At the beginning of the 21st century, video is a familiar medium. Video is a phenomenon well-known to everyone, including the comfortable hand-held camera and video cassette recorder in one’s own household, surveillance systems in buildings and public places, commercially available videotape, and animated images projected in museums. Therefore the standard of knowledge about the technology behind video, about the flow of images produced with it, and about its associated culture remains rather rudimentary – particularly with regard to the field of Video art.

When video established itself in the art context at the end of the 1960s, cinema had meant that viewers’ perceptions had already become accustomed to moving pictures for more than half a century. Public and private television stations had been making their programmes available to audiences throughout Europe and the USA since the 1940s and 1950s. Moving pictures and their electronic transfer were therefore a well-tried media construct.

However, video differs from its two closest relatives, film and television, in one essential point: it directly translates the audio-visual material into analogue or digital code. Thereby, recording and storage take place synchronously. Video is a means of preservation that retains the recorded material in a state of permanent availability and manipulability. In contrast, traditional film is a sequence of individual images visible on the celluloid to the naked eye, and only the mechanical movement of the length of film during projection produces the movement. On magnetic tape, laser disc, or some other storage media that may be used for video, neither the pictures nor the bits of encoded information that make up the images are recognizable. Unlike film, video dissociates itself in a further technical step from directly illustrating reality.

Technological innovations permanently change the hardware. While both a hand-held camera and a magnetic tape recorder were initially necessary, today videos can be produced and edited entirely on a computer. The digital flow of data from our media society provides an inexhaustible pool of material, which is available for use and further manipulation. Now also equally uncertain is the video’s final appearance – the form in which it will present itself: the possibilities extend from the gigantic screens in New York’s traffic-clogged Times Square, to the types of monitors commonly available in stores, all the way to the miniature screens of mobile telephones. Video is like a chimera that can assume many appearances.

Artists who work with video confirm the medium’s changeable nature. Thus Nam June Paik, one of the “electronic” pioneers, understood video as a model of life. In 1980 Bill Viola recorded in his notes: “No beginning/No end/No direction/No duration – Video as mind.” In another interview, three artists of the younger generation gave responses to the question, “So what characterizes video as a medium for you?” Anri Sala: “Time code.” Ann-Sofi Sidén: “Simple ideas presenting themselves in an instant, but followed by an intense or expansive period of production, and in the end resulting in long hours in

1965 — Sony releases the first portable video recorder, Portapak

1965 — Andy Warhol is presented with a Norelco slant-track video-recorder and shows the first artistic videotapes at a party in New York on September 29
"we live in a reality with structures defined by the inventions of the mass media – printed and electronic images are the building blocks of our cultural evolution."

Aldo Tambellini

front of the computer watching, editing, reviewing." Mark Leckey: "4, 3, 2, 1, blast-off! 4 for the moments of love, 3 for the stages of life, 2 for black and white, 1 for monochrome and color, cinema and video, TV and life, Hitler and [Simone] Weil, Spielberg and Godard."

Even in the first half of the 20th century, artists had become preoccupied with electrical transmission devices. Thus in the 1930s the littérature and founder of Italian futurism Filippo Tommaso Marinetti recognized radio as an organ that could bridge great distances and reach a mass audience. Moreover, he saw the combination of theatre and television screens as a practicable model for the future. To the same degree that Marinetti enthusiastically welcomed the new media, the German man of letters Bertolt Brecht was critical of it. In the same era, and considering also the example of radio, Brecht pointed out the risk of enforced conformity and indoctrination. This kindled a discussion of the media at an artistic level, which has continued in philosophical and sociological circles to this day. Thereby video is debated in the context of various disciplines such as media theory, art history, or philosophy. Moreover, since the 1990s the image sciences have been examining the increasing significance of images in society, culture, and communication – one speaks of the iconic and pictorial turn.

Since the 1970s the communications scientist Vilém Flusser has dealt dedicatedly with the phenomenon of video in a few short texts, finally defining it in 1991 as a “dialogical memory”. Only a year earlier, based upon the video installation Disturbances (among the jars) by the artist Gary Hill, the French philosopher Jacques Derrida championed the viewpoint that Video art must first be considered in relation to conventional artistic languages. Again and again theoretical considerations such as this and others converge on the incomprehensibly “reflexive” (as Yvonne Spielmann calls it in her 2005 publication) character of the medium of video and underline its position as a hybrid inter-medium.

The 1960s

In the second half of the 1960s Video art came of age among artists who, under the banner of intermediality, broke with conventional genre notions. With his drippings at the end of the 1940s Jackson Pollock had introduced a performative approach to painting. At the same time, the composer John Cage integrated chance and tape-recorded non-instrumental sounds and noises into his scores. In 1959 Allan Kaprow invited the public to his 18 Happenings in 6 Parts at the Reuben Gallery in New York. Generally seen as the founding event of the Fluxus movement, the Fluxus Festspiele Neuester Musik (Fluxus Festival of Newest Music) took place in Wiesbaden in 1962, with the participation of artists such as Dick Higgins, George Maciunas, Nam June Paik, and Wolf Vostell.

1965 — Nam June Paik buys one of the first obtainable Portapaks in the USA, and soon afterwards shows the tape “Electronic Video Recorder” in the New York Cafe Au Go Go.
The interdisciplinary crossover between the plastic arts, literature, music, dance, and theatre, as well as a lively international exchange of ideas, created a broadly based cultural climate in which new technologies were used experimentally, and their suitability for artistic expression tested. Video's development was now marked by a fascination with the expanding field of television, the electrotechnical affililation to which fostered the new medium's beginnings.

In March 1963 the trained composer Nam June Paik installed his "Exposition of Music – Electronic Television" in the architect Rudolf Jähring's Galerie Parnass in Wuppertal. Paik combined twelve prepared television sets with four pianos, record players, tape recorders, mechanical sound objects, and the head of a freshly slaughtered ox that hung over the entrance to the space and, as a cleansing initiation zone, had to be passed by visitors. The exhibition ran for only 14 days with moderate success. Since German channels, unlike American television, only broadcast in the evening, the gallery's opening hours were shifted to evenings.

Paik used technical interventions to modify the transmitted electronic images. One of the television sets displayed a vertical line: Zen TV.

At the same time as this, in the years 1962 to 1964, artists such as Tom Wesselmann, Günter Uecker, Isidore Isou, and Karl Gerstner discovered the television set as artistic material. While Paik exploited in a structural sense the possibilities of electronic data transfer and its appearance as an apparatus, Wolf Vostell's so-called television decollages represented an obviously critical position towards the nascent television hegemony. In a show entitled "Wolf Vostell & Television Decollage & Decollage Posters & Comestible Decollage" running from May to June 1963 in New York's Smolin Gallery, he exhibited, among other works, six television sets showing different programmes. The picture was decollaged, meaning that it was created through an aggressive act: in this case through image interference. Vostell had coined the term "decollage" in the 1950s to contrast with collage, a process built up layer by layer. In this phase, following Raymond Hains and Mimmo Rotella, he worked with torn posters (which in art history are also known as decollages). In the Smolin Gallery Vostell transferred the principle of decollage to electronic television sets, which he additionally combined with canvases, objects, and food, including grilled chicken.

At the end of the 1960s, in the context of the general mood of social renewal, artists took an instrumental, idealistic approach as a means of extending this modulating, material use of television. They now went "on air" and attempted to agitate artistically within television's own economic structures. They wanted to reach a mass audience of consumers, and thereby to connect art and life on a media

1966 — The first video game is developed by engineers from the company Sanders Associates in New Hampshire.

1967 — Aldo Tambellini opens the Black Gate, the first "electro-media theatre", in New York, where he arranges performances.
Opening of the first TV exhibition
"Land Art" in Studio C, Sender Freies Berlin (SFB), 28 March 1969; left: Jean Leering, right: Gerry Schum

level. In 1967 the public station WHGB-TV in Boston set up an “Artist-in-Television” programme, of which an outstanding result was the broadcast, two years later, of *The Medium is the Medium*: Allan Kaprow, Nam June Paik, Otto Piene, and Aldo Tambellini, among others, produced a mixture of video, dance, theatre, and television, and transmitted their work into domestic living rooms.

In 1969, in Germany the public service broadcaster Sender Freies Berlin (SFB) included in its programming the Fernsehgalerie (television gallery) founded in Düsseldorf by Gerry Schum. Schum worked closely with Richard Long, Dennis Oppenheim, Robert Smithson, and Walter de Maria, among others, and without any commentary he broadcast the 38-minute tape *Land Art*, created within this cooperation. Moreover, at the beginning of the 1970s in the USA, an underground video movement arose around the magazine “Radical Software”. This movement was called *Guerrilla Television*, and its programming was directed against mainstream television. Doug Hall with his *TV Interruptions* (1971) and Chris Burden with *Promo* (1976) then joined the list of artists who worked with television at an instrumental level.

It was not only during the early years, however, that video and television enjoyed a productive exchange. The dialogue, be it critical and agitational or appropriating and experimental, continues to this day. Television itself had meanwhile developed into a hybrid construct, in which one could only with difficulty distinguish between information and entertainment, documentary and fiction. A young generation of artists well-experienced with television commented upon this infotainment, or exposed with irony the workings of global television’s range of programming.

In Pipilotti Rist’s 1994 video installation *Das Zimmer (The Room)* the user shrank among colossally enlarged living-room furniture to a naive and childlike body size. Thus the abnormal proportions reduced seated viewers, gazing at a normal-sized monitor, to the image of naive consumers. While the television set has here been updated to become an art object, in *Fishtank* (1998) Richard Billingham adopted the format of Reality TV. The British artist recorded his family’s daily lives on video for three years. The artist himself, his alcoholic father, corpulent mother, and unemployed brother formed an apparently hopeless community, living together in the closest of quarters. *Fishtank* was broadcast on television by BBC2 on December 13th, 1998. The audience was embarrassedly touched and voyeuristically attracted.

The German artist Christian Jankowski went a step further with his work *Telemistica*, presented at the 1999 Venice Biennal, by intervening in the events of live fortune-telling shows broadcast on Italian television. He called the soothsayers during their programmes and questioned them in broken Italian about his success at the Venice exhibition. The programme filmed from the screen was the video piece, which in the art context reflected the television show’s structure and function, but simultaneously took it to the point of absurdity.

and “environment actions” with video

the Los Angeles County Museum of Art shows a video installation by Bruce Nauman

1967 — The exhibition “American Sculptures of the Sixties” in
technology and image

Video depends upon the current state of technological development more than almost any other artistic medium. The greatest change since the emergence of Video art has been the step from analogue to digital image production—a technical development that the art viewer, however, can only comprehend with difficulty.

At the beginning of video history the relationship between technology and image was clearly defined. The camera transformed visual information—the light coming through the lens—into electrical signals. Through cables, 25 pictures per second were sent directly to a monitor, or for storage on magnetic tape. The standard for the American NTSC (National Television Systems Committee) was 30 pictures.

For storage in a recorder, the magnetic head changed electrical signals supplied by the camera into a magnetic field, which in turn magnetized the video's ribbon of film. When playing the tape this pathway was reversed. The screen finally translated the coded information into pulses of light. Every video image in the PAL (Phase Alternating Line) system is thereby made up of 576 lines, built up line by line from two half-images consisting of 288 lines each. In the American system this is 540 lines, with 270 lines per half-image.

In 1967 Sony put the first analogue video device on the market. The camera and sound recorder formed a portable unit, but consisted of two separate devices. In 1971 the functions of the apparatus were expanded to include playback, rewind, and fast forward, and in 1983 the so-called camcorder came onto the market, combining a camera and sound recorder in one device. The storage medium developed correspondingly from the ribbon tape to the U-matic cassette, then to Betamax and VHS, which is certainly still common today, and to the Video 8 cassette.

Nam June Paik, Les Levine, and the Pop art protagonist Andy Warhol were among the artists who worked with the portable video equipment immediately after it appeared. In New York's Café Au Go Go in 1965 Paik presented his first tape showing images of the pope's visit at that time, which he later recorded over. Succinctly and somewhat questionably from today's point of view, Paik proclaimed: "As collage technique replaced oil paint, the cathode-ray tube will replace the canvas." In the same year Warhol presented his work *Outer and Inner Space* (1965), taken with a cinematographic camera and displayed from two rolls as a split-screen projection. One of the four images shows a film sequence of the "Factory Girl" Edie Sedgwick, and a second shows Sedgwick watching this film on a monitor. Corresponding commentary from Sedgwick about herself can be heard. Warhol used *Outer and Inner Space* to reflect upon conditions of production, and allowed the images to enter into dialogue with one another.

At the end of the 1960s the new medium gained broad acceptance in the art world, although video equipment became available on

1968 — Jean-Luc Godard and Chris Marker use the first Sony CV-2100 1⁄2-inch black-and-white recorder, to make raw documentary films
1969 — The Catalanian artists Joan and Oriol Durán Benet are the first ones to experiment with closed-circuit video (Daedalus Video)
the free market in Europe slightly later. While analogue video technology allowed real-time playback that could be edited after recording in terms of shot sequence, montage, and so on, it also made the production of synthetic image material possible. Even as electronic signals are input into the device, additional impulses can stretch, compress, or convert the image’s linear structure into another form. As early as 1963 in his exhibition “Exposition of Music”, Paik used magnets to distort the television image.

Since 1969/70, Paik (together with the technician Shuya Abe), Ed Emshwiller, Steina and Woody Vasulka, and also Eric Siegel have developed synthesizers that allow this type of direct image manipulation. Siegel designed a video synthesizer that kaleidoscopically expanded the electronic vocabulary. The Vasulkas used technical equipment to experiment with the 268-line half-image of the cathode-ray tube screen. In synthetic image production the picture on the monitor appears as a surface of variable energy, generally exhibiting a clear tendency towards abstraction. The electronic medium takes itself as its theme here, and the processes of image production normally hidden in the equipment become perceivable.

Even in the 1970s some artists began to use a digital approach to electronic image editing, and by the end of the 1990s the recording of audio-visual material on magnetic tapes was largely replaced by numerical storage in data sets. Now image production finally broke away completely from everyday reality and entered the field of simulation.

In 1997 Sony, followed by Canon, introduced the digital camera onto the American market. The device translated the recorded images into a binary code – a code based on only two numbers. The data sets were stored on laser disc, CD-ROM, DV cassettes, or DVD. Due to the numerical code upon which it is based, any kind of digitally recorded material can potentially serve as a usable source of material for further processing. The “copy and paste” function allows individual segments to be excerpted from an image and recombined; the technique of morphing allows a smooth transition from image to image; and so-called digital compositing makes it possible to seamlessly combine several elements into one picture. Video recording was now significantly expanded by using graphics programmes to produce computer-generated images.

Since the 1990s the video image has appeared in the art context primarily as a (wall) projection. For this purpose a DVD player generally sends the stored information to a beamer (video projector). Thereby the digital video image, made up of extremely small, continuously changing dots, is transmitted to the projector. These dots can be seen far more clearly in digital images than in analogue ones, as innumerable little pixels.

The technical process, whether analogue or digital, attests to the fact that the video picture is a procedural, non-discrete image type; the image is permanently in the process of forming or dissipating and doesn’t show the film-reel’s static single image. By the begin-

1969 — The exhibition “TV as a Creative Medium” is shown at the Howard Wise Gallery in New York
ning of the 21st century the computed, digital video image had largely replaced the analogue image, which was displayed in lines.

The 1970s

Amongst anti-war protests, the student movement, feminism, and the liberation movement of black America, Video art's initial phase had occurred in a period of social and political renewal, the impetus of which — critical, experimental, and simultaneously utopian — extended well into the 1970s. Artists expressing themselves in the most varied of artistic languages used the new technology under individual assumptions. Video remained an interdisciplinary medium that primarily appeared in the fine art context (Conceptual art, Body art, Land art, and Action art), and which also entered into a dialogue with the growing mass media (television, film, and radio). The conceptual development of models of time and space, as well as the human body as material, were major thematic emphases. As a technical system and producer of media images, video took a constitutive role here. Video feedback technology — described in the art context as a closed-circuit installation — became an important system by which artists reflected both upon themselves and the viewer's position, and also that of the electronic media. The live pictures transmitted by direct video feedback demonstrate their own structural system and counteract the illusionism of film and television. Stored recordings, on the other hand, are generally played as single-channel tapes on monitors, which create their own presence in the space.

The media images of the 1970s demonstrate an aesthetic quality that was conditioned by the technical possibilities of that time. The tapes display streaky, coarse-grained, and occasionally flickering images. Black-and-white pictures are overlaid by a grey veil, and the colour videos just beginning to appear exhibit an unnatural coloration. In the 1970s this blurriness went hand in hand with the immediacy the artists strove for; from today's viewpoint, if one thinks of unfocused photos in photo-journalism, or of the greenish night photos showing military action, the blurry look is occasionally intentionally produced to give the visual reports an air of authenticity. On older tapes it is the immature technology that produces these effects. In early video works the hand-held or static cameras, as well as roughly edited sequences, also greatly multiplied the overall impression of authenticity. Not until the second half of the decade did the montage become more refined, and technical effects such as fades and image-mixing became more common.

The first Video artists to use the new medium for artistic production without coming from another discipline now appeared to drive this electronic artistic language forward. Public forums for Video art arose even at this early stage, although they were few and far between. The 1969 "Television as a Creative Medium" in New York's

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8.
Dimitri Devyatkin, Woody Vasulka, Rhys Chatham and Steina Vasulka in The Kitchen, New York, about 1971

9. NAM JUNE PAIK
Exposition of Music – Electronic Television
1963, installation in Galerie Parnass, Wuppertal

10. PETER CAMPUS
Interface
1972, closed-circuit installation, black-and-white camera, black-and-white video projector, spotlight, glass plate
Installation in Kölnischer Kunstverein, Cologne

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1970 — Stephen Beck builds the first direct-video-synthesizer
1971 — Gerry Schum opens his video gallery in Düsseldorf, two years after founding a TV-gallery in Berlin
excerpt of socio-cultural structures and human behaviour, but also demonstrated the media categories of surveillance and the voyeuristic gaze, which were a significant aspect of the concept.

The two further poles which are performatively debated in videos dealing with the physical body are its behaviours when in pain, in danger, or when experiencing desire, and the depersonalized body experience in which the human body mutates into an apparatus. With **SHOOT**, Chris Burden carried out what was probably the most spectacular performance of the 1970s. On November 19th, 1971, a friend fired a 22 calibre weapon at the artist from a distance of four metres. The shot, which was only supposed to graze Burden, punctured his upper arm. The performance took aim at imagined fears: fear of pain, of being helpless, and of death, which had previously, in 1963, found its media counterpart in the — accidentally filmed — fatal shooting of American President John F. Kennedy.

In the context of the times, the Vienna actionists including Otto Muehl, Günter Brus, the writer-director Kurt Kren, as well as the artists Gina Pane, Marina Abramovic and Ulay, Smith/Stewart, Douglas Gordon, and others, explored these types of physical experiments that overstepped the barriers of pain. When, in the year 2000, Francis Alÿs carried a pistol with him on his videotaped walks through Mexico City (**Re-enactments**) and was arrested by police, not only was the real danger for the artist palpable in this situation, but the history of Media Action art was also present.

Which regards to the moment the shot was fired, Burden said that, at that instant, he had been a sculpture. With this statement he negated his emotions and approached the depersonalized conception of the body that artists such as Bruce Nauman, Dennis Oppenheim, John Baldessari, and Jochen Gerz explored more fully in the 1970s. In his early video works Nauman executed a predetermined series of movements in front of a static camera, mechanizing the body and allowing the subject and its idiosyncrasies to recede. Thus man is reduced to a biological organism. Only when the artist reaches his physical limits does his personality reappear and random occurrences creep back into the concept. Thereby the camera defines the framework of movement, and the space and excerpt shown of the field of action. Nauman occasionally emphasized the conceptuality of the action by placing the video camera sideways or upside down, thereby attaining a higher degree of abstraction in the image through the defamiliarization this achieved.

During the 1980s some artists, above all Paul McCarthy, turned away from this reduced form of body-related Action art and presented performative actions in their videos, which were somewhat reminiscent of the production formats and sets from the fields of film and television. Nonetheless, the body remains a preferred topic for artists to this day. Thus in his performances during the 1990s Santiago Sierra derived socially critical subject matter directly from the marked human body; other artists transported viewers by means of data gloves and

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**1972 — Sony launches the first portable colour video recorder and introduces a standard system for video cassettes**

**1973 — Flor Bex opens a video department at the Internationaal Cultureel**
data helmets into cyberspace, and made possible a purely virtual experience of the body and of space.

**the image of woman**

With a spin of the body and an energetic flash of light, a normal woman transforms into a superwoman endowed with miraculous abilities in *Technology/Transformation: Wonder Woman* (1978). For her 7-minute tape Dara Birnbaum drew upon a television figure: Wonder Woman, a female counterpart to superheroes such as Batman, Superman, and Spiderman. The artist strung together sequences of her magical transformation, thereby raising debate about the image of women in society and in the media. Together with VALIE EXPORT, Lynn Hershman, Nancy Holt, Ulrike Rosenbach, Martha Rosler, Rosemarie Trockel, and Friederike Pezold, Dara Birnbaum belongs to the first generation of artists to use the medium of video to question the position of women in a patriarchally oriented media society. Such artists use the female body as a means of pointing out entrenched role models and patterns of behaviour.

With Roberta Breitmore, Lynn Hershman created a completely artificial figure whom viewers could variably redesign by means of interactive commands. In symbolically loaded performances Ulrike Rosenbach, who founded the working group "Schule für Kreativen Feminismus" (School of Creative Feminism) in Cologne in 1976, transformed her body into a projection surface both in the fanciful as well as in the actual sense. In *Reflections on the Birth of Venus* (1976) Rosenbach stands within a projection of the Botticelli painting, so that its culturally clichéd images of an outdated ideal of beauty standing in for the female body are inscribed upon her.

The definition of "femininity" became increasingly more varied and complex in the years that followed. Artists began treating this thematic area in an unpretentious way, and "masculine" and "feminine" approaches became strategies that were no longer mutually exclusive. In the 1980s the pop icon Madonna was an exemplary embodiment of the new rising "female matter-of-factness", proposing a playful manner of dealing with increasingly faded role models.

Artists such as Pipilotti Rist, Andrea Frazer, Mona Hatoum, Sam Taylor-Wood, and Vanessa Beecroft now seamlessly combined conceptual, documentary, and performative approaches. Fiction and reality, parody and authenticity, permeated each other and avoided the dogmatic and emancipatory character of the topic's early years.

**entering intermedial space**

The human body played a central role in the "departure from the picture", and experienced another upward valuation when art re-
entered the third dimension in the 1950s. The traversable pieces of installation art now demanded recipients who actively entered into the cognitive process, emotionally as well as physically; without such partners the artistic work remained inactive. Video installations took on a special status within such extensive artistic trends, since here spatial and temporal components corresponded with each other on various levels. Walking through a video installation placed viewers in a situation in which they saw their own individuality confronted with an electronic, moving image. Several spheres met here: the private sphere of the recipient, the artistic sphere, and the sphere – associated with film and television – of media. Voyeuristic and exhibitionist experiences were just as likely to occur as feelings of discomfort and mental self-dissolution.

Around 1970 Bruce Nauman and Dan Graham, among others, set new standards with their video-based room installations. Like many of their colleagues they used a live video feedback system, showing images recorded by the camera on a monitor at the same time as they were taken. In Nauman’s Live/Taped Video Corridor (1970) two monitors stacked on each other were placed at the end of a narrow corridor built of wooden panels. On one screen the artist showed a tape, produced earlier, with a view of an empty room; the other screen showed a live image of the visitor in the corridor. The closer viewers came to the apparatus, however, the smaller they appeared on the monitor. The camera, taking the shot was located across from the playback device, above the entrance to the corridor. It confusingly reflected the viewer’s progress through the passage in reverse, and visually multiplied the feeling of physical distress already caused by the confining space. The viewer’s sense of orientation and mental security were equally challenged by this video installation.

Beginning in 1974, Dan Graham used live video feedback like a series of experiments. Thereby he was less interested in creating unsettling physical experiences, and instead aimed at producing duplicate images of people that would allow them to experience their own presence. In one or even several rooms, strolling art consumers saw themselves incessantly confronted with their electronic counterparts or after-images. For, although the camera transmitted a live image of the person, a technical slight-of-hand caused it to appear on the monitor after a short delay. Several screens installed in the wall in such a way as to seem to be pictures, as well as further mirrored walls, split viewers into numerous pictorial appearances.

With live video feedback it is also possible, however, to either obviously or surreptitiously monitor and supervise people and areas. Video art has profited not least from state-of-the-art surveillance technology. Artists such as Chantal Akerman, Haroun Farocki, Paul Pfeiffer, Julia Scher, Ann-Sofi Sidén, and Peter Weibel act out strategies of power and control. The self-awareness aimed for here is generally a feeling of being at the mercy of something beyond one’s control, and the criticism levelled at television as early as the 1960s as
being a mass media and status symbol remains true in the era of reality TV and Webcams.

In the 1990s an increasingly open form of presentation for video installation developed. The electronic image then took up a roving existence between monitor and projection. Mona Hatoum, for example, placed a video image on a plate that was part of a table setting, and Tony Oursler created anthropomorphic doll-creatures by combining projected images with diverse materials. Both artists touch upon the realm of sculpture. Aernout Mik, on the other hand, designed architectural structures that formed an inseparable spatial unit with his projection surfaces.

Pipilotti Rist and Diana Thater are two artists who play with mentally annexing the viewer in their video installations. With their monumental projections which, from various perspectives, overlay the real architecture and create their own illusionistic space, they approach the strategies of feature films: that is, conventional narrative films aim at suspending cinema visitors' belief and getting them to identify with the plot. In Delphine (1999) Thater transforms the exhibition space into a colourful underwater world, into which visitors are submerged. They can drift in space and with the images, until they run into the video-wall made up of nine monitors. The wall's sculptural presence makes it both a centre of attraction and a disturbance factor. In this function the monitor brings viewers out of their state of image-induced intoxication and back to media reality. Rist proceeds similarly in the work Homo sapiens sapiens, which she created in the church of San Staë for the 2005 Venice Biennial. She overran the vault of the dome with a suggestive river of imagery, which further emphasized the vertical rise of the baroque architecture and the ceiling fresco. Viewers rested on floor mats, and in this relaxing environment they were able to lose themselves in the tapestry of images. Unlike Thater, Rist left it up to the recipients to decide when they wanted to take their leave of the evocative flow of colourful pictures.

**time codes**

Video is an explicitly time-based artistic medium. The job of the technical apparatus is to record temporal sequences and produce temporal structures. In traversable video installations such as Pipilotti Rist's 2005 Biennial contribution, recipients themselves already had to define the amount of time they wished to invest in experiencing the art-work. Viewers decided when to enter the flow of pictures, how long their reception time would be, and when to leave. Particularly for long video pieces, confusing multiple projections, or endless loops, the independence this demands can certainly create uncertainty, since complete comprehension of the piece is possible only with difficulty. This strategy is an essential aspect of many video installations created since the early 1990s. In contrast, installative video work from the
late 1960s and 1970s is often marked by a passageway-like character, making it easier to conclude the act of cognition, or to repeat it incessantly.

It was also typical of this early phase for artists to record their performances in real time. These works had the air of documentary recordings. The pictorial material was also edited during or after the action by the artists, however, through perspective shots, shot sequence, pictorial rhythm, or montage. The electronic document that brings the past action into the present also provides a commentary, or produces a further aestheticization.

Real time remained a significant factor in the further development of Video art. Thus in The Bordeaux Piece (2004), David Claerbout staged a short narrative which repeated itself identically over the course of a day. The first iteration began at sunrise, after which the actors continually repeated it until after night had fallen. Analogously to its recording time, the tape is played from morning until evening in the exhibition room. The projection therefore lasts for 13 hours, and cannot be completely viewed during a museum's normal opening hours.

Claerbout's work, however, also exhibits clear links to conventional narrative cinema, which works with a parallel film time not connected to reality. The ideal aim of this type of different time level is for the cinema audience to synchronize themselves with it, meaning that they should enter fully into the story and its temporal narrative. Since the end of 1970s and particularly in the 1980s, artists have been seizing upon this strategy of the film industry. They make use of the possibilities of identification, but break with the linear narrative form in different ways.

Bill Viola is one artist who produces timing scores in the broad field between real time and film time à la Hollywood. Already in his early major work The Reflecting Pool (1977–1979) Viola collaged various time zones and speeds on his pictorial surface. Only one camera perspective exists – a view of a swimming pool. Yet the banal action of a person leaping into the water disintegrates into different windows of time. In one phase the figure freezes mid-jump above the pool, while waves continue to traverse the surface of the water. The natural sounds from the woodland behind the pool also continue unabated. Using suggestive images and complex temporal forms, Viola moulds forceful metaphors – in this case, the baptism of man, spiritual cleansing, death, and rebirth.

Temporal structures have also developed in Video art, however, which stand in diametrical opposition to the illusionism of conventional film. The loop is one possibility in which generally shorter periods of time can be placed in a series of endless repetitions. Thereby the reception of the work does not have to end after the completion of one sequence. On the contrary, the permanent repetition often only becomes apparent after longer observation. In this way the time segments can always seem identical or, as in Win, Place or Show (1998)
by Stan Douglas, minimal changes can sneak into every narrative segment creating additional levels of reflection.

The extreme slowing of the speed of images constitutes a further language of time beyond “normal” and cinematic time concepts. Here too, differentiation can be made between so-called duration pieces and hyper-slow motion. For duration pieces the camera records a barely changing object in a single shot over a longer period of time. Real-time recording is used here, in order to suggest that the images are slowed down. Both Andy Warhol in Sleep (1963) and Rodney Graham in Halcion Sleep (1994) focused on a sleeping person, thereby taking the duration of time as their theme.

In hyper-slow motion, on the other hand, the movement in the images is actually slowed down by technical means. Changes become barely perceptible. On the contrary, the impression arises that it is a still image, a tableau vivant, which is changing negligibly. Bill Viola perfected this temporal structure in The Greetings (1995) and, at the 49th Venice Biennial in 2001 with her work Trying, the artist Liza May Post transformed the Dutch pavilion into an adventure space by reducing the movement in the videos to an extreme to play photographic and videographic time-structures off against each other.

the 1980s

In the 1980s video advanced to being the sole means of expression for many artists. The general social climate was influenced by a conservative, neo-liberal attitude, which had its incarnation in the politics of the British Prime Minister Margaret Thatcher. The blossoming of figurative painting and the increasing influence of the booming art market made this decade’s restorative character tangible in the field of art as well. Making names for themselves in this context together with the pioneers were, among others, Klaus vom Bruch, Robert Cahen, Gary Hill, Marie-Jo Lafontaine, Marcel Odenbach, Tony Oursler, Fabrizio Plessi, Bill Seaman, and Bill Viola. Video equipment became increasingly affordable, easier to use, and technically better developed. In this phase many Video artists – a label which had by then become common – used the classical artistic discipline of sculpture to expand Video art.

Nam June Paik had already set standards in this area with his TV-Cross (1966), TV-Buddha (1974), and TV-Garden (1977), and Les Levine created one of the first video wall pieces with his 1968 work entitled Iris. In the 1980s new semantic forms were created by the placement of monitors in series – as a wall, a staggered series, or dispersed – or they were presented in such a way that the configuration of the equipment corresponded to the content of the tape. With Crux (It’s Time to Turn the Record Over) (1983–1987), Gary Hill...
presented a work that originated in a performance, with five monitors depicting the ends of a Latin cross, whereby the screens showed the head, hands, and feet (on two monitors) of a crucified man.

The flow of electronic images no longer merely reproduced the bare surface of reality in a documentary manner, as had been usual in the early 1970s. Supported by computer programmers, the camera was now much more of an instrument for visualizing complex narratives and fictions. Thereby artists often view things from a holistic perspective, to which they give expression through the use of symbolic and metaphorical images. The media network that was rapidly increasing internationally also demanded an increasingly global perception. "World", said Klaus vom Bruch, "is everything that is the case on television." Criticism of the media giant television therefore continued to be topical, as could be seen also in the works of Antoni Muntadas and Dieter Kiessling. It was in this decade that, on television, the music station MTV established itself, with its short music clips offering a new mixture of art, commerce, and television. Video art broadly reflected this so-called clip aesthetic, which brought with it visual patterns and quick successions of images to overrun the narrative moment of video.

Numerous festivals — Locarno being the first, in 1980 — along with magazines, studios, scholarships, and exhibitions, including documenta 8 (1987), ensured the wide distribution of Video art in the 1980s, and granted the electronic medium an independent arena of presentation.

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**Movie Video**

Film and video have always had a relationship of productive exchange. Film, the "first born" of the two, set standards in the field of moving pictures, and film pioneers such as Georges Méliès, David Wark Griffith, and Sergei Eisenstein provided fundamental stimulus to the development of film and Video art even at the beginning of the 20th century with new cutting techniques, montage methods, dramatic changes in perspective, and "crosscutting" — in which several narrative levels are intertwined. The directness and "democratic" impetus of video also made the younger medium interesting to the commercial film industry and to independent film.

More recently, in the mid-1990s, several Danish directors including Lars von Trier wrote a manifesto entitled "Dogma" promoting hand-made, uncut films, which thereby reflected significant features of classic video. "Das Fest" (1998) by Thomas Vinterberg was the first film created in accordance with the rigid "Dogma" stipulations.

The first integration of cinematic and videographic elements came about when the French writer-director Jean-Luc Godard experimented with video for a short time beginning in 1968 (*6 fois 2, France tour détour deux enfants*).

In the 1960s, moreover, Expanded Cinema widened the strategy of inter-media incursions. Peter Weibel, VALIE EXPORT, Birgit Hein, and George Landow, among others, have deconstructed formal...
and compositional elements of the cinematographic code. They have used performances, multimedia actions, multiple projections, and the dissection of all of cinema’s realities, to reflect upon the structure of film. In 1965 Takehisa Kosugi used a projector without a roll of film to irradiate a paper screen, which he then cut to pieces to the point of its complete eradication. Besides these subversive tendencies, however, artists have also dealt structurally with the cinematic vocabulary. Richard Serra was concerned with Soviet film of the 1920s, and Gordon Matta-Clark, in his filmed performance Clockshower (1974), quoted the classic “Safety Last” (1923) with Harold Lloyd. For this Matta-Clark hung from the clock of a skyscraper in New York where, at a dizzying height, he brushed his teeth, shaved, and washed. In the last shot the camera disengaged itself from the close-up of the clock, zoomed out to show the streetscape far below, and only at this point does one become aware of the action’s unbelievable dimensions.

In the 1990s the mechanistic and distributive structure of film provided important points of reference to Video art. Artists such as Eija-Liisa Ahtila, Doug Aitken, Janet Cardiff, Stan Douglas, Douglas Gordon, Rodney Graham, Steve McQueen, and Sam Taylor-Wood, among others, used or debated cinematographic parameters. They used cinematic history as a pool of material, produced classics as remakes, or took film itself as a theme: from the film projector to the theatre room, and even the distribution system, the entire environment of film was up for discussion. Even in the production of their works, many artists negated classical production formats. They filmed on 35 mm, stored the work digitally on DVD, edited images on the computer, or worked in a direction exactly opposite to this. The hybrid character that video assumed in the 1990s questioned definitions and genres with regard to film and video.

Feature films, however, are associated with particular images and codes in the so-called collective cultural memory: the films are customarily shown in darkened theatres on a large screen. In this type of space the persuasive Hollywood aesthetics bring consumers under their spell through perfect illusionism. Viewers temporarily exchange their own bodies and their own identities for a manipulated, projected reality. In 1996 the film industry exemplarily presented these mechanisms in a sharp satire of itself in the feature film “The Truman Show.”

Art breaks with the conventional perspective of film in various ways. Video installations use multiple projections, split screens (an image divided into several fields), or screens placed away from walls to allow them to be viewed from front and back simultaneously, to hinder any identification with the camera-eye characteristic of film. Film history and its classics, heroes, and icons, provide a rich reservoir of image material for artists to isolate, defamiliarize, and place in new contexts. Thus in 10ms = 1 (1994) Douglas Gordon stretches found footage, a piece of medical documentary from the early days of film, to an extremely long playing time.

1989 — “ARTEC ’89”, the first biennale for art and technology, takes place in the Nagoya City Art and Science Museum | 1990 — Kunst- hochschule für Medien (Art College for Media) opens in Cologne | 1990 — “Passages de l’image” in the Centre Georges Pompidou, Paris
While media culture is made tangible in this type of work by extracting it from its original context and conceptually reprocessing it, entire narrative threads can be contextually shifted in remakes.

The Third Memory (2000) by Pierre Huyghe resembles a palimpsest in which a story has been overlaid by several layers of media. Its point of origin was a real bank raid that television had broadcast live. The robber was arrested and the story marketed as the feature film “Dog Day Afternoon” (1975), directed by Sidney Lumet and with Al Pacino in the leading role. Huyghe recreated the event once again, whereby the original bank robber now played himself. Huyghe mixed his new material taken from the replayed action with the media images already available. Documentary, cinematically produced, and subjectively remembered elements intertwine in this re-placement, and one can see how reality, media image, and reminiscence mutually influence each other.

In the installation Playhouse (1997), Janet Cardiff and George Bures Miller combine the world of the theatre with the electronic possibilities of video. Viewers enter a small room set up like a theatre. One’s gaze is directed to a stage upon which a (projected) opera singer performs. Noises, scraps of conversation, and a dialogue are played over headphones, and these overlay the atmosphere of the theatre with completely different, mysterious events: “There’s a suitcase under your seat. It has everything you’ll need ... It’s up to you now.” Through this flow of acoustic information, the content of which remains a mystery, Cardiff and Miller break with the illusionism of musical presentations and the world of theatre.

Theatre – or rather the theatrical – has provided another point of reference for Video art over the last ten years. It has introduced a form of affective artificiality into works constructed to be cinematically illusionist, as well as those in a documentary style. Thus in High Anxieties (1998) Monika Oechsler filmed five girls reading a fabricated dialogue, in which she gave them the words of grown-ups to speak. The artificiality of the scripted situation becomes obvious only slowly and, in addition to the link with theatre, also references staged television formats such as mockumentaries or courtroom dramas.

Works produced on painstakingly built sets seem no less theatrical. With Der Sandmann (1995) Stan Douglas plays upon the story of the same name by E.T.A. Hoffmann from the year 1817, which had already inspired Georges Méliès to create a cinematic interpretation of it around 1900. Douglas located his sandman story in two allotment gardens in Potsdam, which he had painstakingly and authentically rebuilt in the studio. The camera travels 360° around the set while quotations are read from the letters of Nathanael and Clara, the protagonists in Hoffmann’s story. In the course of the narrative, the set does not dissolve as is common in entertainment cinema, but instead remains as a structural element of the piece.

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1996 — A 23-year-old American student launches the web site “JenniCAM”, on which she invariably displays, until 2003, real-time video 24 hours of her daily activities

1997 — Sony launches the first digital Camcorder in the USA
22. MONIKA OECHSLER
High Anxieties
1998, 3-channel video projection, each 3 min 50 sec

23. JANET CARDIFF AND
GEORGE BURES MILLER
The Paradise Institute
2001, wood, theatre seats, video projection, headphones and mixed media,
299.7 x 1772.9 x 533.4 cm

"our life is half natural and half technologi-cal. half-and-half is good. you cannot deny that high-tech is progress. we need it for jobs. yet if you make only high-tech, you make war. so we must have a strong human element to keep modesty and natural life."

Nam June Paik

the 1990s

Since its beginnings, video has stood in relation to other artistic languages and media such as television, performance, sculpture, and film. The development of digital technology also made it a functional hybrid in the 1990s. Regardless of their original storage format, many things such as images from the global flow of data, "hand-made" recordings, and historical material have been integrated into the inter-media artistic practice. Thereby the most varied of formats in a digital state could be synthesised unproblematically, and familiar image aesthetics such as the flicker of a 35-mm film reel or the blurry focus of earlier magnetic tapes could be simulated. Besides their technical equipment, the artists who worked with electronic media employed such a variety of materials that any labelling of the work or of the artist seems superfluous. Therefore, since the beginning of the 1990s, the "Video artist" has already ceased to exist. Today more than ever video in the artistic context means the appearance of moving, electronic images.

Despite the multifaceted character of video, some strategies and topics stand out in the everyday artistic life of the 1990s. Linear narrative, which artists had already begun reworking in the 1980s, developed into an extremely complex structure. Thereby clear emphasis has been placed on the dual composition of narrative videos: they tell a story in cinematically perfect quality, and simultaneously demonstrate their videographic syntax. Film history, with its special aesthetics and iconic vocabulary, generally provides a rich source of images. Artistic utilization of audio-visual film material that is already available, so-called found footage, also always attests to a critical treatment both of cultural codes and of habits of perception long since conditioned by mass media. Viewers must bring a high level of media competence to the reception, in order to be able to follow the replays of, and references to, media images.

As a result media culture itself, as was already the case in the 1960s, remains an important emphasis of Video art. However, the often fundamental criticism in the 1970s of the power structures of film and television has transformed into cynical and occasionally ironic commentary. Other strategies of earlier video history have also been reconsidered by a younger generation of artists. The performative approach has produced actions based on directorial instructions, which are often placed in settings which otherwise would only be used in the film and television industry. In the world of global players, data highways, enormous increases in population, and drastic migration movements, one must again define the position of one's own identity. Thereby artists use subjective camera work to examine private perspectives and disassociate themselves from other individuals. The human body remains an important point of reference in this context.

For some time now the Western world has no longer been the sole centre of economics and culture in all of this, but rather part of a

1997 — Zentrum für Kunst und Medientechnologie (ZKM) opens in Karlsruhe
1999 — "Fast Forward: New Chinese Video Art" in Centro de Arte Contemporânea de Macau
global network. Documentary itemization, self-questioning, and cultural sampling are videographic practices with which artists react to these changed realities.

Video has become a naturally accepted part of the art world, as the last major exhibitions in Venice, Kassel, and other art centres have shown. Few exhibitions can now do without moving pictures, yet the gulf between festival situations and the White Cubes of the museums has not yet been closed. Thereby over the last ten years video has managed to gain for itself the status of the original. Artists produce their image installations in limited editions or as a unique piece, thereby creating an artificial exclusivity that increases both the perceived value and the financial value of the video work. Today, video has become a contradiction, either an exclusive or a mass-produced commodity, as opposed to the 1970s when the VHS-cassette shared status with graphical prints and was valued correspondingly. Through the use of DVDs that include exhibition catalogues, or can be affordably acquired, however, some artists are also aligning themselves with the medium of video’s more "democratic" aura.

**in-between: documentary format and world views**

Since the 1980s narrative structures have formed a constant in media works. Guiding principles with which the flexible medium of video could continue working have been provided by classical feature films, but also by literary highlights such as James Joyce’s "Finnegan’s Wake" (1939). Image, sound that is often blended as a voiceover with the images, and text are no longer laid out as a unit, but instead create complex relationships on various narrative levels, as presented in ideal form by Eija-Liisa Ahtila in her multi-screen video installation *Tale/The House* (2002).

This construction of reality has, for some time, been working against the approach that represents reality, and it is championed by artists such as Kutlug Ataman, Annika Eriksson, Fiona Tan, Gitte Villesen, Mark Wallinger, and Jane & Louise Wilson. It is characterized by a documentary style that remains close to reality, but is nonetheless mixed with videographic means of expression. In an interview, the artist Gitte Villesen gave this general summary of the status of documentary video: "I want the line between art and documentary, fiction and reality, to be blurred."

The documentary format is based on a tradition that has been moulded by experimental film, by socio-historical film studies, and by writer-directors such as Chantal Akerman, Chris Marker, and Jean Rouch. In the documentary style artists remain close to real-time events. They comment upon an isolated piece of reality by using known technical interventions such as the manipulation of temporal structure, splicing, and shot composition, as well as the employment of sound, speech, and text. They append these modifications to the
documentary aspects of the piece, without destroying the overall feeling of authenticity. If artists do not use pre-existing audiovisual material for their work, then it is mandatory for them to be very closely or even directly involved in a situation. They are working with their cameras in a zone between passive presence and active intervention. The presence of a filming camera also creates a situation of exceptional circumstances for the participants, who suddenly see themselves and their “normal” everyday life exposed.

For Threshold to the Kingdom (2000) Mark Wallinger filmed the “International Arrivals” doorway at an airport. At irregular intervals, individuals or groups of people appear through the door from out of the “heavenly emptiness”. Through the concentrated perspective and the slowing down of reality, a familiar scene gains a symbolic meta-level upon which the cycle of life is debated. In Uomodisuomo (2000) Anri Sala also worked with a fixed camera position. He portrayed an old man sleeping on a church pew, his personality defined not through an exchange of glances, but rather by the small movements of someone sleeping in a sitting posture. Events, as image and sound, continue around him in normal time, while the sleeper belongs to a completely different temporal state.

In contrast, in their video installation Dream Time (2001), Jane & Louise Wilson unveil a real myth by attending a rocket launch in the long-inaccessible centre of Baikonur (formerly in the Soviet Union, today Kazakhstan). They presented the tape as a single-screen installa-

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2002 — Approximately two thirds of all middle and high schools in the USA are equipped with video surveillance systems

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