three screens in brussels in 1985. in order to "free film from its flat and frontal projections" and present it as an interaction of total space; milton cohen, the leading figure in the oicne group from ann arbor, michigan, since 1978 have developed an environment ("space theater") for multiple projections with the aid of rotating mirrors and prisms using mobile rectangular and triangular pro-
screeners. in 1969, stan van der beek published a manu-

script in justification of real-time multiple projection environments, a kind of "image flow." in which image projection itself became the subject of the perfor-

mance. in the same year he showed "feedback no. 3." a movie mural, achieving a first breakthrough for multi-

projection cinema. to realize his idea, he estab-
lished a movie omm (in xinyi point, new york, a vau-
untinuous cinema on the geodesic domes of budapest fuller. around 1985, the usc (u.s.) company/brian & dave bair began working on the multi-projection show on the wester- coasts of the usa (we are all one, with four 16mm

projects, two bbm projectors, four carousel projectors, 1995).

john cage, laurie hillier and randal nameth staged "(fehch) a five-hour "intermediate events" with seven hundred slides and one hundred films project ed onto forty-eight windows at the university of toki o in 1986. between 1980 and 1987, robert whit-

man experimented with multiple plastic and paper scrimmages onto which films were projected ("the a-mam," 1983) in tent-happening (1986). films, in-
deed the sequence filtered through a glass pane show-
ing the water's reflection, were projected onto a large ball. beginning in 1982, aido tambalini's electromedia the -halations worked with multiple projections (PEA-1920)," in which to ciba one example, a gigantic black globe of the moon, became the basis for a visual and audio event. hundreds of hand-painted films all the same were used. in 1981 tambalini organized and erected along the banks of the river, an event featuring projections onto helmet-filled, inflatable plastic "eyes" and figures by otto fleming. in 1982, the biennale of venice, the "theater of desire" (for the biennale's last "floating theatre," a gigantic parabola held by nylan threads a portable greenhouse screen for multiple front and rear projections. the bhing wing tur-
dyve bird group (peter mayo, jeff perkins, the star-ting artist miguel borregno and others from los angeles put together light shows for rock concerts in 1971 and 1972, sponsored by the concert sam francis, they subsequently conducted experiments in an aban-
doned berlin mona lisa hotel with constantly changing images from video projections to laser beams. in their theater of light of the late 1980s, jackie cassen and paul turner used self-constructed "sculptural projectors" to project multiple images onto spherical domes, transparent plastic cubes, polyhedral structural elements, 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, in today's version repeatedly re-
designed by dafyf seewann, tsukish atsuyasu, and andrew derick, was first presented in 1989. the most

worthwhile example is andy warhol's "chelsea girls" (1966), a mixture of split-screen techniques and multiple projection in which a number of performers choose their own "feeling" situations and at several different levels at the same time. there were not only static projections from moving vehicles onto building facades (jill knobloch, project:ion x, 1972), onto dancing people, onto fountains and fountains onto the curved inside and outside surfaces of geodesic domes, onto plastic balls, hoops, and on. 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 luca mommaranz's "eisenbahn." (railway) of 1967. the interactive installation "crossing," (1989) by stage music's richard holmes and artists miguel borregn (from los angeles) put together light shows for rock concerts in 1971 and 1972, sponsored by the concert sam francis, they subsequently conducted experiments in an aban-
doned berlin mona lisa hotel with constantly changing images from video projections to laser beams. in
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 Kuepel's Expo Planetarium (1981) is an interesting departure from Michael Snow's outstanding Le Region Carnotée (1971). In the 1970s, the screen became a number of video screens and mobile, as well as flat or curved, or even replaced by unusual materials like water, woods and buildings.

Important experiments with material films, multiple projections and extended 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 Crosswell, David O'Leary (organizing the audio-visual group) and Gillian Widen-ley, Anabel Nicholson, William Reben and Lisa Rhodes. In 1978, Birgit and William Hein showed a two-screen film titled Doublewindow/1 and 2, a very early example of double projection was delivered by the film Ubume machino (The Mechanical Man) of 1921 by André Citroën, a French film clown who had been making his "Creation" films in Italy since 1908 and was admired by the Futurists. In this film, a robot filmed with a camera a funnily 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 1980s by environments with film and by film environments which combined projection and live action. In Molenheim (1997) by Theo Batschug, Jeffrey Shaw and Steven Werrwal, film and light were projected onto a pneumatic sculpture on which people moved. Movenhuis (1985) by Steve Oldenburg showed a film theatre without a film. The situation (real people sitting on chairs) was the cinematic spectacle, a cinematic approach repeated by Jan de Cock in the 1970s. In 1987, an innovative project by Markus Hummer (1989) placed the famous letters HOLLYWOOD on a hill in Austria; the idea was later repeated by Maurizio Cattelan in Palermo in 2001 and partially by Harbouer Lauter in Lyon (2005).

Narrative Experiments: Multiple projections of different films alongside one another, one on top of the other, 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 films and complex cutting techniques, published a manifesto of new narrative forms based upon his cutting technique:

"It proposes a new form of narration as a combination of classical montage technique with a short film system. This system incorporates the use of short film phases that evoke thoughts. Each film phase comprises a selection of 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."

The cutout, the extension of the single screen to multiple screens, from the single projection to multiple projections represented not only an expansion of visual language and an overwhelming intensification of visual experience. It was always engaged in the making of a new approach to narration. For the first time, the subjective responses to the world were not pressed into a constructed, newly objective able of narration but instead formed to the same effect of a film narrative and the fragmentation of the visual experiences. It was always engaged in the making of a new approach to narration. For the first time, the subjective responses to the world were not pressed into a constructed, newly objective able of narration but instead formed to the same effect of a film narrative and the fragmentation of the visual experiences.

Artists also created massive multi-screen environments (for instance, Roman Kroitor's La Piingt with the intention of developing new forms of storytelling. "People as Roman Kroitor asserted, "[they] were bored by the standard plot structures." Francesca Thompson, a pioneer in large-scale, multi-image cinematography, presented his place in a Young on an arrangement for six screens in Montreal. The Czech pavilions led the way with Josef Svoboda's Creation of the World of Man, a huge [DIAEKA] screen on which 10,000 slides could be shown simultaneously on 15 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 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, multi-screen environments broke up the linearity of traditional narration. Multiform objects, a non-linear narrative matrix, became possible. Narrative elements could be repeated, recombined, or replaced by other elements in Zorn's Lambda (1970) by Heimo Premont, 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 (Pomies Lambda). The narration became a multiform matrix, a multi-story machine.
in the film New Wave (New York) of 1975 Zbigniew Rybczynski used a matrix of nine different images on a 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 Neuromancer (1984) and the Japanese brothers' film Matrix (1999), it was already serving as a method for visual narratives (see John Whitney's computer animation Matrix I, 1972, and Simon Mcbride, a video fantasy by Ed Bratmiller, 1994).

Time and Spatial Experiments

In addition to the expansion of the technical repertoire through experimentation with projectors and multiple projections, another method of extending the aesthetic experiment is to extend the visual experience. 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, or reduced to an extreme of only two seconds (Paul Sharits, Wastebits, ten seconds, 1965). Temporal dilations in film and music (Le Monte Young) were favored as primary means of expression not only due to their consciousness-relating 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 experiments (Wavelength 1967, In the Year of the Dragon 1969, La Région Centrale, 1973). In his video Interwoven (1980), a thirty-second movement (a man leaving his office) was extended to seventeen minutes and thirty seconds. In Joe Jonas' Stone (1989), the cigarette smoke streaming from a mouth is extended to six minutes. The composer Takashi Kogai takes thirty minutes to take off his jacket in Animato (1983). Peter Weibel's film actions The Floor and Its door (both 1988) which display an extreme slow-motion must also be among those "slow anthologies" (T. Kogai).

Social and Sexual Experiments

In the social arena too, the contents of these post-pandemic avant-garde and underground films derive from the familiar terrain of the industry film. Images from the intimate sphere, psycho-dramatic documents of an excessive individual were shown publicly in unconfirmed forms. Teambound sex scenes were acted out in front of the camera (Jack Smith, Flaming Creatures, 1963, a 16mm drag film 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 Bitter Movies and homo-erotic self-fetishizing, and Insemination of the Pleasure Dome, 1966). The widening of material and technical parameters went hand-in-hand with the dissolution of social consensus.
connection between the generations and therefore exaggerates contemporary achievements.

The new generation lacks the cues 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 1980s. We find surprising evidence of parallels, sometimes extending even to the finest details, not only in style and technique, but in content and motif as well. For the most part, 1990s video art is more shaped by an intense interest in multiple projection and the concomitant new approaches to multi-perspective narration and multi-form plate. Numerous representatives of the 1990s video generation, including artists like Jondra Casper, Julia Bober, Steve McGuire, Jane and Louise Wilson, Douglas Gordon, John Down, and Jean-Baptiste, Pierre Hugie, Marjorie van Wijmst, Ann-Soof Boon, Grazia Lonchedo and Arnoit Avela, all work within the context of a deconstruction of the technical apparatus outlined here. Many contemporary artists of the same decade, among them Blair Thorns, Jeffrey Shaw, Perry Honesman, and Peter Webel, have also returned to the tendencies and technologies of 1990s Expanded Cinema. In a series of intersecting digital installations, artists like Tony Cunliffe and Florentine Berzak, Ken Taylor-Wood (Three Party, 1999, seven projections), Curt Beise, Marcella Gimbert, Elise-Lise Alberta, Bharsh Tassak, Sami, Bobi, Peter Weibel, and others have created virtual interactive environments that play roles and achieve the observed part of the system. The observer becomes part of the system he observes, understanding the immersive image system, and as the observer becomes more part of the image by his actions, the British group Blues Therapy's (Three Party, 1999, eight, six injections or immersion in a virtual environment) manipulate virtual worlds that are projected onto a curtain of fluid/moving water. Each viewer has thirty minutes to discover his own conclusions about the content of the virtual environments and their inhabitants. However, 1990s video artists pursued the deconstruction of the cinematic code in a much more controlled, less subjective manner, applying strategies more rigorously and more closely oriented to social issues than those of the 1980s. In the video art of the 1980s, experiments with multiple projections were expressed primarily in the service of a new approach to narration. Video and slide projections onto unusual objects were used by artists ranging from Tony Cunliffe to Kenan Ad, in conjunction with multiple viewpoints achieved through the formal montage techniques.

Defenders. Enhanced by the possibilities offered by multiple projection and multiple viewpoints achieved through the formal montage techniques, this new perspective further amplifies the hidden violence inherent in the socialization of the individual. In a similar way, this triple projection in Elise-Lise Alberta's (Three Party, 1999) rigorously enhances the possibilities for complex linking of image and text elements independent of the narrative perspective. Only rarely do the texts match the frames and images, texts and images do not identify each other; instead they distinguish each other. Floating alongside one another and forming 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, this core harbors the catastrophe of a fatal accident that has obviously eradicated all possibility of coherence, linear narrative. Only discrete fragments of memory are presented in strongly objective fashion by the passive, instead of subjects (the title of a book by Elisabeth Bronfen, 1995). The story of the catastrophe no longer follows the linear tracks of rational thought; instead, the irrational essence of the catastrophe is released from censure by disorderly, contradictory, multi-perspective narrative trajectories.
Only in a TV 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 Bergman (for example, Wild Strawberries, 1957). The Interactive CD-ROM Troubles with Sex, Theory & History (1997) by Marina Sirtis and Anja Smid analyzes elastic, combinatorial and recombinatorial relations between images and text, based on a selection of works by Smid and Sirtis between 1990 and 1997.

Shinn Hasekura presents in Turbovent (1996) 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 screen. The man possesses the words, the culture of language and audience which rewards him with pretend 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 projector and projection. The device of the synecdoche [used here in the representation of the visual 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 eroded power mechanisms of the social code, as opposed to the predominantly subjective approaches of the New American Cinema of the 1960s.

Modem 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-rating TV, the subject can make its choice and position itself as long as it can take the price of the respective social code. The 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 (1984). Like several other artists, Taylor-Wood works with "sound sounds" interwoven throughout her work. This technique is the overwhelming false sense of the dominant music structure as the dominating narrative structure. It is not the visual image but sound that dictates the behavior of the subjects. The four persons shown in the quadruple projections listen to the voice of the director, waiting for cues for their assigned voice parts. Like Hasekura's work, the film sequence is a synecdoche for the range of available (social) roles and the role of the voice in society. The theater of sound is a screen to the theater of subject positions. In comparison, a film director tends rather towards a kind of semantically structured component in her work. She uses pre-recorded music, which she illustrates with her pictures, or she makes 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 in the narrative level, since remembering is one of the functions of narrative, in a Capella Portraits bylite Fredriksson Jones. The videos of Sylvia Stocker, Gillian Wearing, Sam Taylor-Wood combine in a very complex way map-on-scene, documentary, sounds, images, masks and screens to serve the destruction of the world as a multifilm script.

Found Image and Sound, Found Film: Experiments Just as art is the stuff of the 1980s 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 film and old projection instruments. Erkki Huhtamo uses a selection of found vaudeville slides, mostly computer-generated, to create a multi-screen show. "On a journey of virtual vehicles through the highlights of historic cinematographic rides in his piece The Role of Your Life (1998), George Lafrance in his interactive CD-ROM piece Biloxi Blues (1996) uses about two hundred postcards for a non-linear narration built on an algorithm navigating through a data bank. Martin Arthur reconstructs his found footage to the extents in order to make hidden semantic structures visible through gradual repetition (jake douthit, 1989). Le passeur à l'aide (1993), Found footage is reselected, looped, partially re-shot, and visually extended in its entirety. The use of found film is part of Cohen's strategy of media reflection and appropriation. When Marcel Odenbach, Gabriele Lattaroff, Sami, Isabel Heimerdinger, Andrei Bowers, Burt Barr, Perry Hoberman and Douglas Gordon return to familiar film, including such classics as From Here to Eternity (1953) and The Godfather (Francis Ford Coppola, 1972) or popular television images ranging from cartoon series (Andrei Bowers, Touch of I, 1990) to scenes from the funeral of Diana, Princess of Wales (Gabriele Lattaroff, Young Visual Object, 1997), then what we have are media-oriented re-interpretations of a second order, in which visual culture as a whole is exposed as a ready-made object for analysis. Consequently, the openness of the world gives way to the omnipresence of computer vision. The unobtrusive juxtaposition of the visual and narrative layers 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 from 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 stylistically through projection onto multiple screens but in chronology as well. Shifts and distortions of conventional parameters of space and time play a significant role in the new narrative. 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 "real" time, or on juxtaposition as visual symptoms of a complete artificial, constructed reality in his triptych projection The Life of the 1980s, with Bruno Bentz, Pierre Huhtamo illustrates the difference between industrial time (the use of time in the industry film) and personal time (the use of time in Pierre Huhtamo's own film). It follows postcard or found film as a ready-made work of art, which he deconstructs by subjecting it to chronological manipulation. When Bruno Bentz is a foreign screen in the industry film (The American Friend by Wim Wenders, 1977), the projection of his personal film begins and interpersonal time projection of the industry film. Huhtamo plays with the cinematographic techniques of cutting from scene to scene.
to another by delaying the time and space in between which technique is called "elapose." Douglas Gordon subjects industry films to similar time manipulations. He also works with found films (from Hitchcock's Rear to Ford's The Searchers), expanding them to respectively twenty-four hours or five years.

Computer Film
Made with the help of an IBM (1962-63), Marc Advances
film (1963) was probably the first computer-aided film made by an American in Europe. The Whitney Brothers opened the field of the digital film (John Whitney, Permutations, 1956). In 1971, John Whitney Jr. made his first digital film Terminal Self, a title that was later recalled in that of Strict Beakman's book Terminal Identity (1983), which simultaneously echoed a line from William Burroughs: "The entire planet is being developed into terminal identity and complete surrender" (Michael Whitney made the digital film Binary Be Patterns, 1965). John Stothur (Cybernetics 5-2, 1965), Uliel Schwartz and Ken Storlton, Charlie Court and James Shinner (Running Bird) belong to the early avant-garde of digital film. David Bills WAXWAX (1984-2002) led 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. Reactions, the suspension of linear time, temporal and spatial divisibility, is a world apart,旗帜 chronology. Multiple screens function as fields in which scenes are depicted from a multi-perspective, their narrative threads are woven in a web. The convinces once located at a digital screen—what is read off the list to the viewer, what is read off the screen, the way it is read off the screen, the way it is read off the list, and the way it is read off the screen, the way it is read off the list, and the way it is read off the screen. 

The revised narrative in computer film is a set of ideas and a foundation stone for web cinema.